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# Documents of the International Radio Conference (Atlantic City, 1947)

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- This PDF includes Document No. 601-700
- The complete set of conference documents includes Document No. 1-1008

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 601 R-E

July 19, 1947

Committee 7

Report of Sub-Committee C of the General Technical Committee (Committee 7)

> Eighth Meeting July 16, 1947

1. The meeting was called to order at 3 P.M. by the Chairman, Dr. J. H. Dellinger.

2. The Delegate from <u>Switzerland</u> desired that the first sentence of paragraph 14, Document No. 544 R-E be completed by adding the following: "for the case of countries where the administration by its radio service supervises every activity in the way of telecommunications."

He also desired that the second sentence be completed by adding the following: "or in some cases centralizing service."

3. The Delegate from <u>Belgium</u> desired that paragraph 4, Document No. 544 R-E be changed by placing a comma after "coordination centers," replacing "although he agrees," with "but he is in agreement," placing a period after "specified channels," and beginning "He" with a capital letter.

4. The Delegate from France desired that the last sentence, paragraph 5, Document No. 544 R-E be changed by placing "direct" between "favor" and "participation." He also desired that the proposed wording under paragraph 18 be changed by deleting "to which they will be subsidiary."

5. Subject to the above changes, the Report of the Minutes of the Fifth Meeting, Document No. 544 R-E, was adopted.

6. The Report of the Minutes of the Sixth Meeting, Document No. 564 R-E, was adopted subject to the following changes in Document No. 564 R-E:

> a. Change the last word of the first sent ice, paragraph 4 from "lead" to "led" and
> b. Change paragraph 9, the word "base" to read

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### "working basis."

7. The Chairman accepted statements from the Supreme <u>Commander of Allied Powers (Japan)</u> and from the <u>Chinese</u> administration which are appended to this report.

8. The next subject discussed was Radio Propagation. The Delegate from the United States said that the United States Proposal 592R was in general terms while the Chinese Proposal 2421R stated the same general thought, but had added specific proposals of how the job can better be done and concerning coordination between nations. He proposed that Proposal 592R be included in the Radio Regulations and that a working group be called to formulate recommendations for study to the C.C.I.R. The Proposal 592R as read by the Delegate of the United States is worded as follows:

> "Recognizing the dependence of efficient assignment and utilization of radio frequencies upon full use of radio propagation data, the contracting states undertake to promote the establishment and operation of a world-wide system of observation stations to obtain data on ionospheric and other phenomena affecting radio propagation, and also undertake to provide for the coordination and dissemination of such data of radio propagation predictions."

9. The Delegate from France said that this was a question of technical studies and not to be placed in the Regulations of Radio Communication. It should be a resolution directed to the C.C.I.R. since it is within the authority of the C.C.I.R. (with proper instructions). He has prepared a proposal which is appended to this report.

10. The Delegate from the United States said that he had the same plan in mind. Information should be given to the C.C.I.R. on a technical level. He believed, however, that there is a need for a short general statement showing that there is recognition of a need to undertake a program of this sort. Therefore, there is a need for a supporting statement in the Regulations, leaving the technical work to the C.C.I.R.

11. The Delegate from France said that this subject should not be placed in Regulations concerning the opera-

tion of Radio Communication. It is a question of engineering nature. In regard to needing a supporting statement he said that the C.C.I.R. could coordinate the steps taken and that all countries subscribing to the Regulations automatically subscribe to the C.C.I.R. and its functions.

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12. The <u>Chairman</u> pointed out that there is a special radio propagation working group in Committee 6 on the new international frequency list.

13. The Delegate from the <u>Netherlands</u> asked whether or not tropospheric effects were considered in the phrase "to obtain data on ionospheric and other phenomena affecting radio propagation." The Delegate from the <u>United</u> <u>States</u> said that internationally ionospheric was more important, but that it was wise to leave the door open and permit inclusion of tropospheric propagation. The <u>Chairman</u> pointed out that ground wave, too, was important and should not be excluded.

14. The Delegate from New Zealand said that in general he supported adoption of a resolution, such as that in the <u>United States Proposal 592R.</u> He believed that it was on the border line of regulations required for radio communications, but still felt that it should be in the radio regulations. He said that this was continuing the remarks of the Delegate from <u>New Zealand</u> in an earlier meeting in regard to his attitude regarding expenditures for ionospheric observations. He said that a world-wide system of observation stations had been built up in the last ten years. There was some doubt as to the degree of expenditure here and the observation stations should be continued. He cited the second sentence, paragraph 1, Appendix 6, Document No. 456 R-E which says:

"In order that this service may become more accurate and more accessible to communication people, it is desirable to coordinate the present work, and to encourage work in additional areas of the world." He said that some countries make observations and get very little value from them. He wished that this Union should actually call for continuction of this work. His delegation is concerned at the growing amount of organizations to be established at the seat of the Union in regard to the expenditures resulting therefrom. Research is being conducted by private unions and others and should not be duplicated by this Union. The objective of the Union is to encourage research, but not to undertake research. He said that a wide distribution of stations is justified because new things may be discovered.

He suggested that the results of ten or twelve

years of observation should be recorded and the data coordinated. He suggested that an initial term of reference to the C.C.I.R. would be "continuous review of the practical value of the propagation studies."

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15. The Delegate from the <u>United States</u> said there was no central laboratory at the C.C.I.R. to do the work, but that the C.C.I.R. could promote and coordinate the work done by national and private enterprise.

16. The Delegate from India said that adoption of the Proposal 592R of the United States would be helpful to countries in regard to expenditures involved by ionospheric measuring stations. He desired that the studies not be limited to the ionosphere, but be on propagation in general. He believed that the C.C.I.R could have a laboratory for research and study to collate and coordinate data received from propagation studies of observation stations.

17: The Delegate from <u>Switzerland</u> said that any activity regarding propagation conditions should subordinate itself to practical ends. He believed that the <u>United States</u> proposal was satisfactory. He said that research is not interesting to administrations and should be left to organizations specializing in this work. The studies should include reflective phenomena in mountainous countries such as Switzerland.

18. The Delegate from France said that we do not invite nations to make studies unless they want to do so. The C.C.I.R. can only advise and would coordinate steps of 'research made by nations. He agreed that the studies should include the troposphere, in fact the draft which he had proposed would not exclude any study at all. It only specified the most important points to be considered.

19. The Delegate from <u>Canada</u> said that he believed there should be a text (article or appendix) in the regulations to indicate the importance of propagation studies to contracting governments. He pointed out that technical and scientific personnel of each country are aware of the importance of such studies in the use of the radio spectrum, but that men responsible for the treasury in each country are not engineers or scientists. They would, however, have regard for the publications of an authoritative body such as this one.

20. The Delegate from the  $\underline{U.S.S.R.}$  desired that there be a direct reference in the text to studies of atmospheric noise levels.

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21. The Delegate from France cautioned that the text considers observation stations, but it did not consider their relationship to theory. He said one must follow a pattern of theories and experiments to test\_these theories. One cannot neglect the theoretical point of view. He said that measurements mean nothing by themselves. They are valid only if the theory is verified. He said that he could not agree to include Proposal 592R in the regulations. He believed it would cause some countries to take reservations: He recognized <u>Canada's</u> views regarding expenditures, but others might object to such expenditures. He believed it should be in a protocol entirely divorced from the regulations.

22. After several changes a vote was taken on Proposal-592R. As modified it read as follows:

> "Recognizing the dependence of efficient' assignment and utilization of radio frequencies upon full use of radio propagation data, the contracting states shall endeavor to promote the establishment and operation of a world-wide system of observation stations to obtain data on ionospheric, radio noise, and other phenomena affecting radio propagation, and also to provide for the study, coordination and dissemination of radio propagation data and predictions."

The vote was 12 to 2 in favor of adopting the above text with France and Portugal the dissenting votes.

23, A small working group consisting of the United States, France, Canada, and China was formed to prepare a resolution giving terms of reference for the study of this subject by the C.C.I.R.

24. The <u>Chairman</u> stated that the subject of the next meeting would be Standard Frequencies.

The meeting was adjourned at 5:30.R.M.

Reporters:

Chairman:

L. Penninckx

Dr. J. H. Dellinger

Capt. D. Shick

### APPENDIX I.

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# SUPREME COMMANDER ALLIED FOWERS (Japan)

-Operation of the standard frequency and time station at Kemigawa near Tokyo, Japan, has been continued under the occupation to provide standard radio frequencies, standard audio frequency, and time signals for radio operating agencies and industries in Japan.

This station operates on 4,000, 8,000, and 12,000 kilocycles with a power of 2 kilowatts. An audio tone of exactly 1,000 cycles is furnished at intervals on the carrier. The accuracy of the carrier is 3 parts in 10 million.

This service is utilized by civil agencies in Japan, military forces of the occupation, and by some neighboring countries in the Western Pacific region.

### APPENDIX 2

### AMENDMENT TO APPENDIX I, DOC. NO. 518 R-E

The Annual report on ionosphere work by the Radio Wave Research Laboratory of the Central Broadcasting Administration for 1946 is now in press and will be off print about two months later. It consists of 200 pages. Following is the contents of this report:

Introductory Remarks to the Annual Report for 1946page	2
The present and Projected Ionospheric Observation Stations of RWRLpage	4.
Method of Recordingpage	7.
Terminology and Symbolspage	9.,
Scaling practicespage	11 .
Calculation of the Monthly Tabulation Sheetpage	23
Ionospheric Data Observed at Chungking, Peiping and Lanchow During 1946page	25
Tables of Ionospheric Datapage	26
Graphs of Ionospheric Datapage	40
Table of Sunspot Numberspage	58
Ionospheric Data for Every Day and Hour at Chungking page	59
Ionospheric Data for Every Day and Hour at Peipingpage	175
Ionospheric Data for Every Day and Hour at Lanchowpage	190
Index of Figures and Tables for This Issuepage	198

The RWRL did not publish annual reports on and before 1944 but did send tables and curves of ionospheric characteristics about Chungking to various countries by facsimile thru XGOY monthly. Since the suspension of the facsimile channel of XGOY the Laboratory has been interchanging complete ionospheric data every month with (1) U.S. Bureau of Standard (2) Office of U.S. Army Signal Officers, Far East Command (3) British Department of Scientific and Industrial Research and (4) Australian Radio Research Board. Radio

frequency prediction for China has also been published beginning 1947. It is for the use of the Chinese Radio Stations and is published in Chinese only.

Two more ionosphere observation stations are expected to start operation at the end of this year, one in Shanghai, the other in Taiwan by the said Administration.

-9-(601 R-E) <u>APPENDIX 3</u>

Subcommittee 7 C

# SUGGESTIONS BY THE FRENCH DELEGATION FOR THE INTERNATIONAL COORDINATION OF INVESTIGATIONS

### ON PROPAGATION

The C.C.I.R. is requested to initiate, and thereafter to continue on a permanent basis, the coordination of research on propagation carried out by different countries, in order to provide, on a world-wide basis, coherent data immediately applicable by the Telecommunications services and, in a more general way, to ensure the speediest possible progress in scientific knowledge and corresponding techniques.

The recommendation submitted to this end by the C.C.I.R. may refer, in particular, to the following points:

1. Rationalization of symbols and of the presentation of the results of ionospheric sounding and, if appropriate, of certain methods of measurement, in order to ensure that measurements from different sources may be directly comparable.

2. Geographical location of ionospheric sounding stations; in particular, of new stations to be provided.

3. Coordination of investigations on absorption; in particular by means of measurements at vertical and oblique incidence, recording of field strengths of existing radiocommunication stations, or by any other method.

4. Coordination of measurements on general noise background.

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5. Effective organization, on an international basis, of a rapid exchange of information of all kinds.

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# Appendix 3 (cont'd)

6. Periódical publication of results having immediate applications for radiocommunication services, such as propagation forecasts.

Publication of scientific and technical investigations.

7. Any other new matter of general interest.

In order to attain the maximum possible degree of cooperation with the International Radio Scientific Union, the C.C.I.R. is expected to consult regularly with that organization.

16th July 1947:

## (601 R-E) APPENDIX 4

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### Subcommittee 7 C

SUGGESTIONS BY THE WORKING GROUP

FOR THE INTERNATIONAL COORDINATION OF INVESTIGATIONS

### ON PROPAGATION

The C.C.I.R. is requested to initiate, and thereafter to continue on a permanent basis, the coordination of research on propagation carried out by different countries, in order to provide, on a world-wide basis, coherent data immediately applicable by the Telecommunications services and, in a more general way, to ensure the speediest possible progress in scientific knowledge and corresponding techniques.

In this respect the C.C.I.R. should consider, in particular, the following matters:

1. Standardization of symbols and of the presentation of the results of ionospheric sounding and, if appropriate, of certain methods of measurement, in order to ensure that measurements from different sources may be directly comparable.

2. Suitability of geographical location of existing ionospheric sounding and other observation stations and requirements for future observations at new locations.

3. Coordination of investigations on absorption carried out by means of measurements at vertical and oblique incidence, by recording of field strengths of existing radiocommunication stations, or by any other method.

4. Coordination of investigations of natural noise.

5. Determination of the best practical means for a rapid exchange, on an international basis, of propagation information of all kinds, and, in addition, publication of scientific and technical investigations submitted by member Administrations.

6. Periodical publication of results such as propagation forecasts having immediate applications to radiocommunication services.

# Appendix 4 (cont'd)

7. Any other new matter of general interest.

In order to attain the maximum possible degree of cooperation with organizations concerned with propagation work such as the International Radio Scientific Union, the C.C.I.R. is expected to consult regularly with such organizations.

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18th July 1947

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# APPENDIX 5

To the Chairman of Subcommittee C of the General Technical Committee (Committee 7)

### Atlantic City, 2 July, 1947

### Dear Sir,

In compliance with a desire expressed at the meeting of Subcommittee 7 C on June 20th 1947, the Swedish Delegation has the honour to forward the attached Statement regarding monitoring stations in Sweden, in view of its publication through your Committee.

Yours faithfully

Ernst Magnusson Vice-Chairman of Swedish Delegation

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### Swedish Government Radio Monitoring and Time Signal facilities.

The Swedish Government operates a monitoring station near Stockholm.

The primary frequency standard used at this station consists of a quartz-crystal controlled oscillator with a fundamental frequency of 50 kc/s. Auxiliary apparatus such as multivibrators, synchronous clocks, high speed recorders, etc., are available for determining the frequency by means of daily comparisons with time signals sent by radio.

The station is equipped with the necessary apparatus for making frequency measurements in the range from about 15 kc/s to about 150 Mc/s. As the monitoring station is located at a commercial receiving station the antenna facilities are very good. Daily frequency measurements are carried out for frequency control and monitoring of Swedish radio stations as well as of stations working on adjacent frequencies.

For the present, no special standard frequency transmissions are carried out by Swedish radio stations. However, the carrier frequencies of some Swedish broadcast stations on medium and long waves are kept very close to the assigned frequencies and thus can be used for frequency calibrating purposes. Standard frequencies in the tone frequency spectrum are sent by wire, upon request, from the primary frequency standard of the monitoring station for different technical 'purposes.

A special device for time signal transmissions is actuated from the primary frequency standard. Time signals are sent out every day at 1155 (or 1157) to 1200 GMT over all Swedish broadcasting stations. If necessary such signals can be sent out at any time of the day. At present this time' signalling device is adjusted to the Greenwich time signal sent out on long waves or occasionally to the Arlington signals on short waves, or to the U.S. Bureau of Standards' time signal over WWV. However facilities are available for adjusting the 'time signal device to the precision pendulum clock of the Swedish Astronomical Observatory at Sabtsjoebaden near Stockholm.

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For the purpose of registering field strengths and signal strengths, the monitoring station is equipped with recording instruments. There is also a semiautomatic apparatus to be used inter-. mittently for ionospheric investigations by vertical pulse transmissions.

# Atlantic City, 2 July, 1947.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY

Document No. 602 R-E

1947

July 19,1947

Committee 6

Report of Sub-subcommittee 2 of Sub-committee B of the International Frequency List Committee ( Committee 6 )

10th and 11th Meetings

July 16, 1947

After calling the 10th meeting to order the <u>Chairman</u> suggested the consideration of Transactional Text No. 2 (see annex 1 to this document) and it was agreed.

The points were not taken up in order but this report will indicate the disposition of each directive, beginning with 1.

Directive 1 was accepted after being modified as suggested by the delegate of <u>Bielorussia</u> and supported by the U.K. delegate to substitute "prior to Sept. 15,1947" for "prior to the final date fixed by this Conference" since that specific date had been agreed to in Sub-committee 6A on the previous day.

Directives 2,3,4 and 5 were accepted with very little comment.

Directive 6 was accepted after being modified at the suggestion of the delegate of Bielorussia and supported by other delegates, by adding between the words "shall" and "carry" the phrase "for the purpose of priority."

<u>Directive 7</u> was modified by omitting sub-paragraph (a) and relettering others accordingly after a discussion that finally agreed that this sub-paragraph was unnecessary since it was indicated in the first sentence that frequencies have been displaced by the new allocation table.

Modifications in the text of the two following subparagraphs in paragraph 7 which were relettered (a) and (b)

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were made at the suggestion of the delegate of Canada, approximately as follows:

(a) In sharing, wherever possible, the simultaneous use of a frequency on a geographical separation basis between several stations.

(b) The English text to be redrafted to better agree with the French text to include the idea of non-simultaneous use.

With these modifications and subject to final redrafting directive 7 was accepted.

During the discussion of Directive 7 it was brought out that the group preparing the new frequency list must deal with all services except high frequency broadcasting services assigned to exclusive bands, which will be dealt with by the high frequency broadcasting conference convening in Atlantic City in August.

Discussion of the preamble of the text was not completed and it was agreed to postpone discussion of it until further study could be made by several delegates.

Discussion of the problem of whether the frequency list should be prepared showing two columns, a registration column and a notification column was started in the 10th meeting and continued throughout the 11th meeting.

In general there are two points of view on this question, (1) that all frequencies appearing in the initial list will have their notification dates in one column and (2) that there shall be two columns in the initial list, similar to those in the proposed statutes of the I.F.R.B. being called a registration column and a notification column.

Very briefly, those holding the first view feel that the dates in a single column sufficiently define the priorities which are necessary to handle interference problems and any other discrimination is superfluous and complicates unnecessarily the work of the group preparing the list. On the other hand those holding the second view feel that the group preparing the new frequency list should study the proposed listings from the point of view of satisfactory operation with freedom from harmful interference and place those likely to be satisfactory in one column called the registration column taking all registrations in order of priority and those with lesser priority and for which a suitable assignment cannot be found should be put in another column called the notification column. The former group feel that adequate engineering in accordance with sound technical principles should be pursued by the group preparing the list to provide reasonably satisfactory service for all requirements listed on Forms 1 and 2. The latter group feel that this will require two long a time and it is better to pursue the engineering to a limited extent within a relatively short time and to place those frequencies which cannot be accommodated with complete satisfaction in the second or notification column.

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In connection with this discussion the text proposed by the delegate of <u>Bielorussia</u> was discussed and for reference is quoted below:

"In those cases where it proves to be impossible to rearrange or to accommodate in the new frequency bands available all the requirements in the registration column, the remaining frequencies shall be included in the notification column in accordance with relative priority. It is assumed that all measures will be taken for the quickest possible transference of these frequencies to the registration column on the basis of the stricter sound engineering principles mentioned above. At this the order based on priority and in proportion to the total amount of frequencies assigned to various countries must be observed."

Several modifications of this text were proposed and discussed but no agreement could be reached either on the general principle of the two columns or on a text. The matter was left open for further discussion at a later meeting.

At the llth meeting the report of the 2nd and 3rd meetings in Document No. 567 R-E and the report of the 4th meeting in Document No. 573 R-E were approved.

In connection with the preamble to the Transactional Text No. 2 the delegate of <u>India</u> requested that a note of dissent be included in the minutes of the meeting and this is attached as Annex 2.

Chairman

Rapporteurs: .

Louis Bramel de Cléjoulx

D. D. Donald J. Millot

#### ANNEX I

.4-(бог к-е)

### Transactional Text No. 2

### Preamble.

The following directives have been established on the assumption that the Atlantic City Conference will decide that the new allocation table should be placed in effect as quickly as possible in order to enable certain services to utilize as soon as possible the expanded bands established by the Atlantic City Regulations.

Based on this assumption the new list of frequencies should contain only such modifications as necessary in ( order to provide that all circuit requirements notified in forms 1 and 2 can function in the appropriate new bands in accordance with the Atlantic City Regulations, with a minimum of harmful interference. \*

It is recognized, however, that until the frequency requirements can be completely engineered for all circuits, it may not be possible to accommodate all requirements in an entirely satisfactory manner.

#### Directives.

1. Only those circuits notified on forms 1 and 2 prior to the final date fixed by this Conference shall be considered when preparing the druft of the new international list of frequencies unless the conference decides otherwise.

2. The frequency requirements for all circuits notified on forms 1 and 2 shall be met within the appropriate bands of the new frequency allocation table and the relevant regulations agreed by the Atlantic City Conference.

3. The new international list of fréquencies shall be prepared in the form prescribed by the Atlantic City Regulations. In the event that sufficient data is not immediately available to enable all columns of this form to be filled in, then such columns shall be left to be completed later.

The Delegation from India strongly requests that ten per cent of the total spectrum space in each band be reserved in the new list of frequencies to provide for future development. This space shall be reserved until such time as the new list becomes effective. 4. Unnecessary changes to existing assignments which remain within the limits of the new band allocations, shall be avoided. Nevertheless within any band minor changes in individual assignments may be made in order to utilize the spectrum more efficiently provided that such changes do not exceed 3% of the initial frequency assignment.

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5. When a change in the frequency assignment to a station is necessitated due to the reallocation of the frequency spectrum every endeavor shall be made so that the station is given the best possible frequency assignment suitable for the service required taking into account the power employed, the type of emission, the aerial employed as well as all other useful technical character-istics such as tolerances and band widths.

6. In all cases in which a change of frequency assignment is made the new assigned frequency shall carry the date of notification of the original assignment as notified in Column 3 (a) of the Berne, List of Frequencies.

7. The necessary space to accommodate the frequency. assignments which have been displaced by the new allocation table shall be obtained by:

(a) Eliminating all assignments which do not conform to the new allocation table.

(b) In sharing, wherever possible, the use of a frequency on a geographical basis between several stations.

(c) In sharing, wherever possible, the use of a frequency between several stations on a time basis. When applying this method every effort should be made to share the same frequency amongst stations controlled by one administration or operating company.

(d) By bringing adjacent assignments close together wherever possible in accordance with the regulations or directives approved by the Atlantic City Conference.

### ANNEX II

- 6 -(602 R-E)

### INDIA'S MINUTE OF DISSENT

India does not agree to have its Proposals, which are detailed directives, appear under the preamble which should state only the general principles. The directive proposed by India in para. 7 of its Proposals is the logical consequence of para. 2 and 3 of the preamble in Transaction Text No. 2, and is necessary in practice to prevent inequitable hardships on countries and should be taken up in the list of directives.

### The justification is as follows:

India is unable to agree with the view that the spectrum may be completely filled up by assignments by this Interim Committee. The reasons for our disagreement are as follows: it has been agreed that all the engineering principles cannot be applied to the new list by the Interim Committee. Yet, the limits to which the engineering principles will be applied have not been stated clearly. In the absence of complete engineering or definite limits of engineering, India feels, that the principles of equity will not be satisfied in the case of many countries requiring only a few assignments for its national development plans. Such an unengineered or partially engineered list is likely to contain many errors of judgment which will be difficult to correct, without changing many assignments of many countries, if the list is completely filled up. Where engineering principles are not satisfied, there must be some margin for the relief of hardships and unforeseen difficulties as explained in para. 3(4) of our Proposals, and not merely for future development as stated in the footnote. Otherwise the new list will become frozen and the hardships will continue without. any chance of relief, owing to the fact that the I.F.R.B. which will inherit this list cannot, in practice, make the list fluid except by changing the assignments every now and again.

To sum up, if you do not adopt this principle of reserving a margin until the list is fully re-engineered, the new list will neither satisfy principles of engineering nor principles of equity. The amount of such reserved margin is however open to discussion and agreement. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

DOCUMENT NO. 603 R-E July 23, 1947

Committee 5

This Document replaces Document No. 603 R-É dated July 19, 1947 which should be destroyed

First List of Corrections and Suggested Amendments to Document No. 568 R-E.

The following corrections should be made to Document No. 568 R-E.

(a) Page'l. Amend title of document to read:

"Summary of Allocations for the Frequency Range 10 - 2850 kc/s (as at 10th July 1947)"

(b) Page 1. Band 70 - 90 kc/s

Amend the allocation for "Regions other than Europe and Australasia" to read:

### (a) FX (b) MM (2)

(c) <u>Page 2. Band 110 - 130 kc/s</u>.

Allocation column (Europe and Australasia): 'Amend the allocations to read:

(a)	F'X	
(b)	ΜM	
(c)	NA	(4

Note 4: Correct the spelling of "Australasia" in the English text.

(d) Page 3. Band 405 - 415 kc/s

Allocation column: Delete "(9)" against the. AeNA allocation under "Other Regions."

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In addition, the following <u>amendments</u> are suggested: (Note: The Inter-Regional note referred to in various amendments is that given in Document No. 459 R-E)

(i) Replace the term "Other Regions" by "Other Areas" throughout the document.

(ii) Page 2. Band 130 - 150 kc/s

Allocation Column: Replace "Europe" by "European Region and territory of the U.S.S.R. outside the European Region."

Notes Column

Add the following note:

"The provisions of the Inter-Regional note given in paragraph..... apply to this band."

<u>Note 6</u>: Delete "as a secondary service" from the second line.

(iii) Page 2. Band 150 - 160 kc/s.

Allocation Column: Replace "Europe" by "European Region and territory of the U.S.S.R. outside the European Region."

Notes Column

Add the following note:

"The provisions of the Inter-Regional note given in paragraph..... apply to this band."

<u>Note 7</u>: Add at end of note, in the English text only: "within the boundaries of the national territories in which the broadcasting stations are situated."

(iv) <u>Page 2. Band 160 - 285 kc/s</u>

Allocation Column: Replace "Europe" by "European Region and territory of the U.S.S.R. outside the European Region."

Notes Column

Add the following note:

"The provisions of the Inter-Regional note given in paragraph....apply to this band."

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# (v) <u>Page 4. Band 490 - 510 kc/s</u>:

Notes Column: Replace present entry by: "The frequency of 500 kc/s is allocated internationally for calling and distress. Its use is defined in Article.....

### (vi) Page 4. Band 510 - 525 kc/s.

Allocation Column: Replace "Europe" by "European Region and territory of the U.S.S.R. outside the Europen Region."

### Notes Column

Add the following note:

"The provisions of the Inter-Regional note given in paragraph....apply to this band."

Add the following note: "In 'Other Areas' the Maritime Mobile service has priority except in the American Region."

### (vii) Page 4. Band 525 - 535 kc/s

Allocation Column: Replace "Europe and India" by "European Region, India and territory of the U.S.S.R. outside the European Region."

Replace "Areas other than Europe and India" by "Areas other than the European Region, India, and the territory of the U.S.S.R."

Notes Column: Add the following note:

"The provisions of the Inter-Regional note given in paragraph.....apply to this band."

### (viii) Page 4. Band 1560 - 1605 kc/s

Delete present entry against this band. Substitute the following:

General Allocation Column: B.

Notes Column: This band is shared, in the territory of the U.S.S.R., with the Fixed Service, subject to the condition of no interference, on a basis of equality, between broadcasting and

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the fixed services in the U.S.S.R. and neighbouring territories.

### (ix) Pages 4. and 5. Band 1605 - 2000 kc/s.

Allocation Column: Replace "Europe" by "European Region and territory of the U.S.S.R. outside the European Region:"

Amend the allocation shown under the above heading to read:

(a) MM ) (b) FX ) (c) LM ) (18)(19)(20)

Amend the allocation shown for the band 1800 - 2000 kc/s in "Other Areas" to read:

(a) NA (b) Am (c) FX (d) Mob | e**xoc**pt AeM(R) )(21) ·

Notes Column:

Insert an asterisk after "interested" in line 11 of Note 19, and add after this note: " \* The countries interested in this question are: Belgium, Canada, Denmark, Finland, France, Iceland, Ireland, the Netherlands, Norway, Poland, Portugal, Sweden, the United Kingdom, the United States, and the U.S.S.R."

Amend Note 21 to read as follows:

"1800 - 1900 kc/s Regional -1900 - 2000 kc/s Regional

The Loran system requires a band of only 100 kc/s for any particular chain. In any particular area outside the European Region and the territory of the U.S.S.R. the amateur, fixed, or mobile services may employ whichever band is not required for Loran, but only on condition that they do not cause harmful interference to the Navigational Aid Service."

Add the following note: "The provisions of the Inter-Regional note given in paragraph....apply to this band." INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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> Draft analysis of allocation proposals above 30 Mc/s

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. 514 R-E	Committee 5	Report of 12th meeting
515 R-E	Sub-Committee D of Committee 5	Report of 5th meeting
516 R-E	Correction, doc. no. 483 R-E	,
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518 R-E	Sub-Committee C of Committee 7	Report of 3rd meeting
519 R-E	Sub-Committee A of Committee 3	Report of 14th meeting
520 R-E	Correction, doc. no. 498 R-E	
521 R-E	Sub-Committee C of Committee 5	Replaces doc. no. 501 R-E
522 R-E	Sub-Committee B of Committee 7	Report of 13th meeting
′ 523 R-E	Addenda to doc. no. 449 R-E	
524 R-E	Sub-Committee A of Committee 8	Report of 13th meeting
525 R-E	Sub-Committee D of Committee 8	Report of 8th meeting
525aR-E	Sub-Committee D, of Committee 8	Annex 2 to doc. no. 525 R-E
526 R-E	Sub-Committee B of Committee 7	Report of 14th meeting
527 R-E	lst working group of Committee 9	• Replaces doc. no. 434 R-E of June 24, 1947
, 528 R-E	Addenda to doc. no. 449 R-E	

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	529.	R-E .	Correction to doc. no. 519 R-E July 8	
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569 R-E	Sub-Sub-Committee of Sub-Committee A of Committee 8	Report
. 570 R-E	Great Britain	Proposal 2553 R
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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 605 R-E July 21, 1947

Mexico

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To Committee 3, Sub-Committee A.

At the time when Working Group A submitted its draft constitution covering the first three articles relating to the I.F.R.B. and as the discussion started in Sub-Committee A, a member of that Working Group/requested that the completion of the draft be facilitated and no further remarks be made.

The Chairman of Subcommittee A, supporting this suggestion, stated that while the draft was not completed, discussions would be regarded soley as an exchange of impressions and that formal discussion would occur later on.

Although the foregoing does not appear clearly in the minutes of the meetings of Subcommittee A, it may be confirmed that such an agreement was reached on referring to paragraph 10 of Document 475 RE and the last part of paragraph 11 of Document 479 R-E.

The Delegation of Mexico, giving due regard to the agreement on refraining from further remarks which would hamper the progress of Working Group A, yet having observed at the meeting held on the 16 of this month that the talks were regarded as a final discussion in Subcommittee A, is now under the obligation to request consideration of the following points prior to completion of the draft by the working group:

> Art. 1 § 2. (d). - to be added: "should one or several investigations have be be arranged for on the territory of some country these shall be implemented only if authorized by this country.".

#### Reason.

The first revision of the draft of the Working Group A does not contain sufficient data to anticipate that at a given time the International Frequency Registration Board would not reach a decision as to investigations to be effected in the territory of some country which might be or not

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concerned with the investigation. In view of the political structure of some Nations, there must be provision for preventing any violation of sovereignty by an obligation of such kind as might be derived from the draft drawn up in its present form.

Art. 2. \$2, (6) - Change the 28 days' period to 60 days.

### Reason.

-The 28 days' period now specified as a maximum for confiming a notification and the possibility that the latter might be cancelled through a delay which it would be difficult to explain, makes it necessary to provide for such a period which would preclude any possibility of cancellation on a matter of such importance as the use of a frequency.

Art. 2, §3, (5) D. - Add after "NOTIFICATION" the following words:- "for the purpose of priority in similar cases."

### Reason.

The paragraph referred to provides for the possibility of using frequencies for services which do not conform to the prescriptions of the frequency allocation table. There can be no doubt as to the possibility of setting up a great number of services within the territory of certain countries which would not cause interference to the services established by the allocation table. This procedure is entirely correct and the sub-paragraph under reference only confirms the recognized principle of the sovereign right held by any country in respect of the use of any frequency of its choosing, without any other limitation than that of refraining from causing objectionable interference in the established services. As a consequence, if two countries make use of frequencies while trespassing on the prescriptions laid down in the allocation table yet without causing interference to the normal services on the band considered, a priority right has to be recognized on behalf of the first country doing so.

# Art. 2, 83, (7) - Delete in the first part "reasonable" time" and insert:- "one year."

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### Reason.

In a document such as the one under consideration, the important points should not be left vague. The "reasonable time" to which the first part of this paragraph alludes has to be fixed and for this purpose a period of one year is 'suggested, this being considered a reasonable time which would leave no doubt as to its exact length.

> Atlantic City, N.J., July 17, 1947. For the Chairman of the Delegation, The Vice-Chairman.

/sgd/ ARTURO MELGAR VILLASENOR.

# INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document Nº 606 R-E July 21, 1947

COMMITTEE 3

### REPORT

of ·

SUB-COMMITTEE A of the ORGANIZATION COMMITTEE (Committee 3)

Seventeenth Meeting July 17, 1947

- 1. The meeting was opened at 3:30 p.m. by Mr. <u>Gunnar Pe-</u><u>dersen</u>, the delegate of Denmark.
- 2. The <u>Chairman</u> informed the meeting that Mr. McGinnety who had acted so ably as the English Reporter on the Subcommittee had now left this country and it was therefore necessary to ask for the nomination of a new member to take over that duty.
- 3. The Delegate of the <u>U.S.</u> said that his delegation would be glad to assist in the emergency that had arisen and he had pleasure in suggesting that Miss Maurine Rhodes should henceforward act in the place of Mr. McGinnety. In suggesting this nomination he would like to add an expression of his Delegation's regret at the departure of Mr. McGinnety and to suggest that the minutes should include an expression of the Subcommittee's appreciation of the splendid services which Mr. McGinnety had rendered.
- 4. These proposals were approved.
- 5. The <u>Chairman</u> said that the report of the 15th Meeting had been circulated in Document No. 559 R, but there had been several important corrections made and a new report would shortly be issued. He proposed to leave the approval of that report until the next meeting.

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- 6. The Chairman said that at the 15th Meeting there had been a long discussion on the proposed establishment of an international broadcasting organization, and it had been suggested that a working party should be set The discussion had disup to consider the proposals. closed widely differing opinions amongst the members, and it had been decided to continue the discussion at the present meeting, in the hope that the Subcommittee's ideas, would be crystallized into more definite form. The United Kingdom Delegation had promised in the meantime to produce a paper giving more details with regard to its proposal for the establishment of a C.C.I.D. This paper had now been issued as Doc. 570 R. It was the Chairman's opinion that the discussion should no longer deal with the general philosophy of this problem, but that the meeting should get down to the cold facts. For that reason, he proposed that the discussion should be split into two parts:
  - (a) What were the problems which the new body should be charged to consider. (This new organization might for the time being be called the C.C.I.X.)
  - (b) When agreement had been reached as to the questions to be considered, the Subcommittee would be in a better position to decide whether they could be dealt with by the C.C.I.R., or partly by C.C.I.R. and partly by C.C.I.F., or whether an entirely new organization would be required.

The Chairman proceeded to give the Subcommittee certain examples of technical questions relating to the broadcasting service which had been considered by the C.C. I.R. He pointed out that the U.K. proposals suggested that the C.C.I.X. should study questions covering a much wider field - for example, that it should prepare allocation plans, study methods of international transmission and exchange of programs, prepare standardization of television technique and many other similarly important questions.

The Delegate of <u>Switzerland</u> made the following statement: (1) "The Swiss proposal No. 31 TR contemplates a new organization of the I.T.U. This problem must be studied and solved by the Plenipotentiary Conference. In addition to other matters, the Swiss draft provides for the establishment of a new Broadcasting Consultative Committee.

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(2) "The Swiss Delegation, in making this proposal, believes that the time has come when for at least insofar as the technical part of broadcasting is concerned, it may be necessary to coordinate the work, exchange experiences, and (set up standards; in other words, to or-ganize collaboration on a world-wide basis.

(3) "The Swiss proposal, purposing to set up a C.C.I.D., is joined to a stipulation that such an institution can be realized without allowing the expenses to exceed certain admissible limits.

(4) "The creation of a C.C.I.D. within the meaning of Swiss proposal 31 TR must in no way prevent private broadcasting organizations from continuing their work, the utility and effectiveness of which have been proved many times in the past.

(5) "Unfortunately, international coordination of private enterprise under its present form in Europe cannot be satisfactory. Two different organizations exist, each incomplete. A large national organization holds aloof, not being a member of either of these two organizations.

"This situation cannot be prolonged without seriously endangering European broadcasting.

(6) "Under these circumstances, the Swiss De-

legation has studied the general outlines of a draft for the reorganization of broadcasting on a world-wide basis, which has been submitted by the Delegation of the United Kingdom. This proposal, although it contains some important points to which we could not unreservedly agree, constitutes, in the opinion of the Swiss Delegation, an interesting basis for discussion, and it is to this effect that we advocate the study by Subcommittee 3A.")

8. The Delegate of Morocco and Tunis stated that the minutes of the 15th meeting contained no mention of the remarks which he had made, and he therefore wished to repeat the substance of those remarks, which was to the effect that, in his Delegation's opinion, the present conference was not authorized to consider international collaboration in matters relating to the broadcasting services but that, nevertheless, this Conference must take the initiative in this field by bringing about contact between nations participating 'in the Conference and between specialists and technicians\_of the various countries, and between them and other bodies and organizations which dealt with the cultural and legal aspects of broadcasting, such as UNESCO.

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The international broadcasting organization should not be set up in the abstract but should take into account. the practical condition's already existing, as well as the existing relations between the various administrations and national organizations, even if the latter might be considered private.

The Delegate from Morocco and Tunisia further observed that in his opinion the manner in which the question had been presented by the Chair restricted the scope of the Subcommittee's consideration. He thought the whole matter should be discussed freely. The C.C.I.X. should, in the first place, be a technical body, but he thought that it was putting it awkwardly if attention, was directed only to the technical aspects. He thought that there were two problems to be considered, and he suggested that these should be viewed from the material and objective side. Each problem should first be considered from the broad cultural viewpoint; it was only after such consideration that the Conference.would be in a position to discuss them from an empirical point of view. If, therefore, a working group was set up to consider these problems, he thought that such a group should include (1) members of the Plenipotentiary Conference, particularly those dealing with the question of the rolationship between the I.T.U. and U.N.O.; (2) a representative of UNESCO; and (3) delegates of regional broadcasting organizations.

10. The Delegate of Canada said that, in the opinion of his delegation, some form of international broadcasting organization was needed to obtain maximum integration and use of international short wave broadcasting from the technical point of view. At present the technical situation as regards short-wave broadcasting was little short of chaotic. Many stations worked simultaneously on the same frequency, each causing interference with another; worse still, some broadcasting stations were operating on frequencies proper to other services and were causing interference to those services. Any organization which was designed to secure an orderly planning of international broadcasting and promising the greatest use of the high frequency spectrum would be of considerable benefit to all. Canada would support the creation of such an organization on a reasonable economical basis.

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11. As regards the standard broadcasting band (535 to 1605 kc/s), continued the Delegate of Canada, so far as the American Region is concerned, this was regulated by the NARBA agreement of Habana 1937 as revised at Washington in 1946, to which Canada was signatory. This agreement laid down elaborate and specific standards of engineering rules under which more than 1500 stations in the region, which included Cuba, Mexico, the United States, Canada, Newfoundland, the Bahamas, the Dominican Republics and Haiti, operated. To permit so many stations to work on no more than 107 channels with the minimum of interference, specific provision was made as regards the use of directive antennae. Under the N.A.R.B.A. agreement a committee was set up, charged with the duty of investigating cases of interference between stations under the jurisdiction of the contracting governments and with the revision of the engineering standards of the agreement. Canada, as a party to N.A.R.B.A., could not agree to any plan which envisaged activities of a technical character by an international body in the field of standard band broadcasting in the North American Region.

12. The Delegate of the <u>United States</u> said that he agreed with the view expressed in Doc.N<sup>O</sup> 570-R that any organization in telecommunications should come within the framework of the <u>ITU</u> rather than be a separate and independent entity. No one doubted the need for clarification and regulation of high frequency broadcasting -he\_did not say this with regard to international broad-

casting but with regard to high frequency broadcasting. The standard of high frequency broadcasting was an unknown quantity insofar as any clearly defined arrangement for the use of proper frequencies and for the effective sharing of those frequencies was concerned, and he strongly urged some sort of world-wide organization for that purpose, as envisaged in the proposals of the U.S. for the High Frequency Broadcasting Conference, Doc. No. 14 RHF. If, however, the present status of high frequency broadcasting was in an uncertain state today, such was not the case as regards longwave and standard band broadcasting. It was, in his opinion, a wholly unsound principle to take the indefinite and un-· certain quantity and try to solve its problems in conjunction with the known conditions of standard band and longwave broadcasting. The U.K. proposal envisaged, inter alia, that the C.C.I.D. should, through its reglonal committees, prepare provisional plans for the allocation and use of frequencies for medium and low frequency broadcasting services for consideration by regional broadcasting conferences. It was not clear to the Delegate of the United States why, if the preparation of the frequency allocation plans were to be on a regional basis and if those plans were to be considered by regional conferences, it was proposed to introduce a world-wide organization which could not be familiar with all of the technical details within a given region. The United States could not agree to any intervention by a world-wide organization in the operation of N.A.R. B.A. conferences, and in this the U.S. supported the views of the Delégate of Canada. He considered that, apart from the consideration of the allocation of specific frequencies within regions, other problems of a technical nature could be studied either by the C.C.I.R. or the I.F.R.B., and in his opinion there was no need for a third organization to become involved in such studies.

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13. The Delegate of the U.K. said that he entirely shared the views that some organization was necessary as regards high-frequency international broadcasting services. He might almost say that it was precisely that need which prompted the U.K. to make the proposal now under consideration. He did not understand wherein lay the point of difference between the views of the delegates of Canada and the U.S. and those contained in the U.K. proposal. He would like to draw attention to para. 4 of Doc. No. 570 R-E, where it was clearly stated that

it was not the UK proposal that the suggested consultative committee for broadcasting should in any way take over the functions of international or, regional radio conferences which would continue to draw up regulations and conclude international agreements on frequency assignments to broadcasting services. That meant that the N.A.R.B.A. conferences would remain unaffected. This body would meet as an administrative conference and would conclude agreements just the same as, in the case of Europe, it was envisaged that Conventions, such as those of Lucerne and Montreux would continue, on a governmental basis, to conclude agreements, including the assignment of specific frequencies to broadcasting stations. The footnote 1 to para. 11 of Doc. No. 570-R made it clear that the UK conception of the C.C.I.X. was that it should act in an advisory capacity only; it would advise the International Radio Conference and High Frequency Broadcasting Conference on broadcasting matters of world-wide concern, including proposals for frequency assignments for high frequency broadcasting services. Similarly, footnote 2 made it equally clear that the regional committees envisaged would advise regional administrative broadcasting conferences on matters falling within the province of each region, including frequency assignments under a regional arrangement. In other words, there was clearly no intention that there should be any interference by European authorities in any matters which were wholly within the province of the North American Region. The N.A.R.B.A. Committee, which the Delegate of Canada had mentioned, seemed to be precisely the sort of body which the UK had in mind for North America in its proposals for the regional structure of the C.C.I.X. There appeared to be no difference in conception as to how the international and regional committees should function. The IK suggested that coordination should be established between the various regions for the purpose of interchanging information and for the studying of problems which were of world-wide concern. With regard to the suggestion of the United States Delegate that this work might be performed by the C.C.I.R., the Delegate of the United Kingdom drew attention to the problems listed in para. 15 of Doc. No. 570-R, many of which, he thought, merited world-wide consideration.

-7-(606 R-E) Such problems, added to the need for some international organization to advise on high frequency broadcasting, and the old-established need for regional organizations, which were still international committees, to advise on regional matters, pointed to a decided need for the establishment of a special advisory committee to watch over' the whole field of the broadcasting services, but at the same time to leave to the regions matters which were clearly within the province of each region and certainly not, in any way, to interfere with administrative conferences which concluded governmental agreements.

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14. The Delegate of <u>Belgium</u> made the following statement:

"(1) Belgium wishes to stress the fact that problems concerning radio broadcasting are not all included in the framework of the I.T.U. There are numerous questions which extend beyond this framework, for instance, cultural and legal problems. These cultural and legal problems are, for the most part, very often intimately connected with technical problems.

"(2) Therefore, if an international broadcasting organization, such as, for instance, the C.C.I.D., wishes to deal with all the technical, cultural, and legal questions connected with broadcasting, it could not become part of the I.T.U.; It would have to be independent of it.

"(3) If, on the contrary, an international organization, such as the C.C.I.D., wished to confine itself to technical problems within the field of the I.T.U., it seems to Belgium that it has not been made sufficiently clear that the C.C.I.R. and the C.C.I.F. would not be able to take charge of this work.

"(4) Qestions pertaining to broadcasting under <u>all</u> its aspects (technical, cultural, legal, etc.) may be first studied by the owners or operators of broadcasting organizations, who are competent in all their different fields and who are intimately connected with broadcasting. These owners or operators are in constant daily contact with broadcasting problems in all its various aspects - which is not always the case with administrations.

"(5) The owners or operators of broadcasting organizations can play the part of experts at governmental and administrative conferences, which have the right of making <u>decisions</u>. (These conferences are those of the I.T.U. dealing for the most part with technical questions; those of U.N.E.S.C.O., for example, dealing with cultural questions, etc.) The work of owners or operators of broadcasting organizations in certain technical fields could facilitate the task of the C.C.I.R. and of the C.C.I.F.

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"(6) In broadcasting on long and medium waves, these organizations of owners or operators could be regional in nature. In short wave broadcasting, a link between regional organizations must be provided, for example, a world federation, or some other kind of agency to be studied by the High Frequency Broadcasting Conference.

"(7) The Belgian proposal does not make obligatory the creation of any new body which might occasion expenses for the I.T.U. (except in the case of the short wave federation). Belgium appeals for assistance to the existing agencies, the usefulness of which has been proven by experience."

15. The Delegate of Cuba remarked that a considerable portion of the statement which he made at the · 15th meeting of the Subcommittee had not appeared in the report of that meeting. He had, as the report showed, agreed in general with the views expressed by the delegate of France, but he had gone on to say that since the European manner of approaching the problem of frequency assignments for national broadcasting was fundamentally opposed to the manner in which the Americas ap-> proached the same problem, and specially as done by the nations parties to the N.A.R.B.A., and also the difference between the two continents in the manner of rendering these services, one official operation while private operation was predominant in America, Cuba was opposed to any broadcasting organization of a world scope which in any way might touch on the standard broadcast band, until that date when the European manner of approach reached the degree of useful frequency sharing made possible by N.A.R.B.A., in the North American Region. As to high frequency broadcasting, Cuba maintained that any consideration of an

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organization to deal with it should await the progress of the HF Broadcasting Conference called specifically for that purpose, and should not, therefore, be discussed at this Radio Conference.

- 16. The Delegate of the Netherlands agreed with the view of the Delegate of Belgium that the operation ' of the broadcasting service covered a field which was to an important degree outside the scope of the I.T.U. which should limit its considerations to problems within the technical field. He also agreed with the views expressed by the United States and the Belgian Delegates that the proper organ to deal with these questions was the C.C.I.R., which had already taken up such questions and would, after having been reorganized in the manner in which the Conference intends, be in a position to deal effectively with all technical matters relating to the broadcasting service. He supported the Belgian's suggestion that there should be cooperation between the various broadcasting organs and between them and the C.C.I.R. He aid not think that further cooperation in the HF broadcasting service required a separate structure, although the duestion of a better organization of that service should be studied.
- 17. The Delegate of Denmark said that there appeared to be a general opinion that some international body was required to take care of high frequency broadcasting--the fact that there was, for the first time, to be a High Frequency Broadcasting Conference showed that it was necessary to have a world-wide organization to regulate that service. As regards the question of the consultative part of the work, this could be undertaken either by the C.C.I.R. or by a special body, but if it were decided that the C.C.I.R. were the appropriate body to deal with this work, that committee would require to be enlarged. The C.C.I.R. had already dealt with broadcasting questions on a limited scale, although it had not ) hitherto handled the question of specific frequency allocations. The Delegate of Denmark thought it important that all technical questions relating to broadcasting should be dealt with under the I.T.U., but he doubted whether it would be appropriate for the I.T.U. to consider such questions as those relating to juridical and copyright matters as suggested in the UK proposals. It was not yet known what the

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structure of the executive committee of the Union would be. If it should be decided that it should consist of the future directors of the C.C.I.'s, he thought that there should be a director for broadcasting.

18. The Delegate of the U.S.S.R.said that the proposal of the United Kingdom was very interesting and at the same time complicated. As had already been pointed out, the field of broadcasting was a complex one, since it involved questions not only of a technical character but those entailing cultural and political considerations. These questions were less easy of solution. As regards the suggestion that an attempt should be made to draw up a plan of frequency allocation among the various stations, no preparatory work had as yet been done. The forthcoming HF Broadcasting Conference would start without any prepared plan and would have to endeavor to produce a plan of allocation in the course of its discussions and after being acquainted with the various frequency proposals submitted.

19. Continuing, the Delegate of U.S.S.R. said he thought the UK proposals in Doc. No. 570-R should be studied carefully, but he did not consider that the proposal that the suggested C.C.I.D. should deal with frequency planning of a regional character. was acceptable. In this respect, he agreed with . the views expressed by the Delegates of Canada and the U.S. He thought that there was no need to make the work of the I.T.U. more complicated than it already was by entrusting it with any functions which might be carried cut on a regional basis. As regards questions of a nontechnical nature, these should not be dealt with by the I.T.U., which was a purely technical organization. He thought that the question of a new plan for HF broadcasting--and possibly plans for other services also--might conceivably . be dealt with by the I.F.R.B., but he had not yet been able to give the UK proposals full consideration. and he was not in a position to give any definite . opinion or to make any concrete proposals.

20. In conclusion, the Delegate of the U.S.S.R. said that the problem as to the necessity for the establishment of a new committee for HF broadcasting was one which the Plenipotentiary Conference alone could settle--it could not be decided by the HF Broadcasting Conference. The present conference should, however, discuss the general structure of this organization, after which the Plenipotentiary Conference would have to take the final decision.

21. The Delegate of <u>Canada</u> referred to his previous remarks and explained that the reason why Canada could not subscribe to any world-wide plan which<sup>2</sup> envisaged regional activities of a technical character was not because she was unwilling or because she did not think that regional committees would give good advice, but because Canada was bound by treaties to solve engineering problems in a definite way laid down in the treaty and in no otherway. He could not see in what manner the suggested C.C.I.D. would help in such a case.

22. The Delegate of India said that the discussion had disclosed two opposing points of view, but, in fact, he thought that they were means to the same end. The UK proposal in Doc. No. 570-R described the objectives to be aimed at and the methods which would be adopted to take care of problems in the broadcasting service. These problems had now an importance of their own; as the Delegate of Denmark had pointed out, the fact that the HF Broadcasting Conference was about to take place was evidence of this fact. There was therefore no question as to the necessity for broadcasting problems to be covered, but there was a difference of opinion as to the means which should be employed. The UK . suggested the establishment of a new consultative committee. On the other hand, some Delegates had suggested that broadcasting problems should be dealt with by the C.C.I.R. The UK in para. 15 of Doc. No. 570-R had listed a number of problems which, in the UK view, the C.C.I.R. could not handle.

23. Objection had been raised to the UK proposal on three counts, namely, the cost of the suggested new consultative committee, possible encroachment by the international broadcasting organization into regional agreements and treaties, and the possibility of the I.T.U., which was primarily a technical body, trespassing into non technical fields.

On studying Doc. No. 570-R it would be seen that all of these points had been dealt with. It was believed that the cost of the suggested broadcasting committee would not be so great as to make it prohibitive. Safeguards for existing regional agreements and treaties had been provided, and the proposed restriction of the scope of the studies of the suggested new committee in the main to technical matters appeared to be sufficient safeguard against any possibility of the I.T.U. trespassing to any serious degree into cultural and political fields which were not its concern.

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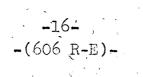
24. The Delegate of India said that he was strongly of the opinion that it was desirable that certain problems of the broadcasting service should be considered on a regional basis. As the Delegate of the United Kingdom had pointed out at the previous meeting, much time and labor might have been saved the present Conference if problems relating to tropical broadcasting, problems concerning propagation and other questions of a similar character, had been studied beforehand on a regional basis. At the moment, India neither supported the proposed establishment of, the new consultative committee nor opposed it. He thought that it might be well if the Subcommittee took the list of questions in para. 15 of Doc. 570-R and considered whether they could be dealt with under the C.C.I.R. or whether they merited the establishment of a separate organization.

25. The Delegate of <u>Denmark</u> referred to the objection of the Delegate of Canada to enter any organization which would deal with technical broadcasting problems of a regional character. The Delegate of Denmark reminded the meeting that the proposed new organization would be a consultative body only, and its recommendations would not be binding. Consultative committees had usually 'issued good technical advice, which all countries followed voluntarily but there was no obligation for them to do so.

- 26. The Delegate of the <u>UK</u> stated that if, as seemed to be generally agreed, there should be some new form of organization -- possibly on the lines of that suggested by the U.S. - for the future regulation of high frequency broadcasting services, in other words, if there were going to be a permanent body of some kind to regulate or deal with aspects of the broadcasting service, then we already had the nucleus of the body which the UK was proposing. He considered that the question of additional cost which the establishment of the suggested new organization would involve was not important since, in the event of it being decided that the C.C.I.R. should deal with broadcasting questions, that committee would have to be considerably enlarged, with consequent increased cost of its meetings and its secretariat. In the UK view there was need for clear planning for, the next European medium-wave broadcasting conference, even though, as the Delegate of Canada had pointed out, there did not seem to be the same need in the North American Region.
- 27. It was the view of the UK, as he had stated at the last meeting, that there was room for an authoritative body under the I.T.U. to tender advice on technical questions to various organizations, such as U.N.O. and U.N.E.S.C.O. which were considering various aspects of broadcasting. He thought it was important to bear in mind that the questions listed in para. 15 of Doc. 570-R were only some of the points of study for the new organization which the UK visualized and the need for such an organization was not bounded entirely by the necessity for those matters to be studied.
- .28. The Delegate of <u>Argentina</u> said that he wished to associate himself with the views expressed by the delegates of Canada and the United States.
- 29. The Delegate of <u>Mexico</u> said that if a new ofganization such as that suggested by the UK was set up, it would be difficult not to take any advice which it issued, even though that advice might in some manner run counter to some provision of the NARBA agreement to which Mexico was a party. The technical problems in general which the proposed new body would be charged to consider would relate to making the correct assignment of frequencies. It had already been agreed in the Subcommittee that the I.F.R.B. should be responsible for studying the question of how to make the maximum use of the frequency spectrum, but the I.F.R.B.-would have to depend on information which it

questions which the I.F.R.B. could not itself solve should be submitted by that board to the C.C.I.R. for study. The Delegate of Mexico could not therefore see any reason for involving a further consultative body in such problems.

- 30. The <u>Chairman</u> said that the lengthy discussion which had taken place had, he thought, not only been most useful, but had, to a great extent, produced the crystalization of ideas which it had been agreed at the 15th meeting should be sought before deciding whether or not to set up a working party to study this problem. There seemed to be a very general view that a body, under the I.T.U. which would study broadcasting problems, should not deal with cultural or legal questions. He thought that it was also the general view that a consultative body within, the I.T.U. should consider questions relating to high frequency broadcasting. There had been discussion on specific technical questions, and although perhaps agreement was not complete, it was his impression that there was some agreement that certain of these questions at least should be studied by the C.C.I.X.
- 31. With regard to the question of medium-wave broadcasting, the Chairman continued, there appeared to be a fairly strong opinion against the establishment of any organization which would interfere with regional broadcasting arrangements in different parts of the world.
- 32. The Chairman thought that opinions had now sufficiently crystallized to warrant the setting up of a working party to study the question in greater detail.
- 33. After some discussion as to which working party should undertake these studies, it was finally <u>agreed</u> that a third working party (Working Party C) should be set up for the purpose under the Chairmanship of the Delegate of India, and that it should include delegates of the <u>UK, Mexico, USSR, France, Sweden</u>, and <u>Canada</u>. The Delegate for <u>Switzerland</u> said that, although his Delegation would like to participate in the working party's studies, he was not at the moment able to say definitely whether it would be in a position to do so. In the circumstances it was <u>agreed</u> that Switzerland should have the right : to participate in the working party should it decide to do so.



34. The meeting was closed at 6 p.m.

The Reporters: The Chairman:

Maurine Rhodes Gunnar Pedersen H. Samiy

# INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document Nº 607 R-E July 22, 1947

COMMITTEE 3

CORRECTIONS TO DOCUMENT No. 577 R-E

(Report Sub-com. A-3, 6th Meeting)

Page 3, paragraph 15, second line. <u>Amend</u> 457R to read: 451 R-E

Page 4, paragraph 24, tenth line. Amend to read:

..... request, but, as the footnote .

Page 5, paragraph 25, sixth line. Delete: "he thought"

Page 6, paragraph 25, last line. <u>Amend</u> "therefore" to read "therefor".

Page 7, after para. 31, insert:-

32. The Delegate of India suggested that, in order to find a compromise between the opposing points of view, the paragraph in question might be revorded to provide for the Board calling the representative of a country to attend a meeting of the Board if it considered such a course to be necessary.

Amend	number	of	paragraph	32	to	read	33
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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 July 22, 1947

Additions to Document No. 449 R-E. Composition of Committees and Subcommittees.

Organization Committee (Committee 3), page 7: <u>Members of committee</u>, add Outer Mongolia. <u>Subcommittee A</u>, page 8: <u>Members of Subcommittee</u>, add Sweden.

Allocation of Frequencies Committee (Committee 5), page 10:

Members of committee, add Outer Mongolia.

International Frequency List Committee (Committee 6), page 13: Members of Committee, add Outer Mongolia.

Operations Committee

Subcommittee B, page 19: Members of subcommittee, add: New Zealand. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 609 R-E July 22, 1947

Committee 7

Report of Sub-Subconnittee 78 2 To Subcommittee 78

Committee 6 has requested information on the following eight items:

1. Tolerable signal-to-interference ratio

2. Conditions for entirely satisfactory service

3. Fading

4. Diversity help

5. Allowance for directive antennas

6. Spacing of adjacent channels

7. Grouping of assignments for best results

8. Frequency space required for minimum guard bands.

In the course of time, it may be possible to develop the answers to the questions raised by these items in such a way that they may be presented in categorical form so arranged that the relative properties of different types of transmission, such as telegraph, telephone, facsimile, television, and the like, may be read directly from a ,/ table for all of the numerous permutations and combinations that may be encountered. At the present time, however, the answers are not available in a sufficiently succinct form for this to be done, even if there were time to prepare such a comprehensive tabulation during the course of the present Conference.

On the other hand, there is a quantity of information available that may go at least part way in answering the questions and, furthermore, may be used as a basis for further investigation and study by the C.C.I.R. In presenting this information, an attempt to deal one by one with the items suggested by Committee 6 has not proved to be as simple, in the light of the character of the information, as the alternative method of dealing

with the types of transmission one by one, and applying the available answers to each of the eight items taken individually, and then discussing the considerations which apply for different combinations and permutations of the various types of transmission. Accordingly, the latter method of procedure has been adopted in the following paragraphs for items 1 through 6. Items 7 and 8 are discussed on a more general basis.

### CASE I. SIMPLE TELEGRAPHY

### Tolerable Signal-to-interference ratio.

For a simple telegraph transmission in which the radio-frequency output of the transmitter is turned on and off in order to form the dots and dashes, it would be possible in an ideal case, using automatic recording, to tolerate interference from another similar telegraph service which was only slightly more than 6 decibels below the désired signal. However, this is an extremely idealized condition and makes no allowance for the practical variations of conditions such as biasing potentials that occur in actual equipment. The amount of allowance needed 1/s a matter of practical ex-The perience, and the best concensus of opinion seems to indicate that satisfactory performance may be had when the interfering signal is always at least 10 decibels below the desired signal in the case where they are both operating on the same frequency.

### 2. <u>Conditions for entirely satisfactory service</u>.

Here it can be said at the outset, and in extension of the above paragraph, that satisfactory service will be provided in those cases where any type of interference is sufficiently weak enough so that the power introduced into the receiver by the interfering wave, whatever its character, is always at least ten decibels below the power introduced by the desired signal, at the time when the desired signal is a minimum. Stated more precisely, the radio - frequency power available in the receiver, averaged over a cycle at the time when the amplitude of the interfering wave is a maximum, is at least 10 decibels below the available power of the desired signal, averaged in the same manner, at the time when the desired signal is a minimum. By following this rule, the simple case of interference by telegraphy operating on the same channel may be broadened to include telegraphy on adjacent

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channels or telephony on the same or adjacent channels, or even noise. In the case of noise the effective peak value-of the powers may usually be taken about 10 decibels higher than the average value. Some numerical examples showing how this rule may be applied are given below in connection with item 6.

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### 3. Fading

Telegraphy suffers to a considerable extent from high-speed fading which in turn, varies with many factors, including the path length, the sun spot conditions, the time of day, and of year, and the frequency employed. It would be almost impossible to take all of these things into account in making frequency assignments and, consequently, an overall figure must be sought which will insure that a sufficiently large allowance has been made to provide 'satisfactory service' for a sufficiently large percentage of the time. Review of existing data indicates that for transmissions between 6 and 25 Mc/s,. and over distances of more than 600 miles, an allowance of 35 decibels should be adequate most of the time for two adjacent telegraph channels. Methods of applying. this to specific calculations are illustrated in item 6 below.

# 4. Diversity help

The advantage obtainable from diversity reception of telegraph signals depends, also, upon a large number of conditions, but, as an overall working figure, it seems safer to say that its use will allow 10 decibels to be subtracted from the fading figure of 35 decibels quoted in item 3, giving a net effective value of 25 decibels.

### • Directive antennas

The best way to allow for the effect of directive antennas would seem to be to determine the field strengths of the desired and interfering signals and then to modify the ratio of their values by the relative directive gains of the antennas in the directions of arrival of the desired and interfering signals. In order to allow for the possibility of variations in the angle of arrival of the interfering signals, the gain in that direction should be taken as the greatest value within a solid angle of at least 10 degrees. This modified ratio may then be used in the calculations of item 6 to give the required spacing of adjacent channels. For example, if the field strength

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of the desired signal is  $10^{-3}$  volts per meter and of the interfering signal is  $2 \times 10^{-3}$  volts per meter, and the antenna has a gain of 20 decibels for the desired signal, but of only 5 decibels for the undesired one, then the relative fieldstrength ratio of +6 decibels may be changed by 15 decibels giving an effective ratio of -9 decibels for the interference relative to the desired signal.

Gains obtained with different types and sizes of antennas vary over a considerable range of values. For the frequency range between 6000 and 25000 kilocycles and in the absence of specific data concerning the actual antenna used, it is estimated that an allowance of 10 decibels might be made for protection against interfering signals arriving from directions differing by more than 15 degrees from that of the desired signal.

### Spacing of adjacent channels.

The basis for the determination of the required spacing of adjacent channels, in order that satisfactory service may be provided, may be explained as follows with reference to the accompanying curves.

Figure I shows curves giving the envelopes of the Fourier spectra of the emission resulting from several shapes of a single telegraph dot. For the upper curve, the dot is taken to be rectangular and its length, t, is one-half of the period corresponding to the fundamental dotting frequency. Thus, if T is the period of this fundamental, and B is the dotting speed, in Bauds, we have B = 1/t = 2/T. For the lower curve in the figure the shape of the dot is taken to be slightly rounded. It is important to note that for large values of the abscissae, f/B, the slope of the upper curve approaches 6 decibels per octave; while the lower curve approaches 9 decibels per octave.

As a next step in the illustration, a receiver filled with filters is considered. These filters are idealized to the extent that their acceptance band is taken to be 5 units wide in terms of f/B. This is equivalent to saying that they accept the fifth harmonic of the dotting frequency. This cut-off characteristic which corresponds quite closely to the filters ordinarily used in present-day practice has a slope of 30 decibels per octave, measured from the mid-band frequency:

The mid-band frequency of these receivers is then taken as being located at various frequencies in relation

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to the transmitter frequency, and the resulting acceptance spectrum of the result is found in each case. By determining the area under the derived curves of received energy versus frequency separation between transmitter and receiver, a number of values of power are obtained which may be plotted as shown in Figure 2.

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This graph shows the received power as a function of frequency separation between the transmitter frequency and the mid-band frequency of the receiver, and forms the basis for the calculation of required separation for adjacent channels. The figure gives curves for rectangular dots, and for slightly rounded dots, calculated as above, both for ordinary and for high-grade filters in the receiver. In addition, a curve has been added which applies to a transmitter whose rectangular dots have been passed through a filter with a pass band equal to the necessary band of the system as given in Document No. 579 R-E, (that is, 5 units on the f/B scale) and which, outside of the pass band, has an attenuation of 30 decibels per octave.

For most actual transmitters, the curve for rectangular dots should be used, since some of them exhibit even somewhat broader spectra. The curve for the slightly rounded dots applies only to a few of the presentday transmitters.

The curve referring to the filtered dots applies to transmitters which it may be anticipated, will be built in the not toodistant future. These would have to comprise linear high-frequency amplifiers following the filters in order to avoid any alterations to the shaping of the dots should not be destroyed. (In telegraph using frequency-shift keying, the analogous technique is somewhat easier to carry out).

The method of using Figure 2 may be illustrated by a few examples.

### Example 1. Equal fields.

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In this case, with rectangular dots and no fading, in order to obtain the required 10-decibel discrimination against the unwanted signal, the frequency separation between channel assignments would have to be 3.6 units in terms of f/B. For a telegraph speed of 170 Bauds this would require that the assignments differ in frequency by 3.6 x 170 or 612 cycles per second.

On the other hand, when the fading allowance of 35 decibels is included in addition to the 10 decibels for tolerable interference the separation becomes 125 units, that is 125 x 170 or 21250 cycles per second. With slightly rounded dots, under the same conditions, this decreases to approximately 4600 cycles per second. In all cases, the frequency tolerance allowance must be added to these figures.

With the fading allowance of 35 decibels, the filtered dots would require a value of f/B should be 7.2, from which it follows that a frequency separation of 1224 cycles per second is all that is required.

### Example 2. Unequal fields.

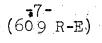
The calculation here follows the same lines as the previous one. When the interfering signal is 20 decibels stronger than the desired one, then with 35 decibels for fading and 10 decibels for required discrimination, the level on the abscissa scale of the figure would be of 20 + 35 + 10, or 65 decibels. For the slightly rounded dots, the value required for f/B is then 125 so that, for a speed of 170 Bauds, the separation would have to be 21250 cycles, plus the tolerance allowance would have to be added.

For the filtered dots, f/B becomes 11.5 and the required separation is then only about 2000 cycles per second.

On the other hand, if the interfering signal were 20 decibels weaker than the desired one, the abscissa value would be -20+35+10or 25 decibels, which in the case of rounded dots gives 6.9 for f/B, and, consequently 1173 cycles per second for the frequency separation.

Example 3. Relative effectiveness of measures taken for decreasing the channel separation.

With equal field strengths and a 35 decibel allowance for fading, we have the channel separations:



(a) Rectangular dots, 21250 cycles per second.

(b) Filtered dots, 1224 cycles per second.

In both cases, the tolerance allowance must be added to these figures in order to obtain the actual separation of the frequency assignments. With the value of 0.01% adopted by Subcommittee 7B for existing transmitters in the fixed service operating at 20 Mc/s, the separation of assigned frequencies becomes:

(a) Rectangular dots, 25250 cycles per second.

(b) Filtered dots, 5224 cycles per second.

In (b) the major part of the separation is attributable to the tolerance. After January 1st, 1950, when the tolerance will be 0.003%, the separation would reduce to:

(a) Rectangular dots 22450 cycles per second.

(b) Filtered dots, 2424 cycles per second.

If, instead of filtered dots as in (b) above, the unfiltered dots of (a) had been used together with a directive receiving antenna giving a relative gain of 10 decibels, and, moreover, if in addition a diversity advantage of 10 decibels, were provided, then the channel separation for (a) would become 3325 cycles per second including a tolerance value of 0.003%. The use of directive antennas and diversity reception, taken together, are therefore not as effective in reducing the required separation as is the filtering technique.

#### Comments

The frequency separations between assignments for adjacent channels which were arrived at in)the above examples apply when the services in the adjacent channels are both telegraphy and operate at the same speed. When they operate at different speeds, the width of the acceptance band of the filters in the receiver bears a different relation to the spectrum of the transmitter pulse and consequently the resulting separations are somewhat altered.

In the case of rectangular dots, the major portion of the interfering energy is that which comes within the acceptance band of the receiving filter. Consequently, very little is to be gained by using at the receiver filters with a steeper cut-off charácteristic.

In the case of filtered dots, the major portion of the interfering energy lies within the attenuation band of the receiving filter. The channel separation is then, however, determined mainly by the frequency tolerance, and once again, the cut-off characteristic of the receiving filter is not a major factor.

### Grouping of assignments for best results.

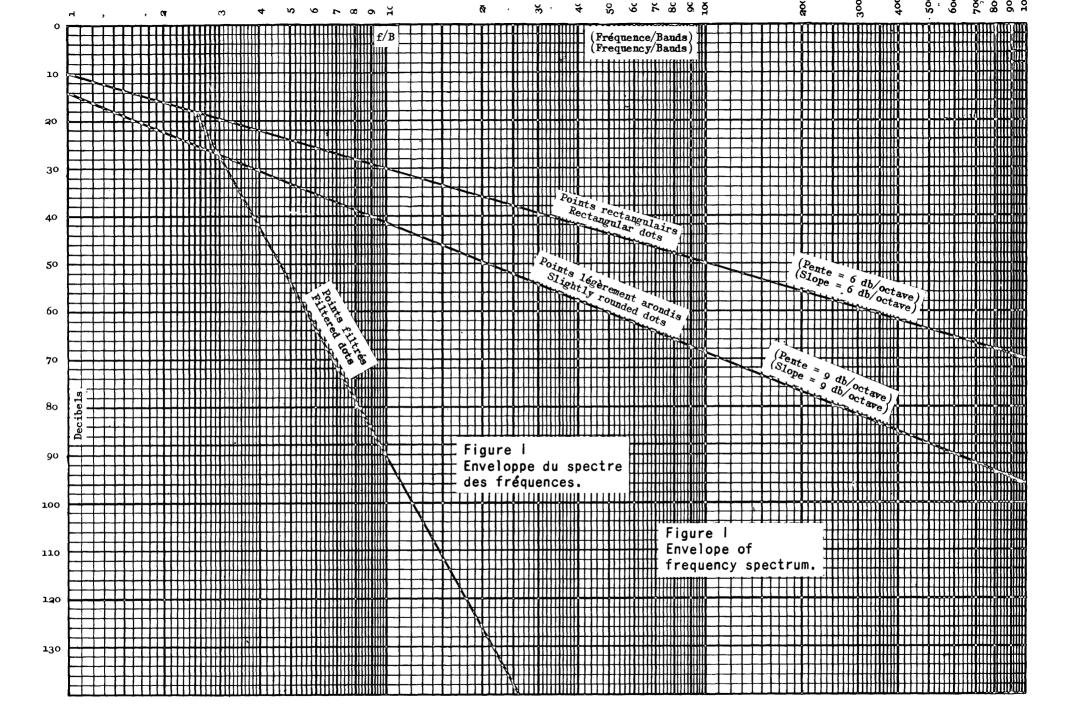
The best opinion available indicates that other things being equal, the most advantageous use of the frequency spectrum will be used to best advantage by placing like transmissions on adjacent channels.

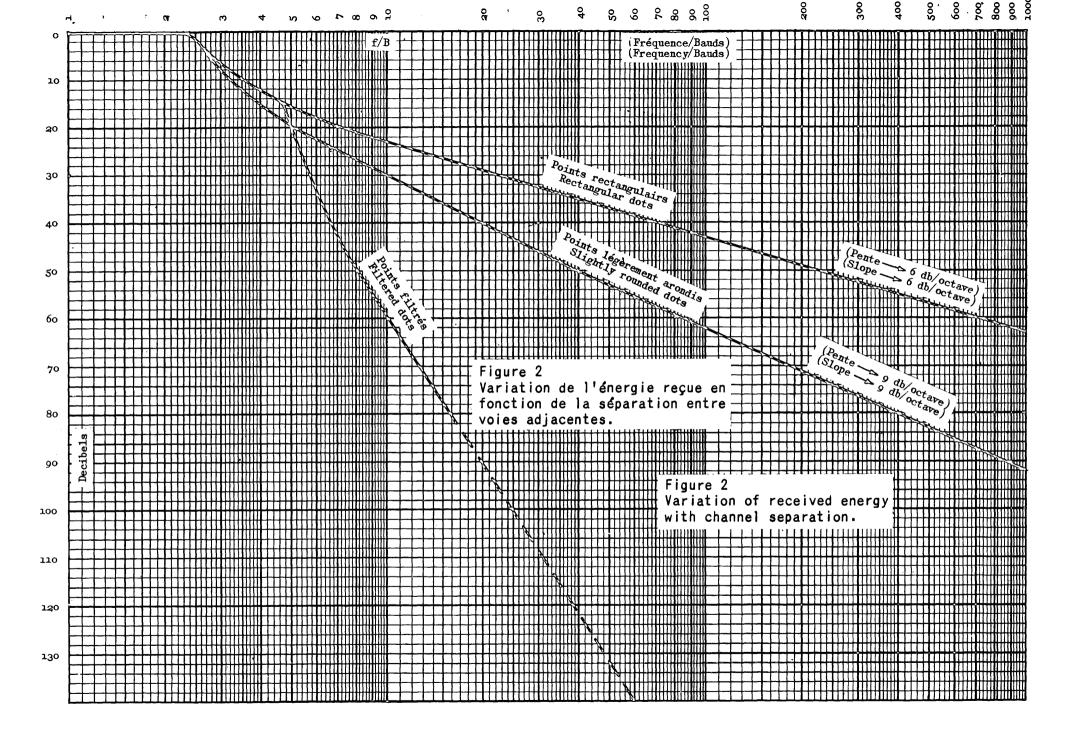
# B. Frequency space required for minimum guard bands.

In the light of the discussion and particularly of item 6 above, the concept of a guard band as a separate entity, distinguishable from the transmitted band, loses its usefulness. It therefore appears to be preferable to consider only the necessary bandwidth and the channel separation.

H. C. A. Van Duuren

Chairman





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# CASE II. FREQUENCY - SHIFT TELEGRAPHY

# Comments.

This case resembles Case I (Simple Telegraphy) so closely that the same general analysis may be applied with suitable modifications in detail, as indicated in the following parágraphs, which are numbered to correspond with those under Case I. The principal point of difference arises because of the necessity of adding to the channel separations, calculated from Figure 2, an amount equal to twice the frequency deviation, as shown in Document No. 579 R-E.

### 1. . Tolerable Signal-to-interference ratio

It is estimated that the interference level of - 10 decibels, which was recommended in Case I, will also be suitable here.

# 2. Conditions for entirely satisfactory service.

When interpreted in terms of frequency shift, instead of amplitude change, the observations made in connection with Case I apply directly.

#### 3. Fading.

As in Case I, an allowance of 35 decibels for fading is appropriate when a single receiver is used, without frequency diversity.

# 4. Diversity

There are two types of diversity to be considered, space diversity, as in Case I, and frequency diversity, which is not usual in Case I. For space diversity alone, or for frequency diversity alone, an allowance of 10 decibels is suggested. For a combination of both types, a total of about 12 decibels may be taken as typical.

### 5. Directive Antennas

The remarks made for Case I may be taken without change.

# 6. Spacing of Adjacent Channels

The basis for calculating the channel spacing follows the same plan which was outlined in Case I. The appropriate

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curve on Figure 2 is used to arrive at a value of f/B for the type of dots employed. Differing from Case I, however, the band thus obtained must be increased by twice the value of the frequency deviation (2D) as shown in Document No. 579 R-E. Finally, twice the frequency tolerance must be added, just as in Case I. It is to be noted that filtered dots are much more easily obtained with frequencyshift telegraphy than in Case I, and consequently that many existing transmitters might employ them with advan-' tage.

Example: Filtered dots, equal fields strengths, and a deviation of 425 cycles per second, with B = 170.

From Figure 2, for 25 decibels allowance for fading with either space or frequency diversity, and 10 decibels signal-to-interference ratio, the value of f/B is about 6. The value of f is then 6 x 170 - 1020. The addition of twice the deviation brings this to 1870. At 20 Mc/s, and with a tolerance of 0.003%, there must be added 1200 cycles per second, giving a value of 3070 cycles per second for the channel separation.

## CASE III FACSIMILE

Since facsimile may be thought of as telegraphy, it results that the treatment given for Case I and Case II can be applied without change to these two types of facsimile.

# NOTE

The cases of frequency modulation, pulse emissions and television have not been studied because of insufficient information, and because these systems commonly use the higher frequency bands which are not yet used extensively for international services.

It is proposed to discuss some aspects of telephony in a supplementary report.

## INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document Nº 610 R-E

July 22, 1947

COMMITTEE 6

# REPORT.

# of Sub-committee A

of Committee for the International Frequency List

(Committee 6)

Seventh Meeting 15 July 1947

1. The report of the sixth meeting (Doc. No. 506 R-E) was approved.

- 2. The <u>Chairman</u> recalled the fact that a certain number of questions which were brought up for discussion during the last meeting had not been settled. He invited the sub-committee to come to-day to a decision on these matters.
- 3. <u>Recommendations to be presented to Committee 6</u> <u>concerning the manner in which the work of Sub-</u> <u>committee A will be carried on after the adjourn-</u> <u>ment of the Radiocommunications Conference</u>. (Doc. No. 506 R-E, par. 4).

The delegate of the <u>U.S.S.R</u>. was of the opinion that if the International Frequency Registration Board had not been established by the end of the Radio Conference, it would be quite proper to entrust the Bureau of the Union with the task of carrying on the work begun by Sub-committee A.

The delegates of <u>Belgium</u> agreed with the viewpoint expressed by the U.S.S.R.

The delegate of the <u>United States</u> was of the opinion that the work of Sub-committee A was one for specialists and that it should be entrusted to a group specially formed for this purpose. He suggested that a final date be set for the submission of forms 1 & 2.

The delegate of the <u>United Kingdom</u> recalled the fact that during a meeting of the Executive Sub-committee (610 R-E)

the Chairman of the United States delegation had accepted, in the name of his delegation, the responsability for this work, as stated in Document No. 506 R-E; it had been agreed that the United States delegate was to consult his delegation before giving a definite answer.

The delegate of the United States informed the Sub-committee that, after discussing this subject with the Head of his delegation, Mr. Charles R. Denny, he wished to state that, "the United States has no intention nor desire to be remiss in any way in meeting its formal commitments to this Conference. It is desired in this regard to point out that the statement contained in Document NQ 244 R-E which was referred to by the delegate from China at the last meeting of Sub-committee A was not accepted by the Conference. In fact, Document 244 R-E clearly indicates that the discussion of the Executive Sub-committee did not involve a definite recommendation of the Conference. The actual recommendations, as made by the Executive Sub-committee, which was later approved in Plenary session of this Conference are contained in Document 240 R-E. There is in this document no mention of the point involved here, namely how the work of Sub-committee A is to continue after the adjournment of this Conference, but rather in par. 7 of that document Committee 6 is called upon to recommend in this regard after July 15. In the light of developments since that date it now appears extremely desirable that the international working group of Sub-committee A be authorized to proceed to the conclusion of this important and valuable task. This international working group has intelligently, diligently and thoroughly worked out a proposal which will ensure its completion in the minimum of time, with a minimum expenditure of funds, and on an international, rather than on a national, basis. Therefore, at this present stage of our forward development towards our ultimate goal, it seems most desirable, most essential in fact, that we recommend the continuation of this work, to completion as outlined in the report of the working group (Doc. No. 473 R-E). We shall all benefit therefrom and the work will have the blessing of an international support, which seems to be the ideal solution." The United States Delegate pointed out, however, that if the Conference continued to feel that the United States delegation should be entrusted with the continuation of this work, the United States Delegation would have no objection providing this responsibility did not prove too great. Concluding his statement, the United States

Delegate believed that the working group would not have to face too arduous a task since its activities would be confined to examining forms 1 & 2, and he suggested that the United States representative might assume the task of liaison with the International Business Machines Corporation during the six weeks that would be necessary to complete the work.

- 3 -(610 R-E)

The delegate of the <u>United Kingdom</u> was of the opinion that the solution just proposed was certainly the most logical and economical one. He suggested that the draft of the International Frequency List could be sent to the B.I.T.U. which would undertake its publication.

The proposal of the United States delegation and the suggestion made by the delegate of the United Kingdom were supported by the delegates of Argentine and <u>Canada</u>.

The <u>Chairman</u> concluded by saying that the final text of the recommendations to be submitted to Committee 6 would be drafted and distributed for the following meeting of Sub-committee A.

Recommendations to be made to Committee 6 concerning the comments requested from this Committee by Sub-committee A of the Organization Committee in regard to the Notification form to the International Frequency Registration Board' for the assignment of a frequency to a station (Appendix I, Article 2, § 2 (3), of the Statutes of the I.F.R.B. - Ref.: Document 451 R-E).

In requesting the Sub-committee to draft a recommendation on this matter, the <u>Chairman</u> said that he felt this Sub-committee could inform Sub-committee A of the Organization Committee that the form proposed in document 451 R-E met all the necessary requirements.

The delegate of <u>France</u> was of the opinion that the notification form proposed in Appendix I of the Statutes of the I.F.R.E. provided for supplying the Board with sufficient data to enable it to judge whether the notified frequency should appear in the registration or in the notification column. But he was under the impression that if the I.F.R.B. were responsible for the publication of the new International Frequency List, the proposed form would leave out certain data which should appear in this list, particularly those data which might be of use in the international control of frequencies. The question was to determine, at the

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time of notification of a frequency to the I.F.R.B., whether the notifying country should submit two forms, the first containing the data necessary for the I.F.R.B. to determine in which column the frequency should be entered, and the second including all the data which should appear in the International Frequency List. The delegate from France was of the opinion that it would be preferable not to use more than one notification form containing all the information of value to the I.F.R.B. and all the information which should appear in the International Frequency List. He referred the Sub-committee to the proposal of the French delegation to this effect (Doc. 57 R-E, proposal 1813 R).

(610 R'-E)

The delegate of the <u>United Kingdom</u> shared the view expressed by the French delegate. He believed that the present Frequency List published by the B.I.T.U. could be improved, and that the notification forms to the I.F.R.B. should contain all information which could readily be entered in all the columns of the Berne List. He suggested that the Sub-committee draw up a proposal to that effect.

-After an exchange of views on this subject by the delegates of <u>Argentine</u>, <u>Canada</u>, <u>France</u>, the <u>United Kingdom</u>, the <u>United States</u>, and the <u>Chairman of Committee 6</u>, the Sub-committee decided to entrust the study of this matter to a second working group, composed of representatives from <u>Argentina</u>, <u>France</u>, the <u>Netherlands East In</u>-<u>dies</u> (Chairman) and the <u>United Kingdom</u>. The terms of reference of this working group were defined as follows:

1. To study the proposed appendix to the Statutes of the International Frequency Registration Board, which appendix concerns itself with the data to be submitted by countries making frequency notifications to the I.F.R.B.

2. To study the present form of the International Frequency List and make recommendations for any changes which are deemed desirable.

3. To report to Sub-committee A within a week.

# 5. Final date for submission to the Conference of forms 1 & 2.

The <u>Chairman</u> recalled that Document 240 R-E specified that form No. 1 must be submitted to the Conference "before July 15, 1947 or as soon after that date as possible," and forms No. 2 "by August 15, 1947." He was of the opinion that since the preparation of the new International Frequency List should not be carried out at too distant a date, it was necessary to set a dead-line for the submission of forms 1 & 2.

(610 R-E)

Several dates were suggested, varying from the United Kingdom's proposal of August 15 for fixed services and September 15 for mobile services, to India's proposal that November 1 be the dead-line for all services.

The Sub-committee finally agreed to a proposal made by the Delegate of the <u>French Colonies</u>, and decided to recommend to Committee 6 that September 15, 1947, should be the date set for the final submission of forms 1 & 2 by all countries.

The <u>Chairman</u> stated, on behalf of the Sub-committee's working group, that if a delegation had not yet completed filling out the forms relative to the needs of its circuits operating on frequencies between 10 kc and 3 Mc, it should not hesitate to deliver at once the forms which it had already filled out for the 3 Mc -30 Mc band.

Reporters:

G. G. Riddell

J. Millot

Chairman:

Carl W. Loeber

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July 22, 1947

Committee 6

### Report

INTERNATIONAL

1947 .

RADIO CONFERENCE APLANTIC CITY

### of Working Group 2 to Subcommittee 6 A.

According to the terms of references given by the Subcommittee 6 A, the Working group 2 submits herewith under Appendix 1 the form which the group thinks fit to serve as the information to be given to the I.F.R.B., for the assignment of frequencies and for the frequency list. In this form the information asked for by Subcommittee 3 A appears under the following numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 24 and 25.

The Working group presents in Annex II a proposal for the frequency list which may be established from the information appearing in Annex 1.

In comparing this proposal for the frequency list with the frequency list (Appendix 8. Cairo Regulations), Column 2, 3 a and 7 b of the frequency list (Appendix 8) do not appear in the proposed list. However the addition of the following columns of the proposed frequency kist were felt necessary 1b, 2b, 7, 8, 9, 11, 13.

Column 8 of old list is replaced by 10 bed.

Similarly column 11 is replaced by 4 b.

The group wishes to draw the attention of the Subcommittee to I, II and III and (1) appearing in Annex 2.

The Chairman of Working group - 2 of Subcommittee 6 A:

/s/ J.J. van Rijsinge

22 July 1947.

## 23 Juil. 1947

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### Annex 1.

Form of notice to central frequency Registration Board of frequency Assignment to fixed, land radionavigation or broadcasting stations.

(1)_	(2) Date of preparation or Notifying Government. Notifying Government.
	(3) Reference to preliminary telegraphic notice, if any
*(4)	Frequency in kc/s. $\underline{a}$ assigned $\underline{b}$ reference.
(5)	Emission.
(6)	Bandwidth in kc/s.
(7)	Power in kW.
	Antenna location.
(8)	A. Country.
(9)	B. Place
(10)	C. Latitude and Longitude
• •	Directivity of antenna (state whether projected or realized).
(11)	a) Azimuth of maximum radiation of areal degrees from true north.
`(12)	b) Width of main lobe.
(13)	c) Gain in db of areal in direction of maximum radiation at frequency.

\* See the remark (I) of Appendix II.

(14) Call sign.

- (15) Class of station.
- (16) Nature of service.
- (17) Location if possible of intended reception if not regions towards which emissions are directed.

- 3 -(611 R-E)

(18) Date put into sérvice.

(19) Maximum hours of use GMT.

(20) Tolerance in percentage,

- (21) Type of telegraphic code. (Morse, Baudot, hell, etc.)
- (22) Operating administration or company.
- (23) Postal and telegraphic address of controlling organization.
- (24) Remarks.

Yes.

No.,

(25) Is this under a regional agreement.

Identify agreement

Signature

, Title

(611 R-E)

Cross, Reference		Annex II	-		
'4 a		a) assigned	Fr		· · ·
+ b	I	b) reference	neq /s		· • /
2	II	a) Date of notification by the country.	Date		2 3
		b) Date of registration for use indicated	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2	-
18		c) date of use	N		
14`		Call sign		3	•
	1	a) name, geographical position of transmitting station and indication of country to which station belongs.	< Circuit	4	• • •
17		b) Location of intended re- ception or regions to which transmission is intended			
15 16		Class of station and nature of service	1.	5	
5.		Type of emission		6	•
6 .		Bandwidth of emission in kc/s		7	•
20		Tolerance in percentage		8	
21		Type of telegraphic code	1	9	



7	. \	a) Power in kW	Rad		
11	,	b) Azimuth of maximum radia- tion of aerial degrees from true north	1ation		
,12	I	c) Width of main lobe,	c ha tic	10	
13	I	d) Gain of aerial in direction of maximum radiation at frequency	s s		
19		Maximum hours of use G.M.T.		11	
22		Operàting administration or <u>Company</u>		15	•
23	III	Telegraphic address of national controlling organization		13	
24		Remarks		<u>1</u> 4	

I. Pending decision of Committee 7 who will be consulted.

II The earliest notification for a country if possible to be noted in 'special type.

III This may be an international organization which may be created.

In degrees and minutes.

### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 612 R-E July 23, 1947

Committee 6

Report

of Subcommittee B of the International Frequency List Committee (Committee 6) Tenth Meeting 17th July 1947

1. The Chairman, Mr. C. E. Arboleda opened the meeting at 10:10 a.m. and the committee first approved without comment the report of the ninth meeting (document 505 R).

2. The <u>Chairman</u> then said that the English text of the final report of the Working Group on Propagation (document 547 R) had been distributed this morning but that the French text would not be available for a few days. It was agreed that discussion of this report be deferred until the next meeting.

3. The <u>Chairman</u> next referred to document 552 R which was a summary of the work of the subcommittee to date. The <u>delegate</u> of <u>Canada</u> referred to para., 1 of this document and suggested an addition which would discourage the practice of transmitting the same intelligence between the same points on several frequencies simultaneously, which is sometimes done in areas of difficult reception in order to ensure complete reception of the signals. It was <u>agreed</u> that this point was covered by para. 1 (b) of document 552 R.

4. The Chairman then drew attention to documents 540 R, 567 R and 573 R which are reports of Sub-Subcommittee 6 B'2. The Chairman of Sub-Subcommittee 6 B 2 explained that these documents were only the reports of various meetings and were not intended as reports to this subcommittee. It was therefore agreed that there should be no discussion of these documents.

5. The Chairman of Sub-Subcommittee 6 B 2 summed up the work of his committee by emphasizing the . difficulty caused by the limited time available for the preparation of the new frequency list which must be ready by the time the new allocation table comes into force. The solution seemed to be to prepare a list recommending only such changes in frequency assignments as would be necessitated by the new allocation table. Starting from this list, when it is approved, the I.F.R.B. would suggest improvements in conformity with the engineering principles agreed here, and would also apply those principles in recommending the solution of interference problems and in recommending frequency assignments for new requirements. The I.F.R.B. would then present its recommendations for approval by the next Radio Administrative Conference. The Chairman of Sub-Subcommittee 6 B 2 concluded by saying that he hoped that the work of the Sub-Subcommittee would be finished next week.

6. The delegate of the United States of America remarked that Committee 7 might also delay the work of Subcommittee 6 B if too long a time were spent in arriving at the answers to the questions put to it by this Subcommittee. He suggested that Committee 7 be asked to supply only such detail, as will enable the answers to become available in a reasonably short time. The Chairman of Committee 6 said that he had already made this suggestion to Committee 7.

7. A very lengthy discussion then ensued on two points raised by the delegate of Bielorussia, viz:-

(i) What body is to draw up the new frequency list?

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(ii) How are any changes in frequency assignment necessitated by the new frequency allocation table to be made, and who is going to make those changes? - 3 -(612 R-E)

8. The delegate of Bielorussia believed that these questions were very important because Sub-Subcommittee 6 B 2 had great difficulty in writing dimectives when it did not know what body was going to receive them. He said that he thought the I.F.R.B. was the appropriate body to compile this new frequency list, but clear limits must be laid down as to what changes the I.F.R.B. could recommend, whilst still preserving the sovereign rights of countries to make their own frequency assignments.

9. The delegate of the United Kingdom said that the I.F.R.B. must start its work with a new frequency list and therefore the I.F.R.B. could not prepare the new list, although this might be prepared by a provisional or interim I.F.R.B. He also said that the movement of frequency assignments to bring them into accord with the new frequency allocation table would have to be coordinated by some central body, for example the provisional I.F.R.B.

10. The <u>delegate of the U.S.A.</u> supported by the <u>delegate of Ohina agreed with the U.K.</u> remarks and <u>so pointed out that the I.F.R.B.</u> can do nothing until the ratification of the new Convention, so that in order to get on with this task quickly an interim body must be set up by this conference.

11. The <u>delegate of Canada</u> said that although the I.F.R.B. could not do the work of preparing the new list, the personnel of the I.F.R.B. were the best people to do it. He therefore suggested that an ad hoc committee be set up by this conference consisting of the persons elected to serve on the I.F.R.B. to prepare the new frequency list.

12. The <u>delegate of India</u> said that the sovereign rights of <u>nations</u> to assign and list their own frequencies were involved here and we must be careful not light-heartedly to make these rights over to any organization.

13. The <u>delegate of the USS\_R said</u> that the group which prepares the new list must meet with the approval of all countries. He said that the Berne Bureau, possibly with some additional technical assistance would be the best body to do this work since it has the necessary staff and facilities and is recognized and

## (612 R-E)

approved by all countries. Finally he said that no changes in frequency assignments could be made without the approval of the administration concerned.

14. The <u>delegate of Canada</u> pointed out that the body preparing the new frequency list would present the list as a report to a later session of this conference and all countries would have an opportunity to protect their sovereign rights in discussing the report at that session.

15. The <u>delegate of France</u> agreed with the U.K. and the U.S.A. that the I.F.R.B. could not compile the new list but suggested that this could best be done by an ad hoc committee elected in the same way as the I.F.R.B.

16. The <u>delegate</u> of <u>Switzerland</u> said that he believed the Berne Bureau with some specialist assistance could prepare the list.

17. After some further discussion it was <u>agreed</u> that Subcommittee 6 B recommends to Committee 6 that the two questions raised by Bielorussia be discussed in that Committee and also that the Bureau of the Union be asked to advise Committee 6 on the facilities available for carrying out the work of preparing a néw frequency list.

18. There being no further business the meeting was adjourned at 1:00 p.m.

Reporters:

### Chairman:

Squadron Leader A. FRY

C. E. ÁRBOLEDA,

H. A. LEROGNON

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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Document No. 613 R-E

July 23, 1947

Committee 6

of the Sub-subcommittee 2 of Subcommittee B of the International Frequency List Committee (Committee 6)

Report

12th Meeting July 17, 1947

Recommended procedure for handling requests for frequency allocations which may be submitted during the period of preparation of the new International Frequency List.

This question had been discussed in previous meetings without the Sub-subcommittee having been able to reach an agreement with regard to a recommended procedure. When opening the meeting, the <u>Chairman</u> asked the Delegates whether they had been able to draw up a transactional text on this subject, in the light of the documents submitted by the Organization Committee.

In the following discussion, in which all the members of the Sub-subcommittee participated, the viewpoints already expressed in earlier meetings were again presented. In particular, the Delegate from India stated that he could not accept a compromise regarding the fundamental principle which is to govern the procedure of the preparation of the new International List. In his opinion, the right to allocate frequencies primarily belongs to each country in as far as it is concerned. Before yielding this right to an international Committee, he hoped that all precautions would be taken so that the frequency allocations might be, made by this Committee in the most equitable manner possible. He could not acquiesce in the notion of a committee empowered to "outlaw frequencies."

In order to reach a solution, the <u>Chairman</u> then proposed a compromise which would consist in adopting the text submitted by Bielorussia, amended by the United Kingdom and the United States, and slightly modified in form:

"Every effort shall be made so that the greatest possible number of frequencies be recorded in the Registration Column. To this end, the entry of the allocations shall be made in conformity with the directives issued by the present Conference and shall follow the chronological order of the notification dates indicated in column 3(a) of the Frequency List published by the Bureau of the International Telecommunications Union, beginning with the earliest notifications. In case it is not possible to record all the allocations in the Registration Column, the remaining allocations shall be recorded in the Notification Column, taking into account their relative priorities. For those frequency allocations which have not been notified to the Bureau of the International Telecommunications Union, September 15, 1947, will be considered as the date of notification for frequencies already in use; for frequencies not yet in use, the date indicated in Forms 1 and 2 shall be considered the notification date."

This text was accepted by the Delegates present with the exception of the Delegate from India.

Before proceeding to the discussion of other pending questions, the <u>Chairman</u> invited the Delegates to inform the Sub-subcommittee of the points which, in their opinion, should be considered in the Practical Instructions.

The Delegaté from <u>Great Eritain</u> suggested that the following directives should be discussed:

- (a) Directives in regard to services operating on very low powers and which do not seem to have international significance from the standpoint of interference;
- (b) Directives in-regard to regional agreements now in force and which could not be fulfilled prior to the ratification of the new International Frequency List;
- (c) Directives in regard to the method of making allowance for all the reservations which may be made by Committee 5;
- (d) Special directives in regard to certain points raised by the Delegations of Canada and India, especially the question

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of widened bands, shifted bands, narrowed bands, etc....

/ Moreover, the Delegate from <u>Great Britain</u> wished the Sub-subcommittee to examine the question whether the body which would draw up the International Frequency List would have the necessary authority to make arrangements in the sub-bands for allocating frequencies assigned to stations in the aeronautical or maritime services.

# 3. <u>Directives in regard to allocations in bands used</u> <u>concurrently by several services:</u>

The text proposed by the Delegation from India, par. 11, was then debated.

"S ll: In the case of bands assigned to more than one service on a sharing basis, the following principles shall be adopted in the order given.

a) Allocations in the shared bands shall be made only after allocations in the exclusive bands according to the above stipulated principles have been completed."

In answer to a question raised by the Delegate from <u>Great Britain</u>, the Delegate from <u>India</u> explained that the body which would draw up the new International Frequency List should proceed as follows:

It would begin by placing in the exclusive bands all requests for allocations on Forms 1 and 2; when the exclusive bands were filled, allocations would gradually be made in the shared bands; in other words, the allocations of the earliest date would be placed first in the exclusive bands.

The Delegate from <u>Great Britain</u>, while admitting that the principle of this method was sound enough, observed that a clearer directive should be drafted recommending that "the power of transmitters in shared bands shall be of the same order of magnitude." He pointed out how dangerous it would be to place a 50 kilowatt station in a band shared with the fixed aeronautical service, where the average transmitting power is 1 kilowatt. In his view, priority rights should not be the sole guide in allocating frequencies.

In the opinion of the Delegate from <u>Bielorussia</u>, the body which will be called upon to work out the new International Frequency List should take into account the power of the stations sharing the same frequency, as well as the number of these stations. Moreover, he thought it necessary to establish the basic principles for the procedure which would govern the arrangement of bands shared according to regional agreements, so that these bands might be used under the best possible conditions.

As the text submitted by the Delegate from India did not seem sufficiently clear to the other members of the Sub-subcommittee, the <u>Chairman</u> suggested to the Delegate of <u>India</u> that he prepare a transactional text for the next meeting. The Delegate from <u>India</u> agreed to this suggestion.

The Sub-subcommittee then proceeded to the study of subparagraph (b) of paragraph 11:

"(b) In shared bands, frequencies shall be allocated by regions in such manner that the band under consideration be used only for the specific service most essential in each region, while retaining geographical sharing and all other divisions necessary to avoid interference. In so doing, the priority granted to any given service in the band under consideration, according to the Allocation Table, is to be taken into account."

In this paragraph, the Delegation from <u>India</u> referred to those bands which, in accordance with the decision of Committee 5, would be shared between two services, with the provision that neither of these services should be obstructed by the other. In the opinion of the Delegate from India, the same band could be used by one service in a certain region of the world and by another service in another region.

This explanation was followed by an exchange of views between the Delegates from the <u>United</u> <u>States, Great Britain and India</u>, from which it appeared that the Delegations had not yet had an opportunity to study the last report of Committee 5 published that same day; it was therefore decided that this discussion would be taken up again at the next meeting.

### 4.' <u>Directives in regard to the arrangement</u> of bands subject to regional agreements.

(613 R-E)

The <u>Chairman</u> reminded the meeting that there were exclusive bands, arrangements for which had been settled by regional agreements, but which had meanwhile become shared bands. This situation would render allocation procedure in these bands especially delicate when the new International Frequency List was being prepared.

