



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 نقلًا.

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.

I.F.R.B.

RULES OF PROCEDURE

Third edition

1965

International Telecommunication Union

Geneva



I.F.R.B.

1st October, 1965

Geneva

RULES OF PROCEDURE OF THE I.F.R.B.

Third edition

Subject : Treatment, technical examination and Findings in respect of notices of frequency assignments according to the procedure prescribed in Articles 9 and 9A of the Radio Regulations.



		<u>Page</u>
<u>CHAPTER A</u>	<u>INTRODUCTION</u>	1 A
A.5	DOCUMENTATION AND MATERIAL TO BE USED	4 A
A.5.1	Technical Standards	4 A
A.5.2	Working Sheets (WS)	5 A
A.6	USE OF THE ELECTRONIC COMPUTER	6 A
<u>CHAPTER B</u>	<u>ADMINISTRATIVE PROCEDURES CONCERNING THE TREATMENT OF NOTICES OF FREQUENCY ASSIGN- MENTS ACCORDING TO THE PROVISIONS OF ARTICLES 9 AND 9A OF THE RADIO REGULATIONS</u>	
	<u>SECTION 1 (Article 9)</u>	1 B
B.1	FREQUENCY ASSIGNMENT NOTICES FOR WHICH THE PROVISIONS OF ARTICLE 9 ARE APPLICABLE	1 B
B.2	FREQUENCY ASSIGNMENT NOTICES FOR WHICH THE PROVISIONS OF ARTICLE 9 ARE NOT APPLICABLE	2 B
B.3	SPECIAL COMMENTS OR REQUESTS BY ADMINISTRATIONS	3 B
B.4	SPECIAL FREQUENCIES PRESCRIBED BY THE RADIO REGULATIONS	4 B
B.5	FREQUENCIES ABOVE 28,000 KC/S USED IN A SPECIFIC AREA BY NUMEROUS STATIONS	4 B
B.6	ADVANCE NOTICES	4 B
B.9	NOTICES RECEIVED BY THE BOARD MORE THAN 30 DAYS AFTER THE NOTIFIED 2c DATE	5 B

		<u>Page</u>
B.10	INCOMING NOTICES	5 B
B.12	INCOMPLETE NOTICES	6 B
B.13	RE-SUBMISSIONS	6 B
B.14	"WITHDRAWAL" OF NOTICES	7 B
B.15	OBJECTIONS AND REQUESTS FOR REVIEW	8 B
B.16	CANCELLATIONS	8 B
B.17	RESTORATION OF CANCELLED FREQUENCY ASSIGNMENTS IN THE MASTER REGISTER	8 B
B.20	WEEKLY I.F.R.B. CIRCULAR	9 B
B.28	PRELIMINARY EXAMINATION OF NOTICES	10 B
B.59	ESTABLISHMENT OF THE WORKING SHEETS	20 B
B.65	GENERAL INSTRUCTIONS CONCERNING THE ESTABLISHMENT OF PUNCHED CARDS	22 B
B.67	ROUTING OF FOLDERS	23 B
B.72	CHANGES IN NON-BASIC CHARACTERISTICS OF ASSIGNMENTS ALREADY RECORDED IN THE MASTER REGISTER	23 B
B.73	BAND-EDGE AND OVERLAPPING ASSIGNMENTS	24 B
B.74	ADMINISTRATIVE PROCEDURE DURING THE TECHNICAL EXAMINATION	24 B
B.84	NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE EUROPEAN BROADCASTING CONVENTION OF COPENHAGEN, 1948, OR THE EUROPEAN REGIONAL CONVENTION FOR THE MARITIME MOBILE RADIO SERVICE OF COPENHAGEN, 1948	26 B
B.86	NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE GENEVA REGIONAL AGREEMENT (1960) FOR THE USE OF FREQUENCIES BETWEEN 68 AND 73 MC/S AND 76 AND 87.5 MC/S BY THE BROADCASTING SERVICE ON THE ONE HAND, AND BY THE FIXED AND MOBILE SERVICES ON THE OTHER	30 B

B.88	NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE REGIONAL AGREEMENT FOR THE EUROPEAN BROADCASTING AREA, STOCKHOLM, 1961	30 B
B.90	NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE REGIONAL AGREEMENT FOR THE AFRICAN BROADCASTING AREA, GENEVA, 1963	31 B
B.100	INVESTIGATION PROCEDURE	33 B
B.143	RECORDING INTO THE MASTER REGISTER OF ASSIGNMENTS APPEARING IN THE HIGH FREQUENCY BROADCASTING SCHEDULES	46 B
B.150	RECORDING INTO THE MASTER REGISTER AND PROMULGATION OF FINDINGS	48 B
B.157	REVIEW OF FINDINGS	50 B
B.158	CANCELLATION OF ENTRIES IN THE MASTER REGISTER	50 B
B.165	REVIEW OF ENTRIES IN THE MASTER REGISTER	51 B
B.168	STUDIES AND RECOMMENDATIONS	52 B
	<u>SECTION 2 (Article 9A)</u>	53 B

		<u>Page</u>
<u>CHAPTER C</u>	<u>TECHNICAL PROCEDURE APPLICABLE IN THE FREQUENCY BANDS BETWEEN 3950 KC/S (4000 KC/S IN REGION 2) AND 28 000 KC/S, EXCEPT IN THE FREQUENCY BANDS ALLOCATED EXCLUSIVELY TO THE AERONAUTICAL MOBILE SERVICE OR TO THE MARITIME MOBILE SERVICE</u>	1 C
C.1	CO-ORDINATION	1 C
C.2	TECHNICAL EXAMINATION	1 C
C.2.1	Checking of the preliminary examination	1 C
C.2.2	Selection of assignments likely to be affected	1 C
C.3	UTILISATION OF FORMS WS 3 AND WS 1	2 C
C.3.1	Information to be entered	2 C
C.3.2	Information in Column 5b	2 C
C.3.3	Information in Column 9	3 C
C.3.3.1	Circuits of less than about 1000 km	3 C
C.3.3.2	Transmitting antenna gain of the existing assignment (TAG)	3 C
C.3.3.3	Transmitting antenna gain of the new or amended assignment for the interference path	4 C
C.3.3.3.1	Case of a directional antenna	4 C
C.3.3.3.2	Case of a non-directional antenna	6 C
C.3.3.4	Receiving antenna discrimination of the existing assignment (RAD)	7 C
C.3.4	Information in Column 10	8 C
C.3.5	Drawing of the field strength curves and MUF values on WS 1	9 C

		<u>Page</u>
C.4	APPLICATION OF T.S. A-2 IN ESTABLISHING THE MINIMUM VALUE OF FIELD STRENGTH TO BE PROTECTED	17 C
C.4.1	FX point-to-point circuits	17 C
C.4.2	Broadcasting Service or Services where a service area or range is indicated, except meteorological broadcasts (see paragraph C.4.3) and press broadcasts (see paragraph C.4.4)	18 C
C.4.3	Meteorological broadcasts where a service area or range is indicated	19 C
C.4.4	Press broadcasts where a service area or range is indicated	21 C
C.5	APPLICATION OF T.S. A-3 IN ESTABLISHING THE RECEIVER DISCRIMINATION	22 C
C.6	APPLICATION OF T.S. A-1 IN ESTABLISHING THE MINIMUM SIGNAL/INTERFERENCE PROTECTION RATIO REQUIRED	26 C
C.6.1	Definition	26 C
C.6.2	Signal/interference protection ratio required for an existing assignment with a single type of transmission	26 C
C.6.2.1	A1, A2 telegraphy	26 C
C.6.2.2	F1 telegraphy	28 C
C.6.2.3	Telephony	28 C
C.6.3	Signal/interference protection ratio required for an existing assignment with more than one class of emission or type of transmission (see also C.6.4)	29 C
C.6.4	Signal/interference protection ratio required for an existing assignment with two or more 3 kc/s baseband channels	30 C

		<u>Page</u>
C.6.4.1.1	Application of the principle represented by symbol "OOCA" in the case of new assignments	31 C
C.6.4.1.2	Application of the principle represented by symbol "OOCA" in the case of an amendment to an existing assignment	31 C
C.6.5	Examination of new notices with more than one class of emission or type of transmission	32 C
C.6.6	Auroral absorption (AA)	34 C
C.7	INTERPRETATION OF MEDIAN MUF/LUF VALUES IN RELATION TO THE PROBABILITY OF THE USE OF THE FREQUENCY OF AN ASSIGNMENT	34 C
C.7.2	Periods where the assigned frequency is "normally usable" for the circuit concerned	35 C
C.7.3	Skip on the Interference Path	38 C
C.7.4	Application of the "LtCT" procedure	39 C
C.7.4.1	FX and FB Services	39 C
C.7.4.2	Tropical Broadcasting Service	40 C
C.8	APPLICATION OF THE PRINCIPLE REPRESENTED BY SYMBOL "AASA"	40 C
C.9	APPLICATION OF THE PRINCIPLES REPRESENTED BY SYMBOL "AVLP" AND "AASA-AVLP"	42 C
C.10	PROTECTION REQUIRED FOR EXISTING ASSIGNMENTS OF CERTAIN TYPES	43 C
C.10.1	Protection of existing assignments with receiving points located in the territory of the Administration submitting a new notice	43 C

C.10.2	Protection of existing assignments in the Fixed (FX) and Land Mobile (FB) Services notified with more than one locality of reception or a region (including networks but excluding press or meteorological broadcasts) (SPR)	44 C
C.10.3	Protection of existing assignments notified for occasional use (Remark No. 103 in Column 13c)	45 C
C.10.4	Protection of existing assignments with emissions which spread into a non-appropriate band (Remark 116 in Column 13b)	46 C
C.10.5	Protection of existing assignments for services affected by "ground wave" propagation in the frequency bands above 14 350 kc/s	47 C
C.10.6	Protection of existing assignments concerning stations in the permitted services (No. 138 of the Radio Regulations)	47 C
C.10.7	Protection of existing assignments concerning stations in the secondary services (No. 139 of the Radio Regulations)	48 C
C.10.8	Protection of existing assignments to coast stations in the bands allocated to the maritime mobile service and shared with other services	48 C
C.10.9	Protection of existing assignments to Aeronautical OR stations in the bands between 3 950 kc/s (4 000 kc/s in Region 2) and 28 000 kc/s which are shared by the Aeronautical Mobile OR Service and other services	48 C
C.11	EXAMINATION OF NEW NOTICES OF CERTAIN TYPES	51 C
C.11.1	New notices for assignments notified as amending or replacing collective listings for mobile stations	51 C

		<u>Page</u>
C.11.2	New notices for assignments to standard frequency stations	52 C
C.11.3	New notices for assignments notified as being in occasional use	52 C
C.11.4	New notices concerning assignments not in conformity with the provisions of No. 501 of the Radio Regulations, including assignments with emissions which spread into a non-appropriate band	53 C
C.11.5	New notices for services effected by "ground wave" propagation in the frequency bands above 14 350 kc/s	54 C
C.11.6	New notices of restoration of frequency assignments previously cancelled	54 C
C.11.7	New notices concerning stations in permitted services (No. 138 of the Radio Regulations)	55 C
C.11.8	New notices concerning stations in secondary services (No. 139 of the Radio Regulations)	55 C
C.11.9	New notices for frequency assignments to Aeronautical OR stations in the bands between 3 950 kc/s (4 000 kc/s in Region 2) and 28 000 kc/s which are shared by the Aeronautical Mobile OR Service and other services	56 C

		<u>Page</u>
<u>CHAPTER D</u>	<u>TECHNICAL PROCEDURE APPLICABLE IN THE FREQUENCY BANDS BETWEEN 10 KC/S AND 2850 KC/S, 3155 KC/S AND 3400 KC/S, 3500 KC/S AND 3950 KC/S (4000 KC/S IN REGION 2)</u>	1 D
D.1	CO-ORDINATION	1 D
D.2	TECHNICAL EXAMINATION	1 D
D.2.1	Checking of the preliminary examination	1 D
D.2.2	Selection of assignments likely to be affected	1 D
D.3	USE OF FORMS WS 5	2 D
D.3.1	Information to be entered	2 D
D.3.2	Information in Column 5b	2 D
D.3.3	Information in Column 9	2 D
D.3.4	Information in Column 10	2 D
D.3.5	Tables of field strengths to be used	3 D
D.3.6	Field-strength values (above 3 500 kc/s)	4 D
D.4	APPLICATION OF T.S. A-2 IN ESTABLISHING THE MINIMUM FIELD STRENGTH TO BE PROTECTED	4 D
D.4.2	Fixed point-to-point circuits	4 D
D.4.3	Circuits other than fixed point-to-point (FB, FC, etc., where the protection is required in an area, notified or not, instead of any specified point), except broadcasting and non-directional radio-beacons	6 D
D.4.4	Broadcasting	9 D

		<u>Page</u>
D.4.5	Non-directional radiobeacons	10 D
D.4.6	Meteorological or press broadcasts when a reception area or useful range is indicated (above 3 500 kc/s)	13 D
D.5	APPLICATION OF T.S. A-3 IN ASSESSING THE RECEIVER DISCRIMINATION	13 D
	TABLE OF PASS-BAND OF THE RECEIVER OF THE WANTED EMISSION (RANGE 10 - 3950 KC/S)	15 D
D.6	APPLICATION OF T.S. A-1 IN ASSESSING THE MINIMUM SIGNAL/INTERFERENCE PROTECTION RATIO REQUIRED	18 D
D.6.1	Definition	18 D
D.6.2	Signal/interference protection ratio required for an existing assignment with a single type of transmission (frequencies below 3400 kc/s)	19 D
D.6.2.1	A1, A2 telegraphy (between 1605 kc/s and 3400 kc/s)	19 D
D.6.2.2	F1 telegraphy (between 1605 and 3400 kc/s)	20 D
D.6.2.3	Telephony (between 1605 kc/s and 3400 kc/s)	20 D
D.6.3	Signal/interference protection ratio required for an existing assignment with more than one class of emission or type of transmission (between 10 kc/s and 3400 kc/s)	21 D
D.6.4	Signal/interference protection ratio required for an existing assignment with two or more 3 kc/s base band channels	22 D
D.6.4.1.1	Application of the principle represented by symbol "OOCA" in the case of new a new assignment	22 D

