

This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلاً

此电子版(PDF版本)由国际电信联盟(ITU)图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

SECOND VOLUME

ΟF

PROPOSALS

for suitable methods of bringing the entire Atlantic City Frequency Allocation Table into operation

(Administrative Council Resolutions Nos. 199 and 200)

INTERNATIONAL TELECOMMUNICATION UNION GENEVA, 1951



INDEX TO THE SECOND VOLUME OF PROPOSALS

·			Page
Introduction .	• •		5 9
Proposal No. 8	-	United Kingdom of Great Britain and Northern Ireland	61
Proposal No. 9	-	Portugal	77
Proposal No.10	_	Netherlands	81
Extracts from Letters	-	Union of South Africa	110
	-	Australia	111
	-	Finland	112
	_	Italy	113

INTRODUCTION

In Resolution No. 199, (Fifth Session, September 1950), concerning preparation for the Extraordinary Administrative Radio Conference to meet in Geneva on 16th August 1951, the Administrative Council requested:

11

"pending the meeting of the Conference and in order to facilitate and shorten its work;

- "a) the active assistant of the I.F.R.B. (in accordance with paragraph c) of the Atlantic City Resolution relating to the participation in the P.F.B. of Members of the I.F.R.B.) and of all Members of the Union in studying and making proposals for suitable methods of bringing the entire Atlantic City Table of Frequency Allocations into operation as soon as possible;

In addition, the Administrative Council, in its Resolution 200, laid down the programme of preparation for the Extraordinary Administrative Radio Conference.

The present volume contains the proposals received by the I.F.R.B. since 1st March 1951 and up to 15th May 1951. They have been classified in the chronological order in which they were sent.

Certain Administrations, in replying to the invitation of Resolution 200, have made reference to paragraph c) of this Resolution without, however, submitting specific proposals. The corresponding extracts from these letters, classified in the chronological order in which they were sent, appear at the end of the present volume.

Further proposals received will be published later in one or more volumes. Those proposals for which time does not permit their communication to Members of the Union prior to the Extraordinary Conference will be presented directly to the Conference itself.

PROPOSAL Nº 8

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

(Letter of 12th April, 1951)

I am directed by the Postmaster General to refer to Resolution No. 200 of the Administrative Council, 5th Session and to express regret that until now, the United Kingdom Administration has not been able to submit, in accordance with invitation (c) of the Resolution, proposals relating to methods of implementing those parts of the Atlantic City Table for which the Extraordinary Conference is unlikely to establish a frequency list.

- 2. I am now directed to enclose three copies of a paper outlining the views of this Administration on the problems facing the Conference and suggesting a method for their solution. A further ten copies of the paper will be despatched within a few days.
- 3. I am to explain that the method suggested represents the views of this Administration at the present time, but that there can be no certainty that these views will not be modified in the light of the circumstances obtaining at the time of the Conference, including, in particular, the views and attitude of other countries.

EXTRAORDINARY ADMINISTRATIVE RADIO CONFERENCE - AUGUST 1951

A METHOD OF SECURING

IMPLEMENTATION OF THE ATLANTIC CITY ALLOCATION TABLE

PROPOSED BY

THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

1. Abbreviations used.

Berne List : the current form of the List of Frequencies.

E.A.R.C. : Extraordinary Administrative Radio Conference.

I.F.L.: International Frequency List in the format specified in Appendix 6, List 1, of the Atlantic City Radio Regulations.

I.F.R.B. : International Frequency Registration Board.

P.F.B. : Provisional Frequency Board.

- 2. The E.A.R.C. will need to consider the frequency plans prepared by:-
 - 2.1. Region 1 Administrative Radio Conference,
 - 2.2. Committee of countries in Region 1 outside Europe (African Plan).
 - 2.3. Region 3 Administrative Radio Conference.
 - 2.4. International Administrative Aeronautical Radio Conference.
 - 2.5. P.F.B. for the maritime mobile services using high frequencies and for the low frequency point-to-point, mobile and radionavigation services.

In addition, the E.A.R.C. wll have to consider frequency lists submitted by the Administrations in Region 2 in accordance with Resolution No. 1 of the Region 2 Administrative Radio Conference, and the effect on the adjacent bands in Region 1 of the implementation of the Copenhagen Broadcasting and Maritime Plans.

- 3. In the preparation of these proposals, it has been assumed for reasons that are discussed later that the E.A.R.C.; -
 - 3.1. will agree on the frequency assignment plans to be implemented,
 - 3.1.1. for all services using frequencies between 14 and 3950 kc/s (4000 kc/s in Region 2),
 - 3.1.2. and for the frequency bands allocated exclusively to the aeronautical and maritime mobile services between '3950 and 27500 kc/s;
- 3.2. in the absence of agreement on frequency assignment plans for the frequency bands allocated to broadcasting, fixed and land mobile services between 3950 and 27500 kc/s, will agree upon methods by which these services may be adjusted so as to conform with the Atlantic City allocation table.
- 4. It has also been assumed that, for the plans referred to in 3.1.1., it is not necessary for the implementation date to be the same as that adopted for the implementation of the plans referred to in 3.1.2.
- Before possible methods of securing the implementation of the high frequency portion of the Atlantic City allocation table are examined, it may be profitable to consider why little success has attended the attempts made during the past three years to prepare frequency assignment plans: for the fixed, land mobile and tropical broadcasting services, by the P.F.B.; and for broadcasting, by the High Frequency Broadcasting Conference and associated Technical Planning Committees.

6. Main difficulties of the P.F.B.

The United Kingdom believes that the principal difficulties encountered by the P.F.B., in its efforts to prepare fixed service plans, may be summarized as follows:

- 6.1. The derivation of frequency complements on a purely theoretical basis, which resulted in larger complements than are necessary in practice and their application to circuits of all types, which inflated the apparent frequency requirements inordinately.
- 6.2. The impracticability of maintaining existing sharing patterns owing to the extensive changes necessitated by the uniform application of the assumed frequency complement rules.
- 6.3. The excessive demands made for "projected" circuits.
- 6.4. Incomplete operational data.
- 7. It is not easy to assess the full effect of 6.1., but it may be of interest to quote the result of a detailed analysis of one particular group of United Kingdom services. These now operate on

- 100 frequencies, but application of the P.F.B. rules for frequency complements would have resulted in the assignment of 345 unconsolidated frequencies. The unecessary overprovision was eliminated when the United Kingdom "consolidation" data were submitted to the P.F.B.; but the figures indicate that any attempt to apply such technical standards uniformly to circuit requirements can only serve to increase the magnitude of any planning problem.
- 8. Today almost every frequency employed by high-power transmitters is also used by one or more lower-powered stations. This sharing pattern has been evolved by long experience and takes practical account of maximum geographical and time sharing possibilities. But, if the changed complements came into operation, it would be completely destroyed and could be replaced to a limited extent only, by sharing based on theoretical considerations.
- In considering the reasons which may have led to the submission of requirements for large numbers of "projected" circuits, it is as well to bear in mind that Administrations had to prepare data of their frequency requirements in late 1947 and early 1948. In many countries, the restoration of civilian communication facilities after the dislocation - and in some cases, devastation - caused by war was at that time incomplete. Some probably misjudged the rate at which it would be practicable or necessary to restore services, over-estimated the productive capacity of the radio industry or under-estimated the cost of large scale expansion of services. But, in the circumstances prevailing at the time when frequency data were being compiled, it is not surprising that there were some miscalculations. There have been indications also that certain countries have the impression that the new I.F.L., when completed, will stand permanently as the basic pattern of frequency usage: some have probably taken the view that it was most desirable to obtain the maximum number of "registrations" in the first issue of any new I.F.L. so as to strengthen the priority status of their frequencies; both these groups appear to have expanded their frequency "requirements" to meet every eventuality, likely or unlikely. A new I.F.L., of course, can never be more than a starting point and will be subject to change day by day, by the very nature of radio communications.
- 10. In general, there seems little doubt that the weight of "projected" requirements, added to the inflated frequency demands arising from the attempt to apply ideal technical standards, has created an apparent requirement for frequency assignments far in excess of the capacity of the frequency bands available.
- 11. Although most countries, to the best of their ability, furnished the information required on Forms 1 and 2, in practice it was found that the information furnished did not give a sufficiently detailed picture of the nature of the actual service required. For example, many requirements showed Al A2 A3 working even though A3 was employed only exceptionally. Then again, circuits were shown as in continuous use, whereas in practice they were used for a limited number of hours per day, except on rare occasions when almost continuous use was required. Cases such as these also made the requirements appear greater than they were in fact.

12. The High Frequency Broadcasting Conferences.

Although the Mexico City Conference succeeded in making a plan for solar index 70 which was acceptable to a majority of the countries Members of the Union, the task of the Rapallo Conference was intrinsically more difficult, since it had to prepare plans for conditions of lower sun spot activity. It was made far more difficult by the fact that many countries at Rapallo presented new or revised requirements; and, in the event, the Conference did not succeed in preparing comprehensive frequency assignment plans catering for all the requirements for which provision was being claimed when the Conference closed.

13. Prospects of further attempts to prepare frequency assignment plans

In the light of the experience gained in the various planning conferences which have been held since the Atlantic City Radio Conference, it seems reasonable to assume that any attempt by the E.A.R.C. to prepare detailed assignment plans for the high frequency broadcasting and fixed (including the land mobile and tropical broadcasting) services during the course of that Conference would have scant prospects of success.

- 14. An attempt to prepare detailed assignment plans for these services on a more practical basis, e.g. by retaining existing sharing patterns, re-arranging assignments, and narrowing channel spacings to increase the efficiency of exploitation of the spectrum, superficially has much to commend it, as it would seem to contain the possibility of providing space for projected circuits. The U.K. believes, however, that such an attempt would fail because, to be effective, the changes to be made in existing frequency usage would have to be of a kind which would require tests under working conditions to determine their acceptability to the countries concerned. A plan on this basis therefore, could not, in the view of the U.K., be produced at a Conference (although it is hoped that the application of the U.K.'s proposals coupled with assistance from the I.F.R.B. would in time, lead to a frequency list equivalent to a plan of this kind).
- 15. Moreover, even if the E.A.R.C. were able to prepare plans for the high frequency broadcasting and fixed services, it seems unlikely that the plans would prove fully implementable on the due date, having regard to the difficulty of making accurate forecasts of high frequency propag tion conditions over such a long interval as must necessarily elapse between the end of the E.A.R.C. and the date for implementation of the Atlantic City allocation table. (These objections apply, of course, with somewhat less force to the mobile services, where frequencies do not have to be found for individual links).
- 16. It will be universally agreed that the restoration of order in the spectrum will benefit all services by providing the basis for international co-operation in resolving interference difficulties; in concluding service agreements and in ensuring the maximum practicable

efficiency of exploitation of the spectrum. Moreover, it is clearly in the best interests of radio services throughout the world that order in the use of the frequency spectrum should be secured without delay for, under present conditions, the passage of time seems likely only to intensify disorder and render the problem more intractable.