An exchange of views took place on this subject between the Delegates from the <u>United States</u> and <u>Great Britain</u>, which showed that the Sub-subcommittee should recommend a speedy conclusion of those regional agreements which might be made necessary as a result of the provisions contained in the new Allocation Table. Furthermore, the Sub-subcommittee should make it clear in its recommendation that the regional agreements thus concluded could not be put in force before being brought to the cognizance of that body which is to prepare the International Frequency List.

Upon being invited by the <u>Chairman</u>, the Delegate from <u>Great Britain</u> consented to prepare the text for a directive to be submitted to the Sub-subcommittee in its next meeting on Tuesday, July 22 at 3:30 P.M.

#### Chairman:

### L. Bramel de Clejoulx

Rapporteurs:

D. D. Donald J. Millot

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

July 24, 1947

Second List of Corrections and Suggested Amendments to Document No. 568 R-E

The following amendments are suggested:

Page 6 Band 2000-2850 kc/s

Allocation Column:

Under the heading "Europe" amend the allocations to read as follows:--2000-2045 kc/s

MM a) b) FX (18)(c) LM ( 2045-2065 kc/s Met 2065-2498 kc/s\* (18)(a) Mob (except AeM(R) b FX 2498-2502 kc/s SFB 2502-2625 kc/s (a) Mob((except AeM(R)) (18)(b) FX

2625-2650 kc/s

(a) MM { by regional arrangement. (b) MNA }

2650-2850 kc/s

(a) FX ( (b) Mob (except AEM (R))

The Working Group felt that the question of the application of Note 18 to the band 2650-2850 Kc/s required further discussion at the main Committee.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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Document No. 615 R-E

Committee 7

### Report of the Sub-subcommittee No. 1 of Subcommittee A of General Technical Committee (Committee 7)

Sub-subcommittee No. 7Al was appointed by Subcommittee 7A at its tenth meeting held on June 18, 1947, vide Document 418 R and R-E. Eleven Delegations expressed their desire to participate in the discussions. At the invitation of the Chairman of 7A, the Delegation of India accepted with thanks the Chairmanship of the Sub-subcommittee.

The terms of reference were to consider Article 5 of Cairo (classification of emissions) and prepare a revised text for it.

No meeting could be held for nearly two weeks owing to the difficulty in fitting it into the schedule. It was then decided to hold the meetings outside the schedule.

Four meetings were held at the office of the Delegation of India, Room 1236, Ambassador Hotel, at 8.00/P.M. on July 9, 1947; at 5.30 P.M. on July 10, 1947; at 8.00 P.M. on July 14, 1947; and at 8.00 P.M. on July 17, 1947. The following Delegations were present at the meetings: U.S.A., U.K., France, Portugal, Italy and India.

There were 96 proposals in all, by U.S.A., U.K., France, Canada, Czechoslovakia, Chile and China, concerning this Article, comprising 16 paragraphs (54 to 68 inclusive and 70).

The Sub-subcommittee unanimously agreed that proposals 1646 and 1647 of Chile belonged to Committee 8 and not to Committee 7. It was also agreed, with regard to proposals1645 of Chile and 1598 and 1599 of China, that Type B could not be deleted as it does exist as a classification and reference to it had been made in other parts of the regulations

especially with regard to distress signals. The substance of the proposal 2385 of Czechoslovakia has been incorporated in this report. Proposals 1372, 1384, 1385 and 1390R of France are definitions proper to Article 1 and were therefore not dealt with by this Sub-subcommittee.

There was a detailed discussion on the following questions:

- (a) Title
- b) Preamble

(c) General system of designation

d) System of symbols

(e) Nomenclature

Having arrived at general conclusions on these, the detailed drafting was taken up. The unanimous decisions of the Sub-subcommittee are incorporated in the following revised text for Article 5.

In view of the decisions on the other paragraphs of Cairo Articles, it was decided to delete paras. 66 and 67.

The revised text for Article 5 of Cairo, as it is unanimously recommended by this Sub-subcommittee to appear in the Atlantic City Regulations, is attached (see annex I).

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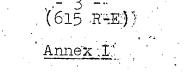
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It is suggested that Appendix 3 attached to Document 500 R and R-E may be amendéd as per annex II of this report insofar as classification and designation are concerned.

7.



### ARTICLE 5

## Designation of Emissions

§ 1.

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Emissions are designated according to their classification and the width of the frequency band occupied by them.

### I. CLASSIFICATION.

2. Emissions are classified according to the following principles:

- (a) The type of modulation
- (b) Type of Communication
- (c) · Supplementary characteristics

### 3. (a) Types of modulation:

SYMBOL

A.

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- (i) Amplitude
- (ii) Frequency (or phase)
- (iii) Pulse

(b) Types of communication:

- (i) Absence of any modulation
- intended to carry information
  (ii) Telegraphy without the use of modulating audio frequency.
  (iii) Telegraphy by the keying of a modulating audio frequency or audio frequencies or by the keying of the modulated emission. As a special case: an
- unkeyed modulated emission. (iv) Telephony (v) Facsimile (vi) Television (vii) Composite and cases not covered
  - ii) Composite and cases not covered by the above
- (c) Supplementary Characteristics:

(i) (ii)	Double side band, Double side band,	full carrier reduced	(None)
	carrier	•	a
(iii)	Single side band,	reduced	•

carrier

	•			
,	· · ·	h		· · · ·
•	•	(615 R-E)		
(	<pre>(v) Pulse, vi) Pulse,</pre>	missions, red amplitude mod width modulat phase (or pos	lulated ced sition)	c d e ,
§ 4. NOTE:	Ag an erce	eption to the	shove prin-	• • •
		amped waves ar	re designated	Ŗ
s 5.	The above follows:	classificatio	ons are tabulate	d as
MODULATION	- TYPE OF C		SUPPLEMENTARY- HARACTERISTICS	SYMBOL
Amplitude Modulated	Absence of a intended to	any modulation carry informs	n ation -	, AO
		without the using audio fre- Off keying)	se -	Al
	a modulating or audio fre the keying of emission.	by the keying g <b>a</b> udio freque equencies or h of the modulat As a special of	ency by ted case: ,	•
、 • <sup>•</sup>	an unkeyed n	nodulated emis	ssion	. A2
•	Telephony		Double Side- band full carrier	A3
			Double Side- band, reduced carrier	АЗа
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	Single Side- band, reduced carrier	A3b
	Facsimile		· _	A4
	Television			A5
	Composite an covered by	nd cases not the above		• A9
5	Composite er	nissions.	Reduced carri	er A9c

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# (615 R-E)

### MODULATION

### TYPE OF COMMUNICATION

SUPPLEMENTARY SYMBOL CHARACTERISTICS

FO

FL

F2

F3

F9

PO

**P1** 

Frequency (or phase) modulated A

modulated Absence of any modulation intended to carry information

> Telegraphy without the use of modulating audio frequency (frequency shift keying)

> Telegraphy by the keying of a modulating audio frequency or audio frequencies, or by the keying of the modulated emission. As a special case: an unkeyed modulated emission.

Telephony

Composite and cases not covered by the above

Pulse Modulated

Absence of any modulation intended to carry information

Telegraphy without the use of modulating audio fre-.quency

Telegraphy by the keying of a modulating audio frequency or audio frequencies, or by the keying of the modulated pulse. As a special case: an unkeyed modulated pulse

Audio frequency or audio frequencies modulating the pulse in amplitude P2d

	•	- 6 - (615 R-E	)
	MODULAT	ION TYPE OF COMMUNICATION.	SUPPLEMENTARY SYMBOL CHARACTERISTICS
			Audio frequency or Audio frequen- cies modulating the width of the pulse P2e
			Audio frequency or audio frequen- cies modulating the phase (or position) of the pulse P2f
•		. Telephony	Amplitude modulated P3d
			Width modulated P3e
,			Phase (or position) modulated P3f
•		Composite and cases not covered by the above II. BANDWID'	P9 IH.
.* ,*	ŝś6.	Wherever the full designation necessary, the symbol for the as given above, may be prefind dicating the width in kilocy cy band occupied by it.	hat class of emission, ixed by numbers in-
	s 7.	Bandwidths of 10 kilocycles pressed to a maximum of two after the decimal.	
	ss 8.	For the bandwidths of various sions, see Appendix 3.	is classes of emis-
	S 5.	The following are examples emissions.	of designation of
		•	•

(615 R-E)

### DESCRIPTION.

9168.

## DESIGNATION.

Telegraphy 25 words per minute, Inter- national Morse Code, carrier modulated by keying only 0.1A1 Telegraphy 525 cycle tone, 25 words per minute; International Morse Code, carrier and tone keyed or tone only keyed 1.15A2 Amplitude modulated telephony, 3000 cycles maximum modulation, double side- band, full carrier 6A3 Amplitude modulated telephony, 3000 cycles maximum modulation, double side- band, carrier reduced 6A3a Amplitude modulated telephony, 3000 cycles maximum modulation, single side- band, reduced carrier 3A3b Vestigial Sideband Television (one side- band partially suppressed),full carrier 4500 A 5 Frequency modulated telephony 3000 cycle modulation 20000 cycle deviation 46F3 Frequency modulated telephony 15000 cycle modulation 20000 cycle deviation 180F3 One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0 NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3) III. NOMENCLATURE: § 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega- cycles per second (Mc) above this frequency.		DTTP/OILTI STOIN .	DIDIOINATION.	
<pre>minute; International Morse Code, carrier and tone keyed or tone only keyed 1.15A2 Amplitude modulated telephony, 3000 cycles maximum modulation, double side- band, full carrier 6A3 Amplitude modulated telephony, 3000 cycles maximum modulation, double side- band, carrier reduced 6A3a Amplitude modulated telephony, 3000 cycles maximum modulation, single side- band, reduced carrier 3A3b Vestigial Sideband Television (one side- band partially suppressed),full carrier 4500 A 5 Frequency modulated telephony 3000 cycle modulation 20000 cycle deviation 46F3 Frequency modulated telephony 15000 cycle deviation 180F3 One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0 NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3) III. NOMENCLATURE: § 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mege-</pre>		national Morse Code, carrier modulated	O.lAl	•
<pre>cycles maximum modulation, double side- band, full carrier 6A3 Amplitude modulated telephony, 3000 cycles maximum modulation, double side- band, carrier reduced 6A3a Amplitude modulated telephony, 3000 cycles maximum modulation, single side- band, reduced carrier 3A3b Vestigial Sideband Television (one side- band partially suppressed),full carrier 4500 A 5 Frequency modulated telephony 3000 cycle modulation 46F3 Frequency modulated telephony 15000 cycle deviation 180F3 One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0 NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3) III. NOMENCLATURE: \$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</pre>		minute, International Morse Code, carrier	1.15A2	· · · · · · · · · · · · · · · · · · ·
<ul> <li>cycles maximum modulation, double sideband, carrier reduced 6A3a</li> <li>Amplitude modulated telephony, 3000</li> <li>cycles maximum modulation, single sideband, reduced carrier 3A3b</li> <li>Vestigial Sideband Television (one sideband partially suppressed),full carrier 4500 A 5</li> <li>Frequency modulated telephony 3000 cycle modulation 20000 cycle deviation 46F3</li> <li>Frequency modulated telephony 15000 cycle deviation 180F3</li> <li>One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0</li> <li>NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3)</li> <li>III. NOMENCLATURE:</li> <li>\$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</li> </ul>		cycles maximum modulation, double side-	` 6A3	•
<pre>cycles maximum modulation, single side- band, reduced carrier. 3A3b Vestigial Sideband Television (one side- band partially suppressed),full carrier 4500 A 5 Frequency modulated telephony 3000 cycle modulation 46F3 Frequency modulated telephony 15000 cycle deviation 180F3 One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0 NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3) III. NOMENCLATURE: \$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</pre>	<b>،</b> .	cycles maximum modulation, double side-	бАЗа	· · ·
<ul> <li>band partially suppressed),full carrier 4500 A 5</li> <li>Frequency modulated telephony 3000 cycle modulation 46F3</li> <li>Frequency modulated telephony 15000 cycle deviation 180F3</li> <li>One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0</li> <li>NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3)</li> <li>III. NOMENCLATURE:</li> <li>§ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</li> </ul>	:	cycles maximum modulation, single side-	3A3D	
<ul> <li>3000 cycle modulation 20000 cycle deviation</li> <li>Frequency modulated telephony 15000 cycle modulation .75000 cycle deviation</li> <li>180F3</li> <li>One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0</li> <li>NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3)</li> <li>III. NOMENCLATURE:</li> <li>\$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</li> </ul>	•		4500 A 5	•
<ul> <li>15000 cycle modulation .75000 cycle deviation</li> <li>0ne-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix 3) 10000 P 0</li> <li>NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3)</li> <li>III. NOMENCLATURE:</li> <li>\$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</li> </ul>	•	3000 cycle modulation	46F3	
<ul> <li>assuming a value of 5 for K (see Appendix 3) 10000 P 0</li> <li>NOTE: In the case of pulse emissions, the method of modulation if any, does not materially affect the bandwidth (see Appendix 3)</li> <li>III. NOMENCLATURE:</li> <li>S 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</li> </ul>		15000 cycle modulation	180F3	
<pre>modulation if any, does not materially affect the bandwidth (see Appendix 3) III. NOMENCLATURE: \$ 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-</pre>		One-microsecond pulses, unmodulated, assuming a value of 5 for K (see Appendix	x 3) 10000 P 0	· . ·
S 10. The frequency assigned to a station shall be indicated by the frequency in kilocycles per second (Kc) at and below 30,000 kilocycles and in mega-		modulation if any, does not mater		
		S 10. The frequency assigned to a indicated by the frequency in kills second (Kc) at and below 30,000 k	ocycles per ilo <mark>cycles and</mark> i	·

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FREQUENCY SUB-DIVISION FREQUENCY RANGE METRIC SÚB-DIVI-SION Very Low Frequency Below 30 kc/s VLF Myriametric Waves 30 to 300 kc/s LF Low Frequency Kilometric Waves MF Medium Frequency 300 to 3000 kc/s Hectometric Waves 3000 kc/s to 30 Mc/s High Frequency Decametric HF Waves 30 Mc/s to 300 Mc/s Very High Frequency VHF Metric Waves Ultra High Frequency 300 Mc/s to 3000 Mc/s UHF Decimetric .Waves` SHF Centimetric Super High Frequency 3000 Mc/s to 30,000 Mc/s Waves 30,000 Mc/s to 300,000 Mc/s EHF Extremely High Millimetric

Frequency

9169

/s/ N. MAHALINGAM

(India)

Waves

CHATRMAN

### An**n**ex II

(SIB R-B)

### Appendix 3

Band of Frequencies Required for Certain Types of Radiocommunication.

The width of the frequency band which is necessary in the overall system, including both the transmitter and the receiver, for the proper reproduction at the receiver of the desired information, does not necessarily correspond to a value indicating the interfering characteristics of an emission.

For the determination of this necessary bandwidth, the following table may be considered as a guide.

In the formulation of the Table, the following working terms have been employed:

B = Telegraph speed in Bands.,

N/T = Maximum possible number of black plus white elements to be transmitted per second, in facsimile and television.

= Maximum modulation frequency expressed in cycles per second.

= Half the difference between the maximum and minimum values of the instantaneous frequencies; D being greater than 2M, greater than N/T or greater than B, as the case may be. Instantaneous frequency is the rate of . change of phase.

= Pulse length expressed in seconds.

An overall factor which differs according to the type of transmission and depends upon the allowable signal distortion and the time lost from the inclusion of a synchronizing signal in television.

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## Table of Necessary Bandwidths

	•		
Description and	Necessary Bandwidth		an the data and a single second the second secon
Classification.	in cycles per second	Examples	
	Amplitude Modulation	D	esignation
Continuous- wave Telegraphy A l	BK K = 5 for fading circuits K = 3 for non-fading circuits	Morse code at 25 words per minute, B = 20, Band is 100. Four-channel multi- plex, 7-unit code, B = 170, Band is 850	0.85A1
Telegraphy modulated at audio fre- quency ) A 2	<pre>BK - 2 M K = 5 for fading     circuits K = 3 for non-fading     circuits</pre>	Morse code at 25 words per minute with 1000-cycle tone, B = 20, Band is 2100.	2.142
Commercial Telephony A 3	M, for single side- band 2M, for double side- band	For ordinary tele- phony, M = 3000 For high-quality telephony, M = 4000	′3 A3 4 A3
Broadcasting	2М	M may lie between 4000 and 10,000 depending upon the quality desired	8_A3 to 20 A3
Facsimile Carrier mod- ulated by tone and by keying A 4	K N/T + 2M K = 1.5	Cylinder diameter 70 mm. Lines per mm., 3.77 Cylinder spæd, 60 rpm Modulation tone, 1800 cps. Band is 4842	4.84A4
Television A 5	K N/T K = 1.5 (This allows for synchronization and filter shaping.) (Note) This band can be appropriately re- duced when a symmet- rical transmission is employed.	An average case em- ploying about 500 lines and symmetri- cal sidebands re- quires a band about 8 x 10 <sup>6</sup> cycles wide.	8000A5 ,

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	m	<b>C</b> 11			Bandwi		
	U O O I O	$\alpha$ T	NOAD	C C C 2277	- UANATTA	A*ha	-
		() I	11001010	5 5 C / Y	1761.111.W	11113	

Description and	Necessary Bandwidth in cycles per second	Examples	
Classification	Frequency Modulation		Designa- tion
Frequency- shift Telegraphy F l	<pre>BK + 2 D K = 5 for fading     circuits K = 3 for non-fading     circuits</pre>	Four-channel multiplex with 7-unit code and D = 425, Band is 1700	1.7Fl
Commercial Telephony and Broadcasting F 3	2 M + 2 DK For commercial tele- phony, K = 1. For high-fidelity trans- mission, higher values of K may be necessary	For an average case of commer- cial telephony . with D = 15,000, M = 3000, the Band is 36,000.	36F3
Facsimile F <sup>4</sup>	K N/T - 2 M - 2 D K = 1.5	Cylinder diameter, 70 mm Lines per mm, 3.77 Cylinder speed, 60 rpm. Modulation tone: 1800 D = 10,000 Band is 25,000 (ap- proximately)	25F4
genege were were en internet weren en e	Pulse Emissions	9 19 9 9 9 9 9 9	······································
Unmodulated pulse P O	2 K/t K varies from 1 to 10 according to the permissible devia- tion in each par- ticular case from a rectangular pulse shape. In many cases the value of K does not need to exceed 6.	$t = 3 \times 10^{-6}$ K = 6 Band is 4 x $10^{6}$	4000P0
Modulated pulse P 2 or P 3	The band depends up- on the particular types of modulation used, and many of these are still in the developmental ` stage.		

Document No. 616 R-E

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Committee 7

Report of Subcommittee B of the General Technical Committee (Committee 7)

> 18th Meeting July 23, 1947

1. The meeting was opened at 3:30 P.M. by the Chairman, Mr. Hecht. The report of the 16th meeting (Document No. 560 R-E) was approved without comment.

The report of the 17th meeting (Document No. 580 R-E) was approved after several small typographical modifications. The English text: page 2, last paragraph, read "letter" instead of "latter"; and in the same paragraph replace "Document No. 533 R-E" by "Document No. 553 R-E."

2. The debate on appendix 2 was resumed. The Chairman summed up the question, by pointing out that three solutions were possible:

- to retain appendix 2 as it stands

- to redraft it

- to delete it altogether.

3. The Delegate from France expressed his preference for the deletion of appendix 2, but, should its retention be decided upon, he proposed for band 10 kc/s - lower limit of the radio band - to keep the first part of the specifications on the Cairo table, and for the upper limit of the radio band - 30,000 kc/s, to keep the 2nd part of the present table. However, for the radio band, it would be advisable to have a text similar to the 2nd part of the text of the Cairo table, by replacing 200 milliwatts by 25 milliwatts, while emphasizing that within this band the antennas are usually high in comparison to the wave length, and that the harmonics may be under excellent conditions for long-distance propagation. (616 R-E)

The Delegate from the <u>United States'</u> expressed his preference for leaving the appendix as it stands, and to entrust the C.C.I.R. with the study of new opinions upon this question.

The Delegate from <u>Bielorussia</u> pointed out that the measurement of fields at a distance of 5 km is of no significance, either because this distance is too small as in the case of the longer waves, or because it is too long as for the waves of the 500-1500 kc/s range. He therefore supported conditions in which only power is involved; he was of the opinion that no specifications should be given for the 1500 kc/s - 3000 kc/s range.

After a long debate in which the Delegates from the Netherlands, Belgium, France. Switzerland, the United States, and of Bielorussia participated, the following proposed draft, which might be acceptable to the various Delegations, was drawn up:

In the 10 kc/s - 1500 kc/s band, for transmitters with power lower than 250 W, the power of a harmonic in the antenna must be less than 25 milliwatts; for the transmitters with power above 250 watts, the power of a harmonic in the antenna must always be 40 db below the power of the fundamental.

In the 1500 -3000 kc/s band, for transmitters with power lower than 1 kW, the power of a harmonic in the antenna must be 40 db below the fundamental; and for transmitters with power above 1 kW, the power of a harmonic in the antenna must be below 100 milliwatts.

In the 3000 kc/s - 30,000 kc/s band, for transmitters with power lower than 2 kW, the power of the harmonic in the antenna must always be 40 db below the fundamental; and for transmitters with a power above 2 kW, this harmonic power must not exceed 200 milliwatts.

This wording might have been acceptable to the Delegations present. However, the Delegation from Italy having proposed that within the 10 - 1500 kc/s range a different limit be specified for the high power transmitters (for instance, 50 db for transmitters of over 100 kW), the debate was postponed until the next meeting in order to give the delegates an opportunity to study this particular point. 4. The <u>Chairman</u> then submitted to the Subcommittee the proposed draft of article 22 included in Document No. 579 R. Upon the proposal of the Delegate from the <u>United States</u>, the title of article 22 was worded as follows: "Interference and tests," whereupon, in accordance with a proposal of the <u>French</u> Delegate, it was decided that this article would be presented with a division into several parts; as indicated in the annex of the present report.

5. The meeting was adjourned after the Delegate from the <u>United States</u> hid pointed out that the subject of the new paragraph relating to the use of passive reflectors (Document 579 R-E. page 3, no. 10) had already given rise to discussion in Committee 8 which had decided that this question came first of all within the competence of the Conference for the Safety of Human Life at Sea. The debate on this subject will be resumed at the next meeting.

The Rapporteurs:

The Chairman:

N. F. S. Hecht

S. Jefferson

C. Mercier

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Anne <b>x</b>		port of the ubcommittee		eting	1
	Draft	of article	22		
Arti	cle 22 - 1	Interferenc	e and te	sts.	· ·
Ref. Ço Cairo	.I. (	General Int	erferenc	e	ι.
525 - 1.	See doc.	579 R-E, p	age 2 -	wording o	£ 525
529 - 2.	11 19	•	11	***	529
78 - 3.	11 B		ff .	·	78
528 - 4.	11 11		THN 1	. <del></del>	528
Note 2 - 5.	11 11		11	منت . ع	Note 2.
Appendix 2	•	•		· · ·	
	. II. II	ndustrial I	nterfere	nce.	•
538 - 6.	See doc.	579 R-E, p	age 3 -	wording o	f 538
•	III. Sj	pecial Case	s.		
530 - 7. New 8.	See doc.	579 R-E, p		ording of New	530
	. IV. Te	ests.		•	• • •
527 - 9.	See doc.	579 R-E, p	age 2 -	wording o	f 527.
· · ·	<i>.</i> .		". 3		531
532 - 11	· ti ti	, , , , , , , , , , , , , , , , , , ,	".3	11	532
	V. Co	omplaints o	n Interf	erence.	• •
534 - ia	See doc	. 579 R-E,	page 4 -	wording	of 534
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536 - b)	11 (1		11	11 V	536
537 - c)			ff	11	537
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INTERNATIONAL RADIO'CONFERENCE ATLANTIC CITY 1947

Document No. 617 R-E

July 24, 1947

### MINUTES

OF THE THIRD PLENARY SESSION

JULY 22, 1947.

The meeting was called to order at 6:15 p.m. by Mr. Charles R. Denny, Chairman of the Conference.

The Agenda was as follows:

Approval of the Minutes of the second Plenary Session (Document No. 299 R-E).

- 2. Admission of International. Organizations.
  - (a) U<sub>1</sub>.I.R. (Document No. 299 R-E).
  - (b) Commercial Telegraphers' Union (Document No. 491 R-E).
  - (c) American Communications Association (Document No. 335 R-E).
  - (d) International Chamber of Commerce (Document 491 R-E).

3. Representation of the S.C.A.P. (Supreme Command of the Allied Powers-Japan) (Document No. 491 R-E).

4. Representation of Albania (Document 491 R-E).

5. Proxy Voting (Document 491 R-E).

- (a) Representation of El Salvador by the
- members of the Guatemalan Delegation.
- (b) Representation of Syria by the Head
- of the Egyptian Delegation.

6. Communications.

7. Miscellaneous.

The Chairman called attention to Document No. 299 R-E of June 11, 1947, in which the minutes of the second Plenary Session were published. He asked if there were any comments with regard to the minutes.

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### - 2 -(617 R-E)

Mr. <u>Gnene</u>, Head of the Italian Delegation, referring to the statement made by Mr. Alexander Fortoushenko, Head of the Delegation from the Union of Soviet Socialist Republics, on the subject of the invention of Radio (see pages 6 and 7 of the abovementioned document) recalled that the Italian Delegation had had a memorandum published on this particular point: (Document No. 483 R-E, amended by Document 516 R-E). He requested that this memorandum be incorporated in the minutes of the present session. The Chairman noted this request.

The memorandum in question reads as follows:

# on the Invention of Radio

At the plenary session of June 5, the Chairman of the Delegation of the Union of Socialist Soviet Republics stated that the invention of radio had been incorrectly ascribed to Marconi and that the Supreme Court of the United States has confirmed that Marconi was not the first to use radio as a means of communication.

The Italian Delegation has no intention of starting a discussion at our Conference, particularly since it has no knowledge of the documents which, according to the statement of the Chairman of the Delegation of the U.S.S.R., are incontestable. The Italian Delegation, therefore, will confine itself to a few comments on the subject of ce tain facts which were recalled to mind.

The reports of the Supreme Court of the United States of 1942, volume 320, pages 1731 to 1773 and volume 57, section 13, of June 21, 1943, refer to a suit brought by the Marconi Wireless Telegraph Company of America against the "United States" (No. 369) and the counter-suit brought by the "United States" (No. 373) against the Marconi Company, involving a claim for indemnity, which had not been allowed, for violation of four patents, property of the Marconi Wireless.

On page 1752 of these reports, the Supreme Court, after recalling the work of MAXWELL, HERTZ, TESLA and PUPIN, stated: "The fact that Marconi is recognized as the man who first successfully achieved radiocommunication, is is evident from his original patent, which was confirmed by Patent No. 11913, and is not here in question. This reputation, which is well deserved, etc..."

In these same reports the name of Popoff does not appear.

(617 R-E)

As far as the original patent of Margoni is concerned, it is correct that it was obtained in the United States on July 13, 1897, confirmed on June 4, 1901, and that this same original patent was granted by the United Kingdom in July, 1897. But it must be remembered that, in both countries, application was made for the original patent in 1896 (to be precise, June 2, 1896, under No. 12039 of the United Kingdom), after the brilliant result of the PONTECCHIO experiments (in the Spring of 1895), and the successive studies and tests made in London under the auspices of the "General Post Office."

Let us now refer to the preliminary Wireless Conference, convened by the German Government in Berlin on the 4th of August, 1903.

During this Conference, Mr. KRAETKE, Secretary of State of the Post Office Department of the German Empire, declared that:

"In 1895, POPOFF, during research work with the object of studying electric atmospheric disturbances, conceived of producing telegraph signals by means of Hertzian waves; to him we owe the first radio apparatus."

Mr. Kraetke added: "MARCONI, by being the first to use an antenna with the apparatus of a transmitter, opened new possibilities for the practical operation of Wireless."

Mr. SOLARI, the Italian Delegate, declared in turn: "An impartial study of the history of radio shows that in 1896 GUGLIELMO MARCONI was in fact the first to succeed in transmitting telegrams by means of Hertzian oscillations."

Both these declarations, included on pages 13 and 45 of the Acts of the Berlin Conference, were not contradicted by anyone, not even by Professor POPOFF who was a member of the Russian Delegation. In addition, we find in the <u>Enciklopedicesky</u> <u>Slovar-Petersbourg 1906</u>, (photographically reproduced in No. 64 in the Italian review: Sapere, of August 31, 1937), under the name of <u>Marconi</u>: MARCONI (Wilhelm M.) Italian électrical engineer, was the first to put into practical effect the idea of wireless telegraphy, by means of electromagnetic waves.

Moreover, the Italian Delegation wishes to recall the fact that the Royal Academy of Sciences of Sweden gave the Nobel prize in Physics for the year 1909 to GUGLIELMO MARCONI and FERDINAND BRAUN, in appreciation of their merit in developing wireless telegraphy. The President of the Academy, HILDEBRAND, in his official speech, after having recalled the importance of the invention, payed tribute to the eminent scholars who, by their work in the field of mathematical and experimental physics, had made the practical uses possible. He quoted the names of FARADAY, MAXWELL, and HERTZ.

In the speech delivered by Hildebrand, we note the following passage in particular:

"But, from the relatively unimportant laboratory experiments in the course of which electric waves could only be made manifest over a distance of a few meters, to the transmission of signals over long distances, there was a great step. There was need of a man who would be aware of the possibility of the undertaking, and capable of surmounting all the difficul-, ties of various kinds which hindered the realization. of his idea. This brilliant achievement was to fall to GUGLIELMO MARCONI. If the significance of such an undertaking had been correctly interpreted, and if the potentialities of the preliminary work had been realized, the honor of having initiated the first important steps belongs unquestionably to Marconi. We must recognize with all good will that the first success was achieved thanks to his skill in combining and perfecting the multiple elements in order to make them into a practical and usable system, and to the indomitable energy with which he pursued the goal he had set himself.

In ending this speech, the Italian Delegation wished to pay tribute to the great men of different' countries, who created and developed radiotechnique, on which we base the research and adoption of the most useful measures to attain the perfection and development of radiocommunication services.

G. Gneme

617 R-E)

The minutes of the second Plenary Session were adopted.

The Delegate from Egypt proposed to the Chairman a slight modification in the order of the questions to be put up for discussion. He recommended that item 5 be considered before the other items appearing in the agenda. The item concerns Proxy Voting in the following cases:

- a) Representation of El Salvador by the members of the Guatemalan Delegation;
- b) Representation of Syria by the Head of the Egyptian Delegation.

The Chairman recalled that the question had been raised as to whether or not the present Internal Regulations permitted proxy voting. The Chair had stated that in its opinion, the present Regulations do not permit proxy voting. The question had been discussed at length and had been satisfactorily decided. If the Honorable Delegate from Egypt agrees, said the Chairman, I shall suggest that we adopt for the Radio Conference the ruling which was adopted and put into effect at the Plenipotentiary Conference with regard to proxy voting. In order to avoid confusion I propose that § 2 of Article 18 of the Internal Regulations of the Plenipotentiary Conference be adopted in place of g 2 of Article 19 of the Internal Regulations of the Radio Conference. That would settle the whole of question 5 [5 (a) and 5 (b) of the agenda.

The proposal was adopted.

As a result, Article 19 § 2 of the Internal Regulations of the Radio Conference (Document 322 R-E) will henceforth read:

"§ 2. Each Delegation may vote only once for the country or the group of countries that it represents.

However, if the representation of one country has been entrusted to the

### delegation of another country, the latter delegation may also vote on behalf of the aforesaid country. No delegation shall be allowed to vote for more than two countries. However, the Delegations of the United Kingdom of Great Britain and of the United States of America may vote for their colonies, protectorates and territories as a group."

(617.R-E)

The <u>Chairman</u> then took up the question of the admission of international organizations to the Radio Conference. He proposed that the Admissions be considered in the order indicated in Document No. 575 R-E:

He therefore submitted to the Assembly the question of the U.I.R. In this connection, he recapitulated briefly the discussions which had taken place during the previous meetings. You will doubtless remember, he said, that the international organizations which had applied for admission had been provisionally approved at the time of our first Plenary Session on the following condition: in case any country whatsoever objected to the admission of any one of these organizations the aforesaid country would submit its objection to the Steering Committee which would consider it and pass on its findings to the Plenary Session.

Objections were raised with regard to the admission of the U.I.R., and this question was discussed in detail at a meeting of the Executive Subcommittee which, by a divided vote, recommended to the second Plenary Session that the U.I.R. be admitted as an observer.

This recommendation was again discussed in detail during the second Plenary Session. This discussion is recorded in Document No. 299 R-E. One of the points under consideration by the Plenary Session was a request from the President of the U.I.R. asking that, if the admission of this organization was meeting with opposition, the final decision be postponed until the arrival at Atlantic City of Mr. Conus, President of the U.I.R., who wished to present the case of this agency before the Plenary Session.

The Irish Delegation proposed that the question of the admission of the U.I.R. be postponed until the arrival of Mr. Conus.

/This proposal was adopted.

Since Mr. Conus is present, it is advisable to consider this question now, and to come to a decision. The Chairman asked if any of the delegates wished to make a statement on this subject.

(617 R-E)

Acceding to the desire expressed by the Delegate from <u>Ireland</u>, the <u>Chairman</u> requested the representative of the U.I.R. to set forth his arguments.

Mr. Conus thereupon made the statement quoted below:

"Mr. Chairman, Gentlemen, In the first place, I wish to pay homage to this Assembly which at its meeting on June 5, considered it fair and honorable to hear the vindication of the International Broadcasting Union, in the matter of the grievances publicly expressed here in opposition to the admission of this international organization to the Atlantic City Conferences. In behalf of the U.I.R., I wish to thank your honorable Assembly for this courtesy, which is consistent with the fine chivalrous traditions which have heretofore always been held in high esteem in the International Telecommunications Conferences.

Citing as supporting documents, the circular of the Bureau of the International Telecommunication Union of January 31, 1947, note No. 2648 sent by the United States Government to the Swiss Government on whose territory the U.I.R. has its headquarters, Article 35 of the Cairo General Radio Regulations, and Article 20 \$2 of the Madrid Convention, as well as Article 2 of the Internal Regulations annexed to this Convention, the Internal Regulations annexed to this Convention, the International Broadcasting Union made a request in due form for admission to the International Conferences at Atlantic City. Doubtless, Mr. Chairman, and Gentlemen, you expect me to give the grounds on which the U.I.R. based its request for admission. Here are some of the principle ones:

The International Broadcasting Union is the oldest international broadcasting organization. It was founded April 24, 1925 in Geneva by the broadcasting organizations of Great Britain, France, Germany, Austria, Poland, Switzerland, Spain, the Netherlands and Belgium. During subsequent years all the European broadcasting organizations joined as active members and a large number of enterprises from other continents joined as associate members. In the spring of 1939, that is, before the Second World War, the U. I. R. had 34 active members, 1 special member, and 23 associate members.

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In 1926, the U. I. R. founded and later equipped, supported and operated the Brussels Control Center, which is still as of today, I wish to emphasize this fact, the exclusive property of the U. I. R.

In 1926 also, the U, I. R. constituted a Technical Committee, a Legal Committee, a Committee on Intellectual, Artistic and Social Relations, and lastly in 1928, a Committee on International Relays. All of these committees performed extensive, extremely useful and productive functions until the war interrupted their work.

I cannot enumerate here in detail the many and bold enterprises which have been undertaken and brought to a successful conclusion by the U. I. R. during its long existence, nor could I recall all the many missions and tasks which it has been able to accomplish with distinction. The list would be too long. I shall limit myself to a brief outline thereof:

> 1925: European Conference of Radiotelephony Engineers at Geneva, which led to the drawing up and putting into effect of the first Allocation Plan, namely, the Geneva Plan, in November 1925;

> 1927: Meetings in Brussels of the Technical Committee and of a Plenary Conference of European Radiotelephony Engineers, for the purpose of drafting proposals for the Washington Conference;

It was also in 1927 that the U. I. R. decided upon the creation of its Control Center at Brussels.

1929: Convening of the European Radio Conference at Prague, which resulted in the drawing up of the Prague Plan;

1932: Participation in the International Telecommunications Conference at Madrid. On this occasion, the U. I. R. received its first official recognition, since the Radiocommunications Conference assigned to it, as official expert, the task of studying and drawing up a plan for frequency allocations in preparation for the (617 R-E)

European Broadcasting Conference at Lucerne.

1933:

European Broadcasting Conference at Lucerne.

:1934:

Putting into effect the Lucerne Plan during the night of January 15, 1934, with the assistance and under the supervision of the Control Center of the U.I.R. at Brussels.

1936:

Intercontinental Conference on Broadcasting Organiz tions at Paris.

1937:

Participation in the Intercontinental Conference of the Administrations of the P.T.T. at Bucharest, for the purpose of preparing for the Radiocommunications Conference which was to take place in Cairo the following year.

During this meeting, - this will perhaps make you smile, Mr. Chairman and Gentlemen - the U.I.R. was already attracting the attention of the administrations of the P.T.T., by several resolutions stressing the urgent need for drawing up a rational world plan for the utilization of short wayes. That happened exactly 10 years ago.

1938:

Cairo Radio Conference with official mandate to prepare a new draft of frequency allocations intended for the European Broadcasting Conference at Montreux.

1939, finally: European Broadcasting Conference at Montreux.

In addition to the activities which I have just summarized, dealing principally with the field of frequency allocation and related problems, the U.I.R. has, through its Technical Committee, taken part in and cooperated actively in numerous projects and studies on the most diverse problems of radio technique, such as the struggle to overcome the problem of disturbances, study of wave propagation and modulation, improvement of transoceanic relays, registration, acoustical problems, television, close collaboration with the

#### C.C.I.R. and C.C.I.F., etc.

Since its inception, the U.I.R. has assembled and is still assembling at the present time comprehensive documentation on the experiments being made throughout the world on the subject of broadcasting in its technical, juridical, artistic, and administrative aspects, and in development of programs. The U.I.R. transmits this documentation not only to its own members but also to all European and non-European enterprises who request it. Since 1925, it has been publishing a monthly bulletin of information and popularization.

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Among the questions which were the subject of study and of recommendations by its Judicial Committee, I shall mention in particular: the right of authorship, the right to transmit, the right to use antennas, the right of performers, relations between radio and the theatre, radio and artists, the fight against electrical interferences, judicial problems relating to registration, the assessment of radiophonic installations, political propaganda, publicity, safeguarding radiophonic transmissions against commercial exploitation by third parties, relations of broadcasting organizations with the record and cinema industries, exchange of printed programs in advance, etc.

In the field of programs as such, the U.I.R. took actions which were highly successful and universally appreciated especially in relation to transmissions of registration, international exchange of artists, exchange of registrations, collaboration with the International Institute of Intellectual Cooperation, intellectual, artistic and social relations, organization of European and world concerts, collaboration with the International Association of Workers' Leisure, exchange of musical scores, assistance to radiotelephone reporters abroad, sound records, broadcasting and television terminology, statistics and inquiries of all kinds.

It seems to me that the time has come, Mr. Chairman and Gentlemen, to point out -- and I call your attention very specifically to this extremely important point in my statement -- that the status of technical expert was officially granted to the U.I.R. in a special article -- Article 11 -- of the European Broadcasting Convention of Lucerne. This Convention, which is still in force at the present time, bears the signatures of most of the European countries represented at the Atlantic City Conferences, including Belgium, the Union of Soviet Socialist Republics and Yugoslavia.

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If you refer to the Cairo General Radio Regulations, No. 773, you will see that the Cairo Conference expressly and officially designated the U.I.R. as an international organization which is part of the C.C.I.R. The Additional Protocol to the acts of the International Radio Conference at Cairo as well as the document annexed to the Additional Protocol confirm once more the status of the U.I.R. as an official expert. The General Regulations as well as the Additional Protocol of Cairo are still in effect at the present time. These two agreements also bear the signature of most of the European countries represented at this Conference, including Belgium, Bulgaria, the Netherlands, Union of Soviet Socialist Republics, and Yugoslavia.

Finally I shall point out, as a reminder, that the Montreux Plan, which is an integral part of the European Broadcasting Convention of Montreux, provides in Article 8 that the U.I.R. is officially admitted as an expert "to European Broadcasting Conferences." Among the signatories to this Convention, I shall mention Belgium, Bulgaria, the Netherlands and Yugoslavia.

Mr. Chairman, Gentlemen, I have just sketched a very brief picture of the letters patent of nobility of the International Broadcasting Union. I apologize for the length of time it has taken to draw this picture, but since there was a desire to put the U.I.R. on trial here, you will no doubt forgive me for having emphasized the rights as well as the true, considerable and incontestable merits of the U.I.R. I have complete confidence in your spirit of fairness and justice, Mr. Chairman and Gentlemen, and am sure that you will take these matters into consideration in your judgments.

On reading the Report of the Executive Subcommittee of Committee 2, dated May 22, 1947 and the minutes of the Second Plenary Session of the Radio Conference, dated June 5, 1947, I observe that certain delegations opposed the admission of the U.I.R. to these Conferences. The arguments given in favor of this exclusion are, briefly and according to these minutes, as follows:

... The International Broadcasting Union is a 'deceased' organization.

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2. The International Broadcasting Union has Franco Spain as one of its members.

3. The International Broadcasting Union should give way to the O.I.R. in Brussels, whose aims are identical and which has a greater number of members. The O.I.R. is, in addition, the only European organization which is active from the technical point of view and which has a well organized Control Center.

4. The U.I.R. suffered Axis influence during the war; the Control office was operated by the German administrators. The Belgian Delegation vehemently reproaches the U.I.R. for having permitted Belgian broadcasting to be represented at its meetings by these very same administrators.

I believe that I have made an objective summary of this indictment.

Mr. Chairman and Gentlemen; I am not a lawyer. If I were, I think that I should only have had cause to rejoice at the opportunity to defend so simple a case. Hence, I shall not employ legal arguments in my speech for the defense; 'I shall limit myself to an appeal to common sense.

The International Broadcasting Union is, they say, a 'deceased' organization. I imagine that some would very willingly be present at a first class funeral for the U.I.R. and that they would even assume the expenses of it with pleasure. I can, however, reassure our friends. The U.I.R. however dead it is supposed to be, is in vigorous health. Granted that it is recovering from a serious illness, it is now, thank Heaven, on the road to full recovery. It is duly constituted; as in the past, it possesses a Council in which all its members - not merely certain privileged ones - are represented. Its members pay their dues regularly. . It has at Geneva, an office and a skilled, experienced and tested personnel which, I assure you, does not remain idle. The Council of the General Assembly of . the U.I.R. has recently held its statutory meeting, and has given proof of a vitality, of a spirit of solidarity and of initiative, the effects of which,

you may well believe, will soon be apparent. The U.I.R. will live - it has the will and the means - until such time as the unity of European broadcasting organizations has been brought about in the way the U.I.R. conceives this unity should exist.

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I now come to the second grievance: The International Broadcasting Union numbers Franco-Spain among its members.

During the Plenary Session of June 5, the honorable Head of the Delegation from Great Britain replied in a very pertinent manner to this objection. I am happy to have the opportunity here to thank him most cordially. This reply appears on pages 25 and 26 of Document No. 299 R-E, and you doubtless still remember it. It needs no commentary. Nevertheless, I shall permit myself to add this: 'Franco' Spain is not affiliated with the U.I.R. Only Spanish Broadcasting is a member of U.I.R. There is an essential difference here which cannot be ignored.

Spanish Broadcasting is one of the founders of the U.I.R. Consequently, it had adhered to our organization long before the advent of the Franco regime.

According to the terms of the U.I.R. statutes, any government agency in the European region operating a broadcasting service is admitted as a matter of right into this organization. The Spanish Broadcasting Service plainly fulfills these conditions. I draw your attention to the fact that these statutes were drafted, approved and ratified, in December, 1937, not only by the current members of the U.I.R., but also by a great majority of the agencies of European countries, whose delegations are, today, making it appear criminal for us to respect these statutes.

However that may be, an Extraordinary General Assembly will be convened in Switzerland later this year, in order to study the results of the Conferences at Atlantic City.

Naturally, the U.I.R. will be led to revise its statutes in compliance with the new conditions created, by the rules of principle adopted by the Plenipotentiary Conference.

Mr, Chairman and Gentlemen, the U.I.R. has been reproached for not engaging in any technical activity.

I should like to point out in this connection that the Control Center at Brussels, on which most of the technical activity of the O.I.R. is based, is the exclusive property of the International Broadcasting Union. The very fact that the U.I.R. has - provisionally, it is true - put its installations at the disposal of the O.I.R., constitutes in itself, an important technical collaboration, in my opinion. I may add that the U.I.R. has on several occasions offered to participate actively in the operation of the Control Center at Brussels, as well as in the work of the Technical Committee of the O.I.R. These offers were rejected, rather brusquely, I must confess.

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I recognize and esteem at its true value the activity of the Technical Committee of the O.I.R. Nevertheless, I think that this activity would have had more substantial and more conclusive results - and results are what count - if all the European broadcasting organizations, including the B.B.C., had been able to participate in it. I also think that, if such had been the case, the draft of the plan for low and medium frequency allocation, which, according to reports, was drawn up this spring at Monaco, would not have had to be surrounded by such cautious and impenetrable mystery! Certainly, technique plays a prominent role in broadcasting. But I am sure it will be conceded that broadcasting has other equally important phases which come under the heading of technique. The best technique in broadcasting has practical value only if it can be put into service for good programs. These programs, in turn, depend upon the solution of artistic, legal, social, legislative and economic problems and problems of collaboration. I believe that I showed, at the beginning of my statement, that in these various fields, the U.I.R., its office and its personnel, have at their disposal a wealth of documents and of experience which no other international organization could reasonably challenge or dispute.

Finally, I have reached the last point of this indictment: the influence exercised by the Axis countries on the activities of the U.I.R. during the war, the alleged representation of Belgian broadcasting by German administrators and the operation of the Control Center at Brussels by these same administrators.

Mr. Chairman and Gentlemen, very harsh words about the U.I.R. have been uttered within these walls. At none of the five International Conferences in which

I have had the honor to participate up to this moment. have I heard such bitter and such painful words. However, I understand the feeling of bitterness which doubtless motivated them; I not only understand but. respect it; I shall, therefore, not make any reprisals, for you can well imagine, I think, that I did not come here entirely without weapons. During the year in which I have had the honor of presiding over the U.I.R., I have gone through its files on the war and post-war periods. This permitted me to ascertain, among other things, that the information of the honorable Delegate from Belgium was inaccurate. In fact, contrary to what he has here claimed, in the course of the five meetings held by the U.I.R. during the war years, Belgian broadcasting was not once represented by a German administrator.

\*In April 1940, to be exact, on April 24 and 25, that is to say, before the cowardly and barbarous attack on glorious and valiant Belgium by the Nazihordes, the International Broadcasting Union met in General Assembly at Ouchy, in order to decide whether it should continue or suspend its activities during The General Assembly decided to continue the war. its activities in a very limited form. The broadcasting services of Belgium and the Netherlands - I repeat that this occurred before the German invasion - took an active part in this decision. Now these same organizations reproach the U.I.R. for having led the life which they themselves had advocated. I ask: Is this just? Is this logical?

During the war, the U.I.R. made no decision on important principles; it did not engage in any subversive activity and it limited itself, quite simply, to the business of living in order to preserve for the future service of European broadcasting an instrument which would be ready to go back to work, without breach of continuity, as soon as hostilities were ended.

The U.I.R. has been reproached on the ground that it submitted to German influence. I ask you, Mr. Chairman and Gentlemen, what political or private organization, either before or during the war, was not more or less affected by the pitiless and detestable dynamic force of the Nazis? We must take care not to identify persons with institutions. In countries which suffered invasion, undesirable persons were removed at the time of liberation, but, as far as I know, the institutions were not destroyed.

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Last summer, that is, after I assumed the presidency of the U.I.R., I invited all the European broadcasting organizations to communicate to me in writing, for the purpose of an investigation, any concrete accusations which they could formulate in regard to the war-time activities of any director or any responsible official of the U.I.R.

As of today, one year afterwards, no communication has reached me.

It has, consequently, been impossible for me to have an investigation committee study the grievances raised more or less openly regarding certain persons. However, that may be all the people against whom there were, rightly or wrongly, any charges, resigned their offices the same day that the presidency of the U.I.R. was entrusted to me. There has never existed, in this case any more than elsewhere, a valid and peremptory reason for destroying the institution itself, which was formed, let us not forget, not by individuals but by broadcasting organizations.

Finally, the fact that the U.I.R. Control Center was operated by German administrators could not reasonably be imputed to the UIR, since this Control Center had its headquarters in Brussels and consequently fell within the jurisdiction of the law of the occupying power.

You are doubtless aware of the fact, Mr. Chairman and Gentlemen, that the European broadcasting organizations, instead of being united, as they were previously, in one European broadcasting organization; have become divided, since the last war, into two groups: the O.I.R., on one side, the U.I.R. on the other. The powerful B.B.C., the broadcasting organization of Great Britain, remains aloof from both groups. Speaking as President of the U.I.R., I do not hesitate to state that this situation does not accord with the interests of European broadcasting, as a whole.

Probably, next year, or a little later, a European Broadcasting Conference must proceed to frequency allocation in the European region. If the situation which I have just described to you continues, I foresee that the European conference will be confronted with tremendous additional difficulties.

As far as I am concerned, I am ready now, as in the

past, to seek, with the cooperation of all men of good will, a just and equitable solution of the problem with which the present split in the European broadcasting organizations confronts us.

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In deciding - as I have the honor to recommend to you - in favor of the admission of the U.I.R., you will not only perform an act of justice and courtesy towards those members of this organization, whose countries are represented at this Conference, but you will at the same time, take the first and <u>indispensable</u> step on the road leading to the formation of a single unified organization of European broadcasting.

Before concluding, permit me, Mr. Chairman and Gentlemen, to give you an exact and complete list of members of the U.I.R. The organizations belonging to the following countries are members of the U.I.R.:

#### Active European Members:

Denmark, Spain, Greece, Ireland, Italy, Norway, ` · Portugal, Sweden, Switzerland, Turkey.

Special Member: Vatican City.

Non-European Associate Members:

South Africa, Argentina, Australia, China, United States, Iran.

As you yourselves can judge, the International Broadcasting Union is not a phantom institution. On the contrary, it is a real, living, acting, independent organization, capable of rendering good service to European and non-European broadcasting. Its active members belong for the most part to little countries, proud of their independence, jealous of their prerogatives, which intend to remain solidly grouped in a free organization, in which their rights and their liberty of action are completely safeguarded and, in which they can act and express themselves freely.

Mr. Chairman and Gentlemen, I have just drawn for you a faithful and objective picture of the rights, claims and undeniable merits of the U.I.R. These rights, these merits and these claims are, in my humble opinion, so obvious, so preeminent and so indisputable that the members of the U.I.R. have a right to feel surprised and pained at the fact that I am obliged to plead before you - 18 -(617 R-E)

in favour of incontestable right of this organization to be admitted to the Conferences at Atlantic City.

Moreover, I have supplied all the necessary explanations, with a clear conscience and in good faith on the subject of the accusations which have been directed here against the International Broadcasting Union for the sole purpose of discrediting it in your eyes and of eliminating a troublesome partner. Do not understimate, Gentlemen, the importance of the decision which you are called upon to make. It will have an immense moral significance, as the creator of hope, or as a demoralizing factor, depending on whether your decision is affirmative or negative. Mr. Chairman and Gentlemen, I rely upon your judgement. I have confidence in the clarity of your vision, and in your spirit of justice and equity.

I thank you again for having consented to listen to me: I hope that you have comprehended me!

I thank you with all my heart, Mr. Chairman."

The Delegate from Ireland pointed out that the question the Conference is called upon to decide is very important, and that it is essential that the delegations make up their minds definitively whether they wish the I.T.U. to repudiate the cooperation which the U.I.R. has accorded it for so many years, or whether they wish to retain it. The accusation made against the U.I.R., he said, is well known to ýou. You have heard the refutation made by the President of the U.I.R. The Irish Delegation accepts the explanations of the President of this organization. It feels that Mr. Conus has presented a perfect argument in favor of the admission of the U.I.R. to membership in this Conference. The Irish Delegation is particularly appreciative of the announcement made by the President of the U.I.R. that the admission of the U.I. R. to this conference would pave the way, would blaze the trail toward reconstruction and toward reconciliation between the U.I.R. and the O.I.R. Consequently, the Irish Delegation heartily supports the request of the U.I.R. and hopes that this question will be decided in favor of the admission of this agency.

The Delegate from <u>Bielorussia</u> then made the following statement:

"Mr. Chairman, Gentlemen!

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The Delegation of Bielorussian Soviet Socialist Republic considers that the positive decision concerning the admission of the U.I.R. to the International Radio Conference in Atlantic City is quite unacceptable.

. The reasons for this are as follows:

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If we examine the activities of the U.I.R., it becomes evident to all of us that this organization will not endure and is not technically equipped. Its cooperation during the war with fascist occupation forces has discredited it in the eyes of world public opinion. These countries have created a new broadcasting organization, the O.I.R., which is fully competent and technically equipped. The creation of this organization, on a sound administrative and technical basis was very opportune under conditions of urgent necessity to reestablish speedily the economic situation of radio in Europe ruined by the war. It lost no time in taking, up the work of coordination and technical control. I believe that all the delegates to this Conference have had occasion to become acquainted with the work of the O.I.R. and I hope that after doing so, they all realized that Europe needs but one broadcasting organization, and one like the U.I.R.

The existence of another organization can therefore be in no way justified, and can only introduce confusion into European broadcasting. Superfluous duplication will never be of any assistance in the establishment of the sound engineering principles which are essential at present. One should not make useless attempts to revive deceased organizations of the kind represented by the U.I.R., and especially because this would undermine the very necessary cooperation of the broadcasting administrations of Europe.

I wish particularly to underline the fact, that the doors of the new broadcasting organization - the O.I.R., are wide open to all democratic countries, and I fail to understand why we should support with our authority an organization, which acquired such an unfortunate reputation during the dark days when the fascists were masters in Europe.

My country, which has actively participated in the

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new creative work initiated by the O.I.R., cannot agree to such support.

I consider therefore that denying the U.I.R. participation in the work of our Conference - is the only acceptable decision.

By such a decision, we will greatly further contribute to the accomplishment of our common task, while strengthening the cooperation of the countries which work together to find a solution to the vast and important problem of radio development."

The Delegate from <u>Turkey</u> declared that he had been touched by the explanations of the Chairman of the U.I.R. He strongly supported the proposal of admission made by Ireland.

The Delegation from Yugoslavia pointed out that it had already made a written statement of its views against the admission of the U.I.R. Its opinion has not changed. Its opposition was motivated by the fact that Spain is a member of the U.I.R. It would be incorrect to say that the Spanish radio is independent of the Spanish regime. Moreover, it has been decided not to admit Spain. Under these conditions, to accept the U.I.R. of which Spain is a member, would mean an indirect acceptance of the participation of Spain.

The Delegate from Egypt would have supported wholeheartedly the declaration of the Delegate from Ireland, had he been convinced that the admission of the U.I.R. to the Radio Conference would be useful to European radio. In 1940, he said, Great Britain and Egypt had thought it advisable to interrupt their collaboration with the U.I.R. After the war, we received an invitation to go to Brussels in order to create a new European radio organization. In the meantime, the U.I.R. had invited us to a meeting in Geneva in order to disolve this organization. We went to Brussels without having made any prior decision. We were wondering why there was talk of creating a new organization. The distinguished Delegate from Portugal, and myself, did our best in Brussels to answer the various points of view. We were under the impression that if we were to go to Geneva to disolve the U.I.R. that this would be only a formality. But this was not the case. A majority of threefourths of the members was necessary in Geneva for the dissolution of the U.I.R. One vote was lacking. The majority of the European countries have formed a new orga-'nization called the O.T.R. with a technical center, and there exists in Geneva another organization comprising

9 members. I ask you, Gentlemen', whether it is possible that Europe be represented by two different radio organizations. By recognizing only one really active European radio organization, you would certainly act for the good of European radio.

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The Delegate from France first paid tribute to the role of the U.I.R. in the past, but felt that his tribute no longen applied after the fatal year 1939. In keeping my promises, he said, I will not inflame the debate by speaking of the period between 1939 and 1945. I will merely point out that the majority, if not all of the invaded countries, mine included, which were represented by puppet Governments, knew absolutely nothing of what went on at the U.T.R. during those five years. At the time of theliberation, a large number of the invaded countries, in fact, most of them - resigned from the U.I.R., including my country, as well as, among many others, Belgium, Holland, Czechoslovakia, etc. These facts, and they are plain facts, are new. As a result of them not only the U.S.S.R. which never was a member and France which definitely left that organization, but also Great Britain or rather the B.B.C., the British radio organ, are now absent from the U.I.R. Although the latter was a member before the war, it resigned subsequently and has not again joined. These are facts, the plain facts.

Under these conditions, the resigning coountries founded another organization of which you have heard; European engineering unity is developing this organization, mainly because it possesses a technical organization to which even the Chairman of the U.I.R. has paid tribute, and also because it has a technical center which and here we must point out a slight error on the part of the Chairman of the U.I.R. - is not the property of the U.I.R., but of a real estate enterprise to which all radio systems belong, and which is the property, not only of the present members, but also of those who resigned. The development of this technical unity, is under way, and before concluding I must state that, contrary . to what the Chairman of the U.I.R. said at a meeting of the O.I.R. in Monaco where allusion was made to secret talks for the elaboration of plans not yet revealed -I must say that these plans are unofficial so far, and for the very good reason that the Conference made no definite decisions. At these Monaco meetings which were supposedly confidential, in addition to the members of the O.I.R., 5 members of the U.I.R. were present. They were invited as observers, and made very interesting suggestions which were taken into consideration. I will neither name the 5 members of the U.I.R. who were present

at Monaco nor the few who were absent - among them Spain which had not been invited, - but I will merely say that when 8 or 9 members still belong to another organization and if 5 among them have already participated in technical discussions, which are the only ones with which we are concerned, the U.I.R. is in the course of putting itself under the aegis of the O.I.R.

In conclusion, I shall add that the foregoing does not prevent me from taking a very great interest in the conciliatory proposal made by the Chairman of the U.I.R. in order to arrive at a European agreement, certainly necessary for the common good as well as for the valid application of the decisions of this Conference. I shall simply point out that the C.I.R. which has already the technical participation of a large number of members of the U.I.R., will welcome all with joy, provided that, as the Chairman of the U.I.R. has also said - and this is a point of agreement provided that there be an agreement between the statutes of our organization - which has decided in advance to agree to the decisions of international conferences and the U.I.R.

The Chairman of the Delegation of the U.S.S.R. expressed his sympathy to those delegates who must be present during the debate although they do not represent any European country. I agree, said he, with the interventions that have been made, for instance, by the delegates of American countries during the meeting of Committee 3 A. When the problem of European radio was under discussion - or rather when the new European radio organization was being discussed, the American' Delegates have declared very firmly - and I do not have in mind one American country alone, but several - that all matters within the scope of American countries are internal affairs of these countries, and that it is therefore unnecessary for an international organization to deal with them. I repeat that I am in perfect agreement with the Delegates and consequently I wish to express my regret on our being forced to discuss here an affair which only concerns a European organization about a question which is specifically European. It would probably be more logical if the representatives of European countries were to attempt to reach an agreement and would announce it to the International Conference. However, since the question is discussed here, I wish to express briefly my opinion on this subject.

Above all, there is no question but that the U.I.R.

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is a deceased organization. In fact, it has not presented concrete proposals or reports on work for several years. This is the most important point. From the point of view of the interests of the Radio Conference, it is of no use that a deceased organization participate in our work. The second point is that the Conference is about to close its meetings, at least I hope so. It is already the 22nd of July. We have already used all our allotted time, and I hope that we will close our discussions on August 1. One may wonder therefore what practical meaning there would be in admitting at this time an additional organization as either observer or adviser. At the last Plenary Meeting of the Conference we expressed numerous opinions on this subject. Many statements of a political nature, or otherwise, were made, and I remember in particular the intervention of the delegate of Belgium. I am of the opinion that it is unnecessary to repeat this intervention at this time, because I believe that all the delegations remember well enough the excellent speech of the Belgian delegate. The last point I wish to make is that the U.I.R. still comprises, among its members, Franco Spain.

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Although the Chairman of the U.I.R. said that we are not concerned with the Franco Government, but only with the Spanish Radio, everyone is well aware that any broadcasting organization, in one way or another, is the spokesman for its own Government. Spanish broadcasting is certainly the interpreter for the Franco Government. One cannot therefore claim that Spanish broadcasting is not allied to this Government. Taking into consideration what has been said here, and the resolution of the United Nations concerning the non-representation of the Franco Government in international organizations and in international conferences, I am of the opinion that it would be a violation of our rights and of our regulations, if we admitted the U.I.R. to this conference, because it has not fulfilled the obligations and engagements necessary to become a member of the United Nations.

Considering all these facts, I think there is no reason to admit here officially the representatives of the U.I.R. as observers.

The Delegate of the <u>United Kingdom</u> made the following declaration:

"Mr. Chairman and Gentlemen,

The United Kingdom supports the proposal of the Irish delegate that the U.I.R. should be allowed to participate, as observer, in the Radio Conference, for

the following reasons:

2.

1. As their President has explained, the U.I.R. is an International organization which still exists, containing, I may say, more members than several other international organizations which have been admitted to the Radio Conference, which has been officially recognised in the Radio Regulations, and has done valuable work in the past for the International Telecommunications Union.

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The question of their participation is not one of admitting a representative of the Government of Franco Spain, as has so clearly been explained by the President of the U.I.R. The question is merely one of admitting the representative of a recognised International Organization, and, even then, only as observer, and without voting rights. The President of the U.I.R. has already indicated that the Council of the U.I.R. will, when time and opportunity offer, give full consideration to the decision of the Plenipotentiary Conference, made a day or two ago, on the question of Spanish membership.

- 3. We are, at this Conference, discussing what should be the future form of broadcasting organization. This question will concern the High Frequency Broadcasting Conference due to assemble on August 15th, as well as the present Radio Conference. Representatives of other broadcasting organizations are represented here. Surely we should, in considering this important matter, have the assistance and advice of all broadcasting organizations.
- 4. We deplore the attempt made at the last Plenary Assembly and in danger of being repeated here by a larger and more powerful organization to crush and extinguish a smaller organization, and one composed mainly of smaller nations. This is scarcely the spirit of democracy, the principles of which have been so frequently and so strongly advocated by the present Conference. The President of the U.I.R. has given a complete answer to the charges levied against his organization.

5. Finally, the U.I.R. was invited to this Conference by the United States and the U.K. supports their action.

The Delegate from the <u>Vatican</u> said he was in favour of a single and living organization of broadcasting agencies, the guiding principles of which should be competence and technical work. He will refuse to see in the votes about to be cast, the expression of irreconcil**able** viewpoints.

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The Delegation from the Ukraine was of the opinion that the admission of the U.I.R. to the International Radio Conference is a most important question of principle. It would seem, in the view of the Delegation, that. the work accomplished by the U.I.R. since 1941 should be analyzed and also the reasons for which most European countries left this organization of which they were members. It is evident that all these questions may be clearly answered. The Delegate from Belgium in a Plenary Session here, gave a report on the activity of this organization. I wish to recall that during the Second World War it colla-borated with the aggressors. It is therefore understandable that most of the countries have resigned. The Chairman has moreover remarked on this fact himself. The U.I.R. formerly numbered 34 countries: there now remain nine countries. The matter is therefore quite clear. As regards its work, it can be said that until the end of 1939 it. was incontestably the strong point of this organization, but since then this work is no longer of any interest to European countries, 50 present this organization has neither engineers por sufficient technical personnel. It does not possess the necessary equipment. We can therefore question whether such an organization should be admitted.

The Delegate from Argentina adhered to the proposal of Ireland, which expresses a sincere and indispensable wish for harmony. The Delegate from the United Kingdom, he said, stressed the advantages that from a technical point of view the admission of the U.I.R. would present. The Delegation from Argentina was of the opinion that the proposal of Ireland is a step towards pacification. This proposal doubtless aims at a constructive solution. It is an equally constructive step towards a solution of technical problems, and finally it constitutes progress towards a better co-ordination of all efforts in the matter of broadcasting.

The Delegate from <u>Portugal</u> also supported the proposal of Ireland. He approved the reasons given by the Delegate from the United Kingdom and declared he had been particularly impressed by the words spoken by the Delegate from Argentina. Has any one, he said, pointed out any inconvenience from a technical point of view which could result from the admission of the U.I.R. to this Conference? No. The International Broadcasting Union has

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collaborated in the past with our International Telecommunication Union; it has collected volumes of most useful documentation touching upon all the domains of broadcasting. If the admission of the U.I.R. entails no technical inconvenience, one must conclude that it is undesirable for political reasons. We advise a future. unification of the work to be undertaken in common. But can we accept this unification when it is imposed for political reasons? No, because it can only be realized by means of the collaboration just pointed out by Argentina. Instead of being opposed to each other, let us consider technical questions and overlook every other consideration. The admission of the U.I.R. entails undeniable technical advantages. We, the countries who are members of the International Broadcasting Union, would be displeased if you decided to exclude this organization.

The <u>Swedish</u> Delegation was of the opinion that this question was purely technical; it saw no reason for refusing to admit the U.I.R. as an observer. This Delegation therefore supported the Irish proposal.

The Delegate from <u>Belgium</u> made the following statement:

"The Chairman of the U.I.R. has recalled the somewhat bitter words addressed to him by Belgium. Belgium has therefore indicated the reason of its opposition to the admission of the U.I.R. I do not wish to take this matter up again. There were reasons of a practical nature that several delegates and particularly France have explained, but there was one point which has not been sufficiently stressed, which concerns, I suggest, reasons of a national and patriotic nature. While Europe was almost entirely occupied by the German Army, the U.I.R. unfortunately maintained and increased its activities, whereas many international organizations tried, on the contrary, to restrict their activities, to keep them at a bare maintenance level. It is doubtless difficult for countries far from Europe, who have not experienced the enemy occupation and who have not known what an enemy occupation really means, to understand the force of this argument. I would ask them to consider the very profound reasons which motivated Belgium, a small country where freedom reigns and which since its foundation was a member of the U.I.R.; to decide, after the war, with most of the countries of Europe, to retire from this Union and to create the O.I.R."

There being no further requests for recognition, the Chairman suggested that voting begin.

24 delegations agreed to admit the U.I.R. to the Radio Conference as an observer. They are: Union of South Africa and the mandated territory of Southwest Africa; Argentina; Australia; Austria; Brazil; Canada; China; Denmark; Dominican Republic; United States; Territories of the United States; United Kingdom of Great Britain and Northern Ireland; Colonies, Protectorates, Overseas Territories and Territories under the Sovereignty or Mandate of Great Britain; Greece; India; Iran; Ireland; Norway; New Zealand; Portugal; Sweden; Switzerland; Turkey and Venezuela.

20 delegations voted against the admission of the U.I.R. to the Conference. They are: Albania; Belgium; Belgian Congo; Territory under the Mandate of Ruanda Urundi; Bielorussia; Egypt; Finland; France; Colonies, Protectorates and Overseas Territories under French Mandate; French Protectorates of Morocco and Tunisia; Hungary; Monaco; Mongolia; Netherlands; Poland; Roumania; Syria; Czecoslovakia; Ukraine; Union of Soviet Socialist Republics.

17 abstentions: Chile; Vatican City State; Colombia; Cuba; El Salvador; Ecuador; Guatemala; Honduras; Iceland; Italy; Mexico; Nicaragua; Panama; Netherlands Indies; Peru; Siam and Uruguay.

17 delegations were absent, as follows: Afghanistan; Saudi Arabia; Burma; Bolivia; Bulgaria; Costa Rica; Ethiopia; Southern Rhodesia; Haiti; Iraq; Lebanon; Liberia; Luxembourg; Paraguay; Philippines; Portuguese Colonies; and Yemen.

The Delegate from the U.S.S.R. made the following remarks which he asked to be entered in the minutes. The decision to admit the U.I.R., a purely European organization, to the Conference, was made in accordance with the votes cast, the majority being non-European countries. This is in opposition to the desire of the European countries. The second point to which I wish to draw the attention of all the delegations, is the fact that some of them have shown a total lack of respect towards the Mongolian People's Republic. In fact when the Secretary-General mentioned the name of this country, some delegates began to laugh. This attitude towards a sovereign and independent country during an international conference, is most regrettable and constitutes an affront.

The representative of the O.I.R. spoke as follows:

"The Chairman has been kind enough to permit me to

make a declaration AFTER the vote. Not to comment upon this vote, whatever it was, but in order to attempt to advance a good understanding and collaboration between all the countries of Europe.

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This region, in matters of radio, needs unity as much as bread. It needs an active organization, well equipped and which may be competent to handle all the problems so closely related to radio: technical, juridical, cultural, administrative; an organization comprising the governmental and non-governmental operators for medium and long-waves (the question of short waves being subject to reservation).

The Conference is aware of the existence of certain disagreements between European countries. It knows also that the O.I.R. is waiting for the final provisions fixed at Atlantic City in order to re-examine its statutes, by virtue of a unanimous pledge made by the Extraordinary Assembly of October 31, 1946. We will determine our structure, our activity in Europe, and our eventual participation in a world-wide activity on the basis of the decisions taken.

May I propose publicly that the Delegates of the European zone do not leave the hospitable American country before consulting each other. Let us all sit around the same table: delegates of the B.B.C. and of the other countries not yet members of the O.I.R., with the representatives of the latter. Let us examine in a semi-official capacity the obstacles which prevent this indispensable unity. Today, as positions become clearer in the light of decisions already made by the two Conferences, it is possible to put the understanding which we all desire on a sound foundation. Let us build this foundation aided by the good will of the American Delegates who will not fail to applaud.

#### Mr. Chairman, Gentlemen,

Allow me to remind you that the O.I.R. has 28 active members. Its Seat and its Control Center are in Western Europe, 100 km. from the ocean which separates our two continents. It comprises all of the <u>Slavonic nations</u>; the spiritual power of the <u>Vatican</u>; Egypt; the heart and brain of the <u>Arab</u> world, is in its Council. Only the B.B.C., Switzerland, Portugal and several Scandinayian countries, etc. are lacking.

You have just been told that the O.I.R. has joyfully welcomed the presence of observers from these friendly countries to the meetings of its technical Committee. It has advised them of its work, of its studies and of its measurements. It is in correspondence with them on the subject of the impending allocation of wave lengths. Only two weeks ago, observers from the United Nations, the UNESCO and the Swiss radio have participated in the work of our Program Committee and of our Juridical Committee (for the study of the very important problems of author's rights, in view of the forthcoming European Conference in May 1948). We have come to a perfect working agreement with UNESCO. You all know our Bulletin edited in three languages and found throughout the world.

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Are we then too ambitious in offering our services to the next European Governmental Conference in order to supply them with the technical services which may be given by an operating group, equipped and eager to do so? This group is <u>practically</u> the only one which may do this, but it would have to be recognized as such. To attain this goal, as I have already said, goodwill and frankness are sufficient. No better place then Atlantic City will be found to achieve this end with good chance of success. Hence let us begin our efforts immediately."

The Delegate of the O.I.R.', who had been speaking in French, then spoke in English as follows:

"May I, Mr. Chairman, conclude in your own language, in order to be sure that all English-speaking delegates will understand perfectly. With your permission, I shall briefly recall the liberation of the Capital of my Country on Sept. 4, 1944. During the night before that memorable day, I came secretly back to Brussels after having been in hiding, but not inactive, for some months. So I took a few necessary steps relating to our secret transmitters to our Broadcasting House and the Control Center where the Germans had ruled for four years. It was in the afternoon of that same day that we gave a tremendous welcome to the first Allied troops entering the town.

The first tank I saw -- in the neighbourhood of our Center -- was British: the driver said he was from Coventry. The second tank was driven by an American from Milwaukee. Let me simply state that we shall never forget the deep meaning of those historical events. And that we admire the Soviet armies too, which at the same time achieved real miracles between Stalingrad and Berlin. My intention, in evoking this fraternity of arms, is to invite our friends who do not yet belong to the O.I.R., to meet the representatives of this Organization, unofficially but in the same spirit of collaboration and fraternity, now that we work for peace.

Let us meet in Atlantic City, tomorrow, and frankly discuss our common difficulties, to prepare the unity of European Broadcasting, the only sound basis for further world-wide action. I thank you, Mr. Chairman." The Delegate from Mongolia declared he had voted against the admission of the U.I.R. to the Radio Conference. He did not understand why, for Mongolia, a special and secret ballot had been necessary, whereas for the admission of an organization which had collaborated with the Fascist Germans, this procedure had not been applied.

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The <u>Chairman</u> remarked that the 2/3 ruling had been adopted by the Plenary Assembly of the Plenipotentiary Conference, but it was not applicable to voting in the Radio Conference. Moreover, in any case, it could not be invoked on the request for admission of an observer.

The Chairman then submitted to the Assembly the request for admission of the Commercial Telegrapher's Union, of the American Communications Association and of the International Chamber of Commerce (Points 2 (b), (c) and (d) of the Agenda).

These international organizations were admitted to the Conference.

Concerning the representation of S.C.A.P. (Point 3 of the Agenda), the Heads of Delegations recommended the Plenary Meeting to admit this group as observers. No objection having been made, the <u>Chairman</u> declared this recommendation adopted.

Proceeding to Point 4 of the Agenda, the <u>Chairman</u> announced that Mr. Theodore HEBA had been designated as the representative of Albania by a telegram received from Tirana, whereas in a letter received from Mr. Kahreman Ylli, the representative of Albania at the United Nations, the latter is designated as the representative of Albania at the Radio Conference. After examining these communications, the Heads of Delegations recommended accepting Mr. Heba and Mr. Ylli as representatives of Albania.

Mr. Heba remarked that the telegram from Tirana, was dated later than the letter of Mr. Ylli. He announced that he would replace Mr. Ylli who has left for Europe. There is therefore only one representative of Albania at the Radio Conference.

The Assembly took note of this remark.

On the request of Mr. Lahaye, Chairman of the Drafting Committee, the <u>Chairman</u> requested the Assembly to come to a decision concerning the proposals presented

by the Working Group of this Committee in Document No. 527 R-E.

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These proposals were accepted.

Mr. Lahave recalled the fact that the Drafting Committee had recognized the necessity of forming a second working group. It had succeeded in obtaining volunteers from four Delegations: The United States, United Kingdom, France, Uruguay. He requested that two countries should each delegate a representative in order to complete this second group.

• The Delegate from <u>Italy</u> having offered a volunteer, the <u>Chairman</u> thanked him for this. He hoped that a second person would volunteer to Mr. Lahaye.

The Delegate from <u>Argontina</u>, alluding to the incident already pointed out to the Assembly by a delegate, thought it could be considered as a purely fortuitous coincidence. He recalled that during the day the Plenipotentiary Assembly had considered the case of Outer Mongolia and that this question had given rise to a very long discussion. In the present meeting no one had intended offending the delegation of this country. Being in no way implicated in the matter himself, and not wishing to name names, he desired that this point should be definitely settled and he thought no delegation would object to his making this statement.

The Assembly received this statement with hearty applause.

The Chairman thanked the Delegate from Argentina very heartily for his opportune suggestion, then he requested the Secretary-General to inform the Assembly of the communications he had received.

The <u>Secretary-General</u> read the three following communications:

1. Communication from Colonel' Sir Stanley Angwin:

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"Colonel Sir Stanley Angwin, Chairman of. the British Delegation to the Radio Conference and President of Committee 5, has had to return to London. Mr. John A. Gracie will take over the chairmanship of the British delegation to the Radio Conference; Colonel H. Read will assume the chairmanship of Committee 5." Letter from Dr. Janusz Groszkowski, the Delegate from Poland:

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"Dr. Janusz Groszkowski Delegate from Poland

## Atlantic City, July 11; 1947

To the Secretariat of the International Radio Conference

#### Atlantic City

In view of my departure for Poland, I inform you, Gentlemen, that Dr. A. Blicher will in future be entrusted with all matters relating to the International Radio Conference.

I beg you, at the same time, to send all my personal correspondence to the following address:

> Dr. Janusz Groszkowski c/o American Advancement Corp. 15 Moore St., New York 4 (N.Y.)

-I am, Gentlemen ...

Yours sincerely,

(signed) Janusz Groszkowski

3. Telegram from the Minister of Foreign Affairs of Nicaragua, addressed to the Bureau of the Union on July 13, 1947

"I wish to inform you that my Government accepts and undertakes to observe the Cairo Radio Regulations of 1938. M. Roman, Minister of Foreign Relations (Translation).

The <u>Chairman</u> informed the Assembly that the Secretary-General had been advised that in order to provide certain recreation facilities for these Conferences, a small group of U.S. organizations had undertaken to set up a fund of some \$ 2000, to organize such facilities in the room formerly known as Club 22.

The Secretary-General requests the Radio Conference to approve his acceptance of this fund and to authorize

him to name a Policy Committee, made up of members of the Secretariat, to administer this undertaking.

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It is understood that there will be no costs assessed to the Conference proper and that all financial arrangements will be cooperative, using this fund as a basis.

The Chair asked the Assembly whether there was any objection to this undertaking by the Secretary-General.

Without objection the project was approved.'

Before adjourning the meeting, the <u>Chairman</u> informed the Assembly of the Agenda of July 23 and of the arrangements which he intended to make to decide upon the program for the following week.

He thanked the Delegates for their magnificent collaboration and expressed his regrets to them for having kept them so long. He then adjourned the meeting. It was 10:35 P.M.

Secretaries:

Secretary General:

- H. A. Eggli M. F. Studer G. Corbaz V. Meyer
- H. Voutaz ·

Gerald C. Gross

Approved.

Chairman:

Charles R. Denny,

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 618 R-E

July 24, 1947

Committee 7

Report of the General Technical Committee (Committee 7)

> Third Meeting July 17, 1947

1. The meeting was opened at 10:15 A.M. under the chairmanship of Mr. KRAPKA (Czechoslovakia) who stated that time was passing rapidly, and that the Plenipotentiary Conference would need certain results obtained so far by the three Subcommittees of Committee 7, as well as by several other committees of the present Radio Conference.

He emphasized that the task of Committee 7 was enormous and difficult, but that he was convinced that the detailed study of the proposals entrusted to the three Subcommittees would be accomplished successfully due to a fortunate choice in the Chairmen, as well as to the perseverance and competence of the members.

He said that during this meeting the Chairmen of the three Subcommittees would present their reports. After discussion and approval of these reports, the results would be submitted to the Drafting Committee and to Committee 4, and the report of the present meeting would furnish useful information to other Committees which might be interested.

2. The <u>Chairman</u> then announced that the French rapporteur, Mr. Jean <u>PERSIN</u>, has been transferred to the Plenipotentiary Conference. He is being replaced by his compatriot, Major Georges SARRE.

3. The <u>Chairman</u> requested the Delegates who were present to take note of the fact that the French Colonies have been registered on the list of members of Committee 7, and he then asked the Committee to begin immediately with point 2 on the Agenda.

- (618<sup>¯</sup>R-E)
- 4. Approval of the report of the 2nd Plenary Meeting.

(Document No. 399 R-Eof July 19, 1947) The report under consideration was adopted subject to the following modifications:

- a) Paragraph 7 end of paragraph page 6. Add the word <u>Argentina</u> to the list of countries represented in Subcommittee 7 C
  - b) Paragraph 7 3rd sub-paragraph page 5 (English text) modify the conclusion at the request of the Delegate of <u>New Zealand</u> supported by the Delegates of the <u>United States</u>, and the <u>United Kingdom</u>, by emphasizing that the countries were ready to collaborate according to their ability, and by supporting the working principle under consideration. The words "in the formation of the organization contemplated" were replaced by "and support the principle of carrying out the proposed work."

5. The <u>Chairman</u> then stated that he had satisfied the wishes expressed during the 2nd meeting by sending a letter to the Chairman of the Committee 4 requesting answers to the following questions:

- a) What frequency bands are to be used by ships on certain inland waterways?
- b) May traffic of public correspondence of aircraft be handled through the intermediary of maritime mobile service stations?
- c) What distinction will be made between aircraft to be admitted in the "route" and in the "off route" aeronautical mobile services?
- d) What are the characteristics of tropical broadcasting?

In this letter he pointed out, moreover, that Proposals 1645, 1646, and 1647 R had been sent to Committee 7 by mistake; that Proposals 414 - 415 - 1501 and 1596 R had been transmitted by Subcommittee 7 B to Subcommittee 7 A, and that the study of Proposals 590 -591 and 592 R had been entrusted to a new Subcommittee (7 C) under the chairmanship of Dr. Dellinger of the United States of America. The <u>Chairman</u> requested the Committee to take up point 3 on the agenda, but he proposed, for practical reasons, to begin with the study of the work accomplished by Subcommittee 7 C.

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6. Status of the Work of Subcommittee 7 C.

The Chairman of Subcommittee 7 C gave an outline of the work accomplished on the three proposals which had been entrusted to his Subcommittee.

- a) Monitoring. The text of the Article which had been proposed has been completed, and a working group was now drafting a co-ordinated text. While within the Subcommittee the work may be considered as substantially complete, this view implies no final decision on the question of including the text as an article of the Regulations, or as an appendix, or how.
- b) Time Signals and Standard Frequencies. Consideration of the wording of the Article has begun. It has been studied in two parts, and an agreement has been reached within the Subcommittee on the first part.
- c) Radio Propagation. The wording of this Article will be rather brief, and the working group has been drafting the text of a statement of the terms of reference when the matter is entrusted to the C.C.I.R.

The Chairman of Committee 7C concluded by stating his regrets of his inability to distribute any documents at that time, but that they would be ready in the shortest time possible with a view to being forwarded to Committee 3 after being studied by Committee 7.

In thanking Dr. Dellinger for his explanation, the Chairman of Committee 7 stated that the next Plenary session would be held on July 23, and he hoped some material from his Subcommittee would be available then for consideration by Committee 7.

As no remarks were made with regard to the report of Subcommittee 7 C, the meeting immediately took up the consideration of the following report from Subcommittee 7 B. (618 R-E)

7. State of Work of Subcommittee 7 B.

The <u>Chairman of Subcommittee 7 B</u> stated that the studies assigned to that Subcommittee were practically completed. The texts have been adopted for Articles 4-6 and 22 of Cairo, and Appendices No. 1 and No. 3. The text of Appendix No. 2 was still being drafted, but would no doubt be completed next week.

The study of "band width" taken up at the request of Committee 6 was being carried on in a satisfactory manner and an interim report would shortly be ready for Committee 6.

On the invitation of his Chairman, the French Rapporteur of Subcommittee 7B gave a list of documents in which decisions taken by this Subcommittee appear:

	Doc. 242 R - g 9	Article 4 of Cairo No. 52
	Doc. 273 R - page 1	Article 4 of Cairo No. 53
	Doc. 264 R Doc. 316 R S 2 and Annex	) Article 6 of Cairo
•	Doc. 273 R - page 2	Article 22 of Cairo (Transfer of No 78 of Art. 6)
	Doc. 273 R - page 2	Article 22 of Cairo No. 525
	Doc. 495 R (annex) Doc. 553 R - page 1	) Article 22 of Cairo No. 527
	Doc. 522 R - 8 6 Doc. 522 R - 8 7 Doc. 526 R - 8 8	Article 22 of Cairo No. 528 Article 22 of Cairo No. 529 Article 22 of Cairo No. 531
	Doc. 553 R - page 3-4	Article 22 of Cairo No. 534- No. 535 - No. 536 - No. 537
	Doc. 560 R page 1	Article 22 of Cairo No. 538
	Doc. 560 R page 1	Note 2 appendix 2 transforred Art. 22
	Doc. 480 R page 3	Appendix 1
8	Doc. 526 R - S 4 Doc. 553 R 838	) Appendix 3 )

Furthermore, to conclude examination of the proposal relative to Article 22 of Cairo, Subcommittee 7 B, during its 17th meeting, discussed and approved texts concerning paragraphs 530 and 532 of Cairo as well as a new proposal presented by the United Kingdom.

(618 R-E)

Continuing with his statement, the Chairman of Subcommittee 7 B said that the Subcommittee had also considered it necessary to submit French proposals Nos. 1441 to 1449 R, 2215 and 2264 R to Subcommittee 7C concerning complaints and violations in regard to interference and he requested the approval of the Chairman of Committee 7 and of the Chairman of Subcommittee 7C. The answers being in the affirmative he concluded his statement by reference to the request made by Subcommittee A of Committee 8 and whose study more properly belongs to Subcommittee 7C. The Chairman of the latter Subcommittee agreed to examine the request and invited the Chairman of Subcommittee 7B to send him the document under discussion.

The <u>Chairman</u> of the Committee thanked Mr. Hecht, Chairman of Subcommittee 7B, and gave the floor to the Chairman of Subcommittee 7A.

8. <u>Report on the Progress of the Work of Subcommittee 7A</u>. The <u>Chairman of this Subcommittee made a statement</u>, the text of which is annexed to this report (Annex 1).

He stressed the fact that the main task was finished but since there were still some fundamental definitions under study it was impossible to submit immediately to the Drafting Committee any proposals on definitions.

Acting on the invitation of the <u>Chairman</u> on the present statement, the delegate from <u>Canada</u>, referred to the definition of Aeronautical Mobile Service and said that. Committee 5 was planning to apply the provisions of Document No. 200 R concerning the allocation of frequencies to this service and that it is expecting Committee 7 to develop satisfactory definitions corresponding to "route" and "off route" services.

The Delegate from the <u>Belgian Congo</u> wanted to know if it were true that Subcommittee 7A had agreed to delete the definition of "private radio station" which appeared in paragraph 43 of the Cairo Regulations and that he would like to know the reasons that motivated this decision since he believes that it was necessary to keep that definition.

18839-

The <u>Chairman of Subcommittee 7A</u> replied that the reasons which moved the Subcommittee to delete the definition of "private radio station" appear in the minutes of the meeting in which the matter was discussed. (Doc No.  $512 \text{ R} \pm \text{ page 3}$ ). He felt that it was useless to resume discussion at present, and proposed that this question be left for the meeting at which the definitions are considered by Committee 7.

(618 R-E)

9. After the usual thanks, the <u>Chairman</u> stated that before adjourning the meeting he had several communications for the Committee.

> a) The delegation from Uruguay had requested that Subcommittee 7A study its proposal No  $2425_R$ . published in document No  $278_R \pm in$  regard to domestic broadcasting. Upon request of the Chairman of Subcommittee 7A, this request has been referred to the Chairman of Committee 4.

b) The International Broadcasting Organization, in a letter dated June 20, 1947, (which was read by the reporters. Mr. Mac Quivey and Major Sarre, and whose text appears in Annex II) addressed to the Secretary General requests that certain of its proposals be examined by Committee 7. Inasmuch as the reference documents contain many proposals not within the field of consideration by Committee 7, the Chairman said that the specific proposals which do come within this field would be considered at a later meeting. It will be necessary that the specific proposals desired to be studied be indicated to the Committee.

c) The Socratary General invited the Chairman of the Committees of the International Telecommunications Conferences to make available to it the opinions, wishes, recommendations and resolutions emanating from their Committees, Subcommittees and Sub-subcommittees which should be submitted for the approval of the Plenary Assembly in view to their possible publication as an annex to the acts of the International Radio Conference with reference to the minutes of the Plenary Meetings. 10. The delegate from the <u>United States</u> proposed the immediate consideration of the articles studied by Subcommittee 7B. The <u>Chairman</u> of that Subcommittee, supported by the majority of the delegates, however, suggested the postponement of that discussion until the following week when it would be easier to discuss them because there will be a single document containing a summary of all the questions considered. 'He will not, however, be able to have his final report ready before July 23, the date of the next meeting.

(618 R-E)

The delegate from the <u>Belgian Congo</u> referring to his preceding remark, wanted to have the Cairo definition of "private radio station" included in the report of Subcommittee 7A, which contained a list of definitions, because he wanted to defend that definition at the next plenary session.

The Chairman of Subcommittee 7A opposed this because his Subcommittee, in agreement with Committee 8, had decided on the deletion of this definition and he could not, therefore logically include it in a list of definitions proposed and adopted by Subcommittee 7A.

11. Having finished with the agenda, the meeting was ' adjourned at 12:00.

The Rapporteurs: D. R. MacQuivey

Major G. Sarre

The Chairman J. A. Krapka

## -8-(618 R-E)

#### Annex I.

Statement of the Chairman of Subcommittee 7A on the Work of that Subcommittee

Definitions.

The revision of the definitions of general terms, services and stations, proposed by Subcommittee 7A was completed on July 16, 1947.

All these texts may be submitted to the Committee when a general question has been resolved, which was raised again recently and is at present under discussion. This concerns the extent to be given to the meaning of term Radio Communication to which the Subcommittee had previously decided to give its broadest meaning. Great Britain succeeded in having its meaning restricted, so that the term radiolocation should not be included in it, and so that this new term should be given the same importance as the term Radio Communica-These two important subdivisions of the Regular tion. tions would be covered by the general term Radio. We hope that the new definitions of Radio Communication and Radio may be adopted by the end of the week, as well as a few minor modifications to be made as a result in the text of the definitions. However, the new provisions may perhaps result in a new title being required for the Regulations, and perhaps for the Convention. Α modification of the definition of Telecommunication may also be required. This work will be completed at the beginning of next week.

I recall that three questions had previously been raised to be submitted to other committees, and which have not been settled.

I. What categories of aircraft or circuits must be understood by Committee 5 in the two subdivisions respectively of the mobile aircraft service, corresponding to the descriptive terms regular or non-regular?

II. What are the characteristics adopted for tropical Broadcasting?

# (618 R-E)

III In what service will the public correspondence of aircraft, mobile maritime service or mobile aeronautical service, be effected?

The Subcommittee will require about five meetings to complete the study of the definitions of the technical characteristics of stations, as well as the study of certain processes and apparatus. These meetings, however, must not take place at too short intervals, so as to enable the Sub-subcommittees of technicians to 'study progressively the difficult drafting of definitions' of a very technical nature.

#### Classification of Emissions.

The working group entrusted with this question has established a complete and entirely new proposal; this proposal may be discussed and adopted shortly.

> Atlantic City, N.J. 17 July 1947 Lieutenant Colonel Lochard Chairman of Subcommittee 7A

International Telecommunications Conferences Atlantic City, New Jersey

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(618 R-E)

June 22, 1947

M.J.A. Krapka, Chairman of Committee 7

Mr. Chairman,

Agen

I have the honor of sending you, for your information, a copy of the letter that I have just received from M. Angles d'Auriac, of the International Radio Organization.

I am, Mr. Chairman,

Very sincerely yours,

(Signed) Gerald C. Gross Secretary General of the International Radio Conference

## Annex II.

-11-(618 R-E)

# INTERNATIONAL BROADCASTING ORGANIZATION (IBO) \

Technical Center

Atlantic City 27 N. Stenton Avenue June 20, 1947

#### Mr. Secretary General:

Referring to documents No. 177 R-E and 178 R-E relative to the distribution among the various committees of proposals submitted to the Radio Conference, I wish to point out that the OIR proposals (documents 131 R-E, 143 R-E, 155 R-E, 187 R-E and 220 R-E) appearing under number 2383 R-E have been assigned to Committee 5 only.

Permit me to invite your attention to the fact that the proposals appearing on page 28 of Document 131 R-E concern very definitely the Committee on Organization No. 3, and the General Technical Committee No. 7. The latter also has an interest in Annex II of Document 131 R-E (Document 187 R-E). Furthermore, the said Annex II as well as the entire proposal 2383 R-E appear to me to be also of interest to Committee No. 6.

I feel confident that you will be good enough to pass the above comments on to those authorities in charge of allocating the work so that they may, if they deem it advisable, modify the assignment of documents 177 R-E and 178 R-E with respect to proposal 2383 R-E so that they will be referred not only to Committee No. 5 but also to Committees No. 3, 6 and 7.

Thanking you in advance,

I am,

Yours very truly,

H. ANGLES d'AURIAC Director Technical Center of the OR

### . DOCUMENT NO. 019 R-E

July 24 1947

Committee o

## Report - of the

## International Frequency List Committee (Committee 6) 8th Meeting July 23 19 7

- 1. The meeting was opened at 10:10 A.M. by the Chairman, Mr. J. D. H. van der Toorn of the Netherlands delegation. Document No. 51 R-E report of the fourth meeting, was approved with the following amendments:
  - (a) Change "working methods" in the last subparagraph of paragraph 4 to "mechanical process".
  - (b) Add Canada to the countries contained in the second sub-paragraph of paragraph 8.
- 2. The Chairman drew the attention of the meeting to paragraph 7 of Doc. 240 R.E. and stated that the time has come when it is necessary to reach agreement on firm recommendations for submission to the Plenary Session as to:
  - (a) The exact nature of the work involved.
  - (b) How, by whom and when the work shall be done.

The Chairman stated that the new International Frequency List must be complete in entirety and asked for proposals which would achieve this end.

The Delegate of the United Kingdom then made the following statement:

"During the last few days it has been possible to consider the problem of the preparation of the new frequency list in some detail and as a result the U.K. has reached the following conclusions.

- (619 R-E)
- 1. It is essential that the communication requirements of the world be completely engineered at the earliest possible moment in order that they can be accommodated in the new frequency bands in an entirely satisfactory manner and, if possible to make some room for future development.
- 2. There appear to be three ways in which the new frequency list, based on sound engineering principles can be prepared, namely:
  - (a) by setting up a special committee
    to commence the engineering work at the earliest possible moment and this committee to continue until the work is completed. The list produced by this committee would be submitted to a special world conference for approval and would then form the basic list for the I.F.R.B,;
  - (b) by preparing a new but temporary, frequency, list by fitting all displaced stations into their correct bands in as satisfactory a man-v ner as possible but without completely engineering the require-ments. The complete engineering work would proceed as quickly as . possible after all stations had been moved into their correct frequency bands. In order to put this it would be necesslist into effect ary for it to be agreed by a world conference and the further work of engineering the list would have to be done later by the committee continuing to work in parallel with the I.F.R.B.;
  - (c) by completely engineering each band in turn and thus gradually complete the work of engineering all the requirements throughout the spectrum. This would enable some of the more congested bands to be dealt with earlier than others to afford relief where it is most required.

3. The present feeling on sub sub 6B2 is that, whilst solution (a) is the only one likely to give complete setisfaction, so far as such is possible the work involved is likely to take a long time, probably about two years, and those services awarded increased bands may not wish to wait so long before they can use them. The U.K., whilst not challenging this estimate of two years, to which of course must be added something like another year for the approval of the work and its implementation, considers that it would be of great value if the question of the time required were given more detailed examination in the hope that it might prove possible to complete the work in a shorter time.

(619 R-E)

- 4. Sub sub 6B2 has been working on the lines that solution (b) might find most favour with the various delegations and would enable broadcasting and aeronautical services to operate more satisfactorily at an early date, although it may be at the expense of other services. A date such as July 1948 has been considered for the preparation of a "temporary" list on these lines which would thus have to be approved by a special world conference, after which work would proceed to engineer the bands to ensure the spectrum being used efficiently.
- 5. The U.K. now considers that it would be unreasonable to call together a special world conference to approve what might be termed a "temporary" list, particularly since there would be little guarantee that all stations would enjoy the same quality of service they have been having under their existing assignments. Furthermore, little of the work done in preparing such a list would be of any value in the main problem of engineering the final list and would have to be regarded as wasted so far as the main work is concerned.

6. The third solution visualised has the advantage that, as each band was engineered, the proposals could be circulated to all countries for their agreement and, when this had been obtained, the stations could be moved to their

## (519 R-E)

new assignments. This piece meal method would .minimise the difficulties which would undoubtedly arise if the whole spectrum were dealt with simultaneously and it would also avoid the necessit of a special world conference.

7. As a result of these considerations the U.K. now propses:

- (a) that a firm estimate of the time required to engineer the spectrum up to 25 Mc/s. be made;
- (b) that the three possible, alternative ways of carrying out the work be referred, via 6B to 5 for a decision;
- (c) that any engineering work be carried out by a special committee rather than the I.F.R.B.;
- (d) that it would be undesirable to call togethem a special world conference until a completely engineered list could be submitted for ap-, proval;
- (e) that communications required additional to those submitted to the present conference would be dealt with either by the I.F.R.B. or by the special committee after the requirements submitted to the conference had been listed."
- 4. After considerable discussion in which the delegations of <u>Belgian Congo</u> <u>Bielorussia</u> <u>Canada</u> <u>France</u> <u>India</u>, <u>Netherlands</u>, <u>U.S.S.R.</u> <u>United Kingdom</u> <u>United States</u>, <u>Switzerland</u> and <u>Vatican City</u> took part the following proposals were forthcoming:
  - (a) Prepare a new International Frequency List based on a thorough reengineering of the spectrum between 10 kc/s and 30 Me/s. This view was supported by Canada United Kingdom and United States.
  - (b) Prepare an interim list by fitting displaced stations into correct bands reengineering as necessary to provide as satisfactory a solution as possible. Upon completion of the interim list work would begin at once on a completely engineered plan. This proposal was supported by

(019 R-E)

Bielorussia.

- (c) Prepare both interim and completely engineered lists simultaneously. This proposition was put forward by the U.S.S.R.
- (d) Prepare an interim list based on recommendations and adjustments made by each administration. This proposal was submitted by India and supported by the Belgian Congo.
- Various opinions were expressed as to the length of time required for completion of the work involved in the several proposals. Estimates for the finalization and implementation of a completely engineered list ranged from 2 to 4 years while 1 year was put forward as being reasonable for completion of an interim plan. The delegate of France stressed the importance of arriving at a firm and realistic time schedule in order that proper consideration may be given as to whether or not certain services can wait for the period of time required before making use of expanded or new bands in the allocation table.
- 6. Upon agreement that further consideration of the foregoing proposals and time schedules would be given at the next meeting the meeting adjourned at 1:1; P.M.

Reporters

Chairman

W. Dean J.D.H. van der Toorn J. Millot

July 25, 1947

#### Committee 1

Report of the Credentials Committee. (Committee 1)

> 6th Meeting July 23rd, 1947

- 1. The meeting was opened at 10 A.M. under the Chairmanship of Dr. Loo, Delegate of China.
- 2. The meeting expressed its regret at the departure of Colonel Cole and the Chairman suggested, and the meeting endorsed, that an appreciation of Colonel Cole's most valuable contribution should be noted in the Minutes. It was noted that Mr. S. Jefferson of the United Kingdom Delegation would take Colonel Cole's place as rapporteur for the present meeting at least.
- 3. The <u>Chairman</u> called for comments on the report of the 5th Meeting (Document No. 431 R-E). The Delegate of the <u>United States</u> asked whether Denmark had been cleared and M. de la Chevrelière referred the meeting to the fact that this matter was cleared at the Committee meeting on the 6th June. Since this matter had been cleared the meeting agreed that the last sentence of para. 5 of Document No. 431 R-E should be deleted.
- 4. The Chairman then stated that the Credentials submitted to the Radio Conference had been checked. As a result of the resolutions for Items 4 and 5, Document No. 575 R-E adopted at the third plenary session held on July 22nd, 1947, the Delegations of El Salvador, Syria and Albania were considered by the Committee to be properly accredited.
- Since the last meeting the names of the following countries are to be added to the list of countries whose credentials can be considered in order. (Doc. No. 416 R-E and Doc. No. 431 R-E refers). Albania, Bolivia, Burma, El Salvador, Outer Mongolia, Paraguay and Roumania.

## - 2 -(620--R-E)

- 6. It was recalled that the Secretary General had received Credentials by telegram from Costa Rica in réspect of one observer only.
- 7. The Committee agreed that since no representatives of Saudi Arabia, Southern Rhodesia and Yemen were so far attending the Radio Conference, further action will be required only when the Credentials for these countries are received.
- 8. There being no further business the meeting adjourned at 10:45 A.M.

Chairman

T. C. LOO

Rapporteurs

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Mr. S. JEFFERSON

M. de la CHEVRELIERE

Document No. 621 R-E

July 25, 1947

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· Committee 5

Report

of the Aeronautical Group of the Allocation of Frequencies Committee (Committee 5)

lst Meeting

July 24th, 1947

1. The meeting opened at 1800 hours with the election of Rapporteurs as follows:

English: Mr. H. A. Rowland (United Kingdom)

French: Mr. M. Falgarone (France)

2. It was proposed from the <u>Chair</u> that, subject to the agreement of Committee 5, the group should in future be known as <u>Subcormittee 5E</u>.