		<u>Page</u>
D.6.4.1.2	Application of the principle represented by symbol "OOCA" in the case of an amendment to an existing assignment	23 D
D.6.5	Examination of new notices with more than one class of emission or type of transmission (between 10 kc/s and 3400 kc/s)	24 D
D.7	APPLICATION OF THE PRINCIPLE REPRESENTED BY SYMBOL "LtCT"	25 D
D.8	APPLICATION OF THE PRINCIPLE REPRESENTED BY THE SYMBOL "AASA"	26 D
D.9	APPLICATION OF THE PRINCIPLE REPRESENTED BY SYMBOLS "AVLP" AND "AASA-AVLP"	28 D
D.10	PROTECTION REQUIRED FOR EXISTING ASSIGNMENTS OF CERTAIN TYPES	29 D
D.10.1	Protection of existing assignments with receiving points in the territory of the Administration submitting a new notice	29 D
D.10.2	Protection of existing assignments in the Fixed (FX) Land Mobile (FB) and Maritime Mobile (FC) Services notified with more than one locality or region of reception or a region (including networks, but excluding press or meteorological broadcasts) (SPR)	29 D
D.10.3	Protection of existing assignments notified for occasional use (Remark 103 in Column 13c)	31 D
D.10.4	Protection of existing assignments with emissions spreading into an inappropriate band (Remark 116 in Column 13b)	32 D
D.10.5	Protection of existing assignments concerning stations of permitted services (Radio Regulations, No. 138)	32 D

		<u>Page</u>
D.10.6	Protection of existing assignments concerning stations of secondary services (Radio Regulations, No. 139)	32 D
D.10.7	Protection of collective assignments concerning frequencies assigned to particular countries for inter-ship communications	33 D
D.10.8	Protection of collective assignments concerning frequencies assigned to particular countries for ship-shore communications	33 D
D.10.9	Protection of existing assignments to aeronautical OR stations in the bands between 2 505 kc/s and 3 950 kc/s (4 000 kc/s in Region 2) which are shared by the Aeronautical Mobile OR Service and other services	33 D
D.11	EXAMINATION OF NEW NOTICES OF CERTAIN TYPES	35 D
D.11.1	New notices for assignments notified as amending or replacing collective listings for mobile stations	35 D
D.11.2	New notices for assignments to standard frequency stations	36 D
D.11.3	New notices for assignments notified as being in occasional use	36 D
D.11.4	New notices concerning assignments not in accordance with No. 501 of the Radio Regulations, or assignments with emissions which spread into an inappropriate band	37 D
D.11.5	New notices of restoration of frequency assignments previously cancelled	38 D

		<u>Page</u>
D.11.6	New assignment notices concerning stations of permitted services (Radio Regulations, No. 138)	38 D
D.11.7	New notices concerning stations in secondary services (Radio Regulations, No. 139)	39 D
D.11.8	New notices concerning frequencies assigned by particular countries for inter-ship communications	39 D
D.11.9	New notices for frequency assignments to Aeronautical OR stations in the bands between 2 505 kc/s and 3 950 kc/s (4 000 kc/s in Region 2) which are shared by the Aeronautical Mobile OR Service and other services	40 D

<u>CHAPTER E</u>	<u>FINDINGS WITH RESPECT TO FREQUENCY ASSIGNMENT NOTICES CONCERNING FREQUENCY BANDS BETWEEN 10 AND 28 000 KC/S, WITH THE EXCEPTION OF BANDS ALLOCATED EXCLUSIVELY TO THE BROADCASTING SERVICE BETWEEN 5 950 AND 26 100 KC/S, TO THE AERONAUTICAL MOBILE SERVICE BETWEEN 2 850 AND 18 030 KC/S OR TO THE MARITIME MOBILE SERVICE BETWEEN 4 000 AND 28 000 KC/S</u>	1 E
E.1	GENERAL	1 E
E.2	PARTIAL FINDINGS	2 E
E.3	OVERALL FINDING	3 E
E.3.1	Unfavourable findings as a result of which the assignment is not recorded in the Master Register and the notice is returned to the notifying Administration	3 E
E.3.1.1	Finding represented by symbols B and X	3 E
E.3.1.2	Finding represented by symbols B and X and accompanied by the remark represented by symbol 518	4 E
E.3.1.3	Finding represented by symbols B and X and accompanied by the remark represented by symbol 535	5 E
E.3.1.4	Finding represented by symbols D and X	5 E
E.3.1.5	Finding represented by symbols D and X and accompanied by the remark represented by symbol 535	5 E
E.3.1.6	Finding represented by symbols D, B and X	6 E
E.3.2	Findings as a result of which the notice is recorded in the Master Register and the assign- ment concerned is taken into account during the examination of frequency assignment notices subsequently received	7 E

		<u>Page</u>
E.3.2.1	Favourable Finding represented by symbol A in column 13a and unaccompanied by the remark represented by symbol A in column 13b	7 E
E.3.2.2	Finding represented by symbol E in column 13a and accompanied by the remark represented by symbol C in column 13c, followed by a date	8 E
E.3.2.3	Finding represented by symbol A in column 13a and accompanied by the remark represented by a symbol A in column 13b (Qualified Favourable Finding, referred to as an "AA Finding" see No. 511 of the R.R.)	10 E
E.3.2.4	Unfavourable Finding represented by symbol B in column 13a and accompanied by the remarks represented by symbol 515 in column 13b, and by symbol B in column 13c, followed by a date	13 E
E.3.2.5	Unfavourable Finding represented by symbol B in Column 13a and accompanied by the remarks represented by symbols B and 515 in Column 13b and by symbol B in Column 13c, followed by a date	14 E
E.2.6	Finding represented by symbol B in Column 13a, accompanied by symbol C in Column 13c, followed by a date	15 E
E.3.2.7	Unfavourable Finding represented by symbols C and V in Column 13a	16 E
E.3.2.8	Finding represented by symbol D in Column 13a and accompanied by the remark represented by symbol 116 in Column 13b - Only the section of the assignment located in the appropriate frequency band shall be taken into account during the examination of notices subsequently received	17 E
E.3.3	Findings as a result of which the notice is recorded in the Master Register and the assignment concerned is not taken into account during the examination of notices subsequently received	18 E

		<u>Page</u>
E.3.3.1	Finding represented by the symbol DA in column 13a and accompanied by the remarks represented by symbols D and 525 in column 13b and symbol 115 in column 13c	20 E
E.3.3.2	Finding represented by symbol DA (column 13a) and accompanied by the remarks represented by symbols D, A and 525, in column 13b, and symbol 115, in column 13c	20 E
E.3.3.3	Finding represented by symbol DB in column 13a and accompanied by the remarks represented by symbols D and 526 in column 13b, and symbols B and 115 in column 13c	21 E
E.3.3.4	Finding represented by symbol DA in column 13a and accompanied by the remarks represented by symbols D and 530 in column 13b	21 E
E.3.3.5	Finding represented by symbol DA (column 13a) and accompanied by the remarks represented by symbols D, A and 530 (column 13b)	22 E
E.3.3.6	Finding represented by symbol DB (column 13a) and accompanied by the remarks represented by symbols D and 531 (column 13b) and symbol B (column 13c)	23 E
E.3.3.7	Finding represented by symbols C and X (column 13a) and accompanied by the remark represented by symbol X (column 13c)	23 E
E.3.3.8	Finding represented by symbol T (column 13a) and accompanied by the remark represented by symbol T (column 13c)	24 E
E.3.3.9	Finding represented by symbol Y (column 13a) and accompanied by the remark represented by symbol Y (column 13c)	24 E
E.4	CLASSIFICATION OF THE RESULTS OBTAINED IN APPLYING THE TECHNICAL PROCEDURE	24 E

E.5	FINDING ISSUED WITH RESPECT TO A NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	26 E
E.5.1	Case in which the Master Register already contains one or more assignments of the administration which has submitted the new frequency assignment notice (AASA) which either bear no finding symbol in column 13a or bear symbol A in that column (whether accompanied or not by symbol A in column 13b) or symbol E (accompanied by symbol C in column 13c)	26 E
	TABLE 1 - 3,950 KC/S (4,000 KC/S IN REGION 2) - 28,000 KC/S - NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	27 E
	TABLE 2 - 10 KC/S - 3,950 KC/S (4,000 KC/S IN REGION 2) NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	31 E
E.5.2	Case in which the principle represented by the symbol "AASA" is not applicable	34 E
E.6	FINDING ISSUED WITH REGARD TO A CHANGE IN THE BASIC CHARACTERISTICS OF AN EXISTING "AA", "B", OR "CV" ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS OR OF AN ASSIGNMENT THAT IS IN ACCORDANCE WITH THESE PROVISIONS AND WHICH EITHER HAS NO FINDING SYMBOL IN COLUMN 13a AND NO DATE IN COLUMN 2a, OR HAS SYMBOL E IN COLUMN 13a	35 E
E.6.1	Amendment to the basic characteristics of an existing assignment that has been the subject of a finding represented by the symbol A in column 13a and accompanied by the remark represented by the symbol A in column 13b ("AA" assignment)	35E

	<u>Page</u>	
E.6.2	Amendment to the basic characteristics of an existing assignment which has been given a finding represented by symbols B or C and V in column 13a	36 E
E.6.3	Amendment to the basic characteristics of an existing assignment either has no finding symbol in column 13a and no date in column 2a, or has symbol E in column 13a	38 E
E.7	FINDING ISSUED WITH REGARD TO AN AMENDMENT TO THE BASIC CHARACTERISTICS OF AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	39 E
	TABLE 3 - 3,950 KC/S (4,000 KC/S IN REGION 2) - 28,000 KC/S - AMENDMENT TO AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	40 E
	TABLE 4 - 10 KC/S - 3,950 KC/S (4,000 KC/S IN REGION 2) - AMENDMENT TO AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS	65 E
E.9	FINDINGS ISSUED WITH RESPECT TO NEW NOTICES CONCERNING ASSIGNMENTS TO STANDARD FREQUENCY STATIONS	90 E
E.10	FINDINGS ISSUED WITH RESPECT TO NEW NOTICES CONCERNING ASSIGNMENTS TO AERONAUTICAL STATIONS OR STATIONS IN THE BANDS BETWEEN 2 505 KC/S AND 28 000 KC/S WHICH ARE SHARED BY THE AERONAUTICAL MOBILE (OR) SERVICE AND OTHER SERVICES	90 E

		<u>Page</u>
<u>CHAPTER F</u>	<u>TECHNICAL PROCEDURE FOR THE AERONAUTICAL MOBILE SERVICE EXCLUSIVE BANDS BETWEEN 2,850 KC/S AND 18,030 KC/S AND FINDINGS</u>	1 F
F.1	CO-ORDINATION	1 F
F.2	TECHNICAL EXAMINATION	1 F
F.2.1	Checking of the preliminary examination	1 F
F.2.2	Selection of assignments likely to be affected	2 F
F.3	TECHNICAL STANDARDS	3 F
F.4	USE OF TECHNICAL STANDARDS - AERONAUTICAL MOBILE R SERVICE	3 F
F.5	USE OF TECHNICAL STANDARDS - AERONAUTICAL MOBILE OR SERVICE	5 F
F.6	ENTRY OF NOTICES IN THE MASTER REGISTER	5 F
F.6.1	Stations of the Aeronautical Mobile R Service in the bands exclusively allocated to this service	5 F
F.6.2	Stations of the Aeronautical Mobile OR Service in the bands exclusively allocated to this service	6 F
F.6.3	Stations operating in derogation of the Radio Regulations	7 F
F.7	TREATMENT OF FREQUENCY ASSIGNMENTS TO AERO- NAUTICAL OR STATIONS IN THE BANDS ABOVE 2505 KC/S WHICH ARE SHARED BY THE AERONAUTICAL MOBILE OR SERVICE AND OTHER SERVICES	8 F

		<u>Page</u>
<u>CHAPTER G</u>	<u>TECHNICAL PROCEDURE APPLICABLE IN THE FREQUENCY BANDS ALLOCATED EXCLUSIVELY TO THE MARITIME MOBILE SERVICE BETWEEN 4,000 KC/S AND 28,000 KC/S, AND FINDINGS</u>	1 G
G.1	CO-ORDINATION	1 G
G.2	TECHNICAL EXAMINATION	1 G
G.2.1	Checking of the preliminary examination	1 G
G.2.2	Selection of assignments likely to be affected	2 G
G.3	TECHNICAL STANDARDS	4 G
G.3.1	Technical Standard E-1	4 G
G.4	EXAMPLE I : To determine the probability of harmful interference caused by a new coast station B to ship stations receiving transmissions from an existing coast station A	5 G
G.4.1	Limit of the service range of station A at any particular time	6 G
G.4.2	Determination of the interference field strength of station B	8 G
G.4.3	Determination of the area in which harmful interference is probable	8 G
G.4.4	Finding	11 G
G.5	EXAMPLE II : Probability of harmful interference caused by a new station B to the coast station A receiving transmissions from ship stations	13 G
G.5.1	Limit of the service area of the receiving coast station at any particular time	14 G
G.5.2	Determination of the interference field strength of station B	14 G
G.5.3	Determination of the area in which harmful interference is probable	15 G
G.5.4	Finding	16 G

		<u>Page</u>
G.6	TECHNICAL EXAMINATION, IN RELATION TO FREQUENCY ASSIGNMENTS OR ALLOTMENTS TO MARITIME MOBILE STATIONS, OF NOTICES CONCERNING MODIFICATIONS TO EXISTING FREQUENCY ASSIGNMENTS	17 G
G.7	TECHNICAL EXAMINATION OF NOTICES IN RELATION TO FREQUENCY ASSIGNMENTS TO STATIONS OTHER THAN THOSE IN THE MARITIME MOBILE SERVICE	17 G
G.8	THE PROTECTION OF EXISTING ASSIGNMENTS MADE TO STATIONS OF THE MARITIME MOBILE SERVICE IN THE MARITIME MOBILE SHARED BANDS BETWEEN 4,000 KC/S AND 28,000 KC/S	18 G
G.9	ENTRY OF ASSIGNMENT NOTICES IN THE MASTER REGISTER	18 G
G.9.1	Coast radiotelephone stations	18 G
G.9.2	Coast radiotelephone stations	19 G
G.9.3	Coast radiotelegraph stations in the bands exclusively allocated to them	20 G
G.9.4	Fixed stations operating in accordance with the provisions of Nos. 208, 209 or 211 of the Radio Regulations	20 G
G.9.5	Fixed stations operating in accordance with the provisions of No. 213 of the Radio Regulations	20 G
G.9.6	Stations operating in derogation of the provisions of the Radio Regulations	20 G

		<u>Page</u>
<u>CHAPTER H</u>	<u>APPLICATION BY THE I.F.R.B. OF THE PROVISIONS OF THE FINAL ACTS OF THE E.A.R.C. SPACE (GENEVA, 1963)</u>	1 H
	Introduction	1 H
H.1	Information for co-ordination distance calculations	2 H
H.2	Methods of evaluating co-ordination distances	4 H
H.3	Additional information that would facilitate the work of the Board	5 H
<u>ANNEX 1</u>	WORKING SHEET No. 3 (3,900 - 28,000 KC/S)	
<u>ANNEX 2</u>	COMPLETION OF WORKING SHEET No. 3	
<u>ANNEX 3</u>	WORKING SHEET No. 1	
<u>ANNEX 4</u>	WORKING SHEET No. 5 (10 - 3,900 KC/S)	
<u>ANNEX 5</u>	SIGNAL/INTERFERENCE PROTECTION RATIOS : Frequency range 3,500 kc/s - 28,000 kc/s	

I.F.R.B. Geneva	1st October 1965
RULES OF PROCEDURE OF THE I.F.R.B. Third edition	
<u>Subject:</u> Treatment, technical examination and Findings in respect of notices of frequency assignments according to the procedure prescribed in Articles 9 and 9A of the Radio Regulations.	