17. The prime objective of the E.A.R.C. is to secure the universal implementation of the Atlantic City allocation table at a reasonably early date. This remains true, even though the method adopted to attain this objective may entail, at least for a period, abandoning, for part of the table, the ideal accepted at the Atlantic City Radio Conference of the preparation and general acceptance, in advance of implementation, of comprehensive frequency assignment plans based upon sound engineering principles. It is therefore considered that, so far as the high frequency broadcasting, fixed and land mobile services are concerned, the E.A.R.C. should seek to secure the observance of the Atlantic City allocation table by the adoption of a method which does not entail further prolonged attempts to prepare frequency assignment plans for these services.

18. It is thought that the following proposals would permit the attainment of the prime objective - the full implementation of the Atlantic City allocation table - without the need for the preparation, in advance of the implementation date, of comprehensive frequency assignment plans; but would still leave the way open, after the implementation date, for the gradual preparation and application of assignment plans in respect of the high frequency broadcasting, fixed and land mobile services if, in the light of experience of subsequent developments, this were found to be necessary.

19. U.K. Proposals in brief.

The United Kingdom now suggests that a practicable means of attaining the prime objective is to be found on the lines of securing general agreement among Administrations at the E.A.R.C. upon one date:

19.1. by which they would have transferred into appropriate frequency bands (according to the frequency allocation table agreed at Atlantic City) all their high frequency services operating outside those bands and capable of causing harmful interference to other services; and

19.2. on which they would implement such high frequency service plans as had been accepted at the E.A.R.C. (notably, it is hoped, for the aeronautical and maritime mobile services).

20. The proposed method is, of course, little more than that which has been used customarily on previous accasions to secure the implementation of revised forms of the frequency allocation table and that which is now commonly used by Administrations when seeking frequencies for new services. It may be termed, for convenience, the

"method of adjustment". The period elapsing between the termination of the E.A.R.C. and the agreed implementation date is referred to as the "interim period".

21. Administrations would of course remain free to operate services "out-of-band", in derogation of the frequency allocation table specified in the Atlantic City Radio Regulations, within the terms of those Regulations (for example, paragraph 88). But, during the interim period, they would adjust, in conformity with the Atlantic City frequency allocation table, any other out-of-band frequencies whose continued use would cause harmful interference with - or inhibit - the operation of services of the type (s) proper to the Atlantic City frequency band concerned.

22. Method of adjusting frequencies

It is contemplated that the adjustment of out-of-band frequencies should be achieved by a combination of the following means:

- 22.1 Each Administration would examine its present out-of-band frequencies and make appropriate exchanges in their use, so as to bring the services using these frequencies into conformity with the Atlantic City frequency allocation table.
- 22.2 Where an out-of-band frequency cannot be exchanged as in 22.1, each Administration should collaborate with other Administrations with a view to arranging suitable <u>interchanges</u> of their respective out-of-band frequencies.
- 22.3 Where exchanges or interchanges cannot be arranged in accordance with 22.1 or 22.2, an Administration should seek the assistance of the I.F.R.B. In accordance with Administrative Council Resolution 200, invitation (d), most Administrations have no doubt already furnished the I.F.R.B. with information regarding current out-of-band frequency usage; and the I.F.R.B. will, therefore, be enabled in many cases to offer reasonable suggestions for the selection of suitable alternatives.
- 22.4 Where suitable alternatives cannot be found by the foregoing means, an Administration should follow the existing, well-tried method of requesting the receiving terminal to monitor the appropriate frequency band for clear frequencies and of trying out frequencies shown to be clear. As frequencies were taken up by this method, the I.F.B. would be advised.
- 23. In making provision for new circuits, it would be for each Administration to decide for itself, in relation to the needs of individual circuits, whether it would endeavour, at the outset, to obtain an ideal frequency complement (in accordance, for example, with rules such as those adopted by the P.F.B.) or whether it would operate with a frequency complement based on practical considerations.

24. In any event, it seems clear, from the lack of success of the P.F.B., that the intitial list will be based upon practical, rather than theoretically ideal, frequency complements. There is no doubt that, over the course of time, there will be scope to make changes of frequency to improve the technical efficiency of circuits. In this connection, it can be regarded as significant that, despite the present unplanned pattern of frequency usage, Administrations still find it practicable to operate their essential services and, in practice, usable frequencies can be found for new services as and when required, without insurmountable difficulties. It may be that the frequencies used for a particular circuit do not conform to an ideal theoretical frequency complement: it may also be that the standard of protection from interference is less than is theoretically ideal; but the circuit works in practice nevertheless.

25. Revision of the current Berne List

Administrations and the I.F.R.B. would all find their tasks simplified if there were available accurate and up-to-date information, on which to base proposals for interchanges of frequencies (under 22.2 or 22.3) and from which some indication might be gained of suitable alternative frequencies. It is therefore suggested that the E.A.R.C. should resolve that ;-

- 25.1. Administrations should, with the utmost speed, examine carefully, amend and complete as necessary, the data of their use of frequencies contained in the current Berne List: particularly those details in respect of the places or areas of reception where freedom from harmful interference is required for fixed, broadcasting and land mobile services.
- 25.2. A limited period should be determined for the completion of this revision of data;
 - 25.3. The revised data should be published by a given date.
- 26. Administrations obviously will not be able to pay due regard to any frequency notification for any broadcasting or fixed service, in respect of which columns 8 and 11 of the Berne List do not give sufficient information for the precise determination of the area of reception which that notification seeks to protect and can bear no responsibility for any harmful interference which may occur as a result of after the date referred to in 25.3.
- 27. It is for consideration whether it would not be desirable for the revised data, referred to in 25.3, to be submitted by Administrations to the Secretary General and published in the format prescribed for the I.F.L. in Appendix 6, List I of the Atlantic City Radio Regulations. If this were done, it would give Administrations more information than can be derived from the Berne List. There appears to be no insuperable

difficulty in adapting the format of the I.F.L. to meet the conditions likely to exist during the interim period.

28. Exchanges and Interchanges

The exchanges and interchanges contemplated in 22.1, 22.2 and 22.3 above could be made at any convenient time throughout the interim period. Administrations would keep the I.F.R.B. informed of the exchanges and interchanges of out-of-band frequencies

- (a) at the time they were planned
- and (b) after a trial period had shown that they were suitable and would be regarded as firm exchanges (or interchanges).

The records of the I.F.R.B. could thus be maintained constantly up to date and the I.F.R.B. enabled to offer suggestions for interchanges based on adequate knowledge of current frequency usage.

- 29. It is clear that in assessing the possibilities of making an exchange or interchange of out-of-band frequencies, the Administrations concerned must consider carefully the power, bandwidth of emission and area of reception of the respective frequencies, to avoid causing undue additional interference when the change has been effected, The United Kingdom believes that it would be impracticable to formulate hard and fast rules which would be suitable for uniform application in all cases and thinks that it would be necessary for each case to be considered on its merits.
- 30. In many cases, the exchanges (or interchanges) will be between, on the one hand, a land station operating on a frequency which is allocated to the fixed service under the Atlantic City allocation table, and on the other, a fixed service operating in a frequency band allocated to the mobile service under the new table but is not the frequency assigned to the land station in the internationally agreed frequency assignment plan for the mobile service concerned. In such cases, even at the risk of some temporary increase of interference, it is proposed that the mobile service which is being moved into the planned frequency band, should assume its planned frequency assignment at the outset wherever possible, in order to avoid the double change of frequency which might otherwise be involved.
- 30.1. The resultant changes of frequency should be advised to the I.F.R.B. without delay, so that the I.F.R.B. is enabled to take the initiative wherever possible to complete the implementation, particularly of the planned service bands, in an orderly fashion.
- 30.2 Where a land station in a mobile service has found it impracticable, for any reason, to transfer directly to its planned frequency assignment, it will be necessary to recognize its right to operate, for a limited period to be agreed, on the temporary alternative replacement obtained by a direct exchange or interchange as des-

cribed in 30. The circumstances of such cases should be reported to the I.F.R.B., which should take action to enable the land station to transfer to its planned frequency assignment as soon as practicable.

31. Selection of new frequencies by monitoring .

31.1 Monitoring generally gives an indication of the frequencies suitable for reception only in the vicinity of the monitoring station and cannot give a true picture of the state of the spectrum at a distance therefrom. Where it is necessary to seek in-band frequencies by monitoring (22.4), Administrations will therefore have to rely primarily on monitoring to be conducted in the vicinity of the desired reception area, to determine suitable replacements for outgoing frequencies for use on long circuits.

31.2 Where numerous incoming circuits converge on one receiving terminal, the Administration may find it difficult, during the interim period, to deal promptly with the requests of other Administrations for alternative incoming frequencies to be monitored. It will, of course, be for the receiving terminal to decide to which Administration any particular incoming channel should be offered, or the time schedule on the basis of which it might be shared.

31.3 It is, of course, possible that receiving terminals in two nearby countries may be requested independently to monitor for clear frequencies for use on circuits following similar routes, and that the same frequency might be suggested, by each of the two monitoring Administrations, and put into operation for trial purposes simultaneously by the two requesting Administrations. Such a case seems likely to be rare; but if it arose, it would have to be resolved by direct negotiation between the monitoring Administrations concerned.

32. On a circuit for which the go and return frequencies both require adjustment, it will be important for the respective Administrations to see that any frequency changes are correlated, to ensure that the circuit can be maintained simultaneously in both directions.

33. Clearance of harmful interference

The movement of services into band, whether by exchanges (22.1), interchanges (22.2) or transfers (22.4), would need to be effected in such a way as to cause minimum inconvenience and interference with services already operating in their correct (Atlantic City) bands. Nevertheless, it is a question whether it will be desirable for the E.A.R.C. to agree on some means of deciding responsibility for taking action to clear "harmful interference" during the interim period. The Cairo Regulations, it is recognized, attached no force to the dates quoted in Columns 3(a), 3(b) and 12, of the Berne List.

33.1 The date given in column 3(a), taken alone, may bear no relation to those quoted in columns 3(b) and 12. On the one hand, there are many cases where the data shown against the frequency originally

notified have been completely amended some time after the frequency was first taken into service, with the result that the dates given in columns 3(b) and 12 are much later than that given in column 3(a). On the other hand, there are many notifications in respect of frequencies which were taken into service (column 12) many years before it was practicable for the Administrations concerned to notify their use (columns 3(a) and 3 (b)). Thus, column 3(a) would be unacceptable as a sole criterion.

33.2 The date shown in column 3(b) may be the same as that shown in column 3(a), or it may be later than that shown in column 3(a) but earlier than that shown in column 12, or it may coincide with that in column 12. Column 3(b) therefore seems an unreliable basis.

33.3 The date shown in column 12, which indicates when the frequency was taken into use for the station named in column 5, may be regarded as a more reliable guide than those in columns 3(a) and 3(b). But there are many cases where a frequency has continued in use from the same station, while its characteristics — in terms of power, directivity and bandwidth of emission — have been significantly modified: the date shown in column 12 has remained unaltered although, for all practical purposes, the amended use made of the frequency has been equivalent to a new notification. Again, it seems likely that many notifications concern frequencies which were used only for a short period, for example, during minimum sunspot conditions but the notifications have been retained with a view to their resurrection, probably as much as seven years later. Thus, while the date quoted in column 12 in general may form a more reliable guide than those in columns 3(a) and 3(b), there are many instances in which it would warrant little regard.