3. The <u>Chairman</u> stated the terms of reference, as defined by Committee 5, to be:

To consider the aeronautical mobile bands allocated between 2.85 and 25 Mc/s and to decide upon the respective allocations between aeronautical mobile Route and aeronautical mobile Off-Route services. Also to draft appropriate paragraphs to replace present paragraphs 149 to 159 in Article 7 of the General Regulations and to draft footnotes for the new allocation table, relating solely to the control of the aeronautical mobile bands.

4. Discussion was then opened on the subject of the definitions which are to be adopted for describing the aeronautical mobile Route and aeronautical mobile Off-Route services.

5. After a lengthy exchange of views, in which all the delegations present took part, it was unanimously agreed that the I.C.A.O. proposals, as expressed in Doc. No. 407 R-E, should be adopted as a basis on which frequency ellocations to the two aeronautical mobile services would be made and that the committee would return later to the question of definitions.

## (621 R-E)

6. The <u>Chairman</u> suggested that any delegation having proposals prepared for the sub-division of the aeronautical mobile bands into Route and Off-Route, should hand copies to the Rapporteurs for inclusion in the minutes, to enable such proposals to be studied by other delegations before the next meeting.

Proposals of the U.K., U.S.A. and France are annexed to this report as Appendices "A", "B" and "C" respectively.

7. The meeting closed at 1915 hours. The next meeting is scheduled for 1530 hours, Saturday 26th, July.

Rapporteurs:

8901

H. A. Rowland

Chairman:

M. Falgarone

S. R. Burbank

-3-(621 R-E)

	<u>_U.I</u>	۲۵. <u>۲</u>	PPENDIX "A"
2.85-4	2850-3030-R (180)	3030-3155-0R (125)	
	3400-3500-R (100)	3900-3950-OR (50)	European Region
4-6	4650-4750-R (100)	5480-5580-0R (100)	
	5580-5730-R (150)		-
6-8	6525-6685-R (160)	. 6685-6765-0R (80)	
8-10	8815-8965-R (150)	<b>895-9</b> 040-0r (75)	
10-12	10005-10055-R (50)	10055-10100-0R (45)	
	ч. Ч.	11175-11230-OR (55)	
· · · · · · · · · · · · · · · · · · ·	11230-11400-R (170)		
12-16		13200-13245-0R (45)	
· · · · · · · · · · · · · · · · · · ·	13245-13360-R (115)		
	15010-15070-R \(60)	15070-15100-OR (30)	
		17900-17945-OR (45)	: ب
	17945-18030-R (85)		
R <u>=</u>	Route		
OR =	Off-Route		
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2850-2980	OR
2980-3155	R
3400-3500	R
4650-4750	OR
5450 <b>-</b> 5480	R(Amer
5480-5730	R
6525-6685	R
6685-6765	OR
8815-9040	R,
10005-10100	OR
11175-11350	R
11350-11400	OŔ
13200-13270	R
13270-13360	OR
15010-15100	OR
17900-17980	R
17980-18030	OR
R = R0	oute
OR = .0f	f-Route

APPENDIX B

rican Region)

1

U.S.A

-4-(621 R-E)

#### ANNEXE ćĈ

:5 (621 R-E.)

## 24 juillet 1947.

## Proposition Française

pour répartition des bandes mobiles aéronautiques entre Route et Off Route (de 2 850 à 25 000 kc/s)

ROU	, IE	OFF ROUTE	•
Fréquences	Kc/s exclusif	Fréquences <u>K</u> exclusif	<u>c/s</u> partagé
2 850 à 3 050 3 400 à 3 450. 3 900 à 3 950	200 50 50	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	100
5 480 à 5 730 6 525 à 6 685 8 815 à 9 005 11 175 à 11 400	250 160 190 225	.4 650 a 4 750 100 4 750 a 4 850 5 430 a 5 480 6 685 a 6 765 80 9 005 a 9 040 35 10 005 a 10 100 95	100 50
13 260 à 13 360 17 900 à 17 970 21 850 à 21 925	100 70 75	13 200 à 13 260 60 15 010 à 15 100 90 17 970 à 18 030 60 23 200 à 23 275 75	
· · · · ·	1 370	750	250

Document No. 622 R-E

July 25, 1947

Committee 6

2558 R

### United States Proposal

RESOLUTION IN REGARD TO THE PREPARATION OF THE NEW INTERNATIONAL FREQUENCY LIST

#### WHEREAS,

A. In order to provide a basis for the formulation of a new International Frequency List, countries participating in the Atlantic City Radio Conference have undertaken to furnish Committee 6 of the Conference by September 15, 1947 with information regarding circuit requirements for fixed stations, together with information regarding requirements for tropical broadcasting stations and all classes of land stations, shown on Forms 1 and 2 formulated by Committee 6;

B. These countries have found that the compilation of such a List is necessary in order to implement the application of the Atlantic City allocation table;

C. These countries have agreed that the compilation of such a List is necessary in order that the IFRB may function most effectively;

D. The compilation of world frequency requirements as an initial step in the compilation of a new List is now well advanced and is expected to be completed by October 15, 1947;

E. It is essential to continue the work commenced by Committee 6 with minimum delay upon the conclusion of the Atlantic City Radio Conference;

F. It is recognized that until frequency assignments for all services can be completely engineered, it will not be certain that effective use can be made of the frequency spectrum or that the frequency requirements of any service can be met without experiencing harmful interference;

G. It is necessary that an appropriate international group or committee continue with the preparation of the new International Frequency List after the close of the Atlantic City Radio Conference in order that such a List may be available for review and approval at a special international conference to be called for that purpose.

## (622 R-E)

### THEREFORE, IT IS RESOLVED THAT:

1. A special International Frequency List Commission shall be established by the Atlantic City Radio Conference;

2. Each country participating in the Atlantic City Radio Conference, which desires to do so, shall designate one representative, who is technically expert and experienced in frequency assignment problems, to serve as a member of the Commission. This member may be assisted by such advisers as desired;

3. Each countrý shall defray the salaries and expenses of its representative and his advisers.

4. All other expenses of the Commission shall be defrayed by the Union;

5. The International Frequency List Commission shall convene at a place to be agreed upon by the Atlantic City Radio Conference.

6. The International Frequency List Commission shall convene not later than October 1, 1947. It shall operate under the following directive:

(a) Before undertaking the preparation of a new International Frequency List, the Commission shall determine, in complete detail, the engineering framework (principles, rules and procedures) to be applied in the preparation of such List, giving appropriate consideration to the work done in this connection at the Atlantic City Radio Conference. These engineering/ principles shall be based on the new band width table, and also on the new tolerance table set forth in Column of the Radio Regulations adopted by the Atlantic City Radio Conference. The formulation of this engineering framework shall be completed not later than January 1, 1948, and the new International Frequency List shall be completed by July 1, 1948.

(b) In preparing the new List, the Commission shall give consideration to plans prepared by other international groups on a broad international basis for specific services involving the utilization of frequencies allocated exclusively to the services concerned. (c) In preparing the new List, the Commission shall make provision for those requirements set forth in Forms 1 and 2, which are received prior to September 15, 1947. In doing so, the Commission shall be guided solely by the following considerations:

(1) Conformance with the Atlantic City allocation table;

(622 R-E)

(2) Conformance with the engineering principles referred to in (a) above, so as to make provision for all requirements while avoiding harmful interforence;

(d) The frequency bands to be dealt with by the Commission shall be insert at this point a specific table of bands which will be proposed by U. S. Delegation upon the completion of the work of Committee 5 of the Atlantic City Radio Conference

(e) The frequency assignment plan prepared by the High Frequency Broadcasting Conference will be accepted by the Commission, which, however, will take into account the impact, if any, of these assignments on the services allocated bands adjacent to the high frequency broadcasting bands. Prior to the adoption and effective date of the new List on a worldwide basis for all services, the broadcasting service shall not use the portions of the high frequency broadcasting bands included in the Atlantic City allocation table which were not included in the Cairo allocation table.

(f) The new International Frequency List shall be prepared in the form prescribed by the Atlantic City Radio Conference.

7. The Commission shall arrive at its conclusions so far as possible by unanimous agreement. Any member of the Commission may have a statement included in the report of the Commission, giving his views on any matter on which unanimous agreement has not been obtained.

8. Upon completion of the formulation of a List as described above, and not later than September 1, 1948, the Bureau of the Union shall furnish all members of the Union with copies of the List prepared in accordance with the above procedure. The Special Conference for the consideration of this List shall be convened on November 1, 1948.

## (622 R E)

9. During the period while the new List is being prepared by the Commission, notices of frequency assignassignments in the bands set forth in paragraph 6(d) above shall be made in conformance with the Cairo Radio Regulations and sent to the Bureau of the Union for publication as at present. After the preparation of the new List by the Commission, the Special Conference shall determine the procedure to be followed in incorporating into such List the foregoing assignments for meeting requirements for operations which were activated during the period between the closing date of Forms 1 and 2 and the opening of such Special Conference.

10. During the period between July 1, 1948, when the Commission completes its preparation of the new List based on requirements set forth in Forms 1 and 2, and November 1, 1948, when the Special Conference is convened, the Commission shall give consideration to assignments in the bands set forth in paragraph 6(d)above, which are filed between the closing dates of Forms 1 and 2 and the convening of the Special Conference, in order to formulate recommendations to the Special Conference for the incorporation in the first edition of the new List the assignments so notified.

11. The Atlantic City Radio Conference shall designate the country which shall provide the Temporary Chairman of the Commission. Such Temporary Chairman shall preside at the opening session of the Commission, at which time, the Commission shall elect its permanent Chairman and adopt any necessary rules of procedure.

12. The new List shall become effective on July 1, 1949, and all frequency changes necessary to implement the Atlantic City allocation table shall be completed by that date, provided, however, that the Special Conference may, if necessary, adopt a subsequent effective date.

13. Assignments entered on the new List in bands set forth in 6(d)above bear dates as follows:

(a) Entries made by the Commission and approved by th. Special Conference shall be dated as of the date of approval of the List by the Special Conference;

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(b) Entries approved by the Special Conference which result from notifications of assignments in the bands set forth in paragraph 6(d)above,which are filed with the Bureau of the Union during the period between the closing date of Forms 1 and 2 and the opening of the Special Conference on November 1, 1948, shall also be dated as of the date of approval of the List by the Special Conference;

(622 R-E)

(c) No entries of assignments in bands set forth in paragraph 6(d) above shall be made on the basis of notifications filed while the Special Conference is in session. Such notifications shall be administered by the IFRB after the close of the Special Conference and shall bear such date as is provided in the statutes of the IFRB, but in no event shall this date be prior to the close of the Special Conference.

14. If harmful interforence develops after the effective date of the new List from operation on frequencies, all of which are reflected by entries in the registration column of the new List, the problem may be referred to the IFRB. by one or more interested countries for action in accordance with the procedures prescribed for the IFRB.

July 25, 1947

2559 R

#### Bielorussia

Proposal of Bielorussia concerning the Time Requirement and the Order to be followed in establishing a new International Frequency List.

The following order shall be adopted for establishment of a new International Frequency List:

1. In conformity with the provisions of the Atlantic City Conference, to accelerate the reallocation of frequency bands to services and to obtain the rapid adoption of sound engineering principles in international radio technical practice, the work relative to the establishment of a new list shall be undertaken in two stages.

2. The first stage including the period up to August 1, 1948, will terminate with the establishment of the first draft of the new list, based on engineering principles not yet perfected, taking into account the following points:

a) All frequency assignments which must be changed shall be placed in new sectors of the spectrum, preserving established priorities.

b) Useless changes of assigned frequencies shall be avoided.

c) Everything possible shall be done to satisfy fully the requests for frequencies made by countries before November 1, 1947, according to forms 1 & 2. Account must be taken not only of the requirements for circuits in operation, but also for those which will be put into operation in the near future.

d) All modifications of frequency assignments must be carried out with scrupulous observance of the sovereign right of each country to regulate its communications. This must be done by indispensable consultations and by agreements with the administrations concerned.

3. The new International Frequency List thus established shall be adopted as a provisional list, either by convening a special international conference, or by postal correspondence.

2 5 Juil. 1947

4. The probable date for this list to ge into effect will be January 1, 1949.

-2-(623 R-E)

5. The International Frequency Registration Board shall continue the work of perfecting the first draft according to sound engineering principles. The following order of work is envisaged:

a) To make a complete technical analysis of the first draft of the List as well as to ascertain fully any interference which may arise during this period.

b) To complete the draft of the new frequency allocation plan through collaboration with the administrations concerned.

c) To prepare the technical form of the draft of the final text of the new International Frequency List and to send it to all countries which are members of the Union.

d) To have this list adopted by the next International Radio Conference.

6. The probable date that the new List shall go into effect will be September 1, 1951.

7. It is presumed that all radio services will be given satisfaction as need arises and that priorities will be preserved in the first draft as well as in the final text of the new International Frequency List.

8. It is presumed that work concerning the establishment of the provisional List will be carried out by the Berne Bureau in collaboration with the International Frequency Registration Board established at the Atlantic City Conference. The documents of the Berne Frequency List will be utilized.

DOCUMENT NO. 024 R-E

July 25, 1947

· Committee 3

Corrections to Document No. 606 R-E (Report of Subcommittee A 3)

Page 6, para. 13. Second sentence to read:

"He might say that it was partly that need which prompted the U.K. to make the proposal now under consideration."

Page 7, para. 13. 17th line from bottom of page to read:

"The North American Regional Engineering Committee, which the Delegate of Canada had mentioned....."

Page 10, para. 16.

Third sentence to read:

"He supported the Belgian delegate's suggestion that...."

Page 13, para. 24.

Second sentence to read:

"As the Delegate of the United Kingdom had pointed out at the 15th meeting..

Page 14, para. 27.

7. First sentence to read:

"It was the view of the U.K., as he had stated at the 15th meeting....."

9002

Document No. 625 R-E

July 25, 1947

Committee 7

## PROVISIONAL REPORT OF SUBCOMMITTEE 7 A CONCERNING THE DEFINITIONS OF GENERAL TERMS, SERVICES AND STATIONS

#### STATEMENT

1. At the twenty-sixth meeting on July 15, 1947, Subcommittee 7A completed the revision of the most important part of its work, that is, the definitions of GENERAL TERMS, of SERVICES and of STATIONS. It has the honor at this time to submit the results of its work to Committee 7 in the form of a provisional report.

The report should be considered as provisional for it represents neither all the views of the Subcommittee nor ' their final form. Indeed, here, the term "radio communication" has kept the general meaning which it had acquired since Cairo and concerning which the Subcommittee has been in agreement up to the twenty-fourth meeting. This general meaning includes all the applications of RADIO referred to by the General Regulations which we are now drafting. At the twenty-fourth and subsequent meetings, the United Kingdom gained the point by a slight majority that the corresponding definition be revised so as to include only the following:

Transmissions of information already known at the sending point, i.e., signals, writings, sounds, and images, fixed and mobile, excluding the obtaining of information by radio for navigation or other similar purposes; these will be considered under the general term of "radiolocation," parallel but not subordinate to the term "radio communication." These two classifications considered as a whole, as well as scientific, industrial and medical applications, will be included under the general term of Radio (Radioelectricite in French).

These new views may be advantageous from the point of view of logic and clearness, conforming both to the strict etymological meaning and to the needs introduced by recent technical developments. Nevertheless they present disadvantages of a juridical and administrative nature, not only from the international point of view but also from the point of view of the internal legislation of States, to such an extent that the Subcommittee has long hesitated to adopt them. Among results of such adoption would possibly be to necessitate the changing of the title of the General Regulations, and perhaps that of the Convention, since the word Telecommunication--because of its etymological analogy with the word Radio Communication--could, with difficulty, be applied to the whole of the envisaged applications. In any case, it will be necessary to carefully examine the articles of the Regulations in the light of the definitions finally adopted.

That is why considering the slight majority shown in favour of the new solution--a solution which we foresee will entail further discussion on a higher echelon--, the Subcommittee believed it should present its report in two parts. The present report, called provisional, corresponds to the former views of the Subcommittee. The additional report, which will be presented in the very near future, will contain new proposals for definitions of Radio, Radio Communication, Telecommunication, and the modifications which it would be necessary to make consequentially in some of the definitions proposed in this report as well as anticipated proposals for the titles of the Regulations and the Convention.

The definitions which are susceptible of amendment by the new proposals are indicated by an asterisk placed at the left of such proposals in this report.

#### 2. Reports to be consulted.

In the reports from the first to the twenty-fourth meetings of the Subcommittee, the discussions relative to definitions are summarized; their numbers are as follows:

158 R-E,	204 R-E,	229 R-E,	262 R-E,	302 R-E,
340 R-E,	345 R-E,	389 R-E,	415 R-E.	418 R-E.
433 R-E,	452 R-E,	487 R-E.	488 R-E.	489 R-E.
490 R-E,	509 R-Е,	512 R-E.	507 R-E.	555 R-E.
558 R-E,	578 R-E,	589 R-E.	581 R-E.	

After each title of a definition will be found the number of the report in which this definition was revised. In general, this report indicates the Numbers of the Reports where the results of discussions relating to definitions are recorded.

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## -2-(625 R-E)

## 3. Deleted definitions.

The Subcommittee proposed to delete the following definitions since they no longer corresponded to present requirements or represented a duplication:

: -3-(625 R-Е)

Facsimile service: replaced by the general term "facsimile."

On-board.station.

Portable station.

Private radio station.

#### Missing definitions and unsettled cases.

a) (Regular or non-regular) (route and offroute) aeronautical service.

The Subcommittee proposes a general definition for the aeronautical service but does not feel prepared at this time to define the two subdivisions of this service (regular and non-regular, or route and off-route) considering the lack of sufficient data on the types of aircraft stations or on the types of circuits which Committee 5 will consider in authorizing services in the corresponding frequency bands. The discussion of this subject will be resumed as soon as the Subcommittee has all necessary information.

#### b) Tropical broadcasting service.

As in the preceding case, the corresponding proposals will be examined as soon as Committee 5 has adopted geographical and other criteria which, in fact, constitute the basis of the definition of the Service.

#### c) Public correspondence of aircraft.

The conveying of the public correspondence of aircraft by the maritime mobile service having been favourably considered by Committee 8, Subcommittee 7A has studied and proposes various alternatives for the definitions of maritime mobile and aeronautical service. The suitable definitions may be selected when a final definition is adopted with regard to the proposals submitted to Committee8.

## 5. Definitions to be examined.

The Subcommittee intends to continue its work by examining two new groups of definitions:

IV. Operating characteristics of stations.

(625 R-E)

V. Processes and equipment.

Group IV contains all technical definitions such as, assigned frequency, frequency band, frequency tolerance, power of a transmitter, directive antenna, harmful interference, etc----.

Group V contains, in particular, the definitions of various equipment and apparatus, used in the make-up of certain stations such as, radiolocation stations.

6. General remarks of the Subcommittee.

It is understood that the inclusion in the Regulations of the proposed definitions found below will be dependent upon their use in texts which will be finally adopted for the Regulations or upon their use in other definitions.

The proposals of the Subcommittee follow:

## PREAMBLE (Doc. 578 R-E, p. 5)

(625 R-E)

The following definitions have been formulated in view of the regulations annexed to the Convention and of the operation of the respective services; these definitions are not necessarily, applicable to other purposes.

#### I GENERAL TERMS

\* Telecommunication: (Doc. 578 R-E, p. 5) Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, visual or other electromagnetic systems.

General Network of Telecommunication Channels: (Doc: 578 R-E, p. 5 and Min. 29). The whole of the existing telecommunication channels open to public correspondence, with the exception of the telecommunication channels of the mobile service.

\* <u>Radio Communication:</u> (Doc. 578 R-E) Any telecommunication by means of Hertzian waves.

Hertzian Waves: (Doc. 578.R-E, p. 5) Electromagnetic waves of frequencies between  $10^4$  and 3 x  $10^{12}$  cycles per second.

\* <u>Radio:</u> (Doc. 589 R-E, p. 7) A general term applied to the use of Hertzian waves.

<u>Telegraphy</u>: (Doc. 578 R-E, p. 5) A system of telecommunication for the transmission of written matter by the use of a signal code.

<u>Telephony:</u> (Doc. 578 R-E, p. 6) A system of telecommunication set up for the transmission of speech or, in some cases, other sounds.

<u>Television</u>: (Doc. 578 R-E, p. 6) A system of telecommunication for the transmission of transient images of fixed or moving objects.

<u>Facsimile:</u> (Doc. 578 R-E, p. 6) A system of telecommunication for the transmission of fixed images with a view to their reception in a permanent form.

## -<u>6</u>-(625 R-E)

Radiolocation: (Doc. 589 R-E, 'p. 7) Determination of a position or of a direction by means, of the constant velocity or rectilinear propagation properties of Hertzian, waves.

Radio Navigation: (Doc. 589 R-E, p. 7) Radiolocation intended solely for the determination of position or for obstruction warning, in navigation.

Radar: (Doc. 589 R-E, p. 7 and Min. 29) Radiolocation system where transmission and reception are carried out at the same location, and utilizing the reflecting or retransmitting properties of objects in order to determine their positions.

Radio Direction Finding: (Doc. 589 R-E, p. 7) Radiolocation in which only the direction of a station is determined by means of its emissions.

Telegram: (Doc. 589 R-E, p. 7) Written matter intended to be transmitted by telegraphy; this term also includes (radiotelegram) (radiogram) # unless otherwise specified.

\* <u>Radiogram</u>: (Doc. 589 R-E, p. 8) A telegram transmitted on all or part of its route over radio communication channels.

(Note: The inclusion of this definition depends upon the action taken by Committee 8)

 <u>Radiotelegram:</u> (Doc. 589 R-E, p. 8) (Telegram) (radiogram) # originating in or intended for a mobile station, transmitted on all or part of its route over the radio communication channels of a mobile service.

#### Note from the Subcommittee

# One of these two terms must be deleted depending upon the final decision concerning the inclusion of a definition for "radiogram" (Min. 23).

## (625 R-E)

### II SERVICES.

\* <u>Fixed Service:</u> (Doc. 589 R-E, p. 8) A service of radio communication between specified fixed points.

<u>Aeronautical Fixed Service</u>: (Doc. 589 R-E, p. 8) A fixed service intended for the transmission of information relating to air navigation, preparation for and safety of flights.

\* Broadcasting Service: (Doc. 581 R-E, p. 6) A radio communication service of transmissions to be received directly by the general public (1).

\* <u>Mobile Service</u>; (Doc. 589 R-E, p. 8) A Service of radio communication between mobile and land stations or between mobile stations communicating among themselves.

Maritime Mobile Service (Doc. 581 R-E, p. 5 and Doc. 594 R-E, p. 3.) (Proposals submitted for choice:)

(a) "A mobile service between ship stations and coast stations or between ship stations." (2)

(b) A mobile service between ship stations and coast stations, or between ship stations and including the handling of public correspondence between aircraft stations and ship or coast stations.

Aeronautical Mobile Service (Doc. 581 R-E, p. 5)

(Proposals submitted for choice:)

(a) "A mobile service between aircraft stations and aeronautical stations or between aircraft stations." (3)

- (1) This service may include transmissions of sounds or transmissions by television, facsimile or other means.
- (2) (Optional): Subject to other provisions of these Regulations, public correspondence between aircraft stations and coast or ship stations is admitted in this service.

(3) (Optional): Public correspondence is not permitted between aircraft and aeronautical stations.

## -8-(625 R-E)

(b) "A mobile service intended for the transmission of information relating to air navigation and safety of flight carried on between aircraft stations and aeronautical stations or between aircraft stations."

Land Mobile Service: (Doc. 581 R-E, p. 5)

"A mobile service between base stations and land mobile stations or between land mobile stations."

Radiolocation Service: (Doc. 581 R-E, p. 5)

"A service involving the use of radiolocation."

Radio Navigational Service: (Doc. 581 R-E, p. 5)

" A radiolocation service involving the use of radio navigation."

Maritime Radio Navigational Service: (Doc. 581 R-E, p. 5),

"A radio navigational service intended for the benefit of ships."

<u>Aeronautical Radio Navigational Service:</u> (Doc. 581 R-E, p. 6) "A radio navigational service intended for the benefit of aircraft."

Radar Service: (Doc. 581 R-E, p. 6)

"A radiolocation service making use of radar."

Amateur Service: (Doc. 590 R-E, p. 4)

"A service of self training, intercommunication and technical investigations carried on by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest."

Meteorological Aids Service: (Doc. 590 R-E, p. 4)

"A service of emissions of special radio signals intended solely for meteorological, including hydrological, observations and exploration."

Standard Frequency Service: (Doc. 590 R-E, p. 4)

"A radio communication service for the transmission of standard and specified frequencies of known high accuracy,

intended for general reception."

\* Industrial, Scientific, Medical Service: (Doc. 590 R-E, p. 4) "Use of high frequency energy for industrial, scientific or medical purposes which results in the transmission of energy by radio capable of causing interference with other # telecommunication services."

Special Service: (Doc. 590 R-E, p. 4)

(625 R-E)

A service not otherwise defined in this article carried on exclusively for specific needs of general utility, and not open to public correspondence."

## #Note from the Subcommittee.

If the definition of "Telecommunication," as finally adopted, does not specifically include, or is not considered as including this service, the word "other" is to be deleted.

#### -10-(625 R-E)

#### III STATIONS

## Station: (Doc. 590 R-E, p. 4)

"A separate transmitter or receiver or a combination of transmitters and receivers including the ancillary equipment required for carrying on a definite radio communication service. The station assumes the classification of the service in which it operates permanently or temporarily."

Fixed Station: (Doc. 590 R-E, p. 5)

"A station in the fixed service."

Broadcasting Station: (Doc. 594 R-E, p. 2)

"A station in the broadcasting service."

Aeronautical Fixed Station: (Doc. 590 R-E, p. 5)

"A station in the aeronautical fixed service."

Land Station: (Doc. 590 R-E, p. 5)

"A station in the mobile service not intended for operation while in motion."

Coast Station: (Doc. 590 R-E, p. 5)

"À land station in the maritime mobile service carrying on a service with ship stations."

Aeronautical Station: (Doc. 590 R-E, p. 5)

"A land station in the aeronautical mobile service, carrying on a service with aircraft stations. In certain instances an aeronautical station may be placed on board a ship."

Base Station: (Doc. 590 R-E, p. 5)

"A land station in the land mobile service carrying on a service with land mobile stations."

Mobile Station: (Doc. 590 R-E, p. 5)

"A station in the mobile service intended to be used while in motion or during halts at unspecified points."

(625 R-E)

Ship Station: (Doc. 590 R-E, p. 5)

"A mobile station in the maritime mobile service located on board a vessel which is not permanently moored."

Aircraft Station: (Doc. 590 R-E, p. 5)

"A mobile station installed on board any type of aircraft and continuously subject to human control."

Land Mobile Station: (Doc. 590 R-E, p. 5)

"A mobile station in the land mobile service capable of surface movement within the geographical limits of a country or continent."

Radiolocation Station: (Doc. 489 R-E, p. 4)

"A station in the radiolocation service."

Radio Navigation Station: (Doc. 489 R-E, p. 4)

"A station in the radio navigational service."

Radio Navigational Land Station: (Doc. 489 R-E, p. 4)

"A land station in the radio navigational service."

Radio Navigational Mobile Station: (Doc. 489 R-E, p. 4)

"A mobile station in the radio navigational service."

Radio Direction-Finding Station: (Doc. 490 R-E, p. 1)

"A radiolocation station intended to determine the direction of other stations by means of transmissions from the latter."

Radar Station: (Doc. 490 R-E, p. 2)

"A station in the radar service."

## -12-(625 R-E)

## Radio Beacon Station: (Doc. 594 R-E, p. 1)

"A radio navigational station the emissions of which are intended to enable a mobile station to determine its bearing or its direction relation to the radio beacon station and, in some cases, also the distance which separates it from the latter.

Standard Frequency Station: (Doc. 594 R-E, p. 2) and Doc. 509 R-E, p. 1)

"A station in the standard frequency service."

Experimental Station: (Doc. 594 R-E, p. 2 and Doc. 512 R-E, p. 1)

"A station utilizing Hertzian waves in experiments with a view to the development of science or technique. This definition does not include amateur stations."

Amateur Station: (Doc. 512 R-E, p. 1)

"A station in the amateur service."

Reporters:

Chairman:

G: SARRE

J. LOCHARD

D. R. Mac QUIVEY

Document No. 626 R-E

July 25, 1947

2560 R.

#### Afghanistan

July 23, 1947

Chairman of Subcommittee A of Committee 8, International Radio Conference Atlantic City, New Jersey

Dear Sir:

Afghanistan, in order to meet the requirements of her expanding radio services for her fixed point to point circuits, will assign numerals to her present call letter groups (YAA to YAZ, Article 14, Paragraph 291) as prescribed in paragraph 294 (b) numerals following the above three letter combinations.

It is believed that the three letter groups already assigned, in combination with a single numeral (using only 2 to 9), will give sufficient call groups to meet her new assignments.

No request for additional call letter combinations will be made, but, if revisions of the present assignment are made account must be taken in such revision so as not to decrease the total possible combinations now available.

> A. KAYOUM AFGHANISTAN DELEGATE WORLD TELECOMMUNICATIONS CONFERENCE ATLANTIC CITY, NEW JERSEY

Document No. 627 R-E

July 25, 1947

Committee 7

Report of Subcommittee B of the General Technical Committee (Oommittee 7) 19th Meeting July 24th 1947

1. The discussion of appendix 2 was resumed. The Subcommittee noted that during the last meeting, the figure of 25 milliwatts under consideration for the 10 kc/s - 1500 kc/s band would correspond to the power radiated by the antenna, but that the figure of 200 milliwatts proposed for higher frequencies referred to the power in the antenna (radiated power plus losses).

After a discussion in which the Delegates of France, Italy, Bielorussia, the United States of America and New Zealand took part, a table was finally adopted, as it appears in Annex 1 of this report: However, the <u>Swiss</u> <u>Delegate</u> had previously pointed out that he was afraid that for broadcasting antennae, the radiation of a harmonic corresponding to a power of 200 milliwatts in the antennae was still too large. However, he assented because this question was too complex and it would be necessary to go very thoroughly into the details of the output of the antennae and the radiation conditions in the vertical plane. Moreover, a special measure is contemplated for mobile stations, retaining Note 1 which appeared in the Cairo text. Finally after specifying in a note that the power under consideration was that supplied to the antennae on the harmonic frequency or from the parasitic emission under consideration, no objection was raised by the Delegations to the complete text of Annex 1 (title, table and notes).

2. The Subcommittee then rapidly perfected the wording of draft of suggestions for the C.C.I.R, which had been previously discussed (see Document No. 273 R-E and document No. 336 R-E). The text adopted appears in Annex 2 of this report.

3. The meeting was adjourned at 5:30 p.m., after the Chairman had announced that the Subcommittee had now finished the study of the texts which it had been instructed to draft.

The Rapporteurs, S. Jefferson C. Mercier 9065

The Chairman: N. F. S. Hecht

27 Juil, 1947

## -2-(627 R-E)

Annex I

#### Appendix 2

## Table of Tolerances for the Intensity of Harmonics and Parasitics Emissions in all Stations.

(See Article 6)

Frequency Bands	Tolerances
10 kc/s to 30000 kc/s	The power <sup>2</sup> ) of a harmonic or a parasitic ommission must be 40 db under the power of the fundamental, and in no case must it be above 200 mW.

1) With regard to tolerances for mobile stations, endeavour will be made to reach, so far as practicable, the figures specified for other stations.

2) The power here is the power fed to the antenna on the frequency of the harmonic or parasitic emission.

## (627 R-E)

#### Annex 2

#### Draft of Recommendations for C.C.I.R.

The C.C.I.R. is asked to study as soon as possible the following points arranged according to their urgency.

1. In respect of the various types of emission in use the bandwidth strictly necessary to ensure service of the appropriate quality and practical methods of measuring the bandwidth actually occupied by each particular emission.

2. The bandwidth which should be accepted by the various types of apparatus used for the reception of different types of emission in the different services, the filter characteristics and especially their effectiveness in eliminating interference outside the nominal acceptance band; the practical methods of obtaining the necessary characteristics and the appropriate methods of measurement.

3. The level of radiofrequency harmonics radiated by the stations of the different services, the level to which it is practicable to reduce such harmonics, the appropriate methods of achieving this result, as well as the appropriate methods of measurement.

4. The desirable overall conditions to be fulfilled by the systems employed by the different services in order to determine the required technical performance of the equipment, including the station terminal apparatus, the antennas and the measuring apparatus used to ascertain whether or not the equipment satisfies the recommendations of the C.C.I.R.

It is further proposed that the C.C.I.R. should permanently carry on the study of the above mentioned questions and their possible revisions be published as the work progresses. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

DOCUMENT NO. 628 R-E July 25, 1947

Committee 8

Report of Subcommittee C (Distress) of the Operations Committee (Committee 8). Eleventh Meeting July 24, 1947.

The meeting was opened at 3:30 p.m., under the chairmanship of Commodore Webster (United States).

The reports of the ninth meeting (Document No. 593 R-E) and tenth meeting (Document No. 595 R-E) were approved.

The <u>Chairman</u> referred to the progress of the work on Article 32 and mentioned that the Subcommittee would begin with Cairo No. 749. He proposed that representatives from the following countries which have submitted proposals form 'a working group to draw up a transactional text:

> France United Kingdom United States Canada

He suggested that this transactional text first begin with a general section which would be followed by sections dealing with the specific portions of the radiolocation service such as direction-finding, radiobeacons, etc. The work of the working group would be limited to that necessary to bring the various proposals into agreement.

In reply to a question from the delegate of <u>Canada</u>, the <u>Chairman</u> elaborated on the proposed new arrangement.

The delegates from France, Norway, United Kingdom, and United States supported this procedure.

The Subcommittee then adopted this method of working.

27 Juil, 1947

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# The meeting was adjourned at 4:00 p.m.

#### Rapporteurs:

The Chairman:

Webster

Berg Falgarone

8990

The transactional text prepared by the working group for Nos. 725 to 748 of Article 32 of the General Regulations is attached as an annex to this report to be examined by the Subcommittee 8-C.

~~ ·	3 '
<u>(</u> 628	R-E)

## Article 32 (Transactional Text) Special Services No change. To review after defi-. nitions have been completed. A. Meteorology No change. 725 Sl. Meteorological messages comprise: No change. 726 (a) messages addressed to meteorological Modified. services officially entrusted with weather Proposal forecasts; 1259R/U.S. To review. 727 (b) messages from these meteorological No change. services intended specially for: Modified. 728 lst, ship stations Proposal 1261R/U.S. To review. 729 2d, the protection of aircraft stations Modified. Proposal 1262R/U.S. 730 3d, the public. No change. 739 The information contained in these messages No change. may be: 732 (1) observations taken at fixed times; No change. 733 (2) warnings of dangerous phenomena; No change. 734 (3) forecasts and warnings; No change. 735 (4) statements of the general meteorological No change. situation. 736 \$2. (1) The various national meteorological No change. services agree together to prepare common transmission programmes so as to use the transmitters best situated to serve the regions concerned.

# (628 R-E)

737 (2) The meteorological observations contained in the classes mentioned in 726, 727, 728 and 729 are, in principle, drawn up in an international meteorological code whether they are transmitted by or intended for mobile stations.

- 738 §3. For observation messages intended for an official meteorological service, use shall be made of the facilities resulting from the allocation of exclusive frequencies to synoptic meteorology and aeronautical meteorology service, in conformity with regional agreements for the use of these frequencies made by the services concerned.
- 739 §4. (1) Meteorological messages intended specially for all ship stations are sent, in principle, in conformity with a fixed time table, and, so far as practicable, at times when they can be received by ship stations having only one operator. The speed of transmission is chosen so that an operator possessing only a second class certificate may be able to read the signals.

740 (2) During the transmission "to all No change. stations" of meteorological messages intended for stations of the maritime mobile service, all stations of this service whose transmissions might in-terfere with the reception of these messages, must keep silent in order to permit all stations which desire to do so to receive these messages.

741 (3) Meteorological warning messages for the maritime mobile service are transmitted immediately and must be repeated at the end of the first silence period which follows (see 492) as well as at the end of the first silence period which occurs in the working hours of a ship station having a single operator. They are preceded by the safety signal

Modified Proposal 383R/U.K. and 1274R/U.S.

allocations table has been decided.

No change. To review

after the

frequency

No change.

No -change .

and are sent on the frequencies defined by 617.

742 (4) In addition to the regular information services contemplated in the preceding sub-paragraphs, Administrations take the necessary steps to ensure that certain stations shall, upon request,' communicate meteorological messages to stations in the maritime mobile services.

- 743 (5) The foregoing rules are applicable to the aeronautical mobile service, insofar as they are not contrary to more detailed regional arrangements ensuring at least equal protection to air navigation.
- 744 \$5. (1) Messages originating in mobile stations and containing information concerning the presence of tropical cyclones must be transmitted, with the least possible delay, to other mobile stations in the vicinity and to the appropriate authorities at the first point of the coast with which contact can be established. Then transmission is preceded by the safety signal.
- 745 (2) Any mobile station may for its own use listen to messages containing meteorological observations sent out by other mobile stations even those which are addressed to a national meteorological service. Stations of the mobile services which transmit meteorological observations addressed to a national meteorological service, are not required to repeat them. However, the exchange between mobile stations, on request, of information relating to the state of the weather is authorized.

B. Time Signals. Notices to Mariners.

746 \$6. The provisions of \$4. above are applic- No change. able to time signals and to notices to mariners. However, the provisions of 741 are not applicable to time signals.

No change.

No change.

No change.

No change.

No change.

747 \$7. Messages containing information concerning the presence of dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation, must be transmitted as soon as possible, to other ship stations in the vicinity and to the appropriate authorities at the first point of the coast with which contact can be established. These transmissions must be preceded by the safety signal.

\$8. When they think it desirable, and provided the sender agrees, Administrations may authorize their land stations to communicate information concerning maritime damage or casualties or information of general interest to navigation, to the marine information agencies approved by them and subject to the conditions fixed by them. No.change.

No change.

748

#### N INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

## Document No. 629 R-E

July 25, 1947

Committee 8

Report of the Operations Committee (Committee 8)

> Third Meeting July 23rd, 1947

- 1. The <u>Chairman</u> opened the meeting at 3:35 p.m. by explaining that the Chairman of the Conference had requested reports of progress and target dates for the completion of the work. He had consulted the Chairmen of Committee 8 Subcommittees and as a result had given an estimate that the work would be finished by the end of the last week in July. He appreciated that this would mean hard work for the drafting Committees but hoped the work could be completed by the date given.
- 2. The report of the second meeting, Doc. /Nos. 554 R and R-E was then adopted without comment.
- 3. The <u>Chairman</u> then called upon the <u>Chairman</u> of <u>Subcommittee C</u> to present Doc. Nos. 576 R and R-E. After <u>Commodore Webster</u> had explained that the document contained texts for Articles 23 and 24, 539 to 620, the <u>Chairman</u> proposed that the document should be re-viewed page by page.
- 4. The Delegate from the <u>United States</u> suggested a comma should be placed after the word "Reserve" in the title to Article 23 and that 539 and 539 bis might need some amendment to make them clear. He therefore proposed that the wording of these paras. should be as follows:
  - 539. § 1. The Convention for the Safety of Life at Sea prescribes which ships must be provided with an emergency (reserve) installation and which life boats, life rafts and other survival craft on ships must be provided with radio equipment. It prescribes also the conditions which must be fulfilled by such installations.

Modified.

9023

26 Juil, 1947

539 bis. S 1. bis The present regulations do not define which aircraft must be provided with emergency (reserve) installations, which life rafts and other survival craft on aircraft must be provided with radio equipment; or the conditions which must be fulfilled by these installations.

- 2 -(629 R-E)

New

The Committee agreed that these texts should be forwarded to the Drafting Committee with a special note calling attention to the fact that some minor amendment may still be required.

During discussion the Delegate from the <u>United States</u> mentioned that in connection with 548 he wished to reserve the privilege of bringing up the United States proposition 1183R after frequencies had been allocated. The Delegate from <u>Canada</u> also wished to reserve 548 for further consideration in connection with the Canadian proposition 1574R.

It was agreed that 548 should be held for further consideration after Committee 5 had reported.

After an intervention by the Delegate from <u>France</u> pointing out that Article 24 was very long and might be better if divided into two parts; one headed "Distress" and the other "Urgency" and "Security" it was agreed that this question should be referred to Committee 9.

After an intervention by the Delegate from <u>France</u> it was agreed that 618 should be reserved pending the report of Subcommittee C on Article 32.

The remainder of Article 24 was then approved subject to the following amendments to Doc. Nos. 576 R and 576 R-E:-

French text

Pages 12 and 13 in 597 bis to 600 replace 2°, 3°, 4° and 5° by 1° bis 2°, 3° and 4°.

5.,

6.

7.

(629<sup>°</sup>R-E)

Page 16 In the title delete the words "projet de"

#### English text

Page 4 4th line of 553 delete the word "silence."

Page 5 In 554 the words which follow the colon in the 2nd line should be set out with each item on a separate line as in Cairo.

Page 8 In the 3rd line of 573 the word "with" should read "of."

Pages 10 & 11 In 586 the words following the colon in line 10 should be set out with each item on a separate line as in the Cairo Regulations.

Page 11 In 587 the same amendment as for 586 should be made.

Pages 13 and 14 The parenthesis should be removed from the figures immediately following 597, 597 bis, 598, 599 and 600.

The Delegate from <u>Canada</u> suggested that reference to the Conference in the English text should appear in both draft resolutions in the same terms. After a short discussion the Committee agreed that Committee 9 would automatically see to it that, the correct title of the Conference would be inserted in both cases.

The Chairman then called upon <u>Mr. Curtis</u> of <u>New Zealand</u> to introduce Doc. No. 583 R. After the introduction during which <u>Mr. Curtis</u> drew attention to a number of texts which would require reviewing after definitions and the monetary unit had been settled, the

10. Delegate from the <u>United States</u> drew attention to a number of paragraphs marked "No change." He pointed out that in his opinion it was essential that an agreed English text for these paras. was produced. After some discussion in which the <u>Delegates</u> from <u>New Zealand</u>, <u>France</u>, <u>Canada</u>, the <u>United Kingdom</u>/and South Africa

9.

#### - 4 -(629 R-E)

<u>Australia</u>, it was agreed that all the texts might be adopted provisionally, subject to the paras. in question being translated into English by a working party consisting of representatives from the <u>U.S.</u>, U.K. and France.

Subject to the foregoing reservations and the following amendments Doc. No. 583 R-E was approved provisionally:-

Page 4. Art. 26 653. In the remarks column against 4, insert :-

"(a) bis May require amendment if the term 'direction-finding' does not accord with the new definition."

In the heading to 702, Section C amend to read "Period of Retention of Accounting Records."

11. The <u>Chairman</u> then called upon <u>Col. Read</u> to introduce Doc. No. 586 R. In his introduction <u>Col. Read</u> pointed out that the documents covered Article 21 471 to 519, omitting a small section dealing with the HF service, and Article 25 621 -643 which omitted section D being dealt with by Committee A.

The Committee then proceeded to examine the texts.

- 12. Following an intervention by the Delegate from <u>New Zealand</u>, it was agreed that 473 should be reserved for further discussion by Subcommittee B.
- 13. The Delegate from <u>Canada</u> mentioned that in connection with 493 there was a Canadian proposition 1569R which related to the HF Section. The proposal was to add 493 bis but this should be decided when the HF Section is considered.
- 14. Doc. No. 586 R-E was then adopted subject to the foregoing and the following amendments:-

In the title to Article 21 add in word "radiotelegraphie."

Para. 485 (in English text only) Add a colon after the word "used."

Para.' 485 The reference "417" should read. 479.

Para. 487 bis In second line insert "A 1" between "type" and A 2.

Para. 489 In the note, 481 should read 481 bis

Para. 499 bis reserved for further study.

Para. 515 (in English text only) In the penultimate line X.L should be amended to read "x h"

15. The Delegate from Canada referred back to the draft proposition to the C.C.I.R. in Doc. No. 576 R and pointed out that when the subcommittee had agreed to submit the proposal, it was also agreed to submit the word "PAN" for study. The <u>Chairman of Sub-</u> <u>committee C</u> agreed that this was correct and proposed (to deal with the amendment required in his subcommittee. This was agreed.

16. The meeting closed at 5:20 p.m.

Chairman:

Rynning Toennessen

Rapporteurs:

V. Dodd J. M. Biansan

## INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 630 R-E July **25**, 1947

Additions to Document No. 449 R-E Composition of Committees and Subcommittees.

<u>General Technical Committee (Committee 7)</u> Page 15. <u>Members</u> of Committee: Add Belgian Congo.

## INTERNATIONAL, RADIO CONFERENCE ATLANTIC CITY, 1947

July 25, 1947

COMMITTEE 7

# R E P O R T of the SUB-SUBCOMMITTEE A2 (Technical Definitions) of the GENERAL TECHNICAL COMMITTEE (Committee 7)

#### First Meeting

1. The Chairman, Mr. N. Hecht (United Kingdom) opened the first meeting of this Sub-subcommittee at 5:30 p.m.

He immediately undertook the study of the term Harmful Interference which has been under discussion in Subcommittee 7A.

2. The following proposals were studied: 48R, 495R, 1540R, 2389R, 1635R and 1364R, and it was observed that all these proposals were almost identical in meaning.

The Delegate from France asked that there be included in the text a reference to interference caused by induction fields.

A long discussion took place in which the following Delegations took part: the <u>United States</u>, <u>Bielorussia</u>, the <u>Netherlands</u>, the <u>United Kingdom</u> and <u>Italy</u>. Apparently only the Delegate from the United States opposed the inclusion of the term "induction" in the text. As he did not succeed in convincing the other Delegates that the introduction of this term risked causing practical difficulties in certain countries, the Delegate from the United States accepted the opinion of the majority, but specified that he would like to have it shown in the report that he did not agree upon this point. The text of his observations appears at the end of the present report.

2.7 Juil: 1947

## - 2 -(631 R-E)

3. The following definition was adopted:

## "Harmful Interference:

Any radiation or any induction which endangers the functioning of a radionavigation service or of a safety service or obstructs or repeatedly interrupts a radio service operating in accordance with these Regulations."

4. After the use of the term "safety service" was permitted in this definition, it was agreed to study at the next meeting the definition of this term, or else the wording of a note referring to the definition of "Harmful Interference" which, in accordance with a suggestion by the Delegate from France, could be thus worded:

> "Any radio service, the operation of which is in direct relation, whether permanent or temporary, with the safety of human life, shall be considered a safety service."

5. Statement of the Delegate from the United States.

"The United States will make every effort to bring their national laws into conformity with the various versions of the General Radio Regulations, although of the opinion that the proposed definition will have the following effects:

Any apparatus which might cause induction interference would have to be screened or filtered in such a manner as to eliminate this interference.

This would necessitate great changes in household apparatus, the screening of sparking-plugsin automobiles, etc.

The United States believe that they have understood that the Nations which are proposing and supporting this definition will be obliged to act in the same manner, and that they are consequently prepared to make these large and expensive modifications in induction apparatus, household appacatus, gasoline engines with sparkingplug systems, etc. etc."

The meeting was adjourned at 6:30 p.m.

Chairman: N. Hecht. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

July 25, 1947

Committee 7

28 Juil. 1947

Report of Subcommittee B of General Technical Committee (Committee 7)

'20th Meeting

### July 25, 1947

1.-As the report of the 18th meeting (Doc: No.616 R-E) in English had not yet been distributed, its approval was postponed to the next meeting. Nevertheless,' the Annex dealing with the subdivision of Article 22 was approved.

2.-The Subcommittee continued the revision of the texts recapitulated in Document 579 R-E. As the substance of these texts had already been approved, revisions were only made in the form. This work led to several observations that were immediately taken into account in correcting the presentation of the texts as they will appear in the final report of the Subcommittee of Committee 7. The revision concerned Article 4, Article 6, Appendix 1, and Appendix 3. Article 22 had been revised in the preceding meeting, and its presentation approved at the beginning of the meeting.

3.-General remarks were made, furthermore, that were of interest to the Drafting Committee:

- Appendix 1. The Drafting Committee should replace the terms "low end of Broadcasting band" or "high end of Broadcasting band" by the corresponding. numbers adopted by this Conference.

- The expression "lifeboat transmitters and ships emergency transmitters" should be replaced by the corresponding expression adopted by Committee 8.

Appendix 3. The notations that shall be adopted for the classification of transmissions' should appear in their appropriate place in the column "Type of Transmission".

4. The only question brought up in regard to new substance was to determine whether indications should be given for frequency tolerances in relation to lifeboat transmitters and ship emergency transmitters in bands C and D. After a brief discussion, it was decided to add to paragraphs C c) and D c) after "Land Mobile stations" numbers for the lifeboat emergency transmitters; for band C, the number 0.1% is adopted for the 2 columns; for band D, the same numbers as those used for ship stations of the same band.

, 5.-The meeting was adjourned at 5:30 p.m.

The Rapporteurs:

The Chairman:

N.S.F. Hecht

S. Jefferson

C. Mercier

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No.633 R-E

July 26, 1947

Committee 6.

#### REPORT

of the INTERNATIONAL FREQUENCY LIST COMMITTEE (Committee 6)

> 9th Meeting July 25, 1947.

1. The meeting was opened at 10:10 A.M. under the chairmanship of Mr.J.D.H. van der Toorn of the Netherlands delegation.

Document 619 R-E, report of the eighth meeting was approved with the following amendments:

(a) Change "fourth" to "seventh" in the fourth line of paragraph 1. This correction applies only to the English text.

(b) Change "4" to "3" in the second sentence of subparagraph (a) of paragraphl. This correction also applies only to the English text.

(c) Add France to the last sentence of sub-paragraph (b) of paragraph 4.

2. The Chairman then asked whether or not the countries responsible for the submission of the proposals set forth in paragraph 4 of Doc. 619 R-E were satisfied that the proposals as stated therein clearly reflected their viewpoints and were properly worded.

3. The delegate of the U.S.S.R. stated that, after examining in detail the work of sub-sub-committee 6B2, the approach and direction taken by the sub-sub-committee is satisfactory and that, therefore, the proposal contained in paragraph 4 (c) of Doc. 619-R-E could be withdrawn. Further, this withdrawl was made in favor and support of the proposal of Bielorussia set forth in paragraph 4 (b) of Doc. 619 R-E.

4. The delegate of Bielorussia informed the committee that difficulties in translation had made it difficult for the real meaning of his proposal to be thoroughly understood. Following a restatement of this proposal, it was agreed to circulate the exact wording as a conference paper. This has been effected by Doc. 623 R-E.

(633 R-E)

5. The delegates of the United Kingdom and India acknowledged that paragraphs 4 (a) and 4 (d) represented clearly the views of their countries respectively.

6. At the request of the Chairman, the delegate of Switzerland put forth the following proposal which could not be entertained at the preceding meeting:

"The rearranging of frequencies in use by all the stations of the world is a tremendous task requiring wise and proper procedure which always remains close to reality, that is, to the present use of frequencies. In the attempt to find a shortcut from the present frequency list to the future circuit list, there is always the risk of departing from facts and hence of losing the solid basis of real possibilities.

The Swiss Delegation is of the opinion that transition from the old to the new regime with the maximum of safety, cannot be accomplished by a single step consisting of the re-arrangement of the stations on the basis of the circuit lists of all the cuntries, coupled with the new frequency allocation table.

On the contrary, we are of the opinion that the safest method would be, first of all, to put the present frequency list in good order, attempting, with the approval and collaboration of the other organizations, to reduce the number of frequencies listed and used by the stations. Such an expurgation and simplification of the present frequency list, and also of course of the actual operation of the stations, could, in our opinion, facilitate the final work of the IFRB. Thus, the latter would be in a much more favorable position at the very beginning of its work.

The Swiss Delegation, wishing to see the task of this Conference be brought to a successful conclusion, suggests the following preparatory procedure:

1) To revise, on the basis of the new lists provided by the administrations, the frequency list in the hands of the Bureau of the Union.

2) To publish, through the usual procedure, a new provisional list, by inviting all the administrations to indicate with the least possible delay

- a) the frequencies not in use
- b) the frequency groups (comprising two or several frequencies) which could be reduced to a single frequency, provided that certain interferences be avoided.

3) To amend the provisional frequency list according to 2a. To study, in collaboration with the administrations, the cases of interference which have brought about the use and notification of several frequencies according to 2b, and to seek, in agreement with the administrations concerned, a solution of the common problem.

(633 R-E) -

As a result of this procedure, the Bureau of the Union and the committee entrusted with the drafting of the new circuit list, would have at their disposal both a table reflecting quite faithfully the present situation in the various bands, and a real basis for undertaking the great task of a new frequency allocation."

7. The delegate of the U.S.S.R. expressed the feeling that the proposals of Bielorussia, India, France and Switzerland were close in meaning and might well be combined into one text.

8. Support of the proposal of Switzerland was expressed by the delegate of Belgium who went on to say that he believed progressive work based on an actual, well-known, realistic foundation gives more assurance of success than a sudden transition to a new plan based on complete reengineering, since the technical principles laid down might be satisfactory for one service but not necessarily applicable for another. Also, even if the technical principles are agreed upon by a competent body there is a great danger that certain operational requirements, which have a considerable influence on the possibility of the utilization of frequencies, might be neglected by a group of specialists concerned only with characteristics of propagation. Further, the delegate of Belgium insisted that the task of reorganization be limited to the Fixed service and that the attribution of frequencies to other services, such as the Aeronautical Mobile service, be entrusted to competent organizations which would also take into consideration factors other than technical principles.

9. The delegate of France stated that the dominating question is that of time and that the new allocation table must be implemented as soon as possible. He feared that if the work of compiling the new list is done in too short a time it will result in more time being consumed before a completely workable plan is realized. Also, it was the feeling of the French delegate that it would be better to adopt a solution which is not too perfect but which would allow the new allocation table to be put into use and allow such services as High Frequency Broadcasting and Aeronautical Mobile services to make use of the new

90.80

table. Further, it is also necessary to find a procedure which provide for displaced frequencies. The proposal of France was the same as those of Bielorussia and Switzerland and the following two-step operation was proposed:

That a special organization, composed of representatives of each country, study the problem and thus assure that the interests of all will be protected. The terms of reference of this special organization would be - to find room for displaced frequencies, taking into account priorities of the Berne list according to Column 3 (a). The list prepared on the foregoing would then be submitted for the approval of all countries.

(2) IFRB will begin its work; its task will be, besides the task defined by its statutes, to reengineer the list according to sound technical principles. IFRB will consult with interested administrations in order to take into account 2 (a) and 2 (b) of the Swiss proposal. The improvement so made would be submitted to the next Radio Conference. However, if the improvements made by IFRB can be accepted by the administrations prior to the next Radio Conference, such improvements could be enforced upon acceptance.

Under a plan which calls for complete reengineering, the French delegate continued, if not all countries are in readiness on the day of change over, chaos will result. However, if a temporary list is implemented, the number of changes would be smaller and if, as its labors are progressing, IFRB can get the agreement of the interested administrations on proposed improvements, the number of changes required to implement the list to be approved by the next Radio Conference will be greatly reduced. The French delegate considered that this proposal has the advantage of avoiding too sudden a change over. The delegate of France also favored the idea of separate organizations providing for the requirements of individual services on the condition that the work of the organizations be coordinated.

10. The Chairman of the United Kingdom delegation reiterated that the United Kingdom, in Doc. 619 R-E, had tried to summarize the situation as they see it today. He noted that all delegates seem to agree on the fact that the present Berne list is far from ideal and is in need of readjustment and that the only points to be solved are how and when shall a new list, based on sound (633 R-E)

engineering principles, be provided in order that IFRB may have a basis for the future assignments of frequencies. Further, the delegate of the United Kingdom expressed grave doubts that the proposals set forth by several delegations, that the work proceed first of all by preparing an interim list based on a minimum change of assignments and on the fitting of displaced frequencies into new bands, would succeed particularly in the Fixed bands which are being reduced by as much as 10%. Moreover, all the successive interim plans would have to be approved by successive conferences meeting at rather short intervals of about one year, and lasting a considerable time. Thus difficulties would be encountered by everyone in carrying out their responsibilities. to their respective administrations. The delegate of the United Kingdom was also of the opinion that too much weight has been given to the difficulties of completely. engineering the new list and too little to the difficulties of providing an interim list which can only result. in the degradation of many services. The delegate of the United Kingdom realized fully the difficulties in preparing a fully engineered list but, at the same time, considered that granted the proper technical qualities of the men charged with the task, the proper number of men, and a reasonable period of one year, it would be possible to produce a satisfactory reengineered list. The delegate of the United Kingdom was firmly of the view that the problem must be attacked and a satisfactory list produced within a reasonable time, instead of wasting time with interim or makeshift solutions. Further, he esteemed that even if it takes a little longer to produce a completely reengineered list, it would be preferable for High Frequency Broadcasting and Aeronautical services to wait a short while and thus be able to make more satisfactory use of those portions of the spectrum allocated for their use. For the foregoing reasons, the United Kingdom delegate strongly supported proposal 4(a)of Doc. 619 R-E and recommended that a special commission be allowed to proceed forthwith on the work of putting the list in proper order by the application of sound engineering principles. This list to be distributed to the world, agreed upon by a World Conference, and turned over to IFRB to serve as the basis of its work.

11. The Chairman of the United States delegation strongly supported the position of the United Kingdom and endorsed their statement in totality. He advised the committee that the United States has independently prepared a proposal which is very close to that set forth by the United Kingdom. In the opinion of the United States delegate, proposals for the preparation of aninterim list are unworkable. Also, if the new allocation table is to become

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effective, implementation in detail by a completely new list is necessary. The delegate of the United States stressed that the success of Committee 5, I.F.R.B. as drawn up by Committee 3, and to a real and large degree, the success of the entire Conference depends on the decisions of Committee 6. A general outline of the United States proposal was then given. This proposal is set forth in Doc. 622 R-E.

12. The delegate of France pointed out, in answer to the United Kingdom, that he did not propose an International Conference meet every year but that a conference be convened for approving the interim list. In addition, that I.F.R.B. would propose modifications to be submitted for approval at the next Radio Conference. He then asked the United States for details as to the time schedule contained in their proposal.

13. The delegate of the United States presented the following time schedule proposal for the reengineering and implementation of a new frequency list:

- (a) October 1, 1947 Convene special commission.
  (b) January 1, 1948 Complete the Settlement of Engineering Principles.
- (c) July 1, 1948 Complete the Reengineering Work.
- (d) September 1, 1948 Printing Completed.
- e) October/November 1948 Circulate and Study.
- (f) November 1 to December 15, 1948 Special Conference to approve list.
- (g) January thru June 1949 Preparation for changeover.
- (h) July 1, 1949 Effective Date.
- 14. The delegate of Canada expressed agreement with the proposals of the United Kingdom and United States and also considered that little engineering could be applied in the preparation of an interim list. Further, that such engineering as is possible in compiling an interim list could be done equally well by each administration and frequency changes notified to the Berne Bureau.
- 15. The delegate of the United Kingdom replied to the delegate of France that in view of the difficulties involved in preparing an interim list, approval could only be obtained at a World Conference. Then, another World Conference would be necessary for approval of the eventual completely engineered list. Thus, a series of conferences would be necessary and the work of I.F.R.B. would be unduly delayed. Also, he agreed for the most part

with the time schedule proposed by the United States but considered that the date of implementation would more realisticly be September 1, 1949. Disagreement was expressed to the Canadian suggestion that limited engineering of an interim list might be effected by separate administrations.

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16. The Delegate from the French Colonies intervened to say that he agreed with all the Committee Members on the necessity of re-arranging the Frequency List. As to the two methods under consideration to obtain this result, he pointed out the difficulties already noted by Belgium and France in the application of the method advocated by the United States and Great Britain. He preferred the method advocated by Bielorussia, which provided for reading the desired result in two stages:

- 1) Setting up a provisional list in the shortest possible time.
- 2) Progressive improvements in this list by the I.F.R.B.

In the first method, he feared that a strict application of the technical principles would not lead to a more efficient use of the spectrum than its use at present.

He drew attention to the practical and economic difficulties which might result from a simultaneous change of all the frequencies in the whole world. He especially insisted on the importance of the extensive role in safety measures played in the French Colonies by a very great number of radio stations which were far from important centers and without easy means of communications. These numerous stations, which did not perform any remunerative service, would incur very heavy expenses and find it absolutely impossible to make all these changes simultaneously because of their inability to have an expert technical staff at their disposition everywhere. This would also involve the risk that these stations could not carry out their part in safety measures for periods of excessive duration.

17. Considerable discussion ensued on the merits and demerits of the several proposals. Support for the United States proposal was given by the delegates of Brazil, Canada, Chile, China, Cuba, Australia, India, Venezuela, Turkey, Philippines, Norway, and United Kingdom. The Chairman also stated that, in his views, the United

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States proposal, was a concrete and bold effort and when a broad view of the problem is taken, it will appear to be the most expeditious and practical solution. He also stressed the importance of the Radio Conference adopting a resolution which would give assurance to all members of the Union that, as far as the frequencies for their services are concerned, their position after the reengineering of the frequency list would at least be as satisfactory as at present. Support for the Bielorussia proposal was given by the delegates of U.S.S.R., France, French Colonies, and Outer Mongolia.

18. Upon approval of the suggestion that the proposals of the United States and Bielorussia be circulated and a vote taken at the next meeting, the meeting adjourned at 1:40° P.M.

#### Reporters

Chairman

W. Dean J. Millot

#### J.D.H.van der Toorn:

#### INFERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 634 R-E July 26, 1947

Committee 8

#### REPORT

#### OF SUBCOMMITTEE B OF THE OPERATIONS COMMITTEE (COMMITTEE 8)

#### 16th Meeting

The Chairman opened the meeting at 12:25 P.M. and the report of the 15th Meeting (Documents 582 R and R-E) was adopted without comment.

The <u>Chairman</u> proposed that the Subcommittee should consider first some of the points which had been referred back to it by Committee 8. The first point was in connection with Article 21, para. 473 and the question was whether or not this text should be modified to include aircraft over land.

After some discussion in which the <u>Delegates</u> from New Z<u>ealand</u>, <u>Canada</u>, the <u>United States</u> and <u>France</u> joined, it was agreed to delete 473 as the matter was already dealt with in Art. 9, para. 207.

The <u>Chairman</u> then requested consideration of the point raised by Canada in connection with 499 and suggested this might be taken care of by a cross reference to 499 which could be inserted in the H.F. section how being drafted.

This arrangement was accepted after a short discussion during which the <u>Delegate</u> from the <u>United States</u> proposed an amendment to the text of 499 and the deletion of 499bis, the Subcommittee agreed that the United States proposal be accepted provisionally subject to further examination by the drafting group.

The <u>Chairman</u> then reviewed the outstanding work of the . Subcommittee which was as follows:

•••	Article 21.	H.F. Section and Section D. being drafted.	-
	Article 30.	Part concerning the Aeronautical Service of Public Correspondence being drafted.	
	Article 31.	In draft but propositions 1151, 1152, etc still to be considered.	•

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Appendices 11 and 12 being drafted.

Appendix 14 still to draft.

The <u>Delegate</u> from <u>Canada</u> reverted to the subject matter outstanding and proposed that the Canadian proposition 1553R addressed to Article 7 might be considered by the sub-subcommittee dealing with the H.F. Service. This was agreed.

The meeting closed at 1 P.M.

Rapporteurs:

Chairman:

V. H. Beaufol V. Dodd

9015 /

A. H. Read

## - 3 -(634 R-E) ANNEX

# <u>Article 30</u>

#### Public correspondence in the Aeronautical Service

703. Except in the case of special arrangements (Article 13 of the Convention), the provisions of these Regulations relating to the procedure for routing and accounting of traffic apply generally to public correspondence in the Aeronautical Service. No change.

No change. To review after completion of definitions

#### Article 31

To Chairman

Subcommittee B of Committee 8.

The Drafting Group have been unable to agree on the necessity to include proposals 1151 R, 1155 R, 1156 R, 1163 R, 1165 R and 1168 R contained in Document 11 R United States and in consequence these proposals are referred back to Subcommittee B for further guidance.

Text submitted to Subcommittee 8B

Article 31

Service of Low-Power Mobile Radiotelephone Stations.

A. General

704 §1. The service of ship radiotelephone stations must be performed by an operator satisfying the conditions fixed by Article 10

B. Call. Reply and Distress

705 § 2 (1) The frequency of 1650 kc/s is both a calling frequency and the distress frequency for the maritime mobile service; of radiotelephony with low-power ship stations working in the portions of the band 1560-3635 kc/s in which radiotelephony is authorized (Article 7. § 7) No change. To review after draft of long distance telephone service New. Modified.

New.

No change. To review after the frequency allocation has been decided.

	- 4 - (634 R-E)	
• ,	be used only for calls and replies and its use in compulsory for the distress call	No change To review if common frequency is alloca-
,	and distress traffic, urgency and safety signals and messages	ted for all regions
•	707 (b) <sup>H</sup> owever, an Administration may allocate to a station other frequencies for call and reply.	Drafting modification.
*	708,(3) In other regions its use is not obligatory.	To review if common frequency is allocated for all regions.
	709 § 3. The provisions of 709, 715 to 720 and 724 apply only to radiotelephone stations which use the frequency of 1650 kc/s as the calling and distress frequency and of which the power of the unmodulated carrier - wave in the antenna is not more than 100 watts; except in	No change. To review after frequency allocation has been decided and after long distance telephone service has been drafted.
•	the case of regional agreements as provided for in 269.	
	710 § 4 (1) For the call signs for coast and ship radiotelephone stations see 304 bis and 304 ter.	Modified. To review see Doc. 419 R-E Proposal 1158 R/US, 1159 R/US and 1160 R/US
4		Deleted. To review (Doc. 419 R-E)
	712. The provisions of the present article are applicable in all cases to stations of the Maritime Mobile Service. They are equally applicable to aircraft stations entering into radiotelephone communication with coast stations on frequencies allocated to this service	Modified. Froposal 2113 R/F To be placed before 704. Proposal 1146 R/US.
	713. (3)	Deleted. Covered by 304 bis. To review Doc. 419R-E
	714. (4) The provisions of 710,711 and 713 do not apply in the case where automatic calling devices are used	No change. Proposal 1158 R/US.
	<u>C. Watc</u> h	New.
•	715 § 5 (1) Every coast station participating in the service of public correspondence by radiotelephony in the band 1560 to 3635 kc/s must so far as possible, maintain watch on the frequency 1650 kc/s during its working hour	No change. To review after frequency allocation table has been completed. s.
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- 5 -(634 R-E)

716. (2) In the European region, with the view to greater safety of life at sea, all radiotelephone stations of the maritime mobile service which normally keep watch on frequencies in this band take steps, as far as possible, to keep watch on the distress frequency 1650 kc/s twice each hour for three minutes, commencing at X hOO and X h3C, Greenwich Mean Time(G.M.T.)

717. (3) During the above-mentioned intervals, ell transmissions in the bands between 1650 and 1670 kc/s, except distrees, urgency, and safety transmissions, must cease.

#### D. Traffic

718. (1) Coast stations which use the calling frequency of 1650 kc/s must be able to use at least one other frequency in the portions of the band 1560 - 3635 kc/s in which the maritime mobile radiotelephony service is admitted.

719.

One of these frequencies is printed in heavy type in the List of Stations to indicate that it is the normal working frequency of the station.

Working frequencies of coast stations . must be chosen in such a manner as to avoid interference with other stations.

720.

(2) In addition to their normal working frequency, coast stations may use supplementary frequencies in the authorised bands. These frequencies are shown in ordinary type in the List of Stations.

721. \$ 7(1) The provisions of 542 are applicable to ship stations of the radiotelephone service.

Modified Proposal 2122 R/F

To review if common frequency is allocated to all regions.

No change.

To review frequency band after frequency allocation table has been completed.

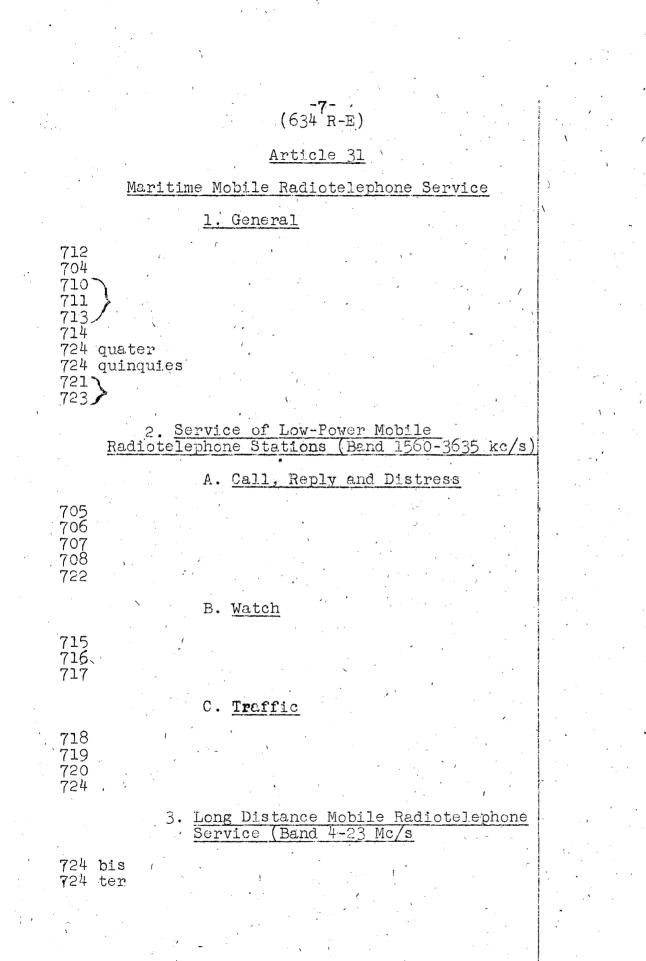
New. Modified. Ship stations now covered in 216bis. To review after frequency allocation table has been completed.

No change.

No change.

Modified. To consider deletion since included in 723.

<ul> <li>Provisions consolitions of closure of the service ratio of closure of the service of the service of the service of the ratio of closure of the service of the service of the service of the ratio of closure of the service of the service of the service of the ratio of closure of the ratio of closure of the service of the service of the service of the ratio of closure of the ratio of the ratio of the ratio of closure of the ratio of</li></ul>				•
<ul> <li>722 (2) The distress signal in radio-telephony is defined in 554 ter.</li> <li>723 § 6. So far as reasonable and practicable, for provisions concorning the radiotelephon service televing to procedure (art.17, especial ally 374 and 464), chilling (art.20), distress, urgency and asfety (art.24, especially 5(2), and conditions of closure of the service (art.25) are arplicable to the artitum mobile service indicated in Appendix 14 may be applied.</li> <li>201 Bis and Distrems A and 23 Mo/sl</li> <li>724 Bis, The following provisions are applicable to the radiotelephone service between const stations and located for this purpose to the radiotelephone service between const stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of and reception (also the pairs of frequencies of the test collephone services in the cred of dupt a collephone service sheat in the list of Ship and Const Station.</li> <li>724 Quarter. The instruction, radiotelephone services in the cred of dupt a collephony using double site services in the cred of dupt a collephony using double service between the list of Ship and Const Station.</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of encoded to evide stations, shall be selected, in principle, by pairs as indicated in the following table: .</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of dupter to be the following transmission to constitute point and collephone services sheatld, as for an experiment of the maritime mobile services sheatld, as for an sponsible, be equipped for instantoneous eriteling from transmission to and the rearrangement of Article 31.</li> <li>724 Quarter. The appendix of Article 31.</li> </ul>				
<ul> <li>722 (2) The distress signal in radio-telephony is defined in 554 ter.</li> <li>723 § 6. So far as reasonable and practicable, for provisions concorning the radiotelephon service televing to procedure (art.17, especial ally 374 and 464), chilling (art.20), distress, urgency and asfety (art.24, especially 5(2), and conditions of closure of the service (art.25) are arplicable to the artitum mobile service indicated in Appendix 14 may be applied.</li> <li>201 Bis and Distrems A and 23 Mo/sl</li> <li>724 Bis, The following provisions are applicable to the radiotelephone service between const stations and located for this purpose to the radiotelephone service between const stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of and reception (also the pairs of frequencies of the test collephone services in the cred of dupt a collephone service sheat in the list of Ship and Const Station.</li> <li>724 Quarter. The instruction, radiotelephone services in the cred of dupt a collephony using double site services in the cred of dupt a collephony using double service between the list of Ship and Const Station.</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of encoded to evide stations, shall be selected, in principle, by pairs as indicated in the following table: .</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of dupter to be the following transmission to constitute point and collephone services sheatld, as for an experiment of the maritime mobile services sheatld, as for an sponsible, be equipped for instantoneous eriteling from transmission to and the rearrangement of Article 31.</li> <li>724 Quarter. The appendix of Article 31.</li> </ul>			· · · ·	,
<ul> <li>722 (2) The distress signal in radio-telephony is defined in 554 ter.</li> <li>723 § 6. So far as reasonable and practicable, for provisions concorning the radiotelephon service televing to procedure (art.17, especial ally 374 and 464), chilling (art.20), distress, urgency and asfety (art.24, especially 5(2), and conditions of closure of the service (art.25) are arplicable to the artitum mobile service indicated in Appendix 14 may be applied.</li> <li>201 Bis and Distrems A and 23 Mo/sl</li> <li>724 Bis, The following provisions are applicable to the radiotelephone service between const stations and located for this purpose to the radiotelephone service between const stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of and reception (also the pairs of frequencies of the test collephone services in the cred of dupt a collephone service sheat in the list of Ship and Const Station.</li> <li>724 Quarter. The instruction, radiotelephone services in the cred of dupt a collephony using double site services in the cred of dupt a collephony using double service between the list of Ship and Const Station.</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of encoded to evide stations, shall be selected, in principle, by pairs as indicated in the following table: .</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of dupter to be the following transmission to constitute point and collephone services sheatld, as for an experiment of the maritime mobile services sheatld, as for an sponsible, be equipped for instantoneous eriteling from transmission to and the rearrangement of Article 31.</li> <li>724 Quarter. The appendix of Article 31.</li> </ul>			•	
<ul> <li>722 (2) The distress signal in radio-telephony is defined in 554 ter.</li> <li>723 § 6. So far as reasonable and practicable, for provisions concorning the radiotelephon service televing to procedure (art.17, especial ally 374 and 464), chilling (art.20), distress, urgency and asfety (art.24, especially 5(2), and conditions of closure of the service (art.25) are arplicable to the artitum mobile service indicated in Appendix 14 may be applied.</li> <li>201 Bis and Distrems A and 23 Mo/sl</li> <li>724 Bis, The following provisions are applicable to the radiotelephone service between const stations and located for this purpose to the radiotelephone service between const stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of and reception (also the pairs of frequencies of the test collephone services in the cred of dupt a collephone service sheat in the list of Ship and Const Station.</li> <li>724 Quarter. The instruction, radiotelephone services in the cred of dupt a collephony using double site services in the cred of dupt a collephony using double service between the list of Ship and Const Station.</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of encoded to evide stations, shall be selected, in principle, by pairs as indicated in the following table: .</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of dupter to be the following transmission to constitute point and collephone services sheatld, as for an experiment of the maritime mobile services sheatld, as for an sponsible, be equipped for instantoneous eriteling from transmission to and the rearrangement of Article 31.</li> <li>724 Quarter. The appendix of Article 31.</li> </ul>				
<ul> <li>722 (2) The distress signal in radio-telephony is defined in 554 ter.</li> <li>723 § 6. So far as reasonable and practicable, for provisions concorning the radiotelephon service televing to procedure (art.17, especial ally 374 and 464), chilling (art.20), distress, urgency and asfety (art.24, especially 5(2), and conditions of closure of the service (art.25) are arplicable to the artitum mobile service indicated in Appendix 14 may be applied.</li> <li>201 Bis and Distrems A and 23 Mo/sl</li> <li>724 Bis, The following provisions are applicable to the radiotelephone service between const stations and located for this purpose to the radiotelephone service between const stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of and reception (also the pairs of frequencies of the test collephone services in the cred of dupt a collephone service sheat in the list of Ship and Const Station.</li> <li>724 Quarter. The instruction, radiotelephone services in the cred of dupt a collephony using double site services in the cred of dupt a collephony using double service between the list of Ship and Const Station.</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of encoded to evide stations, shall be selected, in principle, by pairs as indicated in the following table: .</li> <li>724 Quarter. The frequency of transmission and reception (also the pairs of frequencies of dupter to be the following transmission to constitute point and collephone services sheatld, as for an experiment of the maritime mobile services sheatld, as for an sponsible, be equipped for instantoneous eriteling from transmission to and the rearrangement of Article 31.</li> <li>724 Quarter. The appendix of Article 31.</li> </ul>	•	<b>- 6 -</b>		
<ul> <li>telephony is delined in 554 ter.</li> <li>T23 § 8. So far as nonconsule and practicable, the provisions concerning the radioteleraphen service relating to procedure (Art.17, especial 10, 40, 10, cilling (Art.20), distress, urgency and safety (Art.24, especial19, 542); and conditions of closure of the service (Art.25) are article activations of closure of the service (Art.25) are article activation of the procedure indicated in Appendix 14, may be applied.</li> <li>Long Distance Maritime Mobile Endicate/Arnor Services (Bands between 4 and 23 for a service between costs stations and provisions are applicable to the radiotelenhone service between costs stations and 12 or the frequency bands allocated for this purpose to the maritime mobile service between cost stations shall be selected, in principle, by pairs as inficited in the frequency of transmission and reception (also the principal cost stations shall be selected, in the frequency of transmission and reception (also the principal cost stations shall be selected, in the List of Ship and Cost Stations.</li> <li>724 Quater. The Trequency of transmission and reception (also the principal cost stations cost stations and located to each station shall be selected, in the List of Ship and Cost Station.</li> <li>724 Quater. The Trequency of transmission and reception (also the principal cost stations cost stations shall be selected, and reception (also the principal cost stations).</li> <li>724 Quater. The frequency of transmission and reception (also the principal cost stations). The proceed shall be indiced for the following from transmission to constitute and Cost stations.</li> <li>724 Quinguise. In each to obtain registion for cost of the arritime mobile services shalld, as far as possible. De equipped for instantengous environ. Then therefung Group for the reerrangement of Article 31.</li> </ul>	r	(634 R-E)		· · · ·
<ul> <li>the provisions concerning the radictelegraph energy and safety (hrt.22, especially 5/2) and conditions of closure of the service (hrt.22) are availed by (hrt.22, especially 5/2) and conditions of closure of the service (hrt.22) are availed by the service of the service of the service of low-power mobile radictelephone service.</li> <li>722 \$ 9 \$ In the service of low-power mobile radictelephone styles on the service of low-power mobile radictelephone styles on the service of low-power mobile radictelephone service.</li> <li>724 \$ 9 \$ In the service of low-power mobile radictelephone styles on the service of low-power mobile radictelephone styles on the style service in the following provisions are applicable to the malictelephone service between coast stations and sole stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quater. The frequency of transmission and reception (also the write of frequency end tables to be drafted in the last of Ship and Coast Station.</li> <li>724 Quinguise. In erder to obtain radid and satisfactory communication, radictelephone studiens of the saritime mobile services shall, as far as possible, be equipped for instantances studing. The rearrangement of lattice 31.</li> </ul>				•
<ul> <li>and conditions of closure of the service (Art.25) are available to the maritime nobile radiotelephone service.</li> <li>724 § 9. In the service of low-power mobile radiotelephone strices.</li> <li>724 § 9. In the service of low-power mobile radiotelephone strices that he applied.</li> <li>Long Distance Karitime Mobile Radiotelephone Service (Dands between 4 and 23 Me/s)</li> <li>724 Bis. The following provisions are applicable to the radiotelephone service between cover stations on delth stations in the frequency bands allocated for this purpose to the maritime mobile service be- tween 4 and 23 Me s.</li> <li>724 Ter. In duplex telephony using double sideband transmission, the frequencies of emicsion of cost stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quatar. The frequency of transmission and reception (also the prins of frequen- cies in the ense of duplex telephony) allocated to each station shall be indi- cated in the List of Ship and Cosst Station.</li> <li>724 Quinguies. In erder to obtain rapid and stisfactory communication, radiotelephone stations of the maritime mobile services should, as far as possible, be equipped for instanteneous switching-free transmission to reception and vice-versa. Flam submitted to Subcommitte B of Committee 8 by the Drafting Group for the rearrangement of Article 31.</li> </ul>	· .	the provisions concerning the radiotelegraph service relating to procedure (Art.17, especi- ally 374 and 464), calling (Art.20), distress,	1161 R/US, 1162 R/US, and 1167 R/US.	
<ul> <li>radiotelephone stations, the procedure indicated in Appendix 14 may be applied.</li> <li>Long Distance Maritime Mobile Radiotelephone Service (Rands between 4 and 23 Me/s)</li> <li>724 Bis. The following provisions are applicable to the maritime mobile service between coast stations and scatted for this purpose to the maritime mobile service between 4 and 23 Me/s)</li> <li>724 Ter. In duplex telephony using double sideband branemission, the frequencies of omission of coast stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quater. The frequency of transmission and reception (also the pairs of frequency) allocated to exich station shall be indicated in the List of Ship and Coast Station.</li> <li>724 Quinguies. In erder to obtain rapid and satisfactory communication, radiotelephone stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to reception and vice-versa. Plan subfitted to Subdomittee B of Committee 3 by the Drafting Group for the rearrangement of Article 31.</li> </ul>		and conditions of closure of the service (Art.25) are applicable to the maritime mobile		• • • • • • • • • • • • • • • • • • • •
<ul> <li>Long Distance Maritime Mobile Endicaterhone Service (Bands between 4 and 23 Mo/s)</li> <li>724 Bis. The following provisions are applicable to the radiotelephone service between coast stations and ship stations in the frequency bands allocated for this purpose to the maritime mobile service be- tween 4 and 23 Me s.</li> <li>724 Ter. In duplex telephony using double sideband transmission, the frequencies of emission of coast stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quater The frequency of transmission and reception (also the pairs of frequen- cies in the case of duplex telephony) allocated to each station shall be indi- cated in the List of Ship and Coast Station.</li> <li>724 Quinguias In order to obtain rapid and satisfactory communication, transmission to reception and vice-versa. Flan submitted to Subdommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.</li> </ul>		radiotelephone stations, the procedure indica-	No change.	
<ul> <li>applicable to the radiotelephone service between cosst stations and ship stations in the frequency bands allocated for this purpose to the maritime mobile service be- tween 4 and 23 Me s.</li> <li>724 Ter. In duplex telephony using double sideband transmission, the frequencies of emission of coast stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quater. The frequency of transmission and reception (also the pairs of frequen- cies in the case of duplex telephony). allocated to each station shall be indi- cated in the List of Ship and Coast Station.</li> <li>724 Quinguiss. In order to obtain rapid and satisfactory communication, radiotelephone statisneous switching from transmission to reception and vice-versa. Plan submitted to Subdommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.</li> <li>1145 R/US</li> <li>New. Proposal</li> <li>1149 R US</li> <li>New. Proposal</li> <li>1153 R/US</li> <li>New. Proposal 1153 R/US</li> <li>New. Proposal 1164 R/US.</li> <li>Net 205.</li> </ul>		Long Distance Maritime Mobile Radiotelephone		
<ul> <li>sideband transmission, the frequencies of emission of coast stations shall be selected, in principle, by pairs as indicated in the following table:</li> <li>724 Quater. The frequency of transmission and reception (also the pairs of frequen- cies in the case of duplex telephony) allocated to each station shall be indi- cated in the List of Ship and Coast Station.</li> <li>724 Quinguies. In order to obtain rapid and satisfactory communication, radiotelephone stations of the maritime mobile services should, as far as possible, be equipped for instantangous switching from transmission to reception and vice-versa. Plan submitted to Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.</li> <li>1149 R US</li> <li>1149 R US</li> <li>1149 R US</li> <li>1140 R US</li> <li>Table to be drafted after the frequency allocation table has been combleted.</li> <li>New. Proposal 1153 R/US</li> <li>New. Proposal 1164 R/US.</li> <li>To review in conjunction with 205.</li> </ul>	,	applicable to the radiotelephone service between coast stations and ship stations in the frequency bands allocated for this purpose to the maritime mobile service be-		
<ul> <li>Table to be drafted after the frequency allocation table has been completed.</li> <li>724 Quater. The frequency of transmission and reception (also the pairs of frequencies in the case of duplex telephony) allocated to each station shall be indicated in the List of Ship and Coast Station.</li> <li>724 Quinguias. In order to obtain rapid and satisfactory communication, radictelephone stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to reception and vice-versa. Plan submitted to Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.</li> </ul>	• •	sideband transmission, the frequencies of emission of coast stations shall be selected, in principle, by pairs as indicated in the		
and reception (also the pairs of frequen- cies in the case of duplex telephony) allocated to each station shall be indi- cated in the List of Ship and Coast Station. 724 Quinguies.In order to obtain rapid and satisfactory communication, radiotelephone stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to reception and vice-versa. Plan submitted to Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.	, ,	Iollowing table:	after the frequency allocation table has	
724 Quinguies.In order to obtain rapid and satisfactory communication, radiotelephone stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to reception and vice-versa. Plan submitted to Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.		and reception (also the pairs of frequen- cies in the case of duplex telephony) allocated to each station shall be indi-		US
stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to reception and vice-versa. Plan submitted to Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.	• • •	724 Quinguiss.In order to obtain rapid and		
Subcommittee B of Committee 8 by the Drafting Group for the rearrangement of Article 31.	х - - ,	stations of the maritime mobile services should, as far as possible, be equipped for instantaneous switching from transmission to		
9010		Subcommittee B of Committee 8 by the Drafting		
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## Articlo 31

## Suggested Rearrangement According to the Plan Proposed by the Drafting Group

## Article 31

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		Maritime Mobile Radiotelephone Service	Modified
			Proposal
ŕ			· 1143 R/U.S.
•			1110 11/0000
		1 Comercel	New
		1. General	Proposal
	· .		1144 R/U.S.
	712,	The provisions of the present Article are	Modified.
		applicable in all cases to stations of the	Proposal
'		maritime mobile service. They are equally	2113 R/F
		applicable to aircraft stations wishing to	and
		enter into radiotelephone communication with	1146 R/U.S.
		coast stations on frequencies allocated to this	
		service.	•
•			
	704.	The service of ship radiotelephone stations	Modified.
			Repetition
		must be performed by an operator satisfying the	÷
	•	conditions fixed by Article 10.	of 230bis
			and 230ter.
	× .	Α.	
	710.	For the call signs for coast stations and	Modified.
		ship radiotelephone stations see 304bis and	. To review
		304ter	see Doc.
			419 R-E.
			Proposals
			1158 R/U.S.,
			1159 R/U.S.,
			· ·
			and · ·
			1160 R/U.S.
1	711.		Deleted To
			review Docu-
			ment 419R-E.
	713.		Deleted.
	713.		Deleted. Cov.by 304bis.
	713.		Deleted. Cov.by 304bis. To review Doc.
21	713.		Deleted. Cov.by 304bis.

are used.

No change. Proposal 1158 R/U.S.

	(634 R-E)	
•	721 The provisions of 542 are applic- able to ship stations of the radio- telephone service	Modified To con- sider deletion since included in 723.
•	723 So far as reasonable and prac- ticable, the provisions concerning the radiotelegraph service relating to procedure (Art. 17 especially 374 and 464), calling (Art.20), distress, urgency and safety (Art.24, especial- ly 542) and conditions of closure of the service (Art.25) are applicable to the maritime mobile radiotele- phone service.	Modified Proposals 1161R/US,1162R/ <b>U</b> S and 1167R/US
	724 Quater The frequencies of transmis- sion and reception (also the pairs of frequencies in the case of duplex telephony) allocated to each station shall be indicated in the List of Ship and Coast Stations.	New Proposal 1153 <b>R/US and</b> 1157 <b>R/US 1154R/</b> US
	72 <sup>4</sup> Quinquies In order to obtain rapid and satisfactory communication, radiotelephone stations of the maritime mobile service should, as far as possible, be equipped for in- stantaneous switching from transmis- sion to reception and vice-versa.	New Proposal 1164R/US To re- view in conjunc- tion with 205
	2. <u>Service of Low-power mobile</u> Radiotelephone Service(Band 1560- <u>3635 kc/s)</u> A. Call, Reply and Distress	No change New
•	705 §2 (1) The frequency of 1650 kc/s is both a calling frequency and the distress frequency for the maritime mobile service of radiotelephony with low-power ship stations working in the portions of the band 1560-3635 kc/s in which radiotelephony is auth- orized (Article 7 § 7)	No change To re- view after the frequency alloca- tion table has been decided.
	706 (2) (a) In the European region, it may be used only for calls and re- plies and its use is compulsory for the distress call and distress traf- fic, urgency and safety signals and messages.	No change To re- view if common frequency is al- located for all regions.

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- 10 -(634 R-E)

707 (b) However, an Administration may allocate Modified draft. to a station other frequencies for call and reply.

708 (3) In other regions its use is not obligatory.

722. The distress signal in radiotelephony is defined in 554 ter.

#### B. Watch

709. The provisions of 709,715 to 720 and 724 apply only to radiotelephone stations which use the frequency of 1650 kc/s as the calling and distress frequency and of which the power of the unmodulated carrier-wave in the antenna is not more than 100 watts, except in the case of regional agreements as provided for in 269.

715 (1) Every coast station participating in the service of public correspondence by radiotelephony in the band 1560-3635 kc/s must, so far as possible, maintain watch in the frequency 1650 kc/s during its working hours.

716 (2) In the European region with the view, to greater safety of life at sea all radiotelephone stations of the maritime mobile service which normally-keep watch on frequencies in this band take steps, as far as possible, to keep watch on the distress frequency 1650 kc/s twice each hour for three minutes commencing at XL 00 and XL 30, Greenwich mean time (G.M.T.)

717 (3) During the above-mentioned intervals, all transmissions in the bands between 1630 and 1670 kc/s, except distress, urgency and safety transmissions, must cease. To review if common frequency is allocated for all regions.

Modified.

New

No change. To review after the frequency allocation table has been decided.

No change. To review after the frequency allocation table has been decided.

Modified. Proposal 2122 R/F. To review if common frequency is allocated to all regions.

No change. To review frequency band after frequency allocation table has been decided. - 11 -(634 R-E)

### C. Traffic

718. (1) Coast Stations which use the calling frequency of 1650 kc/s must be able to use at least one other frequency in the portions of the band 1560-3635 kc/s in which the maritime mobile radiotelephone service is admitted.

719. One of these frequencies is printed in heavy type in the List of Stations to indicate that it is the normal working frequency of the station.

Working frequencies of coast stations must be chosen in such a manner as to avoid interference with other stations.

720. (2) In addition to their normal working frequency, coast stations may use supplemantary frequencies in the authorized bands.

724. In the service of low-power mobile radictelephone stations, the procedure indicated in Appendix 14 may be applied.

### 3. Long Distance Mobile Radiotelephone Service(Band 4 to 23 Mc/s)

724. Bis. The following provisions are applicable to the radiotelephone service between coast stations and ship stations in the frequency bands allocated for this purpose to the maritime mobile service between 4 and 23 Mc/s.

724 Ter. In duplex telephony using double sideband transmission, the frequencies of emission of coast stations shall be selected, in principle, by pairs as indicated in the following table: New.

Modified. Ship Stations now covered in 216 Bis. To review after the frequency allocation table has been decided. No change.

No change.

No change.

New.

New. Proposal 1145 R/US

New. Proposal 1149 R/US

To be drafted after the frequency allocation table has been completed.

### -12-(634 R-E)

# Appendix 14

Mobile Radiotelephone Stations	No change
(See Article 31)	
§ 1. The following proceedure is given as an example:	No change
<pre>l. A calls: Hullo'B, Hullo B, this is A, this is A, radiotelegram for you, radio telegram for you, over.</pre>	Modified Proposal 1590R/Canada and 2132R/F
2. B replies: Hullo A, Hullo A, this is B, this is B, send your radiotelegram, send your radiotelegram, over	Modified
3. A replies: Hullo B, this is A, radiotelegram begins fromnumber/number of wordsdatetime addresstextsignature transmission of radio- telegram ends, I repeat, radiotele gram begins fromnumber number of wordsdate timeaddresstext signatureradiotelegram ends over.	
<ul> <li>4. B replies: Hullo A, this is B, your radio- telegram begins, fromnumber number of wordsdate timeaddresstext</li> <li>signature, your radiotele- gram ends, over.</li> <li>5. A replies: Hubbe D, this is A forward, common</li> </ul>	Modified
Hullo B, this is A, correct, corre switching off.	, U ,
	•

5. A then breaks the communication and both No change. stations resume their normal watch. Note: At the beginning of a communication, No change. the calling formula is spoken twice by both the station calling and the station called. It is spoken once only when communication has been established. Insert here § 3 g2. When it is necessary to spell call signs, No change. service abbreviations and words, the following table is used: Figure to be(1) Letter to be-Word to be transmitted transmitted used 1 Amsterdam A 2 В Baltimore З С Casablanca 4 D Danemark 5 E Edison 6 F Florida 7 G Gallipoli 8 Η Havana 9 Ì Italia 0 J Jérusalem Comma K Kilogramme Fraction bar L Liverpool Break signal Μ Madagascar Full stop(period) Ν New York -0 0slo Ρ Paris ର୍ Québec -R Roma S Santiago Т Tripoli U Upsala · V Valencia W Washington Х Zantippe Y

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1) Each transmission of figures is preceded and followed by the words "as a number" spoken twice.

However, stations of the same country may use, when communicating between themselves, any other table recognized by their Administration.

S 3. When the station receiving is certain that it has correctly received the radiotelegram, the repetition contemplated under S 1, 4 is unnecessary, except for a collated radiotelegram. If repetition is dispensed with, station B acknowledges the receipt of the radiotelegram in the following manner:

> Hello A, this'is B, your radiotelegram correctly received, over.

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No change

New. Doc. 443 R-E

No change. To be insert between § 1 and § 2 INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

July 26, 1947

Wording proposed by the Working Group of Subcommittee 3 - A for the first three articles of the Statutes of the I. F. R. B.

Article 1.

### General

1. There shall be an International Frequency Registration Board whose essential duties shall be: (a) to effect an orderly recording of frequency. assignments made by the respective countries so as to establish, in accordance with the procedure provided for in these regulations, the date, purpose and technical characteristics of each of these assignments, with a view to ensuring formal international recognition thereof, and

(b) to render advice to the members of the I.T.U.
with a view to the operation of the maximum practicable
number of radio channels in those portions of the spectrum.
where international interference may occur.
2. The functions of the I.F.R.B. shall include :

(a) the recording of radio frequency assignments
made in accordance with section 1 (a) above for inclusion

in the Master International Frequency Register.

(b) the compilation in collaboration with, and for publication in suitable form and at appropriate intervals by, the Bureau of the Union of frequency lists and other material relating to the assignment and use of frequencies,

(63 R-E)

(c) the periodic review of entries in the Frequency Register with a view to eliminating, in agreement with the country which made the assignment, in-

active entries,

(d) the investigation, at the request of one or more of the interested countries, of harmful interference and the formulation of recommendations with respect thereto,

(e) the prosecution of studies of frequency. utilization.

(f) the formulation and reference to C.C.I.R. of all general technical questions arising from the Board's examination of frequency assignments, and,

(g) the participation in an advisory capacity, upon invitation by the organization or countries oncerned in the formulation of service or regional agreements.

3. (a) The International Frequency Registration Board shall be composed of a body of independent members, all

citizens of different countries members of the Union. (b) they shall be thoroughly qualified by technical training in the field of radio and shall possess practical experience in the assignment of frequencies.

(630 R-E)

(c) the members of the Board shall perform all their functions on a world wide basis and in the interest of the most effective use of the radio spectrum. In particular, theý shall reach their decisions on frequency assignments (reference parag 1 (a) of this article) solely on an engineering basis.

However, for the more effective understanding of the problems coming before the Board under parag 1 (b) of this article, each member shall be familiar with geographic, economic and demographic conditions within a particular area of the world.

(d) they shall serve on the Board, not as representatives of their respective countries, or areas, but as custodians of an international public trust.

(e) no member of the Board shall request or receive instructions relating to the exercise of his duties from any Government or a member thereof or from any public or private organization or person. Furthermore, each contracting government must respect the international character of the Board and of the functions of its members and shall refrain from any attempt to

influence any of them in the performance of their functions. No member of the Board nor any of its personnel may take an active part or have any financial interest<sup>\*</sup>) whatsoever in any enterprise engaged in any service of telecommuni- . cations.

(63 R-E)

4. (a) Members of the International Frequency Registration Board shall be elected by each regular administrative Radio Conference according to the procedure established by that Conference.

(b) Members of the I.F.R.B. elected by an Administrative Radio Conference shall take up their duties on the date determined by that Conference. They shall remain in office until the members elected by the following Conference have taken up their duties.

(c) Each Conference shall determine the number of the members of the I.F.R.B. and the method of their election with a view to ensuring a balanced selection of the members from the various parts of the world.

(d) members of the I:F.R.B shall be eligible for re-election.

\*) The term "financial interest" is not to be construed as applying to the continuation of retirement benefits accruing in respect of previous employment or services.

(e) should a member of the I.F.R.B. relinquish his duties before the end of his normal term of office, he shall be replaced as soon as possible by a new member from the country to whom the former member belonged. If this country is unable to provide a replacement member, the administrative Council shall appoint a new member.

( 635 R-E)

### Article 2.

Procedure in Connection with the International Frequency Registration Board.

§ 1. (1 All the frequencies àssignments to be used for international communication or capable of causing harmful interference with any service of another country . shall be notified to the Board and shall be recorded in the Master International Frequency Register in either of two columns.

(2) Any frequency assignment which is in full conformity with all provisions of the Radic Regulations shall be recorded in the REGISTRATION COLUMN.

Such a frequency assignment shall have the right to international protection from harmful inter-

(3) Any frequency assignment which, in any measure, contravenes the provisions of the Radio Regulations, but on the use of which the notifying country insists, shall be recorded in the NOTIFICATION COLUMN. 9085 Such a record shall be made in order that the members of the ITU may take into account the fact that the frequency in question is in use, but an entry in the NOTIFICATION COLUMN shall not give the right of international protection to that frequency assignment.

(635 R-E)

§ 2. (1) In order to obtain international recognition of a frequency assignment, each country upon the assignment by it of a frequency to a fixed, land or broadcasting or radio navigation station within its jurisdiction or control, or upon changing an existing frequency assignment or any of the particulars (specifically set forth in par. 3 below), shall notify the International Frequency Registration Board by any means of suitable record communication.

(2) Notifications under the provisions of \$ 1. (1) of this article must be made to the Board before the frequency is brought into use and in time to enable administrations to make such representations as seen necessary to them to ensure the proper working of their services. However, where an urgent requirement must be met and it is clear that the use of a frequency assignment will not create international interference, the assignment need not be notified in advance.

(3) Such notice shall include at least the name of the notifying country, frequency, class of station, location, type of emission and band width, power,

hours of operation, points of intended reception where applicable (otherwise area to which communications are directed), date of use, and, if such assignment is made pursuant to a regional agreement, the identity of such agreement. The notifying country should also include the additional data called for in Appendix 1 and may include other information.

(635 R-E)

(4) Similar notice shall be given of the assignment of a frequency to be used for reception by a land station in the operation of a particular service with mobile stations using transmitters having the frequency stability prescribed for land stations.

Note: Retention may be reconsidered after conclusions of Committees 5 and 8.

.(5) Preliminary telegraphic notices may be transmitted to the Board in brief form including at least the frequency, location and class of station, advising that a complete notice is being transmitted.

(6) The date of first receipt by the Board of such notice in either complete or preliminary form shall establish the order of its consideration provided that the 'date of receipt of a preliminary notice shall be applicable only where the complete notice is received by the Board within 30 days thereafter.<sup>1)</sup>

1) In the event of undue delay in the delivery of a notice by post or telegraph, that event, if and when verified, shall not in any way prejudice the priority of consideration of the registration for the country which submitted the notice.

(7) Specific frequencies prescribed by the present regulations for common use by stations of a given service (for example, 500 kc) shall be notified to the Board.

(635 R-E)

g 3. The procedure to be followed by the Board \ upon receipt of a complete notice shall be as follows:

(1) The Board shall record the notice; the date of its receipt of each notice shall be acknowledged immediately to the notifying country.

(2) The Board shall circulate details of each notice by air mail to all countries, members of the Union, at intervals of one week. Any country which vishes to present objection to or comment on a notice shall notify the main basis of its objection or comment by telegram to the Board within two weeks of receipt of the circular in which the details of the notice are published; any country which has not communicated with the Board within this period will be deemed to have no objection or comment. Within a further period of two weeks a letter shall be sent to the Board amplifying the objection or comment already telegraphed.