CHAPTER A

INTRODUCTION

- A.1 In these Rules of Procedure of the I.F.R.B. are included some of the decisions adopted by the Board on administrative and technical matters relating to the treatment and technical examination of notices of frequency assignments, in accordance with the procedure prescribed in Articles 9 and 9A of the Radio Regulations. For notices relating to broadcasting stations in the bands allocated exclusively to the broadcasting service between 5 950 kc/s and 26 100 kc/s see Article 10 of the Radio Regulations.
- A.2 The material is intended as guidance to the members of the Board in applying uniform treatment to the assignments of all Administrations, when recommending Findings on the frequency assignment notices to the Board, and as instructions to the staff of the Frequency Records and Technical Examinations Department (F.R.D. and T.E.D.) for the preliminary treatment of the notices and for the preparation of the data relating to the probability of harmful interference to existing assignments

recorded in the Master International Frequency Register (Master Register).

- A.3 The staff for whom these instructions are intended should be familiar with the provisions of the Radio Regulations relating to frequency assignments (Chapter II including the Table of Frequency Allocations, Articles 9 and 9A, etc.).
- A.4 The following definitions have been laid down for the purposes of these Rules of Procedure.
- A.4.1 The term "existing assignment" means an assignment which is already recorded in the Master Register and in respect of which, in accordance with Articles 9 or 9A of the Radio Regulations, the Board should ascertain the probability of harmful interference arising from either the operation of a new assignment or from the implementation of a modification to an assignment already recorded. In other words, existing assignments are those for which the protection should be ascertained, they are the "assignments to be protected". Their signal at the receiving point is the "desired" or "wanted" signal.
- A.4.2 The term "new notice" means a notice received by the I.F.R.B. and which relates either to a new assignment or to an amendment to an existing assignment. Under Articles 9 or 9A of the Radio Regulations, the Board should examine this new notice and, in appropriate cases, reach, with respect to this notice, a Finding based on the probability of creating harmful interference to existing assignments or in respect of coordination distances. The signal of a new or amended assignment at the receiving point of an existing assignment is the "undesired" or "unwanted" signal.
- A.4.3 The "protection ratio" afforded to an existing assignment by a new or modified assignment, is the ratio, expressed in decibels, between the calculated field strengths of the "desired" and "undesired" signals.

In certain cases, as a result of technical assumptions made by the Board and specified in these Rules of Procedure, allowances should be added to this calculated protection ratio.

A.4.4 When the new notice examined by the Board relates to a new assignment, the term "affected assignment" means an existing assignment for which the calculated protection ratio, during the period of common normal use of both the existing and the new assignments, is below the figure or the lowest figure, according to the frequency range concerned, given in the appropriate column of Technical Standard A-1 on the line appropriate to the nature of the existing assignment which is affected. It is to be noted in this respect that, in view of other technical factors and of operational factors specified in these Rules of Procedure, the Finding reached with respect to an "affected assignment" may possibly not be unfavourable with respect to Nos. 502, 503 or 639AU of the Radio Regulations.

A.4.5 When the new notice examined by the Board relates to an amendment to an existing assignment the term "affected assignment" means an existing assignment, for which the calculated protection ratio, during the period of common normal use of both the existing and the amended assignments, is reduced or, if it is not reduced, the period of simultaneous use or the number of channels affected is increased as a result of the amendment and is below the figure or the lowest figure, according to the frequency range concerned, given in the appropriate column of Technical Standard A-1 on the line appropriate to the nature of the existing assignment which is affected. It is to be noted, also in this case, that in view of other technical factors and of operational factors specified in these Rules of Procedure, the Finding reached with respect to an "affected assignment" may possibly not be unfavourable with respect to the provisions of Nos. 502, 503 or 639AU of the Radio Regulations.

A.4.6 The word "period" means "time of the day during one of the four phases of solar activity DL, JL, DA and JA".

A.5 DOCUMENTATION AND MATERIAL TO BE USEDA.5.1 Technical Standards

- A-1 Signal/interference protection ratios
- A-2 Minimum field strengths to be protected
- A-3 Tables of "receiver discrimination"
- A-4 Gain of antennae
- A-5 Propagation of ground wave and sky wave for the frequency range between 10 kc/s and 3900 kc/s
- B-1 Field strength curves for circuits of more than 4,000 km in length for the frequency range 6 - 21 Mc/s (this Standard also includes median MUF indications)
- B-2 Propagation curves for distances up to 4,000 km for the frequency range 4 - 20 Mc/s (this Standard contains both field strength data and median MUF data)
 Table of field strengths for distances up to 4,000 km (these tables are derived from the basis of the curves in B-2)
 Graphs of time of normal use of frequencies between 4 and 15 Mc/s for distances up to 4,000 km (these graphs are derived from the basis of the curves in B-2)
- C-1 MUF - LUF curves for circuits of more than 4,000 km in length
- D-1 Protection curves for Aeronautical Mobile R stations

D-2 Protection curves for Aeronautical Mobile OR stations

E-1 Charts of equal field strength for the Maritime Mobile Service

Provisional Frequency Board "Blue books" (field intensity charts
for distances over 4,000 km)

Provisional Frequency Board "Brown books" (field intensity charts
for distances less than 4,000 km)

National Bureau of Standards Circular No. 462

Note : T.S. C-1, which covers actual point-to-point circuits, should be used as a check on the MUF values for more specific point-to-point circuits than those existing in T.S. B-1, and also in cases where the circuit or interference path does not exist in T.S. B-1. In cases where the required circuit or path exists neither in T.S. B-1 nor in T.S. C-1, the field strength should be calculated from the P.F.B. "Blue books".

A.5.2 Working Sheets (WS)

- No. 1 - Tracing grid for interference study to complement WS 3 when problems of MUF or contrast are involved
- No. 2 - Working sheet for entering calculations of field strength, derived from P.F.B. "Blue books"
- No. 3 - Working sheet for interference study between 3900 kc/s and 28,000 kc/s
- No. 5 - Working sheet for interference study between 10 kc/s and 3,900 kc/s

A.5.3 Radio Regulations (Geneva, 1959)

A.5.4 Booklet entitled "Classification of the Provisions of the Convention and the Radio Regulations in accordance with their application to No. 501 of the Radio Regulations"

A.5.5 Preface to the International Frequency List

A.6 USE OF THE ELECTRONIC COMPUTER

Recurrent computations which are implied in the technical procedures described in the Rules of procedure are performed, wholly or partially, as appropriate, by the electronic computer of the I.F.R.B.

CHAPTER B

ADMINISTRATIVE PROCEDURES CONCERNING THE TREATMENT OF NOTICES
OF FREQUENCY ASSIGNMENTS ACCORDING TO THE PROVISIONS
OF ARTICLES 9 AND 9A OF THE RADIO REGULATIONS
THE INFORMATION CONTAINED IN THIS CHAPTER HAS BEEN ARRANGED
IN THE SAME ORDER AS IN THE RADIO REGULATIONS

SECTION 1

Frequency assignments notified according to the provisions of

Article 9

of the Radio Regulations, with the exception of assignments to stations in the fixed or mobile service, located within co-ordination distance of an earth station, in a band which these services share with equal rights with the space service, in the frequency spectrum between one and ten Gc/s. (For latter assignments, see SECTION 2)

Provisions
of the
Radio
Regulations
B.1

Notification of frequency assignments

FREQUENCY ASSIGNMENT NOTICES FOR WHICH THE PROVISIONS OF ARTICLE 9
ARE APPLICABLE

Number 486
Number 487

The provisions of Article 9 apply to stations described in numbers 486 and 487 of the Radio Regulations with respect to notices of :

- a) new frequency assignments
- b) changes in the basic characteristics of assignments already recorded in the Master Register

- c) frequency assignments in the Master Register cancelled (in whole or in part) by Administrations, and later requested to be restored in the Master Register.

Note : The treatment of notices for changes in non-basic characteristics of frequency assignments already recorded in the Master Register is described in paragraph B.72 of the present Rules.

B.2 FREQUENCY ASSIGNMENT NOTICES FOR WHICH THE PROVISIONS OF ARTICLE 9 ARE NOT APPLICABLE

- a) Notices for frequencies prescribed by the Radio Regulations for common use by stations of a given service, such as 500 kc/s, or 2182 kc/s, frequencies of ship radiotelegraph stations operating in their exclusive high frequency bands between 4,000 kc/s and 28,000 kc/s (Appendix 15 to the Radio Regulations) etc.

See paragraph B.4.

- b) Notices for frequencies to be used for communications between mobile stations

The Radio Regulations do not provide for the notification to the I.F.R.B. of frequencies to be used for communications between mobile stations; any notice of this kind should therefore be returned to the notifying Administration.

Exception :

Intership assignments in the Regional bands notified by individual Administrations on frequencies adopted by the E.A.R.C., (Geneva, 1951), or on frequencies adopted by the E.A.R.C. for ship-to-shore

operation for the same notifying Administration, shall be recorded in the Master Register with symbol H (date) in Column 13c. Such assignments bear the symbol "*" in Column 2a.

Note : For intership frequencies in the bands between 1,605 and 3,600 kc/s in Region 1, see also Resolution No. 15.

Intership assignments notified by individual Administrations on frequencies in the Regional bands other than those mentioned above shall be entered in the Master Register leaving Columns 2a, 2b or 2d blank and with symbol HHH in Column 13c and will be published in the International Frequency List for information only.

Intership assignments on frequencies prescribed in Appendix 18 to the Radio Regulations (except 156.8 Mc/s) shall also be recorded, with symbol AP18 in Column 13b.

- c) Notices of assignments to broadcasting stations in the bands allocated exclusively to the Broadcasting Service between 5,950 kc/s and 26,100 kc/s

Such notices have to be returned to the notifying Administration for reconsideration and notification in accordance with the procedure described in Article 10 of the Radio Regulations.

B.3 SPECIAL COMMENTS OR REQUESTS BY ADMINISTRATIONS

Immediately upon receipt of a frequency assignment notice, F.R.D. (Records Section) will consider any special comment or request made by the notifying Administration in the covering letter or on the notice form,

and, if necessary, initiate the appropriate action in the form of a comment to the member concerned or in the form of a draft reply to the notifying Administration.

Number 488 B.4 SPECIAL FREQUENCIES PRESCRIBED BY THE RADIO REGULATIONS

Except for standard frequency stations and for stations operating on frequencies prescribed by Appendix 18 to the Radio Regulations, notices for specific transmitting frequencies prescribed by the Radio Regulations for common use shall be returned to the notifying Administration. These frequencies are listed in Table No. 7 of the Preface to the International Frequency List.

Number 490 B.5 FREQUENCIES ABOVE 28,000 Kc/s USED IN A SPECIFIC AREA BY NUMEROUS STATIONS

Frequency assignments notified in accordance with No. 490 of the Radio Regulations and recorded in the Master Register shall bear symbol "RR490" in Column 13c.

Number 491 B.6 ADVANCE NOTICES

In case a complete notice has been received in advance but not earlier than ninety days before the date on which it is to be brought into use, or two years when it relates to an assignment to a station in the fixed or mobile service mentioned in number 492 A of the Radio Regulations (advance notices), a mail message shall be sent to the notifying Administration advising that the Board will treat the notice in accordance with Nos. 500 to 506 or 570 AA to 570 AE of the Radio Regulations as appropriate and inviting the attention of the Administration to the need to confirm, within a period of 30 days after the notified 2c date, the actual date of putting into use. If the actual date of putting into service is notified in due time, the advice will be associated with the folder concerned and the appropriate action taken in accordance with the normal procedure. If the actual date of putting into use is not notified in due time (see number 538 or numbers 570 BF and 570 BG of the Radio Regulations), the advance notice will be

returned to the notifying Administration as a consequence of the entry in the Master Register having been cancelled according to number 539 or 570 BH of the Radio Regulations and any subsequent advice with respect to the notice will be considered as constituting a new notice which will be subject to a new examination and Finding by the Board, the date for order of consideration being that of the receipt of the advice by the I.F.R.B.

B.7 If, upon receipt of a complete notice, the notified 2c date is later than the 90th day after the date of receipt, or later than two years after the date of receipt if it relates to an assignment mentioned in number 492 A of the Radio Regulations, the notice shall be returned to the notifying Administration with the advice that the Board cannot treat it at the moment and that it should therefore be re-notified to the Board at the appropriate time.

B.8 The F.R.D. (Records Section) shall maintain a register of advance notices.

Number 492 B.9 NOTICES RECEIVED BY THE BOARD MORE THAN 30 DAYS AFTER THE NOTIFIED 2c DATE

Upon recording in the Master Register the symbol D shall be inserted by the Board in Column 13c of the Master Register (for new assignments only) against the assignments concerned.

Procedure for the preliminary examination of notices and the recording of frequency assignments in the Master Register

B.10 INCOMING NOTICES

Each notice shall be placed in a Folder G (or Folder GR for re-submitted notices) by F.R.D. (Records Section) and the front page of the folder completed as far as possible. All previous folders relating to the existing assignment for which a change of basic characteristics is now notified, shall be extracted from the folder

archives and placed inside the new Folder G (or Folder GR for re-submitted notices). The folder shall also contain any special instruction which may have to be taken into consideration in the course of the examination. In case of an advance notice, a red indicator will be attached to the folder (near the top left-hand corner).

- B.11 F.R.D. (Records Section) shall enter each notice in the G Register (or GR Register for re-submitted notices), the order in which the notice appears in the register will provide the number to be marked on the folder. The same reference number will apply to the resultant Finding. The folders will then be passed immediately to F.R.D. (Assignments Section).

Number 496 B.12 INCOMPLETE NOTICES

For incomplete notices, see paragraph B.29.

B.13 RE-SUBMISSIONS

Each notice which is a re-submission received within the delay prescribed in number 535 of the Radio Regulations shall be affixed to the front of the original Folder G, and placed together with a photo-copy of the transmittal letter inside a new Folder which will carry a GR reference number. (However, a Folder G will be established in the case of a re-submitted notice for which an unfavourable Finding with respect to number 501 of the Radio Regulations had originally been given). The GR Folder shall be completed as far as possible by the F.R.D. (Records Section); at this point particular attention is to be paid to the clear indication by the notifying Administration advising that the assignment has been in use for at least 60 days without any complaint of harmful interference having been received. Should this certification be lacking,

the appropriate standard-text mail message shall immediately be originated. The GR Folder shall then be passed to F.R.D. (Assignments Section). In the case of a re-submission under number 514 of the Radio Regulations, a blue indicator shall be attached to the folder (near the top left-hand corner).