33.4 If the E.A.R.C. resolves that the format of the I.F.L. should be adopted - 27 refers - it is probable that the date quoted in column 3(a) of the Berne List would be reproduced in column 2(b) of the I.F.L.; that the date in column 3(b) of the Berne List would either be suppressed, or shown in brackets in column 2(b) of the I.F.L.; and that the date in column 12 of the Berne List would be reproduced in column 2(c) of the I.F.L. In general, therefore, the preceding remarks in this paragraph would still apply.

34. In practice, however, Administrations appear to have paid fair regard to the dates, as well as other relevant factors, in considering on their merits causes of interference. It seems reasonable to assume that the present practice will continue to be observed during the interim period and that it will be unnecessary for the E.A.R.C. to attempt to formulate provisions for application in such cases.

35. Status of frequencies during the interim period.

Nevertheless, it will be necessary for the E.A.R.C. to consider what should be the relative status, during the interim period, of frequencies:

35.1 which are already in-band under the Atlantic City frequency allocation table and continue in use unchanged;

- 35.2 the use of which has been subject to an exchange;
- 35.3 the use of which has been subject to an interchange;
- 35.4 which have been selected by monitoring and taken into use as alternatives for out-of-band frequencies which could not be exchanged or interchanged;
- 35.5 which have been selected by monitoring and taken into use for newly activated services;
- 35.6 which are at present in-band, but which it is necessary to change slightly owing to alterations in channel sharing or adjacent channel conditions arising from changes made as in 35.2, 35.3 and 35.4;
 - 35.7 which are selected for projected services.
- 36. The cases in 35.1 will presumbably retain their existing dates unchanged; and those in 35.5 and 35.7 will presumably assume dates as provided for in the Cairo Regulations.
- 37. As regards category 35.2, there appear to be three alternatives:-
- 37.1 If the full scope of the relative provisions of the Cairo Regulations were applied, the notification in respect of the new inband frequency taken up by an adjusted service would retain its existing column 3(a) date, but would assume dates in columns 3(b) and 12 coincident with the notification internationally of an intention to effect the specified exchange (determining the column 3(b) date) and with the implementation of the exchange (determining the column 12 date). Such a basis might be regarded as equitable, where the adjusted service had formerly operated on a frequency which was out-of-band judged by both the Cairo and Atlantic City allocation tables; but it would be inequitable, in the majority of cases, where the adjusted service had formerly operated on a frequency which accorded with the Cairo allocation table but not with the Atlantic City allocation table.
- 37.2 The notification in respect of the new frequency used by an exchanged service might retain the dates recorded for the out-of-band service for which it was formerly used. This basis would, in effect, maintain the status of an existing frequency notification (regardless of the type of service for which it is now used) relative to other notifications in the same part of the spectrum.
- 37.3 Alternatively, the notification in respect of the frequency used by an exchanged service might carry with it the dates recorded against the notification for the frequency formerly used by that service. In effect, this basis would maintain the status of a service relative to other services of the same type.
- 37.4 Of the three courses outlined, it seems likely that Administrations would find that, in making domestic frequency exchanges, the most equitable course would be that in 37.3.

- 38. In the case of interchanges (35.3), there are also three alternative courses:-
- 38.1 If one applied the relevant provisions of the Cairo Regulations, the notification in respect of the new frequency used by an adjusted service would assume current dates in columns 3(a), 3(b) and 12 of the Berne List. This would mean, in effect, that long-established services which were interchanged would become of inferior status relative to all other established in-band services: such a condition would clearly be inequitable.
- 38.2 The other two alternatives would be similar to those outlined in 37.2 and 37.3. The latter would appear to offer the more equitable basis.
- 39. As regards category 35.4, there seem to be two alternatives ;-
- 39.1 If the provisions of the Cairo Regulations were applied, the position would be as already outlined in 38.1.
- 39.2 Alternatively, the notification in respect of the new frequency used by a transferred service might be permitted to carry with it the dates recorded against the notification of its former out-of-band frequency. This course seems to be the more equitable.
- 40. Where the frequency used for an existing in-band service is changed slightly to ease the way for the movement into the band of existing out-of-band services, it seems reasonable that the established in-band service should not lose status thereby. It is suggested that the notification for the adjusted frequency for such a service should retain the dates appropriate to the existing in-band notification.
- 41. In short, to provide a basis for determining the relative status of frequency notifications during the interim period, it is suggested that where the frequency usage of an out-of-band service is adjusted so as to conform with the Atlantic City allocation table, or where the frequency usage of an established in-band service is adjusted so as to make room for an out-of-band service to move into band the notification in respect of the new frequency used by an adjusted service should assume the dates recorded in the Berne List against the notification in respect of the frequency formerly used for the service. The assumption of the original notification date by the new frequency could, of course, only apply to services for which the existing out-of-band usage has been declared in the Berne List (as revised in accordance with 25.1, 25.2 and 25.3) with adequate operational details (area of service etc.).
- 42. During the interim period, while many changes are constantly being made in frequency usage, it will be essential for supplements to the Berne List (or the interim I.F.L., if this is adopted) to be published without fail at monthly intervals, as prescribed in the Regulations.

- 43. On the implementation date, the mobile services, which should then be operating in accordance with the agreed frequency assignment plans, would assume a common registration date. Thereafter, any frequency assignments to land stations would be subject to the full provisions of Article 11 of the Radio Regulations.
- 43.1 Any land station of the mobile service which continued to operate, after the implementation date, on a frequency other than that assigned to it in the agreed frequency assignment plan, would of course be recorded as a notification, with the common implementation date.

44. Conversion of notifications to Registrations

By the implementation date, the frequency usage of fixed, broad-casting and land mobile services (excepting those which continue to operate outside the appropriate bands on the basis of non-interference), should have been adjusted so as to conform with the Atlantic City allocation table. Up to this stage, all the frequency assignments for these services would rank as notifications.

- 45. The problem would then be whether and, if so, how the conversion of notifications into registrations should be dealt with: it being recognized that until agreement is reached on this, the I.F.R.B. will be unable, in respect of these services, to apply the full provisions of Article 11 of the Radio Regulations, particularly those paragraphs which concern discrimination between a registration and a notification.
- 45.1 The E.A.R.C. may well conclude that consideration of this problem should be postponed until experience has been gained of the conditions prevailing after the implementation date.
- 45.2 However, it may be remarked, in passing, that the application of the principle inherent in Section V, § 12, of Article 11 (Nos. 343, 344 and 345) of the Radio Regulations might suffice to enable the I.F.R.B., over the course of time, to convert most of the notifications into registrations.

46. Duration of interim period.

In considering what should be the duration of the interim period, it seems important to bear in mind that conditions of low sunspot activity will prevail until about 1954. Around that time, the need for frequencies at the lower end of the high frequency spectrum will reach a peak. While Administrations should find it practicable to effect exchanges and interchanges at any time, there may be little scope during minimum sunspot conditions for obtaining alternative in-band frequencies in the range of, say, 4 to 9 Mc/s by monitoring. It is therefore considered to be preferable that, so far as the lower order of high frequencies is concerned, the date determined for implementation should be set after low sunspot conditions have passed.

46.1 Here it should be noted that the adoption of the adjustment method would permit the E.A.R.C., if it so wished, to declare different implementation dates for different segments of the spectrum. For example, the implementation date for the range 17.7 - 27.5 Mc/s might

be set at 2 years after the finish of the E.A.R.C., and that for 3.95 (4.0 Region 2) - 17.7 Mc/s at 3 years.

47. Conclusions

The United Kingdom believes that the adoption of this method and the practical steps outlined in this paper, would enable Administrations to find suitable replacements, where necessary, for the great majority of their frequencies which do not accord with the Atlantic City frequency allocation table and which cannot continue in use on a non-interference basis.

47.1 The crux of the problem will be the reaccommodation within the appropriate Atlantic City frequency bands of out-of-band fixed services. With minor exceptions, the frequency bands allocated to the fixed service in the Atlantic City Regulations represent residual pertions of those allocated in the Cairo Regulations. With the adoption of the adjustment method, there would no doubt be a need for some slight adjustments among the fixed services already operating in these residual frequency bands, but, in general, their existing sharing pattern would remain undisturbed.

48. Provision for projected requirements

Some countries may be inclined to think that the method advocated here would put them at a disadvantage, in that it appears to make no provision for projected requirements. It is true that the method could not provide for protected registrations of frequencies for projected services. But it would detract nothing from the present facilities for entering advance notifications in such cases. These facilities seem to have served tolerably well thus far and there seems no reason to doubt that it will continue to be possible in practice to find reasonably satisfactory frequency assignments for circuits as they are brought into use. In the longer term, the United Kingdom would expect scope for development to be provided mainly by the more general adoption of the best radio techniques for reducing frequency occupancy to an absolute minimum. Moreover, as increasing use is made of landlines for internal fixed services, or possibly, as improvements in submarine cable technique encourage the replacement of overseas radio services, there is reason to suppose that some frequencies now used by the countries with the more extensive radiocommunication systems, will become available for use by . other countries.

49. The development of the new I.F.L.

Some may contend that it would take a considerable period of time by the method of adjustment to reach a reasonably reliable I.F.L. It is generally believed that the Berne List contains many inaccuracies and it is realized that an I.F.L. developed on the lines proposed would not be completely free from similar inaccuracies. The solution of this difficulty, of course, lies in the hands of Administrations. However, in the course of time the I.F.L. should approach nearer to reality. In this connection, the operation of the provisions of Article 11 Section VI of the Radio Regulations, given goodwill and co-operation on the part

of Administrations, should go far to help the I.F.R.B. to eliminate inaccuracies from the I.F.L.

50. Future of the I.F.R.B.

50.1 The lack of agreed assignment plans for the high frequency broadcasting, fixed and land mobile services, and the consequent inability of the I.F.R.B., in dealing with frequency assignments for these services, to apply the full provisions of Article 11 of the Radio Regulations, represents a limitation of the scope of the duties of the I.F.R.B. below that visualized. Nevertheless, the United Kingdom is confident that the I.F.R.B. could form a valuable piece of international machinery and is anxious that the Board should begin as soon as possible its main tasks, namely, the orderly recording of frequency assignments and the service of advice to members on frequency assignment problems 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.

50.2 For example, after the implementation date, it might be contemplated that the I.F.R.B. - in accordance with Article 11, Section VII, § 19, (Numbers 356, 357, 358 and 359) of the Radio Regulations - should examine the utilisation of each unplanned frequency band in turn and make proposals for the more effective exploitation of the spectrum. The I.F.R.B. might start, say, by dealing first with the frequency band 26.1 - 27.5 Mc/s and then take each unplanned frequency band in turn, gradually working downwards through the spectrum; it would, of course, prepare its proposals for each frequency band without regard to services operating in derogation of the allocation table. In many cases, these proposals would require the active cooperation of Administrations in conducting tests, before they could be accepted as satisfactory; and it seems probable that the revision of the frequency usage in each band would have to be carried through as a gradual process of adjustment under the surveillance of the I.F.R.B. rather than as the introduction of a planned rearrangement of frequency assignments. As each frequency band was dealt with in this way, the services operating in the band could take a common registration date. Thus, the range of frequency bands within which the I.F.R.B. could apply the full provisions of Article ll of the Radio Regulations could gradually be extended throughout the spectrum. It may be remarked that such a procedure might accord readily with that indicated in 46.1 above and might well be applied in conjunction with that suggested in 45.2 above.