(3) The Board shall.examine each notice with

respect to

(a) conformity with the table and rules for allocation of frequencies,

(635 R-E)

(b) conformity with the other provisions of the Convention and Radio Regulations (except those relating to the probability of harmful interference) and

(c) the probability of harmful interference to any service rendered by a station for which a frequency assignment has been recorded for that service with a date in the REGISTRATION COLUMN of the Master International Frequency Register, or with a service operating in accordance with (a) and (b) above with a date in the NOTIFICATION COLUMN, but which has not, in fact, caused harmful interference.

Where appropriate, the Board shall also examine the notice as regards its conformity with a service or regional agreement.

(4) In examining notices of assignment of frequencies to stations, the Board shall bear in mind that in many instances, stations may share the use of a frequency. In all instances make "assignment" read "frequency assignment."

(5) Depending upon the findings with respect toparagraph (3) above, further action shall be as follows:A. Finding favorable with respect to (a), (b), and (c).

### (635 R-E)

The assignment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Board being shown in the REGISTRATION COLUMN.

Finding unravorable with respect to (b).

The notice shall be returned immediately by air mail to the notifying country with the reasons of the Board for this finding.

Finding favorable with respect to (a) and (b) but unfavorable with respect to (c).

The notice shall be returned immediately by air mail to the notifying country with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

If the notifying country resubmits the notice with modification which results after re-examination in a favorable finding by the Board, the assignment shall be recorded in the Register as provided under Item A above, the date of receipt by the Board of the modified notice being shown in the REGISTRATION COLUMN.

Should the notifying country, however, insist upon reconsideration of the original notice unchanged, and the Board's finding remains unchanged, the assign-

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ment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Board being shown in the NOTIFICATION COLUMN.

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D. Finding favorable with respect to (b) and (c) but unfavorable with respect to (a).

The frequency assignment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Board being shown in the NOTIFICATION COLUMN. However, if harmful interference is caused by the use of this frequency assignment to the reception of any station operating in accordance with the frequency allocation table, the station using this frequency assignment must immediately suspend operations upon receipt of advice of this harmful interference.

(6) The reconsideration of a finding by the Board may be requested (a) by the notifying country or (b) by any other interested country but in the latter case only on the ground of harmful interference either anticipated or actual. Prior to reconsideration, the Board shall circulate such requests to all countries, members of the Union, by air mail. Objections or comments shall be telegraphed within two weeks of receipt of the circular and amplified by letter to be dispatched within a further period of two weeks.

The Board, in the light of all the data thus presented, shall render such further finding as the circumstances warrant.

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(7) If in accordance with the provisions of paragraph (5) Item C above, an entry has been made in the Master International Frequency Register with the date in the NOTIFICATION COLUMN, the Board upon request of the notifying country and after the station has been in operation for a reasonable period, shall review the matter, first having given the interested countries an opportunity to present their views. If the Board's finding is then favorable, the date shall be transferred from the NOTIFICA-TION COLUMN to the REGISTRATION COLUMN, without change. If the finding with respect to probable harmful interference is still unfavorable, the date shall be left in the NOTIFICATION COLUMN. If the Board makes a finding that harmful interference actually exists, it shall be prima facie evidence that the operation is in violation of these Regulations. If, however, after not more than six years of operation the Board has not made a finding of the existence of harmful interference, the date shall be transferred to the REGISTRATION COLUMN without change.

§ 4. Should a change be made in the basic data as specified in section 2 sub section 3 of this article, recorded against a frquency assignment the latter shall

be subject to new registration, the record specifying the new data and the date of their receipt by the Board. However, should the Board arrive at the conclusion that the use of the frequency assignment based on the new data will not cause harmful interference with the service of a station for which a frequency assignment has been recorded, the amended assignment shall retain the original date of registration.

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§ 5. When a service or regional agreement has been concluded, the Board shall be informed of the details of this agreement. The procedure to be followed in connection with frequency assignments made pursuant to such service or regional agreement shall be as specified in Sec. 3 of this Article except that the Board shall not consider questions of interference among the parties to such agreements.

§ 6. (1) As a general rule, the Board, after consulting the notifying country, shall cancel the recording of any frequency assignment if it finds that regular operation has not begun within two years following the date of its receipt of the first notice, unless it finds that the circumstances warrant the retention of the notice, in which case the entry may be retained for not more than one further period of one year. Exceptionally, however, and only in the case of a frequency assigned to a working service for use

during years of high or low sunspot activity, if the frequency has not been brought into use when three years have elapsed from the date of receipt of the first notice, and the Board finds, after consultation with the notifying country, that the circumstances ) warrant the retention of the notice, the entry may be retained for not more than one further period of three years. Requencies assigned to a aorking service for use during years of high or low sunspot activity may be notified to the Board for any other appropriate service for use on an interim basis and without prejudice to the earlier frequency assignment.

(2) In case of permanent discontinuance of the use of any listed frequency, the notifying country shall inform the Board within three months of such discontinuance, whereupon the entry shall be removed from the Register.

(3) If the Board finds that a recorded frequency assignment has been out of use for three years it shall, in agreement with the notifying country, cancel the entry in the Register except in the case of a frequency intended for requise by a working service during years of high or low sunspot activity, in which case the entry may be retained for one further period of three years.

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§ 7. (1) If it is requested by any contracting country and if the circumstances appear to warrant, the Board shall make a study and issue a report on the following problems of frequency utilization:

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(a) In cases arising under § 3 (5), Item C
 of this Article as to a possible alter native frequency assignment to avoid
 probable interference;

(b) In cases where a need arises for additional channels within a specific portion of .the frequency spectrum.

(2) If one or more of the interested countries so request, the Board shall investigate any contravention or nonobservance of these regulations or any harmful interference and shall issue through the Bureau of the Union a report containing its findings and recommendations for the solution of the problem.

(3) If the Board finds that a change in the frequency of one or more stations will

(a) accommodate a new station,

(b) facilitate the solution of an inter-

. ference problem, or

(c) otherwise facilitate the more effec-

tive use of a particular portion of the

radio spectrum, and if such change

is acceptable to the country or countries directly concerned, the change in frequency shall be recorded in the Master International Frequency Register without change in the original date or dates. § 8. The Board shall make available to the interested countries, for their information, and to the Bureau

of the Union for promot publication, all reports of its findings and reasons therefor.

S 9. In case a country avails itself of the provisions of Article 4 of the Convention, the Board shall, upon request, make its records available for such proceedings as are prescribed in the Convention or in these Regulations for the settlement of international disagreements.

### Article 3

## Internal Regulations of the International Frequency Registration Board

§ 1. (1) The Board shall meet as frequently as necessary to deal expeditiously with its work and, normally, at least once a week.

g 2. (1) At their first meeting the members of the. Board shall elect from among their number a chairman and a vice-chairman, each to hold office for a term of one year or until their successors are duly elected. Thereafter, the vice-chairman shall succeed annually to the chairmanship and a new vice-chairman shall be elected.\*

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(2) In the absence of the Chairman and Vicechairman, the Board shall elect a temporary Chairman for the occasion from among its members.

§ 3. (1) Each member of the Board, including the Chairman, shall have one vote. Voting by proxy or by correspondence is not allowed. Moreover no member is entitled to vote on any given question if he has not been present at that part of a meeting at which that question was discussed.

(2) The minutes shall indicate whether a finding was unanimous or by a majority. In the latter case the vote of each member present may be recorded on request of a member, but shall not be made public.

(3) Problems of a purely nontechnical nature shall be decided by the Board on the basis of a two-thirds vote of the members present. In the consideration of problems having technical characteristics, the Board

\* (It is recongized that the foregoing clause concerning the selection of the Chairman of the Board may have to be amended in the light of the decision of the Plenipotentiary Conference on the establishment and membership of the Administrative Council of the Union.) 9097 shall endeavour to reach its decisions by unanimous agreement. If after reconsideration of such a problem over a period of not exceeding 14 days, the Board fails to reach a unanimous decision, it shall immediately thereafter decide the problem on the basis of two-third majority vote of the members present.\*

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§ 3. (4) Five members of the Board shall form a quorum. If, however, the verdict of such a quorum on a question coming before it is not unanimous, the question shall be referred for decision at a later meeting at which at least seven members of the Board are present.

§ 4. Notices shall be considered by the Board within one week of the expiration of the period for receipt of objection or comments provided in Art. 2, § 3. (2) (see § 3 (2) (a) of Art. 2) and cannot be postponed unless the Board lacks sufficient data to render a decision in connection therewith. However, the Board shall not act upon any notice which has a technical bearing on an earlier notice still under consideration by the Board until such time as it has reached a finding with respect to such earlier notice.

§ 5. The Board shall keep a complete record of all official actions and minutes of all meetings, for which purpose the necessary personnel and facilities shall be provided by the Bureau of the Union. A copy of all

\* UK prefers that all decisions by the Board be by simple majority.

records and minutes of the Board shall be filed with the Secretary of the Union and shall be available for public inspection. All records of the Board shall be kept in the official languages of the Union.

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§ 6. Each country shall have the right to send, at its own expense, a technical representative to appear before the Board in support of, or in opposition to, any notice or other matter under consideration in which his country has a direct interest.\*

\* The United Kingdom favors exclusion of this clause but is prepared to accept the general view of the Conference. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 636 R-E July 26, 1947

Committee 3

Working Group A of Subcommittee A of Organization Committee (Committee 3)

Draft recommendation submitted by Committee 3 (Organization) to the Administrative Radio Conference held in Atlantic City, 1947

In order to set up I.F.R.B.

Committee 3 (Organization) recommends that the Administrative Radio Conference held in Atlantic City should adopt the procedure laid down in the following articles for the establishment of the I.F.R.B.

Article I - The I.F.R.B. shall be composed of ten members. Article 2 -(a) of these ten members of the Board, two

> shall be drawn from countries, members of the Union, appearing in four lists submitted respectively by the members of the Union belonging to each of the four regions specified below:

<u>Region A</u> - American region, as established at the Third Inter-American Radio Conference held in Rio de Janeiro in 1945.

<u>Region B</u> - West European and West African region, situated to the East of the preceding

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region, as far as meridian  $20^{\circ}$  East. <u>Region C</u> - East European and North Asiatic region, having as Western limit the meridian  $20^{\circ}$ East, as southern limit parallel  $40^{\circ}$  North and as Eastern limit the American region. <u>Region D</u> - The remainder of the world, having as western limit meridian  $20^{\circ}$  East, as Northern limit parallel  $40^{\circ}$  North and as Eastern limit the American region.

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(b) The remaining two members shall be drawn regardless of region from the countries appearing in the same four lists which have not already provided a member under (a) above.

Article 3 - In order to lay down exactly the four regional groups of members of the Union, any member whose territory is crossed by meridian 20° East or by parallel 40° North (to the East of the preceding meridian and up to the western limit of the American region) shall be entitled to choose to which of the two adjoining groups he wishes to belong.

Article 4 - Each of the four regional groups of countries established in accordance with the provisions of articles 2 and 3 shall nominate, following the procedure they consider most appropriate, not

less than four and not more than five countries who have undertaken the obligation to provide, to serve on the Board, a member having the qualifications laid down in Article I Section 3 of the Radio Regulations'.

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Article 5 (a) - In the first place, the Conference shall elect from the nominations made in accordance with Article 4 above, two countries from each of the four regions specified in Article 2 above and, for this purpose, each member of the Union shall be entitled to eight votes, to be exercised accordingly.

(b) The two countries in each region which obtain the highest number of votes shall be considered as elected.

Article 6 - When the results are known of the voting carried out in accordance with Article 5, each member of the Union shall cast two further votes, one for each of two countries which have not already been selected in accordance with the procedure set forth in Article 5 above. The two countries in different regions which obtain the highest number of votes shall be considered elected.

Article 7 - The foregoing procedure for election of the members to the I.F.R.B. shall apply only in respect of the Atlantic City Conference.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 637 R-E

July 26, 1947

Committee 3

### Recommendations of Working Group"B"of <u>Subcommittee 3 A</u> for the <u>Revision of Article 33 of the Cairo Regulations</u> International Radio Consultative Committee (C.C.I.R.)

g 1. The duties of the International Radio Consultative Committee (C.C.I.R.) shall be to study and make recommendations on technical radio questions and on operating questions the solution of which depends principally, on considerations of a technical radio character.

> Note:- The delegations of France, Belgium and Switzerland would add the following to the above paragraph: "Furthermore, the C.C.I.R. may be asked to study tariff questions relating to international communications, when the C.C.I.F. and the C.C.I.T. declare that they are not competent to do so."

g 2. The questions to be studied by the C.C.I.R. and on which it shall make recommendations are those which are submitted to it by the Plenipotentiary Conference, by the Radio Administrative Conference, (by the Administrative Council of the Union), by the International Frequency Registration Board or by any other Board or Committee of the Union, or which are adopted by a Plenary Assembly of the C.C.I.R., or which have the support of at least twelve countries, members of the Union.

§ 3. (1) The C.C.I.R. shall have, as members: administrations of countries, members of the Union; and private operating agencies recognized by the respective administrations of countries, members of the Union; which have expressed a desire to have their experts participate in the work of the C.C.I.R.

> Note: - The term "administration," as used in the above paragraph means the department of a govern- / ment responsible for implementing the obligations undertaken in the International Telecommunications Convention.

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Note:- The delegates of U.S.S.R., Cuba and Switzerland believe it should not be necessary for administrations to express a desire to have their experts participate in the work of the C.C.I.R. They would put a comma in place of the last semicolon in the above paragraph, § 3 (1).

(2) The international organizations which are coordinating their work with the International Telecommunications Union and which have related interests and activities may be admitted to participation in the work of the C.C.I.R'. in a consultative capacity.

(3) Scientific or manufacturing organizations, which are engaged in the study of telecommunications problems or in the design or manufacture of telecommunications equipment, and which are approved by the respective administrations of countries, members of the Union, may be admitted to meetings of the Commissions of Reporters (Study Commissions) of the C.C.I.R.

S 4. Requests from administrations and private operating agencies for membership in the C.C.I.R. shall be addressed to the Administrative Council of the Union which shall through the Secretary General, inform all the members of the I.T.U. Requests from private operating agencies shall be accompanied by the approval of the government recognizing them.

> Note: The delegates of U.S.S.R., Cuba and Switzerland believe it should not be necessary for administrations to make requests for membership in the C.C.I.R. They would delete the word "administrations" from the first line of this paragraph, § 4.

§ 5. Requests from international organizations for participation in the work of the C.C.I.R. shall be addressed to the Administrative Council which shall, through the Secretary General, ask all member administrations to approve or disapprove of their participation. The decision shall be determined by a majority vote of the administrations which reply within a period of one month.

18 6. Requests from scientific or manufacturing organizations for admission to meetings of the Commissions of Reporters (Study Commissions) of the C.C.I.R. shall be, addressed to the Director of the C.C.I.R., accompanied by the approval of the administrations of their respective governments. --

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g 7. Any member or participant in the work of the C.C.I.R. shall have the right to withdraw from such participation, but such withdrawal shall take effect only at the expiration of a period of one year from the notice of withdrawal.

s 8. The C.C.I.R. shall carry on its work through:

 (a) Plenary Meetings, which shall normally be held every two years, provided that a meeting shall take place about one year prior to each general Administrative Radio Conference, and

(b) Commissions of Reporters (Study Commissions), which shall be constituted by the Plenary Assembly to deal with questions to be studied. The Plenary Assembly shall designate, the administrations, private operating agencies, international organizations, and scientific and manufacturing organizations which will be represented on these Commissions and shall designate, by name, the Principal Reporter of each Commission.

Note:- The delegate of  $France_{\ell}$  would like to complete this section, a 8, by adding a subparagraph (c) making special mention of the specialized secretariat referred to in section 11, below.

g 9. The C.C.I.R. may have a laboratory for the purpose of studying methods of making such measurements as are of general interest to members of the Union.

**g** 10. The C.C.I.R. shall have a Director who shall be elected at a Plenary Assembly of the C.C.I.R., to serve until a later Plenary Assembly shall decide on a change of appointment.

> Note:- The Delegate of U.S.S.R. believes that, in order that the Director of the C.C.I.R. may have more authority, he should be elected by the Administrative Radio Conference.

s 11. The Director shall be assisted by a small specialized secretarial staff, to work under his direction in organizing the work of the C.C.I.R. The technical members of this staff shall be selected by the Director but the staff shall be attached to the General Secretariat of the Union for general administrative purposes. s 12. The Secretary General of the Union, or his representative, the representatives of the International Frequency Registration Board, and the representatives of the other Consultative Committees of the Union may

attend meetings of the C.C.I.R. in an advisory capacity.

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§ 13. The C.C.I.R. may form joint study commissions with other Consultative Committees of the Union to study and make recommendations on questions of common interest.

§ 14. The C.C.I.R. may appoint a representative to attend in an advisory capacity, meetings of other committees of the Union or other international organizations.

§ 15. A Plenary Assembly of the C.C.I.R. shall consider and approve, modify or reject recommendations prepared by the Commissions of Reporters (Study Commissions). A Plenary Assembly shall decide upon new questions to be studied by the Commissions of Reporters (Study Commissions). It shall submit to the Administrative Council of the Union a statement of the financial accounts of the C.C.I.R.

§ 16. The date of a Plenary Meeting may be advanced, or postponed, with the approval of twelve or more participating countries, according to the state of the work of the Commissions of Reporters (Study Commissions).

\$ 17. The languages used in the Plenary Meetings and in the official documents of the C.C.I.R. shall be as provided in the General Regulations annexed to the Convention.

§ 18. (1) The countries which are authorized to vote at Plenary Meetings of the C.C.I.R. shall be as provided in the General Regulations annexed to the Convention.

(2) However, when a country is not represented by an administration, the representatives of the private operating agencies of that country shall, as a whole, and regardless of their number, be entitled to a single vote.

§ 19. (1) The salary of the Director of the C.C.I.R. and the ordinary expenses of the specialized secretariat assigned to the work of the C.C.I.R. shall be included in the general expenses of the Union.

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(2) The expenses of the Plenary Meetings of the C.C.I.R. and meetings of Commissions of Reporters (Study Commissions), including extraordinary expenses of the Director of the C.C.I.R. and the secretariat, shall be borne by the administrations, private operating agencies, international organizations and scientific and manufacturing organizations which participate in the work of the C.C.I.R.

(3) The method of apportioning the expenses of the C.C.I.R. for payment, in accordance with subparagraphs (1) and (2) above, shall be as provided in the General Regulations annexed to the Convention.

(4) Each Administration, private operating agency, international organization, or scientific or manufacturing organization shall defray the personal expenses of its own experts.

§ 20. The chairman of each Plenary Meeting of the C.C.I.R. shall be the chairman of the Delegation of the country in which the meeting is held. The Director of the C.C.I.R. shall assist the chairman in the coordination of the work of the Commissions of Reporters (Study Commissions) and in the conduct of the Plenary Meeting.

§ 21. (1) The C.C.I.R. shall observe the rules or procedure provided in the General Regulations annexed to the Convention.

(2) The C.C.I.R., at its Plenary Meetings, may establish such additional rules of procedure, not inconsistent with subparagraph (1) above, as will facilitate its work.

INTERNATIONAL RADIO CONFERÊNCE ATLANTIC CITY 1947

Document No. 638 R-E

July 26, 1947

Committee 5

### Report of the Allocation of Frequencies Committee (Committee 5) Sixteenth Meeting 24th July 1947

1. Colonel READ, in opening the meeting, said how much he appreciated the honour that had been done him in accepting him as Chairman of Committee 5, and expressed his hope that the important work for which the Committee was responsible could be led quickly to a successful conclusion.

2. The minutes of the 14th Meeting (Document 565 R) were then approved, subject to the following amendments:

Page 7. Section 16, line 4 (English text only): Delete "3230-3500 kc/s" and substitute "3230-3400 kc/s"

Page 2. Section 6.

Delete "supported by the delegate of the <u>United</u> States" from first sentence.

Add at end of section: "The delegate of the <u>United States</u> supported this view, at the same time indicating the support of the United States for this proposal."

3. The minutes of the 15th Meeting (Document No. 572 R) were approved, subject to the following amendments.

Page 7, Section 12.

Amend the statement made by the delegate of Egypt to read: "-the delegate of <u>Egypt</u>, who agreed to allocate 300 kc/s in the 14 Mc/s band for the amateurs and 100 kc/s to the fixed service, and, at the same time, proposed that the band 3950-4000 kc/s be allocated to broadcasting on an exclusive basis.

Page 6, Section 12.

Add, at the end of the statement made by the delegate of France: "and for that reason; it was not possible to say that the target figure of 400 kc/s had been recommended by that

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subcommittee for the amateur service in the 14 Mc/s band"

Page 8, Section 14.

Delete "(the believed)" in the fifth line.

Page 7, Section 12.

Replace the statement made by the delegate "-the ' of the Ukraine by the following: delegate of the Ukraine, who said that the Ukrainian delegation still considered that it was indispensable to increase the frequency allocation to the fixed service, especially in the bands 8000 - 10,000 kc/s and 16000 - 20,000 kc/s; as he had stated at the last meeting of the Committee. The frequency band 14000 - 14400 kc/s, allocated according to the draft to the amateurs, . must be reduced and the frequency band allocated to the fixed service must be increased instead (at the expense of the amateurs). In this matter he supported the delegate of Poland, who proposed to allocate the band 14000 - 14300 kc/s to the amateurs and the band 14300 - 14400 kc/s to the fixed service, as there was no necessity to allocate such a wide bandwidth to the amateurs in this band which had been well studied. Amateurs should be allocated frequencies in the higher bands where there would be a great field for their activities.

Page 6, Section 13.

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· Add:

"He had said at the 15th meeting, that the fixed service allocations had already been reduced by about 10% relative to Cairo, that he thought, seeing the high stability of the modern fixed service transmitters, it would be possible to place all existing transmitters in these reduced bands and he asked, who would do this work. The Chairman, Sir Stanley Angwin, explained, that the task of this conference was to produce the best possible frequency band allocation and that it did not concern us here, who would do the allocation of the transmitters (who would assign to each, transmitter its individual frequency) in the narrower bands. - This, Sir Stanley Angwin said, could be done by an international conference, other than the Atlantic City Conference, or in some other appropriate way."

4. The <u>Chairman</u> said that he had received a note from the Secretary General informing him that the delegate . of outer Mongolia, had desired to participate in the work of Committees 3, 5, and 6.

He next proposed to the Committee, and it was agreed, that Documents Nos. 515 R and 562 R, giving the results of the deliberations of Subcommittee 5D, be accepted provisionally, discussion of those documents being left to a later date.

He thanked Professor JANUSZ GROSZKOWSKI for the effective work the Subcommittee, had brought to such a satisfactory conclusion in the short time alloted to it.

Continuing, he briefly reviewed the present state of the Committee's work, referring to the relevant documents, and indicated the times at which the current week's meetings would be held.

Referring to the small groups that had been established to assist Committee 5 with its work, he briefly outlined their terms of reference, as follows:

The Aeronautical Group (Chairman, Wing Commander Burbank)

To consider the question of the subdivision of the aeronautical mobile bands between the "route" and "off-route" services. To draft notes and paragraphs relating solely to the aeronautical service for "inclusion" in the new Article 7 (including consideration of paragraphs 149 - 159 of the present Regulations)

The Maritime Group (Chairman, Colonel Read)

To consider the following:

- (a) The questions of a new common distress and calling frequency in place of 1650 kc/s.
- (b) The question of a common calling frequency in the high frequency bands for the Maritime Mobile and Aeronautical Mobile services.
- (c) Section (c) of the Scandinavian proposal given in Section 6 of Document No. 572 R.

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d) The subdivision of the high frequency Maritime Mobile bands between telephony and telegraphy. To draft notes and paragraphs relating to the Maritime Service for inclusion in the New Article 7 (including consideration of paragraphs 160 - 169 and 180 - 189 of the present Regulations)

#### The Miscellaneous Drafting Group (Chairman, Mr. P. W. Fryer)

To draft notes and paragraphs for inclusion in the New Article 7 not falling within the scope of the Aeronautical and Maritime Groups, taking into account those drafted by the other groups.

The work of this Group to include consideration of paragraphs 79 - 91, 129 - 148, 170 - 175, 179, and 190 - 192 of the present Regulations.

The Chairman then turned to the study of Document No. 568 R (Summary of Allocations for 'the Frequency Band 10-2850 kc/s) modified by Documents No. 603 R of the 23rd July and No. 614 R of the 24th July.

5. The <u>delegate of New Zealand</u> explained that the term Australasia figuring in Document No. 568 R was one somewhat lacking in precision, and requested that it be replaced by "Australia and New Zealand." This was agreed.

6. The delegate of the <u>Netherlands</u> said that at the 6th meeting of Committee 5 his delegation had requested that the band 255-285 kc/s be allocated in Europe, as under the Cairo regulations, to the aeronautical service, to accommodate aeronautical beacons and meteorological networks, but that they were prepared to accept the admission of broadcasting on condition that no harmful interference resulted. This proposal had been supported by the delegate of Belgium and Committee 5 had decided that the Working Group should take account of the suggestion.

The delegate of Norway said that his country had broadcasting stations operating in the band 255-285 kc/s and he wished to have an assurance that the Maritime Mobile Service would not interfere with broadcasting. He therefore proposed that Note 7 be applied to this band.

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The delegate of the U.S.S.R. said that, as regards to this subject, he wished to say once more that braodcasting had great need for frequencies in this band, and that he was only prepared to see the aeronautical service admitted on condition that no interference to broadcasting resulted. He pointed out that it was suggested that the inter-regional note be now applied to this band and that in his view this represented a solution of the problem.

The delegate of Belgium supported the statement made by the delegate of the Netherlands, and reminded the Committee that, at a previous meeting, Sir Stanley Angwin had dealt provisionally with the question, admitting the three service - aeronautical Navigational aid, Maritime Mobile, and broadcasting - to It seemed that since then nothing had been the band. done for the aeronautical service. It should nevertheless be possible for the Working Group, by a judicious division of the band and appropriately redrafted notes, to permit the operation of the aeronautical service in the West of Europe, without troubling broadcssting stations in the East of Europe; but to displace aeronautical stations into other bands, already congested, was absolutely impossible. Moreover, if the band was allocated, as in the present proposal, to the three services on a basis of equality, all the countries in the European Region would have the right . to operate broadcasting stations within it and it would no longer be possible to confine it to the East. of Europe or the areas beyond. The Chairman decided to refer this question to the Working Group, who would confer, if necessary, with the delegates of the Netherlands, Belgium, and Norway.

7. The <u>delegate of Belgium</u> pointed out that some contradiction was apparent in Note 10. The word "zone" corresponding to the English term "area" was not shown in the French text, which ought to read: "dans le zone de la mer du Nord et de la mer Baltique." On the other hand, it seemed that it was the maritime navigational service that ought to be protected; it was therefore necessary to delete the word "Baltic" in the second part of this note.

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The <u>Chairman</u> decided that the Working Group should give this note some further study with a view to rendering it more precise and consistent.

8. The delegate of Denmark stressed the fact that the note referring to the band 325-405 kc/s given in Documents Nos. 435 R and 457 R had now disappeared. This note indicated that fixed stations now operating in the band 385-395 kc/s should be permitted to continue to operate by regional arrangement.

The Chairman said that a study of this question would be made. He added that some revision of notes 11, 15, and 17 would also be necessary.

9. The <u>delegate of the U.S.S.R.</u> said that, as regards the band 325-405 kc/s, it seemed to him that it might be desirable to give general effect to the priority for aeronautical navigational aids, at present confined to the American Region.

This proposal was adopted.

The <u>delegate</u> of the U.S.S.R. (emphasized that Notes 11, 15, and 17 would have to be replaced by other notes whose drafting had not yet been completed.

10. The delegate of India said that he wished to see some slight modifications as regards the band 525-535 kc/s for "Other Areas." He undertook to indicate them at a later stage.

11. Referring to the proposed amendment, shown in Document No. 603 R as corrected by Document No. 614 R, of the allocation of the band 1800-2000 kc/s for "Other Areas", the <u>Chairman</u> explained that the Working Group had suggested this amendment as more nearly interpreting the wishes of the assembly than the allocation shown orginally. Continuing, he said that Note 20 was only a provisional draft, still open for discussion.

The delegate of France proposed the following amendment to Note 19:

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In the 17th line, between "1st of July 1949" and "a special Administrative Conference-----," insert: "and this fact is recognised by the majority of the countries interested." He proceeded to give the following reasons:

> (a) The problem under consideration consisted essentially of knowing whether, on the 1st July 1949, there would be in effective operation a system of radionavigation capable of replacing LORAN in the North East region of the North Atlantic. Fifteen countries were interested in this problem, thirteen in the European Region, and two in the American Region.

(b) The present note provided that if only one of the fifteen countries interested declared to the Bureau of the Union that there was no system of radio Navigation capable of replacing LORAN, the administrative conference would be convened, even if the fourteen other countries held the opposite view. The French delegation did not consider this method of procedure to be reasonable, and that it was useless to call a conference when it was obvious that it would have only a negative result. In consequence, France proposed the following procedure, which seemed more equitable.

(c) If one, or more, a fortiore, of the interested Nations declared to the Bureau of the Union that in their view there was no system able to take the place of LORAN, the Bureau should make inquiry among the interested Nations. If the majority of them shared this opinion an administrative conference would be called to reconsider the question. If the opposite was the case the conference would not take place. The proposed amendment to Note 12 was intended to achieve this end without any major change. in the text. d) The delegate of France said that he wanted to emphasize that if it was clear that a system of radio navigation could not be put into effective service by 1st July 1949 to replace LORAN in the North East region of the North Atlantic, France would be the first to recognize the position and would contribute to forming the majority of the countries who would demand that the Conference be held. For this reason he thought that the proposed amendment should not be objectionable to anyone of good intentions.

The delegate of Denmark, while emphasizing the importance of avoiding any interruption in the functioning-of radionavigation facilities for the North Eastern area of the North Atlantic, said that he was prepared to support the French proposal if general agreement could be reached.

The <u>delegate of the United Kingdom</u> said that the United Kingdom found several features of LORAN objectionable but made it clear that he was opposed to the French proposal. If however the latter were adopted the United Kingdom would support any country which requested the calling of the conference, even if it were the only one to do so.

The <u>delegate of the United States</u> said that he would be very disappointed if the French proposal came to be adopted. He pointed out that in the interest of maintaining continuity of radionavigation facilities in the North Atlantic the group charged with studying the note regarding LORAN had adopted the present text unanimously and he strongly supported the adoption of their recommendation.

The <u>delegate of the Argentine</u> supported this point of view.

The <u>delegate of Ireland</u> considered that the unmodified text should be retained.

The Chairman suggested that, in view of the balance of views expressed, the existing text . be retained. However, following further observations from the French delegate, it was decided to defer final consideration of the

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question until the next meeting, on the understanding that clear and definite support of the French Amendment would be needed to justify any` modification of 'the existing text.

13. The <u>delegate</u> of <u>Hungary</u> requested that Cairo practice be followed and wavelengths in meters shown beside the frequency entries in the allocation table.

The Chairman suggested that as the discussion was being effected successfully, in terms of frequencies it would be wiser to leave this question for the time being, and consider it later when preparing the final draft.

14. The <u>delegate of Canada</u> thought that as the French proposal would figure in the report of the meeting attention should also be drawn to paragraphs 15, 16 and 17 of Document No. 545 R, which contained, in particular, the views of Canada, the United States, and the U.S.S.R. on this subject.

15. The delegate of New Zealand said that in the Pacific Area he wished to see the band 325-405 kc/s allocated to the aeronautical navigation and aeronautical mobile services on a basis of equality, contrary to the previsions of Note 9 for the American Region, which it was now proposed to apply to the whole world. He suggested that a separate agreement might therefore be arrived at on this question as regards that part of the world.

Reporters:

Chairman:

P. FRYER

A. H. READ

L. A. LAMOITIER

Lt. Commander DE CALAN

### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document Nº 639 R-E July 26, 1947

### COMMITTEE 8

### AGENDA

for the full meeting of COMMITTEE 8 (OPERATIONS) to be held on July 30, 1947

- 1. Communication of the Chairman
- 2. Approval of the report of the 3rd meeting (Document No. 629 R-E)
- 3. Discussion of new texts submitted by the chairmen of subcommittees for approval by the full committee.
- 4. Dealing with U.K. proposal 2550 R in document No. 539 R-E: Coordination of activities within the fields of aviation, shipping and telecommunications in regard to Safety at Sea and in the Air
- 5. Miscellaneous.

### ATLANTIC CITY, July 26, 1947

S.Rynning-Tonnesen Chairman of Committee 8.

28 Juil. 1947

### INTERNATIONAL RADIO CONFERENCE -ATLANTIC CITY 1947

DOCUMENT NO. 640 R-E. July 26, 1947

Committee 5

Report of the Aeronautical Group of Allocation of Frequencies Committee (Committee 5) 2nd Meeting July 26th 1947

1. The meeting opened at 1530 hours.

2. 'The report of the 1st meeting (Doc. No. 621 R-E) was adopted.

3. Referring to Paragraph 2 of Doc. No. 621 R-E, the <u>Chairman</u> pointed out that, in accordance with the desire of the Chairman of Committee 5, the Committee would retain the title of "Aeronautical Group."

4. The meeting then moved on to a consideration of the plans put forward in Doc. No. 621 R-E, Appendices "A," "B" and "C."

Discussion was carried out in a spirit of compromise and speedy agreement reached on the sub-division of the aeronautical mobile bands into Route and Off-Route allocations.

5. The complete plan, which was unanimously agreed, is annexed to this report.

6. Regarding the band 15010-15100 kc/s, the delegate from <u>Australia</u> stated that his country had a small requirement to cover "route" services operating across the Pacific. After discussion it was agreed that, before making provision for this in the allocation table, the matter should be considered further out of committee and discussed again at the next meeting.

7. The meeting closed at 1800 hours.

Rapporteurs:

S. R. Burbank.

Chairman:

M. Falgarone H. A. Rowland

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<u>Sub-Division</u>		lusive Aeronau	tical Bands into
	ROL	<u>119 2110 011 - ROL</u>	
Frequency (kc/s)	Bandwidth (kc/s)	Allocation	Remarks
2850 - 3025 3025 - 3155 3400 - 3500	175 130 100	Route Off-Route Route	The Regional allocation 3900 - 3950 will
4650 - 4750 5480 - 5730	100 250	Off-Route Route	be used by Off- Route. The Regional allocation 5450 - 5480
6525 - 6685 6685 - 6765 8965 - 9040 10005-10100 11175-11275 11275-11400 13200-13360 13260-13360 15010-15100 17900-17970 17970-18030 21850-22000 23200-23350	160 80 150 75 95 100 125 60 100 90 70 60 150	Route Off-Route Route Off-Route Route Off-Route Route Off-Route Route Off-Route Route Off-Route Route/Off-Route	will be used, by Route.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

### Document No. 641 R-E

July 27, 1947

Committee 8

### Report

of the

"Q" Code Working Group to Subcommittee B of the Operations Committee with 'Transactional Texts for Appendix 11

The Chairman, Subcommittee B Operations Committee

I have the honor to report that the Working Group appointed by you at the 8th Meeting of the Subcommittee have, with the exception of a few minor items, now completed their work on Appendix 11 and the transactional texts recommended for submission to the Subcommittee are attached hereto.

During the course of its task the group examined the following propositions:

	425 and	426R	-	United Kingdom
• . :	472R			Hungary
,	1589R			Canada .
	1604R			China
	1706R	•		United States
. '	1752R	•		Roumania
	2130R	•		France

Propositions 1753R of Roumania and 2131R of France have been reserved for consideration under Article 12.

Unfortunately it has not been possible to resolve certain "Q" signals having navigational signification; it is therefore recommended that these questions as already reported to you, should receive special study by such navigational experts as may be available. It is considered desirable that the experts should meet the working group in order that they may be fully informed of the problems involved.

I have also been requested to draw your attention to the use of such terms as "Radiocommunications" "message" and "telegram" in the text which may require

### further consideration in the light of new definitions.

In the list of miscellaneous abbreviations, there has been added these abbreviations and signals which appear in the text of the Regulations, for the sake of completeness. In addition the signal "BK" as now shown in 421 bis of Article 17 has been included. It is the opinion of the working group however, that the use of this signal should be considered further by the Subcommittee relative to signals of a similar nature used in connection with the abbreviation JM. These signals are widely used in practice for the purpose of breaking in on a transmission in progress and are considered by the working group to be more generally suitable for this purpose than "BK."

> V. Dodd Chairman "Q" Code Working Group

### Appendix 11

(641 R-E)

### Miscellaneous Abbreviations and Signals to be used in Radiocommunications (see Article 17)

### 1. "Q" Code.

#### Introduction

The series of groups QRA to QUZ listed in this Appendix, is for use by all services.

The QAA to QNZ series is reserved for the aeronautical service and the QOA to QQZ series is reserved for the maritime mobile service. These series are not listed in these regulations.

The meanings assigned to "Q" code abbreviations may be amplified or completed by the addition of appropriate other groups, call signs, place names, figures, numbers, etc. It is optional to fill in the blanks shown in parentheses. Any data which is filled in where blanks appear should be sent in the same order as shown in the significations.

Abbreviations, with numbered alternative significations, must be followed by the appropriate figure to indicate the exact meaning intended. This figure should be sent immediately following the "Q", code abbreviation.

' Abbreviations are given the form of a question when followed by a question mark. When an abbreviation is used as a question and is followed by additional or complementary information, the question mark should follow this information.

Certain abbreviations may be given an affirmative or negative sense by sending "C" or "N" respectively, immediately following the "Q" code abbreviation.

All time should be given in GMT unless otherwise indicated in the question or reply.

### Abbreviations available for all Services.

### A. List of Abbreviations in alphabetical order

-	ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS
	QRA	What is the name of your station?	The name of my station is	No change
	QRB	How far approximately are you from my station?	The approximate distance between our stations is nautical miles (or kilometres)	No change
	QRC	By what private enterprise (or State Administration) are the accounts for charges for your station settled?	The accounts for charges of my station are settled by the private enterprise (or State Adminis- tration)	Editorial change.
	QRD	Where are you bound and where are you from?	I am bound for from	No change
. `	QRE	What is your estimated time of arrival at (place)?	My estimated time of arrival at (place) is hrs.	New (425R/UK) • (1706R/US)
	QRF	Are you returning to (place)?	I am returning to (place) or return to (place).	New (425R/UK)
	QRG	Will you tell me my exact frequency (or that of)?	Your exact frequency (or that of) is kc/s (or Mc/s)	Editorial change
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	ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS
	QRH	Dces my frequency vary?	Your frequency varies	Editorial change
	QRI	How is the tone of my transmission?	The -tone of your transmis- sion is (1 good; 2 variable; 3 bad)	Modified. Proposition 2130 R/Fr.
2.	QRJ			DELETE. Proposition 1706R/US
	QRK	What is the readability of my signals (or those of )?	The readability of your sig- nals (or those of) is (1 to 5) (See Appendix 12)	Modified. Proposition 2130R/Fr. 1706R/US
• • • • • • • • • • • • • • • • • • •	J.RL	Are you busy?	I am busy (or I am busy with). Please do not interfere.	No change.
	QRM	Are you being interfered with?	I am being interfered with.	No change.
	QRN	Are you troubled by static?	I am troubled by static.	Modified. Proposition - 1706R/US
	QRO	Shall I increase power?	Increase power.	Modified. Proposition 2130R/Fr.
-	QRP	Shall I decrease power?	Decrease power.	Mcdified. Proposition 2130R/Fr.
-	QRQ	Shall I send faster?	Send faster ( words per minute)	No change

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-	ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS	
	QRR	Are you ready for automatic operation?	I am ready for automatic operation. Run at words per minute.	New 1706R/US	
	QRS	Shall I send more slowly?	Send more slowly ( words per minute)	No change	
-	QRT	Shall I stop sending?	Stop sending.	No change	
	QRU	Have you anything for me?	I have nothing for you.	No change	
	QRV	Are you ready?	I am ready.	No change	· · · ,
	QRW	Shall I inform that you are calling him on kc/s (or Mc/s)?	Please inform that I am calling him on kc/s (or Mc/s)	Editorial change	
	QRX	When will you call me again?	I will call you again at hours (on kc/s) (or Mc/s)	Modified	
	QR <u>Y</u>	What is my turn? ( <u>Relates</u> to communication)	Your turn is Number (or according to any other indication) ( <u>Relates to</u> <u>communication</u> )	Modified. Proposition 1700R/US and to avoid con- fusion with QGP	
	QRZ	Who is calling me?	You are being called by (on kc/s) (or Mc/s)	Modified 213CR/FK	
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ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS	
QSA	What is the strength of my signals (or those of)?	The strength of your signals (or those of) is (1-5) (See App. 12)	Modified 1706R/US	
QSB	Are my signals fading?	Your signals are fading.	No change	
QSD (	Is my keỳing defective?	Your keying is defective.	- Modified 1706R/US	
, 'QSG	Shall I send`telegrams at a time?	Séndtelegrams at a time.	Modified 1706R/US	
QSI		I have been unable to break in on your transmission. OR Will you inform(Call Sign) that I have been unable to break in on his transmis- sion (on kc/s) (or Mc/s)	New 1706R/US	
QSJ	What is the charge to be collected per word to including your internal telegraph charge?	The charge to be collected per word to including my internal telegraph charge is (1). Monetary Unit- to be added after decision of Plenipotentiary conference	Modified 1706R/US	
QSK	Can you hear me between your signals?	I can hear you between my signals.	Modified	
QSL	Can you acknowledge 'receipt?	I am acknowledging receipt.	No change	
QSM	Shall I repeat the last telegram which I sent you, or some provious telegram?	Repeat the last telegram which you sent me (or tele- gram (s) number (s))	Modified 2130R/FR	
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ABBRE+ /IATION	QUESTION	ANSWER OF ADVICE	REMARMS
qsn	Did you hear me (or). (call sign) on kc/s (or Mc/s)?	I did hear you (or) (call sign) on kc/s (or Mc/s)	New 2130R/FR. •
QSO	Can you communicate with direct or by relay?	I can communicate with direct (or by relay through }	Modified
qsp	Will you relay to free of charge?	I will relay to free of charge.	Editorial.
<b>95</b> 2	Have you a doctor on board (or is (name of person) on board)?	I have a doctor on board (or (name of person) is on board).	New 425R/UK
QSR C			Delete 1706R/US.
QSU	Shall I send or reply on this frequency for on kc/s (or Mc/s) (with emis- sions of type)	Send or reply on this fre- quancy (or on kc/s) (or Me/s) (with emissions of type)	Modified 1706R/US 2130R/FR
qsv	Shall I send a series of V's on this frequency (or kc/s)(or Mc/s)?	Sond a series of V's on this frequency (or kc/s)(or Mc/s)	Modified 2130R/FR
Q.SW	Will you send on this fre- quency for on kc/s for on Mc/s)7 (with emissions of type)?	I am going to send on this Frequency for on kc/s (or Mc/s) (with emissions of type)	Modified 1706R/US 2130R/FR
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ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS	• •
QSX	Will you listen to (call sign .(s)) on ke/s (or Mc/s)?	I am listening to (call . sign (s)) on kc/s (or Mc/s)	Editorial	
QSY	Shall I change transmis- sion to another frequency?	Change to transmission on another frequency (or kc/s) (or Mc/s)	Modified 1706R/US	
QSZ	Shall I send each word or group more than once?	Send each word or group twice (or times).	Modified 1706R/US	: •
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ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS
QTA	Shall I cancel telegram number as if it had not been sent?	Cancel telegram number as if it had not been sent.	No change
QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.	Editorial
QTC	How many telegrams have you to send?	I have telegrams for you (or for)	No change
QTE	What is my true bearing from you? Or What is my true bearing from (call sign)?	Your true bearing from me is degrees (at hours) or Your true bearing from (call sign) wasdegrees	No change FOOTNOTE TO BE DELETED.
	or What is the true bearing of (call sign) from (call sign)?	at hours. or The true bearing of (call sign) from call sign was degrees at hours.	
QTF	Will you give me the position of my station according to the bearings taken by the direction finding stations which you control? (See App. 15)	The position of your station according to the bearings taken by the direction find- ing stations which I control was latitude longitude class at	Modified 1706R/US
		hours. (See App. 15)	

-10-(641 R-E)

BBRE- IATION	QUESTION	ANSWER OR ADVICE	REMARKS
QTG	Will you send two deshes of ten seconds followed by your call sign (repeated	I am going to send two dashes of ten seconds followed by my call sign (repeated times) / onkc/s (or Mc/s)/	Modified 1706R/US
or	times) / onkc/s(or Mc/s)/?	or	
	1 · · · · · · · · · · · · · · · · · · ·	I have requested to send two dashes of ten seconds fol- lowed by his call sign (re-	
•	peated times) on kc/s (or Mc/s)?	peated times) on kc/s (or Mc7s).	
QJTH -	What is your position in lati- tude and longitude (or accord- ing to any other indication )?	longitude (or according	No change
QTI	What is your true track?	My true track isdegrees.	Modified to conform with French text.
(1) QTJ	What is your speed?	My speed isknots (or kilometres per hour)	No change
	(1) Requests or indicates the s through the water or air re	peed of a ship or aircraft spectively.	
QTK	What is the speed of your aircraft in relation to the surface of the earth?	The speed of my aircraft in relation to the surface of the earth is knots (or kilometres per hour)	New
QTM			Delete
	- (64	11- 1 R-E)	5 <b>5</b>

					<u> </u>
			1		
•				1 a a	

ABBRE- VIATION	QUESTION	ANSWER OR ADVICE	REMARKS
QTN	At what time did you depart from(place)?	I departed from(place)	New 4 )R/UK
-QTO	Have you left dock or port?	I have left dock or port	Molified
	Are you air-borne?	I am air-borne.	
QTF	Are you going to enter dock or port?	I am going to enter dock or port.	Modified.
	or Are you going to alight or land?	I am going to alight or land.	
QTQ	Can you communicate with my f station by means of the international code of signals?	I am going to communicate with your station by means of the international code of signals.	No change
QTR	What is the correct time?	The correct time is hours.	Editorial
ୁକୁଅନୁ	Will you send your call sign for minute (s) now (or at hours) (on kc/s) (or Mc/s) so that your fre- quency may be measured?	I will send my call sign for minute (s) now (or at hours) (on kc/s) (or Mc/s) so that my frequency may be measured.	New 2130R/FR
QTU	What are the hours during which your station is open?	My station is open from tohours.	No change
QTV	Shall I stand guard for you on the frequency ofkc/s (or Mc/s) (fromtohours)?	Stand guard for me on the fre- quency ofkc/s (or Mc/s) (fromtohours).	New 1706R/US
1 ·			

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QTX       Will you keep your station open for further communica- tion with me until further notice (or untilhours)?       I will keep my station open for further communication with you until further notice (or untilhours)       New         QUA       Have you news of(call sign)?       Here is news of (call sign).       Modified         QUB       Can you give me, in the fol- fowing order, information concerning: visibility, height of clouds, direction? and velocity of ground wind at(place of observation)?       Here is news of (call sign).       Modified         QUC       What is the number or other indication of the last mes- sage you received from me / or from (call sign)/       The number (or other indica- tion) of the last message I received from you / or / or from (call sign)/       Modified 2130F/FR         QUD       Have you received the urgency signal sent by (call sign of mobile station)?       I have received the urgency signal sent by (call sign of mobile station)?       No change signal sent by (call sign of mobile station) athours.	ABBRE- VIATION	QUESTION	, ANSWER OR ADVICE	REMARKS	
QUA       Have you news of(call sign)?       Here is news of (call sign).       Modified         QUB       Can you give me, in the fol- fouring order, information concerning: visibility, height of clouds, direction' and velocity of ground wind at (place of observation)?       Here is news of (call requested       Modified         QUC       What is the number or other indication of the last mes- sage you'received from me / or from(call sign)/       The number (or other indica- tion) of the last message I received from you / or from (call sign)/       Modified         QUD       Have you received the urgency signal sent by (call sign /       I have received the urgency signal sent by (call sign I have received the distress signal sent by (call sign       No change         QUF       Have you received the distress signal sent by (call sign       I have received the distress signal sent by (call sign       No change	QTX	open for further communica- tion with me until further	for further communication with you until further notice	New	
Sign)?Sign).QUBCan you give me, in the fol- fowing order, information concerning: visibility, height of clouds, direction' and velocity of ground wind at(place of observation)?Here is the information requestedModified 1706F/USQUCWhat is the number or other indication of the last mes- sage you received from me / or from(call sign)/The number (or other indica- tion) of the last message I received from you / or from (call sign)/Modified 2130F/FRQUDHave you received the urgency signal sent by (call sign of mobile 'station)?I have received the urgency signal sent by (call signNo changeQUFHave you received the distress signal sent by (call signI have received the distress signal sent by (call signNo change		notice (or untilnours)?	(or untilnours)	•	
fowing order, information concerning: visibility, height of clouds, direction and velocity of ground wind at(place of observation)?requested1706F/USQUCWhat is the number or other indication of the last mess- sage you'received from me / or from(call sign)The number (or other indica- tion) of the last message I received from you / or from (call sign)Modified 2130R/FRQUDHave you received the urgency signal sent by (call sign)I have received the urgency signal sent by (call sign)No changeQUFHave you received the distress signal sent by (call sign)I have received the distress signal sent by (call sign)No change	QUA	Have you news cf(call sign)?		Modified	
QUDHave you received the urgency signal sent by (call sign)?tion) of the last message I received from you / or from (call sign)?2130R/FRQUDHave you received the urgency signal sent by (call sign of mobile 'station)?I have received the urgency signal sent by (call sign I have received the distress signal sent by hours.No changeQUFHave you received the distress signal sent by (call signI have received the distress signal sent by (call signNo change	QUB	fowing order, information concerning: visibility, height of clouds, direction and velocity of ground wind			
Signal sent by (call signsignal sent by (call of mobile 'station)?QUFHave you received the distress signal sent by (call signQUFHave you received the distress signal sent by (call sign	QUC	indication of the last mes- sage you'received from me	tion) of the last message I received from you Zor		•
QUF Have you received the distress I have received the distress No change	QUD	signal sent by (call sign	signal sent by (call sign of mobile station) at		
	QUF	signal sent by (call sign	I have received the distress signal sent by(call sign	No change	•

• •				
	RE- TION	QUESTION	ANSWER OR ADVICE	REMARKS
QU	G	Will you be forced to alight or land?	I am forced to alight or land immediately.	Modified
5	,		or I will be forced to alight or land at(position or place)	•
QU	H ·	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is(units).	Editorial
କୃତ	I .	Are your navigation lights working?	My navigation lights are working.	New 425R/UK, 1706R/US
ຸ ຊູບ ``	J	Will you indicate the true course for me to steer towards you (or) with no wind?	The true course for you to steer towards me (or) with no wind isdegrees athours.	Modified
QU	K .	Can you tell me the condition of the sea observed at (place or coordinates)?	The sea at(place or coordinates) is	No change.
ସୃଧ	L	Can you tell me the swell observed at (place or coordinates)?	The swell at(place or coordinates) is	No change.
- QU	М.	Is the distress traffic ended?	The distress traffic is ended.	No change.
QU	N	Will vessels in my immediate vicinity/(or in the vicini- ty of latitude longi- tude) (or of)/ please indicate their position, true course and speed?	My position, true course and speed are	New 1589R/Canada
			-14- 541 R-E)	

ABBRE- VIATION QUESTION	ANSWER OR ADVICE	REMARKS
QUO Shall I search for (1. Aircraft 2. Ship 3. Survival craft in the vicinity of tude longitude (or according to any other indication)?	Please search for (1. Aircraft 2. Ship 3. Survival craft in the vicinity of latitude longitude (or accord- ing to any other indication).	New 425R/UK 1706R/US
QUP Will you indicate your posi- tion by (1. Searchlight; 2. Black smoke trail; 3. Pyrotechnic lights)?	My position is indicated by (1. Searchlight; 2. Black smoke trail; 3. Pyrotechnic lights).	New 1706R/US 425R/UK
QUQ Shall I train my searchlight nearly vertical on a cloud, occulting if possible and, if your aircraft is seen, de- flect the beam up wind and on the water or land to facilitate your landing?	Please train your searchlight on a cloud, occulting if pos- sible and, if my aircraft is seen or heard, deflect the beam up wind and on the water or land to facilitate my landing.	New 1706R/US
	<pre>Survivors (1. Are in possession of     survival equipment     dropped by; 2. Have been picked up by     rescue vessel; 3. Have been reached by     ground rescue party). 15- 1 R-E)</pre>	New 1706R/US 425R/UK

VIATIONQUESTIONANSWER OR ADVICEREMARQUSHave you sighted survivors or wreckage? If so, in what position?Have sighted (1. Survivors in water. 2. Survivors on rafts. 3. Wreckage) in position latitudelongi- tude (or according to any other indication).New 425R/ 1706FQUTIs position of incident marked?Position of incident is marked byNew 425R/ 425R/ 1706F	ÚK.
or wreckage? If so, in what position?(1. Survivors in water. 2. Survivors on rafts. 3. Wreckage) in position latitudelongi- tude (or according to any other indication).425R/ 1706FQUTIs position of incident marked?Position of incident is marked byNew 425R/	ÚK.
QUT Is position of incident Position of incident is Mew marked by	
marked? marked by 425R/	•
	ÚK /US
QUU Shall I home ship or air- craft to my position? / 1. (call sign to your 425R/ position by transmitting	ÚK.
your call sign and long dashes onkc/s (or Mc/s)	
2. (call sign) by trans- mitting on kc/s (or Mc/s) courses to steer to reach you]	
-16- (641 R-E)	

# - 17 1 (641 R-E)

### LIST OF SIGNALS ACCORDING TO THE NATURE OF QUESTIONS, ANSWER OR ADVICE В.

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ABBREVIATION	·QUESTICN	ANSWER OR ADVICE
QRA	Name	
QRD	Route	
QRB QRE QTN	Position	
QRI QRK	Quality of Signals	
QRJ QRO QRP QSA QSB	Strength of Signals	
QRQ QRR QRS QSD	Keying	
QPM	Interference	
QRN QRG QRH QTS	Adjustment of Frequency	
QSN QSU QSV QSW QSX	Choice of Frequency and/o: Type of Emission	2

- 18.-(641 R-E)

ABBREVIATION	QUESTION	ANSWER OR ADVICE
QSY .	Change of Frequency	
QRL	Establishing Communication	х 
QRV QRX QRY		
QRZ QTQ		
QTR QTU	Time	•
QRC	Charges	,
QSJ		
QRW QSO	Transit	
QSP QSQ QUA QUC		
QRU	Exchange of Correspondence	
QSG QSI QSK		· · · ·
QSL QSM		
QSZ QTA QTB		
QTC QTV		
QRE QRF QTI	Movement	

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GTO     Movement (continued)       QUR     Meteorology       QUR     QUR       QUR     QUR       QUR     Radio Direction-finding       QTF     Guspension of Work       QUR     QUS       QUS     Distress       QUN     Search and Rescue       QUR     QUR	× ,	ABBREVIATION	QUESTION	ANSWER OR ADVICE
QUR       QUR         QUL       Radio Direction-finding         QTE       QTF         QTG       QTG         QTH       Suspension of Work         QUD       QUF         QUG       Distress         QUF       QUF         QUM       Search and Rescue         QUP       QUP         QUP       QUP<	 	QTP QUG	Movement (continued)	
QTE QTF QTG QTM QUJ QUJ QUJ QUD QUG QUG QUF QUM A <u>Suspension of Work</u> <u>Urgency</u> <u>Urgency</u> <u>Distress</u> QUF QUM <u>Search and Rescue</u> QUP QU2 QU7 QU2 QU7		QUH	Meteorology	
QRT QUD QUG QUF QUF QUM Search and Rescue QUN QUO QUP QUD QUD QUD QUD QUD QUD QUT	•	QTF QTG QTM	Radio Direction-finding	
QUF QUM Search and Rescue QUN QUO QUP QUQ QUR QUR QUS QUY	•	QUD		
QUN QUO QUP QUQ QUR QUR QUR QUR QUT		QUF		
	· · · · · · · · · · · · · · · · · · ·	QUO QUP QUQ QUA QUS QUY	Search and Rescue	

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Miscellaneous Abbreviations and Signals

Abbreviati	o,n	
or <u>Signəl</u>	Definition	Remarks
AA	All after(used after a question mark to request a repetition).	No change .
AB	All before (used after a question mark to request a repetition).	No change
ABV	Repeat (or I repeat) the figures in abbreviated form.	No change
ADS	Address (used after a question mark to request a repetition).	Replaces ADR 1706R/U
AL		Delete 1706R/US
AR	End of transmission ( to be sent as one signal).	New 1706R/US
ĀS	Waiting period ( to be sent as one signal).	Modified
BK ``	Signal used to interrupt a trans- mission in progress.	New (421 bis) To be furth considered relation to
BN	All between and (used after a question mark to request a repetition).	Modified
BQ	A reply to an RQ.	No change
C	Yes	No change
CFM	Confirm, or I confirm.	Editorial
CL	I am closing my station.	No change.
COL	Collect	New 1706R/US

1706R/US Reserved for further consideration

- 21 -(641 R-F/)

	Definition	Remarks
CP .	General call to two or more specified stations. (see Article 19)	New 1706R/US
୯ର୍	General call to all stations.	New 1706R/US
° CS	Call sign (used to request a call sign).	Modified
CTE	Collate, cr I collate	New Replaces COL 1706R/US Reserved for further consideratior
•DB to DZ	To be reviewed when App. 15 is revised	
DE ER	From (used to separate the call sign of the station called from the call sign of the calling sta- tion).	New 1706R/US Delete (1706R/US)
ETA	Estimated time of arrival.	New
GA		Delete (1706R/US).
HR	Here	,Replaces ER 1706R/US
ITP	The punctuation counts.	No change
JM	Make a series of dashes if I may transmit make a series of dots to stop my transmission (not to be used on 500 kc/s except in cases of distress).	Modified To be con- sidered with BK.

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Abbreviation or Signal	n Definition	Remarks
Dignar		Temarks
K	Invitation to transmit.	New 1706R/US
MN	Minute or minutes.	Modified 1706R/US
MSG	Prefix indicating a message to or from the master of a skip concern- ing its operation or navigation:	Editorial 1706R/US
N	No	No change
NIL	I have nothing to send to you.	Modified 1706R/US
NW	Now.	Modified 1706R/US
OK .	We agree or correct.	Modified 1706R/US
Р	Prefix indicating a private tele- gram in the mobile service.	Editorial
PBL	Preamble (used after a question mark to request a repetition).	No change
PTR -	Used by a coast station to request the position and next port, of call of a mobile station. (see 460)	New to conform with 460
R	Received	New 1706R/US
REF	Reference to or refer to	Editorial
, RPT ,	Repeat or I repeat (or repeat)	Modified 1706R/US
RQ	Indication of a request.	Editorial
SA-SF-SN		Delete (1706R/US)

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Abbreviation		
or Signal	Definition	Remarks
SIG	Signature (used after a question mark to request a repetition).	No change
<u>303</u> ·	Distress Signal ( to be sent as one signal).	New 1706R/US
SS	Indicator preceding the name of a ship station.	Editorial
SVC	Prefix indicating a service telegram.	Modified
SYS TFC	Refer to your service telegram. Traffic	New 1706R/US No change
TR	Used as a prefix to indicate reply to PTR.	Modified to agree with PTR
TTT	This group when sent three times constitutes the safety signal (see No. 615).	New 1706R/US
. TU	Thank you.	Modified 1706R/US
TXT	Text (used after a question mark to request a repetition).	No change
UA ,		Delete 1706R/US
· VA	End of work ( to be sent as one signal).	New 1706R/US
W	Word (s) or Group(s)	Modified 1706R/US
WA	Word after (used after a question mark to request a repetition).	No change
WB	Word before (used after a ques- tion mark to request a repetition).	No change

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	or` Signal	Definition	Remarks .
	XS		Delete 1706R/US
	XXX	This group when sent three times constitutes the urgency signal (see No. 603).	New (1706R/US)
	YS		Delete (replaced by SYS)
•	• • •		· · · · · · · · · · · · · · · · · · ·
			, , , , , , , , , , , , , , , , , , ,
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INTERNATIONAL / MADIO CONFERENCE ATLANTIC CITY 1947

Document No. 642 R-E July 26, 1947

Committee 6

28 Juil. 1947

Report of Subcommittee A of Committee for the International Frequency List (Committee 6)

> Eighth Meeting July 25, 1947.

- 1. The meeting was opened at 3:45 p.m. by Mr. <u>C. W. Loeber</u>; Chairman.
- 2. The report of the previous meeting was approved.
- 3. The Subcommittee considered the report of working group 6A2 as set forth in Document 611 R-E
- 4. The Chairman of the working group, Mr. J. J. van <u>Rijsinge</u> (Netherlands Indies), presented the results of the working group.
- 5. A lengthy discussion ensued which was participated in by the <u>Chairman</u> and the delegates from <u>Canada</u>, <u>United States of America</u> <u>Bielorussia</u>, <u>France</u>, <u>United Kingdom</u>, U.S.S.R. <u>Netherlands Indies</u>, <u>India</u>, Norway, Belgium, Egypt, and SCAP.
- 6. The Chairman was compelled to be absent from the meeting for a portion of the time and in his absence Mr. John Boctor of the Delegation of Egypt presided.
- 7. The result of the discussion of the report follows:

(4) (b) the term "reference frquency" should be interpreted according to the definition prepared by Committee 7.

(5) and (6) might be combined in one column as suggested by India.

# (642 R-E)

Add to title preceding items (11) (12) and (13) "for the frequency indicated in (4)"

- (12) Proposed to read "Width of main lobe in degrees between points where power is 6 db below maximum."
- (12) and (13) add footnote "precise definition will be determined by Committee 7."

(15) and (16) might be combined.

- (17) Modify English text to follow the French. text more precisely "Location or region with which the communication is established or projected." <u>Belgium</u> suggested singular or plural destination to accommodate forked circuits.
- (19) Revise to read: "Maximum hours of use in GMT at any point of the sun spot cycle."
- (20) Delete. The table of tolerances will be printed in the fore part of the list. The <u>U.K.</u> suggested the length of the circuit in km be tabulated here.
- (21) Include other services; facsimile, also AM, FM or single side band telephony.
- (23) To be coordinated with the work done by Committee 7.
- 8. The working group (6A1) was requested to prepare a new text in accordance with pragraph 5 and to review its recommendation as to Annex II in the light of revisions made to Annex I.
- 9. The <u>U.S.S.R.</u> suggested that instructions be added to show how to fill in form. Agreed.
- 10. Egypt asked to be added to working group. Agreed.
- 11. The <u>Chairman</u> stressed the necessity of precisely following the instructions contained in Document 301 R-E when preparing data on forms 1 and 2.

12. The meeting adjourned at 6:00 P.M. Reporters:

L. Penninckx G. T. Royden Chairman: Carl W. Loeber

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 643 R-E July 27th 1947

Committee ?

Subcomittee B of the General technical Committee (Committee 7)

Report of the Chairman presented to the Chairman of Committee 7.

To Mr J. Krapka. Chairman of Committee 7.

I beg to submit to you, Mr Chairman, the results of the work of the Subcommittee, which you had entrusted to me at the beginning of the Conference, work which we have just finished.

In all, we have held 21 meetings, in addition to the necessary meetings of Sub-subcommittees 7 B 1, 7 B 2, 7 B 3.

In addition to the question which had been put to us in the first instance, we have, at the special request of Committee 6 studied the question of the separation of channels to be provided for when it is necessary to make allocations to particular services.

This work, entrusted to Sub-subcommittee 7 B 2, has been carried on up to the point where it was useful and possible to go during the Conference, and the results will be published as soon as possible in a special report.

The text adopted for the Regulations , and which I am presenting to you here, are annexed to this letter and concern the following points:

	Article 💉	4
	Article	6
,	Article	22
	Appendix,	l
	Appendix	2
	Appendix	3

Recommendation to the C.C.I.R. (Draft study)

In conclusion, Mr Chairman, and with many thanks for the honor which you conferred upon me, by entrusting me with the responsibility of this Subcommittee.

I am, Mr Chairman

Yours respectfully.

N.F.S. Hecht, Chairman of Subcommittee 7 B.

29 Juil. 1947

### (643 R-E)

### Report of Subcommittee B of Committee 7

All of the texts studied and approved by subcommittee B appear in the documents annexed to this report.

Annexe	I	Articles 4 and 5
Annexe	II	Article 22
Annexe	III	Appendix I
Annexe	IV	" 2
Annexe	v	"
Annexe	VI	Draft of Recommendations
	-	for C.C.I.R.

ANNEXE I

Article 4

### Choice of Apparatus.

### CAIRO

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1. The choice of apparatus and devices to be used in a station shall be unrestricted provided that the performance thereof and the emissions therefrom satisfy the provisions of these Regulations.

2. Within limits consistent with practical considerations, the choice of transmitting, receiving and measuring apparatus must, however, be guided by the latest technical progress, particularly as indicated in the recommendations of the C.C.I.R.

### Article 6

69.

1. The stations must conform to the Frequency Tolerances as specified in Appendix 1.

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2. The bandwidths of emissions, level of radio frequency harmonics, and non-essential emissions must be kept at the lowest value the state of the technique and the nature of the service permits. Appendixes 2 and 3 must be considered as a guide in this respect, until more recent recommendations of the C.C.I.R. are published.

71 to 75 deleted

3. The Administrations will take necessary steps for frequent checks to be made of the emissions of the stations under their jurisdiction to ensure compliance with these regulations; the technique of measurements being in accordance with the most recent recommendations of the C.C.I.R.

#### deleted.

transferred to Art. 22.

#### ANNEXE II

#### Article 22 Interference and Tests

### CAIRO I General Interference.

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1. Unnecessary transmissions, transmission, of superfluous signals or correspondence is forbidden, to all stations."

2. All stations shall radiate the minimum power necessary to ensure a satisfactory service.

3. In order to reduce interference, radiation in unnecessary directions shall be minimised by taking the maximum practicable advantage of the properties of directional antennas, where the nature of the service permits.

4.' Taking into account practical and technical considerations as well as the service to be performed, the type of transmission capable of using the narrowest frequency band should be used.

Note 2 5. If, after the provisions of Article 6 App 2 have been complied with, a transmitter causes harmful interference, through the intensity of its harmonics or other non-essential emissions, special measures must be taken to eliminate such interference.

(643 R-E)

CAIRO II Industrial Interference

6. Administrations shall take all practicable and necessary steps to ensure that electrical apparatus or installations of any kind do not cause harmful interference to a radio service operating in accordance with the provisions of the present regulations.

#### III Special Cases.

7. "Except for "Distress, Urgent or Safety" messages, communications between mobile stations, using frequencies allocated to the Maritime Mobile service must not interfere with the work of the Coast stations. If such interference should occur, the mobile stations causing it shall stop transmitting or shall change frequency at the first request of the Coast Station concerned."

Footnote: See Article 17, paras. 375, 376, 377 and 378.

New

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8. In accordance with Article 3, Administrations shall take steps to ensure that passive reflectors are so located as not to cause confusing indications in the radiolocation service."

IV Tests.

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9. Before authorizing tests and experiments in any station each administration shall prescribe, in order to avoid harmful interference, the taking of all possible precautions such as, for example, the choice of frequency and of time, the reduction and, if possible, the suppression of radiation. Any harmful interference resulting from tests and experiments shall be eliminated as soon as possible.

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10. Signals for testing and adjustment must be chosen in such a manner that no confusion will arise with a signal, abbreviation, etc., having a special meaning defined by these Regulations or by the International Code of Signals.

· _ ·	CAIRO .	(643 R-E)
	532	11. Where it is necessary for a mobile station to send signals for testing or adjustment and there is risk of interference with the working of a neighbouring coast or aeronautical sta- tion, the consent of the station must be ob- tained before such signals are sent.
•		<u>V</u> Complaints on Interference.
	534	12. Any complaint regarding harmful interfer- ence must in justification and support:
•	535	535 (a) Give details of the kind of interfer- ence observed including frequency, variations in adjustment, call sign of interfering station, if known, and any useful information obtainable regarding the interference.
· .	536	536 (b) Certify that the station interfered with actually uses the frequency assigned to it;
	537	537 (c) State that the station interfered with, regularly uses receiving apparatus of a type equivalent to the best employed in the current practice of the Service concerned.
	•	ANNEXE III
•	· ·	Appendix I
	t	Table of Frequency Tolerances (See Article 6)
	1.	1. The frequency tolerance is defined in Article I.
	2.	Deleted.
	3	2. In the absence of frequency assignments to particular ships or ships' transmitters the re- ference frequency is that frequency on which an emission begins.
	4	deleted.

## -б-(643 R-Е)

## TABLE OF TOLERANCES

	×	
Frequency bands and Categories of Stations	Tolerances (in %) Transmitters in service now and until January 1st 1953	Tolerances (in %) New transmitters installed on and from Jan 1st, 1950 and all transmitters on and from Jan 1st, 1953
	2	
A.From 10, kc/s to low end of Broadcasting band (a) Fixed Stations from 10 to 50 kc/s from 50 kc/s to end of band (b) Land Stations. Coast Stations using power above 200 W. using power below 200 W. aeronautical sta- tions (c) Mobile Stations Aircraft Stations Lifeboat transmitters and ships emergency transmitters	.1 .1 .1 .1 .1 .1 .1 .3 (f) .3 .5	.1 .02 .02 .05 .02 .1 (a) .05 .5
(d) Radio Naviga- tional Stations	.05	.02
(e) Broadcasting Stations	20 c/ş	20 c/s
B. <u>Broadcasting Band</u> Broadcasting Stations	20 c/s	20 c/s
C. <u>High end Broadcast- ing Band to 4000 kc/s</u> (a) Fixed Stations using power above 200 W. using power below 200 W. (b) Land Stations Coast Stations using power above 200 W. using power below	.01 (b) .02 .02 .02	.005 .01 .005 .01
200 W.		

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Frequency bands and	n hine a general men han energie werden spille er benergte sonder het de bester ferste sonder sonder sonder so	
Categories of Stations	Column 1	Column 2
Aeronautical Stations using power above 200 W. using power bélow 200 W.	.02 .02	.005 .01
Base Stations using power above 200 W. using power below 200 W. (c) Mobile Stations	.02 .02	.005 .01
Ship Stations Aircraft Stations Land Mobile Stations Transmitters in lifeboats, lifecrafts and survival ' craft	.05 (f) .05 .05 .1	.02 (c) .02 (c) .02 .1
(d) Radio Navigations Sta- tions using power above 200 W. using power below 200 W.	.02 .02	.005 .01
(e) Broadcasting Stations	.005	.005
<ul> <li>D. From 4000 to 30,000 kc/s</li> <li>(a) Fixed Stations power above 500 W. power below 500 W.</li> <li>(b) Land Stations Coast Stations</li> <li>Aeronautical Stations power above 500 W. power below 500 W.</li> <li>Base Stations power above 500 W.</li> <li>power above 500 W.</li> <li>power above 500 W.</li> </ul>	.01 .02 .02 .02 .02 .02 .02 .02	.003 .01 .005 .01 .005 .01
<pre>(c) Mobile Stations Ship Stations Aircraft Stations Land Mobile Stations Transmitters in lifeboats, lifecrafts and survival craft. (d) Broadcasting Stations</pre>	.05 (f) .05 .05 .05 .05	.02 (c) .02 (c) .02 (c) .02 (c)
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Frequency bands and Categories of Stations	Column 1	Column 2
E. From 30 to 100 Mc/s (a) Fixed Stations (b) Land Stations	.03 .03	.02 .02
(c) Mobile Stations	:03	.02
(d) Radio Navigational, Stations	.02 (e)	.02 (e)
(e) Broadcasting Stations	.01	.003
F. From 100 to 500 Mc/s (a) Fixed stations (b) Land Stations	.03	.01
(c) Mobile Stations	•03	.01 (d)
(d) Radio Navigational Stations	.02 (e)	.02 (e)
(e) Broadcasting Stations	.01	.003
G. From 500 to 75,000 Mc/s	0.75	Until C.C.I.R opinion is available,no
		telerances ar specified for this column.

(643 R-E)

## Notes referring to Table of Tolerances.

#### CAIRO

(a) It is recognized that certain countries will encounter difficulties in fitting, prior to 1953, all their ships with new equipment which will satisfy the indicated tolerance; however, it is requested that these countries complete the necessary conversion as soon as possible.

(b) The frequency tolerance of 0.02% is maintained temporarily for fixed stations now in operation using a power between 200 and 500 W.

(c) For this category only, the final date of the title of the column (1/1/1953) is extended until the date when the Radio Regulations of the next Conference will be put into force.

(d) In this band and for this category, it is recognized that certain nations are not sure that their equipment can satisfy stricter frequency tolerances than those fixed for the 30-100 Mc/s band; however, these nations will endeavor to satisfy these tolerances.

(e) It is recognized that there are pulse transmitters in service in category (d) on bands E and F, which cannot meet tolerances closer than 0.5%.

(f) Frequency deviations are to be measured over a period not exceeding ten minutes from the commencement of an emission.

These provisions however are applicable only to transmitters in service before January 1st, 1950 and until the replacement of these transmitters by modern equipment and only in exclusive Maritime Mobile bands and to the exclusion of the ships' telephone band. Thereafter the frequency tolerances specified shall be adhered to during the whole period of an emission.

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### ANNEXE IV Appendix 2 Table of Tolerances for the Intensity of Harmonics and Parasitic Emissions

(See Article 6) .

Frequency Band	Tolerances
10 kc/s to 30000 kc/s	The power 2) of a harmonic or a parasitic emission must be 40 db under the power of the fundamental, and in no case must it be above 200 mW.

1) With regard to tolerances for mobile stations, endeavour will be made to reach, so far as practicable, the figures specified for other stations.

2) The power here is the power fed to the antenna on the frequency of the harmonic or parasitic emission.

#### ANNEXE V

#### Appendix 3

# Band of Frequencies Required for Certain Types of Radiocommunication.

The width of the frequency band which is necessary in the overall system, including both the transmitter and the receiver, for the proper reproduction at the receiver of the desired information, does not necessarily correspond to a value indicating the interfering characteristics of an emission.

For the determination of this necessary bandwidth, the following table may be considered as a guide.

## -11 -(643 R-E)

In the formulation of the Table, the following working terms have been employed:

- B = Telegraph speed in Bauds. N/T = Maximum possible number of black plus white elements to be transmitted per second, in facsimile and television.
  - Maximum modulation frequency expressed in cycles per second.
  - Half the difference between the maximum and minimum values of the instantaneous frequencies; D being greater than 2M, greater than N/T or greater than B, ⋅as the case may be. Instantaneous frequency is the rate of change of phase.

- Pulse length expressed in seconds.

An overall factor which differs according to the type of transmission and depends upon the allowable signal distortion and the time lost from the inclusion of a synchronizing signal in the television.

### Table of Necessary Bandwidths

Type of	Necessary Bandwidth	Examples
Transmission	in cycles per second	

#### Amplitude Modulation

Continuous-wave Telegraphy	BK K = 5 for fading circuits K = 3 for non-fading circuits	Morse code at 25 words per minute, B = 20, Bandwidth is 100 c/s Four- channel multiplex, 7 unit code, 60
		words per minute per channel B = 170, K = 5 Band- width is 850 c/s

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## -12-(643 R-E)

Type of Transmission	Necessary Bandwidth in cylles per second	Examples
	Amplitude Modulation	
Telegraphy modulated at audio frequency	BK2 M K = 5 for fading circuits K = 3 for non-fad- ing circuits	Morse code at 25 words per minute with 1000-cycle tone, B = 20, Bendwidth 2100.
Commercial Telephony	M, for single side- band 2 M, for double sideband	For ordinary telephony, M = 3000 For high-quality telephony, M = 4000
Broadcasting	2 M	M may vary between 4000 and 10,000 depending upon the quality desired.
Facsimile Carrier modula- ted by tone and by keying		The total number of pic- ture elements (black and white) transmitted per second = the circumfer- ence of the cylinder (height of picture) x number of lines per unit length x speed of rotation of cylinder in revolutions per second. Diameter of cylinder = 7mm No. of lines per m.m. # 3.' Speed of rotation 60 turns per second. Frequency of modulation = 1800 c/s Bandwidth = 3,600 + 1242 = 4842 c/s

# Table of Necessary Bandwidths Cont'd

#### (643 R-E)

Type of	Necessary Bandwidth	Examples
Transmission	in cycles per second	an printerio de la companya de la co
Television	K N/T K = 1.5 (this allows for synchronization and filter shaping). (Note) This band can be appropriately re- duced when asymmetri- cal transmission is employed.	The total number of picture elements (black and white) transmitted per second = the number of lines forming each image x number of elements per line x number of pictures transmitted per
		second. Number of picture elements = 500 Number of elements per line = 500 Number of pic- tures per second = 25 Bandwidth
	•	approximately = 9 Mc,
	Frequency Modulation	
Frequency-shift Telegraphy	BK + 2 -D K = 5 for fading circuits K = 3 for non- fading circuits	Four-channel multiplex with 7-uni code. 60 words per minute per channel. B = 170 K = 5 D = 42 Bandwidth 1700 c/s
Commercial Telephony and Broadcasting	2 M + 2DK For commercial tele- phony, K = 1. For high-fidelity trans- mission, higher values of K may be necessary	For an average case of commercial tele- phony with D = 15,00 M = 3000, Bandwidth 36,000 c/s
Facsimile	K N/T+2 M+2 D K = 1.5	(See facsimile amplitude modulation Cylinder diameter, 70 mm Lines per mm, 3.7 Cylinder speed, 60 r Modulation tone 1800 c/s D = 10,000 c/s Bandwidth is 25,000

## Table of Necessary Bandwidths Cond't

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Type of Transmission	Necessary Bandwidth	Examples
Transmission	in cycles per second Pulse Emissions	una de la companya de la companya de la companya de la constante e la constante e la constante e la constante e
		n Manua straning a calculation of the Manua Strange Parameter and a strange strange and the strange strange
Unmodulated pulse	2 K/t K varies from 1 to 10 according to the permis- sible deviation in each particular case from a rectangular pulse shape. In many cases the value of K does not need to exceed 6.	t = 3 x 10 <sup>-6</sup> K = 6 Bandwidth 4 x 10 <sup>6</sup> c/s
Modulated pulse	The band depends upon the particular types of modulation used, and many of these are still in the developmental stage.	
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•	and the second	

## Table of Necessary Bandwidths Contid

#### -15-7 (643 R-È)

### Draft of Recommendations for C.C.I.R.

The C.C.I.R. is asked to study as soon as possible the following points arranged according to their urgency.

1. In respect of the various types of emission in use the bandwidth strictly necessary to ensure service of the appropriate quality and practical methods of measuring the bandwidth actually occupied by each particular emission.

2. The bandwidth which should be accepted by the various types of apparatus used for the reception of different types of emission in the different services, the filter characteristics and especially their effectiveness in eliminating interference outside the nominal acceptance band; the practical methods of obtaining the necessary characteristics and the appropriate methods of measurement.

3. The level of radiofrequency harmonics radiated by the stations of the different services, the level to which it is practicable to reduce such harmonics, the appropriate methods of achieving this result, as well as the appropriate methods of measurement.

4. The desirable overall conditions to be fulfilled by the systems employed by the different services in order to determine the required technical performance of the equipment, including the station terminal apparatus, the antennas and the measuring apparatus used to ascertain whether or not the equipment satisfies the recommondations of the C.C.I.R.

It is further asked that the C.C.I.R. should permanently carry on the study of the above mentioned questions and their possible revisions be published as the work progresses.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947 Document No. 644 R-E

July 27, 1947

Committee 7

## Report of Subcommittee B of the General Technical Committee (Committee 7)

## Twenty first Meeting July 26, 1947

The Chairman opened the meeting by referring to the reports of the 18th and 19th meetings (Documents 616.R-E and 627 R-E. The delegate of France felt that insufficient time had been available for these documents to be studied so discussion of them was deferred until the next meeting.

The Chairman stated that, although the reports could not be approved, Annex I and II of Document 627 R-E could be considered, since they had been approved, for checking of typographical errors. In both English and French texts a number of typographical errors were mentioned by members of the Subcommittee and the corrections have been included in the final report of Subcommittee B to Committee 7.

The Chairman then referred the meeting to the report of sub-subcommittee 2 of Subcommittee 7B (Doc. 609 R-E). Although the delegate of France again felt that there had been insufficient time to study the document it was agreed that the Chairman of the subsubcommittee should make some explanatory remarks and that the document should be cleared, as far as possible, of typographical errors.

<u>M. Van Duuren</u> (Chairman of sub-subcommitte 2) then stated that Committee 6 had asked eight questions, but his sub-subcommittee had found it preferable to deal in particular with certain types of transmission as affected by six of the eight questions and in a more general way on the last two. He referred to figures 1 and 2 of the report explaining that the curves related respectively to the power content of undistorted rectangular dots, which are representative of current practice in general, slightly rounded dots, which are representative of only a few current equipments, and, lastly, dots which have been slightly rounded by a special filter; it being assumed that great care was subsequently taken to avoid distortion of any kind

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In this last case the same type of filter is assumed to be embodied in the receiver and it is shown that the resulting channel separation represents a worthwhile reduction. M. Van Duuren concluded his remarks by stating that frequency-shift telegraphy had been treated in a very similar manner to simple telegraphy.

The Chairman then pointed out that the intersection of the curves in the figures might indicate that they were of different families but <u>Dr</u>. <u>Llewellyn</u>, in explanation, said that the curves were of the same family and that the intersection is where the special filter comes into effect and that it must be borne in mind that the curves are based on idealised characteristics.

<u>The Chairman</u> closed the meeting by stating that there might be a change of time and room for next Wednesday's meeting of Committee 7B which he hoped would complete the work of the Subcommittee in so far as the propositons for the new Regulations are concerned.

Rapporteurs:

92,50

Chairman:

N.F.S. Hecht

C. Mercier S. Jefferson INTERNATIONAL RADIO. CONFERENCE ATLANTIC CITY 1947 Document No. 645 R-E July 28, 1947

Committee 7

### Corrections to Document No. 609 R-E

The following typographical errors in Document 609 R-E are to be corrected:

- 1. Page 3, paragraph 4 line 4 "safer" should read "safe"
  - Page 4 paragraph 6 sub paragraph 3 second line "filled" should read "fitted".
- 3. Page 5 second line "of the result" should be deleted.
- 4. Page 5 fourth paragraph sixth line "should not be destroyed" should be deleted.
  - In the next line "telegraph" should be "telegraphy".
  - Figures 1 and 2 French spelling only.
    - "Rectangulairs" should be spelt "Rectangulaires"
    - "Arondis" should be spelt "Arrondis".
- 6.

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Page 12 indent third paragraph.

## Document No. 646 R-E August 4, 1947

## Committee 6

#### This Document replaces Document No. 646, R-E July 28, 1947

## 2561 R

INTERNATIONAL RADIO CONFERENCE

ATLANTIC CITY 1947

### FRANCE

VPreparation of a new International Frequency List

The preparation of a new International Frequency List should permit all interested radio services to work without harmful interference and in accordance with the Frequency Allocation Table prepared at Atlantic City.

During its meeting of July 26, Committee 6 recommended that this new list be established in one single step.

The French Delegation believes that, under these conditions, the procedure should be the following:

- A' special international committee shall be entrusted with the task of preparing the new list. This
   committee shall be composed of as many members as the International Frequency Registration Board and they shall be elected at Atlantic City according to the procedure adopted for the members of the I.F.R.B.
- 72. The Bureau of the Union shall furnish the Secretariat for this committee and shall make all its records available to it.
- 3. The expenditures relating to the salaries and expenses of each member of the Committee shall be paid by his own country.

Other expenses shall be paid by the Union. (The French Delegation recommends that this matter be brought to the attention of the Plenipotentiary Conference.)

The competence of the Special Committee shall include only frequency bands below .30 .Mc/s which have been

## -2-(646 R-Е)

allocated on a world wide basis, excepting the bands allocated exclusively to broadcasting, and to the maritime and aeronautical mobile services; these shall be dealt with by special Conferences organized by ; countries with a special interest in these services.

All countries shall send to the Bureau of the Union supplements to Forms 1 and 2, stating their requirements in those frequencies which are not included in the Forms submitted before. September 15, 1947.

6. The Committee shall meet January 15, 1948 at the headquarters of the Bureau of the Union.

The Committee shall draw up all maps and diagrams it deems necessary for its work. It shall examine Forms 1 and 2 to ensure that they include all the information required to proceed with the technical redistribution of frequency allocations

If certain information seems to be in error or missing, the Committee should communicate with the interested country and request the pertinent information.

It is recommended that all countries answer as soon as possible.

This first phase of the work shall be finished by April 15, 1948.

Actual work on the preparation on the new frequency list shall begin on April 15, 1948. The committee shall take into consideration all frequency requirements appearing on Forms 1 and 2 received prior to that date.

The arrangement of frequency assignments shall be made in conformity with the directives of the Atlantic City Conference.

For each particular band, the arrangements shall be made according to the order of the notifications indicated in column 3(a) of the Frequency List published by the Bureau of the Union. The date to be taken into consideration for frequencies already in service, but which have not been notified to the Bureau of the Union, shall be September 15, 1947 in

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case these frequencies appear on Forms 1 and 2 submitted before this date. If these frequencies appear only in a supplement, the date to be taken into consideration shall be the date the supplement is received.

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For frequencies not yet in use and which are not to be notified to the Bureau of the Union, the date to be taken into consideration shall be the date set for their entry into use.

This second phase of the work of the Committee shall be finished by April 15, 1949.

9. A month before finishing its work, the Committee shall examine the supplements to Forms 1 and 2 received by the Bureau of the Union after April 15, 1948.

10. The notification of a frequency to the Bureau of the Union shall give the country which made the notification the right to use a frequency included on the new list which shall assure it satisfactory service.

11. The new list shall be prepared in the manner prescribed by the Atlantic City Regulations. In case there is not sufficient information to fill all the columns of this list, the corresponding columns shall be left blank to be filled in later.

12. The Committee shall do its utmost so that all frequencies can be entered on the list with a date in the <u>REGISTRATION</u> column, permitting satisfactory service for all circuits appearing in Forms 1 and 2.

If however, the application of technical principles provided for by the Atlantic City Conference did not make this result possible; the Committee would have the right to adopt slight variations between the different frequencies assigned or a lower value of the signal/interference ratio abviously on the condition however, that the service can continue. This decrease in the quality of the service will be made for the frequency allocations, whose notifications are most recent.

In cases where the application of this procedure Would not permit the indication of a date in the

## -4-(646 R-E)

REGISTRATION column for each frequency assignment the frequencies remaining would be entered with a date on the list in the NOTIFICATION column.

The Committee shall try as far as possible to arrive at its conclusions unanimously.

Each member shall have the right to have his point of view published in the reports of the Committee on any point which has not obtained a unanimous agreement.

Every two months from June 15th onwards, the Committee shall draw up a provisional progress report on its work, and shall more particularly indicate, the proposed frequency assignments.

The Bureau of the Union shall send these reports by the fastest channels to all member Countries of the Union.

Each Country shall be entitled to express its objective and practical comments concerning the proposals which have been drawn up. These comments shall figure in the official documents of the Committee.

The Committee shall reexamine all questions which, gave rise to such comments.

At the conclusion of its work, the Committee shall draw up a final report showing the broad outline of its proposals. This report shall be sent to all members of the Union under the same conditions as the provisional reports.

If, on January 15th 1949, the Committee is of the opinion that it cannot conclude its work at the date fixed previously (April 15th, 1949), it shall notify the Bureau of the Union giving the date proposed to replace the previous one.

The Bureau of the Union shall consult the members of the Union by telegram to find out whether this new date is acceptable. Should the majority of Union members who have replied within 30 days after the telegram is sent, decide in the affirmative, the Committee shall continue its work until

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that date. Should this not be the case, it will have to publish its final report on April 15th, 1949. The special Conference, mentioned below, will then have to make a decision on how to conclude the work of preparing the new list.

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17. A special Conference entrusted with the discussion and the approval of the Committee proposals shall convene six months after the end of the shall convene six months after the end of the solution of the solution of the solution of this Conference shall be decided by the Atlantic City Conference.

In addition, this Conference shall also give a decision on the case of frequencies appearing in the supplements to Forms 1 and 2, which have not been studied by the Committee. (See point '8 above.).

18. The new International Frequency List shall be put into effect eight months after the adoption of this list by the Conference.

19. Until the effective date of the new list, the rules on frequency notifications provided for in the Cairo Regulations will remain in force.

P. Lahaye

INTERNATIONAL -RADIO CONFERENCE ATLANTIC CITY 1947

DOCUMENT NO. 647 R-E

July 28, 1947

Committee 7

Report of Subcommittee A of the General Technical Committee (Committee 7) 29th Meeting July 23rd, 1947

The meeting was opened at 10:10 a.m. under the Chair-1. manship of Lieut. Colonel Lochard (France) who invited the Subcommittee to proceed to the study of the reports of the previous meetings.

2.. Report of the 21st meeting (Document No. 558 R-E).

The report was approved with slight corrections at the request of the U.K. Delegate.

a) English text:

- 1) In the definition of "Radar," "Radiolocation" to be one word; "reflection" to be modified to "reflecting." (p.1, last para.)
- 2) "Plan Position Indicator" to be capitalized (p.2, para.3)
- 3) Read "of a radar and as such it is ... " (p.2. para.4)
- 4). Read. "He suggested the addition of" (p.2, para.4)
- 5) Read "reflecting" (p.3, line 2)
- 6) Insert hyphen in "close-by" (p.4, last para.)
- Read "difficulty which arises in the case of" 7).
  - (p.5., para: 6, line 3)
- 8) Read "should" for "would" (p.6; para.5, line 2)

9) Read "He did, however, not favor" (p.6. para. 5 line 3) and strike out "however" in line 4. 10) Strike out "figures to" (p.6, para.6, line 4). 11) Read "reflecting" in "Radar" definition (p.7) 12) Read "considered" for "resumed" in "Radio-geonomy" (p.7) and put "processes and equip-ment " in quotation marks. (see corresponding French b) French text: report, Doc. No. 647 R) (Document No. 578 R-E). 3. Report of the 22nd meeting The report was approved with the deletion of "s" from "Telegrams" in the English text (p.3, line 12) requested by the U.K. Delegate. 4. Report of the 23rd meeting (Document No. 589 R-E). The report was approved with slight grammatical corrections in the English text requested by the U.K. Delegate as follows: a) Read "be not" for "not be" (p. 3, line 7 and p. 3, par. 5, line 2). b) Delete "s" (p.6, line 18) in "Radiocommunications." 5. Report of the 24th meeting (Document No. 581 R-E). The report was approved with slight grammatical corrections in both texts (English and French) requested by the U.K. Delegate. English text: a) Insert "to" to read "so far as to the decisions" (p.l, par.6, line 4). b) Insert "land" to read "base stations and land mobile stations" (p.5, defin. of "land mobile service'). 6. Report of the 25th meeting (Document No. 590 R-E). The report was approved after the following corrections were made:

- a) English text:
  - 1) Read "in" for "of" (p.3, par.6, linel).

- 3 -( 647 R-E)

- 2) Add "under 'ship station'" to penultimate paragraph, p.3.
- 3) Read "A mobile station in the maritime mobile service located..." in the definition of "ship station."
- b) French text: (See corresponding French report, Document No. 647 R).

7. Report of the 26th meeting (Document No. 594 R-E).

The document was approved in substance. The U.K. Delegate desired many modifications in the English text concerning "radio communication" which the Delegate from the United Kingdom wished to write in one word. The U.K. Delegate desired also to change "observations" to "remarks" in the sixth paragraph, page 2.

The French text: (See corresponding French report, Document No. 647 R)

In addition, the <u>Chairman</u> pointed out that the annex summing up the definitions adopted during the meeting was missing in the English report, but that he had requested Mr. MacQuivey, the American rapporteur, to correct the error of the Secretariat.

8. Report of the 27th meeting: (Document No. 596 R-E).

The report was approved in substance with several corrections.

- a) English text: Rema**rk** concerning "radio communication" regarding the Report of the 26th meeting also applies here.
  - 1) Read "or" for "either" (p.2, line 6)
  - 2) Read "Radiolocation" for "Radar" (p.2, line8)
  - 3) Delete "s" from "Telecommunications" and "Radio Communications" where it occurs.

b) French text: (See corresponding, French report, Document No. 647 R):

9. Concerning the words "Radio Communication" which is

used several times in the reports of the 26th and 27th meetings (Documents No. 594 R-E and 596 R-E), the Delegate from the <u>United States</u> expressed an opinion contrary to the one of the Delegate from the United Kingdom who had wished that it be written in one word. The Chairman was of the opinion that this was a grammatical and purely Anglo-American question, and in no way affecting the French wording. He therefore asked the two Delegations to work out an agreement between themselves and to inform him later of their final decision. He therefore considered the study of the reports submitted' for the approval of the Subcommittee as closed.

#### 10. Designation of Kilocycles and Megacycles.

The Delegate from the <u>United States</u>, proceeding to another subject, called the attention of the Chairman to the abbreviations to be used for "megacycles" and "kilocycles," both of which are frequently used in an abbreviated form by various Committees.

The <u>Chairman</u> answered that this question concerned Article 5 and that it would be more logical to discuss it during the study of that article.

The Delegate of the <u>United States</u> agreed, and then started an exchange of views concerning the terms "public correspondence" and "public service," the latter being included in the definition of the "General Network of Telecommunication Channels."

#### General Network of Telecommunication Channels

The U.S.A. Delegate informed the Subcommittee that Committee 8 is using the term "public correspondence" where this Subcommittee has used "public service" and suggested the definition be modified to substitute the former term. This was agreed.

The <u>Chairman</u> pointed out that there had never been talk of defining a "public service," but that it would perhaps be useful to work out a definition for "public correspondence," and he emphasized that Colombia (whose Delegate was absent from the meeting) had submitted a proposal along those lines, and that this term was to be found in a certain number of international texts, some of which were very old. The expression "not open . to public correspondence" was generally used in these texts to designate military services and stations without using the term "military." In fact, some military services were open to public correspondence and some other services (radio navigation service, for instance) which were not open to public correspondence, had no military character. As a result of the wording of certain texts still in force and where this expression was used, some installations the sole object of which was to promote the safety of human life, would be forbidden under certain conditions, as constituting a hindrance to the neutrality of countries in times of war.

Under these conditions, the <u>Chairman</u> asked whether it would not be advisable to define very precisely what was meant by "public correspondence" and "open to ' public correspondence."

The Delegate from Italy pointed out that a definition of "public correspondence" was given on page 42.0f the "International Telecommunications Convention"

The <u>Chairman</u> thanked the Delegate for this helpful observation, but pointed out that the definition under consideration seemed rather awkward because "public correspondence" was therein defined as "telecommunication" which is the action of transmitting and not the object of transmission.

#### Station

Turning to another subject, the Delegate from the <u>United States</u> pointed out that Committee 8 frequently used the word "station" without knowing the definition adopted by Subcommittee 7A and that it would perhaps be advisable to communicate our point of view to that Committee which seemed to be considering only the transmitting stations to be included. The <u>Chairman</u> thought that distribution of the report of Subcommittee 7A to Committee 7 should be sufficient, and that it lay with Committee 7 to publish any decisions it might make. He suggested turning to the main subject of the meeting, namely, the study of the new definition of "telecommunication" proposed by the Delegate from the United Kingdom.

#### 11. Telecommunication

The Delegate from the <u>United Kingdom</u>, in response to the request of the Chairman stated that the definition under consideration, both in the "International Telécommunications Convention" and in the Cairo definition was much too restricted in meaning, as it was limited to telegraph and telephone operations.

The Delegate from the <u>United States</u> again confirmed the American point of view concerning the uselessness of the formal inclusion of industrial, scientific and medical applications in the second definition proposed, in view of the wording of the fundamental American law, the "Communications Act" of 1934.

The <u>Chairman</u> answered that the American view was not the only one to be considered and pointed out that too many countries believed that the proposed inclusion was absolutely necessary for juridical reasons; hence the appearance of the expression "use of electro-magnetic energy" in the new text.

The Delegate from Italy would have preferred retaining the restrictive sense of the word "telecommunication" as used in the Cairo texts. However, faced with the assertion that the old definition might create difficulties for certain countries, he would not insist on opposing the extension of the definition in question.

Finally, the proposed definition, noted below, was adopted for the purpose of inclusion in the additional report:

"<u>Telecommunication</u>": Any transmission or use of electro-magnetic energy, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature, by wire, radio, visual or other electromagnetic systems."

#### 12. Radio

Returning to the definition adopted at the preceding meeting for "radio," the <u>Chairman</u> proposed a slight modification. On thinking it over, he said, he considered it desirable to include in the approved text of the Delegate from the United States, the concept of radiation included in the text of the United Kingdom. He thought the wording would be more appropriate and suggested the following definition:

Radio: A general term applied to any use of Hertzian waves for purposes of radiocommunication, radiolocation and transmission of energy by means of high frequency oscillations corresponding to these waves, or for any other object." The Delegate from the <u>United States</u> was not entirely opposed, but felt that it would be well not to make the text longer. He would prefer the addition of the separate sentence if the Subcommittee believed it indispensable to include the idea of radiation and induction.

(647 R-E)

The Delegate from <u>Bielorussia</u> requested some clarification of the use of the word induction. The <u>Chairman</u> pointed out that it would be sufficient to read: "Transmission of energy by either induction or radiation" and he added that he would prefer the previously adopted text.which seemed to him much clearer.

Finally, upon the proposal of the Delegate from the <u>United Kingdom</u>, the following text was adopted for the purpose of inclusion in the additional report:

"Radio: A general term applied to any use of Hertzian waves for purposes of radiocommunications, radiolocation or for any other purpose. This definition also includes the transmission of energy by means of high frequency oscillations corresponding to these waves."

13. Title of the Convention and Regulations

Proceeding next to the title of the Regulations, the <u>Chairman</u> asked for suggestions from members of the Subcommittee.

The Delegate from the <u>United Kingdom</u> emphasized that if the last definitions, drawn up by the Subcommittee, were accepted, it would be absolutely necessary to change the title of the Regulations, and he again submitted: "General Radio Regulations."

- The <u>Chairman</u> pointed out that this title would not be acceptable to some countries where the word "radio" still had a much broader meaning than that meant here, and that: "General Radio-Telecommunications Regulations" would be more suitable.

After studying the possible English wording of this proposal, the Delegate from the <u>United Kingdom</u> believed that, if necessary, it might be considered acceptable.

After general consultation, the following opinions were expressed:

10913

For the first title (proposal of the United Kingdom).

Complete approval :

Argenti**ne** - Australia - Chile <u>United States - Mexico</u> -<u>Netherlands</u> - and the <u>United Kingdom</u>.

Approval, if necessary : Canada.

For the second title (proposal of the Chairman).

Complete approval : <u>Canada - France - Italy -</u> <u>Switzerland - Czechoslo</u>-. vakia.

Approval, if necessary : <u>Australia - Chile</u> <u>Netherlands -</u> <u>United Kingdom</u>.

The opinion of the Delegate from <u>Bielorussia</u> was that although the second proposal would obtain his vote from a logical point of view, he would prefer the first proposal since it was the only one which could be translated into Russian.

16. The meeting was adjourned at 1:15 p.m.

Rapporteurs: \_Chairman:

D. R. MacQuivey . /s/ J. Lochard.

Commandant G. Sarre

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 648 R-E

July 28, 1947

Committee 6

## United States of America

2562 R Correction to Document No. 622 R (Proposal 2258R)

As the result of the discussion in the last two meetings of Committee 6, the United States would like to suggest the following amendments to its proposed "Resolution in regard to the preparation of the new International Frequency List." Document 622 R:

(1) Paragraph 1, page 2: Following the words "Atlantic City Radio Conference;" place a period. Then add the following as part of paragraph 1:

The Commission shall have as its objective the formulation of an engineering plan which will improve the utilization of the radio spectrum by providing for the. continued operation of all existing services in every country, while eliminating the harmful interference which has resulted in the past from the activation of radio operations without an integrated world wide plan. In addition to assuring to all countries the continued operation of existing services without harmful interference, the Commission shall endeavor, in formulating such a plan, to make adequate provision for the future development of new radio services and the expansion of existing services, so that all countries may improve and increase their services to the full extent practicable. The Commission shall treat communications services which were interrupted by the War and which have not yet been restored on the same basis as existing services, and, in addition, shall give special consideration to the needs of countries when natural developments have been impeded.