B.14 "WITHDRAWAL" OF NOTICES

Where an Administration, having received an unfavourable Finding for all or part of a notice (of a new assignment or of modifications to an entry existing in the Master Register), communicates to the Board a notice of "withdrawal" or "cancellation" of that part of the original notice which received an unfavourable Finding, it follows that since no entry of this data was made in the Master Register, there is no cancellation to be made. In such cases the following procedure shall be followed :

- F.R.D. (Records Section) shall affix the communication inside the G or GR Folder concerned and shall enter it in the cancellation register with the note "withdrawal"; the folder shall be routed to the F.R.D. (Assignments Section);
- F.R.D. (Assignments Section) shall check the Master Register to ensure that any entry therein for the assignment in question is in conformity with the latest Finding given; specifically, to see that any part of the notice which received a favourable Finding is in fact recorded and that all data which received an unfavourable Finding are in fact not entered;

- the front page of the folder shall be dated and initialled by the processor of the F.R.D. (Assignments Section) and the folder will be returned to the F.R.D. (Records Section) for filing.

B.15 OBJECTIONS AND REQUESTS FOR REVIEW

Letters of objection or requests for review shall be sent upon receipt by F.R.D. (Records Section), together with the relevant folder(s) to the Chief of T.E.D. Where appropriate, the F.R.D. (Records Section) will prepare a new Folder G carrying the same reference number followed by "Rev".

B.16 CANCELLATIONS

See paragraph B.158.

B.17 RESTORATION OF CANCELLED FREQUENCY ASSIGNMENTS IN THE MASTER REGISTER

If an Administration cancels a frequency assignment, or some of the basic technical characteristics recorded for a frequency assignment, and later requests the I.F.R.B. that this assignment, or the particulars, be restored in the Master Register, the notice will be treated in order of receipt and will be routed to T.E.D. in the normal way. The notice will be subject to a technical examination in respect of all assignments and amendments to existing assignments which have been recorded in the Master Register between the date of cancellation and the date of receipt of the notice of restoration. (See paragraphs C.11.6 and D.11.5). However, this procedure is not applicable to the assignments which were originally recorded in the Master Register with the symbol D in Columns 13a and/or 13b, i.e. which had been the subject of an unfavourable Finding with respect to Nos. 501 or 570 AB of the Radio Regulations.

- B.18 If the Finding is favourable with respect to the examination referred to in Number B.17 above, the assignment, or the particulars, will be restored with the original date in Column 2a, 2b or 2d but will also bear the symbols P(date) and PP(date) in Column 13c, together with any other remarks which were originally included in this column.
- B.19 If an unfavourable Finding is given as a result of the examination referred to in Number B.17 above, the notice will be treated as if it were a notice of a new assignment or of an amendment to an existing assignment. The notifying Administration shall be advised as to the reasons why the restoration with the original 2a, 2b or 2d date could not be effected by the Board.

Number 497WEEKLY I.F.R.B. CIRCULAR (see also Number B.169)

- B.20 Particulars of complete frequency assignment notices received by the I.F.R.B., including notices concerning changes in basic and non-basic characteristics of existing assignments, are published in Part IA of the I.F.R.B. Circular.
- B.21 Particulars of re-submitted frequency assignment notices, following their return by the I.F.R.B. to the notifying Administration concerned as a result of unfavourable Findings, are published in Part IB of the I.F.R.B. Circular.
- B.22 Particulars of notices received by the I.F.R.B. reflecting deletions of assignments shall be published in Part IC of the I.F.R.B. Circular.
- B.23 For practical reasons in connection with the Board's work, the frequency spectrum shall be divided into three frequency blocks :

- Block A - Frequencies from 10 to 1,605 kc/s
 Frequencies from 3,900 to 7,000 kc/s and
 Frequencies from 28 to 144 Mc/s
- Block B - Frequencies from 1,605 to 2,850 kc/s
 Frequencies from 7,000 to 13,360 kc/s and
 Frequencies from 144 to 235 Mc/s
- Block C - Frequencies from 2,850 to 3,900 kc/s
 Frequencies from 13,360 to 28,000 kc/s and
 Frequencies from 235 to 40,000 Mc/s

B.24 Data relating to notices in these blocks shall be published in turn, according to the frequency notified, beginning with Block A, i.e. Block A the first week, Block B the second, Block C the third, Block A the fourth and so on. Consequently, Part I of each circular will contain, in principle, notices for a given block received over a period of three weeks.

B.25 The date of receipt (day and month) of the notice by the I.F.R.B. shall be indicated in the column headed "R" appearing in Parts IA and IB after Column 13c.

B.26 In all the cases where the notifying Administration has indicated on the notice that the assignment has been co-ordinated with one or more other Administrations, the country symbol(s) of the Administration(s) with which co-ordination has been conducted shall be entered in the column entitled "COORD".

B.27 New assignments and changes to existing assignments in the Master Register will be indicated by special symbols, the explanation of which is shown under the title of Parts IA and IB of the I.F.R.B. Circular.

Number 501

PRELIMINARY EXAMINATION OF NOTICES

B.28 The preliminary examination shall be carried out by F.R.D. (Assignments Section). The principal reference documents are :

- The Radio Regulations
- The booklet entitled "Classification of the Provisions of the Convention and the Radio Regulations in accordance with their application to No. 501 of the Radio Regulations"
- Any other relevant I.T.U. Agreements

- B.29 Every incoming notice shall be checked for completeness, column by column, in conformity with the provisions of Appendix 1 to the Radio Regulations. Any notice which is incomplete shall be returned to the notifying Administration (Number 496 of the Regulations). In addition, the following special rules should be observed during the course of the preliminary examination (F.R.D. - Assignments Section):
- B.30 Column 1 (See paragraph B.130)
- B.31 Column 3 Any notified change in this column may be inserted in the Master Register forthwith. In principle, if a station (for the same frequency) uses more than one call sign, each of them should form a separate entry.
- B.32 Column 4a The data in this column shall be examined for accuracy, spelling and uniformity. The station name shall not exceed 14 characters, or 13 if the name is followed by an asterisk. The abbreviations listed in Table No. 2 of the Preface to the International Frequency List shall be used. Any notified modification concerning the station name may be recorded forthwith in the Master Register, provided that the geographical co-ordinates remain unchanged. A register for station names, together with their coordinates, shall be maintained by F.R.D. (Records Section).

- B.33 Column 4b A register for country symbols shall be maintained by F.R.D. (Assignments Section) (Table No. 1 of the Preface to the International Frequency List).
- B.34 Column 4c A correction concerning data recorded in this column may be recorded forthwith in the Master Register, provided that the transmitter site remains unchanged.
- B.35 If the co-ordinates notified by an Administration, which after having been checked appear to be correct, situate the station in a country different from that indicated by the country symbol notified in Column 4b, a telegram should be sent to the notifying Administration drawing its attention to this fact and the symbol designating the country in which the station is located replaced by the appropriate one in this column. A general remark should then be added in the "Remarks Column" (Column 13c) to indicate the Administration responsible for the particular assignment.
- B.36 Column 5a The data in this column shall be examined for accuracy, spelling and uniformity; the same spelling as for Column 4a shall be used.
- B.37 Specific points shall always be followed by the country symbol in all cases where it differs from that inserted in Column 4b.
- B.38 Fixed stations (FX) - The symbol "ZN" (network) can only be used for internal networks, i.e. where the stations composing the network bear the same country symbol in Column 4b.

- B.39 Exception : For networks concerning the Interpol (International exchange of police information), the symbol "ZN" will be inserted in Column 5a, preceding the indication "Interpol".
- B.40 For stations which carry out meteorological broadcasts (General Remark "14" in Column 13c), Administrations may indicate areas of reception in accordance with, or less than, the specifications recommended in the report of W.M.O. Working Party on Telecommunications (Paris, April, 1961). If a specified area is not notified for Column 5a or the area is not well defined, the notifying Administration should be asked to complete the notice to conform to the W.M.O. Recommendations. As a general rule, Administrations should indicate for a meteorological broadcast whether it is a Regional, Sub-Regional or Territorial Broadcast, in the terms used by W.M.O., and should notify in Column 5a of the notice, the specific area where reception is intended. This area should be designated by specific points or should be a well-defined territory. In addition, to permit the assessment of the probable hours of use of the frequency, the notice should include the scheduled times of the meteorological broadcast.
- B.41 In the case of a notice for a change in the basic characteristics of any other column than Column 5a, the information already recorded in Column 5a shall also be checked for compliance with the provisions of Appendix 1 to the Radio Regulations.

- B.42 Column 6 In the case of stations having recourse to the special methods of working specified in No. 415 of the Radio Regulations, the notice should be completed by the insertion of symbol "RR415" in Column 13c, while Column 6 should only contain the class of station which corresponds to the allocation made in the band concerned of the "Table of Frequency Allocations".
- B.43 Column 7 If more than one class of emission is notified, the necessary bandwidth must be specified individually for each class of emission. The classes of emission 3A3, 12A3, ...A9 shall be considered as incomplete if they are not followed by a symbol (A, B, J) indicating the nature of the transmission.
- B.44 Information occupying more than one line shall be split into two or more sub-groups of maximum eleven digits each. In such cases, the classes of emission shall be grouped in such a way that the same power figure (whether peak or mean) applies to all classes of emission in the group. Relevant information in other columns shall be repeated accordingly.
- B.45 Column 8 The power notified should be in accordance with the class of emission as defined under the heading "Column 8" in Appendix 1 to the Radio Regulations (pages 332 and 333 of the Final Acts of the Administrative Radio Conference, Geneva, 1959). If indication of the type of power is notified and is different from that shown in the attached Table, the Administration concerned should be requested to notify the corresponding type of power in conformity with

Appendix 1 to the Radio Regulations. When there is no indication of the type of power, it will be understood that such power is in accordance with the type defined in Appendix 1 to the Radio Regulations.

B.46 For assignments recorded in accordance with Appendix 1 to the E.A.R.C. Agreement Geneva, 1951, the power notified, in general, is the mean power. As a consequence, a change of power notified for these assignments should be accepted as correction provided that the Administration informs that these changes are made in order to be in accordance to the type of power defined in Appendix 1 to the Radio Regulations and is in application of the conversion figures given in C.C.I.R. Recommendation 326, Geneva, 1963. If the Administration does not make any request, but there is a doubt that the change may refer anyhow to the conversion from mean to peak power, the Administration should be consulted.

B.47 For ready reference a summary for conversion of powers is given in the following Table :

Class of emission	Power to be notified	Ratio P_p/P_m (CCIR Rec. 326)	Ratio db
A0	p or m	1	0
A1	p	2	3
A2 Telegraphy, modulated emission keyed A2 Continuous signal of an emission amplitude modulated by low frequency periodic oscillation (Example : some radio beacons)	p m	4 2.5	6 4
A2H Idem	m	2	3
A2B Telegraphy, one channel in each sideband (becomes a 2 channel A7B) (A2A-A2J becomes A1)	p -	2.5 -	4 -
A3 BC	c	-	-
A3	m	4	6
A3A A3J	p	10	10
A3H	m	3	5
6A3B 2 ch., 1 ch. per sideband	p	20	13
12A3B 4 ch., 2 ch. per sideband	p	10	10
A4 Direct modulation of the main carrier by the picture signal; as for A1.	p	2	3

Class of emission	Power to be notified	Ratio P_p/P_m (CCIR Rec. 326)	Ratio db
A4 Sub-carrier frequency modulated by the picture signal, and amplitude modulating the main carrier (A4A A4J becomes a F4)	m	2.5	4
A5C	p	-	-
A7 A7A A7B A7J at least 3 channels	m p	2.5 4	4 6
A9 Speech and other modulating signals (Example : some radio beacons) A9B Combination of speech and multi-channel telegraphy	m p	4 8	6 9
F1 F2 On-off keying of an emission frequency modulated by a low frequency periodic oscillation F2 Frequency displacement on modulating emission F3 to F9	m p m m	1 2 1 1	0 3 0 0
PO, etc.	p	-	-

- B.48 For the frequency bands up to 28,000 kc/s the power has to be indicated in kW and for the frequency bands above 28,000 kc/s either in kW or Watts; in the latter case, the value shall be preceded by the symbol W. Special symbols in Column 13c shall cover the cases where the power is less than 10 Watts in the bands up to 28,000 kc/s, or less than 10 Milliwatts in the bands above 28,000 kc/s.
- B.49 If an Administration notifies two different powers for the same assignment, the conditions of use of both powers should be clearly indicated on the notice.
- B.50 Column 9a For broadcasting stations in the bands allocated to the Broadcasting Service in the Tropical Zone (number 425 of the Regulations), when such broadcasting stations were notified as "ND", the attention of the Administrations concerned should be invited to the recommendations of the Panel of Experts and the relevant C.C.I.R. Recommendations with respect to the types of antennae to be used; the advantages to be gained should be stressed. In cases where an assignment concerning a broadcasting station in the bands allocated to the Broadcasting Service in the Tropical Zone is recorded in the Master Register with an indication of a directive antenna, the notifying Administration should also be asked to advise the Board of technical details of the antenna in use, if such details have not already been notified. Modifications concerning the antenna characteristics notified in response to such a letter shall be recorded forthwith in the Master Register.

- B.51 Column 10 A modification of the hours of operation is considered as a change, except when the existing hours of operation are included in the new notified hours, in which case the difference between the two schedules is considered as an addition.
- B.52 Column 11 Any modification to existing data in this column may be inserted forthwith in the Master Register. If the notice states "NIL", a cross (x) should be added on the appropriate line or lines.
- B.53 Columns 12a and 12b Any modification to existing data in one of these columns may be inserted forthwith in the Master Register. A register shall be maintained for the data recorded in Columns 12a and 12b (Table No.5 of the Preface to the International Frequency List) by the F.R.D. (Records Section).
- B.54 Column 13c Symbols representing the use of the frequency should be indicated in the following order :
- a) period of day or hours of utilization of the frequency
 - b) months or seasons
 - c) solar index
- These symbols and notes should be indicated on the notices for each circuit.
- B.55 For remarks related to a Finding see Number B.149.
- *
* *
- B.56 If the notice received by the Board is complete but some clarification is required, a mail message or a letter should be sent to the notifying Administration. The folder containing the notice and a copy of the message or letter requesting clarification

should pass through the normal procedure in its proper date order. In no such case should a folder or a notice be held back by the F.R.D. because a reply is awaited. Where possible, the message or letter to the Administration should indicate positively the interpretation given to the notice and it should be stated that if the Administration has not advised to the contrary by the time the notice should be examined, the Board will proceed on the basis of its interpretation; any correction to this interpretation which is advised to the Board thereafter shall be treated as constituting a new notice.