PROPOSAL No. 9

PORTUGAL

(Letter No. 3644 of 1st May 1951)

In the observations we have submitted in accordance with Administrative Council Resolution No. 200, we have included paragraph 8: "Plans prepared by the P.F.B. for the bands from 3,950 to 27,500 kc/s."* This paragraph constitutes a concrete proposal for the implementation of the Table of Frequency Allocation.

We therefore ask you to publish this paragraph in the next volume of proposals relating to new methods of implementation of the Atlantic City Table of Frequency Allocation.

In view of the fact that circumstances are no longer what they were when we drafted our observations, I would ask you to publish them in the following amended form:

(Extract of letter No. 18078 of 23rd December, 1950 amended according to letter No. 3644 of 1st May, 1951)

Proposal in connection with paragraph c) of Administrative Council Resolution 200

The Portuguese Administration, conscious of the motives for which the new Table of Frequency Allocation was adopted at Atlantic City, considers that every effort should be made to implement the Table.

It should, however, be remembered that the spectrum space allotted to the Fixed Service between 3,950 and 22,000 kc/s by the Atlantic City Table is only 70% of that available under the Caire Allocation Table. If all stations in the Fixed Service which are now working outside the Atlantic City bands were to operate in the new bands, the effect would be an increase in the loading of these bands by some 43%.

Considering that the Fixed Service is at present working under somewhat difficult conditions, it is to be expected that the quality of that service will deteriorate to a level that Administrations cannot accept. The Portuguese Administration would also find itself in this position, due to the tremendous importance of its long-distance Fixed Service.

^{*} Published in Booklet A of the comments by Administrations, No. 60.2, page 159.

From the above one is obliged to conclude that the methods to be adopted for the implementation of the new Table of Frequency Allocation must be found on principles established at Atlantic City. That is to say that frequency allocations are to be made in order to avoid mutual interference and at the same time not to degrade the quality of an already somewhat unsatisfactory service.

As it is impossible to make a fresh start on the preparation of a Frequency List, one should take advantage of the enormous amount of work already done by using the plansdrawn up by the P.F.B.

In analysing these plans, this Administration must draw attention to what it has already said in para. 7.1 of the remarks submitted in the letter of 13th June*, on the consequences of reducing technical standards by the P.F.B. Working Groups and the impossibility of assessing the efficacy of the allocations without knowing the frequency complements allocated to the circuits which share one or more frequencies in time with Portuguese circuits. We shall attempt to assemble as much data as possible, so as to give a clear idea of our views on the matter. In the following paragraphs, we shall give our opinion on the assumption that the final technical standards adopted provide the minimum satisfactory service.

In view of the principles on which the frequency complements were calculated, there would be no sense in adopting allocation plans for small parts of the spectrum with no continuity between the extreme frequencies in the series of plans adopted.

The P.F.B. has prepared "contained" plans for all bands above 11,975 kc/s, except for the band 15,450 to 16,460 kc/s, in which the spectrum space available was exceeded by only 10%. Below 11 975 kc/s, the P.F.B. did not succeed in drawing up "contained" plans in large portions of the spectrum.

Since 12 Mc/s may be regarded as a limit frequency, as far as the use of frequencies is concerned, the implementation of the Atlantic City Table above 11,975 kc/s could be envisaged by the adoption of the P.F.B. plans.

The Portuguese Administration therefore believes:

a) that the Atlantic City Allocation Table should be adopted for the bands below 3,950 kc/s and above 11,975 kc/s, together with the results of the Regional Conferences, the Aeronautical . Conference and the P.F.B., on condition:

^{*} Published in Booklet A of the comments by Administrations, No. 60.1, page 156.

- i) that Administrations' objections to individual assignments have been met;
- ii) that a "contained" plan has been prepared for the 15,450 16,460 kc/s band;
- iii) that the reduced technical standards adopted by the Working Groups are recognised as giving satisfactory results.

 As far as paras. i) and ii) above are concerned, we believe that the I.F.R.B. should be instructed to undertake the necessary work and present the results obtained to the Conference.
- b) that in the 3,950 11,975 kc/s band, it should be the task of the Conference to study the most appropriate solution and, if necessary, to decide whether the implementation of the Atlantic City Allocation Table should be deferred for that part of the spectrum.

PROPOSAL No. 10

NETHERLANDS

(Letter 1122P/9625 of 8th May 1951)

- 1. With reference to Resolution No. 200 of the Administrative Council "Preparation for the Extraordinary Administrative Radio Conference" the Netherlands Administration forwards herewith three copies of a proposal relating to new methods of bringing into effect those parts of the Atlantic-City Table for which the Conference is unlikely to establish a frequency list.
- 2. The proposal concerns the parts of the Atlantic-City Table assigned to fixed services between 4,000 and 27,500 kc/s and is based on the considerations given under the heading "Considerations" of the proposal.
- 3. Although the time limit for the handing in of these proposals is already elapsed the Netherlands Administration will appreciate it very much if you will nevertheless be so kind as to publish and to distribute the proposal to all Administrations at your earliest convenience.

PROPOSAL

OF THE NETHERLANDS ADMINISTRATION RELATING TO NEW METHODS OF BRINGING INTO EFFECT THE PARTS OF THE ATLANTIC-CITY TABLE ASSIGNED TO FIXED SERVICES BETWEEN 4,000 AND 27,500 kc/s FOR WHICH THE CONFERENCE IS UNLIKELY TO ESTABLISH A FREQUENCY LIST

CONSIDERATIONS

The Netherlands Administration thinks it unlikely that the Conference will succeed in preparing a new International Frequency List for fixed services based on P.F.B. requirements or any new requirements.

Success within a reasonable time period will probably only occur if the Conference takes as a starting point the frequency registrations figuring in the Berne List at a certain date to be fixed by the Conference, with the exception of the so-called inactive entries.

By taking the registrations in the Berne List as a base the Conference will save a considerable amount of time owing to the fact that all kinds of sharing possibilities are incorporated in the List. To secure these sharing possibilities it will be necessary to stick as closely as possible to the present grouping of emissions.

Since several registrations in the Berne List do not give sufficient details about the nature of service and the class of emission, it will be indispensable in order to avoid delay and ambiguity in preparing a revised list, that all Delegations present at the Conference have at their disposal all details concerning the existing utilization of the frequencies notified by their Administrations.

The allocation to fixed services in the Atlantic City Table between 4,000 and 27,500 kc/s is much less than the space assigned to these services in that part of the spectrum of the Cairo Table. This limited space for fixed services created the very difficult situation of many out-of-band assignments under the Atlantic-City regulations. To save space for these out-of-band assignments, the registrations inside the Atlantic-City fixed services' bands have to be contracted which, in the opinion of the Netherlands Administration, can only be achieved by narrowing the bandwidth of certain types of emission.

To examine whether it would be reasonable and practicable to propose a certain bandwidth for certain types of emission, the Netherlands Administration has made several series of tests.

From these tests it seems to be quite justified to propose to fix the bandwidth of Al, A2 and Fl emissions at 2 kc/s and that of A3 and A4 emissions at 5 kc/s.

Contraction of the Berne List in its present form by fixing the bandwidth of Al, A2 and Fl emissions at 2 kc/s is possible if the Berne List, as far as the Cairo fixed services' bands are concerned, is divided into 5 kc/s channels to be called either Al channel or A3 channel depending on the number of Al, A2 and Fl registrations and the number of A3 and A4 registrations in the channel, and on the space available in a certain part of the spectrum.

To avoid interference by, between and of A3 and A4 emissions in Al channels most of the A3 and A4 emissions in such a channel are to be transferred to A3 channels or, if necessary, to portions of the spectrum which will become unoccupied as a result of the contraction. For these transfers the Conference will have to deal with sharing possibilities. However, in order to maintain the present registrations order, and consequently the sharing possibilities to the greatest possible extent by avoiding any not necessary transfer of A3 and A4 emissions, the number of A1 channels has to be kept as low as possible.

Annex I shows that the Cairo spectrum for fixed services between 4,000 and 21,450 kc/s can be divided into 4 parts which were about equally reduced at Atlantic-City.

Taking the heaviest reduction of 23% as a base, it is evident that 100 Cairo kc/s, or 20 channels of 5 kc/s each, are to be contracted into 77 Atlantic-City kc/s, corresponding with about 8 Al channels of 2 kc/s each and 12 A3 channels of 5 kc/s each; the number of Al channels being to the number of A3 channels as 2 is to 3.

Counting two or more registrations of the same frequency by the same Administration as one registration of the type of notified emission which occupies the largest bandwidth, an analysis of the registrations in the Berne List shows that there are relatively more registrations of the types of emission Al, A2 and Fl in the lower bands than in the higher bands. Consequently a channel nomination based on the majority of registrations of certain types of emission in each 5 kc/s channel will almost never precisely result in the required ratio of 2:3.

To arrive at this ratio it will appear to be necessary to nominate in the higher bands certain channels with an equal number of registrations of each kind Al channels, while in the lower bands a rather big number of channels with a majority of Al, A2 and Fl registrations can be nominated A3 channels.

In the first case the channels with the lowest equal number of registrations are to be nominated Al channels, and in the latter case the Al channels with the highest number of A3 and A4 registrations are to be nominated A3 channels, in order to restrict the number of transfers of A3 and A4 registrations from Al channels to A3 channels to the greatest possible extent.

Annex II shows by way of example the contraction of the 17,100 - 17,750 and 17,850 - 21,450 kc/s Cairo bands into the 17,360 - 17,700, 18,030 - 19,990 and 20,010 - 21,000 kc/s Atlantic-City bands. In the 17,100 - 17,750 kc/s Cairo bands all channels with a majority of A3 and A4 registrations and those with 3 and more A3 and A4 registrations, irrespective the number of A1, A2 and F1 registrations, were nominated A3 channels, while in the 17,850 - 21,450 kc/s Cairo band all channels with a majority of A1, A2 and F1 registrations and those with 1 and 2 registrations of each kind were nominated A1 channels.

On this base the 846 occupied channels in the Cairo spectrum were subdivided into 337 Al channels and 509 A3 channels, besides leaving space for 10 free Al channels and 9 free A3 channels.

To avoid changes in frequencies to the greatest possible extent the contraction was done in such a way that about 60% of the frequencies were kept at their original or only slightly modified value.

In these channels there happen to be 1,351 registrations of types of emission A1, A2 and F1 and 1,843 registrations of types of emission A3 and A4, viz. 1,393 in A3 channels and 450 in A1 channels. These 450 A3 and A4 registrations in A1 channels are to be transferred, in the most economical manner, to occupied or free A3 channels, however, only if it is evident that the relative emissions will cause harmful interference to other emissions in adjacent channels.