. (2) Paragraph 6, pg. 2 (English Text) Strike out October 1, 1947 and substitute January 15, 1948. This change will require concomitant changes in the other suggested dates occurring elsewhere in the schedule as indicated in point 3 - 7 of this document. (648 R-E)

(3) Paragraph 6a, pg. 2- next to last line, strike out January 1, 1948 and substitute March 1, 1948; last line of same paragraph, strike out July 1, 1948 and substitute November 1, 1943.

(4) Paragraph 8, pg 3, line 2, strike out September 1, 1948 and substitute January 1, 1949; next to last line and last line strike November 1, 1948 and substitute March 1, 1949.

(5) Paragraph 10, pg. 4, line 1, strike July 1, 1948 and substitute November 1, 1948; line 4, strike out November 1, 1948 and substitute March 1, 1949.

(6) Paragraph 12, pg. 4, lines 1 and 2, strike Julý 1, 1949 and substitute September 1, 1949.

(7) Paragraph 13b, pg. 5, line 7, strike November 1, 1948 and substitute September 1, 1949.

(8) Paragraph 6b, pg. 2. In order to make it clear that it is contemplated that the International Commission shall make the fullest possible use of the plans formulated by specialized internatinal agencies such as ICAO, it ispproposed that certain language be added to paragraph 6b, pg. 2, line 2, following the words "give consideration to". The language proposed to be added at this point is as follows:

9411

"and insofar as found practicable shall adopt".

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 649 R-E July 28. 1947

Committee 3

Annexes 1, 2 and 3 to Document No. 635 R-E issued July 26, 1947

#### ANNEX 1

Text proposed by Working Group A of Sub-Committee 3A for Article 15

#### Publication of Service Documents

§ 1 (1) The following documents shall be published by the Secretary-General of the Bureau of the Union:-

(i) List I. The International Frequency List.

(a) This shall contain details of registrations and notifications of frequencies recorded in the Master International Frequency Register by the I.F.R.B. under the provisions of Article 2. These details shall include the data enumerated in Appendix X of these Regulations.

(b) The List shall show also those specific frequencies (for example 500 kc/s.) prescribed by the present Regulations for common use in certain services, together with the information with respect to the frequencies or bands of frequencies assigned by the contracting governments for use by stations of other classes which are not individually subject to notification to the I.F.R.B.; all such stations having a common frequency assignment may be shown collectively for each country.

(ii) List II. List of Fixed Stations (alphabetical index of fixed stations in actual operation.)

 (iii) List III. List of Broadcasting Stations. This shall include stations broadcasting:

 (a) voice and music

(b) television (c) facsimile

- (iv) List IV. List of Coast Stations and Ship Stations.
- (v) <u>List V.</u> List of Aeronautical Stations and Aircraft Stations.

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- 2 -(649 R-E)

(vi) List VI. List of Radiolocation Stations.

- (vii) List VII. List of Special Service Stations.
  - (a) Stations transmitting Time Signals;
  - (b) Stations transmitting Regular Meteorol-
  - ogical Bulletins (Weather Reports); (c) Stations transmitting Notice's to
    - Navigators;
  - (d) Stations transmitting Medical 'Advice;
  - (e) Stations transmitting Standard
    - Frequencies.
- (viii) List VIII. List of Call Signs of all stations having call signs from the international series.
- (ix) Maps of
  - (a) coast stations open to public correspondence.
  - (b) aeronautical stations open to public correspondence.
    - (c) navigational stations.
- (x) Coloured <u>charts</u> showing International and Regional <u>allocations</u> of the radio frequency spectrum.
- (xi) General Radiocommunication Statistics.

8 2. (a) Once a month, the Governments shall inform the Secretary-General of any supplements, modifications or deletions that should be entered in the documents mentioned in § 1. Lists IV, V, VI, VII, and VIII. The Secretary-General of the Union shall be responsible for amending the documents referred to in § 1. Lists I, II, and III above, as necessary, from information supplied to the I.F.R.B. for the purposes of the master International Frequency Register.

(b) Any change of a permanent nature concerning the sectors for which bearings from radio direction finding stations are normally reliable (list VI of this Article) or concerning any modification occurring in the operation of radionavigational land stations (List VI must be communicated to the Secretary-General without delay.

§ 3. In Lists III, IV, V, VI and VII each class of station shall occupy a special section.

§ 4. The International Frequency List and the List of Fixed Stations shall be published separately each year. ') They shall be kept up to date by the issue of monthly supplements, likewise published separately, every third supplement being recapitulative.

(649 R-E)

§ 5. The List of Broadcasting Stations, the List of Radiolocation Stations, and the List of Special Service Stations shall be published at intervals to be determined by the Bureau. Recapitulative supplements shall be published every six months for the List of Broadcasting Stations and every three months for the List of Radiolocation Stations and the List of Special Service Stations.

§ 6. The List of Ccast Stations and Ship Stations shall be published every nine months without supplements between editions.

§ 7. The List of Aeronautical Stations and Aircraft Stations shall be published every six months without supplements between editions.

\$ 8. The List of Call Signs shall be published at intervals to be determined by the Bureau. It shall be kept up to date by the publication of monthly recapitulative supplements.

§ 9. The General Radiocommunication Statistics shall be published at intervals to be determined by the Bureau of the Union.

§ 10. (1) The forms in which the lists mentioned in § 1 (a) to (g) inclusive above are to be prepared as given in Appendix 8 of these Régulations. Information concerning the use of these documents shall be given in the prefaces thereto. Each entry shall be accompanied by the appropriate symbol, as indicated in Appendix 9, to designate the class of station concerned. Additional symbols, where necessary, may be selected by the Secretary-General, any such new symbols being notified by the Secretary-General to the various Administrations.

(2) For the purpose of the service documents, a country shall be understood to mean the territory within the limits of which the station is located; a colony, an overseas territory, a territory under suzerainty or mandate, or a protectorate shall also be considered as a country for this purpose.

# (649 R-E) ANNEX 2

Form of notice to International Frequency Registration Board of frequency assignment to fixed, land, broadcasting stations or radiolocation.

		· 1.	Ň	(2)	
Notifying	Gove	ernment	,		Date of transmission of this notice.
		۰.		(3)	

Reference to preliminary telegraphic, notice, if any.

(4) Frequency in kc/s a assigned  $\underline{b}$  reference.

(5) Emission.

(1)

(6) Bandwidth in kc/s.

(7) Power in kW Antenna location

(8)	Α.	Country		,
(8) (9) (10):	 .В.	Place	·.	· · · ·
(10)-	С.	Latitude	and	longitude.

Directivity of antenna (state whether projected or realized.)

- (11) (a) Azimuth of maximum radiation of antenna, in degrees east from true north.
- (12) (b) Width of main lobe.
- (13) (c) Gain in db of antenna in direction of maximum radiation at frequency.

(14) Call Sign

(15) Class of station.

(16) Nature of service.

(17) Location if possible of intended reception, otherwise regions towards which emissions are directed.

- (18) Date put into service.
- (19) Maximum hours of use GMT.
- (20) Tolerance in percentage.
- (21) Type of telegraphic code. (Morse, Baudot, Hell, etc.)
- (22) Operating administration or company.
- (23) Postal and telegraphic address of controlling organization.

(649 R-E)

- -(24) Remarks.
  - (25) Is this under a regional agreement?



Identify Agreement

Signature

Title

Note

The foregoing is extracted from Document 611 R-E (Report of Working Group 2`to Subcommittee 6A) but has not yet been approved by Committee 6 for recommendation to Committee 3.

-6-(649 R-E)

ANNEX 3

Maximum periods which may be necessary for each stage of the examination of a notice of frequency assignment.

$\sim$		Total 26	weeks		٠ ٦	• •
	<u>,</u> 24	- 6	2	5	3	6
Preliminary notice sent to Board.	Detailed notice to reach the Board.	the Board of the notices and re- ceipt, by coun- tries, of circu-	make ob- jection or	Additional period for transmis- sion of ob- jection or comment in extenso.	examina- tion by -the Board of ob-	Period for the Bcard to notify and pub- lish its findings.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No, 650 R-E July 28, 1947

Committee 6

## Correction

REPORT

of Subcommittee A of Committee for the International Frequency List (Committee 6)

In the heading of Document No. 610 R-E, replace: Seventh Meeting by Sixth Meeting.

Under 1. read as follows: 1. The report of the fifth meeting (Doc. No. 506 R-E) was approved.

In the heading of Document No. 642 R-E, replace: Eighth Meeting by Seventh Meeting.

Note:

: The Document No. 506 R-E which was erroneously listed as Sixth Meeting was corrected by the Document No. 563 R-E. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947 Document No. 651 R-E July 28, 1947 Committee 7

Report of Subcommittee A of the General Technical Committee (Committee 7)

July 24th, 1947

1. The meeting was called to order at 10:15 a.m. by the Chairman, Lt. Col. Lochard of France.

2. Provisional Report to Committee 7 (Draft)

Copies of this draft report in English and French were distributed to the members of the Subcommittee and the document was reviewed prior to its release for publication.

With reference to Industrial, Scientific and Medical Applications Service, the U.S.A.Delegate suggested that a note be included stating that, if the term "telecommunication" as finally adopted does not include this service, the word "other" should be deleted. The U.K.Delegate supported this view and the Subcommittee adopted this suggestion.

3. <u>Modified definitions to be included in additional</u> report.

With reference to "Station," the <u>Chairman</u> pointed out that "radiolocation" should probably be included.

The U.K.Delegate suggested substitution of "telecommunication service" for "radio communication service."

The U.S.A. Delegate did not support this view as it would include wire telegraphy. He preferred, instead, the term "radio service."

The Italian Delegate pointed out that "radio service" had not been defined.

The Chairman replied that "radio communication service" had not been defined either.

The U.K. Delegate said he assumed "service" would be used in the dictionary sense. The U.S.A.

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Delegate supported this view. The latter went on to point out a possible confusion, if "telecommunication" were substituted for "radio communication" in that the induction field has been mentioned in the draft definition for the term "radio," and wire transmissions might therefore be included in this definition. He wanted it clearly understood that this confusion should be avoided and suggested that a note be included in the report to this effect.

-2-(651 R-E)

The Chairman asked the U.S.A. Delegate to draft such a note and he agreed to submit such a draft to the Subcommittee at its next meeting, it being agreed to replace the term "radiocommunication service" by "radio service" in the new definition of stations. It was agreed by the subcommittee that no further modification of definitions were to be included in the additional report.

4. Miscellaneous comments.

The Chairman then asked for further comments relative to the additional report to follow the provisional report.

The Delegate of <u>Belgium</u> said he had been asked by the Delegate from the Belgian Congo to request retention of the definition of "private radiocommunication station" as a number of stations of this type are in use in this country. Moreover he desired to assign special call signals to these stations.

The Chairman pointed out that the question had already been discussed and that stations are classified according to the service in which they take part and that the question of special call signals had been set aside by Committee 8. He suggested that nothing prevented Belgian Congo from setting up such a classification within its territory if it so desires.

The U.K. and U.S.A. Delegates confirmed the views of the Chairman on this subject, the latter suggesting that the word "private" simply be inserted before the station designation depending upon the service performed, for example "private land mobile station," "private aeronautical station," in case such would be necessary in some national regulations.

The Argentine Delegate supported the views expressed by the Delegates from the U.K. and U.S.A.

There was no support for the view expressed by the Delegate of Belgium.

(651 R-E)

The U.K. Delegate inquired concerning certain notes (Nos. 28,29,30) which appeared in the Cairo text. The Chairman checked them and found that the Subcommittee had agreed to their deletion.

5. <u>Consideration</u> of the "statement" of the provisional report.

The Subcommittee then recessed for a half hour to enable the members to study the statement in the provisional report, submitted for their approval.

Following the recess, the Delegates of the United <u>Kindgom</u> and the United <u>States</u> suggested certain changes in the wording of the title and of certain sub-paragraphs of points 1, 5 and 6. The changes adopted after discussion were recorded for future reference.

A discussion arose, particularly regarding the use of the words "scheduled" and "non-scheduled" in the case of the aeronautical service (point 4). The Delegate of the <u>United States</u> expressed preference for "route" and "off route," whereupon it was recalled that these terms had not been retained after the preliminary Moscow Conference; and that if Committee 5 continued to employ them from time to time, this probably occurred inadvertently. However, for clarity both types of expression would be included in the English text of the report.

In addition the Delegate of Italy wished to return to the definition of "radio navigation" and to modify the text so that it would clearly indicate the idea of use by mobile stations. Following a brief discussion, the Subcommittee decided to include in the French text, after "radiorepérage destiné uniquement" the expression "lors de la navigation," and to delete "la navigation" at the end.

The meeting was adjourned at 1:05 P.M.

Reporters:

Chairman:

Major G. Sarre D. R. MacQuivey J. Lochard

INTERNATIONAL RADIO CONFERENCE Atlantic City 1947

1.

Document No. 652 R-E July 29, 1947

Committee 7.

Additional Report of Subcommittee 7A Concerning the Definitions of General Terms, Services' and Stations

## Statement

In its report of July 25, 1947, (Doc. No. 625 R-E), the Subcommittee submitted its proposals for the definitions of general terms, services and stations, it being assumed that the widest meaning was given to the term "radio communication." In the corresponding statement, the reasons were given which led the Subcommittee by a vote of 9 to 8 to search for a new, more restrictive definition of this term, and to modify in consequence the definitions of the terms "telecommunications" and "radio". It is this new solution which is presented in the present Additional Report, which constitutes, with the provisional report, the final proposals of the Subcommittee concerning this part of its work.

2. Definitions of General Terms.

The new wording proposed for three of these terms corresponds to the following points:

a) Under the term "Telecommunication", include all the uses of electromagnetic energy, by the addition of the words, "or use of electromagnetic energy."

b) Under the word "Radio". include in particular, "Radio Communication" and "Radiolocation", as well as the transmission of energy on frequencies of Hertzian Waves, so as to permit the regulation of industrial, scientific and medical applications. c) for the word "Radio Communication," specify that the only conveyance of information is included, by specifying that the use of this last term excludes "Radiolocation": an application corresponding to the obtaining of new information.

-2-(652 R-E)

3.

4.

## Modifications of the Definitions of Services and Stations.

The Subcommittee decided to submit a new definition only for the term "Station", by replacing in this definition the words "Radio Communication" by the term "Radio", so that the term should remain general in meaning. In all of the other definitions the term "Radio Communications" is already used with a restricted meaning.

## Modification in the Title of the Regulations.

As the term"Radic Communication" cannot cover all the guestions dealt with by the Regulations, the Subcommittee proposed the following two new titles:

a) General Radio Regulations

b) General Radio Telecommunications Regulations

The first title was favored by the English speaking countries, but raised strong objections from the French speaking countries because of the very wide meaning generally given to the term, "Radioelectricité". The second title, proposed by France, which is more precise but longer, did not arouse any strong opposition and would be acceptable to many delegations.

The proposals of the Subcommittee concerning the definitions to be modified are as on the following page.

## Rapporteurs:

## Chairman:

G. Sarre

J. Lochard

D. R. Mac Quivey

## DEFINITIONS TO BE MODIFIED

-3- · (652 R-E).

## (See Doc. No. 625 R-E)

### I. GENERAL TERMS

### Telecommunication

Any transmission or use of electromagnetic energy, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, visual or other electromagnetic systems.

#### Radio\*

A general term applied to any use of Hertzian Waves, whether for purpose of Radio Communication, Radiolocation, or for any other purpose. This definition also includes the transmission of energy by means of high frequency oscillations corresponding to these waves.

#### Radio Communication

A telecommunication by means of Hertzian Waves for the purpose of communicating an information from one point to another and excluding radiolocation.

## III. STATIONS

#### Station

A separate transmitter or receiver, or a combination of transmitters and receivers including the auxillary equipment required for carrying on a definite radio service. The station assumes the classification of the service in which it operates permanently or temporarily.

\*Note from the Subcommittee

This term should now be placed before"Radio Communication," as well as "Hertzian Waves,' the order being then: Telecommunication, General network...., Hertzian Waves, Radio, Radio Communication, Radiolocation, etc. ....the remainder standing unchanged. INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 July 29, 1947

Committee 6.

Report of the

International Frequency List Committee (Committee 6)

> 10th Meeting July 26, 1947

 The meeting was opened at 10:15 A.M. by the Chairman, Mr. J.D.H. van der Toorn of the Netherlands Delegation. Document 633 R-E, report of the ninth meeting was considered and the <u>Delegate of France</u> requested the following amendment to paragraph 9 sub-paragraph (1): change "composed of representatives of each country" to "composed in such a manner that each country is certain that its interests will be protected."

The <u>Delegate of Canada</u> then made the following statement in order that his position and comments in Doc. No. 633 R-E might be clarified:

"The Canadian Delegation has carefully considered the formal proposals made by the United States (Document No. 622 R-E) and by Bielorussia (Document No. 623 R-E) on the method to be followed in the preparation of the new International Frequency List.

We do not support the Bielorussia proposal for the following reasons:

- (a) The procedure outlined in Document No. 623 is on a two step basis and does not provide for implementing a final Frequency List until approximately Sopt. 1, 1951.
- (b) We fear that the Bielorussia plan might result in chaos in the frequency spectrum rather than enable an orderly approach to the problem. Annex 1 of Document No. 598 R-E of subcommittee 6B2 is a detailed statement of our conclusions in this matter.

We strongly support the United States proposal for the following reasons:

- 2 -(653 R-E)
- (a) The procedure outlined in Document No. 622 R-E, if adopted, will, in our opinion, accomplish what all delegations desire, namely the establishment of a new International Frequency List, prepared on a sound engineering basis, which will enable the full implementation of the Atlantic City Conference Frequency Allocation Table by July 1, 1949.
- (b) There would appear to be no reason why the various stages outlined in the United States plan could not be carried out on schedule.

The Canadian Delegation stresses the fact that so many major changes will appear in the new Frequency Allocation Table, compared to the existing Cairo Table, that it is essential for the important problems involved to be solved at the earliest date feasible. We consider that the United States proposal merits our urging all Delegations give it their support."

Following statements by the delegates of Bielorussia, India, and the U.S.S.R. to the effect that Document No. 633 R-E did not reflect their views in entirety, and that amendments would be forthcoming, it was agreed to defer further consideration of this document until the next meeting.

- 2. The <u>Delegate of Bielorussia</u> then posed the following questions, the first two being directed to the United States Delegation a.d the third to the Chairman:
  - (a) What principle of order will be adopted for recognizing existing priority rights in the preparation of the new International Frequency List?
  - (b) In what manner shall coordination be effected between the commission charged with compiling the new list and countries not present at the time of preparation?
  - (c) How will the personnel and facilities of the B.U.I.T. be utilized in the preparation of the new list?
- 3. The <u>Chairman</u> replied, in answer to (c) above, that the principles to be followed should be determined first and that the details and manner for carrying

out the work could then be determined. He also advised that preliminary correspondence with the Bureau had already been made on this matter and that complete coordination would be effected at a later date.

(653 R-E)

The <u>Chairman of the United States Delegation</u> replied, in answer to the first question of the Bielorussia Delegate that the mandate of the new commission shall be to satisfy completely the frequency requirements of all countries as submitted by Forms'l and 2 and, in this regard, requested the insertion of the following clause immediately following paragraph 1, page 2, of Doc. No. 622 R-E:

"The Commission shall have as its objective the formulation of an engineering plan which will improve the utilization of the radio spectrum by providing for the continued operation of all existing services in every country, while eliminating the harmful interference which has resulted in the past from the activation of radio operations without an integrated world wide plan. In addition to assuring all countries the continued operation of existing services without harmful interference, the Commission shall endeavor, in formulating such a plan, to make adequate provision for the future development of new radio services and the expansion of existing services so that all countries may improve and increase their services to the full extent practicable."

In answer to the second question of the Bielorussia Delegate, the Chairman of the United States Delegation went on to say that he hoped representatives of all countries would be present to take part in the preparatory work. If this was not the case, such countries as could not participate could request the representatives of other countries to serve in their interest and, in any event, all countries would be present at the International Conference assembled to approve the new list.

The Delegate of the <u>Netherlands East Indies</u> expressed concern about paragraph 9 of Document No. 622 since even now, two years after the war, certain of their priority frequencies as contained in the present list have still not been cleared to permit resumption of operations. Also, the delegate continued, Document No. 622 R-E did not explain the problem of priority settlement to his satisfaction, and finally, the implementation of a completely reengineered list seemed very costly. (653 R-E)

6. In reply, the <u>Chairman of the United States Delegation</u> sympathized with the views of the Delegate of the Netherlands East Indies and considered the problems could be solved by:

- (a). Submission of all requirements of the Netherlands East Indies on Forms 1 and
  2. Frequencies not yet reactivated could be so indicated thereon.
- (b) Considers all actual requirements can be met by the complete engineered plan. If not, priority of service would be the deciding factor.
- (c) Although expensive, a completely engineered list is necessary and will pay for itself by means of the better service and more satisfactory operations afforded thereby.

7. The <u>Delegate of Egypt</u> expressed general concurrence with the contents of Doc. No. 622 R-E, although minor modifications may be appropriate, and suggested the addition of a statement to paragraph 1 of page 2 to the effect that the Commission shall also take into account the needs of countries where natural developments have been either retarded or not fully developed. He also pointed out that the final date of implementation for many countries such as Egypt, which are dependent upon outside sources of equipment supply, would be entirely in the hands of the countries upon whom requests **for** equipment are made.

8. The Chairman of the United Kingdom Delegation then made the following statement:

"The U.K. Delegation has studied the terms of the American resolution in Document No. 622 R-E and have heard the additional explanations just given by the Chairman of the U.S. Delegation on the main question of principle. We think that some slight changes in the terms of the resolution may be desirable, for example, in regard to slight adjustments in the timetable and the question of present priorities. We find, however, that the proposals contained therein are so closely in accordance with the general views of the United Kingdom on this important subject, that we are prepared to accept these proposals as they stand, as the basis for detailed discussion should the principle of establishing the new International Frequency

List by one stage rather than by two stages, be accepted by your Committee.

The only point I would like to make is that at the meeting yesterday I mentioned that the United Kingdom considered that a new re-engineered list could be brought into practical effect on 1st September, 1949, while the United States, by quite independent thought, considered that the new list could be brought into force from 1st July, 1949, that is, 2 months earlier. We now find, having seen the American proposals, that this difference of two months in the final date is almost entirely due to the fact that the U.S. envisage that the Special Committee which they propose should commence its work three months earlier than we had visualized in our own schedule. In other words, Mr. Chairman, our ideas on the actual time required to prepare a plan of a new reengineered International Frequency list and to bring this into force are almost identical with those of the United States.

We support the principle underlying the American proposals, Mr. Chairman, i.e. that the Conference should proceed forthwith to establish a new re-engineered International Frequency list, for the reasons that:

1. It is the considered view of the United Kingdom that it is the only procedure which will enable the Conference to give practical effect to the new frequency allocation table.

2. It is the only procedure which will enable the I.F.R.B. to work effectively, in that this procedure alone can give the Board a proper basis on which to work.

3. It is the only procedure which opens up the prospect of orderly expansion and development of radio services in the future, the benefit of which will be obtained by all countries here represented and, in our view, most of all by those countries whose radio services were destroyed through the war and which must be restored and expended during the forthcoming years."

9. The <u>Delegate of Columbia</u> advised the Committee that, following a study of Document No. 622 R-E and 623 R-E, he concluded that the documents set forth principles which are in opposition to each other. The proposal . of the United States, he continued, is in a bold form which is absolute and complete while the proposal of Bielorussia is a vague formula. The Delegate also stressed the point that Committee 6B is still only at the beginning of their problems because principles have not been adhered to and that, therefore, a decision as to the principles to be followed in preparing the new list must be made. He considered Document No. 623 R-E to be a proposal for "not establishing a new frequency list. Support for Document No. 622 R-E was given, even though it was fully realized it was the more expensive approach.

-6-(653 R-E)

10. The Delegate of Cuba stated that, after studying Document No. 622 R-E, he was all the more in favor of a completely reengineered list even though it was considered that slight modifications to the text were necessary.

11. The Delegate of Bielorussia expressed dissatisfaction with the answers of the United States and went on to say that he could not envisage what will happen when the commission attempts to put a "quart into a pint bottle." He also pointed out that, in his opinion, the plan of the United States does not afford adequate protection for countries whose frequency needs are large, also that the issue cannot be decided by a simple vote since no administration will agree to be forced to adopt a principle contrary to its views.

12. The Delegate of the U.S.S.R. then informed the committee that the proposal of Bielorussia was the result of sixteen days deliberation in subcommittee 6 B2 and expressed surprise at the change of position of the United Kingdom and United States, who took part in the deliberations. In his view, Document No. 623 R-E was neither in conflict nor rejects Document No. 622 R-E, but merely presents an orderly method of procedure. Further, at an International Technical Conference, the use of voting procedure should be used with care and applied only to a limited degree. He considered voting procedure to be an unsatisfactory method for solving technical problems and expressed the thought that the correct path to follow would be one of compromise since the agreement of all nations is necessary. He suggested consideration of the compromise as proposed at the previous meeting by Canada.

13. The <u>Chairman</u> concurred that a unanimous decision would be preferable but pointed out that the matter has been debated for weeks without agreement having been reached. He then asked Canada for the relevance.

## (653<sup>'</sup>R-E)

14. The <u>Delegate of Canada</u> replied that he believed the Delegate of Bielorrssia truly lacked appreciation of Document No. 622 R-E. After reading the first three lines of the last paragraph of the Canadian proposal as contained in Annex 1 to Document No. 598 R-E, the delegate of Canáda made the following statement:

"We conclude that the essence of the new plan is the assignment of technically correct frequencies. As soon as you try to assign new frequencies to even a few circuits, you find that it is necessary to upset the entire frequency list. It is for this reason that we do not think it is possible to do any important amount of engineering in the preparation of an interim list.

As to the remark made by the U.S.S R., that I had made a proposal relating to a compromise, interim action, I had not considered it a proposal but only a suggestion that, after we had adopted the course of action in the U.S. proposal, the Committee should consider then whether any useful interim action could be taken, in addition to the U.S. proposal, without seriously draining manpower away from the main task."

15. The Delegate of the U.S.S.R. drew attention to the fact that the work of Committee 5 was not yet finalized and also, that the proposal of Bielorussia did not entail severe economic disturbance, which was one of the main reasons for his support of a provisional list which would require only the minimum number of frequency changes at this stage, and thus make possible a more thorough-going revision at a later date.

16. The Delegate of France reiterated that a realistic time schedule is the essence of the debate. He considered the two year period set forth in Document No. 622 R-E to be based on optimism and that, based on the slow progress of 6 B2, the date of October 1, in paragraph 6 does not appear possible in view of the difficulties still facing the subcommittees of Committee 6. Further, the period of 6 months proposed for the task of reengineering the requirements was also considered to be too short which fact is evidenced by the admission in paragraph 12 of Document No. 622 R-E that a date subsequent to July 1, 1949 for implementation may be necessary. The Delegate of France believed, three years to be a more realistic figure for completion of the task and did not think such services as High Frequency Broadcasting and Aeronautical Mobile could wait for so long a period.

17. The <u>Delegate of Peru</u> supported the proposal of the United States and expressed the feeling that all fears -8-(653 R-E)

could be resolved by the International Conference assembled to approve the final list.

18. The Delegate of Switzerland considered in view of experience at the Atlantic City Conference, that the time schedule set forth in Document No. 622 R-E was in definite need of revision. Also, in commenting on paragraph 2 and 3 of Document No. 622 R-E, he considered it unsound economically to support a group of 150-200 members for a two year period. Further, the Delegate of Switzerland queried as to where the commission would meet, and expressed concern that no mention was made as to how or what extent the means of the Union would be called upon.

19. The <u>Delegate of Chile</u> agreed with the previous remarks of the <u>Delegate</u> of Colombia and observed that, from the standpoint of International Law, the regular sovereignty of a country is not the same as the radio sovereignty of a country since radio may cause interference which is of an international aspect. He endorsed the United States proposal since only in that way can difficulties be eliminated and I.F.R B. put into operation.

20. The <u>Delegate of the Netherlands East Indies</u> made it clear that, while they do want a completely engineered list, the method laid down in Document No. 622 R-E was not advantageous to his country. He also asked if specific details as regards priority frequencies, pre-war traffic loads and demands, and equipment modifications necessary could be included in Document No. 622 R-E.

21. The Delegate from India stated that he did not consider the two main viewpoints expressed to be irreconcilable. He went on to say that in the beginning the need for a completely reengineered list was realized because the current list does not use the spectrum efficiently. The Delegate from India continued that there was common agreement that a centralized body should make assignments in the future and all countries recognized that although they now have the right to assign frequencies this procedure can not be followed in the future. Further, there has been general agreement that all countries must relinquish certain rights in order to bring order to the spectrum and for the common good. For these reasons, the I.F.R.B was conceived. This done, the procedure to be followed in preparing a new list was discussed. Objections were raised, the Delegate from India continued, that complete engineering would take too long and, for this reason, interim solutions were sought. In Subcommittee 6 B2, it was

determined that a satisfactory interim solution was not forthcoming and thus the present deadlock was reached. An appeal was made by the delegate of India to the delegates of Bielorussia, France, Switzerland and U.S.S.R. to reconsider their positions in view of the fact that the proposed interim solutions only lead to more disagreement than the final solution. He noted that the adoption of an interim plan would necessitate two frequency shifts and that the six months difference between the time schedules contained in Document No. 622 R-E and 623 R-E, was not sufficient to warrant the implementation of a plan which admittedly is not satisfactory. Further, the interim period aspect is provided for by paragraph 9 of the United States proposal.

22. The <u>Chairman of the United States Delegation</u> informed the committee that he endorsed completely the views expressed by the Delegate of India. He then answered the several questions raised as follows:

(d)

(e)

(a) On the issue of the time table as raised by France, the date of January 15, 1948, for convening the Commission might be the more desirable date to adopt.
(b) The six month period proposed for the engineering work might well be too short but will only be determined by the Commission itself.
(c) Since the new bands for services such as

Since the new bands for services such as Aeronautical Mobile must come from other existing services, the new bands cannot be activated before the displaced frequencies have been provided for. This is all the more reason why complete engineering is necessary.

In answer to the statement of Bielorussia, The Chairman of the United States Delegation replied that it was his hope and belief that all requirements can be met by complete reengineering but that if such was not the case, priority of service would be/ the determining factor.

On the question of expense, it will be less expensive to adopt a plan requiring two years to implement than an interim plan requiring five years to achieve the same results. Also, the work cannot be done by I.F.R.B; must be done by an International Organization.

(f) He considered that the B.U.I.T. will furnish the secretariat to the commission and that

the fullest possible use would be made of the B.U.I.T. because of its experienced staff.

- (g) As to the site, the Delegate replied that the United States did not have any proposal but was agreeable to any location decided upon by the Conference.
- (h) In answer to the delegates of Egypt and the Netherlands East Indies, the following amendment to Document No. 622 R-E was made, this to follow immediately after the amendment set forth in paragraph 4 above:

"The Commission shall treat communications services which were interrupted by the war and which have not yet been restored on the same basis as existing services and, in addition, shall give special consideration to the needs of countries where natural developments have been impended."

(i) The Delegate then made a statement to the following . on the question of voting:

We have had many meetings of the sub-subcommittee. The fundamental issue here cannot be resolved by a sub-subcommittee, only by Committee 6 proper. 1. agree with the U.S.S.R. and Bielorussia that at an International Conference questions of substance cannot be decided by ballot because the result is disharmony. This is a question of procedure we are discussing. We know what we want. We want to move, as the delegate of India said, in the direction of a fully engineered list in accordance with the new table. Our problem is not one of substance, we have agreed on substance; our disagreement is on t the direction to take. We do not know which of the two roads proposed is the better. It is entirely appropriate that we should vote on that issue and select the proper path to be taken and then move. in the direction taken. We have three opportunities to compromise after the vote has decided the direction to take:

- (1) In the discussion of the terms of reference of the organization which will do the work.
- (2) In the work of the organization the views of all nations will be accommodated.
- (3) At the Special Conference as to what to do on the day the plan is put into effect.

I am confident that we shall not fail.

## - 11 -(653 R-E)

- 23. The <u>Chairman</u> then stated that the working group would be requested to study the proposal adopted and endeavor to satisfy all countries. Further, that a compromise along the lines suggested by India might be possible.
- 24. The <u>Delegate of the U.S.S.R.</u> stated that he did not understand how a compromise was possible in paragraph 9 of Document No. 622 R-E.
- 25. The <u>Chairman</u> replied that a compromise might not be possible but that the possibilities could be looked into.
- 26. The <u>Delegate of the U.S.S.R.</u> considered that, if a compromise was possible, a vote should also be taken on the compromise solution.
- 27. The <u>Delegate of the United Kingdom</u> suggested the work of the Committee proceed in two stages:
  - (1) Vote to determine principle to be adop--> ted.
  - (2) According to decision of the vote, each delegation submit recommended amendments to the adopted plan for consideration at a future meeting of Committee 6.
- 28. The <u>Delegate of Outer Mongolia</u> spoke in favor of Document No. 623 R-E as being the only satisfactory and concrete proposal.
- 29. A vote was then taken with the following results: Those in favor of a completely engineered list (Document No. 622) - 41. Those in favor of an interim solution (Document No. 623) - 14. Absent -23.
- 30. The <u>Delegate of the U.S.S.R.</u> advised the committee that, in view of there being 14 countries who were in opposition, the decision of the vote could not be accepted by the U.S.S.R. since they considered the road of compromise to be essential. This view was supported by the Delegate of <u>Bielorussia</u>.
- 31. The <u>Chairman of the United States Delegation</u> voiced agreement with the second stage suggested by the United Kingdom and considered further, that any recommended amendments be submitted in writing (See paragraph 27 above).

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- 32. The <u>Chairman</u> stated that Document No. 622 R-E would be discussed at the next meeting.
- 33. The <u>Chairman of Subcommittee 6A</u> stressed the importance of preparing Forms 1 and 2 in the proper manner in order that the compilation working group might proceed as rapidly as possible with their task.
- 34. Following a statement by the Chairman which emphasized the importance of meeting the dates for the submission of Forms 1 and 2, the meeting was adjourned at 12:55 A.M.

Reporters	Chairman
W. Dean	J.D.H. van der Toorn
J. Millot	

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

2.

July 29, 1947

Committee 5

of the Allocation of Frequencies Committee (Committee 5)

## Seventeenth Meeting July 26th, 1947

1. The <u>Chairman</u> said that the report of the 16th meeting, which was not yet distributed, would be considered at a later meeting. He said that at the present meeting attention would be confined mainly to a re-examination of certain of the notes given in Document No. 568 R.

' Continuing, he said that the first of these notes for consideration was one referring to the band 255-285 kc/s.

The following text, drafted by the Working Group and applying to the European Region and the territory of the U.S.S.R. outside the European Region, was provisionally accepted.

"The regional arrangements made by a European Administrative Conference will take into account the following considerations:-

(a) In the West of Europe all the band between , 255 and 285 kc/s will be used for aeronautical navigational aids. Additionally, the United Kingdom will share portions of the band with the maritime mobile service (in conformity with the provisions of Note 7, which is to be made applicable to this band).

(b) In the U.S.S.R. the band 255-285 kc/s will be shared between the broadcasting and maritime mobile services.

(c) The Norwegian broadcasting stations at present working in this band may continue to do so if authorized by the above mentioned conference."

3. At the request of the <u>Delegate of the U.S.S.R.</u>, the <u>Chairman explained that Note 10</u>, which was to be redrafted, would be considered at a later stage.

## (654 R-E)

Referring next to the band 2000-2850 kc/s, "European" column, the <u>Chairman</u> invited the meeting to discuss the question of whether Note 18 should be applied to the band 2650-2850 kc/s in either its present or a modified form.

The Delegate of France considered that the note should not be so applied. France's initial proposals had provided for this part of the spectrum to be allocated to the fixed and land mobile services. France now accepted the admission of the maritime mobile service in accordance with a regional arrangement, but could not agree to its being protected as in the other bands, being of the opinion that in this band it was the fixed service that should be protected. The allocations for the maritime mobile service could well be somewhat less than those of Cairo, for below 2650 kc/s the service would be protected under Note 18, whereas under the Cairo'allocations sharing was effected between numerous services and the maritime mobile service was not accorded any priority ... Continuing he said that the Hague agreements, which were one-sided since they referred solely to the maritime mobile service, applied to numerous small They did not therefore represent an endeavour bands. to secure maximum economy of frequencies, and the conditions obtaining under those agreements could not be regarded as evidence that the maritime mobile, allocations could not be reduced.

The <u>Delegate of the United Kingdom</u> considered that Note 18 must be applied to the band 2650-2850 kc/s, because the allocations for the maritime mobile service had already been appreciably reduced. He pointed out, on the other hand, that Note 18 did not give priority to the maritime mobile service, as did the earlier note which had figured in the draft analysis, it simply emphasized the difficulties that confronted that service.

The <u>Delegate of France</u> reminded the meeting of the restrictions on the operation of the fixed service, in bands shared between the fixed and maritime mobile service, that had been proposed by the United Kingdom in Document No. 30 R and pointed out, in particular, that the fixed services concerned would have to be operated under night-time conditions.

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The views expressed by the Delegate of the United Kingdom were supported by the delegates of the <u>Netherlands</u>, <u>Italy</u>, <u>Belgium</u>, and <u>Denmark</u>, the latter speaking on behalf of the <u>Scandinavian countries</u>.

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The Delegate of France, replying to the Delegate of Denmark, said that he thought that the Scandinavian countries should understand France's position in wishing to see the fixed service protected, in a band which had always been allocated to that service, especially as they had themselves requested the continued operation of fixed stations, working by derogation, in the band 385-395 kc/s.

7. The <u>Chairman</u> having proposed that the Working Group be asked to consider the question of drafting a new Note 18, taking account of the views that had been generally expressed and also of the French requirement, the <u>Delegate of the U.S.S.R.</u> suggested that a phrase be added, at the end of the existing text, to draw attention to France's desire to obtain adequate protection for her fixed services.

The Delegate of the United Kingdom was unable to accept an addition of this nature, the effect of which would be to give priority to the fixed service, whereas the existing text of Note 18 did not give any priority to the maritime service but merely asked that account be taken of its special difficulties.

9. The <u>Delegate of France</u> reminded the meeting that the needs of all the services should be taken into consideration. He could not accept, in a general regulation, the insertion of a text liable to restrict, in advance, the field of negotiation relative to the activity of particular services when regional arrangements came to be prepared. In this particular case, and despite the assurance of the <u>Delegate of Belgium</u> that it would be possible to satisfy the requirements of both the fixed and maritime mobile services, he could not risk having to oppose, when the regional agreement was drafted, a text restricting the use of the fixed service in France between 2650 and 2850 kc/s.

10. The <u>Chairman</u> saying that he thought that the Working Group now possessed, as a result of this discussion, the data necessary as a basis for reconsidering the question, invited the meeting to turn their attention to the next point, which concerned Note 20, the question being whether this note could now be considered as

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firmly accepted by the Committee.

- The <u>Delegate of Denmark</u> having asked if the names of the countries who intended to avail themselves of the provisions of the note would figure in the text of the note itself, the <u>Delegate of the</u> <u>U.S.S.R.</u> said that this had always been intended, and that he had only given his agreement on the condition that the countries concerned were not numerous and that they were well removed from the U.S.S.R. They already numbered four and included Austria and Switzerland, which were not as far from the U.S.S.R. as was altogether desirable. Nevertheless, he was prepared to agree to their inclusion, but did so reluctantly.
- 12. The <u>Delegate of the Netherlands</u> having asked that his country should be included in the list of countries that intended to avail themselves of the provisions of Note 20, it was agreed that the names of the five countries (Austria, the Netherlands, Ireland, Switzerland, and the United Kingdom) would be included in the text of the note.
  - The Delegate of the Netherlands Indies pointed out that in Document No. 568 R the question of the provision for Tropical Broadcasting was 'referred to in a rather unspecific manner at the bottom of the last page. He reminded the meeting that Tropical Broadcasting had been given a specific allocation under the Cairo Regulations and that in earlier documents considered by the present Committee the band 2300 - 2495 kc/s had been proposed for this service. He therefore wondered if it would not be possible to add a note regarding the specific band to be allocated for tropical broadcasting, and suggested that this band might well be 2300 - 2495 kc/s.
- 14. The <u>Delegate of the United States</u> said that if the band 2300 - 2495 kc/s were allocated to Tropical Broadcasting in the American Region it would be necessary to displace the band of 50 kc/s proposed for exclusive allocation to the maritime mobile service between 2300 - 2350 kc/s downwards in the spectrum, because Tropical Broadcasting and the maritime mobile service could not share the same band. He added that he would like to hear the opinions of the other countries in the American Region on this question.

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15. The Delegates of the <u>Argentine</u>, <u>Mexico</u>, <u>Venezuela</u>, <u>Brazil</u>, and <u>Uruguay</u> shared the opinion expressed by the delegate of the United States.

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The <u>Delegate of Chile</u> also shared this view and proposed the following allocation:

2250 - 2300 kc/s MM 2300 - 2495 kc/s (a) FX (b) Mob (c) TB.

This proposal was supported by the Delegate of Peru.

The <u>Chairman</u> said that the general agreement on this point would be noted and the new plan modified accordingly.

16. The next meeting will take place on Wednesday, 30th July, at 10 a.m.

Reporters:

Chairman

/s/ A.H. READ

P. FRYER

L. A. LAMOITIER

Lt. Cdr. DE CALAN

INTERNATIONAL RADIO CONFERENCÉ ATLANTIC CITY 1947

DOCUMENT NO. 655 R-E July 29, 1947

Committee 6

• (This Document is a revision of Doc. 622 R-E and includes the amendments set forth in Doc. 648 R-E.)

2563 R

## United States Proposal

## RESOLUTION IN REGARD TO THE PREPARATION OF THE NEW INTERNATIONAL FREQUENCY LIST

WHEREAS,

A. In order to provide a basis for the formulation of a new International Frequency List, countries participating in the Atlantic City Radio Conference have undertaken to furnish Committee 6 of the Conference by September 15, 1947 with information regarding circuit requirements for fixed stations, together with information regarding requirements for tropical broadcasting stations and all classes of land stations, shown on Forms 1 and 2 formulated by Committee 6;

B. These countries have found that the compilation of such a List is necessary in order to implement the application of the Atlantic City allocation table;

C. These countries have agreed that the compilation of such a List is necessary in order that the IFRB may function most effectively;

D. The compilation of world frequency requirements as an initial step in the compilation of a new List is \* now well advanced and is expected to be completed by October 15, 1947;

E. It is essential to continue the work commenced by Committee 6 with minimum delay upon the conclusion of the Atlantic City Radio Conference;

F. It is recognized that until frequency assignments for all services can be completely engineered, it will not be certain that effective use can be made of the frequency spectrum or that the frequency requirements of any service can be met without experiencing harmful, interference; G. It is necessary that an appropriate international group or committee continue with the preparation of the new International Frequency List after the close of the Atlantic City Radio Conference in order that such a List may be available for review, and approval at a special international conference to be called for that purpose.

(655 R-E)

## THEREFORE, IT IS RESOLVED THAT:

A special International Frequency List 1. Commission shall be established by the Atlantic City Radio Conference. The Commission shall have as its objective the formulation of an engineering plan which will improve the utilization of the radio spectrum by providing for the continued operation of all existing services in every country, while eliminating the harmful interference which has resulted in the past from the activation of radio operations without an integrated world-wide In addition to assuring to all countries the plan: continued operation of existing services without harmful interference, the Commission shall endeavor, in formulating such a plan, to make adequate provision for the future development of new radio services and the expansion of existing services, so that all countries may improve and increase their services to the full extent practicable. The Commission shall treat communications services which were interrupted by the War and which have not yet been restored on the same basis as existing services, and, in addition, shall give special consideration to the needs of countries when natural developments have been impeded.

2. Each country participating in the Atlantic City Radio Conference, which desires to do so, shall designate one representative, who is technically expert and experienced in frequency assignment problems, to serve as a member of the Commission. This member may be assisted by such advisers as desired;

3. Each country shall defray the salaries and expenses of its representative and his advisers.

4. All other expenses of the Commission shall be defrayed by the Union;

5. The International Frequency List Commission shall convene at a place to be agreed upon by the Atlantic City Radio Conference.

6. The International Frequency List Commission shall convene not later than January 15, 1948. It shall operate under the following directive:

(6)5 R-E)

(a) Before undertaking the preparation of a new International Frequency List the Commission shall determine, in complete detail, the engineering framework (principles, rules and procedures) to be applied in the preparation of such List, giving appropriate consideration to the work done in this connection at the Atlantic City Radio Conference. These engineering principles shall be based on the new bandwidth table, and also on the new tolerance table set forth in Column of the Radio Regulations adopted by the Atlantic City Radio Conference. The formulation of this engineering framework shall be completed not later than March 1, 1948, and the new International Frequency List shall be completed by November 1, 1948.

(b) In preparing the new List, the Commission shall give consideration to and insofar as found practicable shall adopt plans prepared by other international groups on a bread international basis for specific services involving the utilization of frequencies allocated exclusively to the services concerned.

(c) In preparing the new List, the Commission shall make provision for these requirements set forth in Forms 1 and 2, which are received prior to September 15, 1947. In doing so, the Commission shall be guided solely by the following considerations:

(1) Conformance with the Atlantic City allocation table;

(2) Conformance with the engineering principles referred to in (a) above, so as to make provision for all requirements while avoiding harmful interference;

(d) The frequency bands to be dealt with by the Commission shall be insert at this point a specific table of bands which will be proposed by U.S. Delegation upon the completion of the work of Committee 5 of the Atlantic City Radio Conference

(e) The frequency assignment plan prepared by the High Frequency Broadcasting Conference will be accepted by the Commission, which, however, will take into account the impact, if any, of these assignments on the services allocated bands adjacent to the high frequency broadcasting

bands. Prior to the adoption and effective date of the new List on a world-wide basis for all services, the broadcasting service shall not use the portions of the high frequency broadcasting bands included in the Atlantic City allocation table which were not included in the Cairo allocation table.

(f) The new International Frequency List shall be prepared in the form prescribed by the Atlantic City Radio Conference.

7. The Commission shall arrive at its conclusions so far as possible by unanimous agreement. Any member of the Commission may have a statement included in the report of the Commission, giving his views on any matter on which unanimous agreement has not been obtained.

8. Upon completion of the formulation of a List as described above, and not later than January 1, 1949, the Bureau of the Union shall furnish all members of the Union with copies of the List prepared in accordance with the above procedure. The Special Conference for the consideration of this List shall be convened on March 1, 1949.

9. During the period while the new List is being prepared by the Commission, notices of frequency assignments in the bands set forth in paragraph 6(d) above shall be made in conformance with the Cairo Radio Regulations and sent to the Bureau of the Union for publication as at present. After the preparation of the new List by the Commission, the Special Conference shall determine the procedure to be followed in incorporating into such List the foregoing assignments for meeting requirements for operations which were activated during the period between the closing date of Forms 1 and 2 and the opening of such Special Conference.

10. During the period between November 1, 1948, when the Commission completes its preparation of the new List based on requirements set forth in Forms 1 and 2, and March 1,1949, when the Special Conference is convened, the Commission shall give consideration to assignments in the bands set forth in paragraph 6(d) above, which are filed between the closing dates of Forms 1 and 2 and the convening of the Special Conference, in order to formulate recommendations to the Special Conference for the incorporation in the first edition of the new List the assignments so notified. 11. The Atlantic City Radio Conference shall designate the country which shall provide the Temporary Chairman of the Commission. Such Temporary Chairman shall preside at the opening session of the Commission, at which time, the Commission shall elect its permanent Chairman and adopt any necessary rules of procedure.

12. The new List'shall become effective on September 1, 1949, and all frequency changes necessary to implement the Atlantic City allocation table shall be completed by that date, provided, however, that the Special Conference may, if necessary, adopt a subsequent effective date.

13. Assignments entered on the new List in bands set forth in 6(d) above bear dates as follows:

(a) Entries made by the Commission and approved by the Special Conference shall be dated as of the date of approval of the List by the Special Conference;

(b) Entries approved by the Special Conference which result from notifications of assignments in the bands set forth in paragraph 6(d) above, which are filed with the Bureau of the Union during the period between the closing date of Forms 1 and 2 and the opening of/ the Special Conference on September 1, 1949, shall also be dated as of the date of approval of the List by the Special Conference;

(c) No entries of assignments in bands set forth in paragraph 6(d) above shall be made on the basis of notifications filed while the Special Conference is in session. Such notifications shall be administered by the I.F.R.B. after the close of the Special Conference and shall bear such date as is provided in the statutes of the I.F.R.B., but in no event shall this date be prior to the close of the Special Conference.

14. If harmful interference develops after the effective date of the new List from operation on frequencies, all of which are reflected by entries in the registration column of the new List, the problem may be referred to the I.F.R.B. by one or more interested countries for action in 'accordance with the procedures prescribed for the I.F.R.B.

## INTERNATIONAL RADLO CONFERENCE ATLANTIC CITY 1947

DOCUMENT NO. 656 R-E July 29, 1947

Committee 6

## United Kingdom

2564 R Comments on Resolution proposed by the United States in Document No. 622 R-E.

Page 1. Paragraph A:

Add at end of paragraph after "Committee 6"; the words "in order to make the list as complete as possible, those countries not participating directly in the Conference have also been asked to furnish similar information";

Reason: For completeness

Page 1. Paragraph B:

Re-word as follows:-

"These countries have agreed that the compilation of such a list is an essential prerequisite to ensuring that the requirements of all countrie's for frequencies will be adequately catered for when the new Atlantic City Frequency Allocation Table is implemented."

Reason; Editorial.

'Page 1. Paragraph D:

Add after "October 15, 1947," the words "and is expected to be published and circulated by January 1st 1948."

Reason: Time will be required for printing and circulation of list.

Page 2. Paragraph 6 line 2: Replace the words "October 1st, 1947" by the words "January 15th, 1948."

. 30 Juil. 1947

(656 R-E)

Reason: To give time for suitable arrangements to be made and for prior study of problem.

Paragraph 6 (a): Replace the words after "preparation of such list" by the following: "The engineering principles shall be based, among other things, on the technical regulations adopted by the Atlantic City Conference and full consideration shall be given to other relevant work done at the Con-The formulation of fèrence. the engineering framework shall be completed by 15th March 1948 and the new International Frequency List shall be completed by 15th November 1948."

Reasons:

(1) Editorial (2) The dates quoted above are con? sidered more appropriate.

Page 2. Paragraph 6 (b):

Re-word as follows:

"In preparing the new List the Commission shall give consideration to and shall adopt, as far as practicable, plans prepared by other international groups for specific services, provided that these plans provide for the utilization of frequencies allocated exclusively to the services con-cerned."

In order to give full Reason: weight to Service or Regional agreements.

Page 3. Paragraph 6 (c):

Add new sub-paragraph 6 (c) (3):

"The necessity to improve the

use made of the frequency spectrum in order to provide for the continuance of all existing circuits on a mutually satisfactory basis and, at the same time, to take into full account those circuits which were suspended because of the war and those that have been scheduled to come into operation within a reasonable time."

Reason: For clarity and to cater for circuits which have been put out of action due to war conditions, on the assumption that details of such circuits will be furnished on Forms 1 and 2.

Page 3. Paragraph 6 (c): Add new sub-paragraph 6 (c) (4):

Page 3. Paragraph 6 (e):

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"The need that provision be made for future development."

Reason: The maximum possible provision should be made for future development.

Replace by the following:

"The frequency assignment plan prepared by the High Frequency Broadcasting Conference shall be accepted by the Commission provided that all assignments are contained within the bands allocated for the service by the Atlantic City Conference and are in accordance with the General Regulations."

Reason:

It is suggested that the second sentence of this paragraph is not an appropriate directive to the Commission and should therefore be deleted.

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#### Page 3 Paragraph 8:

Replace by the following:

"Upon completion of the formulation of a List as described above, and not later than 15th January, 1949, the Bureau of the Union shall furnish all members of the Union with copies of the list prepared in accordance with the above procedure. The Special Conference for the consideration of this list shall be convened on 1st March, 1949."

Modification of dates to Reason: make these more appropriate.

Páge 4. Paragraph 10: Change the dates respectively to 15th November, 1948 and 1st March, 1949.

Reason:

Consequential on proposed amendments to dates in Paras. 6 and 8.

Page 4.

Paragraph 10: Add as final sentence to Paragraph 10:

> "During this period the Commission shall also give consideration to the precise procedure to be followed in order to give effect to the new list and shall make recommendations accordingly to the Special Conference.

It is considered de-Reason: sirable that the Commission should study this question.

Page 4. Paragraph 12: Replace by the following:

"The date upon which the new list shall become effective shall be the subject of a recommendation of the Commission to the Special Conference. In formulating this recommendation, the Commission

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will take into consideration the need for the implementation to be commenced as early as possible and not later than 1st September, 1949."

Reason: It is considered desirable that the Commission should'consider how best, and when, the new frequency list can be brought into practical effect.

Page 4. Paragraph 13 (a): Add after "Conference":

"But note shall also be made of the date notified in column 12 of the latest edition of the Berne List of Frequencies."

Reason:

Should subsequent changes prove to be necessary in the light of actual harmful interference, it is desirable that the original date of bringing a frequency into use should be taken into consideration.

Add new Paragraph 15:

"The Commission shall dissolve on the date when the new list is accepted and approved by the Special Conference unless that Conference should otherwise decide."

<u>Reason</u>:

To provide for the dissolution of the Special, Commission.

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Page 5:

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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Document No. 657 R-E

July 29, 1947

## Australia

2565 R	Draft Analysis of Allocation	
· · · · ·	Proposals above 30 Mc/s	

<u>REFERENCE</u>:- Document No. 502A R-E - Appendix II -Part C - Allocations which might be regionally agreed.

In Document No. 502A R-E, it is stated that the number of proposals put forward is insufficient to formulate suggestions for allocations in areas outside the European and American regions.

The Australian Delegation, therefore, submits the following proposal for the band 29.7 to 1600 Mc.

Band Mc/s	Band Width Mc/s	Allocation	Remarks
29.7-31.7 31.7-44	<u> </u>	AeNA Fx, Mob.	GEE Existing allocations to radio range and
	•		SBA to be protected as long as necessary. A 2Mc band may be
		•	required between 34.5 and 36.5 for AeNA (GEE). A 1.5
			Mc band may be required between 42 and 43.5 Mc for
44-50 50-54 54-68 68-70	6 4 14 2	Fx, Mob. Am B, Fx, Mob. AeNA	AeNA. GEE
70-78	8	Fx, Mob.	Provision to be made for world-wide agreed marker beacon band on 75 Mc
78-80 80-87 87-90	2 7 3	AeNA Fx, Mob. MNA	GEE
90-108	. 18	В	AeM (OR) to be permitted in 100-108 Mc until this requir- ed for B.

			(657 R-E)	
	Band Mc/s	Band Width Mc/s	Allocation	Remarks
	108-118 118-132 132-156 156-166 166-170	10 14 24 10 4	AeNA AeM AeMOR Fx, Mob. Am	
	170-178	8	AeNA	Temporary allocation - to revert to Fx, M, B, when not required by AeNA
	178-200 200-235 235-328.6 328.6-335.4	12 35 93.6 6.8	B,F <b>x,</b> M AeNA Fx, Mob. AeNA	DME World agreement for
	335.4-420 420-460	84.6 .40	Fx, Mob. AeNA	Glide path World Agreement for Altimeters
	460-470 470-550	10 80	Fx, Mob. B	Television - can go to 585
\	585-610 610-960 960-1215 1215-1295 1295-1600	25 350 255 80 305	AeNA B NA Am Fx, Mob.	Television World-wide agreement

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Document No. 658 R-E July 29, 1947

Committee 3

Correction

which only concerns the French document No. 649 R.

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#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

### Document No. 659 R-E July 29, 1947

Committee 6

2566 R

#### Proposal of the French Colonies

After studying Proposal 2258, R of the Delegation of the United States of America, which Committee 6, in its 10th meeting considered using as the basis for its subsequent discussions, the Delegation from the French Colonies submitted the following proposal for study by the said Committee.

I. - Order of Discussion: Before pursuing the study of Document No. 622 R-E, the Delegation from the French Colonies felt that item No. 4 on page 2 should first be examined.

Committee 6 had not been empowered to decide upon the expenses of the Union. Only the Flenipotentiary Conference could make decisions on this matter. It is, consequently, especially urgent so to inform it.

In fact, if these expenses were not approved, all the work accomplished as provided by Document No. 622 R-E would be nullified.

II. - Amendments proposed to Document No. 622 R-E.

Although reserving his opinion as to the dates of the program under consideration in Document No. 622 R-E, the Delegation from the French Colonies felt that paragraph 6 should be completed and modified as indicated below (in the phrases underlined):

6. The International Frequency List Committee shall not convene later than October 1, 1947. It shall operate under the following directives:

(a) Before undertaking the preparation of a new International Frequency List, the Committee shall determine, in the greatest possible detail, the engineering framework (principles, rules and procedures) to be applied in the preparation of such a list, giving appropriate consideration to the work done in this connection at the Atlantic City Radio Conference.

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In particular, all modifications of non-indispensable frequency assignments shall be avoided when the frequencies in use are already within the limits of the bands of the new distribution table. However, with a view to a better utilization of the radio spectrum, slight changes in individual assignments may be made within the band, provided that these changes do not exceed 3% of the original frequency. The engineering principles shall be based on the new bandwidth table, and also on the new tolerance table set forth in Column ...... of the Radio Regulations, adopted by the Atlantic City Radio Conference. The formulation of the engineering framework shall be considered completed not later than Dec. 15, 1947. In the course of preparing the new International Frequency List, some meetings may likewise be devoted, if occasion arises, to improving the principles previously set forth.

The new list must be completed by July 1, 1948.

#### \*\*\*\*

The Delegation from the French Colonies could see no necessity for replacing the notification dates of the Berne List by the nominal date of September 15, 1947. On the contrary, it believed that it would be useful, / in most cases, to keep open a possibility of obtaining an idea of the duration of use of frequencies and, likewise, of the value of the experience already acquired by the stations.

For this reason, it proposed modifying Para. 13 as. follows:

13. Assignments shall be entered on the new List in, bands set forth above in Para. 6 (d) with the following specifications:

A - For entries made by the Committee, in accordance with Forms 1 and 2, and approved by the Special Conference, the date applied shall be;

a) For each frequency which has kept, at approximately 1,000 kc/s as a maximum, its allocation in the present list, the date appearing in the Column of first notification in this list:

b) For all other frequencies, that of September 15, 1947.

<u>B</u> - For entries approved by the Special Conference and resulting from the assignment notices sent to the Bureau of the Union during the period from. September 15, 1947 to November 1, 1948, the date applied shall be that of November 1, 1948.

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D - Entries of notifications sent to the Bureau of the Union beginning November 1, 1948, shall be administered, as soon as the Special Conference ends, by the I.F.R.B. which shall decide the date as provided in its statutes. But in no event shall the date applied be prior to November 1, 1948.

### INTERNATIONAL ~ RADIO CONFERENCE ATLANTIC CITY, 1947

Document No. 660 R-E July 29, 1947

COMMITTEE 8

### SUPPLEMENTARY REPORT

### of the

"Q" Code Working Group to Sub-committee B of the OPERATIONS COMMITTEE (Committee 8)

July 29 , 1947

The Chairman Sub-committee B Operations Committee

I have the honour to report that the above Working Group has held a further meeting since the report dated 27th July 1947, and has been able to resolve some of the outstanding items omitted in that report.

It recommends to the Sub-committee the addition of the following "Q" code abbreviations together with the associated notes:

QTM What is my Your magnet- NEW magnetic ic bearing bearing from from me (or 425R/UK you (or from from) )? is degrees	Abbreviation	Question.	Answer	Remarks
a fill mours.	QTM	magnetic bearing from	ic bearing from me (or / from)	425R/UK s

(Requests for magnetic bearings are, in general, made only by aircraft)

30 Juil. 1947

	,	
Question	Answer	
Will you ind cate the mag ic course fo to steer tow you (or) no wind?	net magnetic r me bearing ards from me	
	1S	

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> ur gnetic NEW aring

> > 425R/UK

Remarks

(Requests for magnetic courses are, in general, made only by aircraft)

degrees

at hours

In order to emphasize the essential difference between QTE, QUJ and QTM, QUX it is recommended that the words "time" and "magnetic" where they appear in the significations of these signals, should be printed in heavy type block capitals.

The Group has also studied the propositions relating to Appendix 12 and recommends that the scales used in that Appendix to express the strength and legibility of signals should remain unchanged and be absorbed in the "Q" Code abbreviations in Appendix 11 as follows:

Abbreviation	Que	stion	Answei
QRK	What is ability	the read- of my	The readability of your signals
•		(or those )?	(or those of) is
	Training and a straining of the second	ter na nye viane na ka	(1. Unreadable
,	/		2. Readable now and then
			3 Readable, but
	. ,	, ·	with dif- ficulty
		· ·	4. Readable
		, ·	5: Perfectly readable)

Abbreviation

QUX

### Abbreviation

OSA

### Question

#### Answer

What f	s the	strength
of my	signal	is (or
those	of	)?

		stre		
0	ſу	our	sig	5-
na	als	(or	thc	se
0	Ê			)
i	3			<b>-</b> •
(:	1.	Scar	cel	у.
		$\mathbf{p} \in$	rce	ept-
			ole	
1		Weal		
	3.	Fair	ly	good .

4. Good 5. Very good).

Adoption of this recommendation will result in the standardization of the format followed in other "Q" Code abbreviations and also eliminate the need for reference to a separate table to complete the answers.

In regard to the special "FRAME" Code recommended in propositions 2131R/France and 1453R/Roumania, the Working Group considers this to be a matter that requires study. by engineers to review the suggested significations and to recommend required amplifications, additions and changes necessary to convey information essential to ensue the satisfactory functioning of communications equipment. Accordingly, it is recommended that the Chairman of Committee 7 be requested to give attention to these proposals, and if time permits, to designate an engineering group to study the matter and transmit its recommendations to Committee 8.

If such a Code is compiled, the Working Group recommends that it should be the subject of a separate appendix to the Regulations. It would be appropriate for such an Appendix to replace the present Appendix 13 which will disappear if these recommendations are adopted.

The present report terminates, the work given to the Group under its terms of reference, and it will not meet again unless it is decided by the Sub-committee to assign to it further problems.

> V. Dodd Chairman "Q" Code Working Group

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Document No. 661 R-E July 30, 1947

### CORRECTION

of Document No. 617 R-E (Minutes of the Third Plenary Session)

Page 5, last five lines, and page 6, first eight lines, read:

" Any government or a duly accredited delegation of any government may give a permanent or temporary mandate to the delegation of another country to vote in its place either for the duration of the Conference if such government cannot send a representative, or for one or more meetings when such country cannot be represented. In no case may one delegation dispose, of the votes of more than two delegations. However, the delegations of the United Kingdom and of the United States may vote for their colonies, protectorates and territories as a group."

1947_		~	<u><u>f</u></u>	or the band 2	5.01 to 31.7 Mc/s. Committee 5
Band (kc/s)	Band Width (kc/s)	General	Allocations Regional		Remarks
25010-25600	590	(a) FX (b) LM (c) MM		<b></b>	-
25600-26100	500 ·	В		- () tij	
26100-27500	1400	(a) FX (b) LM (c) MM	-	-	<ol> <li>A suitable frequency for I.S.M. to be selected within this band.</li> <li>Some proposals show a shared allocation for Amateurs within this band.</li> </ol>
27500-28000	500	-	European Region Met.	Other Areas (a) FX (b) Mob.	-
28000-29700	1700	AM		· _ ·	
29700-31700	2000		European Region, Australia, and territory of the U.S.S.R.outside the European Region AeNA	Other Areas (a) FX (b) Mob.	<ol> <li>The U.S.S.R. desires to use the band 29700-30000 kc/s additionally for AeM shared with AeNA.</li> <li>The U.S.S.R. desires to use the band 30,000-31,700 kc/s for NA in general.</li> </ol>

The Working Group desires to hear further expression of views in the Main Committee regarding the frequency to be selected for I.S.M. in the band 26100-27500 kc/s.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY

### Report of the Working Group of Committee 5 (Allocation of Frequencies)

# Document No. 662 R-E July 30, 1947

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document\_No.\_663\_B=E\_\_

July<sup>®</sup>30, 1947

Committee 7

Report of Subcommittee B of the General Technical Committee (Committee 7)

### Twenty Second Meeting July 29, 1947 3:30 p.m.

1. Document No. 616 R-E (report of the 18th meeting) was approved with the following changes:

Paragraph 3, line 11, replace the words: "the antennas are usually high in comparison to the wave length..." by: "The antennas are generally higher than the wave length corresponding to the harmonics...",

In the sub-paragraph dealing with the explanation given by the Delegate from Biolorussia (page 2, 3rd subparagraph of 3.), add after: "of the longer waves..." "(induction field)," and after: "500 - 1500 kc/s range": "(fading of the surface sky wave)."

2. Documents No. 627 R-E (report of the 19th meeting), No. 632 R-E (report of the 20th meeting), 644 R-E (report of the 21st meeting) were approved.

3. The <u>Chairman</u> then submitted the report of Subcommittee 7 B2 to the Subcommittee for comment, and drew attention to the fact that this report, which was drafted for the express purpose of answering questions put by Sub-Subcommittee 6 B2, was not a text intended for incorporation in the Regulations.

4. Various technical points in this report gave rise to an exchange of views between <u>Mr. Van Duuren</u>, Chairman of Sub-Subcommittee 7B2, the Delegates from <u>France</u>, the <u>United States</u> and the <u>Chairman</u> speaking on behalf of the <u>United Kingdom</u>. Following an objection made by the Delegate from France, the following sub-paragraph was added at the end of the "comments" appearing in paragraph 6: "In the above-mentioned examples, frequency tolerances have been added to one another in order to take into consideration the fact that in the case of high stability

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transmitters, periods during which the frequency difference is at the lowest point, may be of long duration; this view may be modified in the case of low stability transmitters when a factor of probability may be included."

5. Thereupon the report was approved by the Subcommittee. The <u>Chairman</u> thanked the chairman and members of Subsubcommittee 7 B2 for the excellence of the work accomplished; Dr. Llewellyn was especially commended for his very important contribution to the achievements of this Sub-subcommittee.

6. The Chairman announced that the work of Subcommittee 7B was now completed. He thanked the members of the Subcommittee for their splendid collaboration, and remarked that he hoped the results achieved in this Subcommittee would prove satisfactory.

The Chairman also expressed thanks to the rapporteurs for their excellent work and unremitting attention.

7. The Delegate from India emphasized the difficulties attending the work of the Subcommittee, and declared that this work could not have been accomplished without the ability and conciliatory spirit displayed by Mr. Hecht; before dispersing, the Subcommittee heartily applauded its Chairman.

Rapporteurs:

The Chairman:

C. Mercier S. Jefferson N.F.S. Hecht

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 664 R-E

July 30, 1947

Committee 5

Report of the Working Group of Committee 5 on special points relating to the band 2.85 - 25 Mc/s.

1. The Working Group's terms of reference, given in the minutes of the 15th meeting of Committee 5 (Document 572 R), were to re-examine the question of the allocation of the band 14-14.4 Mc/s., with a view to placing before the Committee a compromise proposal that would be generally acceptable, and to endeavor to reach a compromise regarding the particular question of the U.S.S.R.'s demands for their fixed services, which were unacceptable to all the maritime nations, taking account, in both cases, of the views expressed at Committee 5, and consulting, where it appeared that this might be useful, countries which had expressed strong views on these questions.

The Working Group has held several meetings and has discussed these questions at considerable length, taking account of the views expressed at Committee 5. The two problems appear to be inter-related in view of their effect on the fixed service.

2. Taking account of the balance of views expressed, there appeared to be considerable weight of opinion both for retaining the present 14 Mc/s amateur allocation and for making a reduced allocation. The Working Group dis- ' cussed various compromise figures without finding an acceptable solution, but agreed that some reduction in the amateur band appeared to be the only possible solution in ' order to obtain world-wide agreement.

3. In discussing the maritime mobile/fixed service problem, the special difficulty lay in accommodating the requirements for the fixed service expressed by the U.S.S.R. and certain other countries. The Working Group agreed on a note applicable to the 8 Mc/s and 16 Mc/s maritime mobile band. This note which appears in Annex I was also agreed as suitable for application to the 12 Mc/s band but a solution was not reached in this band due to differing points of view as regards the band width over which this note would apply. The divergence lay between 420 and 200 kc/s.

## (664 R-E)

Agreement on the application of the note for the 8 Mc/s and 16 Mc/s bands was dependent, as regards the U.S.S.R., on agreement being reached in the 12 Mc/s band, and also on a satisfactory solution of the difficulty in the Amateur band, for which the U.S.S.R. proposal is either:-

- (a) 300 kc/s exclusive for amateurs on a worldwide basis and 100 kc/s for Fixed, or
- (b) 250 kc/s exclusive for amateurs, 100 kc/s shared in the U.S.S.R. with Fixed, and 50 kc/s exclusive Fixed.

4. The Working Group's discussions included consideration of the following alternative suggestions relating to the maritime mobile bands:-

(i) Document 543 R as a whole, and in particular Notes 6, 8 and 9 and the footnote marked with an asterisk,

 (ii) On the one hand, modifying notes 6, 8 and 9 shown in Document 543 R to apply the principle of mutual non-interference to the non-exclusive portions of all three bands,

On the other hand, dividing the maritime mobile bands into exclusive and non-exclusive portions and separating each of the non-exclusive portions into two sections, each of these two sections being governed by a different note,

The figures under this suggestion would be as follows:-

8	Mc/s	420	MM_exc	1. 80	ΜM	sha	ared	with					
	· .				in	U.S	3.S.I	۲.		Ŭ,	5.5	5.R	(0)
12	Mc/s	450	MM 11	220	wi MM	th ľ	Vote	(1)		200 200	Lth MM	not	e (2)
16	Mc/s	600	MM "	100	MM	11	11	11	· .	200	MM	11	11

The wording of the note (1), referred to is that shown in Annex I (extending its application also to the 12 Mc/s band).

> In the U.S.S.R. this portion of the band would be used for fixed service without obligation as regards interference.

.9826

Note (2):

(iii) Modifying the portions of the plan adjacent to the three maritime mobile bands in order to make wider use of bands shared world wide between maritime mobile and fixed services.

3 (664 R-E)

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١ (Note: This suggestion is shown in Annex'II). .

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(664 R-E)

### ANNEX I

### Note drafted as a replacement for Notes 6 and 9, Document 543 R.

"Between 8615 and 8815 kc/s, and 17160 and 17360 kc/s, the U.S.S.R. will meet their special requirements for the fixed service with due regard to technical provisions (power, location, antenna, etc.) with a view to minimizing the possibility of harmful interference with the maritime mobile service. Coastal stations in the maritime service will also have due regard to technical provisions (power, location, antenna, etc.) with a view to minimizing the possibility of harmful interference with the fixed services in the U.S.S.R. The I.F.R.B. will be consulted regarding these arrangements." (664 R-E) ANNEX II

#### •

### Plan suggested by France

1. There appears to be very considerable difficulty in reaching unanimous agreement on the width of the bands to be allocated exclusively to the maritime mobile services, in the bands 8-10 Mc/s, 12-16 Mc/s, and 16-20 Mc/s. This difficulty arises from the need to meet the maritime mobile requirements, and from the requirements of a certain number of countries for their fixed services.

2. It is suggested that an equitable solution lies in sharing some bands between maritime mobile and fixed services, and the following rearrangements are proposed:-

(i) to take a portion 200 kc/s wide from each of the three bands shown in the Working Group's Report Document 543 R, as allocated to the maritime mobile service, and to join this portion to a similar portion 200 kc/s taken from the nearest Fixed Service band, thus providing a total portion 400 kc/s wide adjacent to the exclusive maritime mobile allocations in the three bands 8-10 Mc/s, 12-16 Mc/s and 16-20 Mc/s.

(ii) To regard the total of 400 kc/s thus obtained, in each of the three bands, as shared between maritime mobile and fixed services.

On this basis, the allocation plan shown in Table II is suggested.

3. This rearrangement is acceptable, so far as allocations to be made to the maritime mobile service are concerned, to France, the United Kingdom, and the United States.

4. The following table shows a comparison between the proposed rearrangement and the allocation under the General Radiocommunication Regulations of Cairo between 8 and 20 Mc/s. It indicates that there would be no increase but, instead, a slight reduction of the bands available to the maritime mobile service:-

#### TABLE I

	MM Exclusive	FX, Mob.	FX, MM
Cairo	1750	1365	
French Proposal	1790•	•	1200

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ľ	ABLE	ΊI

Band (kc/s)	Bandwidth	Allocation
8195'-8615	420	MM
8615-9015	400	FX, MM
9015-9240	225	AeM
9240-9500	260	FX
v 9500 <b>-9</b> 775	, 275	·B
9775-9995	220	FX
9995-10005	10	SFB
10005-10100	95	• AeM
10100711175	1075	FX
11175-11400	225	AeM
11400-11700	300	FX
11700-11975	275	В
11975-12330	355	FX
12330-13000	- 670	( MM
13000-13400	400	FX, MM
13400-13560	-160	AeM
13560-14000	440 '	FX
14000-14350. (	350	Am
14350-14990		FX
14990-15010	20	SFB
15010-15100-	- 90	AeM )
15100-15450	350 .	. В
15450-16460	1010	FΧ
16460-17160	700	MM
17160-17560	• 400	FX, MM
17560-17700	140	FX
Contract of the second s	· · · · · · · · · · · · · · · · · · ·	

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 665 R-E

July 30, 1947

(This document replaces 322 R-E of June 11, 1947)

### INTERNAL REGULATIONS of the INTERNATIONAL RADIO CONFERENCE AT ATLANTIC CITY, 1947

Amended by third plenary session July 22, 1947

### Article 1.

#### DEFINITIONS

1.7 The term "delegation" refers to the representatives of governments and private operating companies certified by their respective governments as constituting the delegation of the country. Delegations may be composed as follows:

a. "Delegates" who are designated as such by their respective governments.,

b. "Technical advisers" who are other governmental officials appointed by their governments as advisers to the delegates.

c. "Representatives" who are officials of private operating agencies recognized and certified by their respective governments as forming part of the delegation or as attached thereto.

2. The term "observers" is applied to representatives of international organizations who have submitted applications to attend the Conference, and whose applications have been approved by plenary assembly of the Conference.

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- 3 Août 1947

### Article 2

(665 R-E)

#### ADMISSION TO THE CONFERENCE

S1. As a general rule, only members of delegations may take part in the work of the Conference.

\$2. The first plenary session shall decide upon the admission of "observers" from international organizations, and shall determine the extent to which they may participate in the work of the Conference.

#### Article 3

### PARTICIPATION OF PRIVATE GROUPS

Associations, groups or individuals may be authorized by the plenary session or by the committees concerned to present petitions, recommendations or comments to the plenary session or the appropriate committees. However, their representatives shall take part in discussions only to the extent deemed proper by the chairman of the plenary session or of the committee concerned.

#### Article 4

#### OPENING SESSION

The first plenary session shall be opened by a representative of the country organizing the conference.

#### Article 5

SELECTION OF THE CHAIRMAN AND THE VICE-CHAIRMAN

The Chairman and the Vice-Chairman shall be selected at the first plenary session.

#### Article 6

#### GENERAL SECRETARIAT

The first plenary session shall appoint a General Secretariat of the Conference consisting of employees of the Bureau of the Union and if necessary, of employees of the administrations which are parties to the Convention.

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### Article 7

### AUTHORITY OF THE CHAIRMAN

(1) The Chairman shall open and close the plenary sessions, conduct the discussions and announce the results of votes.

(2) Moreover, he shall have general direction of all the work of the Conference.

#### Article 8

#### APPOINTMENT OF COMMITTEES

The plenary session may establish committees to carry on the work of the Conference and submit questions to them for study. These committees may appoint subcommittees or sub-subcommittees.

#### Article 9

### MEMBERSHIP OF COMMITTEES

S1. The committees shall be composed of members of delegations of contracting governments and of representatives appointed in plenary session. Any contracting government interested in a question considered by a Committee shall have the right, if it so desires, to participate in the work of such committee. Any committee or subcommittee may vote for the creation of a small working group.

\$2. Operating companies, international organizations and groups, associations or individuals may take part in committee meetings under the conditions prescribed in Articles 2 and 3 respectively.

#### Article 10

#### CHAIRMEN, VICE-CHAIRMEN AND RAPPORTEURS OF COMMITTEES AND SUBCOMMITTEES

S1. The Chairman shall propose for ratification by the plenary session the selection of chairmen and vice-chairmen of committees.

\$2. The Chairman of each committee shall propose to his committee the names of rapporteurs and subcommittee officers as may be required.

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### <u>Article 11</u>

#### MINUTES OF PLENARY SESSIONS

S1. The minutes of plenary sessions shall be drafted by the General Secretariat.

\$2. (1) As a general rule, the minutes shall include only proposals and conclusions, with the principal reasons relative thereto, in concise form.

(2) However, any member of a delegation shall have the right to require the insertion in the minutes of any statement he has made, either verbatim or in substance, but in such case he must himself furnish the text to the secretariat, no later than two hours subsequent to the plenary session. It is recommended that this right be used with discretion.

### Article 12

### REPORTS OF COMMITTEES

\$1. (1) The discussions of committees shall be summarized, session by session, in reports in which shall be brought out the essential points of the discussions, the different opinions expressed which it is necessary that the plenary assembly should know, and finally, the proposals and conclusions which stand out from the proceedings as a whole.

(2) Any member of a delegation shall have the right, however, to require the insertion in the report of any statement he has made, either verbatim or in substance. In such case, he must himself furnish the text to the rapporteur within two hours subsequent to the committee session. It is recommended that this right be used with discretion.

\$2. The reports must be approved by the committees concerned.

#### Article 13

#### ADOPTION OF MINUTES AND REPORTS

\$1. (1) As a general rule, at the beginning of each plenary session or committee meeting, the minutes or, as the case may be, the report of the preceding session shall be read.

(2) However, the Chairman may, when he deems such procedure satisfactory, and when no objections are made, confine himself to asking the members of the meeting whether they have any comments to make regarding the contents of the minutes or, as the case may be, of the report.

(665 R-E)

\$2. Thereupon the minutes, or the report, shall be adopted or amended according to the comments which have been made, as approved by the session.

83. The minutes of the closing plenary session shall be examined and approved by the Chairman of that session.

### Article 14

#### INVITATIONS TO MEETINGS

Plenary sessions or committee meetings shall be held pursuant to announcement by the respective chairmen, either by letter or by notice posted at Conference headquarters.

### Article 15

### ORDER OF SEATING

In plenary sessions the delegations shall be seated according to the alphabetical order of the names of the countries represented.

### Article 16

### ORDER OF DISCUSSION

\$1. Persons desiring to speak may take the floor only after having obtained recognition from the Chairman. As a general rule, they shall begin by announcing the name of their country or organization.

\$2. Any person having the floor must express himself slowly and distinctly, separating his words well and making frequent pauses, so as to make it possible for all his colleagues to understand his meaning clearly.

### -6-(665 R-E)

### Article 17

### PROPOSALS SUBMITTED IN PLENARY SESSIONS DURING THE COURSE OF THE CONFERENCE

\$1. In plenary sessions, any authorized member of a delegation may read or request the reading of any proposal or amendment submitted by him during the course of the conference, and be permitted to state the reasons therefor.

\$2. No proposal or amendment, submitted either before the conference or under the conditions indicated in the preceding paragraph, shall be submitted either for discussion or voting unless it is countersigned or supported by at least one delegation.

### Article 18

#### PROPOSALS SUBMITTED IN COMMITTEE MEETINGS DURING THE COURSE OF THE CONFERENCE.

\$1. Proposals and amendments submitted after the opening of the Conferences must be transmitted to the Chairman of the Conference for assignment to the competent committee.

S2. Every proposal or amendment must be submitted by the author in the final form of the text desired to be inserted in the body of the documents.

§3. When a proposal or an amendment has been reserved or when its examination has been postponed, the delegation sponsoring the proposal must see to it that it is not lost sight of subsequently.

#### Article 19

#### VOTING AT THE ATLANTIC CITY RADIO CONFERENCE

\$1. Solely for the Plenary Session of the Atlantic City Radio Conference and without such arrangement constituting a precedent, the countries or groups of countries listed below which participate in this conference shall be entitled to one vote: \*

-7- (665 R-E)		
1. Afghanistan	35.	Colonies, Protectorates,
2. Union of South Africa		Overseas Territories &
and territory under		Territories under the
mandate of South-west		suzerainty or mandate
Africa	•	of Great Britain
	36	Southern Rhodesia
5 Ancontino	24.	Greece . Guatemala
5. Argentina 6. Australia		
	72.	Haiti Honduras
7. Austria		
		Hungary
		India
	11 Ju Ju Ju Ju Ju Ju Ju Ju	Iraq Iran
·10. Bielorussia	45.	Ireland
11. Burma	40.	Iceland Italy
12. Bolivia	47.	Trath
13. Brazil	48.	Lebanon Liberia
14. Bulgaria	49:	Liberia
15. Canada 16. Chile	50.	Luxenbourg.
16. Chile	51.	Mexico
17. China	52.	Monaco
18. Vatican City		Outer Mongolian People's
19. Colombia		Republic
20. Costa Rica	54.	Nicaragua
21. Cuba		Norway
		New Zealand
23. Dominican Republic		Panama
24. Egypt	É8	Paraguay
25. Salvador	50	Netherlands
26. Ecuador		Netherlands Indies
27. United States of		Peru
America	60	Dhilinning
28. Territories of the	62.	Philippines Poland
United States of		Portugal
America	65.	Portuguese Colonies
29. Ethiopia		Roumania
		Siam
31. France		Sweden
		Switzerland
rates & Overseas		Syria
Territories under		Czechoslovakia
		Turkey
	7 <b>3</b> •	Ukraine
of Morocco and Tunisia	74.	Union of Soviet
34. United Kingdom of Great		Socialist Republics
	75.	Uruguay
		Venezuela
		Yemen
		Yugoslavia
· · · · · ·	• • •	

\*) Representatives of SCAP (for Japan) USAFIK (for Korea), and ACC (for Germany) may attend the conference, in a non-voting capacity.

S 2. Any government or a duly accredited delegation of any government may give a permanent or temporary mandate to the delegation of another country to vote in its place either for the duration of the Conference, if such government cannot send a representative, or for one or more meetings when such country cannot be represented. In no case may one delegation dispose, of the votes of more than two delegations. However, the delegations of the United Kingdom and of the United States may vote for their colonies, protectorates and territories as a group.

#### Article 20. VOTING IN PLENARY SESSIONS

In plenary sessions, no proposal or amendment shall be adopted unless it is supported by an absolute majority of the votes cast. In case of tie, it shall be considered rejected.

#### Article 21. ADOPTION OF NEW PROVISIONS

S 1. As a general rule, delegations which cannot have their opinion regarding a provision accepted by the others must endeavor to adopt the opinion of the majority.

**S** 2. However, if the measure proposed appears to a delegation to be of such a nature as to prevent its government from ratifying it, the delegation may express its formal refusal (final or provisional) by making a reservation as to such measure.

#### Article 22.

### VOTING PROCEDURE IN PLENARY SESSIONS

S 1. In plenary sessions, each proposal or amendment shall be submitted to a vote after discussion.

S 2. Voting shall take place by a show of hands. If the majority is not clearly apparent, even after a second test, or if an individual count of the votes is requested, there shall be a formal roll call in the alphabetical order of the names of the delegations. Article 23

(665 R-E)

### RIGHT OF VOTE IN COMMITTEES

In committees, opinions shall be given by the delegation members of the committee concerned, and such delegations shall have the right to vote in accordance with the provisions of Article 19.

#### Article 24

#### DRAFTING COMMITTEE

\$1. After the text of the regulations has been drafted as nearly as possible in final form by the committees, it shall be submitted to a drafting committee charged with. perfecting the form thereof without modifying the meaning.

§2. The complete text, after having been properly edited, shall be submitted to the Plenary Assembly for consideration on a first reading.

### Article 25

#### FINAL APPROVAL

The vote of the conference shall be final only after a second reading of the complete set of regulations, followed by its approval.

#### Article 26

#### NUMBERING

S1. The numbering of chapters, articles, paragraphs, etc., of the documents submitted for revision shall be reserved until the first reading of the plenary session. The texts added shall bear provisionally the numbers bis', ter, etc., and the numbers of the deleted texts shall not be used.

§2. The final numbering of chapters, articles, paragraphs, etc., shall be entrusted to the drafting committee, after their adoption following the first reading.

### Article 27.

-10 - (665 R-E)

#### SIGNATURE

The documents resulting from the deliberations at the conference shall be submitted for signature to the delegates provided with the necessary powers, following the alphabetical order of the names of the countries.

### Article 28.

### PUBLICITY

S 1. Sessions of the conference and its committees shall be public unless otherwise decided by the body concerned.

\$ 2. Official statements to the press concerning the work of the conference shall be issued only as directed by the Chairman of the conference.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 666 B-E July 30, 1947

Committee 8

Texts to be presented to Committee 8 (Operations) by Subcommittee A (General)

Articles 3

11 12 13.

Appendix 5.

#### Article 3.

#### LICENSE

§ 1. (1) No transmitting station may be established or operated by a private person or by any enterprise without a license issued by the Government of the country to which the station in question is subject.

(2) Mobile stations which have their place of registry in a colony, a territory under suzerainty or mandate, an overseas territory or a protectorate, may be considered, as regards the grant of licenses, as subject to the authority of this colony, these territories or this protectorate.

S 2. The holder of a license is required to preserve the secrecy of telecommunications, as provided in Article 24 of the Convention. Moreover, the license must provide that the interception of radiocommunication corres-

Modified. To review after the drafting of the definitions.

No change

Modified

pondence, other than that which the station is authorized to receive, is forbidden, and that in the case where such correspondence is involuntarily received, it must neither be reproduced nor communicated to third parties, or used for any purpose, and even its existence must not be disclosed.

§ 3. In order to facilitate the verification of licenses issued to mobile stations, there shall be added when necessary to the text written in the national language a translation of the text in a language widely used in international relations.

§ 4. The government which issues a license to a mobile station mentions therein in clear form, the particulars of the station, including the call sign, name and public correspondence category of the station, and the general characteristics of the main and, if appropriate the emerg ncy (.eserve) installations.

### Article 11.

- 2 -(666 R-E)

### Authority of the Master.

276 <sup>8</sup> 1. The service of a mobile station is placed under the supreme authority of the master or of the person responsible for the ship, aircraft, or any other vehicle carrying the mobile station.

277 § 2. The person holding this authority must require the operaturs to comply with these Regulations.

278 § 3. The master or the person responsible, as well as all persons who may have knowledge of the text or even of the existence of the radiotelegrams, or of any information whatever obtained Modified

No change

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No change

Modified

No change

No change

by means of the radiocommunication service, are placed under the obligation of observing and ensuring the secrecy of Correspondence.

(666 R-E)

### Article 12.

### Inspection of Mobile Stations.

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S 1. (1) The Governments or appropriate Administrations of countries where a mobile station calls may require the production of the license. The operator of the mobile station, or the person responsible for the station, must facilitate this examination. The license must be kept in such a way that it can be produced without delay. The license of a copy certified by the authority which has issued it, should as far as possible be permanently exhibited in the station.

(2) The inspectors must have in their possession an identity card or badge, issued by the competent authority, which they must show on request of the master or his deputy.

(3) When the license cannot be produced or when manifest irregularities are observed. Governments or Administrations may inspect the radio installations in order to satisfy themselves that these conform to the conditions imposed by these Regulations.

No change.

No change.

Modified.

Modi ied.

Modified.

282

(4) . In addition, inspectors have the right to require the production of the operators! certificates, but proof of professional knowledge may not be demanded.

283 § 2.(1) When a Government or an 'No change. Administration has found it necessary to adopt the course indicated in 281,

or when the operators' certificates cannot be produced, the Government or Administration to which the mobile station in question is subject must be so informed without delay. In addition, the procedure specified in Article 13 is followed when necessary.

(666 R-E)

(2) The Government or Administration official who has inspected the station must, before leaving it, communicate the result of his inspection to the master or to the person responsible (see 276).

§ 3. The Contracting Governments undertake not to impose upon foreign mobile stations which are temporarily within their territorial waters or make a temporary stay in their territory, technical and operating conditions more severe than those contemplated in these Regulations. This in no way affects arrangements which are made under international agreements relating to maritime or air navigation, and which are not covered by these Regulations.

### Article 13.

Reports of Infringements.

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§ 1. Infringements of the Convention or Radiocommunication Regulations are reported to their Administration by the control organization, stations, or inspectors detecting them. For this purpose they use forms similar to the specimen given in Appendix 5.

§ 2. In the case of a station committing serious infringements, representations relating to them must be made to the Administration of the country to which the station belongs by the Administrations which detect them.

### Modified.

Modified.

No change.

Modified. To review after Committee 7's conclusion on Proposal 2215 R/F.

No change.

No change.

S<sup>(3)</sup>. If an Administration has information of an infringement of the Convention or Radiocommunication Regulations, committed in a station which it has authorized, it ascertains the facts, fixed the responsibility, and takes the necessary measures.

288

# (666 R-E)

#### APPENDIX 5

Report of an infringement of the Tele-, No change. communications Convention or of the Radiocommunication Regulations (See Articles 12, 13 and 22) Modified To review after the decision of Committee 7 Particulars concerning the station in-No change. fringing the Regulations. 1. Name, if known (in printed letters) (Note (a)) No change. 2. Call sign (in printed letters) . . . . . . . . . . . . . . No change. 3. Nationality, if known No change. . . . . . . . . . . . . . . . . 4. Frequency used (kc/s)..... No change. 5. Type of emission (Note(b) ) No change. . . . . . . . . . . . Particulars concerning the control or-ganization, staticn, or inspection service Modified. To review reporting the irregularity . after decision of Committee 7 6. Name (in printed letters) No change. . . . . . . . . . 7. Call sign (in printed letters) No change. 8. Nationality ••••• No change. .9. Approximate position (Note c) No change. Details of the irregularity 10. Name (Note (d)) of the station in communication with the station committing the infringement 

No change.

11. Call sign of the station in communication with the station committing the infringement No change. 12. Time (Note (e)) and date No change. 13. Nature of the irregularity (Note (f)). No change. 14. Extracts from log and other docu-No change. ments supporting the report (to be continued on the revers of the form, if necessary) To add new section pending upon decision of Committee 7. (Proposals 1441R/ F., 1443 R/F.

(666 R-E)

15. Certificate:

I certify that the foregoing report gives, to the best of my knowledge, a complete and accurate account of what took place.

I also certify that the receiver employed is of a type equivalent to the best type used in current practice in the service in question (this last sentence must be crossed out when the complaint is not about an interference, or when the receiving station is not subject to the Administration transmitting the report of infringement).

New. To review after decision by Committee 7.

and 2264 R/F.)

No change.

Date.....19...( )...... No change.

(X) This report must be signed by the Modified. operator who has reported the infringement, and countersigned by the master of the ship or aircraft, or by the officer in charge of the station in case of an infringement reported by a station of the mobile service.

When the report originates from a control organisation or from an inspection service it must be signed by the head of that organisation or service and countersigned by an official of the administration transmitting it.

- 8<sup>-</sup>-(666 R-E)

Instructions for Filling in This Form:

Note a) Each report will refer only to one station (see Note d)

Note b) Al A2 A3 or B

Note c) Applicable to ships and aircraft only; must be expressed either in latitude and longitude (Greenwich) or by a true bearing and distance in nautical miles or in kilometers from some well-known place.

- Note d) If both communicating stations infringe the Regulations, a separate report shall be made for each one of these stations.
- Note e) Must be expressed by a group of four figures (0000 to 2400) Greenwich mean time (G.M.T.). If the infringement covers a considerable period, the times must be shown.

Note f) A separate report is required for each irregularity, unless they have obviously all been made by the same person, and have occurred within a short\_time. All reports must be forwarded in duplicate and, when practicable, must be typewritten.(Indelible pencil and carbon paper may be used).

### For use of Administrations Only

1. Company Controlling the installation of the station against which complaint is made. New. To review ` after the decision of Committee 7.

#### Modified.

To review after decision by Committee 7.

No change.

No change.

No change.

No change.

No change.



2. Name of operator of the station held No change. responsible for the infringement of the Regulations.

No change.

3. Action taken . . .

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

July 30, 1947

Committee 7

Report

Subcommittee C of the General Technical Committee (Committee 7)

> Ninth Meeting July 26, 1947

1. The meeting was called to order at 10:05 a.m., by the Chairman, Dr. J. H. Dellinger.

2. The reports of the preceding meetings were discussed. The delegate from the <u>United States</u> pointed out that in the report of the sixth meeting, document 564 R-E, paragraph 12, the sixth word from the end of the paragraph should read "monitoring." The reports of the sixth meeting were approved.

3. The minutes of the seventh meeting, document No.600 R-E were then discussed. In order to bring the French text into about with the English text it is necessary to renumber paragraphs in the French document as follows:-

The second paragraph No. 14 becomes No. 15, No. 15 becomes No. 16, etc., up to No. 23 which becomes No. 24. The existing No. 24 must be deleted.

In paragraph 26 the delegate from <u>Belgium</u> asked to change the third line to become, "international monitoring stations specializing in certain types of measurements such as"

In paragraph 18 the delegate from 'the <u>United Kingdom</u> believes that the term "minimum standard" should be replaced by "maximum standard." The matter will be brought up at the next meeting.

4. In the minutes of the 8th meeting, document No. 601 R-E read in paragraph 11 "of an engineering."

In paragraph 14 read "expenditure here and whether the observation" and "by private organizations and others"

In paragraph 16 read "studies be not limited"

In paragraph 17 read "include reflection phenomena"

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31 Juil 1947

In paragraph 18 read "advise and should coordinate research by various nations" In paragraph 21 read "countries to make reservations"

(667 R-E)

The delegate from <u>Switzerland</u> requested that his remarks in paragraph 17 be amended to read

"that any activity of telecommunications administrations regarding propagation etc." and "research without practical purposes is not interesting etc."

The delegate from <u>France</u> stated that the French translation of one of the appendices contained inaccuracies. He will provide corrections for these-

#### The minutes were then approved.

5. In the consideration of the report of the 5th meeting, document 544 R-E, the delegate from the United Kingdom pointed out that paragraph 19 should read "to send all of their reports."

#### The reports were then approved.

6. The delegates from the <u>United Kingdom</u> and from <u>Peru</u> presented two documents to be appendices to the reports of this meeting.

7. The meeting then began consideration of the agenda. The delegate from the <u>United States</u> presented an amendment of paragraph 19, Document No.' 518 R-E. The amendment is as follows:

#### Standard Frequency and Time Broadcast

1. The contracting states recognize that a standard frequency broadcast service available in all parts of the world is essential for the efficient operation of the world's radio service and functioning of several activities of the I.T.U. The addition of time signals superimposed on these same broadcasts is also highly useful and should be included, if possible.

2. To this end, the contracting states shall endeavor to provide a coordinated system for the dissemination by radio of standard frequencies. As regards time signals, contact will be established with the international organization or organizations which deal with the question of the transmission of time signals so as to bring about the necessary coordination between these two services.

- 3 -(667 R-E)

3. With a view to determining the technical means appropriate for realization of the objective defined above, the C.C.I.R. is directed to establish a committee on Standard Frequencies and Time Signals whose duties shall be to:

- 1. (a) Recommend to administrative conferences such action as is necessary to implement the provisions of paragraph 2 of this article.
  - (b) Coordinate and continue to study the operations and results of such a system.
  - (c) Recommend further improvement in its utility and accuracy.
- 2. In cooperation with the International Committee of Time and other competent international organizations having a direct and substantial interest in this subject, examine suitable methods of assuring the complete coordination of the various standard frequency and time signal transmissions."

He considers that this amendment should bring together the different views expressed heretofore and does not alter the principle expressed in the Italian proposal.

8. The Delegate from <u>France</u> proposed separating the United States proposal into two parts. Paragraphs 1 and 2 as subject matter for annex or protocol or the regulations. Paragraph 3 would become a proposed directive to C.C.I.R. He also proposed that Subcommittee 7C and Committee 7 should reach agreement on the subject matter and then refer recommendations to Committee 3 which is now studying the statutes of I.F.R.B. and C.C.I.R. and is the only body which can coordinate their activities.

9. The Delegate from the <u>United Kingdom</u> stated that he would agree to the inclusion of the proposal in the Regulations but would prefer to see it as a protocol.

# (667 R-E)

10. The <u>Chairman</u> also suggested similar treatment for the subjects of Monitoring and Propagation.

11. The Delegate from <u>Belgium</u> reminded the members that it had been proposed that a member of Committee 3 should attend meetings of Committee 7C during discussion of these items.

12. The Chairman asked all members of 7C to invite members of Committee 3 to attend the next meeting of 7C.

13. The United States expressed preference for the inclusion of these articles in the Regulations. The United <u>Kingdom</u>, <u>France</u> and <u>Belgium</u> express preference for protocol treatment. The <u>Chairman</u> suggested to send the articles to Committee 3 and to request Committee 3 to decide where to put them. This procedure was agreed to.

14. The Delegate from <u>New Zealand</u> read the following statement:

## "NEW ZEALAND STATEMENT REGARDING SECTION 1 OF ARTICLE 11.

As mentioned in the third meeting of this Committee and recorded in the minutes in paragraph 30 of page 8 of Document No. 518 R-E, this delegation considers that a more definite statement should be made of the objects of the proposed co-ordinated system of standard frequencies.

This brings up the distinction between various functions which might come under the general description of a co-ordinated system for standard frequencies or time signals. To summarise the previously expressed views of this delegation, it is desired to put forward the following points. They are in accordance with the principles advanced in the first meeting of this conmittee and subsequently referred to several times, namely that this delegation supports this activity, and the associated ones of monitoring and ionospheric work insofarbas such work is required to assist in the objects of the Telecommunications Union, but not to any further degree. In this connection, it is desired to bring under notice the different functions which may or may not be admitted as objectives in the article in question. They fall under -three headings.

(1) Co-ordination could apply to standard frequencies transmitted for the purpose of assisting contracting states in their work of controlling and regulating radio communication in accordance with the international regulations. This object also implies the initiation of action to ensure adequate and efficient service.

(667 R-E)

(2) Co-ordination of transmissions required in addition to those mentioned in "(1)" above, in order to meet the requirements of other authorities who employ standard frequency broadcasts, time signals, etc.

(3) Co-ordination purely from the "radio regulation" aspect: Just as other services have to rationalize the use of frequencies, it is appropriate for the agencies of the Union to do so on an international scale in regard to standard frequencies and time signals, as a function separate from that mentioned in "(1)" above. The function of the Union under this keading would be in accordance with its rights and responsabilities to bring about co-ordination, as may be desirable, in any services for any purposes which require the use of radio frequencies.

Referring to "(2)" above, under this heading the co-ordinating function appears a correct one for the Union but the promotion of the service or its extension or any decisions regarding its adequacy are considered to fall distinctly outside the responsibility of the I.T.U., and should not be included in the objectives of the proposed article. In "(3)" it is considered the Union should assume full responsibility in regard to standard frequency broadcasts and time signals. In the opinion of this delegation, therefore, paragraphs "(1)" and "(3)" above provide the objectives which should be stated in the introductory part of the proposed item. The suggested wording is:

"In order

(1) to provide contracting states with standards of reference of frequency, and time, for the purpose of assisting them in the administration of the Radio Regulations

and (2) to effect the maximum economy in the use of the radio frequency spectrum in meeting the requirements of all users of standard

9864'

frequencies and time signels, .....(then follows the proposed paragraph commencing "The contracting states shall endeavour to provide a co-ordinated system)."

(667 R-E)

The delegate from France stated he preferred the 15. United States draft and did not see the necessity for the statement regarding the maximum economy of spectrum space. Much discussion developed and the principle was adopted that because of the possible expansion of the services rendered by Frequency Standard Broadcasts and Time Signals, of the probable increase in the number of users of these services and of the types of services which may be required by these users, attention must be drawn now to the control or co-ordinating power to be exercised by bodies of the I.T.U. over these services and to the use of the spectrum for these services. Consideration was then given to modifying the U.S.A. proposal to conform with the principle developed by the New Zealand proposal (See in annex the suggested text).

16. The delegate from the <u>United Kingdom</u> drew attention to the fact that there now is contact between the Radio and Time Signal authorities and that due care should be given to the wording of the proposal in this respect.