B.57 Each notice shall be checked by F.R.D. (Assignments Section) against the Master Register to establish whether it is of a new assignment or of a change on an entry existing in the Master Register. (An appropriate note shall be made on the front page of the folder). In the latter case, each change of recorded basic characteristics in the Master Register will be identified on the notice by underlining in red, and the data existing in the Master Register and that to be removed therefrom, will be noted on the notice form between parenthesis in the proximity of the new data.

B.58 The fact that the assignment bears a date in Column 2a, 2b or 2d is indicated in the box marked "For I.F.R.B. use"

B.59 ESTABLISHMENT OF THE WORKING SHEETS (a copy is appended as Annexes 1 and 4)

F.R.D. (Assignments Section) shall complete the upper part of the Working Sheet (WS) with the essential information of the new assignment or of the change to the entry existing in the Master Register, after having processed all the columns of the notice according to the rules governing each column and such master symbol indices or

abbreviations as may have been established with a view to transferring the data on to punched cards. The reference number of the folder will be marked on the right top corner of the WS. For amendments or additions to assignments existing in the Master Register, the data above the line at the top of the WS shall always relate to the existing assignment; Column 13 (13a, 13b and 13c) should clearly show the status of the existing assignment. For this purpose all symbols and remarks relating to the Findings and to the status of the assignment (symbols X, Y, Z, D, etc.) should be indicated in red in this column. Below the line, in the columns for which amendments have been notified, shall appear the data which will result after the amendment has been made, unless the data are ringed and marked "Add" in which case the data are in addition to those appearing above the line.

- B.60 For re-submitted notices a new WS shall be filled out, showing, in cases where data have been re-submitted with a change, the data first notified in parenthesis above the new data; the symbols "RWM" or "RWOM" in the right top corner of the WS shall be encircled according to whether the initial data have been modified or not, and the original Finding indicated after the symbol "FPG".
- B.61 If the re-submitted notice is received by the Board more than one hundred and eighty days after the date of its return by the Board, the indication "RR535" will be inserted before symbol "FPG" followed by the original Finding.
- B.62 In addition, in all cases where the Board decided, at the time of the examination of the first notice, the application of any special procedure, this should be indicated by the symbol describing this special procedure (SP VHF, SP CONS, etc.).

- B.63 In the case of a notification of a change of the assigned frequency which does not exceed half of the frequency band originally assigned, as defined in No.89 of the Radio Regulations, the WS shall show above the line the new frequency and immediately below, in parenthesis, the replaced frequency. Column 13 of the WS shall bear the following remark : "(RR534)".
- B.64 During the preliminary examination, the F.R.D. (Assignments Section) shall indicate on the WS any remarks (notes, provisions of the Radio Regulations) that should accompany each Finding, whether favourable or unfavourable, together with the indication concerning any co-ordination effected and notified by the Administration.
- B.65 GENERAL INSTRUCTIONS CONCERNING THE ESTABLISHMENT OF PUNCHED CARDS
- F.R.D. (Assignments Section) shall observe the following rules in relation with the punching of cards :
- B.66 a) notices for new frequency assignments shall be transcribed on standard forms;
- b) notices for change in basic characteristics (modifications or additions) shall be transcribed on standard forms or on the existing cards and, if necessary, on additional blank cards unless the same modification applies to a bunch of cards in which case one instruction should be sufficient;
- c) the transcription shall be checked for accuracy before passing the notices to the Mechanical and Electronic Operating Department (M.E.D.), in charge of the punching and the checking of the cards.

B.67 ROUTING OF FOLDERS

The F.R.D. (Assignments Section) shall arrange to route to the T.E.D., batches of folders containing the notices for new or amended assignments and re-submitted notices received in a given Block for a period of three weeks.

B.68 The processing, routing, technical examination of notices and the adoption of Findings by the Board have to be carried out according to a programme which is well-defined, but which could be adapted to meet the circumstances.

B.69 The Chief of the F.R.D. together with the Chief of the T.E.D. watch over the normal and regular flow of folders to avoid any interruption.

B.70 In the event of undue delay in any Block during the technical examination, the Chief of the T.E.D. will co-ordinate the matter with the convenor of the T.E.D. Group.

B.71 Tabulations containing the up-to-date information recorded in the Master Register shall be run off by M.E.D. and passed to T.E.D. according to a well-defined programme.

B.72 CHANGES IN NON-BASIC CHARACTERISTICS OF ASSIGNMENTS ALREADY RECORDED IN THE MASTER REGISTER

If the notice concerns a change in non-basic characteristics only of an assignment already recorded in the Master Register, it shall be placed in a Folder G and routed to F.R.D. (Assignments Section) for publication in Part IA of the I.F.R.B. Circular and for incorporation of the data in the Master Register; it is then returned to F.R.D. (Records Section) for filing.

B.73 BAND-EDGE AND OVERLAPPING ASSIGNMENTS

A frequency assignment made on the edge of a band or the emission of which spreads into a band immediately adjoining which is not appropriate to the service concerned, shall be considered as an out-of-band assignment. The provisions of numbers 520 to 522 or 524 to 531 of the Radio Regulations shall then be applied, as appropriate.

ADMINISTRATIVE PROCEDURE DURING THE TECHNICAL EXAMINATIONNumber 502Number 503

B.74 Besides the technical examination (detailed instructions for which will be found in CHAPTERS C and D), the T.E.D. will include the Findings proposed by it in the folders and send them directly to the Office of the Board for typing. Should there be any doubt about a particular Finding, the T.E.D. official concerned may consult a member of the Board or leave the column(s) blank, adding a brief note which will be carried into the document concerned.

B.75 The Office of the Board will prepare the documents in batches as they come, without including the name of any member in the "recommended by" column. Individual batches will bear the document number and date. Two copies of the document, together with the batch of folders, will be sent by the Office of the Board to the member concerned. The distribution of batches to members for checking and revision will be based on recommendations made by the Chief of the T.E.D. to the convenor of the T.E.D. Group. Should a member be likely to be absent on leave or mission, or otherwise unable to undertake this work for any particular period, he should inform the Chairman, or the convenor of the T.E.D. Group, in writing. It is particularly requested that this be done well beforehand so that release of the folders may not for this reason be held up.

- B.76 It is, of course, the Board which is collectively responsible for the final adoption of Findings.
- B.77 After adoption of the Findings by the Board, the member responsible for the batch should correct the folders and one copy of the document concerned, entering his name in the column "recommended by ...". After any necessary co-ordination with the Secretary of the Board and the Chief of the T.E.D., he should send the document and batch of folders back to the T.E.D., for further action.
- B.78 In order that all members may exercise a proper check before the Findings are adopted, only those documents which have been typed by the Office of the Board (in the light of the T.E.D.'s examinations) and distributed more than forty-eight hours before the relevant meeting, will be submitted for consideration by the Board.
- B.79 If, after study of a particular document, the member concerned has relatively few changes to make, these may be announced verbally when the document is being considered by the Board. However, if many changes are required, the member concerned is free to decide whether the document should be cancelled and the T.E.D. asked to re-consider the matter, or whether a revised version should be prepared and circulated before the meeting.
- B.80 Any member having a document to submit at the meeting will put the relevant batch of folders, together with an amended copy of the document, in the Board Room, at least twenty-four hours before the meeting, so that members requiring elucidation after their study of the document may consult the folders and, where necessary, raise the matter with the member concerned.

B.81 Notices of assignments to aeronautical mobile and maritime mobile stations in their exclusive bands between 2,850 kc/s and 18,030 kc/s and between 4,000 kc/s and 28,000 kc/s shall be dealt with by the responsible members and by the F.R.D. with an eye to application of Article 9 of the Radio Regulations as a whole; the procedure described above shall apply, by analogy, to these assignment notices.

B.82 If during the technical examination it is felt that a change in the basic characteristics of an existing assignment is to be considered merely as a correction, no Finding will be proposed to the Board, but "Chg = Cor" will be inserted in the WS. The change will not be included in Part II of the I.F.R.B. weekly Circular, but will be included forthwith in the Master Register by the F.R.D. (Assignments Section) after adoption of the relevant document by the Board.

Number 504 B.83 Notices of broadcasting assignments in the band 535 - 1,605 kc/s in Region 2 shall be inserted forthwith in the Master Register, without a date in Column 2a or 2b.

Number 505 B.84 NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE EUROPEAN BROADCASTING CONVENTION OF COPENHAGEN, 1948, OR THE EUROPEAN REGIONAL CONVENTION FOR THE MARITIME MOBILE RADIO SERVICE OF COPENHAGEN, 1948

shall be treated in accordance with the following procedure :

1. Notices of new assignments or amendments to existing assignments in the bands covered by the Copenhagen Maritime or Broadcasting Conventions from countries which have neither ratified nor acceded to the Convention concerned (hereafter referred to as Non-party Countries), shall be treated according to Article 9 of the Radio Regulations.

2. Notices of new assignments or amendments to existing assignments in the above-mentioned bands from Administrations of countries which have ratified or acceded to the Convention concerned (hereafter referred to as Party Countries), shall be treated in the following manner :

2.1 If the original notice does not indicate that the appropriate Copenhagen procedure has been carried out or does not state the result of the consultation, and if such information is not recorded in the archives of the Secretary-General, the notifying Administration shall be asked for this information.

2.2 If the notifying Administration follows the appropriate Copenhagen procedure properly and successfully, the Board shall apply Article 9 procedure except that number 502 of the Radio Regulations shall be applied to the assignments of the Non-party Countries only. The following remark shall be inserted in the publication of the notification :

"In applying No.502 of the Radio Regulations to this notification, the Board will take into account only the stations of those Administrations which are not parties to the European ^(Broadcasting)
_(Maritime) Convention, Copenhagen, 1948".

2.2.1 The assignment will be registered with a date in Column 2a of the Finding is favourable.

2.2.2 The notice will be returned to the notifying Administration if the Finding is unfavourable.

2.3 In the case of a new assignment, if the notifying Administration has not followed the appropriate Copenhagen procedure or has followed it without success, the Board shall publish the notification with the following remark :

"In applying No.502 of the Radio Regulations to this assignment, the Board will take into account only the stations of those countries which are not parties to the European (Broadcasting) (Maritime) Convention, Copenhagen. Since the notifying Administration has not applied Article ⁸)
10) of that Convention to this assignment, to this assignment successfully) it will not be possible for the Board to register the assignment with a date in Column 2a".

The Board shall apply number 502 of the Radio Regulations to assignments of Non-party Countries only.

2.3.1 The assignment shall be recorded with a date in Column 2b if the Finding is favourable - this date shall be transferred to Column 2a if subsequent agreement is reached under the Copenhagen procedure.

2.3.2 The notice will be returned to the notifying Administration if the Finding is unfavourable.

2.4 In the case of any amendment in the basic data of a Copenhagen planned assignment, if the notifying Administration has not followed the appropriate Copenhagen procedure or has followed it without success, the procedure of 2.3 shall be followed, except that the original listing shall be retained

pending subsequent agreement under the Copenhagen procedure, an additional listing to cover the amendment shall be made, and the remark to be inserted in the publication of the notification shall be the following :

"This assignment is notified to amend the existing assignment to station onkc/s. Since the notifying Administration has not applied Article⁽⁸⁾₍₁₀₎ of the European ^(Broadcasting)_(Maritime) Convention, Copenhagen, ^{(to this assignment}_(to this assignment successfully), the original assignment mentioned above will be retained, and a new listing inserted in the Master Register to cover the amendment in question. In applying No.502 of the Radio Regulations to this assignment, the Board will take into account only the stations of those countries which are not parties to the Copenhagen ^(Broadcasting)_(Maritime) Convention".

- 2.5 When an Administration of a Party Country notifies a new assignment or an amendment to the basic characteristics of an existing assignment in stating that, in its view, no other Party Country is directly concerned, this will be considered as a non-application of the appropriate Copenhagen procedure and the procedure of 2.3 or 2.4 above shall be followed (the provisions of No.505 of the Radio Regulations preclude the Board from checking the validity of such a statement).

3. In case of harmful interference or other problems arising between assignment of Party Countries, the Board shall refer the matter to the Administrations concerned. If the conflict arises between Party and Non-party Countries, the Board shall act according to the prevailing Radio Regulations.

B.85 The symbol "CPHG" shall be entered in Column 13c against the assignments which are found in accordance with the Plans adopted at Copenhagen, 1948, or for which the Administration concerned has successfully applied the procedure prescribed respectively in Article 8 of the Copenhagen European Broadcasting Convention, 1948, or in Article 10 or the Copenhagen European Regional Convention for the Maritime Mobile Radio Service, 1948.

B.86 NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE GENEVA REGIONAL AGREEMENT (1960) FOR THE USE OF FREQUENCIES BETWEEN 68 AND 73 Mc/s AND 76 AND 87.5 Mc/s BY THE BROADCASTING SERVICE ON THE ONE HAND, AND BY THE FIXED AND MOBILE SERVICES ON THE OTHER
shall be treated in accordance with the procedure prescribed in Article 4 or 5 of this Agreement.

B.87 The symbol "GE60" shall be entered in Column 13b against the assignments which are found in accordance with the Plans adopted by the Special Regional Conference, Geneva, 1960, or for which the procedure prescribed in Article 4 or 5 of the Geneva Regional Agreement, 1960, has been carried out successfully.

B.88 NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE REGIONAL AGREEMENT FOR THE EUROPEAN BROADCASTING AREA, STOCKHOLM, 1961
shall be treated in accordance with the procedure prescribed in Article 4 of this Agreement.

B.89 The symbol "ST61" shall be entered in Column 13b against the assignments which are found in accordance with the Plans adopted by the European VHF/UHF Broadcasting Conference, Stockholm

1961, or for which the procedure prescribed in Article 4 of the Regional Agreement, Stockholm, 1961, has been carried out successfully.

B.90 NOTICES FOR ASSIGNMENTS IN THE BANDS COVERED BY THE REGIONAL AGREEMENT FOR THE AFRICAN BROADCASTING AREA, GENEVA, 1963

shall be treated in accordance with the procedure prescribed in Article 3 of this Agreement.

B.91 The symbol "AF63" shall be entered in Column 13b against the assignments which are found in accordance with the Plans adopted by the African VHF/UHF Broadcasting Conference, Geneva, 1963, or for which the procedure prescribed in Article 3 of the Regional Agreement, Geneva, 1963, has been carried out successfully.

*
* *

B.92 In case an Administration of a country party to the relevant regional agreement notifies a frequency assignment which is not in conformity with the provisions of that agreement, the favourable Finding with respect to numbers 501 and 502 or 503 of the Radio Regulations, shall be indicated by the symbol "F" in Column 13a.