The Netherlands Administration is fully aware of the fact that the accommodation of these A3 and A4 emissions in A3 channels will seem to be a rather difficult task for the Conference. This Administration is, nevertheless, convinced that if all Administrations show their goodwill and their sincere desire to bring the problem of frequency assignment finally to a happy conclusion it will be worthwhile for the Conference to assume this task which contains a very reasonable chance for success.

With the contraction of the Cairo spectrum into the Atlantic-City spectrum which will clearly show the frequency changes to be made, the task of the Conference, as far as frequency assignment is concerned, will be ended.

In order, however, that all the articles mentioned in article 47 of the Atlantic-City Radio Regulations will come into force in due time, it will be necessary to charge the I.F.R.B. with the redrafting of the contracted list in accordance with the provisions and Appendix 6 of the Atlantic-City Radio Regulations. To enable the Board to fulfil this task all Administrations shall have to provide the Board with all details, in conformity with Appendix 1 of these Regulations, concerning each circuit on which the originally registered frequency is in operation.

Since the redrafted contracted list will not be based on P.F.B. requirements or any new requirements, but on the notifications

originally shown in the Berne List with the only difference that the out-of-band frequencies and a few other frequencies have been changed, it seems desirable to provide the I.F.R.B. with certain directives concerning the dates to be mentioned in columns 2a and 2b of the list. These dates should reflect, in accordance with the Berne List, the chronological order in which the original frequency was put in operation by the stations concerned. The names of these stations are shown in column 5 of the Berne List.

To this end the Netherlands Administration proposes to take into account the dates shown in column 12 of the Berne List on the condition, however, that this date is not anterior to the date of notification of the frequency for the station in question. In the latter case the date of notification figuring in column 3b of the Berne List has to be taken into account as indicated in column 10 of Annex III. Of these dates the oldest one is to be put in column 2a of the List, successively followed by the date of other emissions which will not cause any harmful interference to anterior emissions in the same channel. If harmful interference is evident or probable the date concerning the emission in question will be shown in column 2b of the redrafted contracted list.

Based on the preceding considerations the proposal of the Netherlands Administration can be summarized in the following 10 points.

PROPOSAL

- 1. The bands between 4,000 and 27,500 kc/s assigned to fixed services in the Cairo Allocation Table shall be divided into 5 kc/s channels as shown in column 1 of Annex III.
- 2. The number of registrations of the types of emission Al, A2 and Fl and the number of registrations of the types of emission A3 and A4 shall be counted for each 5 kc/s channel separately.
 - NOTE: Two or more registrations of the same frequency by the same Administration are counted as one registration of the type of notified emission which occupies the largest bandwidth. (See columns 4, 5, 6 and 7 of Annex III).
- 3. As a general rule a channel shall be nominated an Al channel if the majority of registrations in a channel turns out to have been made for types of emission Al, A2 and Fl, and an A3 channel if the majority of registrations seems to have been made for types of emission A3 and A4. (See columns 6, 7 and 8 of Annex III).
- 4. The number of Al channels shall be to the number of A3 channels as 2 is to 3.
 - NOTE: If the application of the general rule mentioned under point 3 results in a greater number of Al channels than the number required, the Al channels with the greatest number of A3 and A4 registrations will be nominated A3 channels till the required ratio is obtained. However, if the number of Al channels doesn't meet the number required, the needed number of channels with the same number of registrations of each kind will be nominated Al channel.
- 5. The bandwidth of Al channels shall be fixed at 2 kc/s and that of A3 channels at 5 kc/s. The separation between two Al channels will then be 2 kc/s, between an Al channel and an A3 channel 3,5 kc/s and between two A3 channels 5 kc/s as shown in Annex II.
- 6. The channels in the Cairo fixed services' spectrum which are outof-band under the Atlantic-City regulations shall be transferred
 to the spaces in the Atlantic-City fixed services' bands which
 become unoccupied as a result from narrowing the bandwidth of Al
 channels. Frequency changes resulting from the contraction of the
 Cairo bands into the Atlantic-City bands shall be limited to the
 greatest possible extent. (See Annex II).
- 7. Registrations in Al channels of types of emission A3 and A4 which will cause harmful interference to emissions in adjacent channels shall be transferred to A3 channels. If an adequate transfer of these emissions to A3 channels can not be made, these emissions will be accommodated in spaces saved by the contraction of the bands in the relative part of the spectrum.

- 8. The I.F.R.B. shall be instructed to redraft the Berne List contracted by the Conference in conformity with the provisions and Appendix 6 of the Atlantic-City Radio Regulations.
- 9. In order to enable the I.F.R.B. to fulfil the task indicated under point 8, the Administrations shall be invited to provide the I.F.R.B. with all details, in conformity with Appendix 1 of the Atlantic-City Radio Regulations, concerning each circuit operated on the original frequency by the station for which this frequency has been registered, and whose name is shown in column 5 of the Berne List.
- 10. Regarding the dates to be mentioned for each circuit in the columns 2a, 2b and 2c of the redrafted contracted list, the I.F.R.B. shall be instructed:
 - a. to take into account the date figuring in column 12 of the Berne List on the condition, however, that this date is not anterior to the date of notification of the frequency for the station in question figuring in column 3b of the Berne List. If so, the latter date will be taken into account;
 - b. to put for each channel the oldest date in column 2a, and successively the dates concerning emissions in the same channel which will not cause any harmful interference to anterior emissions in the channel. However, if harmful interference is evident or probable the dates concerning the emissions in question will be shown in column 2b.

NOTE: The date to be mentioned in column 2c will be the same as the one figuring in column 2a or 2b.

Fixed	Services	bends				If the channels are		Space in kc/s needed to accom-	
	Available space in kc/s Atlantic-			ber of 5 kc/s chan-	divided into Al chan- nels and A3 channels		modate the chan- nels if the band-	Saved space	
Cairo	Atlantic-City	Cairo	Atlantic-City	City in proportion to Cairo	nels to be accommo- dated		io of 2:3 the f channels for	width for Al is fixed at 2 kc/s, and for A3 at 5 kc/s	in kc/s
1	2	3	4	5	6	7	8	9	10
4000-5500 5700-6000 6675-7000 7300-8200	4000-4063 4438-4650 4750-4850 4850-4995 5005-5250 5250-5430 5430-5480 5730-5950 6765-7000 7300-8195	3 025	2345	77%	605	242	363	242 x 2 = 484 363 x 5 = 1815 2299	46
8550-8900 8900-9500 9700-11000 11400-11700 11900-12300	9040-9500 9775-9995 10100-11175 11400-11700 11975-12330	2950	2410	82%	590	236	354	236 x 2 = 472 354 x 5 = 1770 2242	168
12825-13350 13350-14000 14400-15100 15350-16400	- 13360-14000 14350-14990 15450-16460	2925	2290	78%	585	2 3 4	351	234 x 2 = 468 351 x 5 = 1755 2223	67

1	2	3	4	5	6	7	8	9	10
17100-17750 17850-21450	17360-17700 18030-19990 20010-21000	4250	3290	77%	850	340 [°]	510	340 x 2 = 680 510 x 5 = 2550 3230	60
22300-24600 26600-27500	21750-21850 22720-23200 23350-24990 25010-25600 26100-27500	3200	4210	132%	640	256.	384	256 x 2 = 512 384 x 5 = 1920 2432	1778

,

Contracted Berne List for fixed services from 17100-17750 and 17850-21450 kc/s (Cairo) into 17360-17700, 18030-19990 and 20010-21000 kc/s (Atlantic-City)

Not changing	Changing f	requencies nels	Contracted List		
frequencies	A 3	Al	frequency	Type of channel	
1	2 .	3	. 4	5	
	3				

17385	17115 17135	17360 17100 17365 17105 17370 17110 17120 17405 17125 17410	17361.5 17363.5 17365.5 17367.5 17369.5 17371.5 17375 17380 17385 17390 17395 17400 17403.5 17407.5 17407.5	A1 A1 A1 A3 A3 A3 A3 A3 A3 A3	17500 17505 17520 17525 17530 17535 17540	17170	17230 17510 17250 17515 17255	17495 17500 17505 17508.5 17510.5 17512.5 17514.5 17516.5 17520 17525 17530 17535 17540 17543.5 17545.5	A. A
17385 17395		17365 17105 17370 17110 17120 17405 17125	17365.5 17367.5 17369.5 17371.5 17375 17380 17385 17390 17395 17400 17403.5 17407.5	A1 A1 A3 A3 A3 A3 A3 A1 A1	17505 17520 17525 17530 17535		17510 17250 17515 17255	17505 17508.5 17510.5 17512.5 17514.5 17516.5 17520 17525 17530 17535 17540 17543.5	A. A. A. A. A. A. A. A. A.
17385 17395		17365 17105 17370 17110 17120 17405 17125	17365.5 17367.5 17369.5 17371.5 17375 17380 17385 17390 17395 17400 17403.5 17407.5	A1 A1 A3 A3 A3 A3 A3 A1 A1	17520 17525 17530 17535		17510 17250 17515 17255	17508.5 17510.5 17512.5 17514.5 17516.5 17520 17525 17530 17535 17540 17543.5	AL A
17385 17395		17105 17370 17110 17120 17405 17125	17369.5 17371.5 17375 17380 17385 17390 17395 17400 17403.5 17405.5	A1 A3 A3 A3 A3 A3 A1 A1	17525 17530 17535		17510 17250 17515 17255	17510.5 17512.5 17514.5 17516.5 17520 17525 17530 17535 17540 17543.5	A: A: A: A: A: A: A: A: A: A: A:
17385 17395		17110 17120 17405 17125	17371.5 17375 17380 17385 17390 17395 17400 17403.5 17407.5	A1 A3 A3 A3 A3 A3 A1 A1	17525 17530 17535		17250 17515 17255	17512.5 17514.5 17516.5 17520 17525 17530 17535 17540 17543.5	A. A. A. A. A. A.
17385 17395		17120 17405 17125	17375 17380 17385 17390 17395 17400 17403.5 17405.5	A3 A3 A3 A3 A3 A1 A1	17525 17530 17535		17515 17255	17514.5 17516.5 17520 17525 17530 17535 17540 17543.5	A. A. A. A. A. A.
17385 17395		17405 1 71 25	17380 17385 17390 17395 17400 17403.5 17405.5	A3 A3 A3 A3 A3 A1 A1	17525 17530 17535		17255 17265	17516.5 17520 17525 17530 17535 17540 17543.5	A A A A
17385 17395		17405 1 71 25	17385 17390 17395 17400 17403.5 17405.5	A3 A3 A3 A1 A1 A1	17525 17530 17535		17265	17520 17525 17530 17535 17540 17543.5	A A A A
17385 17395		17405 1 71 25	17390 17395 17400 17403.5 17405.5 17407.5	A3 A3 A1 A1 A1	17525 17530 17535			17525 17530 17535 17540 17543.5	A A A A
17395	17135	17405 1 71 25	17395 17400 17403.5 17405.5 17407.5	A3 A3 A1 A1 A1	17530 17535			17530 17535 17540 17543.5	A A A
17395		17405 1 71 25	17400 17403.5 17405.5 17407.5	A3 A1 A1 A1	17535			17535 17540 17543.5	A A
1		17405 1 71 25	17400 17403.5 17405.5 17407.5	AI AI AI				17540 17543.5	A
		17405 1 71 25	17403.5 17405.5 17407.5	AI AI AI				17543.5	A
t.		17405 1 71 25	17405.5 17407.5	Al					1
,		17125	17407.5			·	17545	17545.5	A
'			1	۸, ا	l i		L.		
	1		1 14U7 • J	Al		17550		17549	Į
	·	17 130	17411.5	Al			17270	17552.5	1
-	17140		17415	A3			17555	17554.5	Į
17420			17420	A3			17315	17556.5	. 8
17425			17425	A3	÷		17325	17558.5	Į
21.422		17160 ·	17428.5	Al			17560	17560.5	Æ
		17430	17430.5	AI			17330	17562.5	l A
		17180	17432.5	Al		ĺ	17565	17564.5	1
,		17435	17434.5	Al			17335	17566.5	1
	·	17210	17436.5	Al	17570			17570	Į į
17440		_	17440	A3	17575			17575	1
17445			17445	A3	17580			17580	4
17450			17450	A3	17585			17585	1
	17145		17455	A3			17340	17588.5	1
17460	11147	,	17460	A3			17590	17590.5	1
	17150		17465	A3			17350	17592.5	1
17470			17470	A3			17595	17594.5	1
	17155		17475	A3	·		17355	17596.5	1
17480			17480	A3	17600			17600	Į
į.	17165	,	17485	A3	17605			17605	Į
17490	_,/		17490	A3			17380	17608.5	Į.