17. As time for adjournment was approaching it was decided to form a working group composed of delegates from Italy, United States, China, United Kingdom and France to prepare a working draft - based on the United States proposal and the amendments made in the meeting. This will be the first item on the agenda at the next meeting. The other agenda items will be Propagation and Monitoring.

The meeting was adjourned at 1:30 P:M:

#### Reporters

#### Chairman

L. Penninckx

Dr. J. H. Dellinger

H. 'Edwards

1 Annex 3 Appendices

## ANNEX

- 7 -(667<sup>°</sup>R-Е)

#### Modified Text

## Standard Frequency and Time Broadcast

The administrations recognize that a standard frequency broadcast service available in all parts of the world is essential for maximum economy in the use of the radiofrequency spectrum in the efficient operation of the telecommunications services and for the functioning of several activities of the I.T.U. and may be useful for other activities outside the I.T.U. The addition of time signals superimposed on these same broadcasts is also highly useful and should be included, if possible.

2. To this end, the administrations shall endeavor to provide a coordinated system for the dissemination by radio of standard frequencies. As regards time signals, contact will be established with the international organization or organizations which deal with the question of the transmission of time signals so as to bring about the necessary coordination between these two services.

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## APPENDIX # 1

## Cable and Wireless Ltd.

Monitoring Facilities.

BRENTWOOD STATION

#### Frequency Measurement

Two sets of Marconi TME equippment are in.use.

The Dollis Hire high precision 1 kc/s source is permanently available over a landline.

All C & W transmitters are checked daily when first started up.

All C & W overseas transmitters are checked on a regular routine everaging once weekly and the results telegraphed to the stations concerned.

All complaints of interference are passed to this station and the frequencies of incoming and outgoing transmitters are measured and notified to the stations concerned.

A card index is kept of

- 1) C & W U.K. frequencies
- 2) C & W overseas frequencies
- 3) Frequencies received in U.K. by C & W.

The cards carry a chart showing adjacent allocations and stations heard up to  $\pm 15$  kc/s, and the history of actual measurements.

This section is staffed for 24 hours, one man per watch, with one assistant 0800 to 1800 local time.

# (667 R-E)

## Signal Monitoring

Signals received by C & W in U.K. are monitored in the receiving stations.

A special section is employed on monitoring all transmitters, in the C & W system, against which complaints are received, using:-

> Keying formation Recorder and Oscillograph Bias Variation Indicator Frequency Shift Indicator.

Special equipment is employed to measure:

Modulation Spectrum. This is a spectroscope comprising a variable calibrated H.F. oscillator, a very narrow filter, a variable alternator and a level indicator.

Key Clicks and the modulation spectrum due to telegraph keying, comprising a calibrated H.F. oscillator, variable I.F. alternator and oscillograph

Keying transients are adjusted to the same amplitude as the signal as viewed on the oscillograph when the receiver is adjusted off tune.

By this means an accurate assessment of relative amplitude of key clicks can be made despite the general level variations due to fading.

An analysis is made of the various troubles encountered in the system.

## INFORMATION ON TIME SIGNALS, STANDARD FREQUENCY TRANSMISSIONS, AND MONITORING

## BY BRITISH POST OFFICE

### 1. TIME SIGNALS

In Great Britain the Royal Observatory is responsible for provision of Standard Time, and provides rhythmic time signals which are transmitted by the British Post Office from Post Office Radio Stations. These signals of the modified rhythmic form are transmitted twice daily, 0955 to 1000 and 1755 to 1800 G.M.T., in accordance with the recommendations of the International Time Commission, 1925. The signals are transmitted from the stations shown in Table I which also quotes allocated frequency and other relevant details.

#### TABLE I

RHYTHMIC TIME SIGNALS

	•		
Station	Call Sign	Allo- cated frequen- cy in kć/s	Signals Period of year in Transmitted operation
Rugby	GBR	16	0955 to 1000 All year round 1755 to 1800
Rugby	GKŲ4	4025	Q955 to 1000 October to March
Rugby	GIC	8640	0955 to 1000 All year round 1755 to 1800 October to March
Rugby	GKU3	12455	0955 to 1000 April to September 1755 to 1800 All'year round
Rugby	GKU2	17865	1755 to 1800 April to September
Lea- field	GIA	19640	0955 to 1000 All year round

The accuracy of the GBR signals is such that in Great Britian an interval of 24 hrs. can be determined normally to better than 1 millisecond. At present the transmissions in the H.F. band are not so carefully monitored by the Royal Observatory as are the 16 kc/s signals and in consequence are not quite so accurate.

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Comparatively inaccurate time signals (0.05 secs.) provided by the Observatory are emitted by B.B.C. stations at intervals. These signals are of the six-pip type and are for general and domestic use. It is understood that an improvement in the accuracy of the service is contemplated.

#### 2. FREQUENCY STANDARDS AND MEASUREMENT

The Frimary Standard of Frequency for Great Britain is maintained by the National Physical Laboratory but working standards are maintained by many other organizations including the Post Office and the B.B.C. In particular, the group of standards maintained by the Post Office has a performance comparable with that of a Primary Standard.

Considering the Post Office installation, this organization is responsible for ensuring that licensed radio transmitters in Great Britain maintain their prescribed tolerances and for acting in any case of radio interference by or with any service operated to or from the country. For this work a high-grade frequency standard is essential as it is also for use as a measuring tool in the research and development laboratories and in connection with the master oscillator systems of the type used on the coaxial cable system. To carry out these functions a Standard of frequency is maintained in the Development Laboratory of the Radio Branch at Dollis Hill while two standards are held at the Post Office Frequency Control Station at Baldock, and at the Field Laboratory at Banbury Each of the standards is provided with the appropriate equipment to enable frequency measurements to be carried out throughout the required spectrum and details of the radio equipments are given in Table 2. In addition, Dollis Hill and Banbury have facilities for the measurement of local and line signals down to audio frequencies. The calibration of remote standards to  $f = 1 \times 10^{-8}$ , by means of audio frequency line signals, transmitted from the remote standard or sub-standard, provides a substantial part of the load on the Dollis Hill laboratory.

## TABIE 2

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# SUMMARY OF P.O. FAULTHIES FOR FREQUENCY MEASUREMENT OF RADIO SIGNALS

Station	Details of Frequency ringe in kc/s		uring Posit Number of Positions	ions Work called on to do an average work- ing day	Function
Radio Branch De- velopment Laboratory, Dollis Hill London.	Up to 30,000	The accuracy of the stand- ard, $1 \times 10^{-8}$ can be trans- lated through- out the quoted spectrum when necessary		Service hours 0800-1700 50 % loaded	Primary standard of Post Office. Provision of harmonic series to all laboratories of Research str used in the development of more stable generators used for the most precise form of frequency measure- ments, such as International comparisons
Frequency Control Station, Baldock, Herts.	Up to 30,000	The accuracy of the stand- ard 5x10 <sup>-8</sup> , can be trans- lated through- out the spec- trum when necessary	2	Continuous service. Fully loaded.	This is the Frequency Control Station maintained by the Post Office, the Station is continuously manned, and deals with all cases of interference by any one with a British service, also monitors British and other emissions, frequency and bandwidth.

Station	Detail Frequency range in kc/s	ls of Frequency M Accuracy of -Measurement parts in 10-8	Number of	sitions Work called on to do an average work- ing day	Function
Radio Branch Field * Labora- tory, Banbury, Oxon.	Up to 30,000	The accuracy of the stand- ard lx10 <sup>-8</sup> , can be trans- lated through- out the spec- trum when necessary.	2	Will eventually provide a continuous servicé and be fully loaded.	The station which was used for frequency measurements of incoming transmissions during the war years will in the future (when additional equipment is installed) be used for international frequency comparisons, observations on radio transmissions throughout the spectrum (frequency, bandwidth, utilization of spectrum, etc.).

\* It should be pointed out that the equipment of this Station has only recently commenced and that it will be one year or more before all the equipment outlined is installed and working.

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The quoted measurement accuracies in the table are in terms of high-grade transmissions for which the ultimate accuracy of the standard can be employed, as for example, for measurements of standard frequency transmissions. For the more general measurements it is the practice as far as is possible to provide an accuracy of measurement one order better than the permissible tolerance of the transmission.

#### 3. STANDARD FREQUENCY TRANSMISSIONS

The general question of standard frequency transmissions from Great Britain is now under review, there is a vital need for transissions (a) to cover this country and (b) to provide standard signals to the Commonwealth, in particular international coaxial circuits in Europe which may operate on independent master oscillators in each country will call for a calibrating signal, common frequency broadcasting also calls for the measurement and maintenance of precise frequencies. It is hoped that a comprehensive service will be initiated within the next two years. The general question of participation by this country in Standard Frequency Transmissions of a type somewhat similar to the WWV transmissions has already been approved by a committee under Chairmanship of Sir Edward Appleton and Dr. R.L. Smith-Rose with a subcommittee. is formulating a plan for the initiation of Standard Frequency Transmissions (including time signals). Dr. R.L. Smith-Rose is also Chairman of a subcommittee of U.R.S.I. dealing with Standards and Measurements in Europe. In this connection he is now arranging with Mon. Decaux of France for a series of simultaneous frequency measurements on the B.B.C. 200 kc/s transmission in order to intercompare standards of Britain and France. It is hoped to commence an experimental service of Standard Frequencies in this country sometime in 1948 on at least two of the four frequencies, 5, 10, 15 and 20 Mc/s, to provide information on mutual interference between simultaneous transmissions on common frequencies in, say, this country and the U.S.A.

It is visualized that when a permanent service of Standard Frequency Transmissions, including time signals, is initiated from this country, the transmissions will be made by the Post Office from Rugby, the drive signals being obtained from a group of frequency standards installed at Rugby and calibrated at the N.P.L., Dollis Hill (P.O.), and Royal Observatory in terms of the time signals obtained from the Royal Observatory.

- 14 -(667 R-E)∷ At present the Royal Observatory operates, for half an hour daily, an experimental low-power transmitter on 2000 kc/s (the signal being derived from the quartz clocks incorporated in the Time Department) for the purpose of comparing the rates of the quartz clocks installed at Abinger and Greenwich (some 25 miles apart). The accuracy of the transmission is now about  $\pm 11 \times 10^{-7}$  relative to the nominal value and the precise frequency, to within  $1 \times 10^{-8}$  is announced during each transmission.

During the war years the frequency of the B.B.C. transmission 200 kc/s was specially stablised to provide a ready means of calibrating local Standards and sub-standards, the transmission was, and still is, maintained to within  $\pm 1 \ge 10^{-7}$  of nominal. However, it must be appreciated that this allocation is exclusively for Eroadcasting, that it might be changed, and that the argument of its special suitability for standard frequency transmission would not be valid. During the war years also some of the B.B.C. transmissions in the H.F. band were specially stabilized and Skelton G.R.O., Daventry G.S.B. and Daventry G.S.V. are still maintained to within 1  $\ge 10^{-6}$  of nominal.

On the monitoring of standard frequency transmissions the WWV transmissions are observed daily (Monday to Saturday) at Dollis Hill in terms of the Post Office Primary Standard. The measurements are usually made on the 10,000 or 15,000 kc/s emissions according to reception conditions and it is usually possible to obtain some measurements each day. Measurements to date have clearly illustrated the pronounced Doppler effect which occurs over the transatlantic path, apparent frequency changes of the received signal of up to 50 parts in 10<sup>-8</sup> in the worst case have been observed. These results indicate that isolated measurements of a standard frequency transmission received from a distance can lead to erroneous conclusions. A comprehensive series of measurements made on WWV at Dollis Hill is now being analysed.

When the Banbury Station is fully equipped and working, one of its functions will be the reception and measurement of Standard Frequency transmissions. It is hoped that the system will be completely automatic and that records will provide details of frequency and field strength of the received signals.

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### WORK OF OTHER ORGANIZATIONS

Some brief details of what is known of other installations are given below:

The N.P.L. makes frequency measurements accurate to  $\pm 1 \ge 10^{-8}$  up to the H.F. band, and with reduced accuracy up to the S.H.F. band. These facilities are available on request, there is not a regular service.

The B.B.C. operates a frequency checking station at Tatsfield, which can measure frequencies up to 100 Mc/s with a quoted accuracy of up to  $\pm 1 \times 10^{-8}$ . There are three measuring positions of which two are continuously staffed and fully loaded.

The Cables and Wireless station at Brentwood also provides a continuus service for frequency measurements on frequencies up to 30 Mc/s, accuracy up to  $\pm 1 \times 10^{-7}$ . There are two measuring positions. The extent of the loading is not known.

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## Appendix 2

#### PERU

## NOTE FOR SUBCOMMITTEE 7C CONCERNING THE STATUS OF IONOSPHERIC RESEARCH IN PERU.

### RESEARCH ON THE IONOSPHERE

The Peruvian Administration has, at present, one station entrusted with this task.

Length of time in operation: The aforementioned station has been operating since 1937.

Location of the station: In the city of Huancayo, 11,000 feet above sea level. Its geographical location is such, that it is almost exactly on the Magnetic Equator.

Installations:

a) Multifrequency automatic apparatus in which visual observations can be made by means of the oscillograph, in addition to the permanent record kept by a photographic camera.

b) Four complete apparatus for the measurement of the field intensity.

c) A system of antennas.

·Length of operations: The station operates 24 hours a day.

Data obtained by the station: Critical frequency as well as the virtual maximum and minimum height of layers F 1, F 2, and E; the minimum frequency and upper limit of the sporadic layer E. MUF for 3,000 kilometers and other distances. Measurements of the field intensity.

Data furnished by the station: The data on critical, frequencies are furnished in monthly reports, for each hour of the day. Field intensity measurements are also furnished in monthly reports, indicating the average intensity in microvolt logarithms for each hour.

Coordination with other units. Data on the ionosphere are exchanged with the Department of Earthly Magnetism and with the Central Radio Propagation Laboratory of the National Bureau of Standards, located at Washington, D.C. - U.S.A.

## (667 R-E) Appendix 3

### 7C WORKING GROUP TEXT July 16, 1947

## "Article 10"

#### International Monitoring

sl. The provisions of Article 6, Section 3, may be implemented by means of monitoring stations. Such stations may be operated by or on behalf of the administrations concerned or by a common monitoring service established by two or more countries or some international organization.

§2. Administrations shall endeavor to cooperate in the establishment of international monitoring for the purpose of undertaking such monitoring and measurements as may be requested (a) by the I.F.R.B. and (b) by the telecommunication adminstrations of contracting governments and international organizations concerned. The stations referred to in Section 1 may participate in this work.

§3. All of the monitoring stations of one country or one international organization concerned participat, ing in this international monitoring work shall report and transmit results of measurements through one centralizing office. This office shall receive directly all requests for monitoring originating in the I.F.R.B., in similar offices of other countries or international organizations concerned and will similarly forward the results to the organization which has requested that the measurement be made. However, these provisions shall not affect informal administration or private monitoring arrangements made for special purposes.

§4. The I.F.R.B. will adopt technical standards for performance of monitoring stations taking into consideration recommendations of the C.C.I.R. The I.F.R.B. shall be responsible for determining whether a monitoring station meets these technical standards. When a favorable finding has been made the (Secretary-General) on behalf of the I.F.R.B. shall accredit the station accordingly.

In certain cases, a station may be accredited only for the monitoring of certain classes of stations or only for making of certain types of measurements. Should, thereafter, the results supplied by any accredited station appear questionable, the (Secretary General),

on the recommendation of the I.F.R.B., shall bring the matter to the attention of the administration or international organization concerned and, unless suitable corrective action is taken within a reasonable time, the monitoring station shall cease to be accredited and the administration or organization informed accordingly.

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g5. Each administration or international organization shall inform the (Secretary General) of the postal and telegraphic addresses of each centralizing office and the (Secretary General) shall establish a list of the centralizing offices and of the name and location of each of the accredited monitoring stations. This list, as well as its subsequent amendments, shall be forwarded to the administrations and international organizations concerned.

s6. The (Secretary General) shall make suitable arrangements to obtain periodically results of observations and measurements from the centralizing offices.

§7. The (Secretary-General) shall maintain the official international monitoring record containing combined results of monitoring and measurements made by the accredited stations from their own observations obtained in accordance with Sec. 2 above.

The official international monitoring record will also contain a complete statement of the standard rules of measurement. In addition, it will show for each particular series of measurements, the estimated accuracy and the procedures actually followed.

The (Secretary General) shall publish periodically a summary of the official international monitoring record.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947 Document\_No.\_668\_R-E\_

July 31; 1947

Committee 5

Report of the Aeronautical Group of Allocations of Frequencies Committee (Committee 5)

> Third Meeting July 30, 1947

1. The meeting opened at 1800 h.

2. The <u>Chairman</u> announced the departure of Mr. H. A. Rowland one of the Rapporteurs and requested the U.S.A. to provide the English Rapporteur.

3. The report of the 2nd meeting (Doc. No. 640 R-E) was adopted after the following modification:

Page 2 - Under Remarks column, modify notes as follows:

"The Regional allocation 3900-3950 will be used by Off-Route in all regions except the American Region"

"The Regional allocation 5450-5480 will be used by Route in the American Region only."

Under allocation column, modify band 21850-22000 as follows:

"Route-aeronautical and aeronautical Fixed," and band 23200-23350 as follows: "Off Route aeronautical and aeronautical fixed."

4. Extensive discussions **were** carried out on the notes to be applied to the Route and Off-Route frequencies. It was agreed that a choice would be made at the next meeting between the two following notes for Route frequencies:

I (a) Frequencies in this band are reserved for communication between any aircraft and those aeronautical stations primarily concerned with the safety and regular-. ity of civil national or international flights. I (b) Frequencies in this band are reserved for communication between any aircraft and those aeronautical stations primarily concerned with the safety and regularity of flight along national or international civil air routes.

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The U.K. delegation proposed the following note for Off-Route frequencies:

II "Frequencies in this band are reserved for all communication in the aeronautical mobile service not included in note I.

5. The meeting closed at 2000 h.

Rapporteurs:

M. Falgarone

10001

T. E. Daniels

Chairman: S. R: Burbank INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document No. 669 R-E

July 31, 1947

Committee 3

Report of Subcommittee A of the Organization Committee (Committee 3)

> Eighteenth Meeting July 29, 1947

- 1. The meeting was opened at 3:35 p.m. under the Chairmanship of Mr. <u>Gunnar Pedersen</u>, Délegate from Denmark.
- 2. The report of the fifteenth meeting (Document No. 574 R-E with correction No. 592 R-E)was approved.
- 3. The report of the sixteenth meeting (Document No. 577 R-E with correction No. 607 R-E) was approved.
  - The report of the seventeenth meeting (Document No. 606 R-E with correction No. 624 R-E) was approved.
- 5. The Chairman stated that since our last meeting Working Group C had held three meetings, but the work had not progressed sufficiently to permit fixing the date on which the report of this Working Group would be submitted to'the Subcommittee. Since July 17, Working Group B, which was studying the question of the C.C.I.R. had held two meetings and submitted the result of its study in Document No. 637 R-E, which we could study at the meeting of July 31, 1947. Working Group A had held three meetings since the last meeting of the Subcommittee, and had made considerable progress in submitting to the Subcommittee three reports, which appear in Documents Nos. 635 R-E, 636 R-E and 649 R-E. The Chairman then said that the question of the I.F.R.B. was more urgent, and for this reason he proposed that the reports of Working Group A should be examined first.

This proposal was approved.

6. On the invitation of the <u>Chairman</u>, <u>Mr. Lahaye</u>, <u>Chairman of Working Group A</u>, commented on the submitted draft text of the statutes of the I.F.R.B.

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## -2-(669 R-E)

(Document No. 635 R-E) and the draft of the article concerning the method of electing members of the I.F.R.B. (Document No. 636 R-E). Mr. Lahaye's statement is given in Annex I of this report.

7. The <u>Chairman</u> thanked the members of the Working Group for their successful work in reconciling differences of opinions and congratulated Mr. Lahaye on the excellent outline he had just presented with such directness and clarity.

- He expressed the hope that the Subcommittee would be able, in less than four hours, to complete the study of the reports which the Working Group had taken' four weeks to prepare.
- 8. On the proposal of the <u>Chairman</u>, the Subcommittee began the study of Document No. 636 R-E.

The Delegate from <u>India</u> extended congratulations to Mr. Lahaye and to the Working Group on the completion of the assignment. He said that he wholeheartedly agreed to and approved the basic principle of the statutes. However, he was compelled to protest against the inequitable and unbalanced allotment of members for region D, the region which represents half the world's population. The 400 million people of India, the 500 million people of China and millions in the remaining 18 countries in this region had been grouped together with only two members to represent them, in similarity to the allotment of two to the other régions.

The main principle of election on a regional basis was to provide adequate representation from all areas of the world with their special geographic, ionospheric and demographic conditions; and to ensure that all areas in the world in the western or in the eastern hemisphere shall receive from the board a just and fair assessment of the importance of their problems. In making discrimination between areas this very principle is defeated. The grouping of masses of population which are heterogeneous ionospherically, economically and in all manners of life and designating them as a region is also basically wrong.

India with its immediately neighboring countries represents the tropical conditions and is a unit with its own special ionospheric conditions, comprising one-fifth of the world. China in the northern

latitude with its distinct social, economic, geographic and ionospheric conditions represents another unit comprising another one-fifth of the world in population. Australia in the southern latitude, Egypt, Turkey and South Africa with all their dissimilarities have been grouped together along with China and India.

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He would not draw comparisons between regions as far as representation goes, but Region D comprises at least three major, distinct geographic, ionospheric and demographic conditions. Three members should therefore be allotted to this region. If this is not done, the board that will be set up will be incomplete in representation, and therefore inefficient.

10. The Delegate from India then introduced a map of India which nearly covered a map of Europe on the same scale in order to give an idea of the vastness of his country. He requested that this map be attached as Annex E to the report of this meeting.

In answer to the argument which may be advanced that in respect to the relative use of radio spectrum space, Region D does not compare well with other regions, the Delegate from India stated that neither the statutes of the I.F.R.B. nor the discussions on this point refer even in the remotest manner to the radio spectrum space in relation to "presentation on the board. If this is done, vestaid interests will be created and the board will be similar to the management of a commerical firm where the directors are selected in proportion to the shares they hold in the business. As a matter of fact, even the artificial level of a country's demand for spectrum space at a certain point in the flow of time is only a transitory reference and anyone who predicts that the state of things will continue till the next conference is indeed a clever prophet.

There was no guarantee in the present allotment of members that the 'Tropical Condition' will get adequate representation on the board, and if this is not done the efficiency of the board from the 'very commencement will be jeopardised. The Delegate from India hence requested that three members be allotted to Region D. 11.

Turning to the question of election of two members on an international basis, the Delegate from India stated that the philosophy of such election was not quite clear to him. It was a departure from the agreed principle of regional election, and if it was to ensure the election of members of international renown, this could as well be done by the regions themselves, and, therefore, the Delegate from India suggested that the two extra members be distributed between the regions, one of them being allotted to Region D.

The Delegate from India stated that he was opposed to the procedure of election on an international basis. No region in other parts of the world has the right to interfere in the affairs of another region. This procedure was undemocratic as it implied that the representation from one region will be determined by votes from another region.

To sum up, the Delegate from India stated that, first, he was opposed to the election of two members on an international basis. These seats should be distributed among the regions. Secondly, the election should be within the regions and not on an international basis. Thirdly, Region D should be allotted three members. If one half of the world is given only 20% representation and the other half 80%, he will have to halt and ponder if he can commit the 400 million people of India to an arrangement which denies the possibilities of equitable solution of their problems.

The <u>Chairman</u> asked the Delegate from India regarding his request for the map of India to be published, whether it would not be of even greater use to all the members to have also a complete map of the world showing all the four regions. The Delegate of India had no objection to this proposal.

The Delegate from <u>China</u> stated that his Delegation was highly satisfied with the progress made by Working Group A, but that it could not consent to the limits proposed for Region D. He said that with the limits proposed in Document No. 636 R-E, China would be divided in two, and hence, he proppsed that the Indian proposal (Document No. 46 R-E) providing for the division of the world into three regions, with three members to be nominated by each

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of the regions and with two members to be appointed on an international basis, be taken under consideration by the Subcommittee.

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The Delegate from the <u>United States</u> pointed out that Article 3 of Document No. 636 R-E provided that any member of the Union whose territory was crossed by the limits of the regions therein defined, should be entitled to choose to which of the two adjoining groups he wished to belong. Consequently, no difficulty existed in the case of China, where its territory was crossed by the parallel 40 degrees North.

The Delegate from the Netherlands praised the wisdom and accuracy shown by the Working Group in successfully reconciling the differences of opinion which had existed in the beginning. He. said that he was in favor of the proposal submitted by the Working Group, considered as a trial procedure. Referring to the comments of the Delegate from India, he stated that technical principles must guide the members of the I.F.R.B. in their task, and that these principles cannot be grouped according to different regions. He added that after hearing the statements of the Delegates from India and China, he was even more inclined to regret that the nomination of members of the I.F.R.B. on a universal basis had not been approved; for this reason he firmly supported the proposal of the Working Group, providing that at least two members should be elected on a universal basis.

16. The <u>Chairman</u> proposed that the meeting should be recessed for ten minutes. This proposal was approved.

When the meeting was reopened, the Delegate from the <u>U.S.S.R</u>. asked leave to speak and stated that the election of members of the I.F.R.B. was the most difficult problem before them and for this reason it had been decided to discuss it last. To reach an agreement it had been necessary to consider all standpoints. It had been generally admitted that a body such as the I.F.R.B. must be familiar with the conditions peculiar to every. region of the world.

The task of the Working Group consisted in finding a method of electing members of the I.F.R.B. which

would satisfy this condition. It was evident that every division was artificial to a certain extent; the American region was a happy exception to this rule. Several proposals had been submitted on the manner of grouping the countries into regions; dividing the world into eleven regions 'had been considered (proposal of Mexico).

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Other proposals contemplated division into three The greatest difficulty arose when it regions. was a question of delimiting the regions. For that reason the proposal submitted by the Working Group was only a compromise, but this compromise was more acceptable than any other proposal. Moreover, it was entirely right that the procedure proposed for the election of members of the I.F.R.B. should not be incorporated in the General Radio Regulations and should only serve for the nomination of members of the I.F.R.B. at the Atlantic City Conference. Referring to comments by the Delegate from India, the Delegate from the U.S.S.R. said that after the election of the eight members chosen from the four regional groups, the Radio Conference would be enabled to choose one of the two members to be nominated on a world basis, from whatever region which it considered most suitable, taking into account such conditions as: any great number of countries belonging to the group under consideration, or the large population of the region in In conclusion, the Delegate from the question. U.S.S.R. said that his Delegation supported the proposal on the election of members which had been submitted by Working Group A.

The Delegate from <u>Mexico</u>, although he admitted the value of the work accomplished by the Working' Group, said that, in his opinion, the division into regions defined in Document No. 636 R-E was not equitable, and he insisted that the proposal of his Delegation (Document No. 138 R-E) providing for a more rational division be taken under advisement.

The Delegate from the <u>United Kingdom</u> supported the proposal made by Working Group A referring to the election of members of the I.F.R.B. He pointed out that at the beginning, his Delegation had been in favor of a free election of members on a universal basis, but that, after the first discussions, the Delegation had noted that the general tendency was

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toward nominating members on a regional basis to obtain a better presentation of information needed about different regions of the world. He added that Article I, S 4 (a) left the next Radio Conference entirely free to decide upon some other number of members and to set up another procedure for nominating members of the I.F.R.B. He hoped that the next Conference would adopt a method of election of persons regardless of their nationality. At this Conference, nomination of members on a regional basis had been approved. All such considerations figures on population, number of countries, as: number of circuits, which might serve as a guide in dividing countries into regions had been analyzed. The report of the Working Group (Doc. No. 636 R-E) was the result of these thorough studies and represented the best solution for the moment.

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The Delegate from the United Kingdom added that he attached great importance to entrusting the definitive choice of members of the I.F.R.B. to the Radio Conference and not to countries belonging to, a regional group. In addition, after the first eight members (two per region) had been elected by the Conference, some countries would have a second opportunity of having one of their own citizens nominated in the election of the last two members who are to be elected on a world basis regardless of regions. In the opinion of the Delegate from the United Kingdom, it was most desirable that one of these two members be chosen from a country with great interests in tropical relations especially as all four of the regions under consideration contained tropical zones.

The <u>Chairman</u> stated that, in his opinion, the proper functioning of the I.F.R.B. is a more important question than the election of members. If it were certain that members would carry on their duties without any other considerations than those contemplated in the statutes, it would not be necessary to pay attention to their nationality.

We cannot be sure that the decision we are taking to-day is the best. Experience alone can show that. The solution proposed by the Working Group is the most prudent, although it does not satisfy all the delegations. It must be considered that this proposal is temporarily acceptable.

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The Delegate from Argentina declared that he belonged to the Working Group A as a member of one of the Latin-American countries, and that as a Delegate from Argentina, he vished to support the proposal of the Working Group. He added that he considered it a temporary solution and that the final solution would be dictated by experience.

- 23. The Delegate from <u>Chile</u> supported the opinion expressed by the Delegate from Argentina.
- 24. The Delegate from <u>Czechoslovakia</u> supported the proposal made by Working Group A which facilitates the election of members of the I.F.R.B. under present circumstances.
- 25. The Delegate from the United States of America supported the proposal contained in Doc. No. 636 R-E, as a compromise of a practical nature. He added that the members of the I.F.R.B. would fulfill their task as officials of a public international service, although they would be elected on a regional basis, so that the regional consideration would not subsist after their election.
- 26. The Delegate from <u>Uruguay</u> supported the proposal of the Working Group as a provisional solution and a good compromise among divergent opinions.
- 27. The Delegate from <u>Greece</u> favored the election of members on a world basis; nevertheless, he was of the opinion that the proposal formulated by the Working Group was the most acceptable of those which provided for the regional idea. Moreover, the Delegate from Greece wished to propose, on his country's behalf and on behalf of the countries of the Mediterranean Zone situated east of Meridian 20° E, that there be the option of joining the neighboring group considered most convenient. He asked whether his country whose territory is crossed both by meridian 20° E and parallel 40° N would be free to choose anyone of the three regions B, C or D.
- 28. Mr. Lahaye, Chairman of Working Group A, gave an affirmative answer to the question of the Delegate from Greece.

The Delegate from India stated that his delegation would be ready to accept the proposal drawn up by Working Group A with the reservation that the number of members of the I.F.R.B. be increased from 10 to 11, and that, in addition, three of the members of the I.F.R.B. (instead of 2 as proposed in Doc. No. 636 R-E) come from region D.

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- After a debate in which the <u>Chairman</u> and the Delegates of <u>Cuba</u>, <u>India</u>, the <u>United Kingdom</u> participated, it was decided that Document No. 636 R-E and Document No. 635 R-E (the statutes of the I.F.R.B.) would be submitted together to Committee 3 after study of the latter document by Subcommittee 3A. It was agreed that Document No. 636 R-E would be submitted with the reservations formulated by the Delegate from India.
  - The <u>Chairman</u> announced that the meeting of the Subcommittee on July 30th, would deal with the study of Document No. 635 R-E. He then adjourned the meeting at 6:35 P.M.

The rapporteurs:

The Chairman:

Gunnar Pedersen.

- M. Rhodes
- H. Samiy

## ANNEXI

-10;--(669 R-E)

Oral Statement' by Mr. Lahaye, Chairman of Working Group A of Subcommittee 3A.

#### 18th Meeting

Mr. Chairman, .

I see that it is becoming traditional to ask me to comment orally on the drafts which are submitted to you by Working Group A for the constitution of the I.F.R.B. In fact, I am not very surprised because the statutes of the I.F.R.B. which we are preparing will be a document of such importance to the Radio World that they might rightfully be compared to a legislative text. We all know that in all the countries of the world a draft of a legislative text is always accompanied by what we in France call a "statement of reasons" containing both justification of and comments on the measures proposed, in order to highlight the reasons and clarify the scope. It even happens frequently that to achieve clarity the legislative text is worded so concisely that in order to understand the general tenor of a question it is preferable to consult the "statement of reasons" rather than the text itself. As: for the draft of the statutes of the I.F.R.B., as presented to you by our Working Group in Document No. 635 R-E (to which Document No. 636 R-E may be considered an annex), we do not feel that we have carried conciseness to the extreme of obscurity, and we hope that this document expresses clearly what it is meant to convey. Nevertheless, the discussions that took place in our Committee on this question of the I.F.R.B. at the beginning of the month . showed that some delegations were persistently reading . our texts with a tendency to doubt, not to say to distort In my opinion, it is proper to react against them. this tendency, for, as I have pointed out since the beginning of our work, it is not by a rather slight majority vote that we shall be able to give the I.F.R.B. the vitality and vigor necessary for such an organization. It is absolutely necessary that we obtain the general support of the members of the Union for a really introductory and far reaching action. With this in view, we must present an absolutely clear draft whose significance everyone will grasp and which everyone can recognize without any mental reservation as being based on an essentially sound idea, perhaps too poorly developed in the eyes of some and too advanced to please others.

-11-(669 R-E)

But in any case it must be likely to make the International Radio Organization take the step forward absolutely required by the vast development in the applications of radio to the field of telecommunications. This step must be taken without concession to an outworn past and yet without resorting undesirable compulsion.

That is why, Mr. Chairman, acceding to the request that you have just made, I shall, in what I am about to say, develop at some length my commentary on certain questions of principle relating to the changes that our Working Group has made in its draft since it was discussed for the last time by our Subcommittee.

I am now considering Document No. 635 R-E as submitted to-day to our Subcommittee. How does the draft it contains differ from the one that was submitted to you a month ago in Document No. 451 R-E?

I shall be glad to review the differences not in the order of the articles and the paragraphs but in the order of increasing importance.

#### 1st point.-

In paragraph 2, sub-paragraph (b) of Article 1 we made an addition intended to take into account the very correct observation of the Delegate from Italy who requested that the I.F.R.B. should be entrusted not only , with drawing up the frequency list (with a view to its publication by the Bureau of the Union) but also with keeping it up to date constantly. We have replaced the part of the sentence: "and for publication....." by "and for publication in suitable form <u>and at appropriate</u> <u>intervals</u>, etc....." which seems to take care of the objection voiced by the Delegation from Italy. The Delegate from Italy will tell us soon whether this wording satisfies him.

#### 2nd point.~

In paragraph 4 of Article 2 (p. 12 of Document No. 635 R-E) we have made a change in the wording taking into account the judicious remark of the Delegate from Portugal. The change is more important in the French than in the English text, because the latter was originally more correct. From now on, it is clearly understood that the location of a station is a technical characteristic like the others. Let us suppose, consequently, that a member of the Union uses in one of its stations, for instance A, a frequency assignment duly registered at date X. If for any reason, this country is forced some day to transfer this same frequency to a transmitter located in another of its stations, for instance B, and if the I.F.R.B. decides after study that the use of the above frequency for station B will not cause any international interference, the frequency assignment originally made by the country concerned shall be corrected in the matter of the location of the station, but the original date X shall be retained.

-12- (669 R-E)

#### 3rd point.-

If you refer to Paragraph 2, Sub-paragraph 2 of Article 2 (page 6 of Document No. 635 R-E) you will recall that the corresponding text in Document No. 451 R-E had given rise, in the meeting of our Subcommittee, to determined opposition from the Delegation from the United States of America, although the representative of this Delegation in Working Group A had accepted the principle of sending the notification six months in advance, is a general rule.

The Working Group was therefore obliged to try to find a compromise text, and you now have before you the text the Group proposes to you. You will note rather mournfully, perhaps, that to a marked degree this text resembles the corresponding text in the Cairo Regulations which reads in paragraph 344: "The notification....should be made before the frequency is placed in service and sufficiently soon to enable the administrations to take any step which they might find necessary for the purpose of assuring the good operation of their services." There you have, almost word for word, the text of the first sentence of our new subparagraph (2).

And if you notice that our second sentence introduces a right which the Cairo Regulations did not even mention: i. e. the right to use a frequency in an emergency without advance notification, you may perhaps experience a feeling bordering on discouragement, when you find out that instead of advancing along the road to international discipline, we seem, on the contrary, to be suggesting that you retrogress.

Let me, however, dispel your pessimism, by calling to your attention first, the significant limitation introduced in our second sentence by the words: ".... and it is clear that the use of a frequency assignment will not create international interference;", and, secondly, a difference in wording between our first sentence and the text of the Cairo Regulations, which, on first reading, might escape notice, but which is, in reality, far from unimportant. The Cairo text said, in substance, that the administrations directly concerned should have time to take any step necessary to protect their services. What "steps" were meant?' The word was exceedingly vague, and might be taken to mean, for instance, that the actions taken by the administrations in self defense might, should the need arise, go so far as to include a slight spontaneous shifting of their own frequencies in order to avoid interference by the new frequency placed in service. Today, Gentlemen, such an interpretation is totally eliminated; we merely provide for measures to be taken, if need be, by the administrations concerned, in order to inform the proper authorities. (and particularly the I.F.R.B of course) of their fears that any one of their services might be jeopardized; but there is no mention of the possibility that these administrations should make it their business to take steps themselves leading to modifications of the technical characteristics of their own stations. On the contrary, under the new system, or, if I may be allowed to express myself otherwise: in the era of the I.F.R.B., it will be a generally admitted basic principle that duly registered frequency assignments will be entitled to immediate defense and that, for this reason, administrations which have made these assignments can be sure of a high degree of security for their radio services. This is the point which your Working Group feels it has clearly indicated in the text of paragraph 1 of Article 2 of the draft statutes of the, I.F.R.B. which is submitted to you.

-13-(669 R-E)

#### 4th point.-

I now come to a more important point. It pertains to paragraph 3 of Article I of the statutes of the. I.F.R.B. (pages 2 and 3 of Document No. 635 R-E). You will remember, Mr. Chairman, the protracted discussions aroused by sub-paragraphs c) and d) of the former draft (Document No. 451 R-E). Taking into consideration only the fundamentals, and disregarding the details, this is the first presentation in the statutes of the I.F.R.B. of the regional idea, which is, beyound a doubt, the

## most significant innovation introduced by our Conference into the draft which was approved last year by the Moscow Conference. It must be admitted that none of the five countries which took part in the Moscow Conference was prepared for this innovation when we arrived in Atlantic City. However, our Working Group, in which four of these five countries are represented, did not hesitate to welcome this idea and adopt it for its own, because if it is rightly understood, it can felicitously complete the initial concepts which are attributable to the United States of America and which will serve as a basis for the project for setting up the I.F.R.B.

-14-(669 R-E)

I emphasized the words "if it is rightly understood" because the discussions which took place in our Subcommittee on several occasions made it obvious that in the minds of certain delegations, the regional idea is in reality linked with an understanding of the I.F.R.B. which our Working Group considers' especially dangerous. Today, I feel that I must make a direct attack on this idea, for in spite of my previous statements, I feel that there is grave danger that it may once more bring confusion into our discussions.

What is this idea? Although it has never been stated explicitly; I think I can sum it up accurately as follows: "The I.F.R.B. will be, in point of fact, and whether we are willing to admit it or not, a frequency-distributing Board, with the power favor some countries and to injure others. Therefore, if they do not wish to suffer injury, countries must join together according to regions (it has even been recommended that we form 11 regions) to send to this Bureau representatives who are duly authorized to defend their interests."

Mr. Chairman, I should like to state that our Working Group opposes such a concept of the I.F.R.B. most categorically and unyieldingly. If the I.F.R.B. were to play such a role, if it were to be an organization empowered to estimate the utility of different circuits (or more generally the utilization) for which frequency assignments shall be made by the different countries, and if it were therefore to be empowered to grant or to withhold the registration of the said frequency assignments, then only one course would be open to us: to oppose the establishment of the I.F.R.B. with all our might. To make it perfectly clear and eliminate any possibility of misunderstanding, I shall say that under such circumstances, my country would refuse to sign the statutes of the I.F.R.B.

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But, some people may ask me,"why are you opposed to the idea of an organization empowered to regulate the use of frequencies, to curb abuses which are only too evident, and to make justice prevail in the field of radio for the greatest good of all concerned? Our reply is simple: we refuse to entrust such a task to the I.F.R.B. because, in a matter as vital to modern nations as is the question of radio frequencies, it is impossible to rely on the decisions of a limited Board; such important decisions can be left only to a <u>General Conference</u> in which all recipients that is to say all members of the I.T.U., shall participate directly."

Mr. Chairman, is not this the very goal for which ' our Atlantic City Conference is striving at the moment? Has not Committee 6 of our Conference frankly admitted that the new frequency list for which everyone is clamoring, so that the radio spectrum may be set in order, shall be drawn up, by a Radio Conference specially convened for this purpose? And has it not been recognized that the delegates to this Conference should be plenipotentiary delegates?

It is, at this special conference, in case difficulties should arise in the matter of satisfying all requests for frequencies, that the utility of circuits (or more generally, radio utilizations) provided for the various countries, should be discussed. It is at this special conference and nowhere else, that questions concerning commerce, population and economic and social conditions so often referred to by certain delegations, should be considered if the occasion demands. Why then should we continue the misunderstanding regarding the function and the nature of the I.F.R.B.?

Mr. Chairman, the text submitted to our Subcommittee by Working Group A leaves no room for doubt. I have already strongly emphasized in my statement of June 27, that insofar as the registration of frequency allocations was concerned, the role to be played by the I.F.R.B. was that of witness and nothing more. Allow me today to explain this point by commenting upon the new wording which Working Group A proposes to you for sub-paragraph c) of paragraph 3 of the first Article of the statutes of the I.F.R.B. You see that this new sub-paragraph alone replaces sub-paragraphs c) and d) of Document No. 451 R-E, in which the Delegate from Portugal had quite justifiably pointed out at least a partial contradiction; what does this new text convey to us? two things:

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In the matter of the registration of fre-1. quency allocations, the I.F.R.B. will base its decisions solely upon technical considerations. The nature of these considerations is determined very clearly in paragraph 3, section 3, of Article 2. There is no room for other considerations. The I.F.R.B. will function here as a verification Board, such as Lloyd's of London. It will judge according to codified standards, equally applicable to all frequency allocations, no matter what their source. If the allocation of a frequency is perfectly correct with respect to I.F.R.B. Regulations, such allocation, if I may so express myself, will be stamped "registration." If it is not perfectly correct, it will be stamped "notification." And that is all.

The stamp "notification" would, moreover, in no way prevent the country making the assignment so classified from putting it to use. Only later, should clashes arise, would the importance of the stamp be recognized insofar as the arbitrators take it into consideration. It is obvious, in this respect, that the value of the classification will depend largely upon the reputation for skill and excellence in making decisions earned by the I.F.R.B.

2. In carrying out its functions as <u>advisor</u> to members of the Union, on the contrary, the I.F.R.B. might to a degree take into consideration conditions that are not within the scope of pure radio technique. These conditions are enumerated in the 2nd sub-paragraph of section (c). Here for the first time, and in this instance correctly, the regional idea appears. It is understandable that in order to comprehend fully problems presented by certain countries concerning circuits to be established in localized sections of the globe, the I.F.R.B. will have to include

among its members technical experts with proper personal knowledge of the geographic characteristics of the region under consideration, and of the economic and demographic conditions of the inhabitants, since in such a field, documents cannot take the place of personal experience.

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#### 5th point .-

I now come to the 5th point, which will fortunately be the last one, Mr. Chairman, since I am slightly disconcerted when I look at the clock. It is the question of the election of members of the I.F.R.B. and of the number of members. You no doubt recall that in my preceding statement (see Document No. 475 R-E), I made certain remarks 'relating to this important question. When I reread the last page of Document No. 475 R-E today, I am astonished to note that I gave you, as far back as June 27, certain basic points which hardly differ at all from the draft you now have before you.

At that time, I criticized the division of the world into 3 sections. What about the U.S.S.R., I asked, which belongs neither to Europe nor to Asia, but to both continents at the same time? This observation finally had to be taken into account. It is impossible to divide the U.S.S.R., which in itself constitutes a sort of continent, with very numerous radic circuits that are often of great length. Furthermore, to mass Asia and Oceania into a single unit is a rather shocking anomaly when viewed from the standpoint of the correct application of the regional concept.

Mr. Chairman, I believe it necessary at this point to make a brief comment on the second aspect of this fundamental idea, which recurs in the problem of the I.F.R.B., concerning the election of its members. I shall set forth the ideas in the chronological order of their appearance, and you will see that they form a logical and convincing sequence.

At the outset, the United States, which deserves the credit for originating the concept of the I.F.R.B., proceeding according to a purely theoretical and idealistic plan, contemplated the possibility of an absolutely free election of the most highly qualified technical experts in the world, to be carried on without any

#### This was very simple in theory; special procedure. but in practice, it would, no doubt, have been far less simple...and in addition, not very sure. It is difficult to see how candidacies would have been presented, or how they would have been submitted; nor what truly important information would have been placed at the disposal of the various members of our Union to assist thom in forming their judgments. This was quite justly called to cur attention at the Moscow Conference by the U.S.S.R. with the further remark that the United States appeared to be slightly mistaken as to the qualifications to be required of members of the I.F.R.B., 'since it was useless to require that they be exceptionally clever technical experts. The U.S.S.R. therefore judged that candidates could only be suggested by their respective countries, which would guarantee that they were very good radio engineers, who also had practical personal experience in the radio services.

This, viewpoint was accepted by all the delegations present at Moscow: and we had reached this point in our study of the question when, in Atlantic City, several among us began to whisper that designation of candidates by their respective countries was probably not, a perfectly safe system; that "opportunists" are numerous in the world, and that there was danger of some day seeing ambiticus persons, with good backing, seeking a lucrative position, appointed by their governments as candidates for the I.F.R.B. without really having the necessary qualifications. It was at that time that certain delegations expressed themselves in favor of the considering regions, more or less numerous; and you can easily understand Mr. Chairman, why those who had misgivings about the system of presenting candidates suggested at Moscow, immediately found in the regional idea a means of guarding against the weaknesses of that system. It is very evident indeed, that if regions are established in such a way that the members of the Union grouped in a given region know each other well enough, and if the designation of candidates to the I.F.R.B. is made by regional vote, there will be a greater chance of seeing none but really capable candidates presented for election.

I do not wish to dwell on this point at greater length, Mr. Chairman, but nevertheless I should like to state that the division of the world into 4 regions, as proposed by Working Group A in Document 636 R-E, seems to me to be a very reasonable compromise. It was best not to set up too large a number of regions, and thus run the risk of causing a spirit of "localism"; and, on the other hand, it was necessary to associate in a single regional group only peoples having close enough relations to be able to consult one another meaningfully on problems under consideration. We believe that, as far as possible, our plan satisfies these two requirements.

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I now come to a brief commentary on the manner in which the Working Group thought it necessary to present its proposals for the election of members of the I.F.R.B. We felt that it was best not to have the details of election procedure appear in the Radio Regulations themselves, as we cannot safely consider setting them down in definite form at the present time. We also felt that we should grant future Conferences considerable liberty of action with regard to the number of members. After all, we are not prophets. We are merely men of good will who are about to attempt a necessary experiment protected by as many guarantees as it is humanly possible to muster. It is for those who follow us to profit by our experience, and we must be careful to leave them entirely free to act.

We have therefore not given in paragraph 4 of Article 1 of the statutes of the I.F.R.B. anything but the <u>essential</u> principles on which it appears to us that the election procedure for membership in the I.F.R.B. should always be based, and with which we think there is little possibility that future Conferences will disagree. It is in the sub-paragraph c) that we introduced the idea of regions in a form very general and discreet. Why? Because, I repeat, we are attempting an experiment for which we have no precedent.

In special Document No. 636 R-E, Working Group A <u>unanimously</u> presents its proposals regarding the number of members and the election procedure that take into account (we have done our best in this regard) present conditions. We have given these proposals the form of a draft recommendation to be submitted to the present Conference; and we therefore emphasize the fact that we have worked only for the present and for the immediate future.

I shall conclude, Mr. Chairman, with two very important observations regarding Document No: 636 R-E.

#### -20-(669 R-E)

This document provides that the 4 regional groups 1. authorized to designate candidates will in reality designate countries that are members of the Union, and not individuals. It is purely because of present circumstances that our Working Group consented to recommend this procedure, as an exception, since it does not consider it satisfactory. When the I.F.R.B. becomes an effective and normal organization of the I.T.U., we) believe that the candidates should always be individuals and not countries. Furthermore this is clearly indicated in the draft of Article 1 of the statutes. The Delegation from the United Kingdom, however, strongly stressed that many members of the Union are at present unable to designate any of their technical experts as candidates for the I.F.R.B. because of the uncertainty that exists, on the one hand, with regard to the headquarters of this Board, and, on the other hand, with regard to the salaries to be granted to its members.

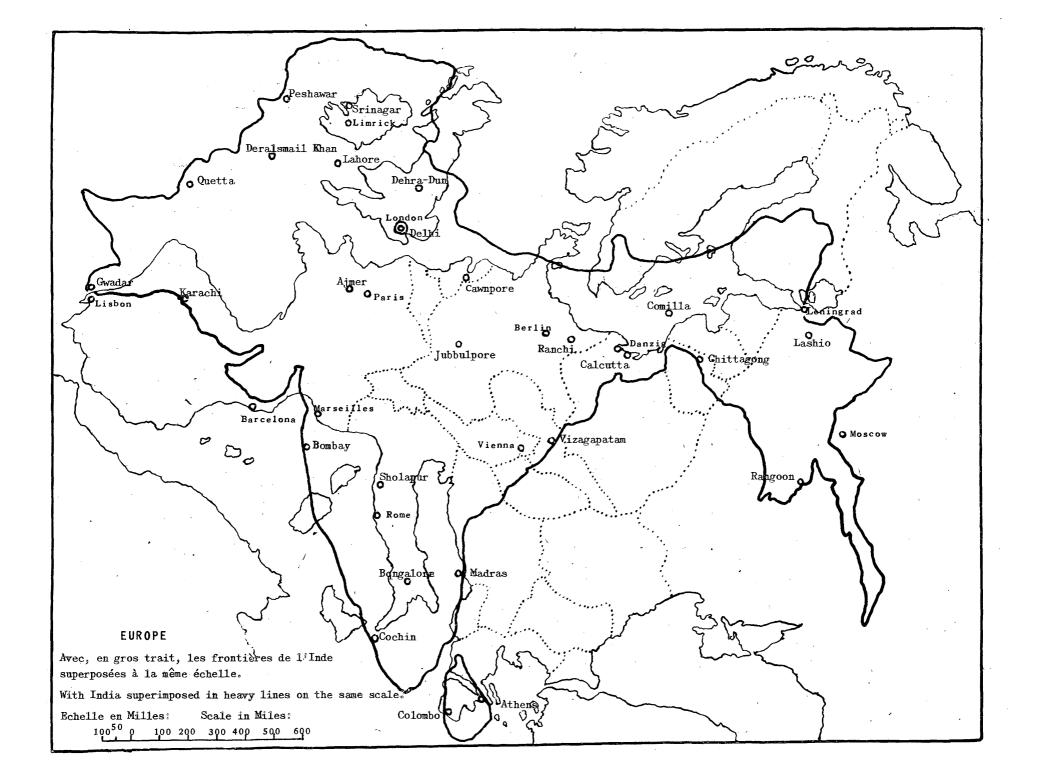
We believe that, in reality, these are serious difficulties.

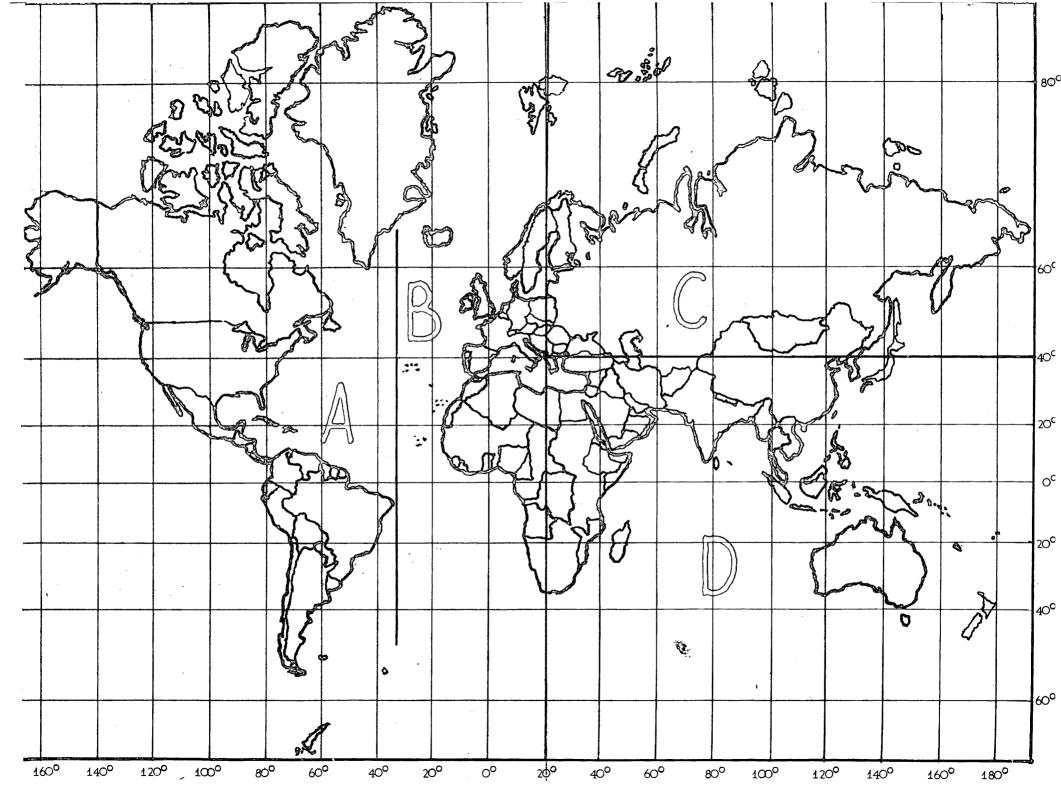
2. Document No. 630 R-E provides that it shall be compulsory that 8 members of the I.F.R.B. be elected (by vote of the entire Conference, naturally), on the basis of 2 members for each region, from the candidates appearing on the lists presented by the 4 regions, and that, in a second ballot, the Conference, still using the same lists, shall elect two additional members from among the candidates of two regions entirely at their discretion. 'Thus, 2 of the 4 regions will in short furnish 3 members each, while the other 2 regions will furnish only 2 each.

We are not unaware of the fact that certain delegations would greatly prefer the establishment of a rule that would determine in advance, and in a completely inflexible manner, the number of members to be supplied by each region. Working Group A did not consider it possible to follow this procedure. Composed only of 5 delegates, it did not believe that it was competent with the means at its disposal to evaluate the relative ability of each of the regions to furnish qualified experts to serve on the I.F.R.B. It felt that from this point of view, the four regions could not be considered exactly comparable to one another but it is of the opinion that for such a delicate question, there could be no doubt that the decision should be left to the Conference itself. That is why, Mr. Chairman, the Working Group conceived the system described in Document No. 636 R-E.

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We believe that with 2 members required from each of the 4 regions, the Board will be sufficiently well informed regarding the regional factors referred to in paragraph 3 sub-paragraph (c) of Article 1 of the statutes to be able to carry out its role of adviser to the members of the Union in an entirely satisfactory manner. The election of two additional members, according to the method proposed, will permit the Conference to increase the contribution made to the work of the I.F.R.B. by the two regions that it believes have the greatest number of highly qualified experts, thus , adding to the technical authority of the Board in the interests of all. We hope, Mr. Chairman, that our colleagues will agree to recognize the merits of our prudent handling of this delicate problem, and to admit that the compromise proposed by our Working Group A effects a satisfactory balance between conflicting requirements.





#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1927

<u>Document\_No.\_670\_R-E\_</u>

July 31, 1947

Committee 6

Report of

Subcommittee A of the International Frequency List Committee (Committee 6) Eighth Meeting July 29, 1947

1. The Subcommittee adopted the Minutes of the previous meeting (Document No. 642R.)

2. In reply to a question of the Delegate of the <u>United</u> <u>States</u>, the <u>Chairman</u> explained that, in view of the state of flux in which the Subcommittee found itself as the result of the recent meetings of Committee 6, the preparation of the final report of the Subcommittee had been deferred until a later date. In the circumstances, he suggested that the Subcommittee should begin its study of the Notification Form which would become Appendix I of the Statutes of the I.F.R.B.

3. The Delegate of France stated that, before the Subcommittee undertook the examination of this form, he would ) like to point out that this document had not yet appeared. ') in French; while he agreed that the discussion on this Form should proceed, he reserved the final approval of his delegation until the French text should have been published.

4. Items 1, 2, 3 were adopted without discussion.

5. With reference to item 4, a discussion took place between the Delegates of <u>Belgium</u>, <u>France</u>, the <u>United King-dom</u>, and the <u>U.S.S.R.</u> as to whether the frequency actually transmitted should be included as well as the assigned frequency. At the <u>Chairman's</u> suggestion, it was decided to give the appropriate form to item 4 when item 17 was being examined.

6. Items 5 & 6, At the suggestion of the Delegate of <u>Argentina</u>, it was decided that a final decision as to whether items 5 & 6 should be given separately or together should be deferred until Committee 7 had made a recommendation in this regard.

7. Items 7 and 8 were adopted without discussion.

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8. Item 9 was adopted by the <u>Subcounittee</u> after considerable discussion between the <u>Delegates</u> of <u>Canada</u>, <u>France</u>, the <u>United Kingdom</u>, the <u>Netherlands East Indies</u>, and the <u>U.S.S.R.</u> concerning the question of whether it would be necessary to define further the exact meaning of "theoretical dipole."

9. Items 10, 11, & 12 were adopted without discussion.

10. Item 13 was amended by the addition of Note (g) which was suggested by the <u>Chairman</u> to meet a point raised by the Delegate of <u>Belgium</u>. Note (g) reads as follows:

"When more than one locality is served, list all localities, giving the location of the control point or points in all cases."

11. Item 14 was adopted with the following amendment suggested by the Delegate of the United States:

instead of "Date put into service" read "Date put into service or projected date."

12. At the suggestion of the Delegate of Canada: Item 15 was adopted with Note (h) amended to read as follows:

"The maximum hours of use of the frequency is to be taken to mean the estimated limits of time, in any one day during a complete sunspot cycle within which the frequency will be used."

13. Item 16 was adopted after Note (i) had been amended to read as follows:

"In the case of emissions intended to serve a large geographical region the distance to the approximate centre of the region or the maximum and minimum distances of the extremes of the region may be furnished. In the case of forked fixed circuits the distance to each locality should be shown. In the case of fixed networks, the maximum distance between any two stations. should be shown."

14. Item 17 was adopted with the following addition to Note i proposed by the Delegate of France:

".....In the case where the assigned frequency is not actually transmitted the reference frequency should be given here."

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15. Item 18 was adopted without discussion.

16. Item 19 was adopted after discussion by the Delegates of <u>Belgium</u>, <u>Canada</u>, the <u>United States</u>, and <u>France</u> concerning the advisability of adopting a code to avoid repeating complete postal addresses.

17. Items 20 and 21 were adopted without discussion.

18. The Subcommittee decided to examine at its next meeting the Form on which would be submitted the data required for the compilation of the International Frequency List. This Form would be attached to the Frequency Notification Form.

19. The meeting adjourned at 1:35 P.M.

#### Reporters:

Chairman

J. Millot

G. G. Riddell

/s/Carl W. Loeber

# (670 R-E) <u>ANNEX I</u>

-4-

Form of notice to be used when notifying to the International Frequency Registration Board and frequency assignment to a fixed, land, radio navigation, or broadcasting station.

- 1. Notifying Government
- 2. <u>Date of transmission</u> of this notice
- 3. <u>Reference to preliminary</u> telegraphic notice, if any
- 4. Assigned frequency in kc/s.
- \*5. Type of Emission (note (a)/
  - \*6. Bandwidth of emission in kc/s.
    - 7. Power in kW
    - 8. Antenna Location
      - (A) Country
        - (B) Place
        - (C) Latitude and Longitude Note (b) /
    - 9. Directivity of Antenna /Note (c)/
      - (A) Azimuth of maximum radiation of antenna. Degrees from true north.
      - (B) Angular width of the main lobe in the horizontal plane in degrees / Note (d)/
      - (C) Theoretical gain of antenna in direction of maximum radiation at the assigned frequency. / Note (e)/
- 10. Call sign.
- 11. Class of Station / Note (f)/
- 12. Nature of Service / Note (f) /

Thems 5 and 6 are to be combined or, reported separately. This matter is to be decided by Committee 7.

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13.	Locality (or localities) or region with which communication is established or projected.
14.	Date put into service, or projected date.
15.	Maximum hours of use of frequency (G.M.T.)/Note(h)/
16.	Lengths of the intended circuit in km. (Note (i))
17.	System of transmission employed $\sqrt{\text{Note } (j)}$
18.	Operating Administration or Company.
19.	Postal and telegraphic address of controlling organization $/Note (k)/$
20.	Remarks /Note (1)7 -
21.	If assignment is made in accordance with a regional arrangement the agreement should be identified.
· · · · ·	Signature
	Title

Notes

- (a) It is sufficient to indicate only the symbols such as Al or F2 for the type of emission. Additional information regarding the emissions should be furnished under item 17 or 20.
- (b) Only in degrees and minutes except for radio navigational stations for which the position should be given in degrees, minutes, and seconds.
- (c) State whether the antenna exists or is projected.
- (d) The angular width of the main lobe in the horizontal plane is that total angle within which the radiated power in any direction is not more than 6 db less than the maximum power radiated.
- (e) Gain to be calculated with reference to a theoretical free space half wave dipole.
- (f) Reference should be made to Appendix 9 of Regulations.

# (670 R-E)

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- (g) When more than one locality is served list all localities; giving the location of the control point or points in all cases.
- (h) The maximum hours of use of the frequency is to be taken to mean the estimated limits of time, in any one day during a complete sunspot cycle within which the frequency will be used.
- (i) In the case of forked fixed circuits the distance to cach locality should be shown. In the case of fixed networks, the maximum distance between any two stations should be shown. In the case of emissions intended to serve a large geographical region the distance to the approximate centre of the region or the maximum and minimum distances of the extremes of the region may be furnished.
- (j) The information to be furnished under item 17 should include, in the case of telegraphy, the type of code used such as "on" "off" morse, frequency shift morse, 7 unit code, Hell, Schreiber facsimile. In the case of telephhay, details such as the use of single side band one or two channel working should be given. In the case where the assigned frequency is not actually transmitted, the reference frequency should be given here.
- (k) The addresses required are those to which communication should be sont on urgent matters regarding interference, quality of emissions, and questions referring to the technical operation of the circuit.
- (1) Any other useful data which might assist the Board should be furnished.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 194

Document No. 671 R-E July 31, 1947

#### Committee 3

#### Report of Subcommittee A of the Organization Committee (Committee 3)

Nineteenth Meeting July 30, 1947

1. The meeting was opened at 3:40 p.m. by Mr. <u>Gunnar</u> <u>Pedersen</u>, the delegate from Denmark.

2. The Chairman stated that it was agreed at the last meeting to discuss today the draft proposal for the I.F.R.B. statutes (Document 635 R-E), He stated that after the approval of this document by the Subcommittee there remained the proposal for the C.C.I.R. (Document 637 R-E) to be approved by the Subcommittee before submitting it to the main committee. The Chairman pointed out that it might be necessary at a later date to consider certain amendments, stating he had specifically in mind the Monitoring Service which was being considered in Committee 7-C. Action could not be taken on that matter in the Subcommittee until Committee 7-C had arrived at a final result, but the I.F.R.B. proposal must be referred to the main committee now. The Chairman therefore proposed opening the discussion on the I.F.R.B. statutes, taking into consideration that Document No. 636 R-E covering the election of members had already been approved by the Subcommittee.

3. The Delegate of <u>Cuba</u> made the following statement:

"Mr. Chairman,

The Delegation from Cuba desires to thank him for the opportunity it has been given to explain to Subcommittee 3 A the amendment it proposed in the case of paragraph 1 (a) of Article 1 of the Statutes of the International Frequency Registration Board which is set forth in Document 571 R-E, and which consists of the addition of the phrase: "taking into consideration the circuit or zone to be served by said assignment," to follow the words: "the technical characteristics of each assignment."

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The paragraph would therefore read as follows:

"(a) to effect an orderly recording of frequency assignments made by the respective countries so as to establish, in accordance with the procedure provided for in these Regulations, the date, purpose and technical characteristics of each of these assignments, taking into consideration the circuit or zone to be served by said assignment, with a view to insuring formal international recognition thereof, and":

-2-(671 R-E)

Furthermore, it shall be necessary to insert between sub-paragraphs c) and d) of paragraph 2 of Article 1, the following paragraph:

"To recommend to the respective administrations the readjustment of registered frequencies so as to provide further allocations required when there is no provision for appropriate frequencies for the establishment of new specified circuits, or for services in regions or countries inadequately served. In drafting recommendations, the Board shall take into account the effective use of registered frequencies, and of technical, ionospheric, economic and social characteristics which influence the situation in the case of such a request."

The reasons that the Cuban Delegation had for this amendment and insertion, are the following:

1. To establish clearly that the international recognition which paragraph 1 (a) of the 1st Article of the International Frequency Registration Board intends to make available does not contemplate an exclusive world-wide allocation of frequencies, but that it gives it taking into consideration the circuit or zone for which the allocation is, intended.

2. Because it expresses one of the most useful attributions of the International Frequency Registration Board - as considered in the wording proposed for paragraph 7 (3) of Article 2 - and therefore must be included among the attributions of the International Frequency Registration Board in order to complete it.

3. Because we all think that the International Frequency Registration Board (an organization whose mission all of us hope to see accomplished on sound engineering basis in order to obtain the best possible use of space in . the spectrum) with a view to facilitate the expansion of communications in regions or zones inadequately served at

present, should consider and contemplate those needs and formulate permanent recommendations in order to make way for the expansion of communications.

(671 R-E)

4. Because in our opinion, this organization which by virtue of the quality of its members and of the information it shall have available, is the best qualified to formulate those recommendations that will assure all nations of the world of the enforcement of the equitable principle that all nations have a right to the free use of communications.

We want to state clearly that the position of the Cuban Delegaion in this case, is not irreconcilable with the principles maintained by the Board. It is obvious that we want to make use of its great technical knowledge for the benefit of the world. We do not desire an exclusive/ study on whether the registration of a particular frequency, requested by a particular country, shall or shall not cause interferences; on the contrary, we hope that in order to avoid any conflict in such cases, it will advise the Administrations on the use of adequate frequencies.

It is not necessary to recall to all the delegations present, that since the beginning of the Radio Administrative Conference, Cuba has always aimed at endowing that organization with the elasticity necessary to avoid making it a mere witness of the inscription of the Frequency Registry and using it thus only to assure their use by virtue of the "priority" suggested if not established in Document 635 R-E.

If the Board could advise the administrations on the readjustment of frequencies in use, it would avoid many conflicts that might arise from the future augmentation of communications besides the assurance of obtaining the support of the interests in conflict, not by means of arbitration, which from our point of view - in these cases involves preventing a country from expanding its communications by the unappealable sustenance of the "statu quo," but by the use of flexible regulations insuring the expansion of communications which are not the exclusive possession of any country or region.

To conclude, we have no objection if the members of Subcommittee 3 A so desire - to have this proposal inserted with a different wording. We have only hoped and hope to familiarize those present with the merits of our principle, and the need of including it in the Statutes of the International Frequency Registration Board."

4. Mr. Lahaye, Chairman of Working Group A, in reply to the Delegate from Cuba, pointed out that the sim of the proposed insertion of the words "taking into consideration the circuit or zone to be served by said assignment" as recommended by the Cuban proposal 2554-R, was already covered in Article 2, 8 2, (3); of the proposed draft of the statutes (Document 635 R-E) which stated: "Such notice shall include at least the name of the notifying country, frequency, class of station, location of station, type of emission and band width, power, hours of operation, points of intended reception where applicable (otherwise area to which communications are directed), date of use, and, if such assignment is made pursuant to a regional agreement, the identity of such agreement. The notifying country should also include the additional data called for in Appendix 1 and may include other information." In Document No. 649 R-E (which was complementary to Document No. 635) under the title of Annex 2, would be found 25 items which must be filled in on the notice to be sent to the I.F.R.B. Among them is item 17 concerning the "location if possible of intended reception, otherwise regions towards which emissions are directed, " which, he thought, covered the point of view of the Delegate of Cuba. Mr. Lahaye therefore did not see the reason for the insertion in Art. 1, 8 1. (a) of the addition desired by the Cuban delegate. The Working Party held the view that the provisions of this paragraph should be as precise and concise as possible, but should at the same time be conceived in as general terms as possible. Those provisions were defined in detail in Article 2 5 2 (3). The Delegate of Cuba, said that his delegation had no wish to inflate Article 1, but had folt that, from the judicial point of view, that Article was the proper place for the inclusion of the words suggested. If, however, the majority of the Subcommittee preferred that the provision in question .should appear in the annex, he would not pursue his suggestion.

5. <u>Mr. Lahaye</u> referring to the proposal No. 2555R of the Cuban Delegation which provided for the insertion of a new paragraph between para (c) and (d) of Article 1 § 2 as drafted in Document No. 635 R-E, stated that the first part of the text submitted by the Delegate from Cuba contained a very interesting idea, and read as follows:

"(c) (bis) (i) The recommendation to the pertinent administrations of readjustments in the registered frequencies, in order to provide space for the necessary assignments, should it be unable to find adequate frequencies for the establishment of new specific circuits:....." -5-(671 R-E)

Mr. Lahaye stated that the Working Group had studied the above and had recognized the fact that this special function of the I.F.R.B., which was one of the most import in functions of the Board, should be mentioned very explicitly; and this had been done in detail in Document. No. 635 R-E, in Art. 2, § 7 of the statutes of the I.F.R.B. as follows: "If it is requested by any contracting country and if the circumstances appear to warrant, the Board shall make a study and issue a report on the following problems of frequency utilization:" Here two categories were cited, the second of which pertaining to the matter under discussion was drafted as follows:

"(b) In cases where a need arises for additional channels within a specific portion of the frequency spectrum."

Subparagraph (3) of the same § 7 provides that: "If the Board finds that a change in the frequency of one or more stations will (a) accommodate a new station, (b) facilitate the solution of an interference problem, or (c) otherwise facilitate the more effective use of a particular portion of the radio spectrum, and if such change is acceptable to the country or countries directly concerned, the change in frequency shall be recorded in the Master International Frequency Register without change in the original date or dates."

<u>Mr. Lahaye</u> stated that in the minds of the members of the Working Party A there was no doubt but what this function would be one of the most important of the I.F.R.B., and for this reason the working group thought there would be some advantage in providing for this function in the draft of Article 1, § 2.

6. With respect to the second part of the Cuban proposal reading ".....or services for regions or countries inadequately served. On formulating said recommendations, the Board shall take into consideration the effective use of the registered frequencies, and the technical, ionospheric, geographic and social-economic characteristics affecting the facilities requested," Mr. Lahaye stated that the Working Group could not conceive that the I.F.R.B. should have to judge on the <u>necessity</u> of the utilization of circuits and frequencies. This was purely a question of national sovereignty, and only international conferences should be entrusted to deal with and discuss the usefulness of particular circuits.

7. The Delegate from <u>Cuba</u> stated that he did not have in mind, in forwarding this proposal, that its execution would impinge in any way on the national sovereignty of any nation, and that he was considering only the technical aspect of the question, considering that the I.F.R.B. had the duty to give advice on technical questions without having the authority for making any decision. He again requested that the first part of the proposal 2555R covering the most important function of the I.F.R.B. should be inserted in a convenient place in Article 1 possibly by means of an addition to sub-paragraph (e).

8. The <u>Chairman</u> proposed and it was <u>agreed</u> that the meeting be interrupted for 10 minutes to enable Working Group A to meet with the Cuban Delegation to arrive at a revised draft for sub-paragraph (e).

9. In the course of the interval which followed, the revised draft (shown as Annex 1 to this Document) was agreed and, on the resumption, was adopted by the subcommittee. Subject to this amendment Article 1 was approved.

10. The subcommittee then passed to Article 2 of the statutes, the following corrections of typographical errors concerning the English draft only being brought to the attention of the Subcommittee:

\$1 (1) - close parentheses around figure "1"; insert the word "of" after the word "All," and change the word "frequencies" to "frequency."

\$2 (7) - third line, insert word "not" after the word "shall."

§2 (2), fifth line - correct word "seen" to "seemed"; (3)
of the same section, third line, insert the words "of
station" after the word "location."

11. Referring to the second paragraph of Article 2, \$ 1, (3) reading; "Such a record shall be made in order that the members of the I.T.U. may take into account the fact that the frequency in question is in use, and an entry in the NOTIFICATION COLUMN shall not give the right of international protection to that frequency assignment against a further assignment on the same frequency," the Delegate from <u>Mexico</u> stated that no protection was provided for frequencies which conformed as regards (a) and (b) of Article 2; \$ 3 (3) which had been put into the NOTIFICATION COLUMN and had been in operation for a reasonable period without causing interference. 12,. In reply Mr. Lahaye stated that the point referred to by the Mexican Delegate was covered by Article 2, \$ 3 (5) C, which stated: "Should the notifying country, however, insist upon reconsideration of the original notice unchanged, and the Board's finding remains unchanged, the assignment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the. Board being shown in the NOTIFICATION COLUMN" and Article 2, \$ 3 (7), which stated: "If in accordance with the provisions" of paragraph (5) Item C above, an entry has been made in the Master International, Frequency Register with the date in the NOTIFICATION COLUMN, the Board upon request of the notifying country and after the station has been in operation for a reasonable period, shall review the matter, first having given the interested countries an opportunity to present their views. If the Board's finding is then favorable, the date shall be transferred from the NOTIFICATION COLUMN to the REGISTRATION COLUMN without change."

That would mean, said Mr. Lahaye, that such an assignment was safeguarded and would be given precedence, and, as provided in article 2, § 3 (3) (c), the Board would examine later notices not only with respect to the REGISTRATION COLUMN but also, under the conditions mentioned by the Mexican Delegate, with respect to frequencies in the NOTIFICATION COLUMN. Mr. Lahaye added that the Board had no authority to enforce a member of the I.T.U. to stop using a certain frequency, and if two members of the Union were in conflict on the use of a specific frequency, they would have recourse to arbitration according to Article 15 of the Convention. In such a case the records of the I.F.R.B. would be available to the arbitrators and would show which of the two parties had the prior claim.

The Delegate of Mexico stated that in the type of case 13. which he had in mind a frequency assignment would be put into the NOTIFICATION COLUMN by the Board because the Board feared that the use of this frequency might cause interference. After a reasonable period it would be shown that the use of this frequency had not given rise to interference and the frequency in question would then be entitled to be transferred to the REGISTRATION COLUMN. Meanwhile, another country had notified the assignment of the same frequency. The Mexican Delegation could not accept the position that the country which first notified the use of this frequency should not be safeguarded against a later notification by another country merely because of a finding by the Board which in the course of time had proved to be , wrong. To meet such a contingency he thought the second

paragraph of Article  $2 \le 1$  (3) should be amended to read as follows: "Such a record shall be made in order that the members of the I.T.U. may take into account the fact that the frequency in question is in use, and an entry in the NOTIFICATION COLUMN shall give the right of international protection to that frequency assignment against a further assignment on the same frequency."

14. Mr. Lahaye stated in reply that he thought he had shown that this protection in the case mentioned specifically by the Delegate of Mexico was assured by the regulations of the I.F.R.B. contained in Document No. 635 R-E. He pointed out that there would be no difference between the REGISTRATION and NOTIFICATION COLUMNS if this amendment were made. In his statement of the 27th of June when submitting the Working Party's initial draft of the statutes (Document No.451 K+E.), he had dealt with this matter and referred to the various categories of "sinners" with which the Board would have to deal. If the amendment suggested by the Delegate of Mexico was adopted, it would mean that protection equal to that afforded by an entry in the REG-ISTRATION COLUMN would be given to the worst type of sinner, equally with those who were not sinners at all. The Working Party could not accept such a position.

15. The Delegates of the <u>USA</u> and <u>UK</u> supported the views expressed by Mr. Lahaye, and pointed out that the position with regard to frequency assignments such as the Delegate of Mexico had in mind appeared to be adequately safeguarded by the provisions of Art. 2, \$ 3 (3) (c).

16. The <u>Chairman</u> put the amendment presented by the Mexican Delegate to vote, and the majority was against this amendment.

17. The Delegate from <u>Mexico</u> stated that he would accept the view of the majority, but he asked that his request for the amendment which he had proposed should be noted in the report. This was agreed.

18. The Delegate of <u>Mexico</u> referred to Document No. 605R-E in which his Delegation had suggested the addition to Article 1 § 2 (d) of the following: "should one or several investigations have to be arranged for on the territory of some country these shall be implemented only if authorized by this country." The reason why his Delegation had suggested this addition was because the political structure of some countries was such that representatives attending the Radio Conference could not authorize in advance any investigation in the territory of their own country which might not be in accordance with the laws of the country in question.

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19. The <u>Chairman</u> stated that he did not think any provision such as that in Article 1 § 2 (d) could possibly be regarded as committing any country to permit an investigation which would impinge in any way on the sovereign laws of that country. If it were the intention that the Board should be given power to order an investigation on the territory of any country, provision to this end should be made in the Convention and not merely in the statutes of the I.F.R.B.

20. <u>Mr. Lahaye</u> stated that the Working Party had studied Document No.605 R-E and were in unanimous agreement with the principle of the suggestion of the Mexican Delegation. However, as the Chairman had pointed out, this principle was of general importance and a small subparagraph in the statutes of the Board was, in the view of the Working Party, not the appropriate place for a provision of this order to be made. The Plenipotentiary Conference was now discussing Article 1 of the Convention, and Mr. Lahaye stated he had reason to believe that the point of the Mexican Delegation's suggestion would be met by Article 1 of the Convention as it would be revised by the Plenipotentiary Confegence.

21. The Delegate of <u>Mexico</u> agreed that the principle which had been made should, properly, be established in the Convention. Mexico reserved the right, in the event of this provision not being included in the Convention, to raise again the question of the inclusion of such a provision in the statutes of the Board. Agreed.

22. The Delegate of the USA referred to Article 2, § 2 (1) of Document No.635 R-E and said that it was necessary for his Delegation to reserve the right, as it had done at the 13th meeting of the Subcommittee on the 1st of July (Document No.498 R-E, paral 16) with regard to the retention in the text of the words "radio navigation station." Noted.

23. The Delegate of <u>Mexico</u> had other views on the draft of Art. 2, which he would present at the next meeting, and the meeting was adjourned at 6:40 p.m.

Rapporteurs:

Chairman:

Maurice Rhodes H. Samiy Gunnar Pedersen

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#### ANNEX I

e) The prosecution of studies of frequency utilization and to give, when appropriate, recommendations, to the Administrations, on any adjustments in the use of frequencies that might be necessary to establish new circuits that could be needed.

INTERNATIONAL RADIO CONFERENCE Atlantic City 1947

Document No. 672 R-E August 1, 1947

Committee 3.

Correction to Document No. 571 R-E

In the heading,

10109

<u>replace</u> 541 R-E

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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 673 R-E August 1, 1947

<u>Committee 3</u>.

Texts 'to be presented

to Organization Committee (Committee 3) by Subcommittee 3' - A for the

Statutes of the I. F. R. B.

Article 1.

#### General

1. There shall be an International Frequency Registration Board whose essential duties shall be:

(a) to effect an orderly recording of frequency assignments made by the respective countries so as to establish, in accordance with the procedure provided for in these regulations, the date, purpose and technical characteristics of each of these assignments, with a view to ensuring formal international recognition thereof, and

(b) to render advice to the members of the I.T.U. with a view to the operation of the maximum practicable number of radio channels in those portions of the spectrum where international interference may occur.

2. The functions of the I.F.R.B. shall include :

(a) the recording of radio frequency assignments made in accordance with section 1 (a) above for inclusion

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in the Master International Frequency Register.

(b) the compilation in collaboration with, and for publication in suitable form and at appropriate intervals by, the Bureau of the Union of frequency lists and other material relating to the assignment and use of frequencies,

(c) the periodic review of entries in the Frequency Register with a view to eliminating, in agreement with the country which made the assignment, inactive entries,

(d) the investigation, at the request of one or more of the interested countries, of harmful interference and the formulation of recommendations with respect thereto,

(e) the prosecution of studies of frequency utilization, and to give, when appropriate, recommendations to the Administrations, on any adjustments in the use of frequencies that might be necessary to establish new circuits that could be needed,

(f) the formation and reference to C.C.I.R. of all general technical questions arising from the Board's examination of frequency assignments, and,

(g) the participation in an advisory capacity,
upon invitation by the organization or countries concerned
in the formulation of service or regional agreements.
3. (a) The International Frequency Registration Board
shall be composed of a body of independent members, all

citizens of different countries members of the Union. .

(67,3 R-E)

(b) they shall be thoroughly qualified by technical training in the field of radio and shall possess practical experience in the assignment of frequencies.

(c) the members of the Board shall perform all their functions on a world wide basis and in the interest of the most effective use of the radio spectrum. In particular, they shall reach their decisions on frequency assignments (reference parag 1 (a) of this article) solely on an engineering basis.

However, for the more effective understanding of the problems coming before the Board under parag 1 (b) of this article, each member shall be familiar with geographic, economic and demographic conditions within a particular area of the world.

(d) they shall serve on the Board, not as representatives of their respective countries, or areas, but as custodians of an international public trust.

(e) no member of the Board shall request or receive instructions relating to the exercise of his duties from any Government or a member thereof or from any public or private organization or person. Furthermore, each contracting government must respect the international character of the Board and of the functions of its members and shall refrain from any attempt to

influence any of them in the performance of their functions. No member of the Board nor any of its personnel may take an active part or have any financial interest<sup>\*</sup>) whatsoever in any enterprise engaged in any service of telecommunications.

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4. (a) Members of the International Frequency Registration Board shall be elected by each regular administrative Radio Conference according to the procedure. established by that Conference.

(b) Members of the I.F.R.B. elected by an Administrative Radio Conference shall take up their duties on the date determined by that Conference. They shall remain in office until the members elected by the following Conference have taken up their duties.

(c) Each Conference shall determine the number of the members of the I.F.R.B. and the method of their election with a view to ensuring a balanced selection of the members from the various parts of the world.

(d) members of the I.F.R.B shall be eligible for re-election.

\*) The 'term "financial interest" is not to be construed.' as applying to the continuation of retirement benefits accruing in respect of previous employment or servicés. (e) should a member of the I.F.R.B. relinquish his duties before the end of his normal term of office, he shall be replaced as soon as possible by a new member from the country to whom the former member belonged. If this country is unable to provide a replacement member, the administrative Council shall appoint a new member.

( 673 R-E)

## Article 2.

Procedure in Connection with the International Frequency Registration Board.

§ 1. (1) All of the frequency assignments to be used for international communication or capable of causing harmful interference with any service of another country shall be notified to the Board and shall be recorded in the Master International Frequency Register in either of two columns.

(2) Any frequency assignment which is in full conformity with all provisions of the Radio Regulations shall be recorded in the REGISTRATION COLUMN.

Such a frequency assignment shall have the right to international protection from harmful inter-ference.

(3) Any frequency assignment which, in any measure, contravenes the provisions of the Radio Regulations, but on the use of which the notifying country insists, shall be recorded in the NOTIFICATION COLUMN. 9085 Such a record shall be made in order that the members of the I.T.U. may take into account the fact that the frequency in question is in use, and an entry in the NOTIFICATION COLUMN shall not give the right of international protection to that frequency assignment except to the extent provided for in  $\frac{8}{5}$  3 (3) (c) of this article.

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§ 2. (1) In order to obtain international recognition of a frequency assignment, each country upon the assignment by it of a frequency to a fixed, land or broadcasting or radio navigation station within its jurisdiction or control, or upon changing an existing frequency assignment or any of the particulars (specifically set forth in par. 3 below), shall notify the International Frequency Registration Board by any means of suitable record communication.

(2) Notifications under the provisions of  $\tilde{s}$  1. (1) of this article must be made to the Board before the frequency is brought into use and in time to enable administrations to make such representations as seemed necessary to them to ensure the proper working of their services. However, where an urgent requirement must be met and it is clear that the use of a frequency assignment will not create international interference, the assignment need not be notified in advance.

(3) Such notice shall include at least the name of the notifying country, frequency, class of station, location of station, type of emission and band width, power,

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hours of operation, points of intended reception where applicable (otherwise area to which communications are directed), date of use, and, if such assignment is made pursuant to a regional agreement, the identity of such agreement. The notifying country should also include the additional data called for in Appendix 1 and may include other information.

(4) Similar notice shall be given of the assignment of a frequency to be used for reception by a land station in the operation of a particular service with mobile stations using transmitters having the frequency stability prescribed for land stations.

Note: Retention may be reconsidered after conclusions of Committees 5 and 8.

(5) Preliminary telegraphic notices may be transmitted to the Board in brief form including at least the frequency, location and class of station, advising that a complete notice is being transmitted.

(6) The date of first receipt by the Board of such notice in either complete or preliminary form shall establish the order of its consideration provided that the date of receipt of a preliminary notice shall be applicable only where the complete notice is received by the Board within 30 days thereafter.<sup>1</sup>

1) In the event of undue delay in the delivery of a notice by post or telegraph, that event, if and when verified, shall not in any way prejudice the priority of consideration of the registration for the country which submitted the notice.

# (673 R-E)

(7) Specific frequencies prescribed by the present regulations for common use by stations of a given service (for example, 500 kc) shall not be notified to the Board.

B 3. The procedure to be followed by the Board upon receipt of a complete notice shall be as follows: (1) The Board shall record the notice; the date of its receipt of each notice shall be acknowledged immediately to the notifying country.

(2) The Board shall circulate details of each notice by air mail to all countries, members of the Union, at intervals of one week. Any country which wishes to present objection to or comment on a notice shall notify the main basis of its objection or comment by telegram to the Board within two weeks of receipt of the circular in which the details of the notice are published; any country which has not communicated with the Board within this period will be deemed to have no objection or comment. Within a further period of two weeks a letter shall be sent to the Board amplifying the objection or comment already telegraphed.

(3) The Board shall examine each notice with respect to

(a) conformity with the table and rules for allocation of frequencies,

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(b) conformity with the other provisions of the Convention and Radio Regulations (except those relating to the probability of harmful interference) and

(c) the probability of harmful interference to any service rendered by a station for which a frequency assignment has been recorded for that service with a date in the REGISTRATION COLUMN of the Master International Frequency Register, or with a service operating in accordance with (a) and (b) above with a date in the NOTIFICATION COLUMN, but which has not, in fact, caused harmful interference.

Where appropriate, the Board shall also examine the notice as regards its conformity with a service or regional agreement.

(4) In examining notices of assignment of frequencies to stations, the Board shall bear in mind that in many instances, stations may share the use of a frequency: In all instances make "assignment" read "frequency assignment."

(5) Depending upon the findings with respect to paragraph (3) above, further action shall be as follows:A. Finding favorable with respect to (a), (b), and (c).

The assignment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Board being shown in the REGISTRATION COLUMN.

(673 R-E)

B. Finding unfavorable with respect to (b).

The notice shall be returned immediately by air mail to the notifying country with the reasons of the Board for this finding.

'Finding favorable with respect to (a) and (b) but unfavorable with respect to (c).

The notice shall be returned immediately by air mail to the notifying country with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

If the notifying country resubmits the notice with modification which results after re-examination in a favorable finding by the Board, the assignment shall be recorded in the Register as provided under Item A above, the date of receipt by the Board of the modified notice being shown in the REGISTRATION COLUMN.

Should the notifying country, however, insist upon reconsideration of the original notice unchanged, and the Board's finding remains unchanged, the assign-

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ment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Board being shown in the NOTIFICATION COLUMN.

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D. Finding favorable with respect to (b) and (c) but unfavorable with respect to (a).

The frequency assignment shall be recorded in the Master International Frequency Register, the date of receipt of the first notice by the Beard being shown in the NOTIFICATION COLUMN. However, if harmful interference is caused by the use of this frequency assignment to the reception of any station operating in accordance with the frequency allocation table, the station using this frequency assignment must immediately suspend operations upon receipt of advice of this harmful interference.

(6) The reconsideration of a finding by the Board may be requested (a) by the notifying country or (b) by any other interested country but in the latter case only on the ground of harmful interference either anticipated or actual. Prior to reconsideration, the Board shall circulate such requests to all countries, members of the Union, by air mail. Objections or comments shall be telegraphed within two weeks of receipt of the circular and amplified by letter to be dispatched within a further period of two weeks.

The Board, in the light of all the data thus presented, shall render such further finding as the circumstances warrant.

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(7) If in accordance with the provisions of paragraph (5) Item C above, an entry has been made in the Master International Frequency Register with the date in the NOTIFICATION COLUMN, the Board upon request of the notifying country and after the station has been in operation for a reasonable period, shall review the matter, first having given the interested countries an opportunity to present their views. If the Board's finding is then favorable, the date shall be transferred from the NOTIFICA-TION COLUMN to the REGISTRATION COLUMN without change. the finding with respect to probable harmful interference is still unfavorable, the date shall be left in the NOTIFICATION COLUMN. If the Board makes a finding that harmful interference actually exists, it shall be prima facie evidence that the operation is in violation of these Regulations. If, however, after not more than six years of operation the Board has not made a finding of the existence of harmful interference, the date shall be transferred to the REGISTRATION COLUMN without change.

§ 4. Should a change be made in the basic data as specified in section 2 sub section 3 of this article, recorded against a frquency assignment the latter shall

be subject to new registration, the record specifying the new data and the date of their receipt by the Board. However, should the Board arrive at the conclusion that the use of the frequency assignment based on the new data will not cause harmful interference with the service of a station for which a frequency assignment has been recorded, the amended assignment shall retain the original date of registration.

- 13-(673 R-E)

§ 5. When a service or regional agreement has been concluded, the Board shall be informed of the details of this agreement. The procedure to be followed in connection with frequency assignments made pursuant to such service or regional agreement shall be as specified in Sec. 3 of this Article except that the Board shall not consider questions of interference among the parties to such agreements.

§ 6. (1) As a general rule, the Board, after consulting the motifying country, shall cancel the recording of any frequency assignment if it finds that regular operation has not begun within two years following the date of its receipt of the first notice, unless it finds that the circumstances warrant the retention of the notice, in which case the entry may be retained for not more than one further period of one year. Exceptionally, however, and only in the case of a frequency assigned to a working service for use

during years of high or low sunspot activity, if the frequency has not been brought into use when three years have elapsed from the date of receipt of the first notice, and the Board finds, after consultation with the notifying country, that the circumstances warrant the retention of the notice, the entry may be retained for not more than one further period of three years. Requencies assigned to a aorking service for use during years of high or low sunspot activity may be notified to the Board for any other appropriate service for use on an interim basis and without prejudice to the earlier frequency assignment.

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(2) In case of permanent discontinuance of the use of any listed frequency, the notifying country shall inform the Board within three months of such discontinuance, whereupon the entry shall be removed from the Register.

(3) If the Board finds that a recorded frequency assignment has been out of use for three years it shall, in agreement with the notifying country, cancel the entry in the Register except in the case of a frequency intended for reruse by a working service during years of high or low sunspot activity, in which case the entry may be retained for one further period of three years.

§ 7. (1) If it is requested by any contracting country and if the circumstances appear to warrant, the Board shall make a study and issue a report on the following problems of frequency utilization:

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(a) In cases arising under § 3 (5), Item C
 of this Article as to a possible alternative frequency assignment to avoid
 probable interference;

(b) In cases where a need arises for additional channels within a specific portion of the frequency spectrum.

(2) If one or more of the interested countries so request, the Board shall investigate any contravention or nonobservance of these regulations or any harmful interference and shall issue through the Bureau of the Union a report containing its findings and recommendations for the solution of the problem.

(3) If the Board finds that a change in the frequency of one or more stations will

- (a) accommodate a new station,
- (b) facilitate the solution of an inter-
- (c) otherwise facilitate the more effective use of a particular pertion of the radio spectrum, and if such change

is acceptable to the country or countries directly concerned, the change in frequency shall be recorded in the Master International Frequency Register with-

out change in the original date or dates. § 8. The Board shall make available to the interested countries, for their information, and to the Bureau of the Union for prompt publication, all reports of its findings and reasons therefor.

- 16.-(673 R-E)

§ 9. In case a country avails itself of the provisions of Article 4 of the Convention, the Board shall, upon request, make its records available for such proceedings as are prescribed in the Convention or in these Regulations for the settlement of international disagreements.

#### Article 3

## Internal Regulations of the International

#### Frequency Registration Board

§ 1. (1) The Board shall meet as frequently as necessary to deal expeditiously with its work and, normally, at least once a week.

g 2. (1) At their first meeting the members of the Board shall elect from among their number a chairman and a vice-chairman, each to hold office for a term of one year or until their successors are duly elected. Thereafter, the vice-chairman shall succeed annually to the chairmanship and a new vice-chairman shall be elected.\*

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(2) In the absence of the Chairman and Vicechairman, the Board shall elect a temporary Chairman for the occasion from among its members.

§ 3. (1) Each member of the Board, including the Chairman, shall have one vote. Voting by proxy or by correspondence is not allowed. Moreover no member is entitled to vote on any given question if he has not been present at that part of a meeting at which that question was discussed.

(2) The minutes shall indicate whether a finding was unanimous or by a majority. In the latter case the vote of each member present may be recorded on request of a member, but shall not be made public.

(3) Problems of a purely nontechnical nature shall be decided by the Board on the basis of a two-thirds vote of the members present. In the consideration of problems having technical characteristics, the Board

\* (It is recongized that the foregoing clause concerning the selection of the Chairman of the Board may have to be amended in the light of the decision of the Plenipotentiary Conference on the establishment and membership of the Administrative Council of the Union.) shall endeavour to reach its decisions by unanimous agreement. If after reconsideration of such a problem over a period of not exceeding 14 days, the Board fails to reach a unanimous decision, it shall immediately thereafter decide the problem on the basis of two-third majority vote of the members present.\*

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(4) A quorum of the Board shall be one-half of the number of members of the Board. If, however, the verdict of such a quorum on a question coming before it is not unanimous, the question shall be referred for decision at a later meeting at which two-thirds of the total number of members of the Board are present. If this calculation results in a fraction, the fraction shall be rounded up to a whole number.

§ 4. Notices shall be considered by the Board within one week of the expiration of the period for receipt of objection or comments provided in Art. 2, § 3. (2) (see §3(2)(a) of Art. 2) and cannot be postponed unless the Board lacks sufficient data to render a decision in connection therewith. However, the Board shall not act upon any notice which has a technical bearing on an earlier notice still under consideration by the Board until such time as it has reached a finding with respect to such earlier notice.

\* UK prefers that all decisions by the Board be by simple majority.

§ 5. The Board shall keep a complete record of all official actions and minutes of all meetings, for which purpose the necessary personnel and facilities shall be provided by the Bureau of the Union. A copy of all records and minutes of the Board shall be filed with the Secretary of the Union and shall be available for public inspection. All records of the Board shall be kept in the official languages of the Union.

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§ 6. Each country shall have the right to send, at its own expense, a technical representative to appear before the Board in support of, or in opposition to, any notice or other matter under consideration in which his country has' a direct interest.\*

A number of delegations favor exclusion of this clause.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 674 R-E July 28, 1947

Committee 3

- 2 Août 1947

Annexes 1, 2 and 3 to Document No. 673 R-E issued August 1,1947

#### ANNEX 1

Text proposed by Subcommittee 3A to Organization Committee (Committee 3) for Article 15

#### Publication of Service Documents

§ 1 (1) The following documents shall be published by the Secretary-General of the Bureau of the Union:-

(i) List I. The International Frequency List.

(a) This shall contain details of registrations and notifications of frequencies recorded in the Master International Frequency Register by the I.F.R.B. under the provisions of Article 2. These details shall include the data enumerated in Appendix X of these Regulations.

(b) The List shall show also those specific frequencies (for example 500 kc/s.) prescribed by the present Regulations for common use in certain services, together with the information with respect to the frequencies or bands of frequencies assigned by the contracting governments for use by stations of other classes which are not individually subject to notification to the I.F.R.B.; all such stations having a common frequency assignment may be shown collectively for each country.

(ii) List II. List of Fixed Stations (alphabetical index of fixed stations in actual operation.)

(iii) List III. List of Broadcasting Stations. This shall include stations broadcasting; (a) voice and music (b) television

- (c) facsimile
- (iv) List IV. List of Coast Stations and Ship Stations.
- (v) List V. List of Aeronautical Stations and Aircraft Stations.

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List of Radilocation Stations. (vi) List VI. (vii) List VII. List of Special Service Stations. Stations transmitting Time Signals; (a) Stations transmitting Regular Meteorol-(b)ogical Bulletins (Weather Reports); (c) Stations transmitting Notices to Navigators; Stations transmitting Medical Advice; (d) Stations transmitting Standard Fre-(e) quencies. (viii) List VIII. List of Call Signs of all stations having call signs from "the international series. (ix)Maps of

- (a) coast stations open to public correspondence.
   (b) content to the state of the s
- (b) aeronautical stations open to public correspondence.
- (c) navigational stations.
- (x) Coloured charts showing International and Regional allocations of the radio frequency spectrum.

(xi) General Radocommunication Statistics.

§ 2. (a) Once a month, the Administrations shall inform the Secretary-General of any supplements, modifications or deletions that should be entered in the documents mentioned in § 1. Lists IV, V, VI, and VII The Secretary-General of the Union shall be responsible for amending the documents referred to in § 1. Lists I, II, III, and VIII, as necessary, from information supplied to the I.F.R.B. for the purposes of the master International Frequency Register and information supplied to the Secretary-General in respect of Lists IV, V, VI, and VII.

(b) Any change of a permanent nature concerning the sectors for which bearings from radio direction firding stations are normally reliable (List VI of this Article) or concerning any modification occurring in the operation of radionavigational land stations (List VI) must be communicated to the Secretary-General without delay.

§ 3. In Lists III, IV, V, VI and VII each class of station shall occupy a special section.

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§ 4. The International Frequency List and the List of Fixed Stations shall be published separately each year. They shall be kept up to date by the issue of monthly supplements, likewise published separately, every third supplement being recapitulativé.

\$ 5. The List of Broadcasting Stations, the List of Radiolocation Stations, and the List of Special Service Stations shall be published at intervals to be determined by the Bureau. Recapitulative supplements shall be published every six months for the List of Broadcasting Stations and every three months for the List of Radiolocation Stations and the List of Special Service Stations.

§ 6. The List of Coast Stations and Ship Stations shall be published every nine months without supplements between editions.

§ 7. The List of Aeronautical Stations and Aircraft Stations shall be published every six months without supplements between editions.

88. The List of Call Signs shall be published at intervals to be determined by the Bureau. It shall be kept up to date by the publication of monthly recapitulative supplements.

§ 9. The General Radiocommunication Statistics shall be published at intervals to be determined by the Bureau of the Union.

§ 10. (1) The forms in which the lists mentioned in § 1 (a) to (g) inclusive above are to be prepared are given in Appendix 8 of these Rigulations. Information concerning the use of these documents shall be given in the prefaces thereto. Each entry shall be accompanied by the appropriate symbol, as indicated in Appendix 9, to designate the class of station concerned. Additional symbols, where necessary, may be selected by the Secretary-General, any such new symbols being notified by the Secretary-General to the various Administrations.

(2). For the purpose of the service documents, a country shall be understood to mean the territory within the limits of which the station is located; a colony, an overseas territory, a territory under suzerainty or mandate, or a protectorate shall also be considered as a country for this purpose.

# (674 R-E)

# ANNEX 2

Form of notice to International Frequency Registration Board of frequency assignment to fixed, land, broadcasting stations or radiolocation.

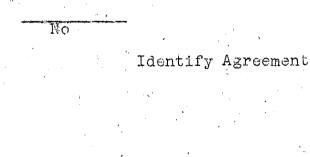
(1)	(2)
* · ·	Notifying Government Date of transmission of this notice.
•	(3)
· · · ·	Reference to prelimi- nary telegraphic notice, if any.
(4)	Frequency in kc/s <u>a</u> assigned <u>b</u> reference.
(5)	Emission.
<b>(</b> 6)	Bandwidth in kc/s.
(7)	Power in kW Antenna location
(8) (9) (10)	A. Country B. Place C. Latitude and longitude.
	Directivity of antenna (state whether projected or realized.)
(11)	(a) Asimuth of maximum radiation of antenna, in degrees east from true north.
(12)	(b) Width of main lobe.
(13)	(c) Gain in db of antenna in direction of maximum radiation at frequency.
( m ) i ) .	
(14)	Call Sign
(15)	Class of station.
(16)	Nature of service.
(17)	Location if possible of intended reception, otherwise regions towards which emissions are directed.