		Column		
		13a	13b	13c
<u>Number 508</u>	B.93	The Finding shall be indicated by the following symbol(s)		
<u>Number 510</u>	B.94	-	-	-
<u>Number 511</u>	B.95	A	A	
<u>Number 513</u>	B.96	The notice shall be returned to the Notifying Administration		
		BX*)		

*) To be used only in Part III of the weekly I.F.R.B. Circular.

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.



		Column		
		13a	13b	13c
	In the case of a notice of an amendment to an assignment already recorded in the Master Register, if the amendment receives an unfavourable Finding with respect to Nos. 502 or 503 of the Radio Regulations, the recorded assignment <u>remains unchanged</u> in the Master Register.			
<u>Number 514</u>	B.97 The Finding shall be indicated by the following symbol(s)	A		E (date)
	<u>or</u>	A	A	E (date)
<u>Number 515</u>	B.98 " " " " " "	B	515	B (date)
	If no advice has been received by the Board from the notifying Administration that the assignment has been in use for a least sixty days without any complaint of harmful interference having been received, a mail message is addressed to this Administration drawing its attention to this fact and stating that the assignment will not be recorded in the Master Register unless such an advice has been received. If such an advice is not received by the Board within a period of 180 days after the return of the notice (number 513 of the Radio Regulations) which is the subject of the re-submission, the notice shall be considered as cancelled (number 535 of the Radio Regulations).			
B.99	However, in the case when the Board, despite the fact that the notifying Administration has sent to it the advice mentioned above (and the assignment has been consequently recorded in the Master Register), subsequently receives information according to which the use of the frequency concerned has given rise, during the period of sixty days prescribed by number 515 of the Radio Regulations,			

to complaints of actual harmful interference caused to one or more assignments already recorded in the Master Register, the date appearing in one of the Columns 2a, 2b or 2d, as well as the date appearing in Column 2c, are to be cancelled. The symbols representing the Board's Finding and related remarks will remain in Columns 13a and 13b except symbol "515" which is to be removed from Column 13b. The date from which the Board does not take the assignment into account will be shown in Column 13c, following the symbol "T". This symbol will also be inserted in Column 13a. The same method will be applied, by analogy, to any frequency assignment notified by an Administration in the circumstances mentioned in number 515 of the Radio Regulations if, instead of the statement specified in that provision, the notifying Administration explicitly informs the Board that, despite the fact that this Administration has received complaints and is not in a position to advise the Board that the assignment has been in use for at least sixty days without any complaints of harmful interference having been received, it nevertheless desires that the notice be inserted in the Master Register.

Number 516

INVESTIGATION PROCEDURE

B.100

The investigation procedure shall be applied in accordance with No.516 of the Radio Regulations to all frequency assignments recorded in the Master Register in accordance with the provisions of No. 515 of the said Regulations. A printed form letter with a questionnaire known as an enquiry form has been prepared by the Board for use in applying the procedure. The enquiry form comprises three parts namely, Part A in which are reproduced the principal characteristics of the assignment which has received the unfavourable Finding "B515" (referred to as "Assignment A"), Part B1 containing a series of questions and Part B2 in which is reproduced the whole of the assignment as recorded in the Master Register that contributed to the unfavourable Finding (referred to as "Assignment B"). An enquiry form is prepared for each "Assignment B"; thus, for one "Assignment A" there may be more than one enquiry form sent out by the Board to different Administrations.

- B.101 The detailed action to be taken is described in the following paragraphs.
- B.102 The adopted Documents of the Board, where each case appears with the unfavourable Finding "B515", shall be used as the starting point. A GR2-Folder shall be established by F.R.D. (Records Section) for each "Assignment A", a "check-card" completed and a cross-reference made on the GR-Folder containing the re-submitted notice which received the unfavourable Finding "B515". To extract the characteristics from the Master Register for each "Assignment B" that contributed to the unfavourable Finding, the most recent tabulation available from the T.E.D. shall be used.
- B.103 F.R.D. (Records Section) shall prepare the enquiry form in three copies; the original, with the questionnaire printed on the reverse side, and one carbon copy of the questionnaire for the Administration concerned; the remaining carbon copy to be inserted in the GR2-Folder.
- B.104 The final checking of the enquiry form shall be carried out as follows : for Part A, against the GR-Folder ("Assignment A"), for Part B2, against the tabulation.
- B.105 After signature and mailing, the copy shall be filed in the appropriate GR2-Folder. The expiry date for the delay prescribed by No.621 of the Radio Regulations shall be reckoned by adding ninety days to the date of mailing of the enquiry form and the GR2-Folder shall be annotated accordingly and filed by country and frequency in the office of the Investigation Group. The GR-Folder ("Assignment A") shall be updated with the GR2-Folder reference and returned to the Records main file.
- B.106 The following procedure is initiated immediately upon receipt of each reply from an Administration according to its nature :
Any reply reporting actual harmful interference, shall be photocopied together with related correspondence and the photocopies forwarded to the Planning and Technical Standards Department for consideration under the harmful interference procedure.

B.107 a) Reply : "Assignment B" reflects actual usage of the frequency

After having established a new G-Folder for the "Assignment B", F.R.D. (Records Section) shall update the Investigation Procedure Register and the "Check-card" in the GR2-Folder. A photocopy of the reply shall be placed in the GR2-Folder while the original of the reply is filed in the new G-Folder for the "Assignment B".

B.108 The existing G-Folder for the "Assignment B" shall be extracted from the files, placed inside the new G-Folder and the whole routed to F.R.D. (Assignments Section) for updating the Master Register (if appropriate, symbol "U" in Column 13a) and returned to F.R.D. (Records Section) for filing.

B.109 b) Reply : Change of basic characteristics of "Assignment B"

After having established a new G-Folder for "Assignment B", F.R.D. (Records Section) shall update the Investigation Procedure Register and the "check-card" in the related GR2-Folder and a photocopy of the reply shall be placed in the GR2-Folder while the original of the reply is filed in the new G-Folder for the "Assignment B". The existing G-Folder for the "Assignment B" shall be extracted from the files, placed inside the new G-Folder and the case routed - in date order of receipt - to F.R.D. (Assignments Section) who treats the notice in the same way as any other notice received by the Board pursuant to the provisions of Article 9 of the Radio Regulations

B.110 c) Reply : Cancellation of "Assignment B"

F.R.D. (Records Section) shall extract the original G-Folder and insert the reply inside the folder. The G-Folder shall be routed to F.R.D. (Assignments Section) for cancellation procedure. A photocopy of the reply shall be filed in the GR2-Folder and the "check-card" and the Investigation Procedure Register brought up-to-date.

B.111 d) Replies received after the expiry date

F.R.D. (Records Section) shall immediately telephone T.E.D. so that the "Assignment B" is taken into consideration henceforward during the examination of other notices. A new G-Folder shall be established for the "Assignment B" and the notice treated as follows :

B.112 - where the recorded basic characteristics in the Master Register are confirmed by the Administration concerned, no technical examination is undertaken. After adoption by the Board, the symbol "Y" is substituted by the symbols "U" and "Z" in Column 13a and the symbol "Z/..." is entered in Column 13c; the date following this symbol is the date on which the I.F.R.B. received the reply from the Administration concerned.

B.113 - where certain basic characteristics of the assignment are changed or new characteristics are added by the Administration concerned, the symbol "Y" will be substituted in Column 13a by the symbol "Z" and the amendment shall be treated in the same way as any other notice received by the Board pursuant to the provisions of Article 9 of the Radio Regulations. The symbol "U", however, will only be entered in Column 13a if and when the amendment is recorded in the Master Register.

B.114 A list of "Assignments B" which are proposed to become "Z" assignments shall be prepared and presented to the Board on a weekly basis. After adoption by the Board, the corresponding folders shall be routed to F.R.D. (Assignments Section) for the insertion of symbol "Z" (and "U" if appropriate) in Columns 13a and 13c of the Master Register.

B.115 e) Unclear reply

A mail message or telegram requesting clarification shall be sent to the Administration concerned. The original of the reply and a copy of the request for clarification shall be inserted in the

GR2-Folder. The notice shall then be treated in accordance with a), b) or c) above, as the case may be.

B.116 The following procedure is to be initiated upon the expiry date of the prescribed delay in the event of NO reply being received :

Upon expiry of the ninety day delay period, the folder for "Assignment B" shall be extracted and the case examined with respect to previous correspondence that might be considered as a reply to the enquiry. The folders for all "Assignments B" for which no reply has been received within the prescribed delay shall be endorsed "NO REPLY TO ENQUIRY" and the Investigation Procedure Register and the "check-card" updated accordingly. A list shall be prepared each Friday of all such assignments in frequency blocks (referred to as "Y" assignments) and presented the following week to the Board. After adoption of the list by the Board, the corresponding folders shall be routed immediately to F.R.D. (Assignments Section) for the insertion of symbol "Y" in Columns 13a and 13c of the Master Register (the date following the symbol "Y" in Column 13c shall be the last day of the ninety day delay period or the day on which the Board was informed of the discontinuance of the use of the frequency assignment, the notifying Administration wishing nevertheless to maintain the assignment in the Master Register). F.R.D. (Records Section) shall maintain a list of all "Y" assignments in country order.

B.117 Final examination of "Assignment A" (GR2-Folder)

The GR- and GR2-Folders shall be routed to F.R.D. (Assignments Section) for processing in preparation for technical examination. The folders shall then be routed to T.E.D. in date order and by frequency blocks. The GR2-Folders, once released for final examination, follow the normal routing and treatment as for re-submitted notices.

B.118 F.R.D. (Records Section) shall advise the Administrations concerned of the result of the investigation either by individual letter in case the Finding becomes favourable, or by publication in Part II of the weekly I.F.R.B. Circular if the Finding remains unchanged.

B.119 Changes of basic characteristics of a "Y" assignment, in the event of NO reply having been received to a questionnaire by the Board from the notifying Administration

If the Administration concerned does not reply to the questionnaire within the prescribed delay, but later notifies to the Board changes in the "Y" assignment without mentioning the questionnaire, the amendment notices shall be treated as a reply to the questionnaire and the notice treated in the same way as any notice received by the Board pursuant to the provisions of Article 9 of the Radio Regulations. If the change has to be recorded in the Master Register, the symbol "U" shall be recorded in Column 13a against the added characteristics only, symbol "Y" being maintained in Column 13c for the original characteristics. The Administration shall be so informed.

Column

Number 517 B.120
Number 518 B.121
 (2nd part)
Number 520 B.122
Number 521 B.123

The symbol shall be
 The Finding shall be indicated by the following symbols
 " " " " " " "
 The notice shall be returned to the notifying Administration together with the completed standard form

13a	13b	13c
U		
B	B515	B (date)
D	D520	RR115

DX*)

*) To be used only in Part III of the weekly I.F.R.B. Circular
 NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

		Column		
		13a	13b	13c
<u>Number 522</u> B.124	The Finding shall be indicated by the following symbols	D	D522	
<u>Number 525</u> B.125	" " " " " " " <u>or</u>	DA DA	D525 DA525	RR115 RR115
<u>Number 526</u> B.126	The notice shall be returned to the notifying Administration If the Administration insists upon re-consideration of the notice, the Finding shall be indicated by the following symbols	DBX*) DB	 D526	 RR115 B (date)
<u>Number 527</u> B.127	The notice shall be returned to the notifying Administration	DX*)		
<u>Number 530</u> B.128	The Finding shall be indicated by the following symbols <u>or</u>	DA DA	D530 DA530	
<u>Number 531</u> B.129	The notice shall be returned to the notifying Administration If the Administration insists upon reconsideration of the notice, the Finding shall be indicated by the following symbols	DBX*) DB	 D531	 B (date)
<u>Number 533</u> B.130 <u>Number 534</u>	A modification of the <u>assigned frequency</u> is considered as a change from the point of view of the recording of dates in Column 2 of the Master Register if it is contained within the following limits :			

*) To used only in Part III of the weekly I.F.R.B. Circular.

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

		Column		
		13a	13b	13c
	<p>\pm half of the frequency band assigned plus the frequency tolerance (Appendix 3 to the Radio Regulations)</p> <p>Each modification exceeding these limits shall be considered as a new assignment from the point of view of the recording of dates in Column 2 of the Master Register, but not from the point of view of the technical examination</p> <p>The additional symbols to be recorded in Column 13 in case of a change are,</p> <p>or, when the Finding given is not Finding A and where the existing entry has no Finding symbol in Column 13a,</p>			
<u>Number 537</u> B.131	The special symbol shall be			C (if appropriate) C (date)
<u>Number 542</u> B.132	The Finding shall be indicated by the following symbols	E	C (if appropriate)	C (date)
<u>Number 544</u> B.133	1) The notified frequency is in conformity with paragraph 3 of Appendix 17 to the Radio Regulations (the channel widths laid down in Appendix 17 and the frequency tolerances specified in Appendix 3 to the Radio Regulations allow no frequency deviation with respect to Appendix 17 if the	A	542	PROV

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

Column

	13a	13b	13c
bandwidth transmitted remains the same. Hence this provision can only apply when an Administration divides a 6A3 or 6A3B channel into two to transmit 3A3A, 3A3H or 3A3J). The Finding shall be indicated by the following symbols	A	544	
2) The notified frequency is not in conformity with the provisions of paragraph 3 of Appendix 17. The notice shall be returned to the notifying Administration drawing its attention to the provisions of paragraph 4 of Appendix 17.			
<u>Number 545 B.134</u> 1) Assignments specified under 545 a), b) and c) : no appreciable reduction of service area of a station formerly recorded in the Master Register. The Finding shall be indicated by the following symbols	A	545	
2) Assignments specified under 545 a), b) and c) : slight reduction of service area of a station formerly recorded in the Master Register. The Finding shall be indicated by the following symbols	A	A545	
3) Assignments specified under 545 a), b) and c) : appreciable reduction of the service area. The notice shall be returned to the notifying Administration			

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

		Column		
		13a	13b	13c
<u>Number 548</u>	B.135	The Finding shall be indicated by the following symbols	A	548
<u>Number 550</u>	B.136	The notified frequency is in conformity with paragraph 3 of Appendix 17 to the Radio Regulations (see under Number 544) and associated in accordance with Appendix 17 to a frequency allotted to the notifying Administration in accordance with Appendix 25. The Finding shall be indicated by the following symbols	A	550
<u>Number 551</u>	B.137	The Finding shall be indicated by the following symbols Note : If appropriate, the attention of the notifying Administration is to be drawn to the provisions of paragraph 4 of Appendix 17	B	551
<u>Number 553</u>	B.138	1) The notified assignment is in conformity with Numbers 554 to 557 of the Radio Regulations. It shall be treated under Number 590. The Finding shall be indicated by the following symbols	A	553
		2) The notified assignment is not in conformity with Number 556 of the Radio Regulations. It shall be treated under Number 592. The Finding shall be indicated by the following symbols	B	556
		3) The notified assignment is not in conformity with Numbers 554 to 557 of the Radio Regulations and the examination conducted according to the provisions of Number 558 shows that the protection		

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

		Column		
		13a	13b	13c
	to the allotments is less than 15 db. It shall be treated under Number 592. The Finding shall be indicated by the following symbols	B	558	
	4) The notified assignment is not in conformity with Numbers 554 to 557, of the Radio Regulations and the examination conducted according to the provisions of Number 558 shows that the protection to the other allotments is more than 15 db, but the notified bandwidth of the emission extends outside a single channel. It shall be treated under Number 592. The Finding shall be indicated by the following symbols	B	554	
<u>Number 558</u> B.139	The notified assignment is in conformity with Number 558 of the Radio Regulations, insofar as the examination conducted according to these provisions shows that the protection to the allotments is more than 15 db and the notified bandwidth of the emission does not extend outside a single channel. It shall be treated under Number 591. The Finding shall be indicated by the following symbols	A	558	
<u>Number 563</u> B.140	1) The notified assignment is satisfactory with respect to Number 563 of the Radio Regulations (primary allotments). It shall be treated under Number 595. The Finding shall be indicated by the following symbols	A	563	

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

	Column		
	13a	13b	13c
2) The notified assignment is not satisfactory with respect to Number 563 of the Radio Regulations (class of station, class of emission, power and hours of use for a primary allotment). It shall be treated under Number 598. The Finding shall be indicated by the following symbols	B	563	
3) The notified assignment is not satisfactory with respect to Numbers 563 to 565 of the Radio Regulations and the distance between the stations concerned is less than half of the repetition distance required for a protection ratio of 20 db. It shall be treated under Number 598. The Finding shall be indicated by the following symbols	B	564	
4) The notified assignment is not satisfactory with respect to Numbers 563 to 565 of the Radio Regulations, the distance between the stations concerned is not less than half of the repetition distance required for a protection ratio of 20 db, but the notified bandwidth of the emission extends outside a single channel. It shall be treated under Number 598. The Finding shall be indicated by the following symbols	B	565	
<u>Number 564 B.141</u> 1) The notified assignment is satisfactory with respect to Number 564 of the Radio Regulations because it conforms to a secondary			

NOTE : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference **should** be made to the current Preface to the International Frequency List.