1	2	3	4	5
		17610	17610.5	Al
	17615		17614	A3
		17390	17617.5	Al
		17620	17619.5	Al
		17415	17621.5	A1
17625			17625	A3
17630			17630	A3
17635			17635	A3
17640			17 640	A3
•		17455	17643.5	Al.
		17645	17645.5	Al
		17465	17647.5	Al.
		17650	17649.5	A1
•		17475	17651.5	A1
		17485	17653.5	Al.
		17655	17 655.5	Al
		17495	176 57. 5	AJ.
		17660	17659.5	A]
		17705 ′	17661.5	Al.
17665			17665	A3
17 670			17670	A3
		17710	17673.5	Al.
	•	17675	17675.5	A1
	•	17725	17677.5	AJ.
		17680	17679.5	A]
·		17730	17681.5	Al.
17685		,	17685	A3
		17735	17688.5	Al
		17690	17690.5	Al.
		17745	17692.5	Al
		17695	17694.5	Al
		17750	17696.5	Al

1	2	3	4	5
		18030	18031.5	Al
	17175		18035	A3
18040			18040	A3
	17185		18045	A3
	17190		18050	A3
	17195		18055	A3
	17200		18060	A3
18065			18065	A3
18070			18070	A3
18075		,	18075	A3
	17205		18080	A3
18085			18085	A3
	17215	·	18090	A3
18095			18095	A3
18100			18100	A3
18105			18105	A3
18110			18110	A3
18115	,		18115	A3
18120			18120	A3
	17220		18125	A 3
18130			18130	A3
18135			18135	A 3
	17225		18140	A3
18145			18145	A3-
	17235		18150	A3
18155			18155	A3
	17240		18160	A3
	17245		18165	A3
18170			18170	A3
	17260		18175	A3
18180			18180	A3
18185			18185	A3
	17275		18190	A3
	17280		18195	A3
18200	·		18200	A3
18205			18205	A3
18210			18210	A3

ANNEXE) ANNEX) II/5 ANEXO)

	<u> </u>						. AND	XO)	
1	2	3	4	5	1	2	3	4	5
	17285	·	18215	A3	18390			18390	A3
	17290		18220	À3	18395			18395	A3
	17295		18225	A3	100,0	17740		18400	A3
	17300		18230	A3	18405	21,40		18405	A3
18235			18235	A3	18410			18410	A3
18240			18240	A3	18415			18415	A3
18245			18245	A3		17855		18420	A3
18250			18250	A 3	18425			18425	A3
	17305		18255	A3	18430			18430	A3
18260			18260	A3		17860		18435	A3
18265			18265	A3	18440			18440	A3
18270	'		18270	A3	18445			18445	A3
18275			18275	A3		17875		18450	A3
	17310		18280	A 3	18455			18455	A3
18285			18285	A3			17935	18458.5	Al
	17320	1	18290	A 3	·		17940	18460.5	A1
18295			18295	A3			17945	18462.5	Al
	17345		18300	·A3			17960	18464.5	Al
18305			18305	A3			17965	18466.5	Al
18310			18310	A3			17995	18468.5	Al
		17850	18313.5	Al			18000	18470.5	Al
		17865	18315.5	Al			18010	18472.5	, A1
		17870	18317.5	Al		·	18025	18474.5	A1
		17880	18 319 . 5	A1			18035	18476.5	Al.
		17885	18321.5	Al	18480			18480	A3
18325		,	18325	A3	18485			18485	A3
	17700		18330	A3	18490		-	18490	A3
18335			18335	A3	18495			18495	A3
18340			18340	A 3		17890	•	18500	A3
18345			18345	A3	18505			18505	A3
18350			18350	A3	18510			18510	A3
18355			18355	A 3	18515			18515	A3
18360			18360	A 3		17895		18520	A3
٠,	17715		18365	A 3		17900		18525	A3
18370			18370	A3		17 905		18530	A3
18375			18375	A3	1853 5			18535	A3
	17720		18380	A3	18540			18540	A3
18385			18385	A3	18545			18545	A3
·	17720		1						

ANNEXE) ANNEX) II/6 ANEXO)

1	2	3	4	5	. 1	2	3	4	5
18545	17910		18550	A3	1 87 05			18705	A3
18555	17910		18555	A3	10/07	17930		18710	A3
18560			18560	A3	18715	1.750		18715	A3
18565			18565	A3	10/12	17950		18720	A3
18575		÷	18575	A3	18730			18730	43
18580			18580	A3	10170	17955		18735	A3
18585		,	18585	A3	18740			18740	A3
18590			18590	A3	20140		18090	18743.5	Al
18595			18595	A3		ļ	18745	18745.5	Al
18600			18600	A3			18125	18747.5	Al
10000	17915		18605	A3			18750	18749.5	Al
18610			18610	A3			18140	13751.5	Al
18615			18615	A3	18755			18755	A3
18620			18620	A3	18760		.	18760	A 3
18625			18625	A3	18765			18765	A3
18630			18630	A3	18770			18770	A3
18635			18635	A3	18775			13775	. A3
18640			18640	A 3	18780			18780	A 3
18645			18645	A 3	18785			18785	A3
20049	17 920	•	18650	A3	18790			18790	A3
18 655	_,,,,,	. *	18655	A3	18795			18795	A3
'	bre-free ch		18658.5	Al	18800			18800	A 3
	canal libr	re 18660	10440 5	47		17970		18810	A 3
•			18660.5	Al Al	18815	17970		18815	A3
		18045	18662.5 18664.5	AI.	18820			18820	A3
		18665 18050	18666.5	AI	18825			18825	A3
		18055	18668.5	AI	18830			18830	A3
		18670	18670.5	Al	18835			18835	A3
•	•	18060	18672.5	Al	10000	17975		18840	A3
		18675	18674.5	Al	18845	121717		18845	A3
		18080	18676.5	Al	1004)	17980		18850	A3
7 96 90		10000	18680	A.3	18855	1,700		18855	A3.
18680 18685			18685	A3	18860			18860	A3
18690			18690	A3	18865			18865	A3
18695			18695	A3	18870			18870	A3
10099	17925	,	18700	A3	18875			18875	A3
	エノフんノ		1 -0100	ر		i	1 1		-

ANNEXE)
ANNEX) II/7
ANEXO)

				,	,,			·	,
1	2	3	4	5	1	2	3	4	5
18885			18885	A 3			18215	19043.5	Al
	17 990		18890	A3			19045	19045.5	Al
18895			18895	A3.			18220	19047.5	Al
18900			18900	A3			19050	19049.5	Al
18905			18905	A3			18225	19051.5	Al
18910			18910	A3	19055			19055	A 3
18915			18915	A3	19060			19060	A3
18920			18920	A3	19065			19065	A3
18925			18925	A3	19070			19070	A 3
18930		,	18930	A3			18230	19073.5	Al
18935			18935	A3			19075	19075.5	Al
18940			18940	A3			18255	19077.5	Al
•	18005		18945	A3		<u>'</u>	18280	19079.5	A1
	18015	. ,	18950	A3			18290	19081.5	A]
	18020		18955	A3		19080		19085	A3
189 60			18960	A 3	19090			19090	A3
18965			18965	A3			18300	19093.5	A1
18970			18970	A3			19095	19095.5	A1
18975			18975	A3			18315	19097.5	Al
18980			18980	A3			19100	19099.5	Al
		18150	18983.5	Al	:		18320	19101.5	A1
		18985	18985.5	Al	19105			19105	A3
		18160	18987.5	Al			18330	19108.5	Al
		18990	18989.5	Al			19110	19110.5	Al
•		18165	18991.5	Al	-		18365	19112.5	Al.
18995			18995	A3			18380	19114.5	Al
19000		•	19000	A 3			18400	19116.5	A]
voie li	bre-free ch canal libr		19005	A 3	voie li	bre-free c		19118.5	Al
19010			19010	A3			19120	19120.5	A1.
19015			19015	A3			18420	19122.5	Al.
		18175	19018.5	Al			19125	19124.5	, Al
i		19020	19020.5	Al			18435	19126.5	Al
`		18190	19022.5	Al	19130			19130	A3
		19025	19024.5	Al	19135			19135	A 3
		18195	19026.5	Al	19140			19140	A3
19030	4.		19030	A3		19115	•	19145	, A3
19035			19035	A 3	19150	·		19150	A3
	1		19040	A3	19155	}		19155	A3

ANNEXE)
ANNEX) II/8
ANEXO)

				-		<u> </u>	1	,	,
1	2	3	4	5	1	2	3	4	5
19160			19160	A3		19220		1 92 7 0	A3
19165		'	19165	A3	19275			19275	A3
19170			19170	A 3		·	18840	19278.5	Al
19175			19175	A3			19280	19280.5	Al
19180			19180	A3			18850	19282.5	Al
19185			19185	.A3			19285	19284.5	Al
19190			19190	A3			18880	19286.5	Al
		18450	19193.5	Al ·	19290			19290	A3
		19195	19195.5	Al	19295			19295	A3
		18460	19197.5	Al	19300			19300	A3
		19200	19199.5	Al	19305			19305	A3
	ore-free ch		19201.5	Al		19230		19310	A3
	eanal libre				19315			19315	A3
		18465	19203.5	Al,	19320			19320	A3
,		19205	19205.5	A1	19325			19325	A3
		18470	19207.5	Al	19330			19330	A3
		18475	19209.5	A1		re-free		19335	A3
		18500	19211.5	Al	l l	anal libre	•		
•		18520	19213.5	Al	19340			19340	A3
		19215	19215.5	Al ·	19345			19345	A3
•		18525	19217.5	Al .			18890	19348.5	Al
		18530	19219.5	Al.			19350	19350.5	Al
		18550	19221.5	Al			18945	19352.5	Al
		18605	19223.5	Al			19355	19354.5	Al
		19225	19225.5	Al			18950	19356.5	A1
		18650	19227.5	Al			18955	19358.5	Al
	,	18700	19229.5	Al.			19360	19360.5	A1
		18710	19231.5	Al			19005	19362.5	Al
19235			19235	A3			19365	19364.5	Al
	19210	-	19240	A3		re-free cl al libre	hannel-	19366.5	Al
19245		- 45	19245	A3	19370	1		19370	A3
	,	18720	19248.5	Al.	ļ	 re-free cl	l hannel-	19375	A3
		19250	19250.5	Al.		al libre		_,,,,,	
	·	18735	19252.5	Al	19380	1:		19380	A3
	,	19255	19254.5	Al	19385			19385	A3
		18810	19256.5	Al	19390			1 9390	A3
19260			19260	A3	19395			19395	A3
19265			19265	A3	19400			19400	A3
				'					