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- (18) Date put into service.
- (19) Maximum hours of use GMT.
- (20) Tolerance in percentage.
- (21) Type of telegraphic code. (Morse, Baudot, Hell, etc.)
- (22) Operating administration or company.
- (23) Postal and telegraphic address of controlling organization.
- (24) Remarks.

Yes

(25). Is this under a regional agreement?



Signature

Title

Note

The foregoing is extracted from Document 611 R-E (Report of Working Group 2 to Subcommittee 6A) but has not yet been approved by Committee 6 for recommendation to Committee 3.

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(674 R-E)	
ANNEX 3	
Maximum periods which may be necessary for each stage examination of a notice of frequency assignment.	the

	Total 26 weeks					
	4	6	2	5	3	6
Preliminary notice sent to Board:	Detailed notice to reach the Board.	the Board of the notices and re- ceipt, by coun-	make ob- jection or	Additional period for transmis- sion of ob- jection or comment in extense.	tion by -the Board of ob-	Period for the Bcard to notify and pub- lish its findings.

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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 675 R-E August 1st, 1947

Committee 3

Correction

which only concerns the Spanish document No. 635 R-Sp.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 676 R-E August 1st, 1947

Committee 7

Report

of the Chairman of Subcommittee C to the Chairman of the General Technical Committee (Committee 7)

Mr. J. Krapka, Chairman of Committee 7

Dear Sir:

10219

Subcommittee C has completed its work on two of the three subjects referred to it and has completed a part of the work on the third subject.

The results are submitted to you herewith. Some additional material arising from the consideration of monitoring will be submitted later.

Respectfully,

J. H. Dellinger \ Chairman, Subcommittee C.

### Article to be Inserted in General Radio Regulations or Annex or Separate Protocol, As determined by Committee 3

- 2 -(676 R-E)

#### RADIO PROPAGATION

Recognizing the dependence of efficient assignment and utilization of radio frequencies upon full use of radio propagation data, the contracting states shall endeavor to promote the establishment and operation of a world-wide system of observation stations to obtain data on ionospheric, radio noise, and other phenomena affecting radio propagation, and also to provide for the study, coordination and dissemination of radio propagation data and predictions.

RECOMMENDATION FOR CCIR ON THE INTERNATIONAL COORDINATION OF INVESTIGATIONS ON PROPAGATION

(676 R-E)

The C.C.I.R. is requested to initiate, and thereafter to continue on a permanent basis, the coordination of observation on propagation carried out by different countries, in order to provide, on a world-wide basis, coherent data immediately applicable by the Telecommunications services and, in a more general way, to ensure the speediest possible progress in scientific knowledge and corresponding techniques.

In this respect the C.C.I.R. should consider, in particular, the following matters:

<u>l</u>. Standardization of symbols and of the presentation of the results of ionospheric sounding and, if appropriate, of certain methods of measurement, in order to ensure that measurements from different sources may be directly comparable.

2. Suitability of geographical location of existing ionospheric sounding and other observation stations and requirements for future observations at new locations.

3. Coordination of investigations on absorption carried out by means of measurements at vertical and oblique incidence, by recording of field strengths of existing radio stations, or by any other method.

<u>4</u>. Coordination of investigations of natural radio noise.

5. Determination of the best practical means for a rapid exchange, on an international basis, of propagation information of all kinds.

6. Determination of the best practical means for the publication of scientific and technical investigations submitted by member Administrations and in addition periodical publication of results such as propagation forecasts having immediate applications to radio services.

7. Review of the value and importance of various phases of propagation work and of publications relating thereto, and regular recommendations accordingly.

## 8. Any other new matter of general interest.

In order to attain the maximum possible degree of cooperation with organizations concerned with propagation work such as the International Scientific Radio Union, the C.C.I.R. is expected to consult regularly with such organizations.

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# (676 R-E)

#### Article to be Inserted in General Radio Regulations or Annex or Separate Protocol, As determined by Committee 3.

#### STANDARD FREQUENCY AND TIME BROADCASTS

1. The administrations recognize that a standard frequency broadcast service available in all parts of the world is essential for maximum economy in the use of the radio frequency spectrum, the efficient operation of the telecommunication services and for the functioning of several activities of the I.T.U. The administrations recognize that this sevice may also be useful for other activities outside the I.T.U. The addition of time' signals superimposed on these same broadcasts is also highly useful and should be included, if possible.

2. To this end, the administrations will endeavor to provide on an international basis a coordinated broadcast system of standard frequencies. As regards Time Signals, recognizing the work already in hand by the various countries aiming at the fusion of distribution by radio of time signals and standard frequencies, contact is to be established as soon as possible with the International Committee of Time to bring about coordination on an international basis.

#### - 6 -(676 R-E)

#### Recommendation for C.C.I.R. Concerning Standard Frequency and Time Signal Services

1. Examine in cooperation with the International Committee of Time and other competent international organizations having a direct and substantial interest in this subject, suitable methods of assuring the coordination of the various standard frequency and time , gnal transmissions.

2. (a) Recommend to administrative conferences such action as is necessary to attain the objective specified in the.....

(b) Study the operation and functioning of these coordinated services.

(c) Recommend further improvements to make these services more generally useful.

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# Article 6

## Quality of emissions'

§ 4. The administrations shall cooperate in the detection and elimination of interference, employing the facilities described in Article --- and employing the procedures detailed in Article 22.

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#### New Article

-8-(676 R-E)

#### International Monitoring

Sil. The provisions of Article 6, Section 3, may be implemented by means of monitoring stations. Such stations may be operated by or on behalf of the administrations concerned or by a common monitoring service established by two or more countries or some international organization.

§ 2. Administrations shall endeavor to cooperate in the establishment of international monitoring for the purpose of undertaking such monitoring and measurements as may be requested

(a) by the I.F.R.B. and

(b) by the telecommunication administrations of contracting governments and international organizations concerned.

The stations referred to in Section 1 may participate in this work.

§ 3. (a) All of the monitoring stations of one country or one international organization concerned participating in this international monitoring work shall report and transmit results of measurements through one centralizing office. This Office shall receive directly all requests for monitoring originating in the I.F.R.B. in similar offices of other countries or international organizations concerned and shall similarly forward the results to the organization which has requested that the measurement be made.

(b) However, these provisions shall not affect informal administration or private monitoring arrangements made for special purposes.

§ 4. (a) The I.F.R.B. shall adopt technical standards for performance of monitoring stations taking into consideration recommendations of the C.C.I.R.

(b) The I.F.R.B. shall be responsible for determining whether a monitoring station meets these technical standards. When a favorable finding has been made the (Secretary-General) on behalf of the I.F.R.B. shall accredit the station accordingly.

(c) In certain cases, a station may be accredited only for the monitoring of certain classes of stations or only for making of certain types of measurements.

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(d) Should, thereafter, the results supplied by any accredited station appear questionable, the (Secretary General), on the recommendation of the I.F.R.B., shall bring the matter to the attention of the administration or international organization concerned and, unless suitable corrective action is taken within a reasonable time, the monitoring. station shall cease to be accredited and the administration or organization informed accordingly.

<sup>8</sup> 5. Each administration or international organization shall inform the (Secretary General) of the postal and telegraphic addresses of each centralizing office and the (Secretary General) shall establish a list of the centralizing offices and of the name and location of each of the accredited monitoring stations. This list, as well as its subsequent amendments, shall be forwarded to the administrations and international organizations concerned.

§ 6. The (Secretary General) shall make suitable arrangements to obtain periodically results of observations and measurements from the centralizing offices.

§ 7. (a) The (Secretary General) shall maintain the official international monitoring record containing combined results of monitoring and measurements made by the accredited stations from their own observations obtained in accordance with Sec. 2 above.

(b) The official international monitoring record shall also contain a complete statement of the/standard rules of measurement. In addition, it shall show for each particular series of measurements, the estimated accuracy and the procedures actually followed:

(c) The (Secretary General) shall publish periodically a summary of the official international monitoring record.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC'CITY, 1947

Document Nº 677 R-E

August 1 , 1947

COMMITTEE 7

#### REPORT

of

#### SUB-COMMITTEE A

# of the

## GENERAL TECHNICAL COMMITTEE

(Committee 7)

### Tventyeighth Meeting July 17, 1947

1. The meeting was called to order at 3:40 P:M by the Chairman, Lieutenant Colonel Lochard of France

2. The <u>Chairman</u> opened the discussion by bringing up the question raised that morning during the full meeting of Committee 7, concerning the drafting of a report on definitions which have been adopted up to the present time.

He suggested submitting the work already accomplished to Committee 7 in the form of two reports. The first of these, which might be termed provisional (explaining this word in a few lines in a preamble), in accordance with the plan set up at the preceding meeting, would list the definitions as they now stand. The second report would be in the form of an addendum, and would indicate the changes made in certain texts as a result of modifications which the Sub-committee intends to discuss in the definition of "radio communication."

The Delegate from the <u>United Kingdom</u> approved this suggestion, but proposed with the Chairman and the Delegate from the United States, that in the provisional report under consideration, a special note should be made on the following definitions indicating clearly that they were subject to modification: Telecommunication - Radio Communication - Radio - Radiotelegram -

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Radiogram - Fixed Service - Mobile Service - Broadcasting Service - Standard Frequency Service - Station - Industrial, Scientific, Medical Service -

The Delegate from <u>Belgium</u>, recalling the vote of the 27th meeting, considered that the Sub-committee had failed to make a sufficiently clear decision in the matter of giving a restrictive sense to its definition of "Radio Communication." He still opposed any change in the definition, as it stood at the present time.

The <u>Chairman</u> stated in reply that new definitions would be presented concurrently with those already decided upon, and that it would be left to Committee 7 to make the final selection.

The Delegate from the United States believed that, in the case of the definition of Industrial, Scientific, Medical Service, it might be necessary in the present definition as the case may be, to delete the word "other" before "telecommunication services", and to add to the list of terms under discussion the titles of the Regulations and of the Convention.

In reference to the last point mentioned, the <u>Chairman</u> made a reservation, emphasizing the point that it would be preferable to draft a special document to this effect; since he feared that changing the titles, especially that of the Convention, would lie beyond the jurisdiction of Committee 7.

The Delegate from <u>Belgium</u> agreed, but he believed it to be absolutely necessary to call the attention of Committee 7 to changes to be made in the titles, and he proposed that this be noted in the report. He suggested that the nine countries who wished to change the meaning of "Radio Communication", should propose new titles for the Convention and the Regulations.

The <u>Chairman</u> requested that drawing up a draft report be entrusted to him and to the rapporteurs by the Subcommittee, and he stressed the fact that he was prepared to take into account any suggestions submitted inwriting.

The Delegate from the <u>United States</u> supported the Belgian Delegate, and stated that full information should 'be given the delegates as to the exact points to be de-'bated when discussions were resumed on the meaning to be applied to the term "Radio Communication."

The Delegate from the <u>United Kingdom</u> objected that the current discussion was directed toward breaking down the decision of the previous meeting to consider a restricted meaning for "radio communication" and said he had not yet had an opportunity to show how the conflicting views might be resolved.

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He therefore requested the meeting to return to the subject.

The Chairman asked that the discussion be limited to the new definition of "radio communication." The Delegate from the United Kingdom was again given the floor.

3. The Delegate from the <u>United Kingdom</u> noted that it was possible to adopt terms which would in no way affect the titles of the Convention or the Regulations, but the adoption of a restricted meaning for "radio communicat on" would entail widening the meaning of "radio" and "telecommunication." He proposed the following new definitions:

#### Radio

General term applyied to the use of Hertzian waves, and including transmission of energy  $_{\rm V}$  by means of high frequency oscillations corresponding to these waves.

#### Radio Communication

A telecommunication by means of Hertzian waves for the purpose communicating an information from one point to another and excluding radiolocation.

#### Telecommunication

Any transmission or use of electromagnetic energy, emission or reception of signs, signals, writing, images and sounds, or intelligence of any nature, by wire, radio, visual or other electromagnetic systems.

4. The Chairman asked the delegates to express their views on the new proposal for "radio communication."

The Delegate from the <u>United States</u> asked if there' were any special reasons for replacing the word "any" by "a" at the beginning of the definition, and for putting "an" before the word "information."

The Delegate from the United Kingdom replied that he had no special preference in the matter of the first word of the text, but that the expression "an information" was designed to specify that the definition concerned the routing, from one place to another, of information already in existence. In his opinion, the important words were "excluding radiolocation", and he wanted, first of all, a discussion on the principle including them in the text, the rest being secondary in importance.

The Delegate from the <u>United States</u> then asked the Delegate from the United Kingdom under what definitions he would classify certain terms concerning equipment operating without any human agency at one of the communication terminals, such as water-level gauges, distance-measuring equipment Teleran, etc.

The Delegate from the <u>United Kingdom</u> replied that the replacement of a man by a machine should in no way\_alter the character of "radio communications", provided that existing information is transmitted from one point to another.

The <u>Chairman</u> stressed the logic of this reply. If, at a given place, it is possible to replace a machine by a man in order to transmit existing information, there can be no doubt that it is "radio communication"; if not, it is radiolocation or something else.

The Delegate from the <u>United States</u> cited several examples which might give rise to confusion. For instance, "Meteorological Aids Service", since it is neither "radiolocation" nor "radio communication", might be included in the "Industrial, Scientific and Medical Service." Moreover, a broadcasting station might transmit information or be used by aircraft as a beacon and so perform the functions of a radiolocation service. The use of the words "from point to point" was hardly applicable to communication with mobile units. The same concept is in the definition of "Fixed Service." Was communication by means of a radar device using lunar reflection to be included in "radio communication"?

The Chairman then stated that in general the transmission of information involved two points, although one of them might not be a fixed point.

The Delegates from France, Italy, India (in principle), the Netherlands and Switzerland agreed the proposal of the United Kingdom.

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The Delegate from <u>Bielorussia</u> asked whether it was true and whether he had correctly understood that two texts will be submitted to Committee 7: one recapitulating the definitions already adopted, the other containing the new proposals. The <u>Chairman</u> replied in the affirmative.

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The Delegate from <u>Bielorussia</u> then said that he would prefer a single comprehensive text - the text previously adopted - although he thought that it would be necessary to make a certain number of corrections. He would like, however, to examine the new definitions in both French and English before coming to a decision, pointing out that corrections could more easily be made in this way.

The <u>Chairman</u> agreed that it would be desirable to study the <u>definitions</u> as a whole: he said he would make every effort to put into their hands a document containing the definitions to be modified.

The Delegate from India proposed a slight modification in the proposal of the United Kingdom:

#### Radio Communication '

Any telecommunication by means of Hertzian waves (excluding radiolocation) for the purpose of communicating an information from one point to another.

The Australian Delegate would have approved this definition, but the Delegates from Argentina, France, Italy, the Netherlands and Switzerland preferred the definition of the United Kingdom. The Delegate from the United States proposed (subject to opposing the restriction later) the following text:

#### Radio Communication

Any telecommunication by means of Hertzian waves, excluding radiolocation.

The Delegate from the United Kingdom believed that this text would include the "Industrial, Scientific and Medical Service" but said he did not think that it was very important.

The Delegate from Portugal supported the definition of the United Kingdom.

# (677 R-E)

As there were no further remarks in favor of other proposals, the <u>Chairman</u> announced that the proposal of the United Kingdom would stand approved subject to slight modifications in wording. He then invited comments on the definition of "Radio."

5. The French Delegate proposed that in the second part of the definition of "radio", submitted by the United Kingdon, radiation be taken into account. The text might then read as follows:

#### Radio

A general term applying to the use of Hertzian waves and including also the radiations which appear in the use of high-frequency oscillations for the transmission of energy.

The Chairman then called attention to a delicate point which had arisen again: if the only radiation is included, it might prove difficult to make regulations applicable to the equipment itself.

The Delegate from the <u>United States</u> reminded the meeting of his proposed modified definition of "radio" and said that, after taking into account certain comments, he would present it as follows:

#### Radio

A general term applyied to any use of Hertzian waves, whether for purposes of radio communication, radiolocation, transmission of energy, or for any other purpose.

After some discussion, this proposal was approved in principle by the Sub-committee.

Consideration of "telecommunication" was postponed until the following meeting.

The Delegate from the <u>United Kingdom</u> pointed out that a user of the "Industrial, Scientific and Medical Service" might claim that he was not producing waves. It was for this reason that he had proposed the use of "electromagnetic energy" in the definition.

The meeting was adjourned at 6:15 P.M.

Rapporteurs:

#### Chairman:

J. Lochard.

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G. Sarre D. R. MacQuivey

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY. 1947

Document No. 678 R-E August 2, 1947 Committee 3

Report of Subcommittee A of the Organization Committee (Committee 3)

# Twentieth Meeting

July 31, 1947 The meeting was opened at 3:40 p.m. by <u>Mr</u>. Gunnar Pedersen, the delegate of Denmark.

The Chairman stated that the extensive discussion held yesterday on the statutes of the I.F.R.B. (Doc. No. 635 R-E)had served a useful purpose in clarifying some of the questions concerning the rights of stations shown in the NOTIFICATION COLUMN. Inasmuch as the delegate of Mexico desired to have further discussion on some additional points before the Subcommittee finally approved Art.2, the Chairman invited the Mexican delegate to take the floor.

The delegate of Mexico, referring to his statement at the previous meeting, said that since that meeting, from discussion with members of other delegations, he had reason to believe that the difficulty which the members of Subcommittee, 3A had found in agreeing to the Mexican delegation's proposal was largely due to the system of numbering of the various paragraphs of the statutes. It seemed, from his informal conversations that members of the Subcommittee had agreed to the principle contained in his suggestion. His point would be met by adding at the end of the second paragraph of Article 2, § 1(3) the phrase - "except in the cases of subsequent assignments referred to in Art. 2, § 3 (3)(c)."

The delegates of the <u>U.S.A.</u>, <u>U.K.</u>, <u>U.S.S.R</u>. and <u>Argentina</u> supported this proposal for the amendment of Art. 2, § 1 (3), and it was finally accepted with the amended wording proposed by the U.K. delegate, which was as follows:

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# (678 R**-E**)

"Such a record shall be made in order that the members of the I.T.U. may take into account the fact that the frequency in question is in use, and an entry in the NOTIFICATION COLUMN shall not give the right of international protection to that frequency assignment except to the extent provided for in § 3 (3) (c) of this Article."

- \*. Article 2 was approved subject to the amendments agreed at the 19th meeting and that recorded above.
- 5. The <u>Chairman</u> then invited comments on Article 3 of the statutes.
- 6. The delegate of <u>India</u> stated that, although the question of the number of members who should form this Board would be decided by the Administrative or Plenipotentiary Conference, he observed that the number of members necessary to form a quorum was still shown in Art. 3, 83 (4) as five. He felt it should be left to the same Conference to decide not only the total number of members to form the Board, but also the number necessary to form the quorum and the number to be present at a later meeting when the verdict of the quorum was not unanimous.
- 7. After a long discussion in which the delegates of the U.S.S.R., U.K., France, U.S.A., Argentina, and India took part, the following draft was <u>approved</u> for Art. 3, \$3 (4) (Doc. 635 R-E):

"A quorum of the Board shall be one-half of the number of members of the Board. If, however, the verdict of such a quorum on a question coming before it is not unanimous, the question shall be referred for decision at a later meeting at which two-thirds of the total number of members of the Board are present. If these calculations result in fractions, the fractions shall be rounded up to whole numbers."

- 8. It was agreed that the appropriate Spanish translation of this paragraph should be furnished by the delegate of Argentina.
- 9. The delegate of India referred to the original character which certain of the I.F.R.B. studies would assume, and asked whether it would not be desirable to add something to the statute to the effect that if a problem pertaining to a particular region came before the Board, the Board

should ensure that a member from that region was present before a definite decision was made by the Board.

- 10. The <u>Chairman</u> called attention to the basic principle that the members of the Board should perform their duties on a world-wide basis, and if something were added as proposed by the delegate of India, it would be contrary to this principle.
- 11. The delegates from the <u>U.K.</u> and the <u>U.S.S.R.</u> were of the opinion that there was no necessity for adding this clause into the statutes, as it was felt the members of this Board would work very closely together in a friendly relationship and that matters of particular interest to a member would not be considered in his absence. The delegate of the <u>U.K.</u> pointed out that there was no mention of regionalization in the statutes and he thought therefore that the proper place for any provision such as that suggested by the delegate of India was in the special regulations which would govern the election of members of the Board.
- 12. The delegate of <u>India</u> stated that he was in agreement with the remarks made by the delegates of U.K. and U.S.S.R. and that he would not press for any modification to the statutes in this regard, but asked that his statement be noted in the minutes of this meeting.
- 13. The delegate of the <u>Netherlands</u> stated that his delegation did not think § 6 of Art. 3 was necessary, since it should be possible, without any special provision on the point, for any country to send a representative to appear before the Board if it wished to do so. His delegation was therefore entirely in agreement with the U.K. note on this paragraph.
- 14. The U.K. delegate reminded the meeting that when this matter was first discussed by the Subcommittee, certain delegations were in favor of the retention of § 6 whilst a number of others favoured its exclusion. He therefore suggested that the note to § 6 of Art. 3 be changed to read as follows:

"A number of delegations favor the exclusion of this clause."

15. This amendment was agreed.

- 16. Article 3 was approved subject to the amendments mentioned above.
- 17. The Subcommittee then began the study of Doc. 649 R-E Service Documents.
- 18. After introductory comments by Mr. Lahaye, Chairman of Working Party A, which had drafted Doc. 649 R-E, the delegate of the U.K. said that, since the proposals contained in Annex 1 were published, he had confirmed, in conversation with a member of the Secretariat of the Berne Bureau, that the Bureau would in future obtain all the information necessary for the List of Call Signs (List VIII) from information received from the I.F.R.B. in respect of fixed stations and broadcasting stations and from information supplied to the Secretary-General of the Berne Eureau for Lists ÍV, V, VI and VII. In these circumstances he suggested, and it was <u>agreed</u>, that Annex 1 § 2 (a) be amended to read as follows:
  - "Once a month, the Administrations shall inform the Secretary-General of any supplements, modifications or deletions that should be entered in the documents mentioned in \$1, Lists IV, V, VI, and VII. The Secretary-General of the Union shall be responsible for amending the documents referred toin \$ 1, Lists I, II, III, and VIII above, as necessary, from information supplied to the I.F.R.B. for the purposes of the master International Frequency Register and information supplied to the Secretary-General in respect of Lists IV, V, VI, and VII."
- 19. The delegate of the U.K. further called attention to some minor corrections which should be made in Doc. No. 649 R-E, as follows:

Para (b) of 2, third line, the word "list" should begin with a capital "L".

Para (1) of \$10, second line, the word "as" should be changed to "is".

Annex 2 heading, should read "Form of notice to International Frequency Registration Board of frequency assignment to fixed, land, broadcasting or radiolocation stations."

- 20. The delegate of the U.S.A. suggested, and it was agreed, that Annex 1, which dealt with service documents concerning operational matters, should be referred to Committee 8 (Operating Regulations) for any comment and advice which it had to offer. It was noted that Annex 2 was being considered by Committee 6 (International Frequency List).
- 21. The <u>Chairman</u> stated that this concluded the Subcommittee's consideration of the statutes of the I.F.R.B., which, with the amendments which had been agreed, and Annexes 2 and 3 of Document No. 649 R-E, would be submitted for approval to the Main Committee.
- 22. The Subcommittee then started the study of Document No.637 R-E, prepared by Working Group B on the C.C.I.R., and the <u>Chairman</u> invited Mr. Fortoushenko, Chairman of that Working Group, to introduce the Document.
- 23. Mr. Fortoushenko, Chairman of Working Group B, said that Working Group B, consisting of 7 members, had at its disposal several proposals with respect to the Consultative Committee. Moreover, they had instructions from Subcommittee 3A 'to'base their proposals on the working of the C.C.I.F. In accordance with these instructions, the Working Group B had considered the proposals of the. Moscow Conference, as well as those of the U.S.A., the U.K., France, Chile; and others, documents of the C.C.I.F., and the relative Cairo Regulations. These were all taken into account in the formulation of the final recommendations which appeared in Doc. 637 R-E. With regard to \$1 which should characterize the duties of the C.C.I.R., the Working Group, after discussion, came to the conclusion that it would be best to take as a basis' that formulation contained in the Cairo Regulations, with some slight alteration.
  - §1.

In the Cairo Regulations read as follows: "An International Radio Consultative Committee (C.C.I.R.) shall be charged with the study of technical radio questions and operating questions the solution of which depends principally upon considerations of a technical character." A very important matter

(was omitted in the Cairo Regulations, that was to say, that. the C.C.I.R. should not only study questions, but should also make recommendations, and provision was therefore made accordingly in the Working Group's formulation. However. as appeared from the note to \$1, the Delegates of France, Belgium and Switzerland considered it necessary to add to the formulation of the duties of the C.C.I.R. with regard to its recommendations, and this addition concerned questions of tarrifs, that was, rates. This question would have to be discussed by this Subcommittee, but it was Mr. Fortcushenko's view that questions of rates need not be studied by the C.C.I.R. since the duties of the C.C.I.F. and C.C.I.T. already included the consideration of such questions. Should consultation with the C.C.I.R. in any particular case be required, then the respective committee, the C.C.I.F. or C.C.I.T., could invite a representative of the C.C.I.R. to attend its meeting.

-б-(678.R-Е)

§2. Mr. Fortoushenko drew the attention of the Delegates to the fact that the words"(by the Administrative Council of the Union)" appeared in brackets. The reason was that these had an entirely conditional character, inas**much** as the Plenipotentiary Conference had not yet made any decision as regards the Administrative Conference. Therefore, should the Plenipotentiary Conference decide that a Council would be established, the question of mentioning this Council in §2, would be resolved automatically.

Mr. Fortoushenko wished to make a more vital remark with regard to \$3. At a meeting of Subcommittee 3A, the question of membership of the C.C.I.R. had been discussed and, as far as he remembered, the majority favoured automatic membership of each consultative committee for all members of the Union. Therefore, as he understood it, the majority opinion of Subcommittee 3A was that there should be no special provision requiring administrations of countries, members of the Union, to express'the specific desire to participate in the work of the C.C.I.R. However, in the draft as it appeared in Doc. 637 R-E, \$3 (1), 4th line, after the words "the Union" members would find a semicolon. This brought about the following result the words which followed it, i.e. "which have expressed a desire to have their experts participate in the work of the C.C.I.R.," should not only refer to private operating agencies but also to the administrations of the member countries, which in his view was contrary to the opinion expressed by the majority of the members when this question was discussed at the meeting of the Subcommittee 3A. This paragraph accordingly had a note which pointed out that the Delegates of U.S.S.R., Cuba and Switzerland considered that a comma should be used instead of a semicolon, and the following clause would then refer only to private operating agencies. This question also would have to be clarified when Doc. 637 R-E

was discussed by the Subcommittee.

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The same point arose with regard to § 4, where there was a formula saying the the requests of administrations and private agencies for membership in the C.C.I.R. must be addressed to the Administrative Council; however, it was the opinion of the U.S.S.R., Cuba and Switzerland, on the basis of the principle just explained, that these requests should only come from the private agencies. As for the administrations of the countries which were already members of the Union, no additional request with respect to membership to the C.C.I.R. should be necessary.

(678 R-E)

Continuing, Mr. Fortoushenko said that § 8 contained a very important point which would require the unanimous decision of the Subcommittee. He had in mind the provision that the Plenary Session of the C.C.I.R. must take place every two years, and, particularly, that a meeting should take place about one year prior to each regular Administrative Radio Con-This was of very great importance, since, ference. if the C.C.I.R, met in Plenary Session a short time before a regular Administrative Radio Conference and had on its agenda such matters as would later be considered by the Radio Conference, this would be a great help to the Administrative Radio Conference. The fact that our present Radio Conference did not have a preceding Plenary Session of the C.C.I.R., had created great difficulties with regard to a number of questions, as the way to their solution had not been prepared by the various committees of the C.C.I.R.

As regards paragraph (b) of § 8, Mr. Fortoushenko drew the attention of the delegates to the first line, "Commissions of Reporters(Study Commissions)." Some members of the working group did not consider the designation "Commissions of - Reporters" very suitable, as the word "reporters" was often associated with purely secretarial work, as it would be the task of these commissions to study special questions, those members considered that it would be much better to use the designation "Study Commissions." Therefore, these two names -"Commissions of Reporters" and "Study Commissions"were submitted for consideration by the Subcommittee and by the main Committee for decision as to which of the two terms should be adopted. Mr. Fortoushenko also drew attention to the note to \$ 8 which stated that the Delegate of France desired to add to this paragraph special mention with regard to the specialized secretariat of the C.C.I.R. This note was, however, only a formal one, since § 11 of Document No. 637 R-E madd specific. provision as to the specialized secretariat. Such an organization as the French delegate had in mind was thus already provided for. At the same time, all the other members of the working group considered it more expedient to deal with the matter of the Secretariat in a separate section in order to divide the work of the C.C.I.R., its Plenary Session, and its Commissions of Reporters from the work that, although important, was still, purely secretarial, and to provide for this task in § 11.

§ 10 provided that the C.C.I.R. must have a Director who should be elected at a Plenary Session of the C.C.I.R. and in the appended note mention was made of the fact that the Delegate of U.S.S.R. considered that, in order to give more authority to the Director of the C.C.I.R., it was desirable that he should be elected by the Administrative Radio Conference. If it was to be remembered that the President and all members of the I.F.R.B., would be elected by the Radio Conference, and being given the fact that the work of the C.C.I.R. would also be very important (and Mr. Fortoushenko wished to underline the importance of this work), it was his opinion that it would be advisable that the Director of the C.C.I.R. should likewise be elected by the Administrative Radio Conference.

(678 R-E)

§ 19 provided, in accordance with the decisions taken at the meeting of Subcommittee 3A, that the salary of the Director and the ordinary expenses of the Secretariat should be included in the general expenses of the Union. This question had received special consideration, and Mr. Fortoushenko thought that the formulation contained in § 19 was in accord with the decision which had been made by the Subcommittee. The second paragraph of § 19 stressed the fact that all participating in the work of the C.C.I.R., including private agencies, international organizations, and other organizations must also participate in the expenses of the C.C.I.R. This provision, also, was in accordance with the decisions taken when this matter was discussed a month ago.

- 9 -(678 R-E)

Mr. Fortoushenko said that, of course, Document No. 637 R-E, now being presented, did not cover all the aspects of the work of the C.C.I.R. The working Group had it in mind that, in the General Regulations which were being worked out by the Plenipotentiary Conference in Committee F, special regulations for the work of all the consultative committees would be provided. Therefore, the Working Group did not consider it necessary to review such matters as would be general for all consultative committees. In this connection, however, § 21 especially stated that the C.C.I.R. should observe the rules or procedure provided in the General Regulations annexed to the Convention.

In conclusion, Mr. Fortoushenko said that if, in his remarks he had dealt at insufficient length with any particular question, he would be glad to offer any further explanation which might be desired.

24. The <u>Chairman</u> expressed to the members of Working Group B, and to Mr. Fortoushenko in particular, his unlimited admiration for the efficient and expeditious manner in which the work had been carried out, and said that he felt all of the members of the Subcommittee would join him in this expression of appreciation. The interesting presentation which Mr. Fortoushenko had made on this document would enable the Subcommittee to be prepared for the discussion on the C.C.I.R. at the next meeting.

25. The meeting was adjourned at 6:35 p.m. Rapporteurs: Chairman: M. Rhodes /s/ Gunnar Pedersen H. Samiy INTERNATIONAL RADIO CONFERENCE ' ATLANTIC CITY, 1947

Document No. 679 R-E August 2, 1947

Committee 3

Correction to Document No. 671 R-E (Report of Subcommittee A of Committee 3, 19th Meeting).

Page 10, Annex I, first line, read:

e) To undertake the prosecution of studies of frequency utilization . . .

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Document No. 680 R-E August 2, 1947

Committee 8

Report of Subcommittee B of the Operations Committee (Committee 8) Seventeenth Meeting July 31, 1947.

1. The minutes of the sixteenth meeting (Document 634 R-E) were approved.

2. The <u>Chairman</u> took up a letter addressed to the Chairman of Subcommittee 8 B received from the Delegation from India concerning the proposed language for paragraph 486 (a) as contained in Document 586 R-E and already approved by Committee 8. After some discussion, it was agreed to add to 486 (a) as a footnote the following language:

> "Certain coast stations of India are also permitted temporarily to transmit a single short radiotelegram on 500 kc/s."

The Chairman indicated that this footnote will be forwarded to Committe 8 for approval.

3. Consideration of the "Q" code abbreviations QTM and QUX, contained in Document 660 R-E, was deferred until the group of navigational experts, to be appointed by Colonel Read, had considered certain abbreviations relating to navigation. It was agreed to eliminate Appendix 12 and to move QRK and QSA, contained in Document 660 R-E, to the "Q" code. Proposals 1753R of Roumania and 2131R of France concerning the FRAME node are to be studied by a special group and if adopted will be made an Appendix to the Regulations.

The Chairman then took up the report of the "Q"

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code working group contained in Document 641 R-E. A number of typographical errors in the

French text were corrected.

The word "statistic" as used in the definition " of QRN was interpreted to include atmospherics -

as well as electrical interference.

The word "operation" in the definition of QRR was interpreted to include both transmission and reception.

QUG-put words "or land" in parantheses. QUO-close parentheses after "survival craft". "Search and Rescue" as a caption in the B List

was retained.

COL - Cairo definition retained.

CTE - abbreviation and meaning deleted.

ER - Cairo definition retained.

HR - Abbreviation and meaning deleted.

DE - definition changed to "Used to separate the call sign of the station called from the call sign of the calling station." It was agreed that Committee 9 would handle any inconsistencies in this matter contained in the text of the Regulations.

JM - The question of the insertion of a punctuation mark after the word "transmit" was left to the drafting group.

P - Change definition to read "Prefix indicating a private radiotelegram."

OK - Change definition to read "We agree or it, is correct."

With the changes listed above, the text of Appendix 11 attached to Document 641 R-E was approved. The drafting group will place it in proper form for submission to Committee 8.

Reporters: V. M. Beaufol W. F. Minners /s/ E. M. Webster Acting Chairman

-2-(680 R-E)

## - 3 -(680 R-E)

#### Annex to 17th Meeting of Subcommittee 8B

International Telecommunications Conferences

DELEGATION OF INDIA

#### July 29th,1947.

Dear Col. Read:

The Delegation of India requests the following amendment to Document 586 R-E, Para 486 (a).

Para 486 (a): "For the transmission of a single short radiotelegram exclusively by ship and coast stations of Australia, India and New Zealand, in proximity to the coast of their respective countries."

If however, New Zealand and Australia are not interested in the amendment a footnote may be added to this paragraph extending the exception to coast stations of India in addition to the ship stations.

It is regretted that this amendment is being suggested at this stage.

Yours sincerely,

/s/ <u>S. A. Sathar</u> For Chairman, Delegation of India

Col. A.H. Read, O.B.E., Chairman, Subcommittee B of Committee 8.

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Document No. 681 R-E

August 2, 1947

Committee 5

#### Report

of the Aeronautical Group of Allocations of Frequencies Committee (Committee 5)

Fourth Meeting

#### August 1, 1947

1. The meeting opened at 1800 hours.

2. The report of the 3rd meeting (Doc. No. 668 R-E) was adopted after the following modifications:

Page 1-Paragraph 3-Modify notes as follows:

"The Regional allocation 3900-3950 will be used by Off-Route."

"The Regional allocation 5450-5480 will be used by Route."

3. It was agreed to apply the following Note to the Route frequencies:

Note I. "Frequencies in this band are reserved for communications between any aircraft and those aeronautical stations primarily concerned with the safety and regularity of flight along national or international civil air routes."

4. The following Note was approved to be applied to the OFF - Route frequencies:

Note II. "Frequencies in this band are reserved for communication between any aircraft and aeronautical stations other than those primarily concerned with flight along national or international civil air routes."

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5. It was agreed to continue to use the words Route and Off-Route to designate the use of the various aeronautical bands.

-2-( 681, R-E)

6. The meeting closed at 1915 hours.

Rapporteurs:

Chairmen:

M. Falgarone

/s/ S. R. Burbank

T. E. Daniels

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## INTERNATIONAL RADIO CONFERENCE, ATLANTIC CITY 1947

Document No. 682 R-E

## August 2, 1947

Committee 7

#### REPORT

#### of Sub-subcommittee 2 (Technical Definitions) of Subcommittee A of the General Technical Committee (Committee 7)

Second Meeting

The meeting was opened by Mr. Hecht (United Kingdom).

The report of the first meeting (Document No. 631 R) was approved after the Sub-subcommittee had defined the term "safety service" used in the definition of "harmful interference" as follows:

Safety Service. "Any radio service, the operation of which is in direct relation, whether permanent or temporary, with the safety of human life and the safeguarding of property, shall be considered as safety service."

The <u>Chairman</u> then gave a list of terms to be studied by the Sub-subcommittee which were: Tolerance, power of transmitter, directive antenna, safety service, frequency band, and harmful interference.

The terms "harmful interference" and "safety service" having already been defined, the Chairman brought up for discussion the term "directive antenna."

After an exchange of views in which the <u>Chairman</u>, and the delegates of the <u>United States</u> and <u>France</u> participated, it was decided to abandon the attempt to define "directive antenna" and to go on to the definition of <u>gain</u>, included in the definition of French proposal 1367 R with regard to directive antennas.

The delegate of <u>France</u> explained the considerations that had led the French Delegation to propose a simple definition, understandable to operators. After a long discussion in which the Delegates of the United States, France, the Netherlands, and <u>Italy</u> participated, the Sub-subcommittee was ready to adopt the French proposal by adding the words: "at a sufficiently great distance," before the last line between the words "the same field" and: "the first, etc."

-2-(682 R-E)

The delegate of the <u>United States</u> having pointed out the differences that might result when one considers the power applied, desired that radiated power should be taken as a base. He further proposed that the theoretical and imaginary antenna with spherical radiation be taken as a reference antenna. After discussion during which arguments were made in favor of radiated power, a point of view defended by the <u>United States</u> and the <u>United Kingdom</u>, and in favor of applied power recommended by the Delegates of <u>France</u>, the <u>Netherlands</u>, and <u>Italy</u>, the <u>Chairman</u> proposed that discussion of this matter be halted in order to take up the definition of the power of a transmitter with the idea that once this definition has been established it would be easier to take up the definition of gain.

The Delegate of France protested and made the following statement:

"Mr. Chairman,

Not having been granted the opportunity of participating in the last part of this discussion in order to defend our proposal, I desire to protest now, with the request that it be noted in the report of the meeting, against the manner in which the discussion was conducted. What must we consider here regarding the execution of the regulations? Without doubt, first of all, the electrical field produced by the correspondent, then that produced by an interfering receiver. What do we know? The applied power of an this is the characteristic that we are obliged to antenna: give in the frequency lists, because it is easily measured, and for this very reason there is not much chance that we will be able to define another power parameter, at least for some time to come. How shall we pass from power of 🦂 entry to the antenna to the field? By the definition, such as we have given, of antenna gain. That is all and it is simple. This gain can be measured and calculated with sufficient approximation in practice.

Only confusion and doubt is injected in this discussion by the introduction of complex ideas that have nothing to do with the practical case before us. These ideas are with regard to the output of the antenna, which can be measured with difficulty and is practically

incalculable except in very simple cases, as everybody knows; and that of radiated power, impossible to measure and impossible to calculate for antennas currently in use. The delegate of the United States has properly proposed the introduction of radiated power, citing the case of rhombic antennas. I shall be glad to follow him along these lines, in recalling the radiation formulas of the rhombic antenna, which we know. These of Bruce and those of Foster are particularly erroneous; because of the hypothesis made (speed and constant current through the length of the wire) outside of the principal lobe. With regard to the latter, all that we know is that the results of the formulas are in accord with experience. It is therefore not a question of calculating the radiated power beginning with these formulas. All that one can do is to approximately calculate the gain close to the authorized direction, simply making an hypothesis based on the experiment with regard to efficiency. We are also told that the graphs given by Mr. Van der Pol's Subcommittee on Propagation start with radiated power. This is probable. I have not had the time to read this interesting. document. I, however, desire to point out that all of the graphs and diagrams of propagation that we know, those of Bucarest (1937), of Cairo (1938), those of Mr. Van der, Pol, (Hochfrequenztechnik und Electroakustik, 1938); those of Mr. Norton (F.C.C. 1940), start either with the radiated power by a perfect infinitesimal dipole, identical to , the applied power, or the field given at a fixed and curved distance by an arbitrary antenna. And in order to . apply all of these curves, the engineer, by a simple rule of three corrects the value read in comparing the field which gives his real antenna a mile or one kilometer, to that given by the dipole or the arbitrary antenna at the same distance. The F.C.C., likewise, in its rule with regard to broadcast antennas; imposes a minimum field of a mile for 1 kW applied power; and for antennas of very high frequency, it imposes the concept of gain in relation to a half wave perfectly isolated in space.

-3-(682 R-E)

Gentlemen, you may critize our definition, you may modify it, and you may tell us why it cannot be satisfactory in practice, but do not endeavor to set it aside by invoking complex theoretical questions that have nothing to do with the matter."

The Chairman also made the following statement:

"The Chairman wishes to point out that in a complicated. technical discussion such as that now being carried on it is impossible, at certain times, to follow a rigid procedure of argumentation through the intermediary of translators, as this would create a break in the continuity of the questions and answers, preventing any possibility of an understanding on a technical plane."

-4-(682 R-E)

He then asked the Delegate of the <u>United States</u> if he could accept the French proposal.

The Delegate of the <u>United States</u> declared that he could not give an immediate reply, and that he prefered to consult existing publications in order to avoid the use of new concepts unless absolutely necessary.

The Delegate of France again pointed out that we should not forget that the regulations that we are now perfecting are meant for people who can use them in practice and not for theorists, and that the definition on the basis of applied power is; according to him, the only one that operators could use.

Thereupon the meeting was adjourned.

The Rapporteur:

Chairman:

N.S.F. Hecht

C. Gillioz

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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DOCUMENT NO. 683 R-E' August 2, 1947

#### MINUTES

if the Joint Meeting of Heads of Delegations of the Telecommunications and Radio Conferences at Atlantic City

> First Meeting August 1, 1947

The meeting was called to order at 8;30 P.M.with Mr. Charles Denny, Chairman of the Conferences, presiding.

At the beginning of the meeting, the <u>Chairman</u> reminded the Heads of Delegations present that Switzerland was celebrating its national holiday on that day. 756 years ago, the first Swiss cantons joined to form the Union which became the Swiss Confederation, the oldest democracy in the world.

Mr. Colt de Wolf joined in these congratulations, and recalled that he had spent three years in Geneva, three years which were among the pleasantest years of his life; and he expressed **most** cordial wishes to the Swiss Confederation and to its Delegates who were present at the Atlantic City Conferences.

(Hearty applause).

Mr. Neff, Head of the Swiss Delegation, expressed thanks on his own behalf and on behalf of all his countrymen.

The Chairman announced that this joint meeting had been called to determine whether the bulk of the work of the Committees of the Radio Conference could be completed by August 15, 1947, so as to permit the High Frequency Broadcasting Conference to convene on that date, as had been previously decided. The meeting would study the steps to be taken by the Plenipotentiary Conference to authorize the High Frequency Broadcasting Conference. He requested the Chairmen of the Committees of the Radio Conference to report on the present status of the work of the various Committees. Committee 1 - (Credentials Committee) - has practically finished its work.

(683 R-T)

Committee 2- (Steering) No comments.

Committee 3- (Organization) Part of the work will be finished by the middle of August (C.C.I.R.) the rest, cspecially the work on the I.F.R.B. and the O.I.R. will not be completed before the end of August.

Committee 4- (Technical Coordinating) has finished its work.

Committee 5- (Allocation of Frequencies) expects to complete its work the first week in September.

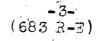
<u>Committee 6-</u> (International Frequency List). expects to complete half of the Frequency Allocation Table about August 15, but the table of frequency allocations above 30 Mc/s will not be completed before the first of September.

<u>Committee 7</u> - (General Technical) Committee 7 will be able to submit its texts to the Drafting Committee about August 16.

<u>Committee 8-</u> (Operations) This Committee will submit all its texts to Committee 9 about August 15.

Committee 9- (Drafting) requires 10 to 15 days after receiving the texts drawn up by the other committees, to complete its work, The Cuban Delegation offered the services of Dr. Luis Machado on one of the Working Groups of this Committee. Mr. Lahaye, the Chairman, expressed his thanks.

<u>Committee 10</u> (Management of the Bureau of the Union) has already submitted its report, but several questions are still pending and will have to be settled by the next Plenary Session of the Radio Conference.



## Plenipotentiary Conference

Committee A-(General) no comments.

Committee B- (Credentials) has practically finished its work.

Committee C- (Organization of the Union) is encountering many difficulties but thinks it will need a month to prepare the texts of the Convention which it was instructed to examine.

Committee D- (Relationship between the I.T.U. and the U.N.) is awaiting the findings of its Working Group and expects to complete its work by August 12.

Committee E- (Convention)-The Chairman is of the opinion that this Committee could complete its work about the end of August.

Committee F-(General Regulations Rules of Procedure])-If everything proceeds according to schedule, final results will be obtained by the end of August, providing that Committee C has completed certain work which also concerns Committee F.

Committee G- (Drafting)-This committee is of the opinion that it will be able to begin much of its work about August 15, but that it will be unable to complete its business until it receives all the texts which the other Committees are to submit to it.

The Chairman opened the discussion on the High Frequency Broadcasting Conference.

From induiries made by the Secretary-General, it appeared that 17 countries already have experts for the High Frequen-cy Broadcasting Conference at Atlantic City, and that, besides. 15 countries would send additional delegates. experts are still expected.

Shall the opening session of the High Frequency Broadcasting Conference be held on August 15, 1947?

Most of the Heads of Delegations took part in the general discussion on this subject. .

The Chairman summarized what he considered the opinion , of the majority of the Delegations present.

1. The 31 Delegates whose arrival has been announced shall be allowed to come.

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2. With the experts already present in Atlantic City they will as scon as possible begin the preliminary work on an unofficial basis.

3. He suggested that the meeting of the Heads of Delegations of the High Frequency Broadcasting Conference be postponed until September 2, and expressed the opinion that the period between August 15 and September 2 should be used to prepare the work of the conference unofficially. On September 3 the first Plenary Session of the High Frequency Broadcasting Conference would be held, to decide the scope of the work to be taken up at Atlantic City.

Desirous of learning the opinion of the majority of the Delegations present, the <u>Chairman</u> requested the Delegates to answer "Yes" if they thought that the High Frequency Broadcasting Conference should meet with a full agenda - that is, specifically, whether it should proceed to the allocation of frequencies to stations -, or, on the contrary, to answer "No," if they were of the opinion that this Conference should meet with only a limited agenda, that is, to set up directives for another conference to take place later. Twenty-one Delegations answered "Yes," thirty-seven, "No." There were five abstentions and 15 Delegations absent:

Since this vote had only been taken for advisory purposes, the <u>Chairman</u> said he felt that the final decision should be left to a Plenary Session of the Plenipo-' tentiary Conference. He proposed that this session be held on Tuesday August 5, at 10 A.M., and that its agenda be drawn up as follows:

1. Shall the High Frequency Broadcasting Conference, scheduled for August 15, 1947 be deferred or not?

2. If deferred, shall it be given full or limited terms of reference?

3. If the terms of reference are to be limited, what shall be the directives set for this Conference? The Delegations from Denmark and from the United Kingdom will submit a text on this subject.

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## -5-(683 R-E)

4. On what dates shall the work of the Cònference begin?

## a) unofficially?

#### b) officially?

5. What date may be definitively set for the completion of all the business of the Atlantic City Conferences?

The Assembly approved this agenda.

At the end of the meeting the <u>Chairman</u> reminded the meeting that Committee C of the International Telecommunications Conference had decided to submit the question of the expenditures for the Atlantic City Conferences to the General Committee (Committee A). The Chair had asked the Director of the Bureau of the Union to prepare a report for him on this question. As he had received this report, the <u>Chairman</u> had arranged for its distribution to all the Heads of Delegations present.

The meeting was adjourned at 12:15 A.M.

Secretaries:

Chairman:

CHARLES R. DENNY

P. CULEVEY .

V. MEYER

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 684 R-E

3 Aug. 1947

Committee 8

Report

of Subcommittee A (General) of the Operations Committee (Committee 8) Seventeenth Meeting July 24, 1947

1. The minutes of the fifteenth meeting (Document No. 587 R-E) and of the sixteenth meeting (Document No. 588 R-E) were adopted.

2. The <u>Chairman</u> then took up the report of the Sub-subcommittee on call signs (Document No. 569 R-E). the contents of which had been discussed in part at an earlier meeting. After some comments by various delegates it was agreed:

- (a) To accept the digit-letter-letter principle for the extension of the existing alphabet pattern.
- (b) To scale down requirements so that some margin of call sign series will remain for reserve.
- (c) That the Sub-subcommittee will bring back to this Subcommittee for discussion a transactional text of the whole of Article 14 and taking into account U.S.A. proposals 951R-953R (Document No. 11 R-E).

The U.K. delegate stated in reply to a question by the <u>Chairman</u> that he would have preferred not to give up the letter "B" series, but that he was prepared to release it if it would help in arriving at agreement on call sign allocations.

The <u>Philippines</u> delegate stated that his country reduced its original request from 18 series to 6 series prior to the creation of the digit-letter-letter pattern and now requests that his country be given 10 series.

In connection with the Philippines proposal (Document No. 358 R-E) for an entirely new plan for forming call signs, the Chairman asked if it might not be

-2-(684 R-E)

appropriate for this Subcommittee to propose a recommendation that Administrations be asked to study the whole call sign problem before the next conference in order to overcome the difficulties and limitations of the present plan and simplify it, and to provide more margin for expansion.

The <u>Philippines</u> delegate was grateful for this suggestion and referred to his memorandum annexed to Document No. 587 R-E.

The <u>Chairman</u> then asked the Philippines, China, France, and United States delegates to prepare a brief statement on the subject for consideration by this Subcommittee where it would, if approved, be submitted to Committee 8 for inclusion in the documents of this Conference.

3. The draft texts of the following Articles were reviewed and disposed of as indicated:

Article 3 (Documents No. 504 R-E and No. 588 R-E)

The proposed text for para 51 of Article 3 which is contained in paragraph 3 of Document No. 588 R-E was approved as were the remainder of the proposed paragraphs for this article attached to Document No. 504 R-E.

Article 8 (Document No. 588 R-E)

Draft text approved.

It was agreed to leave the question of notifying Amateur stations to the Berne Bureau (proposition 1413R (France) Document No. 12 R-E) for consideration at a future conference.

Article 8 bis (Document No. 588 R-E)

Draft text approved. However, the <u>U.S.A.</u> Delegate proposed that the following language be included in this article:

"The provisions of this Article apply only to experimental stations which enter into communication with experimental stations of another country."

#### -3-(684 R-E)

The <u>Chairman</u> then indicated that this Subcommittee would take this text for consideration at a later meeting.

#### Article 10 (Document No. 588 R-E)

The draft text of this article was approved with the following exceptions:

222'(2) (Second paragraph) modified to read: "....directly to the safety of life, messages essential to the navigation and safe movement of the aircraft, and urgent messages relating to the movements of the ship."

The Chairman asked the drafting group to take care of this change.

225 ter Deleted. 230 bis Drafting group to look over again regarding ".....manual adjustment of preset frequencies." No change in substance. Drafting group also to consider marginal note, but will be reviewed by this Subcommittee at a later meeting. 230 ter as for 230 bis. 232 Reserved. 233 Reserved. For further study in regard to Canadian proposal 1560R 234 Reserved. Same as for 233. 238 Reserved. Drafting group to review to ensure conformity with the general view of Subcommittee. The phrase ".....including air traffic control and its organization." Was deleted. 242 Reserved. Same reason as 233. 243 Reserved. Same reason as 233. 245 Delete references to plain language. Retain Cairo. 247 Reserved. Same reason as 238.

- 254 Correction: Read: "....fixed by 266 quinques.." 266 Quinques Correction: Read "....and of the applicable part of...." (English text only)
- 274 Correction: Read: ".....as operator on board ship." (English text only).
- 275 Correction: Read: 'but' instead of "ou." (English text only)

#### Article 11 (Document No. 588 R-E)

.Draft text approved.

#### Article 12 (Document No. 588 R-E)

279 Correction: Read: "...permanently exhibited.." (English text only). Otherwise draft text approved.

## Article 13 (Document No. 588 R-E)

Draft text approved.

## Appendix 5 (Document No. 588 R-E)

Draft text approved subject to the approval of the French Delegate being regarded as temporary since a portion of French proposal 2264R was still under reference to Committee 7.

4. The Chairman then indicated the work still outstanding:

Article 10: As shown in these minutes. Article 14: To be redrafted and passed. Article 10 paragraph 221 bis: To be settled.

Reporters: J. M. Biansan W. F. Minners

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The Chairman: À. H.Read INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947

Document No. 685 R-E August 1, 1947

Committee 8

Report of Subcommittee A (General) of the Operations Committee (Committee 8)

> Eighteenth Meeting · July 31, 1947

1. The minutes of the seventeenth meeting were not available for discussion and approval.

2. The Chairman opened the meeting on the question of paragraphs 233 and 238 of Article 10 and the Canadian proposal 1560R. M. Petit, French delegate, in behalf of the group which considered this question, explained that Canadian proposal 1560R had been examined by the drafting group at a meeting in which the delegate of Canada took part. As the principle's adopted so far would be undermined by the Canadian proposal, by common accord the members of the group, did not feel that they could introduce into the text the proposed modifications and decided to refer the matter back to Subcommittee 8 A.

3. The <u>Canadian</u> delegate then introduced to the Subcommittee proposed new language for paragraph 238 (f) as follows: "...knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radioelectricity. (For the Aeronautical Mobile Service proof of knowledge of such additional matters as aeronautical regulations and procedures and the making of pre-flight checks.")

4. There was no support for this basic change in principle, and the proposal fell. However, the <u>Canadian</u> delegate stated that he reserved the right to propose later the retention of Cairo language rather than unsatisfactory new wording. This was agreed as was the concept that this Subcommittee had no intention to weaken the present Cairo language.

Reporters: J. M. Biansan W. F. Minners

E. M. Webster Acting Chairman

# (685 R-E)

#### Annex

#### DRAFT RESOLUTION FOR A NEW METHOD OF GENERATING CALL SIGNS

The Radiccommunications Conference of Atlantic City (1947), gonsidering that:

- the delegate of the Republic of the Philippines has set forth a completely new method of generating call signs (Doc. No. 358 R, Proposal No. 2519R);
- 2. this proposal in particular provides that the call signs for each country or its territories or its possessions should be identified by the group of the first two letters exclusively allocated to that country, its territories, or its possessions;
- 3. the new method proposed permits more readily the identification of the nationality of stations than the system presently in use;
- 4. the system of generation of call signs presently in use as well as the new table of allocation of call signs will only temporarily satisfy the needs for call signs;
- 5. the proposal of the Republic of the Philippines may offer a solution to many of the difficulties now apparent;
- 6. the adoption of the principles contained in this proposal would necessitate the almost complete change in the assignment of call signs throughout the world; and
  - 7. in view of the considerable amount of administrative work involved in such a change, the Conference has hesitated to adopt the plan;

recommends that:

1. all countries concerned make a careful study of Proposal No. 2519R submitted by the Republic of the Philippines prior to the convening of the next Radiocommunication Conference; and

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2. should some future Radiocommunication Conference find it necessary to revise the Table of Allocation of Call Signs (Article 14), particular attention should be given to this proposal or to any similar proposals intended to establish a method of generation of call signs which will solve, so far as possible, the problem of allocation of call signs and thus avoid their periodic rearrangement. INTERNATIONAL TELECOMMUNICATIONS CONFERENCE ATLANTIC CITY 1947

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

#### DENMARK AND UNITED KINGDOM

#### Proposed Directive to H.F. Broadcasting Conference of Atlantic City, 1947

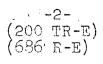
1. The Conference shall convene on September 3rd, 1947, and shall conclude on or before September 24th, 1947.

Document No. 200 TR-E

August 3, 1947

No. 686 R-E

- 2. The Conference shall:
  - (a) give preliminary consideration to the frequency requirements of all countries for H.F. broadcasting services in relation to the bands which will become available under the Atlantic City frequency allocation plan for H.F. broadcasting;
  - (b) give preliminary consideration to the question of how economy of H.F. broadcasting frequencies might be secured by the use of radio relays and wire lines in association with local broadcasting networks, or by the use of recordings;
  - (c) consider the broad engineering principles on which a new frequency assignment plan for H.F. broadcasting services should be based;
  - (d) consider the question of preparing a draft frequency assignment plan for use as a working basis by the next International H.F. Broadcasting Conference;
  - (e) in the light of the conclusions reached in respect of (a) to (d) above,



- (1) determine what action should be taken in advance of the next International Broadcasting Conference;
- (2) draw up an agenda for that Conference;

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(3) establish the date and place of that Conference.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

DOCUMENT NO. 687 R-E

August 4, 1947

Committee 8

Report of the Operations Committee (Conmittee 8)

#### Fourth Meeting . August 1, 1947

1. The <u>Chairman</u> proceeded with the agenda contained in Document 639' R-E.

2. The Chairman informed the committee that he had been requested to report to the chairman of the Radio Conference on the status of the work in Committee 8 for use in connection with a meeting this evening to determine when the High Frequency Conference might be convened. He was requested to submit a report by noon today and said he informed the Chairman of the I.R.C. that 55 % of the assigned Cairo paragraphs had been forwarded to Committee 9; 30 % were about ready for Committee 8 to pass on; 10 % were ready to be passed on by subcommittees of Committee 8; and 5 % were still under consideration. He stated that he had hoped that the work might be finished by the end of this week, but unfortunately some knotty problems have yet to be re-'solved.

3. The minutes of the third meeting, contained in Document 629 R-E, were approved.

4. The <u>Chairman</u> then took up the texts contained in Document 666 R-E:

Article 3

5. The U. K. Delegate state that he wished to remind the Committee that the matter of passive reflectors may require supplemental treatment in connection with this Article. Otherwise this Article was approved.

Article 11

6. Approved.

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#### Article 12

#### 7. Approved.

#### Article 13

8. Approved.

#### Appendix 5.

9. Approved. The question raised by the <u>Canadian Delegate</u> regarding the use of the word "best" in paragraph 15 second part was cleared up when the French Delegate made reference to a report by Subcommittee 7B contained in Document 643 R-E.in which that word was used.

10. The Chairman then brought up U. K. proposal 2550 R-E contained in Document 539 R-E.

The U. K. Delegate explained the proposal that this Conference elect three representatives, expert in questions of telecommunications concerning security in sea and air to participate with experts of I-C.A.O., I.M.O., and P.M.C.C. in a conference to prepare a program of coordination in this field. He also said that these three experts should attend the next S.L.S. conference as representatives of I.T.U. in an advisory capacity.

The Chairman then nominated the chairmen of Subcommittees 8A, 8B, and 8C, plus two alternates. These were: Messrs Poulsen, Read, Webster, Petit, and Van Anrooy. These nominations were made unanimous by the full Committee.

11. The U.S.A. Delegate brought up a minor point in connection with Article 25. He proposed that the word "radiotelegraph" be inserted between "ship stations" in paragraph 628 since that was always the intention; and that paragraph 635bis be added as follows:

> "8 3 bis. For the international service of public correspondence, ship radiotelephone stations constitute a single category. These stations carry on a service the durátion of which is not determined by these regulation."

These two modifications were accepted and it was agreed that, since this was a small matter, it would

not come up to Committee 8 again, but would be given to the drafting group to handle and coordinate with Committee 9.

12. This completed the agenda, whereupon <u>Colonel Read</u> of the U. K. Delegation, learning that the <u>Chairman</u>, Mr. Rynning-Tonnesen, would be leaving for home in a few days, thanked him for Committee 8 for the way in which he conducted the work of Committee 8 and told him that he had given most helpful guidance in a most friendly way and that he had the best wished of all on his voyage home. Mr. Rynning-Tonnesen responded with thanks and appreciation for the wonderful cooperation he received from all members.

Reporters: W. F. Minners J. M. Biansan

Chairman S. Rynning-Tonnesen

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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947 Document No. 688 R-E

August 4, 1947

Còmmittee 8

#### AGENDA

#### for the

Meetings of subcommittees A, B, and C of Committee 8 (Operations) to be held at 3:30 p.m. Tuesday, August 5, 1947.

#### Subcommittee A

1. Approval of draft text of Article 8bis (Doc. 588 R-E) and consideration of a proposed added paragraph worded as follows:

"Where there is no risk of an experimental station causing interference with a service of another country, the foregoing provisions may be waived at the discretion of the country concerned."

2. Discussion of the proposals (Canada 1564R and USA 944R, 945R, 946R) relating to frequency of transmission of identification by a station.

#### Subcommittee B.

Appendix 11. Discussion as to whether or not abbreviations QTM and QUX (Doc. 660R) should be included in Appendix 11.

#### Subcommittee C

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1. No. 548 and 618 of article 24 (Doc. 576) on which reservations were taken. It was suggested that the International distress frequency of 500 kc/s be specified in the paragraph No. 548. Paragraph must be reviewed in connection with,Nos. 741, 744, 747 of Article 32.

2. Approval of sections A and B (Nos. 725-748) of Article 32 (Doc. 628).

E.M. Webster Acting Chairman; Subcommittees A and B

> Chairman; Subcommittee C

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 689 R-E

August 4, 1947-

Committee 6

2567R Proposal from Chairman, Committee 6 New International Frequency List

## Introductory

In an attempt to reach unanimous agreement on the points at present under consideration by Committee 6, the Chairman offers the following revised text of the resolution, originally proposed by the U.S.A. delegation (Document No. 655 R-E), after having consulted the chairman of some of the delegations.

#### RESOLUTION

IN REGARD TO THE PREPARATION OF THE NEW INTERNATIONAL FREQUENCY LIST

#### WHEREAS,

A. In order to provide a basis for the formulation of a new International Frequency List, countries participating in the Atlantic City Radio Conference have undertaken to furnish Committee 6 of the Conference by September 15, 1947 with information regarding circuit requirements for fixed stations, together with information regarding requirements for tropical broadcasting stations and all classes of land stations, shown on Forms 1 and 2 formulated by Committee 6;

B. These countries have found that the compilation of such a List is necessary in order to implement the application of the Atlantic City allocation table;

C. These countries have agreed that the compilation of such a List is necessary in order that the I.F.R.B. may function most effectively;

D. The compilation of world frequency requirements as an initial step in the compilation of a new List has now begun and is hoped to be completed by October 15, 1947, and to be published and circulated by January 1st 1948.

- 5 Août 1947`

E. It is recognized that it is essential to continue the work of preparing a new frequency list with minimum delay upon the conclusion of the Atlantic City Radio Conference.

(689 R-E)

F. It is recognized that until frequency assignments for all services can be completely engineered, it will not be certain that the most effective possible use can be made of the frequency spectrum or that the frequency requirements of any service can be satisfactorily met without experiencing harmful interference in the reduced bands contemplated by the Radio Conference for certain services.

G. It is recognized that it is necessary that an appropriate international group or committee continue with the preparation of the new International Frequency List after the close of the Atlantic City Radio Conference in order that such a List may be available for review and approval at a special international conference to be called for that purpose.

#### THEREFORE, IT IS RESOLVED THAT:

1(a) The International Frequency Registration Board (I.F.R.B.) shall be established, by a special resolution of the Atlantic City Conferences, on 1st January 1948, and shall assemble at the seat of the International Telecommunications Union on 8th January 1948.

(b) For the purpose of preparing the draft new international frequency list, the I.F.R.B. shall be augmented by experts of Administrations and each country, signatory to the Atlantic City Radio Regulations, which desires to do so, shall designate one representative, who is tecnnically expert and experienced in frequency assignment problems to serve as a temporary additional member of the Board. Any such additional member may attend for the whole or part of the period required for the drafting of the new international frequency list. Each member may be assisted by such advisers as desired. A country may, if it desires, designate a temporary member from another country to represent its interests. Where an international regional organization of telecommunications exists, this regional organization may send a duly qualified representative to participate in the work.

(c) The I.F.R.B., specially augmented as defined in (b) above for the purpose of drafting the new international frequency list, shall be designated the Provisional Frequency Board (P.F.B.)

2. The P.F.B. shall have as its objective the formulation of an engineering plan which will improve the utilization of the radio spectrum by providing for the continued operation of all existing services in every .... country, while eliminating the harmful interference which has resulted in the past from the activation of radio operations without an integrated world-wide plan. In addition to assuring to all countries the continued . operation of existing services without harmful interference, the P.F.B. shall endeavour, in formulating such a plan, to make adequate provision for the future development of new radio services and the expansion of existing services, so that all countries may improve and increase their services to the fullest extent practicable. The P.F.B. shall treat communications services which were interrupted by the war and which have not yet been restored, on the same basis as existing services, and, in addition, shall give special consideration to the needs of countries when natural developments have been impeded.

3. The P.F.B. shall arrive at its conclusions, as far as possible, by unanimous agreement. Should, however, a vote on any matter concerning the preparation of the new frequency assignment plan prove to be necessary,'a decision shall be taken by a simple majority of those present and voting. In such a vote, in view of the long period during which it is expected that the P.F.B. will be in session, temporary additional members of the Board who are authorized to represent other countries, may cast a single vote on behalf of each such country, subject to the proviso that no member may exercisé more than three votes. Any member of the P.F.B. may have a statement included in the report of the P.F.B. giving his views on any matter on which unanimous agreement has not been obtained.

4. Each country shall defray the salary and expenses of its representative who will serve as a temporary additional member of the Board and of his advisers.

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5. All other expenses of the P.F.B. shall be defrayed by the Union.

6. The P.F.B. shall convene at the seat of the International Telecommunications Union on January 15, 1948.

7. The P.F.B. shall operate under the following directives:

(a) Before undertaking the preparation of a new frequency list, the P.F.B. shall determine in complete detail the engineering framework to be applied in the preparation of such a list. The engineering principles shall be based, among other things, on the technical regulations adopted by the Atlantic City Radio Conference and full consideration shall be given to other relevant work done at that Conference. The formulation of the engineering framework shall be completed by the 15th March 1948.

(b) In preparing the draft new international frequency list, the P.F.B. shall be free to recommend changes to any existing frequency assignments. Nevertheless, in preparing the final draft list for consideration at the International Conference, they shall take account as far as possible of the existing utilization of frequencies and the undesirability of making unnecessary changes. The draft new international frequency list shall be completed by the 15th November 1948.

(c) In preparing the new list, the P.F.B. shall give consideration to and shall adopt as far as practicable plans prepared by other international groups for specific services, provided that these plans provide for the utilization of frequencies allocated exclusively to the services concerned.

(d) In preparing the new List, the P.F.B. shall make provision for those requirements set forth in Forms 1 and 2, which are received prior to September 15, 194. In doing so, the P.F.B. shall be guided solely by the following considerations:

(i) Conformity with the Atlantic City allocation table;

- (ii) Conformity with the engineering principles referred to in (a) above, so as to make provision for all requirements while avoiding harmful interference;
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(e) The P.F.B. shall deal with assignments within the frequency band 10 kc/s to 30 Mc/s in respect of the fixed, tropical broadcasting, and land stations except in so far as any of these may be the subject of service or regional agreements as provided for in paragraph 7 (c)

(f) The new International Frequency List shall be prepared in the form prescribed by the Atlantic City Radio Conference.

8. For the information of countries not directly represented on the P.F.B. the Board shall, every two months from May 15th 1948 onwards, draw up a progress report of its work. The Bureau of the Union shall send these reports by air mail to all member countries of the Union.

9. Upon completion of the formulation of a List as described above, and not later than January 1, 1949, the Bureau of the Union shall furnish all members of the Union with copies of the List prepared in accordance with the above procedure. The Special Conference for the consideration of this List shall be convened on March 1, 1949.

10. During the period while the new List is being prepared by the P.F.B. notices of frequency assignments in the band set forth in paragraph 7 (e) above shall be made in conformity with the Cairo Radio Regulations and sent to the Bureau of the Union for publication as at present. After the preparation of the new List by the P.F.B. the Special Conference shall determine the procedure to be followed in incorporating into such List the foregoing assignments for meeting requirements for operations which were activated during the period between the closing date of Form's 1 and 2 and the opening of such Special Conference.

11. During the period between November 15, 1948, when the P.F.B. completes its preparation of the new List based on requirements set forth in Forms 1 and 2, and March 1, 1949, when the Special Conference is convened, the P.F.B. shall give consideration to assignments in the band set forth in paragraph 7 (e) above, which are filed between the closing dates of Forms 1 and 2 and the convening of the Special Conference, in order to formulate recommendations to the Special

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Conference for the incorporation in the first edition of the new List the assignments so notified. During this period, the P.F.B. shall also give consideration to the precise procedure to be followed in order to give effect to the new international frequency list and shall make recommendations accordingly to the Special Conference.

12. The Chairman of the I.F.R.B. shall be the Chairman of the P.F.B.

13. The P.F.B. shall adopt any necessary rules of procedure provided that these are not inconsistent with the general rules annexed to the Convention or those laid down in this resolution.

14. The date upon which the new International Frequency List shall become effective shall be the subject of a recommendation of the P.F.B. to the Special Conference. In formulating this recommendation the P.F.B. will take into consideration the urgent need for the implementation which should be commenced if possible by September 1st 1949.

15.(a) Assignments entered on the new list in band set forth in 7 (e) above bear dates as follows:

(b) Entries made by the P.F.B. and approved by the Special Conference shall be dated as of the date of approval of the List by the Special Conference; should subsequent changes prove to be necessary in the light of the actual harmful interference, it is desirable that the original date of bringing the frequency into use should be taken into consideration.

(c) Entries approved by the Special Conference which result from notifications of assignments in the band set forth in paragraph 7 (e) above, which are filed with the Bureau of the Union during the period between the closing date of Forms 1 and 2 and the opening of the Special Conference on March 1, 1949, shall also be dated as of the date of approval of the List by the Special Conference;

(d) No entries of assignments in the band set forth in paragraph 7 (e) above shall be made on the basis of notifications filed while the Special Conference is in session. Such notifications shall be administered by the I.F.R.B. after the close of the Special Conference and shall bear such date as is provided in the statutes of the I'.F.R.B., but in no event shall this date be prior to the close of the Special Conference.

by one or more interested countries for action in accordance with the procedures prescribed for the I.F.R.B.

17. The P.F.B. shall disscho on the date when the new List is accepted and approved by the Special Conference.

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J. D. H. Van der Toorn Chairman, Committee 6

### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY

1947 .

Revised Document No. 689 R-E

August 6, 1947. Committee 6

-7 Août 1947

Amended Proposal from Chairman, Committee 6

New International Frequency List

### Introductory

In an attempt to reach unanimous agreement on the points at present under consideration by Committee 6, the Chairman offers the following revised text of the resolution, originally proposed by the U.S.A. delegation (Document No. 655 R-E), after having consulted the chairman of some of the delegations.

### RESOLUTION IN REGARD TO THE PREPARATION OF THE NEW INTERNATIONAL FREQUENCY LIST.

#### WHEREAS,

A. In order to provide a basis for the formulation of a new International Frequency List, countries participating in the Atlantic City Radio Conference have undertaken to furnish Committee 6 of the Conference by September 15, 1947 with information regarding circuit requirements for fixed stations, together with information regarding requirements for tropical broadcasting stations and all classes of land stations, shown on Forms 1 and 2 formulated by Committee 6;

B. These countries have found that the compilation of such a List is necessary in order to implement the application of the Atlantic City allocation table;

.C. These countries have agreed that the compilation of such a List is necessary in order that the I.F.R.B. may function most effectively;

D. The compilation of world frequency requirements as an initial step in the compilation of a new List has now begun and is hoped to be completed by October 15, 1947, and to be published and circulated by January 1st 1948.

E. It is recognized that it is essential to continue the work of preparing a new frequency list with minimum delay upon the conclusion of the Atlantic City Radio Conference.

F. It is recognized that until frequency assignments for all services can be completely engineered, it will not be certain that the most effective possible use can be made of the frequency spectrum or that the frequency requirements of any service can be satisfactorily met.

G. It is recognized that it is necessary that an appropriate international group or committee continue with the preparation of the new International Frequency List after the close of the Atlantic City Radio Conference in order that such a List may be available for review and approval at a special international conference to be called for that purpose.

#### THEREFORE, IT IS RESOLVED THAT:

1 (a)To enable the preparation of the new International frequency list. The I.F.R.B. in the Form adopted by the Atlantic City Radio Conference, shall assemble at the seat of the International Telecommunications Union on 8th January 1948; and that the Radio Conference should therefore recommend to the Plenipotentiary Conference that this Board be therefore established as from 1st January 1948.

(b) For the purpose of preparing the draft new international frequency list, the I.F.R.B. shall be augmented by experts of Administrations and each country, signatory to the Atlantic City Radio Regulations, which desires to do so, shall designate one representative, who is technically expert and experienced in frequency assignment problems to serve as a temporary additional member of the Board. Any such additional member may attend for the whole or part of the period required for the drafting of the new international frequency list. Each member may be assisted by such advisers as desired. A country may, if it desires, designate a temporary member from another country to represent its interests. Where an international regional organization of telecommunications exists, this regional organization may send a duly qualified representative to participate in the work.

(c) The I.F.R.B., specially augmented as defined in (b) above for the purpose of drafting the new international frequency list, shall be designated the Provisional Frequency Board (P.F.B.)

2. The Chairman of the I.F.R.B. shall be the Chairman of the P.F.B.

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3. The P.F.B. shall adopt any necessary rules of procodure provided that these are not inconsistent with the general rules annexed to the Convention or those laid down in this resolution.

<u>1</u> The P.F.B. shall arrive at its conclusions, as a general rule, by unanimous agreement. Any member of the P.F.B. may have a statement included in the report of the P.F.B. giving his views on any matter on which unanimous agreement has not been obtained. Should, however, a vote on any matter concerning the preparation of the new frequency assignment plan prove to be necessary, a decision shall be taken by a simple majority of those present and ... voting. In such a vote, in view of the long period during which it is expected that the P.F.B. will be in session, temporary additional members of the Board who are authorized to represent other countries, may cast a single vote on. behalf of each such country, subject to the proviso that no member may exercise more than two votes.

5. Each country shall defray the salary and expenses of its representative who will serve as a temporary additional member of the Board and of his advisers.

6. All other expenses of the P.F.B. shall be defrayed by the Union.

7. The P.F.B. shall convene at the seat of the International Telecommunications Union on January 15, 1948.

The P.F.B. shall have as its objective the formulation of an engineering plan which will improve the utilization of the radio spectrum by providing for the continued operation of all existing services in every country, while eliminating the harmful interforence which has resulted in the past from the activation of radio opera-In addition. tions without an integrated world-wide plan. to assuring to all countries the continued operation of existing services without harmful interference, the P.F.B. shall endeavour, in formulating such a plan, to make adequate provision for the future development of new radio services and the expansion of existing services, so that all countries may improve and increase their services to the fullest extent practicable. The P.F.B. shall treat communications services which were interrupted by the war and which have not yet been restored, on the same basis as existing services, and, in addition, shall give special consideration to the needs of countries when natural developments have been impeded.

9. The P.F.B. shall operate under the following directives:

(a) Before undertaking the preparation of a new frequency list, the P.F.B. shall determine in complete detail the engineering framework to be applied in the preparation of such a list. The engineering principles shall be based, among other things, on the technical regulations adopted by the Atlantic City Radio Conference and full consideration shall be given to other relevant work done at that Conference. The formulation of the engineering framework shall be completed by the 15th March 1948.

(b) In preparing the draft new international frequency list, the P.F.B. shall be guided solely by the following considerations:

- (i) Conformity with the Atlantic City allocation table;
- (ii) Conformity with the engineering principles referred to in (a) above, so as to make provision for all requirements while avoiding harmful interference;
- (iii) The P.F.B. shall be free to recommend changes to any existing frequency assignments. Nevertheless, in preparing the final draft list for consideration at the International Conference, the Board shall take account as far as possible of the existing utilization of frequencies and the undesirability of making unnecessary changes.

(c) The draft new international frequency list shall be completed by 15 November, 1948.

(d) In preparing the new list, the P.F.B. shall give consideration to plans prepared by other international groups for specific services, provided that these plans
provide for the utilization of frequencies allocated exclusively to the services concerned.

(e) The P.F.B. shall deal with assignments within the frequency band 10 kc/s to 30 Mc/s in respect of the fixed, tropical broadcasting, and land stations except insofar as any of these may be the subject of service on regional agreements as provided for in paragraph 7(d). The P.F.B. shall also deal with assignments in the high frequency bands allocated exclusively to broadcasting unless other arrangements for such assignments are adopted as a-

result of the forthe ming HIGH FREQUENCY BROADCASTING CON-FERENCE.

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(f) The new Inter ational Frequency List shall be prepared in the form prescribed by the Atlantic City Radio Conference,

10 (a) Assignments entered on the new list in the band set forth in 9 (e) above shall bear dates as follows:

(b) Entries made by the P.F.B. and approved by the Special Conference shall be dated as of the date of approval of the List by the Special Conference; however, should subsequent changes prove to be necessary in light of the actual harmful interference, it is desirable that the original date of bringing the frequency into use should be taken into consideration.

(c) Entries approved by the Special Conference which result from notifications of assignments in the band set forth in paragraph 9 (e) above, which are filed with the Bureau of the Union during the period between the closing date of Forms 1 and 2 and the opening of the Special Conference on March 3, 1949, shall also be dated as of the date of approval of the List by the Special Conference;

(d) No entries of assignments in the band set forth in paragraph 9 (e) above shall be made on the basis of notifications filed while the Special Conference is in session. Such notifications shall be administered by the I.F.R.B. after the close of the Special Conference and shall bear such date as is provided for in the statutes of the I.F.R.B., but in no event shall this date be prior to the close of the Special Conference.

11 Upon completion of the formulation of a List as described above, and not later than January 1, 1949, the Bureau of the Union shall furnish all'members of the Union with copies of the List prepared in accordance with the above procedure. The Special Conference for the consideration of this List shall be convened on March 3, 1949.

12 During the period while the new List is being prepared by the P.F.B. notices of frequency assignments in the . band set forth in paragraph 9 (e) above shall be made in conformity with the Cairo Radio Regulations and sent to the Bureau of the Union for publication as at present. After the preparation of the new List by the P.F.B. the Special Conference shall determine the procedure to be followed in incorporating into such List the foregoing assignments for meeting requirements for operations which were activated during the period between the closing date of Forms 1 and 2 and the opening of such Special Conference. 13. During the period between November 15, 1948, when the P.F.B. completes its preparation of the new List based on requirements set forth in Forms 1 and 2, and March 3, 1949, when the Special Conference is convened, the P.F.B. shall give consideration to assignments in the band set forth in paragraph 7 (e) above, which are filed between the closing dates of Forms 1 and 2 and the convening of the Special Conference, in order to formulate recommendations to the Special Conference for the/incorporation in the first edition of the new List the assignments so notified. During this period, the P.F.B. shall also give consideration to the precise procedure to be followed in order to give effect to the new international frequency list and shall make recommendations accordingly to the Special Conference.

14. The date upon which the new International Frequency List shall become effective shall be the subject of a recommendation of the P.F.B. to the Special Conference. In formulating this recommendation the P.F.B. will take into consideration the urgent need for the implementation which should be commenced if possible by September 1st 1949.

15. For the information of countries not directly represented on the P.F.B. the Board shall, every two months from May 15th 1948 onwards, draw up a progress report of its work. The Bureau of the Union shall send these reports by air mail to all member countries of the Union.

16. If harmful interférence develops after the effective date of the new List, from operation on frequencies, all of which are reflected by entries in the registration column of the new List, the problem may be referred to the I.F.R.B. by one or more interested countries for action in accordance with the procedures prescribed for the I.F.R.B.

17. The P.F.B. shall dissolve on the date when the new, List is accepted and approved by the Special Conference.

J.D.H. van der Toorn Chairman, Committee 6

### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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2.

Document No. 690 R-E

Committee

Report of Subsommittee A of the General Technical Committee (Committee 7)

#### 31st Meeting

### July 25th 1947

The meeting was called to order at 10:10 a.m. by the Chairman, Lt. Col. Lochard of France

The Chairman referred to the working group set up to condider the frequency band of emission and suggested that it also consider the strictly technical definitions. Others, not quite so technical could be considered here and if agreement is not reached quickly, they would also be referred to the working group. He suggested the group be reconstituted as a Sub-subcommittee and suggested Mr. Hecht of the U.K. as Chairman. Mr. Hecht pointed out that it would be necessary for him to also speak for the U.K. If this were satisfactory, he would agree.

The Chairman asked for other volunteers. There were none so it was agreed that Mr. Hecht would act as Chairman.

The <u>Chairman</u> then inquired if other delegations would care to participate. The U.S.S.R., Netherlands and Swiss Delegations desired to participate.

The other members are from the U.K., U.S.A., France, Canada, Colombia, (Doc. 558 R).

The <u>Chairman</u> asked that "Power of a radio transmitter" be one of the first definitions concerned.

3. Power of a Radio Transmitter

The Subcommittee then considered in general terms the requirements to be met in this definition prior to its being drafted by the Sub-subcommittee.

The U.S.S.R., French and U.S.A. proposals each would define the power as peak rather than average power.

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The <u>U.K.</u> Delegate discussed the views of his delegation, pointing out that the interference from pulse transmissions in narrow band receivers would be more nearly proportional to the average rather than peak power. This would be true of inter-. ference from any broad band transmission in a narrow band receiver. He would therefore desire to define transmitter power in terms of average power.

The <u>Chairman</u> suggested consideration of three cases: (1) Continuous waves - average power significant, (2) Reduced carrier - average power varies; peak power is significant, (3) Wideband emissions - (a) in narrow band receivers, average power significant, (b) in wideband receivers, peak power significant. He suggested adoption of two definitions; one in terms of peak power and one in terms of average power.

The U.K. Delegate pointed out this would be possible because the new frequency list will show the bandwidth, if present . suggestions for designation of emissions are adopted.

• The U.S.A. Delegate discussed the use of peak power as the value most easy to measure, pointing out that the relation of peak toaverage power is difficult to measure, and that even with pulse transmissions, receivers not designed to receive pulses are not necessarily narrow band, and when broad band, peak power is significant. Pulse transmitters are designed particularly with reference to peak power (altho, of course heat dissipated power must be considered). He therefore believed the designation of peak power to be more significant.

The U.K. Delegate agreed in general with the facts presented by the U.S.A. Delegate but believed there would be less confusion if average power were designated if only one is to be shown.

The <u>U.S.A.</u> Delegate stressed that pulse considerations are perhaps looming too large in the discussion. Spurts of telephone conversation as opposed to average bower in such a conversation may be even more important to consider.

The U.K. Delegate said he had some other views but suggested they should be presented in the Sub-subcommittee.

The <u>Chairman</u> restated his proposal to develop one definition in terms of peak and one definition in terms of average power and that both power designations should be indicated wherever possible.

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believed this to be highly desirable.

The Delegate from <u>Bielorussia</u> referred to the discussions at the Mcscow Conference at which it was agreed to adopt the peak designation. He agreed with the U.K. Delegate, however, that further discussion was desirable and support with the suggestion that this discussion be deferred to the Sub-subcommittee meeting.

The U.S.A. Delegate suggested that a definition in terms of average power hight be developed for certain paricular servicesnot trying to write a general definition for all services.

The Chairman said there would probably be no objection to this plan. He suggested this might be done for sine waves and simple pulses.

The U.S.A. Delegate pointed out that in one common type of signal - ordinary telegraphy - power usually discussed is really peak power. Statements of average power would require consideration of the intervals between signals.

The Delegate from the <u>Netherlands</u> pointed out that peak power is the only parameter associated with the transmitter alone. Average power requires consideration of the <u>use</u> made of the transmitter. He had not yet seen any convincing arguments that the average power would be particularly useful to know.

The <u>Chairman</u> reiterated that knowledge of the bandwidth alone is not sufficient in order to determine the average power in terms of the peak power.

Further discussion was left to the Sub-subcommittee.

After a short recess the discussion turned to consideration of a definition of "harmful interference."

Harmful Interference

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The <u>Chairman</u> referred to the proposals of France (1364R), U.K. (48R), U.S.S.R. (in Doc.142R-E), U.S.A. (495R), Canada (1540R) and Chile (1635R). Except for the proposal of Chile the proposals differed principally in the details included. The French proposal specifically included energy from industrial, scientific or medical services.

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The <u>U.S.A.</u> Delegate stressed that, if specific sources of interference are included at all, it is essential to include all of them. If this is not done, the definition may be, interpreted to include only those sources specifically set down.

The <u>Chairman</u> agreed and suggested a modification of the French text.

The <u>U.K.</u> Delegate supported the view of the U.S.A. Delegate and would not include explanatory clauses as they are likely to be assumed to be restrictive. If the definition is correctly drafted, explanations are unnecessary.

There was considerable discussion by the <u>U.S.A.</u>, <u>U.K.</u>, and <u>Italian</u> Delegates concerning the need for specific reference to inductive interference (from power lines, for example). The <u>U.K.</u> Delegate suggested "a radiation or an induction which jeopardizes... The <u>U.S.A.</u> Delegate did not support this suggestion, pointing out that in other places in the Regulations the word "emission" has been used to mean what is meant here. If it is changed here, those consulting the definition will wish to know why and it will not be clear why a change was made.

The matter was then referred to the Sub-subcommittee. After some discussion of the size of the Sub-subcommittee it was agreed to maintain it as constituted and designate it as Sub-subcommittee 7A2.

The meeting adjourned at 1:10 p.m. Reporters: Chairman

J. Lochard

G. Sarre D.R. MacQuivey

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

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Document No. 691 R-E

August 4, 1947

Committee 5

REPORT

of the Allocation of Frequencies Committee (Committee 5) Eighteenth Meeting 31st July 1947

1. The Committee approved the minutes of the sixteenth and seventeenth meetings (Documents Nos. 638 R and 654 R) without amendment.

2. The <u>Chairman</u> said that he proposed to defer discussion of Document No. 664 R, which dealt with some special points concerning the band 2.85-25 Mc/s which had been referred to the Working Group for study, until the next meeting. However, he wished to draw attention to this document so that all the delegates would have time to study it. He asked every delegate to endeavor to find a solution to the problems indicated in the report.

The delegate of the U.S.S.R. said that he wished to make it clear to the Committee that the proposal made by France given in this document was one that the U.S.S.R. could not accept.

3. The Committee next turned to the study of Document No. 568 aR. The <u>Chairman</u> first drawing attention to the following corrections which should be made to that document.

- (a) Page 4.Note 24 Amend the first sentence to read: "The necessary regional arrangements made by..... considerations:-"
- (b) Page 10. Note 19. Lines 21-24. Amend last phrase to read: "....a special Administrative Conference composed of representatives of all the interested countries shall be summoned within two months to review the matter."
- (c) Pages 7 and 8. Note 15. Delete the sentence: "The broadcasting stations now in operation in the bands 415-485 kc/s and 515-525 kc/s are:-" Insert ":-" after "maritime mobile" service at the end of the preceding sentence.

- 5 Août 1947

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(d) Some typographical errors remain to be corrected. This matter will be dealt with by the reporters, who will make the necessary arrangements with the secretariat.

4. The <u>delegate of Norway</u> said that he was ready to accept the third paragraph of Note 24, proposed for the band 255-285 kc/s, provided that the same conditions of protection as in the Cairo Regulations, Article 7, paragraph 96, would apply so long as the broadcasting stations continue to operate under the proposed note. In reply to a question from the <u>delegate of Belgium</u>, he stated that he wished to see this protection applied only to the OSLO station, working on 260 kc/s.

5. The <u>delegate of India</u> asked that "and India" be added after "the American Region" at the end of Note 9, referring to the band 160-285 kc/s. At the same time he made it clear, replying to a question by the delegate of the United States, that he did not wish to see the same amendment made to Note 9, where it referred to the band 405-415 kc/s. He therefore suggested that the latter note be given the number 9b to distinguish it from the former.

The delegate of China, replying to a question by the delegate of the U.S.S.R., said that he was prepared to agree to "China" being added at the end of Note 9 (band 160-285 kc/s) as well as India.

6. The delegate of Belgium, supported by the delegates of the <u>Netherlands</u> and <u>Portugal</u>, said that at the preceding meeting Note 9(a) referring to the band 325-105 kc/s, had been extended to include within its scope the whole of the world except New Zealand. At the time he had not fully appreciated the significance of the change but he was of the opinion that the European Region should also be excluded from the provisions of this note.

The <u>delegate of India</u> said that his country wished to see the aeronautical navigational and aeronautical mobile services operated on a basis of equality in this band and he therefore requested that India should also be excluded from the provisions of Note 9(a).

The <u>delegate of the U.S.S.R.</u> expressed surprise at these objections, saying that at the previous meeting all the delegates, except the delegate of New Zealand, had supported the proposal to extend the note in question on a world-wide basis. After some discussion, in which the delegates of <u>Belgium</u>, <u>France</u>, the <u>United Kingdom</u>, <u>India</u>, and the <u>U.S.S.R.</u> took part, it was decided to leave the wording of Note 9(a) as shown in Document No. 568aR.

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7. The <u>delegate of Belgium</u> pointed out that there was a difference between Note 11 as shown in Document No. 568 R and Note 11 as shown in Document No. 568aR; 'the latter mentioning stations working in the whole of the band 325-405 kc/s. This, he said, would lead to some confusion, for it was not intended to give the same protection to broadcasting stations in the band which had hitherto been allocated to "service's not open" to public-correspondence," and which would now be allocated to the aeronautical service. He thought it desirable to dispel any hopes that might arise in this regard.

Continuing, he said that the station of BANSKA BYSTRICA would be bound to cause strong interference with aeronautical beacons, and that it would be wiser to locate it in a band allocated to coastal stations. The case of the station at LULEA would also require some study as it was possible that it might cause interference. On the other hand, the FINNMARK station could be admitted, as could the BERGEN station, although the latter already caused occasional interference.

Summarizing, he said that it seemed inopportune to list stations working in the whole band; at the end of a note whose text only referred to two subsections of the band.

The <u>delegate of France</u> said that, speaking as a number of the Working Group, he had already pointed out that the terms of the new note 11 were not directly comparable with those of the earlier text. It seemed to him that the terms of the new note would tie the hands of the forthcoming European Broadcasting Conference, and he would prefer to give the latter as much freedom as possible.

The <u>delegate of the U.S.S.R.</u>, supported by the delegate of the <u>United Kingdom</u>, said that he did not particularly wish to see broadcasting stations maintained in operation in bands allocated to the aeronauticalservice, but it was necessary to recognize that such stations were working at present. It was not for the present conference to do the work of the European Broadcasting Conference, and the note already imposed severe' conditions on the operation of those broadcasting

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stations by saying that they must not interfere with the aeronautical service. The stations already working in the band had been enumerated to provent the introduction of new stations into the band, but the fact that they were mentioned should not raise undue hopes that they would be able to continue in the band.

If the BANSKA BYSTRICA station caused interference it would be the first to be removed from the band, but it was working at present and it had therefore been necessary to mention it, because it was not intended to close it down at the present conference.

The delegate of the Netherlands proposed that.Note 11 be amended so as to refer to "....broadcasting stations which are not allowed to cause harmful interference...." because the existing text appeared to indicate that they did not cause interference at present, which was contrary to the actual position.

The delegate of Czechoslovakia said that in 1932 the BANSKA BYSTRICA station had been allocated the frequency of 392 kc/s, on condition that a directive antenna were employed, and a power not greater than 30 kW. The station had been working since 1934, and although it was not necessary to retain the exact frequency of 392 kc/s it was necessary to have one of the same order to cover the mountainous territory of that part of Czechoslovakia. He therefore requested that the new text of Note 11 be ' retained to protect his country's interests.

The <u>delegate of Belgium</u> said that he did not wish to insist that the new Note 11 (which was already a compromise) be modified, but that he wished to request that the discussion be recorded in the prosent minutes, for . reference, if necessary, at the next European Broadcasting Conference.

8. The <u>delegate of India</u> requested that "India" be deleted from the heading in the first "Regional Allocation" column, against the band 525-535 kc/s.

9. The delegate of the United States pointed out that the text of Note 19 (band 1605-2000 kc/s) differed from the text given in the preceding document to the extent that at least three countries must now submit a request to the I.T.U. before an administrative conference would be convened. At an earlier meeting, when the delegate of France had requested that the note be amended so that a majority of the countries interosted would be required, the delegate of the United Kingdom had said that his country would support any country which requested the calling of the conference, even if it were the only one to do so. He asked the delegate of the United Kingdom to confirm that his opinion on this question remained unchanged.

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The delegate of the United Kingdom confirmed that his country would support whatever country requested the calling of a conference.

The <u>delegate of Canada</u> said that having heard the statements made by the delegates of the United States and the United Kingdom he was prepared to accept Note 19.

The <u>delegate</u> of the United States said that he also would accept Note 19, adding, however, that he would ask that the preceding comments be recorded in the report of the final meeting of Committee 5.

The delegate of Canada requested:

10.

- (a) That under "Other Areas," band 2000-2065 kc/s, the letter L.P., indicating "Limited Power," be deleted, this question being a regional matter.
- (b) That in "Other Areas" the band 2250-2300 kc/s should be allocated to the fixed and mobile services. He added that Canada had of the order of 150 fixed stations already working in that band.

At the same time he proposed that Note 23 be reworded to read: "In the American Region provision to be made for maritime mobile service coastal telegraphy operations by regional arrangement" and that this note be applied to the whole of the band 2250-2495 kc/s. These two proposals were accepted and will be included in the table when revised.

11. The Committee next turned to the study of Document No. 662 R, "Report of the Working Group for the band 25.01-31.7 Mc/s" The <u>Chairman</u> explained that the heading in the first regional column, for the band 27500-28000 kc/s, should be amended to read "European Region and territory of the U.S.S.R. outside the European Region" instead of "European Region."

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12. The <u>delegate of Canada</u> explained that in the proposals put forward by Canada and the United States the band 27185-27455 kc/s was allocated to the "Industrial, Scientific and Medical" Service. The United Kingdom on the other hand proposed in Document No. 25 R 27120 kc/s + 0.5% for this service. World-wide agreement on these allocations was necessary and he was prepared to accept the United Kingdom proposal if the latter could be generally agreed.

13. The delegate of the United Kingdom emphasized that his country had studied this question very carefully. The basic frequency of 13.56 Me/s, with corresponding I.S.M. allocations at 27.12 Mc/s and 40.68 Me/s to avoid interference with television, and primarily so that second-harmonic radiation from I.S.M. apparatus working, on 27.12 Me/s, would fall in the gap between one of the proposed vision channels and an adjacent sound channel.

The <u>delegate of the United States</u> explained that his country had been interested in this question since 1937, and that the frequency of 13.66 Mc/s, and its second and third harmonics had been proposed after serious study of the matter. He would prefer to retain the U.S. proposal which had already been implemented to some extent, but would accept the United Kingdom's proposal if necessary because he believed that world agreement on this question was necessary.

The <u>Chairman</u> proposed that the Working Group give this question further consideration, taking the figures proposed by the United Kingdom as a guide.

14. The <u>delegate of New Zealand</u> said that as regards to the band 29700-31700 kc/s, New Zealand wished to adopt the same allocation as the European Region.

15. The <u>Chairman</u> suggested, and it was agreed, that Document No. 662 R be referred back to the Working Group to prepare a new and firmer allocation table.

Réporters P. Fryer L. A. Lamoitier Lt. Commander DeCalan. Chairman A. H. Read

### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

### Document No. 692 R-E\_

August 4, 1947

List of Documents by Committees and of Plenary Sessions and Meetings of Heads of Delegations

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Document No: 693 R-E

August 5, 1947

Committee 7

Report

of Subcommittee C of the General Technical Committee. (Committee 7)

INTERNATIONAL

1947

RADIO CONFERENCE ATLANTIC CITY

> Tenth Meeting July 30, 1947

- 1. The meeting was called to order at 10:10 A.M. by the Chairman, Dr. J. H. Dellinger.
- 2. The <u>Chairman</u> announced that documents presented by the delegates from New Zealand and India would be annexed to the minutes of this meeting.
- 3. Discussion was then begun of the texts of the proposals of the working groups for each of the subjects which the subcommittee is considering.

Standard Frequency Broadcasts and Time Signals.

4. The English text of the working group was adopted after the following changes were made:

- (a) The Delegate from France proposed that lines 2 and 3 of the preamble should be eliminated. The information in those lines is to be included in the letter to Committee 3 which will accompany the draft.
  - (b) The Delegate from France proposed that in paragraph 1 the word "world's" should be eliminated and "telecommunications" should be made singular.
  - (c) In paragraph 2 the words "on an international basis" is to be inserted after the word "provide."

Request to C.C.I.R.

(a) Eliminate the words "(General Radio Regulations)" in both places where they now appear.

-6 Aout 1947

#### -2- .. (693 R-E)

(b) In corrections to the English text
2(a): replace "reach" by "attain."
2(b): replace "performance" by "functioning."

The adopted texts appear as appendix 1 to the min-

#### Propagation

See Document No.601 R-E paragraph 22 and appendix 4.

Paragraph 22 will not be changed and will be sent forward to Committee 3 in the same way the draft concerning Frequency Standard Broadcasts was handled.

Appendix 4 of Document No. 601 R-E

- Paragraph 4 was changed to read "natural radio noise." This was to cover átmospheric, Cosmic noises, etc.
- 8. . In the English text paragraph 8 should be changed to read "International Scientific Radio Union."
  - The Delegate from New Zealand referred to previous discussions during the 8th meeting. He suggested an addition to the terms of reference for the I.T.U. to provide for a continuous review of this work so that a practical value may be made of these items of research for the bodies of I.T.U. and operating agencies. He points out that operating experts. depend upon their experience and training and do not make full use of the research data. He believes that the C.C.I.R. should follow up this matter and assess the value received "by the customers" from the vast amount of work being done. He proposed the additional paragraph: "Conduct a continuous review of the practical value of propagation studies and publish the results for the information of the contracting States (or Administrations)."
- 10. The <u>Chairman</u> proposed that this new paragraph would become paragraph 7 and existing 7 would become 8.
- 11. The Delegate from the United Kingdom stated that it may be necessary to change the word "radiocommunication" in para. 3 and para. 6 if another committee should change the definition of this term. In the first

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paragraph the word "research" was replaced by "observations."

12. After discussion the additional paragraph suggested by New Zealand was changed to read: "Review of the value and importance of various phases of propagation work and of publications relating thereto."

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- 13. The Delegate from France pointed out that the last part of paragraph 5 should be transferred to become the first part of paragraph.6 of the English texts. (The French text is correct).
- 14. Since difficulties arose regarding the responsibility for the publication of propagation studies and results the <u>Chairman</u> proposed to add the opening words "Determination of the best practical means for the before the word "publication" at the beginning of the 6th paragraph.
- 15. It was proposed by <u>New Zealand</u> to add the words
  "and make regular recommendations accordingly" at the end of new paragraph 7.
- 16.
  - . The adopted text is appended to the minutes of the meeting.

#### Monitoring \*

17. Discussion of this item was postponed to the next (meeting.

18. The meeting was adjourned at 1:20 P.M.

Reporters:

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Chairman:

L. Penninckx Dr. J. H. Dellinger

H. Edwards

# (693 R-E)

#### Appendix 1.

#### Article to be Inserted in General Radio Regulations or Annex or Separate Protocol. As Determined by Committee 3.

#### STANDARD FREQUENCY AND TIME BROADCASTS

1. The administrations recognize that a standard frequency broadcast service available in all parts of the world is essential for maximum economy in the use of the radio frequency spectrum, the efficient operation of the telecommunication services and for the functioning of several activities of the ITU. The administrations recognize that this service may also be useful for other activities outside the ITU. The addition of time signals superimposed on these same broadcasts is also highly useful and should be included, if possible.

2. To this end, the administrations will endeavor to provide on an international basis a coordinated broadcast system of standard frequencies. As regards Time Signals, recognizing the work already in hand by the various countries aiming at the fusion of distribution by radio of time signals and standard frequencies, contact is to be established as soon as possible with the International Committee of Time to bring about coordination on an international basis.