		Column		
		13a	13b	13c
	allotment or the distance between the stations concerned is not less than half of the repetition distance required for a protection ratio of 20 db. It shall be treated under Number 596. The Finding shall be indicated by the following symbols	A	564	
	2) The notified assignment is not satisfactory with respect to Number 564 of the Radio Regulations (class of station, class of emission, power and hours of use for a secondary allotment). It shall be treated under Number 598 of the Regulations. The Finding shall be indicated by the following symbols	B	564	
	3) The notified assignment is not satisfactory with respect to Number 564 of the Radio Regulations, the distance between the stations concerned is not less than half of the repetition distance required for a protection ratio of 20 db, but the notified power is too high. It shall be treated under Number 598. The Finding shall be indicated by the following symbols	B	564	
<u>Number 565</u> B.142	The notified assignment is satisfactory with respect to Number 565 of the Radio Regulations. It shall be treated under Number 597 of the Regulations. The Finding shall be indicated by the following symbols	A	565	
<p><u>NOTE</u> : For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.</p>				

Numbers
568 to 570

B.143 RECORDING INTO THE MASTER REGISTER OF ASSIGNMENTS APPEARING
IN THE HIGH FREQUENCY BROADCASTING SCHEDULES

In applying the provisions of Number 568 of the Radio Regulations, a frequency assignment appearing in a High Frequency Broadcasting Schedule shall be considered as covered by an existing listing in the Master Register if the following conditions are met :

- Col. 1 Frequency - same as the existing listing,
- Col. 4a Transmitting station - same or within 150 km
 distance of the existing transmitter location,
- Col. 4b Country - same as in the existing listing.
- Col. 5a Zones or Areas of Reception - same or within
 the reception zones in the existing listing,
- Col. 8 Power - same or differing by not more than 50%
 from the power of the existing listing,
- Col. 9a Azimuth of Antenna - same or within $\pm 10\%$ of
 those in the existing listing,
- Col. 9c Antenna Gain - same or within ± 3 db of those
 in the existing listing, (Information in Column 9
 shall be considered as completion data if it is lacking
 or vague in the existing listing),
- Col. 10 Hours of Operation - same or within the existing hours
 of operation,

 Season of the Schedule covered by the notes in the Remarks
 Column (Column 13c in the Master Register) of the existing
 listing. (In the absence of any notes, all seasons are
 covered).

- B.144 Concerning the symbols representing a season in Column 13, the notes A, M, L should be considered as covering Sunspot numbers as follows :
- A - All numbers above 80
 - M - All numbers between 40 and 80 (inclusive)
 - L - All numbers below 40
- B.145 However, if only the notes A and L appear, either together or separately, they should be considered as covering Sunspot numbers as follows :
- A - Number 70 and all numbers above 70
 - L - All numbers below 70.
- B.146 As far as seasonal schedules are concerned, the notes shall be considered as covering the schedules, as follows :
- | | | |
|----------------|----------------------------|-----------------------|
| MR, AR | - EQ | - March Schedule |
| SE, OC | - EQ | - September Schedule |
| MA, JN, JL, AU | - ET (Northern Hemisphere) | } - May Schedule |
| | HV (Southern Hemisphere) | |
| NV, DC, JA, FE | - HV (Northern Hemisphere) | } - November Schedule |
| | ET (Southern Hemisphere) | |
- B.147 Any frequency assignment included in a schedule which is found not to be covered by any listing in the Master Register, according to the specifications in paragraph B.143, shall be entered into the Master Register, without further examination. Such a listing shall bear dates as follows :
- Column 2c The date of implementation of the schedule from which the assignment was extracted, or the notified date of putting into use, whichever is the later (number 606 of the Regulations)
- Column 2d The date of receipt by the Board of the projected seasonal schedule (Numbers 570 and 601 of the Regulations).

B.148 Entries made in the Master Register shall be published only in new editions of the International Frequency List.

Number 571

B.149 Remarks related to a Finding shall be entered in Column 13c against the related symbol inserted in Column 13a and/or 13b.

B.150 RECORDING INTO THE MASTER REGISTER AND PROMULGATION OF FINDINGS

Immediately after adoption of the Findings by the Board, the folders shall be sent back to the F.R.D. (Assignments Section), together with a copy of the documents giving details of the technical examination and the recommended Findings as amended by the Board. These documents shall be supplied to the T.E.D. by the members concerned, and the T.E.D. shall pass them on to the F.R.D. (Assignments Section). Furthermore, the Secretary of the Board, in co-operation with the Chief of the T.E.D., shall check all changes or additions made by the Board in the Findings, notes or observations proposed and appearing in the initial document, and shall pass on his conclusions to the F.R.D. (Assignments Section).

B.151 The F.R.D. (Assignments Section) shall cross-check the information thus supplied by the Secretary of the Board, together with that appearing in the folders and copies of documents from members. Any discrepancy shall be elucidated with the Head of the T.E.D. or the member concerned. If there seems to be a discrepancy in the original document, the matter shall be brought to the notice of the member concerned, and he shall re-submit it to the Board if the discrepancy affects the official minutes of the meeting. These changes and additions shall then be carried into a new set of documents, each of them being certified as in accordance with the Board's decisions.

B.152 After this check, the F.R.D. (Assignments Section) shall enter the Finding code, the number of the document in which the Finding was

recommended to and approved by the Board, and the number and date of the meeting at which the Finding was approved, on the front cover of each folder.

B.153 The F.R.D. (Assignments Section) shall also indicate thereon the number and part of the weekly circular in which the Finding will be published, and shall then arrange for punching of cards for publication of the circular and for inclusion in the Master Register in accordance with the Board's Findings. Assignment notices shall be embodied in the Master Register with all possible speed, and not later than two weeks after adoption of the Findings by the Board (this to ensure that the assignments will appear in the new tabulation to be run off with a view to the technical examination of notices, received later, about assignments in the same bands).

B.154 For notices which have received unfavourable Findings (appearing in Part III of the Circular), the F.R.D. (Records Section) shall enter the appropriate details, and any comments or suggestions by the Board, in the Finding Forms after having ensured that :

- a) all unfavourable Findings adopted during the same meeting are promulgated, and
- b) the details of the Findings and comments or suggestions, transcribed on to the Finding Forms, are in conformity with WS3 or WS5 and the document approved by the Board.

It shall also prepare copies of the forms, together with the relevant notices, for signature by the Chairman and despatch to the notifying Administrations. Normally speaking, matters should be so arranged that forms are submitted to the Chairman, signed by him and despatched before

the circular containing the Findings in question in its Part III is sent off to Administrations. Should the Finding be accompanied by the symbol "SP", the F.R.D. (Records Section) shall be responsible for despatching the appropriate printed standard letter.

B.155 The F.R.D. (Records Section) shall include photocopies of assignment notices returned to Administrations in the files; it shall complete the remaining annotations on the folders;

B.156 All folders shall then be filed in frequency order and by country.

Numbers
612 to 618

B.157 REVIEW OF FINDINGS

Any case arising will be dealt with by T.E.D., after co-ordination with the member concerned, by a procedure set up to suit the particular case and within the general framework of the Article 9 procedure.

Number 619

CANCELLATION OF ENTRIES IN THE MASTER REGISTER

B.158 Notices of cancellation shall be treated by the F.R.D. in the following manner : the notices shall be entered by the Records Section in the "S" (Suppressions) Register and any existing folders relating to the entries in question shall be extracted from the archives and stamped on the face cover with "Deletion Notice R...", (followed by the date of receipt of the notice).

B.159 Where the deletion notice refers to the whole of the assignment covered by the existing folder, the notice shall be affixed on page 2 of the latest folder and the folder will be routed to the F.R.D. (Assignments Section).

B.160 Where the deletion notice refers to only part of the assignment, the notice shall be placed in a folder G and routed to F.R.D. (Assignments Section) for cancellation in the Master Register, and returned to F.R.D. (Records Section) for filing.

- B.161 Where no previous folders exist, the deletion notice shall be placed in a new folder and routed to F.R.D. (Assignments Section). F.R.D. (Assignments Section) shall arrange extraction of the cards from the Master Register, shall date and initial folders and return them to F.R.D. (Records Section) for filing.
- B.162 Where an assignment is notified to the Board as being "replaced", the entry should, in principle, be removed from the Master Register only upon the recording of the related new assignment.
- B.163 F.R.D. (Assignments Section) will arrange for the publication in Part IC of the I.F.R.B. Circular of the assignments which have been deleted in their entirety.
- B.164 Where the notified deletion refers to only part of the assignment, it shall be treated as a change, and the part of the assignment which remains in the Master Register published in Parts IA or IB of the I.F.R.B. Circular.

Number 620 B.165 REVIEW OF ENTRIES IN THE MASTER REGISTER

If in a reply to the Board, the notifying Administration confirms that it wishes to maintain in the Master Register the particulars of an assignment despite the fact that they are not used as recorded in the Master Register, the provisions of Number 621 of the Regulations shall be applied.

Number 621 B.166 The symbols to be entered in the Remarks Column are
or

Number 622 B.167 The symbol to be entered in the Remarks Column in case confirmation has been received by the Board that the assignment is being used in accordance with the basic characteristics as recorded in the Master Register is

(see also Number 517 of the Regulations)

Column		
13a	13b	13c
Y		Y (date)
Z		Y (date) Z (date)
U		

Numbers
623 to 634

STUDIES AND RECOMMENDATIONS

B.168 Any case arising will be dealt with by the Planning and Technical Standards Department, after co-ordination with the member concerned, by a procedure set up to suit the particular case and within the general framework of the Article 9 Procedure, with the exception of cases concerning frequency assignments to aeronautical mobile and maritime mobile stations in their exclusive bands between 2850 kc/s and 28,000 kc/s, which will be dealt with by the members concerned and the F.R.D., as well as the cases concerning frequency assignments to broadcasting stations in the bands allocated exclusively to the broadcasting service in the bands between 5950 kc/s and 26,100 kc/s which will be dealt with by the Broadcasting Department in agreement with the member concerned.

*

* *

Number 637 B.169

The Findings of the Board and the reasons are promulgated in Part II and Part III of the weekly Circular. Part II shall contain the particulars in respect of frequency assignment notices which are recorded in the Master Register in consequence of Findings by the I.F.R.B. It shall also contain information concerning frequency assignments already entered in the Master Register, when the I.F.R.B. has made changes in the Remarks Column as a result of investigations undertaken in accordance with Number 516 or 620 of the Regulations.

B.170 Part III shall contain the particulars in respect of frequency assignment notices which are returned to the notifying Administration as a result of unfavourable Findings.

B.171 The country symbols entered in Column 4b of the Master Register for those assignments which were considered by the I.F.R.B. to be the most effected shall appear on the right hand side of Column 13c of Part III.

SECTION 2

Frequency assignments notified according to the provisions of

Article 9A

of the Radio Regulations and for assignments notified for stations in the fixed or mobile service, located within co-ordination distance of an earth station, in a band which these services share with equal rights with the space service, in the frequency spectrum between one and ten Gc/s

The administrative procedure described in Section 1 is in general also applicable by analogy to SECTION 2. This Section contains therefore only additional instructions for items not covered by SECTION 1.

<u>Provisions of</u> <u>the Radio</u> <u>Regulations</u>			Column		
			13a	13b	13c
<u>Number 570AG</u>	B.172	The Finding shall be indicated by the following symbols	D	D	RR115
<u>Number 570AH</u> <u>Number 570AI</u>	B.173	The notice shall be returned to the notifying Administration	DX*)		
<u>Number 570AJ</u>	B.174	The Finding shall be indicated by the following symbols	D	D	RR115
<u>Number 570AM</u>	B.175	" " " " " "	H		
<u>Number 570AO</u>	B.176	The notice shall be returned to the notifying Administration	KX*)		

*) to be used only in Part III of the weekly I.F.R.B. Circular.

NOTE: For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

			Column		
			13a	13b	13c
<u>Number 570AP</u>	B.177	The Finding shall be indicated by the following symbols	H		E(date)
<u>Number 570AT</u>	B.178	The Finding shall be indicated by the following symbol	A		
<u>Number 570AV</u>	B.179	The notice shall be returned to the notifying Administration	BX*)		
<u>Number 570AW</u>	B.180	The Finding shall be indicated by the following symbols	A		E(date)
<u>Number 570AX</u>	B.181	" " " " " " " If no advice has been received from the notifying Administration that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received, a mail message is addressed to this Administration drawing its attention to this fact and stating that the assignment will not be recorded unless such an advice has been received. If such an advice is not received within a period of 2 years after the date of the return of the notice (number 570AV of the Regulations) which is the subject of the re-submission, the notice shall be considered as cancelled (number 570BC of the Regulations)	B		B(date)
<u>Number 570BA</u>) <u>Number 570BB</u>)	B.182	The additional symbols to be recorded in case of a change are		C	C(date)

*) to be used only in Part III of the weekly I.F.R.B. Circular.