ANNEXE)
ANNEX) II/9
ANEXO)

				_			A	NEXO)	
1	2	3	4	5	1	2	3	4	5
voie lib	re-free ch	 nannel-	19405	A3	19535			19535	A3
	anal libre						19455	19538.5	Al
19410			19410	A3			19540	19540.5	A1
		19085	19413.5	Al			19465	19542.5	Al
		19415	19415.5	Al			19500	19544.5	Al
		19145	19417.5	E3	voie li	ore-free ch		19546.5	Al
		19420	19419.5	ET.		canal libr	•e	,	
		19240	19421.5	AL	19550			19550	A 3
19425		•	19425	13	19555			19555	A3
19430			19430	A3		19545		195 60	A3
19435			19435	A3	19565			19565	A 3
19440	1		19440	A3	19570			19570	A3
	re-free ch		19445	A3	19575			19575	A3
	anal libre) 	30450			21015		19580	A3
19450		_	19450	A3	19585			19585	A 3
	re-free ch anal libre		19455	A3		21020		19590	A3
19460	İ	1	19460	À3	19595			19595	A3
voie lib	 re-free ch	annel-	19465	A3		21030		19600	A3
Ca	anal libre)			19605			19605	A3 .
19470			19470	A3	19610			19610	A3
19475			19475	A3			19560	19613.5	Al
19480			19480	A3			19615	19615.5	Al
19485			19485	A3			19580	19617.5	Al .
19490			19490	A3			19620	19619.5	A1
19495			19495	A3			19590	19621.5	Al
	21005		19500	A3	19625			19625	A3
19505			19505	A3	19630			19630	A 3
		19270	19508.5	Al	·	21035		19635	A 3
		19510	19510.5	AL		21045	٠,	19640	A3
		19310	19512.5	Al		21055		19645	A3
		19515	19514.5	Al	19650	.`		19650	A3
•		19335	19516.5	Al	19655			19655	A3
19520			19520	A3			19600	19658.5	Al
		19375	19523.5	Al		-	19660	19660.5	Al
		19525	19525.5	Al			19635	19662.5	Al.
		19405	19527.5	A]		.	19665	19664.5	Al
		19530	19529.5	Al			19640	19666.5	Al
		19445	19531.5	Al			19645	19668.5	Al
,			1	·				1	

ANNEXE)
ANNEX) II/10
ANEXO)

		,						ANEXO)	
1	2	3	4	5	-1	2	3	4	5
		19670	19670.5	Al	19800			19800	A 3
		21000	19672.5	Al	19805			19805	A3
		19675	19674.5	Al	19810			19810	A3
		21010	19676.5	Al		21090		19815	A3
19680	·		19680	A3	19820	~ 0/0		19820	A3
	21060		19685	A 3	19825			19825	A3
19690			19690	A3		21100		19830	A3
	21070	;	19695	A3	19835			19835	A3
19700	,		19700	A3	19840			19840	A3
	21080		19705	A3	19845		:	19845	A3
19710			19710	A3	19850			19850	A3
		19685	19713.5	Al		'	19830	19853.5	Al
* .		19715	19715.5	Al			19855	19855.5	Al
voie li	.bre-free c	hanne l-	19717.5	Al			21065	19857.5	Al
	canal libr	•					1986ე	19859.5	Al
		19695	19719.5	Al			21075	19861.5	Al
		19705	19721.5	Al	19865			19865	A 3
19725			19725	A3	19870			19870	A 3
	19720		19730	A3		ore-free ch		19873.5	A1
19735			19735	A3		canal libre			,
19740			19740	A3			19875	19875.5	Al
19745			19745	A3			21110	19877.5	A1
	21085		19750	A3		. *	19880	19879.5	Al ·
		19750	19753.5	Al			21120	19881.5	Al.
		19755	19755.5	į.	19885			19885	A3
		19730	19757.5	Al	19890			19890	A3
1		19760	19759.5	Al		21105		19895	A3
voie li	bre-free c		19761.5	Al			19895	19898.5	A1.
19765			19765	A 3			19900	19900.5	A1
19770			19770	A3			21165	19902.5	Al
	•	21025	19773.5	Al			19905	19904.5	Al.
		19775	19775.5	Al	7.007.0		21180	19906.5	A1
		21040	19777.5	Al	19910		07.7 65	19910	A3
		19780	19779.5	Al			21185	19913.5	Al.
		21050	19781.5	Al			19915	19915.5 19917.5	Al Al
19785			19785	A3			21200 19920	19917.5	AI.
19790			19790	A3			21265	19919.5	A1
19795	İ		19795	A3			EXECT)	エッフルエ・ノ	er.
		1	•			l ' [

ANNEXE)
ANNEX) I
ANEXO)

11/11

1	2.	3	4	5	1	2	3	4 .	5
19925			19925	A3			21320	20076.5	A1
19930			19930	A3	20080		22520	20080	A3
19935			19935	A3	20085		·	20085	A3
-,,,,,	21115	,	19940	A3	2000	21130		20090	A3
19945			19945	A3		~22,70	20090	20093.5	AI
19950			19950	A3			20095	20095.5	Al
		19940	19953.5	Al			21350	20097.5	Al
		19955	19955.5	Al			20100	20099.5	Al
	,	21270	19957.5	Al			21355	20101.5	Al
	٠	19960	19959.5	Al	20105			20105	A3
		21290	19961.5	Al		21135		20110	A3
19965			19965	A3			20110	20113.5	Al
	21125		19970	A3			20115	20115.5	Al
19975			19975	A3			21360	20117.5	A1
19980			19980	A3			20120	20119.5	IA.
		19970	19983.5	Al			21370	20121.5	Al
į		19985	19985.5	Al	20125			20125	A3
		21305	19987.5	Al	20130			20130	A3
		19990	20011.5	Al	20135	•		20135	A3
	19995		20015	A3		21140		20140	A3
20020	·		20020	A3	20145			20145	A3
voie l	ibre-free		20025	A3	20150			20150	A3
1	canal	1				21145		20155	A3
		20000	20028.5	Al			20155	20158.5	LA.
		20005	20030.5	1 1			20160	20160.5	Al
		20010	20032.5	Al			20140	20162.5	Al
		20015	20034.5	Al.	:		20165	20164.5	Al
		20025	20036.5	A1			1375	20166.5	Al
20040			20040	A3	20170			20170	A3
20045			20045	A3		21150		20175	A3
20050			20050	A3			20175	20178.5	Al
20055			20055	A3			20180	20180.5	Al
	20030		20060	A3			21400	20182.5	Al
20065		0000	20065	A3			20185	20184.5	AI.
		20035	20068.5	Al			21415	20186.5	Al
		20070	20070.5	Al	20190			20190	A3
		20060	20072.5	Al		21155		20195	A3
		200 75	20074.5	Al					

ANNEXE)
ANNEX) I

11/12

20205	2	3	4	5	1	2	3	4	5
20205				 	#	 	 		
,			20205	A3		21240		20365	A3
,	21170		20210	A3	20370			20370	A3
	21175		20215	A3			20240	20373.5	Al
	21190		20220	A3			20375	20375.5	Al
		20220	20223.5	Al			20255	20377.5	Al
		20225	20225.5	Al			20380	20379.5	Al
·		20195	20227:5	Al			20265	20381.5	Al
		20230	20229.5	Al		,	20270	20383.5	Al
		20200	20231.5	Al			20385	20385.5	A1
20235			20235	A3			20275	20387.5	Al
	21195		20240	A3			20390	20389.5	Al
20245			20245	A3			20325	20391.5	Al
20250			20250	A3	20395			20395	A3
1	ore-free d	hannel-	20255	A3	20400			20400	A3
1	canal li	lbre			20405			20405	A3
20260			20260	A3	20410			20410	A 3
	21205		20265	A3	20415		·	20415	A3
	21210		20270	A3 .		21245		20 420	A3
	21215		20275	A3	20425			20425	A3
	21220		20280	A3	20430			20430	, A3
		20280	20283.5	Al		21250		20435	A3
		20285	20285.5	Al		21255	·	20440	. A3
		20210	20287.5	Al	20445			20445	A 3
	·	20290	20289.5	Al			20335	20448.5	Al
		20215	20291.5	Al			20450	20450.5	Al
20295			20295	A3			20355	20452.5	Al
20300			20300	A3			20455	20454.5	Al
20305			20305	A3			20365	20456.5	Al
20310			20310	A3	20460			20460	A3
20315			20315	A3		21260	·	20465	A3
20320			20320	A3	204 7 0			204 7 0	A3
	21225		20325	A 3	·		20420	20473.5	A1
20330			20330	A3			20475	20475.5	Al
•	21230		20335	A3			20435	20477.5	Al
20340	,		20340	A3			20480	20479.5	Al
20345	İ		20345	A3			20440	20481.5	Al
20350			20350	A3		21275		20485	A 3
20360	21235		20355 20360	A3 A3	20490			20490	A3

ANNEXE) ANNEX) II/13 ANEXO)