#### Recommendation for C.C.I.R. Concerning Standard Frequency and Time Signal Services.

With a view to determining the technical means appropriate for the realization of the objective specified in the....., the C.C.I.R. is instructed to:

1. Examine in cooperation with the International Committee of Time and other competent international organizations having a direct and substantial interest in this subject, suitable methods of assuring the coordination of the various standard frequency and time signal transmissions.

2. (a) Recommend to administrative conferences such action as is necessary to attain the objective specified in the.....

(b) Study the operation and functioning of these coordinated services.

(c) Recommend further improvements to make these services more generally useful.

#### Appendix 2.

(693 R-E)

#### <u>RECOMMENDATION FOR C.C.I.R.</u> <u>ON THE INTERNATIONAL COORDINATION OF INVESTIGATIONS</u> <u>ON PROPAGATION</u>

The C.C.I.R. is requested to initiate, and thereafter to continue on a permanent basis, the coordination of observation on propagation carried out by different countries, in order to provide, on a world-wide basis, coherent data immediately applicable by the telecommunications services and, in a more general way, to ensure the speediest possible progress in scientific knowledge and corresponding techniques.

In this respect the C.C.I.R.should consider, in particular, the following matters:

1. Standardization of symbols and of the presentation of the results of ionospheric sounding and, if appropriate, of certain methods of measurement, in order to ensure that measurements from different sources may be directly comparable.

2. Suitability of geographical location of existing ionospheric sounding and other observation stations and requirements for future observations at new locations.

<u>3.</u> Coordination of investigations on absorption carried out by means of measurements at vertical and oblique incidence, by recording of field strengths of existing radio stations, or by any other method:

<u>4.</u> Coordination of investigations of natural radio noise.

5. Determination of the best practical means for a rapid exchange, on an international basis, of propagation information of all kinds.

<u>6.</u> Determination of the best practical means for the publication of scientific and technical investigations submitted by member Administrations and in addition periodical publication of results such as propagation forecasts having immediate applications to radio services.

7. Review of the value and importance of various phases of propagation work and of publications relating thereto,

and regular recommendations accordingly.

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8. Any other new matter of general interest.

In order to attain the maximum possible degree of cooperation with organizations concerned with propagation work such as the International Scientific ' Radio Union, the C.C.I.R. is expected to consult regularly with such organizations.

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## -7-(693 R-E)

Appendix 3.

#### July 30, 1947

#### DATA SUPPLIED TO SUBCOMMITTEE 7 C.

#### NEW ZEALAND

#### IONOSPHERIC OBSERVATIONS

Ionospheric observing stations are operated by New Zealand at the following places:

> Christchurch -Campbell Island Rarotonga (Cook Islands).

In addition, New Zealand operates an observing station on behalf of the British Government at Suva, (Fiji).

Noise measurements are made at one station, Wellington.

COLLABORATION WITH OTHER BODIES

Ionospheric data is exchanged with CRPL - Central Radio Propagation Laboratory, National Bureau of Standards, Washington, D.C.

ISIB - Interservice Ionospheric Bureau, Great Baddow, U.K.

The Australian Radio Research Board.

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## (693 R-E)

#### APPENDIX 4

-8-

#### INDIA

The Delegation of India desires to announce that the Administration of India maintains the following.monitoring and Ionospheric Research Services:-

#### MONITORING SERVICE

A frequency monitoring station of the higher order of accuracy is in operation at Jubbulpore

EQUIPMENT: General Radio Type C-21-H

ACCURACY: Better than one part in a million

TIME OF OPERATION: Normally 8 hours in a day.

A Frequency Monitoring Station at Todapore, New Delhi and this station is in operation through-. out the 24 hours of the day.

EQUIPMENT: Secondáry standard equipment of General Radio Type C - 10 - H.

RANGE: 50 h

50 kc/s - 25 Mc/s

ACCURACY: one part in a million

The main functions of the above stations are:

(a) Monitoring of frequencies of the Radio Stations of India.

(b) Monitoring of Stations for spurious emissions and harmonic frequencies.

(c) Locating presence and cause of interference and indicating methods to eliminate it.

(d) Monitoring frequencies at the request of other services.

In addition to the above, there are several other frequency monitoring stations, details of which will be submitted later.

IONOSPHERIC OBSERVATION STATIONS

Regular Ionospheric observations are at present being made in India at four All India Radio Centres, namely, Peshawar (34°N,71°30'E) Delhi (28°35'N, 77°5'E),

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Bombay (19°N, 73°0'E) and Madras (13°0'N, 80°15'E).

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The equipment used in all these centres is manually operated and covers a range of about 1.8 to 16 Mc/s. The measurements are made at each hour L.M.T. and each set of measurements comprising of fOF2, h max F2 and fE is taken within a duration of about 5 minutes centred around each hour. The critical frequencies are expected to be accurate within ± 0.1 Mc/s and the virtual heights to within  $\pm 30$  kms... The E layer results include both normal and abnormal values. The virtual heights of the F2 layer (denoted by the symbol, h max F2) are measured at frequencies corresponding to .83f°F2. The MUF factors are computed from virtual height measurements made at 0.83, 0.90, 0.95, 0.975 and 0.99 times for ten days spread over the month, the values being given only for six hours separated by about four hourly intervals. A graph of predicted maximum usable frequencies for various distances via the F2 layer in the region of Delhi is also published every month.

#### COORDINATION WITH OTHER BODIES

Ionospheric data is exchanged with C.R.P.L. -Central Radio Propagation Laboratory, National Bureau of Standards, Washington D.C. and several other organizations.

It may be added in this connection that plans are under consideration to install better equipment for ionospheric observations.

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 694 R-E.

August 5, 1947

Committee 7

#### Report of Subcommittee C of the General Technical Committee Committee 7

Eleventh Meeting August 1, 1947

- 1. The meeting was opened at 10:15 A.M. by the <u>Chairman</u>, <u>Dr. J. H. Dellinger</u>.
- 2. The <u>Chairman</u> stated that as the minutes of the 9th meeting had been distributed this morning there had not been enough time to consider them. This will be done at the next meeting.
- 3. The minutes of the eighth meeting were adopted without further change.
- 4. The minutes of the seventh meeting were adopted after paragraph 18(Document No. 600 R-E)had been changed to read "with a maximum standard."
- 5. The <u>Chairman</u> then began consideration of the subject of Monitoring. He stated that during the consideration of the working groups draft some thought should be given to the French proposals (Document No. 12 R-E) and the Italian proposals (Document No. 16 R-E).
- 6. After discussion the proposals(Appendix 3 of Document-667 R-E)were adopted with a few changes. The adopted text is annexed to these minutes.
- 7. The <u>Chairman</u> asked for consideration as to where this document should appear and the <u>U.S.</u> delegate considered it important enough to be included in the Regulations and so is the general opinion of the subcommittee. The <u>French</u> and <u>Belgian</u> delegates suggested that it should be referred to full Committee 7 for further action such as transfer to Committee 3.
- 8. The <u>Chairman</u> asked the Delegates of <u>France</u> and <u>Italy</u> if this draft of the working group covers their recommendations contained in Document No. 12 R-E and No. 16 R-E.

- 6 Août 1947

9. The Delegate from <u>Italy</u> agreed that the substance of the Italian proposals are covered by the draft of the working group. He pointed out that the Italian proposals placed emphasis upon regional measuring stations such as those for maritime services and the necessary coordination between these stations.

(694 R-E)

- 10. The delegate from France stated that the proposals in Document No. 12 R-E may in substance be divided in two parts. The proposals dealing with the matter of the establishment of monitoring systems have been covered by the draft of the working group. The proposals dealing with what may be described as the operating practices have not been covered and require discussion. The French delegation feel that several paragraphs of the French proposals could be added to the draft previously adopted as a second part of a document which would then be complete. Proposals 1443R, 1444R, 1445R, 1446R, 1447R and 1448R are those which would supplement the adopted draft.
- 11. After discussion the French proposal regarding operational procedure was accepted in principle. A working group consisting of Belgium, France, United States, Italy and Argentina was appointed to prepare a draft covering the French proposals 1443R/1448R inclusive for consideration at the next meeting.
- 12. It was decided that proposals 1441R, 1442R and 1449R are to be included in the minutes of the meeting so that if the proposed article 10 is not accepted by Committee 7 it may be necessary to re-examine proposals 1441R, 1442R and 1449R. They are as follows:

("national organization" is to be replaced by "centralizing office")

#### 1441R.

Each country shall create a permenent national organization with one or more control centers for emissions and their quality and qualified to deal with questions of interference, with the aim of eliminating or reducing such interference in the quickest way possible.

#### <u>1442R.</u>

Each national organization must, as far as possible, do all the monitoring or take all steps requested by another national organization with regard to defective transmission.

- 3'-, (694 R-E)

#### <u>1449R.</u>

Each country shall notify the Bureau of the International Telecommunication Union of the telegraphic and postal addresses of its national organization as well as the territorial extent of the organization jurisdiction.

13. The delegation from <u>New Zealand</u> suggested that the following paragraph be added to Art: 6 of the regulations "The Administrations shall cooperate in the detection and elimination of interference, employing the facilities described in Art. - - and employing the procedures detailed in Art. 22." Adopted.

It was decided to recommend, when approved, the inclusion of the draft to be prepared by the working committee in Art. 22 of the regulations.

14. Further items to be discussed by subcommittee 7C at its next meeting are: -

A. Consideration of Appendix 5 to the regulations which was referred to Committee 7 by Committee 8. This appendix is the form covering
 frequency measurements taken as a result of an interference complaint.

B. Consideration of a request from Committee 8 regarding the use of monitoring stations. The Delegate from Italy was requested to supply the required reference numbers of discussion in Committee 8 on this matter.

The meeting was then adjourned at 1:30 p.m.

Reporters:

Chairman:

Dr. J.H. DELLINGER

H.H. EDWARDS

L. PENNINCKX

# (694<sup>°</sup>R-E) Appendix

#### New Article

#### International Monitoring

s 1. The provisions of Article 6, Section 3, may be implemented by means of monitoring stations. Such stations may be operated by or on behalf of the administrations concerned or by a common monitoring service established by two or more countries or some international organization.

§ 2. Administrations shall endeavor to cooperate in the establishment of international monitoring for the purpose of undertaking such monitoring and measurements as may be requested.

(a) by the I.F.R.B. and

(b) by the telecommunication administrations of contracting governments and international organizations concerned.

The stations referred to in Section 1 may participate in this work.

• § 3. (a) All of the monitoring stations of one country or one international organization concerned participating in this international monitoring work shall report and transmit results of measurements through one centralizing office. This Office shall receive directly all requests for monitoring originating in the I.F.R.B. in similar offices of other countries or international organizations concerned and shall similarly forward the results to the organization which has requested that the measurement be made.

(b) However, these provisions shall not affect informal administration or private monitoring arrangements made for special purposes.

s<sup>4</sup>. (a) The I.F.R.B. shall adopte technical standards for performance of monitoring stations taking into consideration recommendations of the C.C.I.R.

(b) The I.F.R.B. shall be responsible for determining whether a monitoring station meets these tech-'nical standards. When a favorable finding has been made the (Secretary-General) on behalf of the I.F.R.B. shall accredit the station accordingly.

(c) In certain cases, a station may be accredited only for the monitoring of certain classes of stations or only for making of certain types of measurements.

694 R-E)

(d) Should, thereafter, the results supplied by any accredited station appear questionable, the (Secretary General), on the recommendation of the I.F.R.B., shall bring the matter to the attention of the administration or international organization concerned and, unless suitable corrective action is taken within a reasonable time, the monitoring station shall cease to be accredited and the administration or organization informed accordingly.

§ 5. Each administration or international organization shall inform the (Secretary General) of the postal and telegraphic addresses of each centralizing office and the (Secretary General) shall establish a list of the centralizing offices and of the name and location of each of the accredited monitoring stations. This list, as well as its subsequent amendments, shall be forwarded to the administrations and international organizations concerned.

s 6. The (Secretary General) shall make suitable arrangements to obtain periodically results of observations and measurements from the centralizing offices.

§ 7. (a) The (Secretary General) shall maintain the official international monitoring record containing combined results of monitoring and measurements made by the accredited stations from their own observations obtained in accordance with Sec. 2 above.

(b) The official international monitoring record shall also contain a complete statement of the standard rules of measurement. In addition, it shall show for each particular series of measurements, the estimated accuracy and the procedures actually followed.

(c) The (Secretary General) shall publish periodically a summary of the official international monitoring record.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No. 695 R-E August 5, 1947

Committee '

Report

of Sub-subcommittee A 2 (Technical Definitions) of the General Technical Committee (Committee 7)

> 3rd. Meeting August 2, 1947

The meeting was opened at 3.35 p.m. by Mr. <u>Hecht</u> of the <u>United Kingdom</u>, who gave a brief summary of the second meeting, pointing out that the Committee had discussed a proposal with a view to determining the gain starting from the applied power and that it had studied another proposal which would take radiated power into account.

The <u>Chairman</u> suggested continuing the discussion. The debate was animated, the Delegates from France, the <u>United States</u>, <u>Bielorussia</u>, <u>Italy</u>, and the <u>United</u> <u>Kingdom</u> participating. Finally, the slightly amended' French proposal was adopted with the following text:

"Gain of a directional antenna.

The gain of a directional antenna in a given direction is the ratio, expressed in decibels, between the power which has to be applied, on the one hand to a perfect half-wave antenna isolated in space, and on the other hand, to the antenna under consideration in order that the two antennas may produce equal fields, at a distance sufficiently great, the first in the median plane and the second in the direction under consideration."

The Chairman, as Delegate from the United Kingdom said that, in his opinion, the accepted definition served no useful purpose either for the Radio Regulations or for Committee 6. The Delegate from France pointed out that many other definitions made by the United Kingdom had been adopted without too many difficulties, although in his opinion they were not very useful.

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The Sub-subcommittee was of the opinion that, as the Delegate from the <u>United Kingdom</u> had pointed out, it was also necessary to define the directivity of the antenna.

-2-(695 R-E)

The Delegate from <u>France</u> proposed the following definition:

"Directivity. The horizontal directivity diagram of an antenna is the representation of the gain of this antenna in the different directions of space. The diagram in plan of a directive antenna is the representative of the gain in the different directions of the horizontal plane, or if necessary, in the different directions of a plane slightly inclined to the horizontal."

After a discussion, the <u>Ghairman</u>, as representative of the <u>United Kingdom</u>, and upon request of the Delegate from the <u>United States</u>, suggested a definition along the following general lines:

"The directivity of a directional antenna is the power level radiated in the direction of maximum gain, compared to the mean radiated power level set up at the same distance by the corresponding omnidirectional antenna."

The Delegate from the <u>United States</u> advocated the following definition:

"The directional gain is the gain in the direction of maximum gain divided by the Radiation efficiency."

The Delegate from <u>Bielorussia</u> made the following suggestion:

"By directional gain of an antenna is meant the ratio between the power radiated in the direction of the main beam and the mean power of the emission in all directions, expressed in decibels."

The Chairman pointed out the resemblance between the proposal of <u>Bielorussia</u> and that of the <u>United</u> <u>Kingdom</u>. He put to the vote, on the one hand, the proposal of France and the proposal of the United States and on the other hand, those of Bielorussia and of the United Kingdom, in order to determine which of them should be accepted as a basis for discussion. The first proposal received 4 votes, the second none and the third, 3. However, during the discussion, the proposal of <u>Bielorussia</u>, which presents interesting aspects, induced the Committee to favor resumption of its study.

·-3-(695 R-E)

As it was getting late, the <u>Chairman</u> requested the members to go closely into the ideas contained in the various proposals in order to confirm the choice they had already made or to find a more helpful solution.

The meeting was adjourned at 7 p.m.

The Rapporteur:

The Chairman

C. Gillioz.

N, Hecht.

#### INTERNATIONAL RADIO CONFERENCE ATLANTIC · CITY 1947

## Document No. 696 R-E

August 5, 1947

Committee 8

Texts to be Presented to Operations Committee (Committee 8) by Subcommittee 8A (General)

> Article 8 Article 8bis Article 10

#### Article 8

#### Amateur Stations

Modified.

Modified.

Modified.

194 § 1. Radio communication between amateur stations of different countries is forbidden if the Administration of one of the countries concerned has notified that it objects to this.

195 § 2.(1) When transmissions between amateur stations of different countries are permitted they must be made in plain language and must be limited to messages of a technical nature relating to the tests and to remarks of a personal character for which by reason of their unimportance, recourse to the public telecommunication service is not justified. It is absolutely forbidden for amateur stations to be used for transmitting international communications on behalf of third parties.

No change.

Modified.

1.96

(2) The preceding provisions may be modified by special arrangements between the countries concerned.

197 § 3. Any person operating the apparatus in an amateur station must have proved that he is able to transmit, and to receive by ear, texts in Morse Code Signals. Administrations

concerned may however waive this requirement in the case of stations making use exclusively of frequencies above 1000 (one thousand) Mc/s.

(696 R-E)

198

§ 4. Administrations take such measures as they judge necessary to verify the qualifications, from a technical point of view, of any person operating the apparatus.

199 § 5.(1) The maximum power of amateur stations is fixed by the Administrations concerned, having regard to the technical qualifications of the operators and to the conditions under which these stations must work.

> (2) All the general rules of the Convention and of the present Regulations apply to amateur stations. In particular the transmitting frequency must be as constant and as free from harmonics as the state of technical development for stations of this nature permits.

(3) During the course of their transmissions anateur stations must transmit their call sign at short intervals.

#### - Article 8 Bis

#### Experimental Stations

201-1 \$ 1. An experimental station may New enter into communication with an experimental station of another country only after it has been authorized to do so by its Administration. Each Administration notifies other Administrations concerned when such authorizations are issued.

201-2 § 2. The Administrations concerned New. determine by special arrangement the conditions uder which communications may be established.

Modified.

New

Modified

No change.

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Modified.

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201-3 8 3. In experimental stations any person operáting radio telegraph apparatus, either on his own account or for another, must have proved his ability to transmit and to receive by ear, texts in Morse Code signals.

-3-(696 R-E)

201-4 § 4. Administrations take such steps as they think necessary to verify the qualifications, from the technical point of view, of any person operating the apparatus.

The Administrations concerned 201-5 \$ 5. fix the maximum power of experimental stations, having regard to the conditions under which the stations are to work.

201-6 3 6. All the general rules of the Convention, and these Regulations, apply to experimental stations. In particular, experimental stations must comply with the technical conditions imposed upon transmitters operating in the same fre-. quency bands, except where the technical principles of the experiments prevent. this.

\$ 7. 201-7

During their emissions, experimental stations must transmit, at short intervals, their call sign, or their name in the case of stations not yet provided with a call sign.

201-8 § 8. Where there is no risk of an experimental station causing harmful interference with a service of another country, the Administration concerned may, if considered desirable, adopt. different provisions from those contained in this Article.

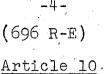
New.

New.

New.

New.

New.



#### Operators Certificates for Ship and Modified. Aircraft Stations.

#### A. General Provisions

- 221 S 1 (1) The service of every ship or aircraft radiotelegraph or radiotelephone station must be performed by an operator holding a certificate issued on recognized by the Government to which the station is subject.
- 221 Bis (1 bis) Nevertheless, in the service of radiotelephone stations operating solely on frequencies above 30 Mc/s each government decides for itself if a certificate is necessary and, if so, defines the conditions for obtaining it.

This provision does not, however, apply to aircraft stations working on frequencies allocated exclusively to aircraft making international flights.

222 (2)

In the case of complete unavailability of an operator in the course of a sea-passage, a flight or a journey. the master or the person responsible for the station may authorize, solely as a temporary measure, an operator holding a certificate issued by another contracting government to perform the radiocommunication service.

When it is necessary to employ as a temporary operator a person without a certificate or an operator not holding an adequate certificate, his intervention must be limited solely to signals of distress, urgency and safety, messages relating thereto, messages relating directly to the safety, of life, urgent messages reModified.

No change.

Modified.

New.

-5

lating to movement of the ship : and essential messages relating to the navigation and safe movement of the aircraft. Persons employed in these cases are bound by the same obligation regarding the secrecy of correspondence, as provided in 223.

In any case, this operator or person must be replaced as soon as possible by an operator holding the certificate prescribed in 221.

223

\$ 2 (1) Each administration takes the necessary steps to prevent, to the maximum extent possible, the fraudulent use of certificates. For this purpose, these bear the signature of the holder and are authenticated by. the stamp of the issuing administration Administrations may employ, if they wish, other means of authentication such as the photograph of the holder, etc.

224 (2)

bis

227

No change.

Deleted.

225 (3) In order to facilitate the verification of certificates, these carry, if necessary, in addition to the text in the national language à translation of this text in a language widely used in international relations.

225 (3 bis) Each Administration takes the necessary steps to place operators under the obligation to preserve the secrecy of correspondence as provided for in 49.

226 § 3 (1) There are two classes of certificates and a special certificate for radiotelegraph operators.

> There are two categories of certificates (general and restricted) for radiotelephone operators.

New Provisions contained in 223

Modified

Modified

No change.

-6-

228 (2) The conditions to be imposed for obtaining these certificates are contained in the following paragraphs and represent the minimum requirements.

229 (3 fi

230

bis

(3) Each Administration is free to fix the number of examinations necessary to obtain each certificate.

230 (4) The holder of a first or second class radiotelegraph operator's certificate, may perform the radiotelephone service of any ship or aircraft station.

> (4 bis) The holder of a general radiotelephone operators certificate may carry out the service of any ship or aircraft station when the installation is used solely for telephony in cases where:

the power in the antenna of the unmodulated carrier does not exceed 100 watts,

or, the power in the antenna of the unmodulated carrier does not exceed 500 watts in cases where the operation of the transmitter requires only the use of simple external switching devices excluding all manual adjustment of frequency determining elements. Additionally the tolerance of these frequencies must be maintained by the transmitter itself within the limits fixed by Appendix 1.

230 tor (4 ter) The holder of a radiotelephone operators restricted certificate may carry out the service of any ship or aircraft station when the installation is used solely for telephony in cases where the power in the antenna of the unmodulated carrier does not exceed 50 watts, .

No change.

No change.

To introduce' here 275

No change

New

New

New

New,

-7-1

or, the power in the antenna of New the unmodulated carrier does not exceed 250 watts in cases where the operation of the transmitter requires only the use of simple external switching devices excluding all manual adjustment of frequency determining elements. Additionally the tolerance of these frequencies must be maintained by the transmitter itself within the limits fixed by Appendix 1.

231

Exceptionally, the second class radiotelegraph operators certificate as well as the radiotelegraph operators special certificate may be limited exclusively to the radiotelegraph service. In such case the certificate must be suitably endorsed.

#### B. <u>First Class Radiotelegraph</u> Operator's Certificate

232′

§ 4 The first class certificate is Assued to operators who have given proof of the technical and professional knowledge and qualification enumerated below:

233 (a) Knowledge both of the general principles of electricity and of the theory of radio, knowledge of t ; adjustment and practical workin; of types of radiotelegraph and radiotelephone apparatus used in the mobile service (including apparatus used for radio direction-finding and the taking of direction-finding bearings), as well as a general knowledge of the principles of operation of other apparatus generally used for radionavigation.

No change'

Introduce here

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Modified

No change

'Modified.

-8-

234

(b) Theoretical and practical knowledge of the operation and maintenance of apparatus, such as motor-generators, storage batteries, etc., used in the operation and adjustment of the radiotelegraph, radiotelephone and radiodirection-finding apparatus mentioned in 233.

235 (c) Practical knowledge necessary to repair with the means available on board, damage which may occur to the radiotelegraph, radiotelephone and radiodirection-finding apparatus during a voyage.

236

(d) Ability to send correctly and to receive correctly by ear code groups (mixed letters, figures and punctuation marks), at a speed of 20 (twenty) groups a minute, and a plain language text at a speed of 25 (twenty five) words a minute.

Each code group must comprise five characters, each figure or punctuation mark counting as two characters. The average word of the text in plain language must contain five characters. The duration of each test of sending and of receiving is, as a rule, five minutes.

237 (e) Ability to send correctly and to No change. receive correctly by telephone.

238 (f) Detailed knowledge of the Regu- Modified lations applying to radiocommunications, knowledge of the documents relating to charges for radiocommunications, knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio and, in the case of air navigation, knowledge of the special provisions governing the aeronautical fixed mobile and

Modified

Modified

No change.

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radionavigation services. In the latter case the certificate states that the holder has successfully passed the tests relating to these provisions.

239 (g) Knowledge of the general geography of the world, expecially the principal navigation routes maritime and air, and the most important telecommunication routes.

'240 (h) Sufficient knowledge of a language widely used in the international correspondence of the mobile service. Candidates must be able to express themselves in a satisfactory manner both orally and in writing. Each Government decides for itself the language or languages required. · ·

Modified

Modified

-10-

#### C Second class radiotelegraph ... No Change. Operator's Certificate

241 \$ 5. The second class certificate is issued to operators who have given proof of the technical and professional knowledge and qualifications enumerated below:

> (a) Elementary theoretical and Modified. practical knowledge of electricity and of radio, knowledge of the adjustment and practical working of the types of radiotelegraph and radiotelephone apparatus used in the mobile service (including appartus use for radio direction-finding and the taking of directionfinding bearings), as well as elementary knowledge of the principles of operation of other apparatus generally used for radionavigation.

Elementary theoretical and (b) practical knowledge of the operation and maintenance of apparatus, such as motor-generators, storage batteries, etc., used in the operation and adjustment of the radiotelegraph, radiotelephone and radiodirection-finding apparatus mentioned in 242.

(c)Practical knowledge suffi-Modified. cient for effecting repairs in the case of minor damage which may occur to the radiotelegraph, radiotelephone and radiodirection-finding apparatus during a voyage.

245

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(d) Ability to send correctly . . No change. and to receive correctly by ear code. groups (mixed letters, figures and , punctuation marks) at a speed of 16 (sixteen) groups a minute.

Each code group must comprise five characters, each figure or punctuation mark counting as two characters. The duration of each test of sending and of receiving is, as a rule, five minutes.

No Change.

Modified.

-17-

246

(e) Abfility to send correctly and to receive correctly by telephone except in the case provided for in 231.

247

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249

(f) Knowledge of the Regulations applying to radiocommunications, knowledge of the documents relating to charges for radiocommunications, knowledge of the provisions of the Convention for the Safety of Life at Sea which relate to radio, and, in the case of air-navigation; knowledge of the special provisions governing the aeronautical fixed mobile, and radionavigation services'. In this latter case the certificate states that the holder has successfully passed the tests relating to these provisions.

(g) Knowledge of the general geography, especially the principal navigation routes, maritime and air, and the most important telecommunication routes.

(h) If necessary elementary knowledge of a language widely used in the international correspondence of the mobile service. Candidates must be able to express themselves in a satisfactory manner both orally and in writing. Each government decides for itself the language or languages required.

. Modified

Modified.

Modified.

No change.

-12-

# o D. Radiotelegraph Operator's Special Certificate

No change.

Modified. To be placed between 30 ter and 231.

250 § 6. (a) The radiotelegraph service of ships and of all means of transport other than aircraft, for which a radiotelegraph installation is not made compulsory by international agreements, as well as the radiotelephone service of mobile stations for which only a restricted radictelephone operators certificate is required, may be carried out by an operator holding the special radiotelegraph operators certificate.

Deleted

#### Deleted

Modified

(c) This certificate is issued to candidates capable of correct transmission and correct reception by ear code groups (mixed letters, figures and punctuation marks) at a speed of 16 (sixteen) groups a minute, Each code group must comprise five characters, each figure or punctuation mark counting as two characters.

These candidates must in addition be capable of correct transmission and correct reception by telephone, except in the case provided for in 231.

254

251

252

253

Modified

(d) It rests with each M government concerned to fix the other conditions for obtaining this certificate. However except in the case provided for in 231 the conditions fixed by 266 bis 266 Ter, 266 quater, 266 quinques or 267 must be satisfied.

# -13-(696 R-E)

	<u>E. Radiotelegraph Operators</u> tricted Certificate for Meronautical Service	To be deleted.
255-261		Deleted.
-	F <u>Radiotelephone</u> Operator's <u>Certificate</u> .	No change.
262 § 8	(1) The general radiotelephone operator's certificate is issued to candidates who have given proof of the knowledge and professional qualifications enumerated below (see also 230):	No change
263	(a) Knowledge of the elemen- tary principles of radiotelephony.	Modified.
264	(b) Detailed knowledge of the practical operation and ad- justment of radiotelephone appara- tus.	Modified.
265	(c) Ability to send correct- ly and to receive correctly by telephone.	No change.
266	(d) Detailed knowledge of the regulations applying to radio- telephone communications and specifically of that part of those regulations relating to the safety of life.	Modified.
266 bis	(1 bis) The restricted radio- telephone operator's certificate is issued to candidates who have given proof of the knowledge and pro- fessional qualifications enumerated below:	New.
266 ter	(a) Practical knowledge of radio- telephone operation and procedure.	
266 quat	er (b) Ability to send correct- ly and to receive correctly by telephone	

## -14-(696<sup>-</sup>R-E)

266

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269

quinques (c) General knowledge of the regulations applying to radiotelephone communications and specifically of that part of those regulations relating to the safety of life.

267 (2) For ship and aircraft radiotelephone stations where the power in the antenna of the unmodulated carrier does not exceed 50 watts, each Administration may itself fix the conditions for obtaining a restricted radiotelephone operators certificate.

(3) A radictelephone operator's certificate must show whether it is a general certificate or a restricted certificate and in the latter case if it has been issued in conformity with the provisions of 267.

(4) In order to meet special needs and on condition that international services are not interfered with, regional agreements may fix the conditions to be fulfilled in order to obtain a radiotelephone opeartor's certificate, intended to be used in radiotelephone stations complying with certain technical conditions and certain operating conditions. These conditions and agreements are mentioned in the certificates issued to such operators.

#### G. Qualifying Service.

270

§-9 (1) Before becoming chief operator of a ship station of the first category (629), a first class radiotelegraph operator must have had at least one year's experience as operator on board ship or in a coast station. New.

Modified.

No change

No change

No change.

-15-

## (696 R-E)

271 (2) Before becoming chief operator of a ship station of the second category (630, 632, and 633), a first class radiotelegraph operator must have had at least aix months' experience as operator on board ship in a coast station.

272 (3) A first class radiotelegraph No operator is authorized to embark as chief operator of a ship station of the third category (631, 634 and 635).

(4) (a) A second class radiotelegraph operator is authorized to embark as chief operator of a ship station of the third category (631, 634, and 635).

(b) Before becoming chief

operator of a ship station of the second category (630, 632, and

633) a second class radiotelegraph operator must have had at least six months experience as an operator on board ship. No change.

No change.

No change.

change.

The previous numbers are to be placed in the following order:-272, 271, 270, 273, and 274.

275

273

274

(5) The Administration which .'Mo issues a certificate may, before (To authorizing an operator to carry af out the service on board a ship or aircraft, require the fulfillment of other conditions, (for example: further technical and professional knowledge relating particularly to navigation; physical fitness; for an operator of the aeronautical mobile service, the completion as an operator of a certain number of flying hours; etc).

.'Modified. (To be placed after No. 229)

Document\_No.\_697\_R-E\_

August 5, 1947

Committee, 6

Report of Subcommittee B International Frequency List Committee (Committee 6)

INTERNATIONAL

RADIO CONFERENCE ATLANTIC CITY 1947

#### Eleventh Meeting 1st August 1947

1. In the absence of Mr. C. E. Arboleda, the Vice Chairman Mr. L.E. Coffey of the delegation of Canada assumed the Chairmanship of the meeting, and opened the meeting at 10:15 a.m.

2. In considering the report of the 10th meeting of the. Committee, Document No. 612 R, the <u>delegate of Switzerland</u> requested that in para. 16 the full stop at the end of the sentence be altered to a comma and the following words inserted, "and insisted that no changes in frequency assignments could be made without the approval of the administrations concerned." The <u>delegate of Bielorussia</u> referred to para 8 line 5, and requested that after the words I.F.R.B the following be inserted, "together with the facilities of the Berne Bureau."

3. With the addition of these two amendments the report of the tenth meeting was adopted without further comment

4. The committee next proceeded to a discussion of the report of the Working Group on Propagation, document No. 547 R. <u>The Chairman</u> pointed out that the Working Group had now been dissolved and that many of the members had left Atlantic City, so that in any case it would not be possible to refer anything back to the Working Group. The Chairman proposed that consideration of the report should be divided into two stages, first a consideration of the material of the report, and secondly a consideration of the action to be taken to implement the report.

5. It was suggested by the delegate of the U.S.A. that since there would certainly be some slight differences of opinion on some details of the report, it would be undesideable to consider it in complete detail, but it would be better merely for the Committee to note the report and proceed to a division as to what action should be taken on the report.

(697 R-E)

6. It was accordingly agreed that only general comments should be made on the report.

7. The delegate of <u>Cuba</u> congratulated the Working Group on the production of such a brilliant report, and in this he was supported by the other delegations who spoke during the course of the meeting.

8. Continuing the delegate of Cuba referred to the following typographical errors in the report:-

In fig. 8 the date in the French text should be June 1947 and not June 1946 as printed.

Cn page 11, referring to fig. 8, the text should read "Same as for fig. 7, but for June 1947", since both figs 7. and 8 refer to a frequency of 30 Mc/s.

He also referred to the recommendation of the Working Group that an atlas of charts be prepared and said that as this atlas would be required in the very near future the work of preparing it should be put in hand immediately.

9. The <u>Chairman</u> said that he believed that para 8.4 had been misunderstood in some quarters but said that any doubts on the veracity of the figures quoted should be dispelled by bearing in mind the contest of the paragraph and in particular the general heading of para 8, namely "Readily known sharing cases".

10. The delegate of the <u>United Kingdom</u> said that it should be emphasized that the figures in para 8.4 referred only to certain periods of the day and certain periods of the sun spot cycle.

11. Continuing the delegate of the U.K. referred to para 7.1 (c) in which it is stated that the highest working frequency should be 40% of the highest MUF. He questioned whether this figure should not be higher and said that he believed that the adoption of a figure of 40% would necessitate the use of uneconomically powerful transmitters in order to attain satisfactory service, and would also result in increasing the number of frequency assignments required in certain of the already overcrowded lower frequency bands. Consequently the U.K. could only accept the report as a general guide and must reserve on the question of adopting the report as a set of binding rules.

12. Referring to the proposal to prepare an atlas of charts, the delegate of the U.K. said that it would be better to wait until the Special Commission appointed to prepare the new frequency list decided what charts were required, before putting this laborious and expensive task in hand. 13. The delegate of <u>Bielorussia</u> said that the figure of 40% in para 7.1.(c) did not accord with practical experience and accordingly supported the U.K. that this report could only be accepted as a general guide to frequency assignments.

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14. The delegate of <u>France</u> said that it would be impossible to decide on one figure for this percentage because in any case the figure of 40% was only an average of the figure required for a number of circuits. A more useful point would be to indicate the method of arriving at this figure so that it could, in the future, be calculated separately whenever it was required. The delegate of <u>France</u> emphasized that the method of calculation was more immportant than the result, in connection also with such things as determining the. number of frequencies required by a circuit, and in plotting field intensity charts.

15. The delegate of <u>Switzerland</u> supported the delegate of France on these points.

The Chairman, referring to the specific points 16. raised by various delegations, dealt first with the figure of 40% quoted in para. 7.1.(c) of the report. He said that it must be borne in mind that this referred to the highest MUF appropriate to the circuit, a quantity known in the Working Group as the "maximum maximorun." This maximum maximorum is very rarely considered because it is of little practical significance since it is the MUF applying for a very short space of time on usually only a very few days during the whole ll years of a sun spot cycle. He said that this figure, applied to any given circuit, is frequently very high, in some cases of theorder of 60 Mc/s and the order of 40% of the maximum maximorum did in fact coincide with the order of the highest working frequency usually assigned to a circuit. He also pointed out that, in the case of circuits using high speed signalling the report recommended a highest working frequency of 70%. of the highest MUF in order to overcome the difficulties of reception brought about by multi-path transmission with a signficant time interval between reception of the signals on the various paths.

17. In connection with the method of preparation of the charts, the Chairman said that a report on this matter would be a very bulky work, and in any case these methods are described in certain published documents. The only difference from earlier charts was in the precise method of presentation of the charts, not in the method of calculation.

18. The delegate of <u>Cuba</u> pointed out that some of the recommendations of the report affected the work of other committees, and it was agreed that certain of these would be brought to the attention of the committees concerned.

19. After some further discussion in which the <u>delegates</u> of France, Switzerland, the U.K. and the U.S.A. participated it was finally agreed that:-

"The committee has noted the report of the Working Group on Propagation, document 547R, and has adopted it as a guide, so far as is practicable, for the further work of preparing a new International List of Frequencies."

20. The next point to come under consideration was the number of frequencies to be assigned to a given circuit.

21. The delegate of <u>France</u> pointed out that it would be impossible to arrive at a precise figure for the number of frequencies required for a circuit because the requirement varied as between different circuits and anyone figure could only be an average, which would result in some circuits having more frequencies than they really required and others having insufficient. He emphasized again the importance of giving the method of calculating this figure, rather than trying to arrive at a precise, general result.

22. This statement was strongly supported by the delegates of the  $\underline{U.K.}$  and the  $\underline{U.S.A.}$ 

23. The delegate of the <u>U.S.A.</u> also said that the committee must confine itself to giving directives based on engineering principles and must not attempt to apply these principles in detail to individual or general cases. He also referred to document No. 609 R in which Sub-subcommittee 7B2 had recommended to Committee 7 the answers to the questions, put to Committee 7 by Subcommittee 6B.

24. It was <u>agreed</u> that Sub-subcommittee 6BI should consider this document and recommend the manner in which the material contained therein could be reduced to a form convenient for adding to the engineering principles so far agreed.

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25. The <u>Chairman</u> next raised the question of how the charts required for determining MUF's should be obtained. He said that these charts are special cases of radio propagation forecasts, which are based on a continual series of observations and are prepared by a number of government organizations in various parts of the world.

26. It was <u>agreed</u> that the MUF charts required must be obtained from one of the organizations which already produces such charts, and it was left to discussion at a later meeting to decide the precise recommendation to be made to the conference on obtaining these charts.

27. The meeting then adjourned at 1:05 P.M.

Reporter

Chairman

Squadron Leader A. Fry

Lawrence E. Coffey

INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY, 1947 Document Nº 698 R-E August 6, 1947

Committee 6

## REPORT

## of the

### INTERNATIONAL FREQUENCY LIST COMMITTEE

(Committee 6)

## 11th Meeting July 30, 1947

1. The meeting was called to order at 3:30 p.m. by the Chairman, <u>J. D. H. van der Toorn</u>, from the Netherlands Delegation.

The report of the ninth meeting (Doc. No. 633 R-E) was adopted with the following amendments:

- a) The following paragraph is to be inserted between paragraphs 11 and 12 upon the request of the Delegate from the <u>U.S.S.R</u>.:
- "The Soviet Delegate stated that he had listened attentively to the explanations given at the meeting by the Delegates from Great Britain and the United States, but he stressed the complexities of the problem confronting those who have to work out a new The results of the work of the Sublist. committees of the present Conference have confirmed these difficulties. The Subconmittee under the Chairmanship of Mr. van der. Pol expressed itself in a guarded manner as to the possibility of a double use of frequencies and the selection of working frequencies for given circuits during magnetic disturbances. Comparison of results in the allocation of necessary band widths for given types of transmission, and the low norms of frequency stability, create further difficulties in drafting a new list. The imperfections of short wave directional

antennas are well known, and this has to be taken into account in the double use of frequencies. Furthermore the problem becomes still more complex because of the steady increase in the number of radio facilities and the essential modifications in them (frequentelegraphy, multiple transmiscy modulation sions, etc.). This complicates still further the problem of drafting a new list. However, we cannot afford the risk of disrupting the normal functioning of our radio communications. In our country we acknowledge the existence of technical risks, but we do not try to hide the difficulties which confront us. It is our duty to assure the smooth functioning of our radio communications. For this reason we second the proposal of the United Kingdom and . the United States to draft a new list of frequencies, based on a complete overhauling of the whole radio set up. At the same time we. favor the parallel drafting of a provisional list, having a more modest objective: the study of the assignment of frequency band widths, in order to allocate them other ser-Taking into consideration the fact vices. that the drafting of a new'frequency list may take many years and will present great difficulties, the creation of a provisional list will enable us during this transition period to keep world radiocommunications. properly functioning."

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b) The following paragraph is to be inserted between paragraphs 16 and 17:

The Delegate from Bielorussia stated:

- 1) That he agrees in principle with the Delegate from the French Colonies;
- 2) That two principles should be observed:
  - a) the maintenance of priorities in frequency allocations;
  - b) detailed consultation with all countries, regardless of their participation in the committee drafting the new frequency list, which

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will require two phases in the performance of this task; it cannot be anticipated that this work will be completed before another 4 years. 1111

The report of the tenth meeting (Doc. No. 635 R-E) was adopted with the following amendments:

a) Page 3, paragraph 5; the beginning of this. paragraph is modified as follows:

The Delegate from the Netherlands I/dies expressed a certain concern as to the provisions of paragraph 9 of Doc. 622 R-E. This paragraph mentions in no wise the procedure to be utilised during the interim period, nor in what way frequencies in service before the war are to be re-established. Now, etc. ....

- b) Page 6, paragraph 9, second sub-paragraph, instead of "Committee 6B" read "Subcommittee 6B."
- c) Page 6, paragraph 12 is to be replaced, upon the request of the Delegate from the U.S.S.R. by the following text:

"12.

The Soviet Delegation has given careful study to documents 622 R-E and 623 R-E. This was all the more necessary, as the Bielorussian proposal, supported by France, reflects the work of Sub-subcommittee 6-B2, which held more than 12 meetings. It was a surprise to us that the United Kingdom and the United States Delegations unexpectedly interrupted the work of Sub-subcommittee 6B2, abandoned the normal study of the question under consideration in the Sub-subcommittee which had been set up for this specific purpose and presented decisions already made, at the plenary meeting of Committee 6. We have not had a satisfactory reply as to why the work of Sub-subcommittee. . 6 had to be interrupted. A study of Doc. 622 has not changed the opinion of the Soviet Delegation as to the necessity of drawing up a provisional list. The Honorable Delegate from Cuba has referred to this list as utopian. But we know that in our days many 'utopias' have become realities.

The Bielorussian proposal is not utopian. It does not reject the plan of the United States to draw up a new list with a complete rearrangement of the whole radio set up. It only complements the latter by establishing a different working method, which guarantees the normal functioning of radio communication during the transitional period.

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May I remind the Delegates, that the Allied Armies advancing on Berlin made extensive use of radiocommunications. The Soviet Armies, in breaking through the enemy front, surround ing and destroying the latter's troop concentrations, in the course of a swift advance, secured the necessary liaison between army units and the rear, by means of thousands of radio stations. All these stations fully achieved their objectives, and today the flags of the United Kingdom, the United States, France and the U.S.S.R., flying in the streets of Berlin, are an obvious testimony of this to everyone.

We therefore consider, that the reallocation of stations from established frequencies, to be effected according to the Bielorussian proposal, is quite feasible and necessary. In connection with a marked tendency of this meeting, originating in many countries, to decide the question by a simple vote, we wish to draw the attention of the Delegates to the necessity of adopting decisions that are acceptable to the majority of countries. We must respect the opinions of the minority and as far as possible try to compromise.

The Canadian Delegate quite correctly raised this question at the preceding meeting. Our conference, by means of the vote, has already adopted, in the opinion of my Delegation, a series of incorrect decisions. But it is a different matter, when decisions as to whether certain new members are to be admitted or not to the Conference are adopted. In such cases the question depends to a large extent on those who are in possession of the keys to the house.

In deciding technical questions, voting is not a method which can bring success. It is quite

obvious, that space used for radiocommunications, cannot be allocated by means of barriers, and if we wish to do this in an orderly fashion, we must have the agreement of all contracting states.' When a large group of countries, having a considerable number of radiocommunication facilities, have doubts regarding suggested decisions, then a compromise decision, satisfying this group of countries, is the only correct procedure. This method. in our opinion, is the only one possible. We therefore believe, that we will never achieve results by trying to impose our will on others, and we propose to return all the documents to Sub-subcommittee 6B2, to enable it to continue its work under normal conditions, with the objective assigned to it by the plenary meeting of our Committee 6, in order to work out a compromise solution, satisfactory to all the Delegations."

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d) Page 8, paragraph 16, add:

"He recalled that on several occasions he had put the following specific question: 'If in a definite' band width, it is impossible to make assignments on a rational, technical basis, on all circuits found on Forms 1 and 2, to what circuits will frequencies be assigned and what assignments will be denied?' He observed that the Delegate from the United States had never given a specific answer to this specific question.

The Delegate from France cannot permit it to be said that the Bielorussian proposal (Doc. No. 623 (R-E) is a proposal tending 'not to establish a new frequency list.' If this had been true the French Delegation would not have supported that proposal. The French Delegation considers on the contrary that this proposal is a constructive proposal and that it displays a much more realistic point of view • than the United States proposal."

2. The <u>Chairman</u> consulting the agenda, pointed out to the Committee that this meeting was to be devoted to the study of the following documents: Doc. No. 646 R-E -- France. Preparation of a new International Frequency List.

Doc. No. 655 R-E

United States. Resolution in regard to the preparation of the New International Frequency List. This document is a review of Doc. No.622 R-E and includes the amendments published in Doc. No. 648 R-E.

Doc. No. 656 R-E -- United Kingdom. Comments on Resolution proposed by the United States in Doc. No. 622 R-E.

Doc. No. 659 R-E -- Proposal of the French Colonies.

The proposal of the United States, found in Document No. 655 R-E served as a basis of discussion.

3. Study of the reasons of the United States proposal (Doc. No. 655 R-E, g g A to G).

Paragraph A

Paragraph A shall be adopted with the addition proposed by the United Kingdom in Document No. 656 R-E. This paragraph reads as follows:

"Α. In order to provide a basis for the formulation of a new International Frequency List, countries participating in the Atlantic City Frequency List, countries participating in the Atlantic City Radio Conference have undertaken to furnish Committee 6 of the Conference by September 15, 1947 with information regarding circuit requirements for fixed stations, together with information regarding requirements for tropical broadcasting stations and all classes of land stations, shown on Forms 1 and 2 formulated by Committee 6; in order to make the list as complete as possible, \* those countries not participating directly in the Conference have also been asked to furnish similar information."

## Paragraph B

The wording proposed by the United Kingdom in Doc. No. 656 R-E, shall be adopted. Paragraph B becomes:

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"These countries have agreed that the compilation of such a list is an essential prerequisite to ensuring that the requirements of all countries for frequencies will be adequately catered for when the new Atlantic City Frequency Allocation Table is implemented."

## Paragraph C

This paragraph shall be adopted. (Document No. 655 R-E).

## Paragraph D

The Delegation from the <u>United States</u> has agreed that the additions proposed by the <u>United Kingdom</u> for Doc. No. 656 R-E be added to the wording.

The French Delegate, did not believe that it could be said at present that "The compilation of world frequency requirements ..... is now well advanced," and he suggested that the beginning of Paragraph D be modified as follows: "The compilation of world frequency requirements .... is now under way." He proposed furthermore that the end of the paragraph be modified in the following manner: "and it is to be desired that this compilation be completed October 15, 1947 and published and distributed January 1, 1948." This proposal was supported by the Delegation of the United Kingdom and accepted by the United States Delegation. The wording of Paragraph D then becomes:

"D. The compilation of world frequency requirements as an initial step in the compilation of a new list is now under way, and it is to be desired that this compilation be completed October 15, 1947 and published and distributed January 1,1948."

### Paragraph E

After an exchange of views between the Delegates from <u>Belgium</u>, the <u>United States</u>, and the <u>U.S.S.R.</u> the following wording was adopted: (698 R-E)

"E. It is considered essential to continue with minimum delay the work of preparing a new Frequency List upon the conclusion of the Atlantic City Radio Conference."

#### Paragraph F

The Delegate from U.S.S.R. believed that the wording of this paragraph implies that the only way to guard against harmful interference is to rework the frequency list by proceeding to a thorough technical study. In his opinion, other methods exist and those which are customarily in use at the present time for the operation of radio communications can still be applied. He recalled that during the three years before the new Frequency List becomes effective, the present list published by the Bureau of the I.T.U. will continue to be the basis for radio operation. Last of all he pointed out that he did not wish to formulate any conclusion.

The Chairman of the Delegation from the United States declared that he had no intention of suggesting that world radio communications could not be carried on under present conditions. The United States proposal endeavors to show that until a list based upon rational technical principles is given a trial, there can be no certainty that the frequency spectrum will be freed of all harmful interference. He believed that it would not be possible to attain this goal except by proceeding to a technical study. He proposed therefore for paragraph F the following amendment: instead of ".... it will not be certain that effective use can be made of the frequency spectrum ....." read ".... it will not be certain that the most effective possible use of the frequency spectrum ....."

The Delegate from India also wished to amend paragraph F as follows: instead of ".... or that the frequency requirements of any service can be met ....," read '.... or that the frequency requirements of any service can be met in a satisfactory manner...."

The Delegate from the <u>Belgian Congo</u> thought that greater clarity could be given to the text by adding, at the end of the paragraph ".... in the reduced bands decided upon by the Radio Conference for some of these services."

The Delegate from <u>Russia</u> proposed the addition: "It is likewise recognized that until a complete plan based

upon rational technical principles has been prepared, it is possible to better conditions existing at the present time by proceeding to a partial rearnangement of the frequencies of certain bands."

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The Chairman of the Delegation from the <u>United States</u> observed that that suggestion referred to the preparation of a provisional list when the Committee in the course of the preceding meeting had pronounced itself against the making of such a list.

The Delegate from <u>Russia</u> could not agree with the interpretation of the United States Delegate. He believed that it was still possible to make amendments to the draft under consideration in which he saw no mention relative to a provisional list.

The Delegate from India noted that the Committee was not dealing for the moment with the examination of resolutions, but only with the study of reasons. Paragraph F did not exclude definitively the possibility of later provision to provide for the interim period. It would be more opportune, in the opinion of the Delegate from India, to take into consideration the suggestion of the U.S.S.R. at the time of the discussion of paragraph 9 of the Resolutions:

The Delegate from <u>Bielorussia</u> was of the opinion that in the first part of the resolutions it should be made clear that during the preparation of the new list, the essential reallocation of frequency assignments must be carried out by the administrations concerned.

The Delegate from the <u>Vatican</u> suggested that the different opinions which had just been expressed could be conciliated by the insertion in the reasons of a sentence indicating that it would be eventually possible to ef-. fect partial and temporary rearrangements.

After an exchange of views between the Delegates from <u>China</u>, from the <u>United States</u> and from <u>France</u>, it was decided that the discussion of paragraph F would be resumed after the examination of the remainder of Doc. No. 655 R-E.

#### Paragraph G

The following wording shall be adopted:

"G. It is admitted that it is essential etc....

A. Examination of the Resolutions of the United States Proposal (Doc. No. 655 R-E, page 2).

The <u>Chairman</u> remarked that the French Delegation, in. Doc. No. 646 R-E, had proposed amendments to paragraphs 10784 - 10. -(698 R-E)

1 and 2 of the resolutions in the United States proposal (Doc. No. 655 R-E).

The Delegate from <u>Bielorussia</u> asked the Delegate from France to explain the proposal of his Delegation in detail; he said that he wished to be informed whether the Special International Commission would be distinct or not from the I.F.R.B.

The <u>Chairman</u> remarked that the Delegatè from Bielorussia had inquired at the last meeting whether the services of the Bureau of the I.T.U. would be called for in preparing the new International Frequency List.

He pointed out that the I.F.R.B. has not yet been established, and that it is not yet possible to tell when it will take up its duties. The Special International Commission will begin its work in January 1948, and at that time, the I.F.R.B. will probably still be in process of organization and unable to cope with the tremendous task of preparing a new frequency. list. Moreover, there is a question of principle to be taken into consideration: the normal duties of the I.F.R.B. do not include the allocation of frequencies; its duties are to register frequencies and to seek to prevent harmful interference. It is up to nations which assign their own frequencies. The Chairman therefore considered it a mistake to entrust so important a task to the I.F.R.B. at the time of its inception, the more so since this task would not properly lie within its competence.

That is why he considered the French proposal logical, since it suggested that the preparation of the frequency list should not be entrusted to the I.F.R.B., but to a separate agency, which should elect its members according to the same procedure, the number of said members not exceeding that of the I.F.R.B.

The Chairman remarked that it was important for these members to be chosen among radio experts who come into daily contact with operational routine, rather than among persons possessing, of course, normal technical knowledge, but who above all have much broader experience in general matters.

But he questioned whether it would prove really advantageous to limit the membership of the Special International Commission. He recalled that the preceding day, during a meeting of Subcommittee 3A, the Chair-

man of the French Delegation had declared that if the I.F.R.B. were to be invested with the powers of a frequency allocation board instead of functioning merely as a registration Board, France would not necessarily accept all the implications of the act which would bring it into being, since in that case, the I.F.R.B. would be too limited in its scope. The Chairman stated that many countries would be more likely to place their confidence in a commission, in which they might participate directly; or else they might be willing to be represented by other countries with which they maintained good relations.

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Proceeding next to the question of the utilization of the Bureau of the International Telecommunication Union, the Ghairman recalled the fact that this Bureau does not assign frequencies but only registers frequencies. It is evident that this Bureau has a Secretariat with personnel particularly competent in keeping the list of frequencies up to date, but does not include engineers qualified to draw up additional technical rules which could eventually be required, and to assume the task of allocating specified frequencies. The Bureau of the Union will of course be most willing to collaborate to the full extent of its capacity. The Chairman stated that he had written to the Bureau of the I.T.U. and read the following passage of the letter he had received from the Director of the Bureau:

"Our available personnel, trained in the preparation of frequency list, may wisely direct such assistants as may be necessary to accomplish the clerical work. Moreover, it will be possible for us to have available in Switzerland the most modern perfected machines enabling us to carry out the mechanical work of classification under conditions similar to those mentioned in your letter.

As you have clearly stated, the establishment of a new list of frequencies requires the collaboration of technicians who have a complete knowledge of the problem of the allocation of frequencies. Clearly we shall be happy to welcome as participants in this work any group of experts who may be designated by the Conference to assist the personnel of the B.U., and to check periodically on the spot the development of the project of the frequency list."

It appears from this correspondence, continued the Chairman, that the collaboration of expert technicians is necessary, and it seems that the most practical method of procedure would be for the special International Commission to meet in Bernewhere it could utilize to the full the competent personnel and the modern methods which the Bureau of the Union could put completely at its disposal. The Chairman therefore did not see why a clause aiming at taking into account the collaboration of the Bureau of the Union should not be incorporated in the United States plan; a provision of this type would have the advantage of harmonizing the two groups of proposals which have been submitted to the Committee.

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The Chairman concluded his statement in pointing out that in his opinion the best solution would be to have the Special International Commission meet at Berne.

The Delegate from India remarked that paragraph 1 of the French proposal (Doc. No. 646 R-E) expressed the same ideas as paragraph 2 of the United States proposal (Doc. No. 655 R-E).

The Delegate from the <u>United Kingdom</u> observed that paragraph 1 constitutes an addition that the Delegation from the United States contributed to his preceding proposal, which will permit the deletion of a certain number of amendments. He stated that his Delegation accepts the text of this paragraph.

As regards paragraph 2, the Delegate from the United Kingdom stated that he was in entire agreement with the remarks just made by the Chairman. He was of opinion that the I.F.R.B. was going beyond its competence in the assignments of frequencies; he believed as the Chairman, that the members of the Special International Commission should be experts of a very different category than those who will form the I.F.R.B.; and he thought that the special Conference should have the responsibility of approving the list of frequencies, and that last of all Governments should ratify it.

The Delegate from the United Kingdom was also of opinion that the Special International Commission should utilize as far as possible the means already at the disposal of the Bureau of the I.T.U., and the personnel of the latter must be increased by adding technicians fulfilling the required conditions.

In conclusion, the Delegate from the United Kingdom stated that his Delegation did not favour the creation of an International Commission which would only include a limited number of experts. He stated that he favoured a commission to which every country interested in its work could designate a representative if it so desired.

The Delegate from <u>Cuba</u> recalled that he had already supported the United States proposal. He stated that he shared the views expressed by the Delegate from the United Kingdom and opposed any plan tending to establish an International Commission with limited powers, the duties of which would be the preparation of the new Frequency List.

The Delegate from France stated the reason which led his Delegation to put forward the proposal embodied in Doc. No: 646 R-E. Since the beginning of the Radio Conference the French Delegation had always stated its opinions on the best way of preparing the new Frequency List.

The Chairman of the United States Delegation has mentioned that the Conference was faced with two different ways of arriving at their objectives. One is a straight line which would lead us directly to our goal and the other taking us there in two stages. The French Delegation was of opinion that a certain number of obstacles barred the first way. In view of the fact that the majority had declared itself in favour of its adoption, the French Delegation had tried to discover the best methods of surmounting these obstacles. It had stated these methods in Doc. No. 646 R-E.

The French Delegation was in favour of establishing a Special Commission with limited powers as that the work of the latter, apparently, would cover a rather long period of time, approximately 15 months. Certain countries wishing to participate in this work would hesitate in view of the expenses entailed. The proposal of the United States, that each delegate could be accompanied by technical experts would only accentuate the difference existing between wealthy countries and . those obliged to limit their expenses, and as it was very likely that the special International Commission would be divided into several Subcommittees, the position of countries represented by one expert only, would become especially difficult. That is why the French Delegation had suggested that the special commission should be composed of a number of members equal to that of the I.F.R.B. - which would have its statutes defined shortly - and elected in the same way.

This number has been fixed allowing a judicious proportion between members of the various regions. If, however, this number was considered insufficient, the Delegate from France stated that he had no objection to doubling this number, on condition, that the proportion between members of the different regions should be adhered to.

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The Delegate from Egypt supported the United States proposal and shared the point of view expressed by the United Kingdom Delegate. He, however, understood full well the wish expressed by the French Delegation to limit the personnel and the expenses of the Special International Commission. He proposed that Committee 6 should immediately institute an enquiry to determine which countries were desirous of participating in the work of the International Commission.

The Delegate from <u>China</u> believed that the preparatory work of the new Frequency List should be undertaken by a special Commission comprising as many members as should be deemed necessary. He was of opinion that every nation should have the right to be represented there.

The Delegate from India supported the United States proposal for the following reasons. The Special International Commission was in reality an emanation of the Atlantic City Conference; its objective was to carry on the work of Committee 6. If it was assumed that the latter will be able to finish the preparation of the International Frequency list before the conclusion of the Conference, it was indeed obvious that all the countries represented in Atlantic City would have participated in this undertaking. It therefore followed that the number of members of the special Commission could not be limited.

The principle underlying the creation of the special Commission was very different from that underlying the I.F.R.B. statutes. The role of the latter simply consisted in registering frequencies and advising the administration which made the notification, whether the indicated frequency was in conformity with the worldwide plan; the assignment of frequencies did not fall within the province of the I.F.R.B., but within that of the Special International Commission. As regards the question of expenses entailed, this special Commission would work under the same conditions as a Conference, that is, with the help of Subcommittees. Each country could therefore take part exclusively in the work of the Subcommittees of special interest to them.

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In principle, the Delegate from Italy shared the views of the Delegates from China and India. He thought that the following sentence might be added to Baragraph 2:

"Any country may ask the Delegate of any other country to represent it on this Commission."

The Argentine Delegate said that he was in favor of the proposal of the United States, and that he agreed with the views expressed by the United Kingdom. He would like to have a complete proposal submitted so that he might decide upon the course he should pursue. He suggested that the Committee take a vote to determine whether the Special Commission will be open to all countries or composed of only a limited number of members.

The Delegate from Chile declared himself in favor of a Special Commission open to all. In his opinion, a Commission thus constituted would offer to all countries every guarantee as to the quality of its work. Supporting the suggestion of the Delegate from India; he pointed out that countries which for any reason were prevented from sending a delegate to the Commission, could authorize the delegate from another country to vote for them.

The Delegate from the <u>Belgian Congo</u> suggested that the International Telecommunication Union elect a group of experts authorized to represent all countries.

The Delegate from <u>Bielorussia</u> made the following statement:

## The Bielorussian Delegation is in perfect agreement with the ideas expressed by the Delegate from France. If the proposal of the United States Delegation is accepted, we can say with certainty, that for economic and organizational reasons, only a certain number of countries will be in a position to take part in the work of the Committee in preparing a new frequency list. Consequently, the composition of this Committee would be done in a haphazard fashion, and the Committee would scarcely be in a position to take into account the requirements and requests of all countries. If, however, a limited membership were adopted for this committee, the task of drafting a new list would be in the hands of persons who have the confidence of all the countries taking part in this Conference.

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The Bielorussian Delegation draws the attention of all the members of Committee 6 to the following circumstances:

1. The Berne Bureau has expressed itself ready to carry out all the necessary technical work of drafting a new frequency list, a fact of great importance, in view of the wide experience of the Bureau in this field and the large amount of information and records available in its archives

2. The Berne Bureau has every facility for consulting the interested Administrations and Governments, on the re-allocation of frequencies, which is a necessary condition for maintaining the sovereign rights of all the states involved.

3. Responsibility for such a re-allocation of frequencies, exercised for the first time by our Union demands the complete confidence on the part of the Committee entrusted with this work.

4. The necessity for economizing both time and equipment as far as possible.

Taking these circumstances into account, the Bielorussian Delegation proposes:

a) To entrust the preparation of a new International Frequency List to the International

## -17-(698 R-E)

Frequency Registration Board in collaboration with the Berne Bureau. On the assumption that the Atlantic City Conference, by special resolution, will entrust this task to the newly elected I.F.R.B., this Board should begin its work immediately after the end of the Conference.

b) The preparation of the new Frequency List should follow the recommended methods adopted by the Atlantic City Conference in conformity with the principle of priority in all frequency assignments.

The Delegate from <u>Peru</u> agreed with the Delegate from Argentina that a vote be taken on the method of electing members of the Special International Commission.

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The Delegate from the <u>Vatican</u> said he thought that the vote should be confined to the question of determining whether or not the Special Commission should be open to all countries.

The Delegate from the U.S.S.R.felt that the French proposal was satisfactory because it does not interfere with the sovereign rights of nations. He said he thought that the same persons could undertake the preparation of the International Frequency List, and subsequently, constitute the International Frequency Registration Board, for, in his opinion, the work of the Special Commission and that of the I.F.R.B. are based upon the same technical foundations. He felt that, if the Special Commission drafted a new frequency plan and solved the technical problems submitted to it, it would be necessary to work out a procedure making it possible for all countries to take cognizance of the new plan and to communicate their comments thereon, before the convening of a World Conference. Since Documents No. 646 R-E (France) and No. 659 R-E (French Colonies) arrange for such a procedure, he said that he supported them, and proposed that the duties of the Special Commission be based upon the principles therein expressed.

The <u>Canadian</u> Delegate said he did not see in what way the proposal of the United States could prevent certain countries from participating in the work of the Special Commission. He felt that the greater the number of nations represented the more rapidly the work would be completed. Furthermore, after the completion of the work of the Special Commission, it would be incumbent upon each country to proceed to the assignment of its own frequencies. It would, therefore, be in the interests of the different administrations to send a delegate to the Special Commission where he would be able to familiarize himself with the methods employed for allocating specific frequencies.

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In the opinion of the <u>Swiss</u> Delegate, the task which the Special Commission would have to accomplish is detail work, a scrupulously careful study of each special case; he felt therefore that this undertaking should not be entrusted to a large number of experts but rather to a small group of technicians having at their disposal all the resources of the Bureau of the I.T.U.

The <u>Chairman</u>, believing that the Committee was sufficiently informed of the opinions of the different delegations, closed the debate, and put the question to a vote. The results were as follows:

In favor of a Commission in which all countries would participate: 33 votes.

In favor of a Commission composed of a limited number of elected members: 15 votes

Absent: 30.

Under these conditions, the <u>Chairman</u> stated that the proposal of the United States relating to the formation of a Special International Commission to prepare an International Frequency List was. adopted. He asked the delegations to submit the , amendments that they would like to make.

The Delegate from <u>Syria</u>, supported by the Delegate from <u>Egypt</u>, proposed the following addition to paragraph 2 of Doc. No. 655 R-E:

"Intergovernmental regional organizations of telecommunications may appoint a duly qualified delegate to participate in the work of the Commission and to present the views of this organization."

The Delegate from Egypt proposed that the following be added at the end of the text:

"Without having the right to vote."

He explained that the countries of the Arab League have formed an Intergovernmental Communications Union, and that a delegate from this Union could undertake the task of representing the Arab countries at the special Commission in case they could not all be represented.

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The Chairman proposed that, in order to take into account the views expressed, paragraph 2 be amended by the addition of the following sentence:

"A country may, if it so desires, appoint a "member of another country to represent its interests."

The Delegate from the U.S.S.R. was of the opinion that the Egyptian proposal was in opposition to provisions unanimously which had been adopted, namely, that a delegate may vote only for one other country in addition to his own.

After the <u>Chairman</u> had pointed out that these provisions of the Internal Regulations apply only to the Plenary Conference and that the regulations of the Special Commission may be formulated on different bases, the Delegate from the <u>U.S.S.R</u>. stated that he proposed officially that each country have the right to represent only two votes. This proposal was supported by the Delegate from the <u>United</u> <u>Kingdom</u> and accepted by the Chairman of the <u>United</u> States Delegation in the following form:

"Provided no Delegate exercises the right of more than two votes."

The Delegate from the <u>Vatican</u> expressed the fear that if a delegate had the right to vote only for one country besides his own, some countries would be unable to be represented by another country of their own choice.

The Delegate from Ireland supported the proposal of the United Kingdom.

The Delegate from Belgium made the following remarks:

1. The Special Commission resulting from the Radio Conference at Atlantic City will, therefore, be an administrative Commission and not à plenipotentiary Commission.

2. Small neighbouring countries may form a group and send only one delegate to the Special Commission. It would not be equitable if this delegate were unable to support his point of view with as many votes as the number of countries he represented.

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The Delegate from the <u>Netherlands</u> <u>Indies</u> shared the point of view of the Delegate from Canada. Each nation should send a delegate to the Special Commission, even if only for a short time in order to become familiar with the methods used for frequency allocation.

The remarks of the Delegate from Belgium were supported by the Delegates from Italy and Cuba.

The Delegate from France thought that since general opinion seemed to be that the Special Commission was an outgrowth of the Atlantic City Conference, it would therefore be normal to apply the Internal Regulations of the Atlantic City Conference to this Commission. He pointed out that he shared the views of the Delegate from Belgium.

The Delegate from India expressed the fear that if a member of the Special Commission controlled a number of votes equal to the number of countries he represented, it might happen that, in certain cases, countries represented by this member might not vote in the same way as he, if they were present at the Commission. Moreover, it is possible that a member might show his disapproval by using all the votes under his control, although during the Plenary Conference which would meet after the Commission, the countries whose votes he had used might not be of the same opinion.

In the opinion of the Delegate from <u>Switzerland</u>, the work of drawing up the list was not likely to occasion any votes. He was of the opinion that the disagreements that arose should be submitted by the Commission to the administrations concerned, who might settle them amongst themselves. This view was supported by the Delegate from Cuba.

The Delegate from <u>Chile</u> asked the Delegate from Belgium whether he thought that the Special Commission should be composed only of representatives of ad+ ministrations.

The Delegate from <u>Belgium</u> pointed out that he had wanted to distinguish between "governments" and "administrations", in order to show that at the present Conference the same government can be in charge of two administrations, which is true in the case of the Belgian Government.

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## (698 R-E)

The Delegate from <u>Bielorussia</u>, noting that agreement had not yet been reached on paragraphs 1 and 2 of the proposal of the United States, suggested the formating of a Draiting Subcommittee, which could, at the next meeting, present a text re-. conciling the various views expressed.

After the <u>Chairman</u> had pointed out that this work falls within the competence of the Plenary Com-. mittee, the Delegate from the <u>United States</u> stated that he was ready to support any proposal for limiting to three the number of votes of a member of the Special Commission.

This proposal was supported by the Delegates from <u>Denmark</u>, <u>Ireland</u> and <u>Egypt</u>. The latter suggested, moreover, that in drafting paragraph 2 there should merely be an indication that a country may represent other countries at the Special Commission, and that the fixing of the number of votes which any country might control should be referred to a subsequent article.

This suggestion was supported by the Chairman who read paragraph 2, amended as follows:

"A country may, if it desires, designate a member from another country to represent its interests. Where an **inter-governmental regional organization** of telecommunications exists, this organization may send a duly qualified representative to participate in the work of this Commission and represent the views of this organization without the right to vote."

The Delegate from the <u>U.S.S.R.</u> pointed out that he wished to reserve his opinion until he could study the text of the proposal.

The meeting was adjourned at 7:10 P.M.

The Rapporteurs:

The Chairman:

W. Dean .

J.D.H. van der Toorn

J. Millot

Document No. 699 R-E August 6 1947

## INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

## Committee 8

## Draft Resolution

Preparatory Committee of Experts to consider coordination of activities within the fields of Aviation, Shipping and Telecommunications in regard to Safety at Sea and in the Air.

The attached draft resolution is submitted for the consideration of Committee 8 to implement the action of that committee at its meeting on 1. August 1947 (Document No. 687 R-E) in approving the nomination of the I.T.U. members of the Preparatory Committee of Experts as proposed by the United Kingdom in Document No 539 R-E.

> Rynning-Toennessen Chairman, Committee 8

#### DRAFT RESOLUTION

PREPARATORY COMMITTEE OF EXPERTS to consider coordination of activities within the fields of Aviation, Shipping and Telecommunications in regard to Safety at Sea and in the Air.

Whereas:

 (a) the following resolution, adopted by the Economic and Social Council of the United Nations on March 28th, 1947, on coordination of activities
 in the fields of Aviation, Shipping and Telecommunications in regard to Safety at Sea and in the Air:-

> "After considering the suggestion of the Transport and Communications Commission concerning the coordination of activities in

the fields of Aviation, Shipping and Telecommunications in regard to Safety at Sea and in the Air, takes note of the fact that the U.K. Government, having convened the Conference on Safety of Life at Sea, is prepared to invite the necessary experts in the fields mentioned to the Conference and also preliminary to the Conference to convene the preparatory Committee of. Experts to consider the coordination of activities in these fields; and instructs the Secretary General to continue the preliminary study of the problem which has already been commenced, to follow and assist the work of the Preparatory Committee and of the Conference itself, and to keep < the Transport and Communications. Commission informed of developments in this connection."

(b) the proposal of the United Kingdom (Document No. 539R, Proposal 2550R) that the Conference proceed to nominate three persons, expert in the particular fields of telecommunications in regard to Safety at Sea and in the Air, to represent the interests of the I.T.U. on the Preparatory Committee;

The International Telecommunications Conference at Atlantic City:

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Designates the following, subject to the consent of the respective governments:

Arnold Poulsen, Adviser to Ministry of Commerce, Industry & Shipping, Denmark Colonel A. H. Read, O.B.E., Inspector of Wireless Telegraphy, General Post Office, United Kingdom Edward M. Webster, Commissioner, Federal Communications Commission, United States Rene Petit, (Alternate), Chief Engineer, Telegraph and Telephone Services, France

A.J.W. van Anrooy, (Alternate), Superintendent of Marine Radio Communications, Netherlands;

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Authorizes the Secretary General:

- (a) to arrange for the attendance of an alternate if advised of the unavailability of one of the three principals to participate in the meeting of the Preparatory Committee;
- (b) to arrange with each of the attending representatives for the provision of a secretary and a technical assistant, should these be required;
- (c) to pay the travel and other necessary expenses of the I.T.U. members of the Preparatory Committee, (and of secretarial and technical assistants where these are needed by each of the representatives attending).

Instructs the designated representative's as follows:

- (a)<sup>∛</sup>
  - subject to the limitations of the present Convention, to cooperate with the representatives of the other organizations participating on the Preparatory Committee in the formulation of a draft program for the coordination of activities to the extent that the provisions of such program shall not be in conflict with the provisions, aims and principles of the International Telecommunications Convention (Atlantic City) and Radio Regulations (Atlantic City Revision);
  - (Ъ)

to submit a joint report to the Secretary General upon termination of the Preparatory Meeting, such report to include:

- (1). draft of any program for coordination arrived at by the Preparatory Committee;
- (2) recommendations as to the acceptance or non-acceptance by the I.T.U. of any of the provisions included in such draft program; and
- (3) recommendations as to the representation of I.T.U. at the forthcoming Safety of Life at Sea Conference, including any specific instructions believed necessary for the guidance of such representatives at that Conference.

Directs the Secretary General:

 (a) to accept, on behalf of the I.T.U., the official invitation, when received, which in accordance with Document No. 539 R will be issued by the United Kingdom to appoint experts to the Preparatory Committee;

\_ 4\_\_ (699 R-E)

(b) to advise each of the designated representatives in writing of his designation and status, and to furnish each with copies of such material produced by this Conference as may be necessary for his participation in the Preparatory Meeting;

(c) to forward the report of the representatives to each Administration participating in the Atlantic City Conference with a request that such Administrations consider the recommendations made therein, in their representations. on this subject to the Safety of Life at Sea. Conference, if held; and

to arrange for the representation of I.T.U. at the forthcoming Safety of Life at Sea Conference should such representation be recommended by the I.T.U. representatives named herein.

(Note: If the International Telecommunications Convention (Atlantic City) should provide for the establishment of an Administrative Council or other similar body which takes office prior to the convening of the Safety of Lifé at Sea Conference, the designation of I.T.U. representation at that Conference will, of course, be subject to the approval and direction of such Administrative Council.)

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INTERNATIONAL RADIO CONFERENCE ATLANTIC CITY 1947

Document No.700 R-E

August 5, 1947

## Committee 3

Report of the Organisation Committee (Committee 3)

#### Sixth Meeting

## August 2nd, 1947

The <u>Chairman</u>, Mr. Melgar Villasenor, delegate of Mexico, opened the meeting at 3:30 P.M. and said that the agenda for the discussion was as follows:

> 1. Consideration and approval, if possible, of the report of the 5th meeting June,24th,1947, (Doc. No.446 R-E).

II. Consideration of proposals for setting up an "International Code of Signals Committee,"
Doc. No.11 R-E, of the United States of America, Chapter II, Article 9; Moscow Doc. No.5 ter, Chapter II, Article 29, 1(1) (d).

III. Report of the work of Subcommittee 3A.

IV. General Business.

2. The <u>Chairman</u> asked whether any delegation had any comments to offer on the report of the Fifth meeting of the Committee contained in Document No.446 R-E.

3. The delegate of <u>Portugal</u> asked that the reference to Portugal in paragraph 23 of the Report should be deleted for the reason that his delegation did not make the request to which that paragraph referred.

4. Subject to this amendment, the report of the Fifth meeting was approved.

5. The <u>Chairman</u> passed to the second item on the agenda. He said that, after the first World War, the British Government proposed the revision of the International Code of Signals and suggested that the Washington Radio Convention of 1927 should consider the matter. By agreement between the U.K., France, Italy, Japan and the U.S., the Code had been published in the English, French and Italian languages. The Washington Conference decided that every effort should be made to give the Code an international character, and as a result, it was published

in English, French, German, Italian, Japanese, Spanish and Scandinavian and meetings of representatives of those countries ensured that the seven editions were coordinated. The British Government was asked to assume the responsibility for this co-ordination and a Drafting Committee was set up in London in October 1928 and finished its work of compilation in 1930. The later edition (1931) of the Code was published in 1932. The British Ministry of Transport acted as centralising authority for this work and the Chairman understood, would be prepared to continue to do s.o.

The delegate of the U.K. said that the Chairman 6. had admirably and correctly summarised the origin of the Code and its Committee. The proposal of the United States that the Standing Committee of the International Code of Signals should be placed within the framework of the I.T.U. conformed with the provisional agreement reached at the Moscow Conference that it might with advantage be so placed. That view was, however, based primarily on the belief that the Code was liable to be used by both the air and the maritime services. Since the Moscow Conference plans for the establishment of an International Maritime Consultative Organisation had progressed rapidly and it was expected to meet later this year or early next year. Enquiries which had been made of air authorities of different countries had elicited the fact that the Code was at present used only as a maritime code. The delegate of the  $\underline{U}.K.$  said that his delegation's view was that, had the Code of Signals been of real interest to the air services, there might have been some reason to bring it within the framework of the I.T.U. in order to achieve coordination between the two services. An attempt made to produce a code which would be suitable for use in both services had failed. The book was too heavy for use in aircraft and could not be consulted quickly enough to be of value to the air service. In consequence a special "Q" Code for the use of air services was being developed and 'this was well advanced. There appeared to be no purpose, in trying to revise the Code of Signals to meet air needs. The Code, therefore, remained, in effect, a code for use in signalling between ships, mainly by flags. In the circumstances it seemed hardly appropriate to include it under the I.T.U., and, in the view of the United Kingdom, it would be more appropriate to leave the Standing Committee of the International Code of Signals to become a dependent organisation of the International Maritime Consultative Organisation when the latter was created.

The delegate of the United States said that his

delegation had put forward its proposal out of a desire to see the International Code of Signals given some permanent status and affiliation with a fixed and lasting organization. It was a fact that' a large portion of the Code was devoted to visual signalling, but there were, in Part II of the Code, signals devoted to radio. It was therefore suggested that the Code should be brought within the ambit of the I.T U. The Committee had not been active of. recent years - the Editorial Committee last met in 1933 - and in view of the lapse of time and changing technical conditions it was considered that the objectives of the Code should be taken care of by a committee on a permanent basis, and it was the view of the U.S. delegation that the Code pertained more to the I.T.U. than to any other international When the suggested International Maritime body Organization had been set up it might be considered appropriate to transfer the Code of Signals to that organization. Meanwhilé, the U.S. delegation suggested that it would be useful to give the Code of Signals a status which it had not previously enjoyed by affiliating it to the I.T.U.

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8. The delegate of the U.S.S.R. said that in the opinion of his delegation, the Code of Signals did not have immediate relationship with the I.T.U. and did not consider it would be appropriate to bring it within the I.T.U. framework. He supported the view expressed by the delegate of the U.K.

9. The delegate of France said that, in the view of his delegation, it was not necessary or advisable to affiliate the Code of Signals with the I.T.U. and his delegation favoured the proposal of the U.K. that the Code of Signals should be linked with the Maritime Organization, the final constitution of which it was hoped was not far away.

10. The delegate of the U.S. said that there appeared to be a general disposition not to associate the Code of Signals with the I.T.U., and if the Committee shared this view the United States was prepared to fall in line. He hoped, however, that, while the formation of the Maritime Organization was awaited the important work which the Code of Signals Committee might have to perform would not be lost sight of; and it might be well if the Radio Conference recorded a recommendation that the Code of Signals Committee be associated with the International Maritime Organization when formed.

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11. It was agreed that a Working Group consisting of representatives of the United States, the U.S.S.R. and the U.K. should formulate a recommendation on the lines suggested for submission at a later date to the Main Committee for approval.

12. The meeting proceeded to consider the third item on the Agenda and the <u>Chairman</u> invited Mr. Pedersen, the Chairman of Subcommittee 3A to report on the work of that Subcommittee.

13. Mr. Pedersen made the following statement:

"Mr. Chairman:

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I have the honour to report on the progress of the work in Subcommittee 3A. In order to get my conscience relieved as soon as possible I shall first report on the problems which the Subcommittee has not yet been able to resolve.

> 1. First we have the question of Statutes for the C.C.I.R. This was handed over to the Subcommittee on June 24th, and it has been dealt with at three meetings of the Subcommittee. A Working Party B has been set up under the Chairmanship of Mr. Fortoushenko and with members from Belgium, Cuba, France, Italy, Switzerland, U.K., U.S.A.

It was agreed in the Subcommittee that the Working Party should take the C.C.I.F. as a model on which to base the working of the C.C.I.R.

A report has been presented to the Súbcommittee by the Working Group (Doc. 637 R-E), but as this report has not been discussed in the Subcommittee due to lack of time, I will not today be able to submit any proposal on the C.C.I.R. to you.

2. The second load on my conscience is the question of International Broadcasting Organization.

This question was handed over to the Subcommittee on June 24th without any specific terms of reference. It has been discussed at two meetings in the Subcommittee and on July 17th it was decided to set up a Working Party C under the Chairmanship of Mr. Kari (India) and with members from Canada, France, Mexico, Sweden, Switzerland, U.K., U.S.S.R.

(700 R-E)

The Subcommittee has not yet received any report from this Working Party and I am not able to submit any proposal to you, Mr. Chairman, at this meeting.

I am, however, glad to be able to inform you that the remaining points in this report will conclude with specific recommendations.

# 3. <u>Relations between the United Nations as an</u> operating agency and the I.T.U.

In your letter of June 27th you asked the Subcommittee to consider the request from the U.N. (Doc. 226 R) which had been submitted to Committee 3 for a preliminary study.

This question was discussed in the Subcommittee meeting June 29th where a representative of the U.N. was present and made a statement (Doc. 479 R)

After an exchange of views it appeared that the matter was beyond the scope of the Subcommittee, and it was agreed to refer the question to Committee 3 with the recommendation. that the question should be considered by the Plenipotentiary Conference.

4. Now Ireach the most important point in my report, the question of the I.F.R.B.

You will remember, Mr. Chairman, that on May 27th it was decided that the question of statutes of the I.F.R.B. should be studied by Subcommittee A, and it was agreed that the Subcommittee should have a free hand to formulate a proposal.

The I.F.R.B. has been discussed in 18 meetings of the Subcommittee and a small Working Party (A) under Chairmanship of M. Lahaye (France) and with members from Argentine (for Latin-American countries), Cuba (from July 1st), U.K., U.S.A., U.S.S.R., has been working.very hard.

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) I shall not give away any secret if I inform you that it is only due to the excellent work of M. Lahaye and the Working Party that it is possible to submit a definite proposal on the I.F.R.B. to you now.

The proposal for the Statutes of the I.F.R.B., as submitted to you by the Subcommittee, is to be found in Doc. 673 R. Furthermore, you will find a recommendation for the election of members to the Board at this conference in Doc. 636 R.

In presenting this report, I wish to draw your attention to a few points. I shall not go into details - this is not required, I believe, as an excellent guide to the understanding of the Statutes is to be found in M. Lahaye's statements as they appear in Doc. 352 R, 475 R and 669 R.

It is clear from the report that the I.F.R.B. shall have two essential duties.

a. to record frequencies in a new <u>Master</u>. <u>Frequency Register</u> in such a way that frequencies in full conformity with the Radio Regulations will be recorded in the <u>Registration</u> <u>Column</u>, with a right to international protection from interference, whilst all other frequencies will be recorded in the Notification Column.

b. to give advice to members of the I.T.U. with a view to operating the greatest possible number of radio channels.

You will find this in Art. 1 § 1 of the Statutes.

This means that the I.F.R.B. partly shall be a technically qualified registration office for frequencies, and, partly, a permanent consultative committee - we might call it a C.C.I. for frequency allocation.

(700 R-E)

There is complete agreement on this very important point in the Subcommittee.

If Committee 7 adopts the proposal of Subcommittee 7C concerning International Monitoring and the I.F.R.B. is given a certain responsibility for approving the technical standards of the Monitoring Stations it will be necessary to include a reference to this function in Art. 1 of the Statutes.

In Art. 1 § 3 it is stated what qualifications the members of the I.F.R.B. should have.

This has been a very difficult point. All agreed that the members should be technically qualified. and some delegates were of the opinion that the members should possess knowledge of social conditions of a certain region of the world. It is not very clear what the word "social" means - apparently there are nearly 78 different opinions on this among the members of the Union - and it was not clear when and how they should use their social knowledge. However, by hard work, a text was prepared which was. so obscure that each delegate could understand it in his own way. Therefore we nearly reached agreement. But the delegate of Fortugal was quite merciless if I may say so - and pointed out the inconsistency of the text. Now the master brains of our Working Party went into action and produced a text, which was so-clear and so obviously correct that all discussion ceased. This text is now presented to you, Mr. Chairman, as Subsection (c) of § 3 of Article 1.

The next difficult question was the election of members, as dealt with in § 4 of Article/1. It has been proposed that the members should be elected on a world-wide basis to be sure to get the very best persons. And proposals have been presented to divide the world into anything from 3 to 11 regions in order to be sure that the members possess knowledge of all parts of the world. After a long discussion the Working Party has proposed the compromise wherein the world is divided into 4 Regions. The candidates are selected by the Regions, but elected by the Radio Conference; firstly, two from each region and then, 2 to be elected on a world-wide basis.

This proposal is not considered an ideal solution which should remain unaltered through generations. For that reason you will find that it is not included in the Statutes of I.F.R.B. which will be part of the Radio Regulations. It is merely presented as a recommendation for the election at this conference in Atlantic City (see Doc. 636 R). At the next Radio Conference we all hope to have gained experience and to be much wiser with regard to this question.

This proposal has been accepted by the Subcommittee with one reservation. The delegate of India wishes to increase the total number of members from 10 to 11 by adding a 3rd member to the Region D.

As the last point concerning the I.F.R.B, Mr. Chairman, I wish to draw your attention to § 6 of Article 3, the very last paragraph. On this question of technical representatives at the Board it has not been possible to reach agreement in the Subcommittee. Some delegates consider that it would be helpful to have technical representatives who would be able to present their case for the Board. Other delegates are inclined to see a danger in such a crowd of people surrounding the Board and trying to influence the decisions.

I have no further remarks on the I.F.R.B., Mr. Chairman.

5. My last point deals with the <u>Service Documents</u>, as you will find in the Article 15 of the present Radio Regulations.

This question has been considered in connection with the I.F.R.B. which must be responsible for the information given in some of the lists. In Doc. 674 R you will find the text of the Article, which has received preliminary approval of the Subcommittee. This text is submitted for the preliminary approval of the Main Committee with the recommendation that it should be referred to Committee 8 for consideration before final approval is given to it.

(700 R-E)

The changes which have been proposed are not extremely important, but are merely the changes which have been necessitated by the development of the radio services.

You will of course find the new Frequency List as prepared by I.F.R.B., and a new list of Radiolocation Stations. Furthermore it has been proposed that the Bureau should publish Maps of

aeronautical stations open to public correspondence and navigational stations.

Previously the Bureau only published maps of coast stations open to public correspondence.

It is also proposed that the Bureau should publish coloured charts showing frequency allocation.

If this is agreed it will mean that we all will have the same type of frequency chart when we meet next time to argue about frequency allocation.

This, I believe, covers all the points on which I have to report to you, Mr. Chairman. "

14. The Chairman, in thanking Mr. Pedersen for his report, said that he thought the Subcommittee 3A deserved a sincere expression from the Main Committee of the highest appreciation for its work, as did also Mr. Lahaye and the Working Party who had worked so hard and so effectively to produce the proposals for the I.F.R.B. The Chairman did not propose to consider the C.C.I.R. or the International Broadcasting, Organization at the present meeting, for the reasons which Mr. Pedersen had given.

15. As regards the relationship between the United Nations, as an operating agency, and the I.T.U. the <u>Chairman</u> suggested, and it was <u>agreed</u>, to approve the procedure proposed by the Subcommittee.

16. The Chairman invited comments of the meeting on the I.F.R.B. proposals.

The delegate of China referred to his statement 17. before Subcommittee A on July 29th (Doc. No. 669 R-E, para. 13) in which he said that China could not agree to the proposal to divide the world into four regions and particularly as regards the proposed limits of region D. China had proposed that, instead, the world should be divided into three regions, by Continents, each region to provide three members of the Board, with two further members to be elected on a world-wide basis. Thus, China had suggested a total of eleven members against the Working Party's suggested total of ten .members. Analysing the plan of the Subcommittee. one found that five countries, namely Albania, Hungary, Poland, Czechoslovakia and Yugoslavia all of which were traversed by the arbitrary line of demarcation between Regions B and C. could elect to go into either of those regions. Similarly, three countries, China, Greece and Turkey, could choose between Regions C and D, while two countries, South Africa and the Belgian Congo could choose between Regions B and D. If the first five countries he had mentioned, as well as South Africa and the Belgian Congo, all elected to be regarded as in Region B. the number of countries in that Region would be increased from 18 to 25, an increase of 40%. Similarly, if the first five countries he had named as well as China, Turkey and Greece, all elected to go into Region C, the number of countries in that region would be increased from 7 to 15 - an increase of over 100%. In the view of the Chinese delegation.this position was attended by too much uncertainty and a risk that the election of members would result in an unbalanced representation. His delegation therefore opposed the proposal to cut countries by these arbitrary lines of regional delimitation.

18. Mr. Lahaye, speaking as the Chairman of Working Party A, explained that whilst it was true that Article 3 of Document 636, which gave countries which found themselves on both sides of the arbitrary lines which had been drawn the opportunity to decide into which they wished to go, introduced at the moment some uncertainty as to the number of members who would belong finally to each region, that uncertainty would not exist at the time of the election. The four regional "groups" of countries would then be known. It was, in part, in order to compensate for the possible unbalanced outcome which the delegate of China envisaged that the Working Party had provided for the two "extra" members who should be elected at the second vote.

## - 11 -(700 R-E)

The delegate of the U.K. said that, speaking 19. as a member of the Working Party, he and his colleagues had pondered long on this difficult problem of regional representation on the Board. He supported the basis of four regions as proposed by the Working Party, but, in doing so, he wished to make it clear that the U.K. had always been, and was still, basically in favour of free election of members of the Board by the Conference, irrespective of region or locality, but that, in supporting the Working Party's proposal, the U.K. deferred to the view of so many delegations that some form of regional representation should be devised. The Working Party had considered many types of regional areas and the one now presented was that which received the greatest support in the Working Party. He must, however, entirely agree with the viewpoint expressed by the delegate of China regarding the uncertainty, on the basis of the arbitrary divisions which had been suggested, which would exist in the minds of the countries cut by those arbitrary lines, as to which region they should join. It would be difficult for the Committee to form an opinion as to whether the allocation among the different areas of seats on the Board would be equitable or not. He suggested therefore that, before any decision was taken, all countries traversed by one or two lines of demarcation should notify the reporters as to which area they wished to join on the basis of the four regions suggested by the Working Party. It would be possible for the Committee to see more clearly whether the arrangement for the distribution of seats on the Board recommended by the Working Party and submitted through the Subcommittee was reasonable and equitable or not.

The delegate of the U.S.S.R. said that the text 20. of the Working Party's recommendations now being considered was the result of lengthy and difficult work and he thought that the Committee should agree that that text was the best which could at present be recommended. As regards the procedure for the election of members, the Working Party's proposal represented a compromise between the various proposals which had been considered. It was true that there was some uncertainty, in some cases, as to which country would go into which region. He agreed with the delegate of the U.K. that the Committee should have a clear enumeration as to the countries which would eventually be in each region, on the basis of the four regions suggested by the Working Party, and should then study the Working Party's recommendation taking into account the decisions of the countries cut by the arbitrary lines as to the particular region to which each desired to - belong for the purpose of the election of candidates for the Board.

## - 12 -(700 R-E)

21. As to the method of election, continued the delegate of the U.S.S.R., in view of the dissatisfaction which had been expressed by the delegates of India and China, who considered that their Region D, in view of its vast territory and the fact that it contained about half of the population of the world, should be entitled to three members on the Board, he had expressed to the Subcommittee the view that the desire of those countries was justified. He thought the problem might be solved right away if, instead of the proposal that two members should be elected on a world-wide basis, those two seats on the Board were assigned to specific regions. He accordingly suggested that the Board should consist of eleven members and that the seats should be allocated as follows:

> Region A - 3 seats Region B - 3 seats Region C - 2 seats Region D - 3 seats.

22. The delegate of India supported the proposal of the delegate of the U.S.S.R. which, he said, would adequately and effectively meet the objections which he had raised on Subcommittee A. Those who had followed the discussions on the Subcommittee on the question of election of members and composition of the Board would recollect that the Subcommittee had agreed on a basic principle with regard to the election of members. This was that, in order to ensure that all problems would receive adequate and equitable consideration, members should possess knowledge of the geographic, economic and demographic conditions of the world. It was recognized as impossible for one person to have knowledge of these conditions in all parts of the world and it was therefore agreed that members should each possess knowledge of these conditions so far as certain areas of the world were concerned. India had pointed out on the Subcommittee that, under the regional division proposed and with the number of members proposed, tropical regions would have no specific representation on the Board. It had been stated that tropical conditions existed in all regions and that. in the view of the Working Party, there would be "tropical representation" from some region or other. There was clearly confusion between "geographic" tropical region and "radio" tropical regions. Committee 5 had spent much time on defining the "radio tropical region". and had tentatively fixed it as the area generally lying between  $23.1/2^{\circ}$  N and  $23.1/2^{\circ}$  S but had raised the northern limit to 45° N in respect of the area contained in the suggested Region D.

23. Continuing, the delegate of India said that reference had been made on Subcommittee A to radioimportance and it had been suggested that, in, arriving at regional divisions, consideration should be paid to spectrum space used in different regions. That, he thought, was a dangerous and fallacious suggestion. The number of frequencies used in any region would, ultimately, relate to the number of people in it. India did not oppose division of the world on the lines suggested by the Working Party, but there were more than two areas of separate and distinct geographic, economic and demographic characteristics in Region D. That was why India asked for three members of the Board from Region D.

24. The delegate of the United Kingdom said that the proposal of the delegate of the U.S.S.R. regarding the election of members of the Board was, he considered a very constructive one. The U.K. had always favoured a small rather than a large Board and had resisted suggestions to increase the number of members on the grounds that a large Board would be unwieldy and ponderous and expensive to the Union. It was quite clear, however, from the present discussion, and from that which took place at the last Subcommittee meeting, that a Board of ten members would not be considered by all to afford equitable representation for all regions. The proposal of the U.S.S.R. for a Board of eleven members would meet the claim of the delegate of India, a claim towards which he felt considerable sympathy, having regard to the size and other special conditions appertaining to Region D. If, therefore, the proposal of the U.S.S.R. for eleven members were adopted, with, in the first place regional pre-selection of the candidates, followed by a single election at the Radio Conference on the basis of allocation of seats as suggested by the U.S.S.R. - and he hoped it would be acceptable - the United Kingdom was prepared to withdraw its objection to increasing the number of members of the Board on the clear understanding that, should there be any proposal to increase the number of members beyond eleven, the U.K. reserved the right to withdraw its support for the proposal just made. It was obvious that the arrangement suggested by the Working Party, if adopted, would give rise to some feeling of grievance in the minds of some delegations. The Board must have the confidence of the whole of this Radio Conference and must not be held in distrust because some delegations considered the representation inequitable.

## - 14 -(700 R-E)

25. The delegates of the United States, Mexico, New Zealand, Burma and Argentina spoke in support of the proposal of the U.S.S.R.

26. The delegate of South Africa said that since the proposed eastern delimitation of Region B would cut off Southern Rhodesia, Northern Rhodesia, Kenya and Uganda which, with South Africa had a community of interest, he had felt considerable uncertainty regarding the Working Party's proposal. Having listened to the explanations which had been given during the discussion which had taken place, he was prepared to accept the proposal of the delegate of the U.S.S.R. As to the selection of a region, South Africa and South-West-Africa would both elect to go into Region B.

27. The delegate of China said that on condition that the Committee accepted the proposal of the delegate of the U.S.S.R., supported by the delegate of the U.K., his delegation was prepared to withdraw its suggested amendment and support the U.S.S.R. proposal. He suggested, and it was agreed, that, after all the countries whose territories were traversed by the regional lines of demarcation had decided into which Region they wished to go, the Regions should be defined afresh, by countries, instead of by arbitrary lines drawn on the map, and referred to the Working Party.

The Chairman called for a show of hands in 28. favour of the adoption of the proposal of the delegate of the U.S.S.R. after which he said that with great satisfaction he would have it recorded in the report of the meeting that the proposal received unanimous agreement. He added that he wished to express his thanks to the delegates of the U.S.S.R., the U.K. and the U.S., for their accommodating efforts to reach the -solution which had been achieved and his warmcongratulations to the delegate of India. He also wished to have a special appreciation of the work of the delegations of France and Argentina recorded in the report. The afternoon's discussion had represented a big step forward by the Committee, and, he thought, in the work of the Conference generally.

29. The delegate of the <u>United States</u> referred to Article 2, § 2 (1) on page 6 of Document No. 673 R-E and said that his delegation, in discussions on the Subcommittee had pointed out that the retention of the words "radio navigation station" in this paragraph was dependent on decisions awaited from other Committees. This position remained unaltered.

(700 R-E)

## 30. Noted.

31. The delegate of the United States also drew attention to the note appended to Article 2 S 2 (4) on page 7 of Document No. 673 R-E which made it clear that the retention of sub-section (4) in the statutes might be reconsidered after conclusions of Committees 5 and 8.

### Noted.

32`.

33. The delegate of the United Kingdom said that there were certain editorial errors in Document No. 673 R-E which he would like to have corrected. Article 1, Section 2 (e) should be amended to read:

> "(e) the prosecution of studies of frequency utilization, the recommendation to Administrations, where appropriate, of adjustments in the use of frequencies in order to allow the establishment of new circuits which are needed.",

Article 3 § 3 (4). The last sentence should be amended and placed within parentheses. as follows:

"(If these calculations result in a fraction, the fraction shall be rounded up to a whole number)"

34. Continuing, the delegate of the U.K. said that his delegation did not wish to press this. next point at the present meeting although it might have to do so at a later date. Committee 6 was at present engaged on "re-engineering" the new International Frequency List. The List had to be re-engineered, and would have to be discussed and adopted by a new World Conference, after which the I.F.R.B. would have to assume responsibility for that List. It was not known how much re-engineering work would be required, but a considerable amount of secretarial work would be involved. Therefore, the delegation of the U.K. wished to reserve the right to submit, at some future date, if necessary, for inclusion in the statutes of the I.F.R.B., a paragraph on the following linés: "The Board shall have the assistance of a small, specialized secretarial staff, who shall work under the direction of the Chairman in organizing and carrying out the work of the Board. The technical members of this staff shall be selected by the Chairman of the Board, but the staff shall be attached to the General Secretariat of the Union for general administrative purposes."

- 16 -(700 R-E)

35. The delegate of the U.K. remarked that this clause was almost identical with a similar clause which is being proposed by the Working Party B with regard to the composition and constitution of the C.C.I.R. He was not asking for this paragraph to be included in the statutes of the I.F.R.B. at once but he suggested that it might be necessary for it to be included later.

## 36. Noted.

10930.

37. The delegate of the United Kingdom referred to the footnote to Article 3 § 6, on page 19 of Document No. 673 R-E and)said that, when § 6 was discussed on the Subcommittee, he had put forward the view that the provisions of this paragraph might not operate equitably. On the other hand, the delegation of the United States had expressed the view that there was some merit in the retention of the paragraph, in that it would enable countries to provide additional information when required. by the Board to do so and would also give an opportunity to countries who had no members on the Board to see how it functioned. The Subcommittee decided that it could not reach agreement on the point and that it should be submitted to the Main Committee. The delegate of the U.K. did not suggest that the Committee should vote on the point, but as a number of other delegations supported the view of the U.K. as to the disadvantages of the retention of the clause, he suggested that the clause should be retained in the statutes of the Board, and that the report of this meeting should contain a note to the effect that it was hoped that Administrations would use • the right with discretion and only in the event of a decision by the Board which was considered prejudicial to their interests, or in the event of further information being required by the Board in respect of a frequency assignment.

37. The delegate of <u>Cuba</u> said that his delegation had been one of those which had supported the retention of the paragraph. However, he considered the proposal of the delegate of the U.K. convenient and very useful and he had pleasure in accepting the suggestion of the delegate of the U.K.

-17 - (700 R-E)

38. The delegate of the United States said that he wished to thank the delegate of the United Kingdom for his suggestion which he, on behalf of the United States delegation, was happy to accept.

39. The delegate of India said that his delegation had opposed the retention of § 6 of the statutes, but he was prepared to support the suggestion just made by the delegate of the U.K. subject to the addition of a minor qualification to the effect that if any other country were involved in the matter under consideration, the Board should invite it to send a representative to attend the discussion should it desire to do so.

40. Approved.

41. The Chairman referred to Document No. 674 R-E and said that, in accordance with the recommendation of Subcommittee A, Annex 1 of that document would be referred to Committee 8 and would be considered again in the light of any comments which that Committee might offer. Annex 2 was already under consideration by Committee 6, and that Annex (too would be reconsidered when the advice of Committee 6 had been received.

42. The meeting was closed at 7:15 p.m.

#### Rapporteurs:

#### / Chairman:

Arturo Melgar Villaseñor

H. Samiy

W. B. Cox