1	2	3	4	5	1	2	3	4	5
20495			20495	A3	20635			20635	A3
~04//	21280		20500	A3	2000	21315		20640	A3
20505	~=		20505	A3	20645			20645	A3
20510			20510	A3		21330		20650	A3
20515			20515	A3	20655			20655	43
20520			20520	A 3		21335		20660	A3
		20465	20523.5	Al	20665			20665	A3
		20525	20525.5	Al	20670			20670	A3
	 re-free ch	annel-	20527.5	Al	·		20640	20673.5	Al
. ca	nal libre						20675	20675.5	Al
	ŕ	20530	20529.5	Al			20650	20677.5	AI
	re-free ch nal libre	annel-	20531.5	Al			20680	20679.5	A1
20535			20535	A3			20660	20681.5	Al
	21285		20540	A3	20685			20685	A3
20545			20545	A3	20690	*	•	20690	A3
~~~		20485	20548.5	Al		21340		20695	A3
		20550	20550.5	Al	20700			20700	A3
		20500	20552.5	A1		21345		20705	A3
		20555	20554.5	Al	′	21365		20710	A3
		20540	20556.5	Al		21380		20715	<b>A</b> 3
20560		•	20560	A3	20720			20720	A3
	21295		20565	A3	,	21385		20725	A3
205 <b>7</b> 0			20570	A3	20730	,		20730	A3
20575			20575	<b>A</b> 3	20735			20735	A3
•	21300		20580	A3		21390		20740	A3
20585			20585	A3	20745			20745	A3
20590			20590	A3	20750			20750	A3 A3
20595		•	20595	A3	20755		2077 0	20755	A1
	21310		20600	A3			20710 20760	20758.5 20760.5	A1
20605			20605	A3			20700 207 <b>1</b> 5	20762.5	A1
		20565	20608.5	Al			20715	20762.5	Al
		20610	20610.5	Al			20725	20766.5	A1
		20580	20612.5	AJ.	20770		20125	20770	A3
		20615	20614.5	Al	20775			20775	A3
		20600	20616.5	Al	20780		,	20780	<b>A3</b>
20620		•	20620	A3	20785			20785	43
20625			20625	A3	20790			20 <b>79</b> 0	A3.
20630			20630	A3	20170			~~,,,	, <del></del> )
	1			, 1		•	-		

ANNEXE)
ANNEX ) II/14
ANEXO )

							<u> </u>		
1	2	3	4	5	1	2	3	4	5
	21395		20795	A3	20955			20955	A3
20800			20800	A3	20960			20960	A3
20805			20805	A3		21435		20965	A3
	21405		20810	A3	20970			20970	A3
•	21410		20815	A3		21440		20975	A3
20820			20820	A3	·		20975	20978.5	Al
20825			20825	A3			20980	20980.5	Al
20830			20830	A3			20890	20982.5	Al
	_	20740	20833.5	Al			20985	20984.5	A1
•	•	20835	20835.5	Al.			20965	20986.5	IA .
		20795	20837.5	Al	20990			20990	A3
		20840	20839.5	Al		2 <b>1</b> 445		20995	A3
		20810	20841.5	Al			20995	20998.5	Al
20845			20845	A3					·
20850			20850	A3					
20855			20855	A3					·
20860			20860	A3	<u> </u>				
20865			20865	A3			•		
	21420		20870	A3					
20875		· v.	20875	A3					
20880			20880	A3					
20885			20885	A3					
	21425		20890	A3					
20895			20895	A3					
20900			20900	A3					
20905			20905	A3					
20910			20910	A3					
20915			20915	A3					
20920			20920	A3					
20925			20925	A3					
20930			20930	A3					
20935			20935	A3					
	21430		20940	A3					
		20940	20943.5	Al					
		20945	20945.5	Al					
		2081.5	20947.5	Al					
		20950	20949.5	.Al.					
	,	20870	20951.5	Al					
			1		ı				

- 104 -

ANNEX III

### Fixed services

	Date of notifica-		abbreviation	ł	Number of registra-		Type of	Frequency to be	cal order the	The abbreviated names of the countries concerned	
Frequency	tion of the freq- uency for the sta- tion men- tioned in column 5 of the Berne List	uency into use by the station mentioned in column 5 of the Berne List	of the noti- fying country	types of emission	tions	for of	channe l	assigned to the channel	dates which, at a later stage, are to be mentioned in column 2a or 2b of the NEW frequency list	Whose emis- sions will remain in the channel in question	-
1	2	3	. 4	5	6	7	8	9	10	11	12
										·	:

ANNEXE) ANNEX ) III/2 ANEXO )

1	2	3	4	5	6	7	8	9	10	11	12
18028 18030 " " " " " 18028 18030	23.3.44 31.10.46 8.10.45 8.10.45 21.10.38 11. 2.36 1.12.31 16.10.46 22.2.48 25.7.50	? 31.1.46 ? ? 21.10.38 1938 1938 3.1.46 17.10.47 8. 3.44	Mar F Aust Equa Equa Peru URSS URSS USA F URSS	Al.2. Al ? ? Al.3. ? Al.2.3. Al Al	5	2	Al	18031.5	21.10.38 1938 1938 16.10.46 31.10.46 22.2.48 25.7.50 ?	URSS USA Aust F Mar F Equa Equa	Peru URSS URSS
17175 " 17173 17175 17176	5.3.45 18.8.42 10.3.47 21.4.47 22.7.50	17.8.43 14.8.42 ? 1.4.47 7.9.42	B F Tim P Som F URSS	Al.2.3. ? Al.2.3. Al.3.	2	3	А3	18035	18.8.42 5.3.45 21.4.47 22.7.50	F B Som F URSS Tim P	
18040 "" " " 18042.5 18042.2	17.11.28 10.9.33 4.3.38 28.2.49 16.5.30 17.9.42 25.7.50	17.12.28 1938 5.6.47 6.12.48 14.10.29 1.6.42 8.2.45	G URSS Chin G USA S URSS	A3 A1.2.3. A1 A3 A1.2.3.4. F1.4 A1 S.A1.3	2	4	<b>A</b> 3	18040	17.12.28 16.5.30 1938 17.9.42 5.6.47 28.2.49 25.7.50	G USA URSS S Chin G URSS	
17185 "" "" "17182.6 17187.2	5.3.45 5.7.47 5.7.47 ? 28.2.49 13.10.49 12.8.50 22.7.50	7.9.43 1.1.46 1.1.46 ? (1949) 8.47 ? 6.8.43 15.7.44	B Cana Cana Ind P Kong URSS Thai URSS URSS	Al Al ? Al Al.2.3. Al Al.3 Al.3	5	3	А3	18045	5.3.45 5.7.47 5.7.47 13.10.49 (1949) 22.7.50 22.7.50	B Cana Cana URSS Kong URSS URSS URSS Thai Ind P	

										-	
1	2	3	4	5	6	7.	8	9	10	11	12
17190 " " " 17192.3	30.12.30 9.12.34 26.9.49 2.10.47 26.9.49 22.7.50	2.31 1938 1.8.47 1.1.48 ?	Dnk URSS Aust Chin Aust URSS	Al.2.3. Al.2.3. Al.3. Al Fl Al.3.	1	4	А3	18050	2.31 1938 1.1.48 26.9.49 22.7.50	Dnk URSS Chin Aust URSS Aust	
17195 " " " " 171,97•4	5.3.45 21.11.42 2.10.47 10.9.47 12.12.47 13.10.49 22.7.50	7.9.45 1.12.42 1.1.48 1.11.46 31.10.47 9.47 27.1.49	B F Chin G G URSS URSS	Al Al.2.3. Al.3. Al.2.3. A2 Al.3.	1	5	А3	18055	1.12.42 7.9.45 10.9.47 12.12.47 1.1.48 13.10.49 22.7.50	F B G G Chin URSS URSS	
17200 11 11 11 11 11 11	12.12.38 9.12.34 16.10.46 19. 2.30 16.10.46 2.10.47 15. 4.47 30. 3.49 15. 4.47 8. 6.50	1.9.39 1938 1.2.45 av.1928 1.2.45 1.1.48 6.2.47 1945 6.2.47 (1951/3)	D URSS  USA USA USA Chin Hawa Inde USA Egyp	Al.2. Al.2.3. Al.2.3. Al.2. Al Al.2.3. Al.3.4. Fl	3	4	А3	18060	19.2.30 1938 1.9.39 16.10.46 16.10.46 15. 4.47 1. 1.48 30. 3.49 (1951/3)	USA URSS D USA USA Hawa USA Chin Inde Egyp	
18065 18062.7 18067.3	22.11.34 30. 7.49 25. 7.50 25. 7.50 21. 7.50 25. 7.50	1.11.34 8.49 17.2.41 7.9.42 3.1.45 17.12.44	Holl Inde URSS URSS URSS URSS	Al.3.4 Al.2.3.4. Al.3. Al.3. Al.3.	_	4	A3	18065	22.11.34 8.49 21.7.50 25.7.50 25.7.50 25.7.50	Holl Inde URSS URSS URSS URSS	

ANNEXE)	•
ANNEX )	III/4
ANEXO )	

ì	2	3	4	5	6	7	8	9	10	11	12
18070 "" "" ""	31.10.46 16.10.46 4.10.29 9.12.34 31. 3.48 13.10.49	21.7.44 6.5.44 15.3.30 1938 7.6.47 3.47	Aust B/USA Holl URSS Chin URSS	Al.3 Al Al.3.4 Al.2.3. Al Al.2.3.4.	2	3	A3	18070	15.3.30 1938 16.10.46 31.10.46 31. 3.48 13.10.49	Holl URSS B/USA Aust Chin URSS	-
18075 " 18072.6 18077.2	31.10.46 22.11.34 30. 5.50 25. 7.50 25. 7.50	29.1.46 1.11.34 18.5.50 27.1.42 20.8.45	Aust Holl IO Br URSS URSS	A4 A1.3.4. A3 A1.3. A1.3.		5	А3	18075	22.11.34 31.10.46 30. 5.50 25. 7.50 25. 7.50	Holl Aust IO Br URSS URSS	

Extracts from the letters of those Administrations who, in reply to the invitation of Resolution 200, have made reference to paragraph c) of this Resolution without, however, submitting specific proposals.

# UNION OF SOUTH AFRICA

(E	xtract of le	tter 32/4-	-8/50 of A	December	1950)		***
• • • •	• • • • •		• • • •	• • • • •	• • •	• • •	•
	•		•	*			
	e following						
South A	frica in rep	ly to the	invitation	on of the	Resolu	tion 2	00.
				•			
• • • •			• • • •	• • • •	• • •	• • •	• •
(c) No	proposal.				•		
						•	
	•••••	• • • •		• • • •	• • • •	• • •	• •

#### AUSTRALIA

(Extract of letter G315/8/7 of 18th January 1951)

In connection with sub-paragraph c) regarding proposals relating to new methods of bringing into effect those parts of the Atlantic City Table for which the Conference seems unlikely to establish a frequency list, this important matter was made the subject of very careful consideration by representatives of the various Australian operating enterprises who examined several proposals aimed at providing a satisfactory solution.

Although preferring a continuation of a planned approach this Administration would be prepared, in the light of the position obtaining at the Extraordinary Conference, to consider the recommendations of the I.F.R.B. or to investigate any method or plan which shows promise of production of a satisfactory list.

It is regretted that, at this juncture, we are unable to offer any proposal concerning new methods of solving the problem.

#### FINLAND

(Extract of letter V.5139 of 29 January 1951)

I have nothing to propose concerning new methods of bringing into effect those parts of the Atlantic City Table for which the Extraordinary Administrative Radio Conference is unlikely to establish a frequency list.

#### ITALY

(Extract of letter No. U.7/119.9-D of 3 March 1951)

With reference to Administrative Council Resolution No. 200, relative to preparations for the Extraordinary Administrative Radio Conference, I have the honour to inform you that the Italian Administration has no proposals to make regarding new means whereby the Atlantic City Frequency Allocation Table might be brought into operation.

The Italian Administration does, however, think that in any case, no matter what method be adopted, the new frequency list should be prepared by the Conference itself while it is in session.

## PAGE INTENTIONALLY LEFT BLANK

### PAGE LAISSEE EN BLANC INTENTIONNELLEMENT