NOTE: For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

			Column		
			13a	13b	13c
<u>Number 570BE</u>	B.183	The special symbol shall be			PROV
<u>Number 570BG</u>	B.184	" " " " " "			PROV RR570BG
* * * *					
<u>Number 639AM</u>	B.185	For notices received after the applicable period specified in Number 639AL, the symbol shall be (for new assignments only)			D
<u>Number 639AX</u>	B.186	The Finding shall be indicated by the following symbols	-	-	-
<u>Number 639AZ</u>	B.187	" " " " " "	D	D	RR115
<u>Number 639BA</u>	B.188	The notice shall be returned to the notifying Administration	DX*)		
<u>Number 639BB</u>	B.189	" " " " " " <u>or</u> The Finding shall be indicated by the following symbols	DX*)		
		<u>or</u>	D	D	RR115
			-	-	-
<u>Number 639BD</u>	B.190	The Finding shall be indicated by the following symbol	H		
<u>Number 639BF</u>	B.191	The notice shall be returned to the notifying Administration	KX*)		

*) to be used only in Part III of the weekly I.F.R.B. Circular.

NOTE: For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List

			Column		
			13a	13b	13c
<u>Number 639BG</u>	B.192	The Finding shall be indicated by the following symbols	H		E(date)
<u>Number 639BK</u>	B.193	" " " " " " "	A		
<u>Number 639BM</u>	B.194	The notice shall be returned to the notifying Administration	BX*)		
<u>Number 639BN</u>	B.195	The Finding shall be indicated by the following symbols	A		E(date)
<u>Number 639BO</u>	B.196	" " " " " " "	B		B(date)
		If no advice has been received from the notifying Administration that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received, a mail message is addressed to this Administration drawing its attention to this fact and stating that the assignment will not be recorded unless such an advice has been received. If such an advice is not received within a period of 2 years after the date of the return of the notice (number 639BM of the Regulations) which is the subject of the re-submission, the notice shall be considered as cancelled (number 639BV of the Regulations)			

*) To be used in Part III of the weekly I.F.R.B. Circular.

NOTE: For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List

		Column		
		13a	13b	13c
<u>Number 639BR</u>	B.197			R(date)
<u>Number 639BT)</u> <u>Number 639BU)</u>	B.198			C(date)
			C (if appropriate)	PROV
<u>Number 639BX</u>	B.199			PROV
<u>Number 639BZ</u>	B.200	"	"	PROV RR639BZ

NOTE: For the explanation of the symbols used in Columns 13a, 13b and 13c, reference should be made to the current Preface to the International Frequency List.

CHAPTER C

TECHNICAL PROCEDURE APPLICABLE IN THE FREQUENCY BANDS
BETWEEN 3950 kc/s (4000 kc/s IN REGION 2) AND 28 000 kc/s,
EXCEPT IN THE FREQUENCY BANDS ALLOCATED EXCLUSIVELY TO THE
AERONAUTICAL MOBILE SERVICE OR TO THE MARITIME MOBILE SERVICE

C.1 CO-ORDINATION

No technical examination is necessary with respect to an assignment likely to be affected for which co-ordination has been effected for the use of the frequency, as indicated in Appendix 1 to the Radio Regulations (page 336) and in the explanation of the use of the symbol "COORD" in an annex to the weekly I.F.R.B. Circulars.

C.2 TECHNICAL EXAMINATION

C.2.1 Checking of the preliminary examination

Where technical examination is necessary, this examination will start with the checking, by the T.E.D., of the preliminary examination of the notice made by the F.R.D., especially with regard to Nos. 496 and 501 of the Radio Regulations and with the notes or remarks that should be indicated with a Finding, in accordance with the provisions of the Radio Regulations.

C.2.2 Selection of assignments likely to be affected

Thereafter, the tabulation prepared by the Mechanical and Electronic Systems Operation Department will be carefully examined by the T.E.D. to select all assignments which may be

affected by the operations specified in the notice including all assignments which appear on the tabulation, but excluding those which bear symbols D, T, X or Y in Column 13a and/or symbols D or DD in Column 13b. In addition, assignments which bear number 116, 139 or 139* in Column 13b should be taken into consideration to the extent required. Such symbols may be preceded or followed by one or more other symbols in Columns 13a and 13b. The technical data of all these probably affected assignments, extracted from the tabulation, should be entered in the WS 3, printed inside the folder containing the notice.

C.3 UTILISATION OF FORMS WS 3 AND WS 1

Specimens of Forms WS 1 and WS 3 and additional guidance for the filling in of WS 3 are given in Annexes 1, 2 and 3.

C.3.1 Information to be entered

The information to be entered in Columns 1, 4a, 4b, 5a, 6, 7, 8, 9 and 10 is only a copy of the data given on the notice or tabulation. In addition, the following procedures will be followed by the T.E.D. either for WS 1 or WS 3.

C.3.2 Information in Column 5b

When not indicated in the notice or in the tabulation, the distance in the case of FX circuits has to be ascertained and entered. When the notified distance is wrong, it should be

corrected in the notice.

C.3.3 Information in Column 9

C.3.3.1 Circuits of less than about 1000 km

When the vertical characteristics of the transmitting antenna are notified, e.g. in the case of a tropical broadcasting service station, account will be taken of these vertical radiation characteristics in calculating the field strength of the transmitted signal.

C.3.3.2 Transmitting antenna gain of the existing assignment (TAG)

- a) Enter the value notified in Column 9c appearing in the tabulation. If only Column 9a has been notified, the value of 9c is to be taken from Column 2 of T.S. A-4 (see however C.3.3.1).
- b) When the directional characteristics of the antenna have not been notified (blank in the tabulation) or when there is an indication of non-directivity (in general, ND in the tabulation) the value of 0 db is to be entered.
- c) However, when the length of the circuit of the existing assignment notified as ND is greater than about 1600 km irrespective of the notified power, or less than about 1600 km and at least equal to 500 km if the notified power is not less than 0.5 kW, the value shown in Column 2 of T.S. A-4 should be entered in the appropriate column of WS 3 and added to

the calculated field value. In such cases this value will be indicated in the appropriate column of WS 3 and in the report to the Board, under the heading "TAG". For Press and Meteorological Services, however, see paragraphs C.4.3 and C.4.4.

- d) The preceding procedure in c) above is not applicable for cases of circuits between 500 and about 1600 km with different points of reception including networks (symbol ZN in Column 5a) scattered all around the transmitting station, where the use of different transmitting directive antennae might be impracticable.

C.3.3.3 Transmitting antenna gain of the new or amended assignment for the interference path

C.3.3.3.1 Case of a directional antenna

- a) When the values of Columns 9a, 9b and 9c are notified in the new notice:
- (1) if the reception point of the existing assignment is within the angle notified in Column 9b of the new assignment, the notified value of 9c of the new or amended assignment, or the value shown in Column 2bis of T.S. A-4, as appropriate, depending on the path-length and the notified gain, is to be entered;
 - (2) if the reception point of the existing assignment is outside the angle notified in Column 9b of the new or amended assignment, the value shown in Column 4, 4bis, 6 or 6bis of T.S. A-4, as appropriate depending

on the angle and path-lengths (see paragraphs 3 of T.S. A-4) is to be entered.

b) When the value of Column 9a only is notified in the new notice:

- (1) if the reception point of the existing assignment is within the angle indicated in Column 1 of T.S. A-4, the value shown in Column 2 or 2bis of T.S. A-4, as appropriate depending on the path-lengths (see paragraph 3 of T.S. A-4) is to be entered;
- (2) if the reception point of the existing assignment is outside the angle indicated in Column 1 of T.S. A-4, the value shown in Column 4, 4bis, 6 or 6bis of T.S. A-4, as appropriate depending on the angle and path-lengths (see paragraph 3 of T.S. A-4) is to be entered.

c) When the values of Columns 9a and 9c only, or 9c only, are notified in the new notice, and the value of Column 9c differs from that given for the frequency range concerned in T.S. A-4, the width of the main lobe will be assumed to correspond to the value given in T.S. A-4 for the values notified in Column 9c. In order to do so, the values of antenna angles and discriminations given in T.S. A-4 for the frequency range which most closely corresponds to the notified antenna gain should be used. Where the notified gain is more than 15 db, the angle of the Sector M should be reduced to 12° and the angles of Sectors A1 and A2 should be reduced to 16° and the angle of Sector B should be increased to 316°. In the latter case, the Board should judge whether a greater discrimination should be assumed outside the main lobe of radiation than those given in T.S. A-4.

- d) When a new notification is examined, concerning a change to an existing assignment whereby a non-directional antenna (ND in Column 9a) is replaced by a directional antenna, if the length of the links is 500 km or more and the power 1 kW or more, the Board will request the notifying Administration to reduce the power, if possible, by a value corresponding to the difference between the antenna gain in sector M and the absolute value of its gain in sector B (see paragraph E.7.7.3.2.3). (For example, in the case of a 10 kW ND existing assignment in the 8 Mc/s band, modified to D with a gain of 10 db, the notifying Administration, in accordance with T.S. A-4 should reduce the power by at least $10 - 4 = 6$ db. For the same case on 5 Mc/s with a gain of 6 db for the new notified D antenna, the power should be reduced by at least $6 - 3 = 3$ db.)

C.3.3.3.2 Case of a non-directional antenna

When the information notified in Column 9a is ND, the calculations will be made on this basis and the value to be entered is 0 db. However, when the length of the circuit is greater than about 500 km (see C.3.3.2.c) and the notification of a directional antenna in the new notice may result in a better protection to an existing assignment, and would so allow a favourable Finding to be given, the member concerned may recommend, on the merits of the case, to suggest to the notifying Administration the use of a directional antenna and possibly the reduction of the power and to re-submit the notice accordingly. This will be entered in WS 3, and in the report, as follows :

"S. TDA ... db plus"

C.3.3.4 Receiving antenna discrimination of the existing assignment (RAD)

- a) When the angle between the wanted emission path and the interference path is more than half the value given for the frequency range concerned in Column 1 of T.S. A-4, the difference between the values shown in Column 2 and those shown in Columns 4 or 6, or between the values shown in Column 2 and those shown in Column 2bis, or 4bis, or 6bis, as appropriate for the sector and distances (see paragraph 3 of T.S. A-4), should be indicated as follows in the appropriate column of WS 3 and in the report under the heading "RAD".

"	(db)",	when the transmitting stations are in different sectors
"0"	or	when the transmitting stations are in the same sector
"	(db)"	
"X"		when a directional receiving antenna is not assumed.

- b) The provisions of the preceding paragraph, which are based on the assumption that a directional antenna is used for reception, are applicable only for FX point-to-point circuits (with the exception of press manual telegraph and meteorological broadcasts referred to in paragraphs C.4.3 and C.4.4) involving distances of not less than about 1600 km irrespective of the power notified, or distances less than about 1600 km and at least equal to 500 km, if the power notified is not less than 0.5 kW.

- c) The value of RAD should not be included in the calculations of the protection ratio and will be shown only as further discrimination assumed from the use of directional antennae and where its inclusion will enable a favourable Finding to be given.
- d) However, when a directional antenna for reception is assumed, and with the only purpose to establish whether the field intensity at the receiving point justifies the protection of an assignment, the values from T.S. A-2 used for this assessment should be decreased by an amount equal to the gain of the directional antenna assumed for reception.

C.3.4 Information in Column 10

- C.3.4.1 The term HJ, or J, when notified in Column 10 or in Column 13c, is taken to mean that transmission is only effected on the frequency concerned between sunrise and sunset, i.e. in general, between approximately 0600 and 1800 hours local time. Similarly the term HN, or N, when notified in Column 10, is taken to mean that transmission is only effected between sunset and sunrise, i.e. in general, between approximately 1800 and 0600 hours local time.

- C.3.4.2 The term HT, or T, when notified in Column 10 or in Column 13c, is taken to mean that transmission is only effected on the frequency concerned during transitional periods between daylight and darkness, i.e. in general, between approximately 0400 - 0800 hours and 1600 - 2000 hours local time.

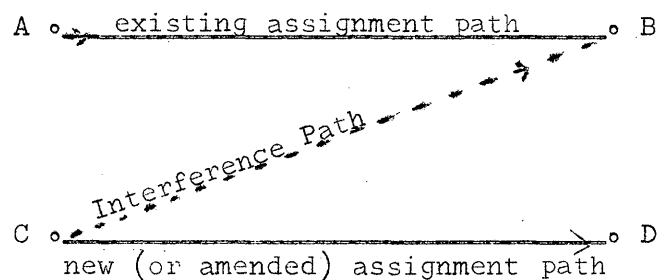
C.3.4.3 Many assignments specify H24 in Column 10, meaning the hours of use of the circuit. However, when specific periods of use of the frequency (i.e. times of the day, or seasons, or phases of solar activity) are specifically notified in Column 13c, the technical examination should be made only on the basis of these periods of use.

C.3.5 Drawing of the field strength curves and MUF values on WS 1

C.3.5.1 When the technical information has been entered on WS 3 and the existing, new and interference paths involve different MUF conditions, (due to geographical contrast, or long versus short circuits), it will be necessary to use WS 1 for showing the MUF conditions.

C.3.5.2 If it is necessary also to draw the field strength curves, enter in the right hand column of WS 1 the values in db of power, transmitting antennae gains and receiver discrimination and mark the total on the right hand scale.

C.3.5.3 The paths involved are as follows :



- For path AB, the required data are the MUF values and the field at B
- For the path CB, the required data are the MUF values and the field at B
- For path CD, the required data are the MUF values.

For convenience, black pencil should be used for the data for path AB.

For convenience, red pencil should be used for the data for path CB

For convenience, green pencil should be used for the data for path CD.

C.3.5.4 Starting with the path of the existing assignment AB, look in T.S. B-1 or B-2 for the appropriate field strength curve, according to the distance, frequency, latitude or circuit concerned, as indicated in the information on WS 1.

C.3.5.5 In order to take into account the difference between GMT and the local time, when drawing on WS 1 the MUF values and field strength curves for each of the paths concerned (existing assignment, new or amended assignment and interference path), the following procedure should be applied:

- a) In the case where the length of the path concerned is more than 4000 km, the "12 GMT" line of the grid of WS 1 is made to coincide with the "12 GMT" line of the appropriate graph of T.S. B-1.
- b) In the case where the length of the path concerned is 4000 km or less, the "12 GMT" line of the grid of WS 1 is made to intersect the "longitude scale" (drawn at the top of each sheet of T.S. B-2) at the longitude of the mid-point of the path.

- C.3.5.6 a) When T.S. B-1 is used, slide the grid of WS 1 vertically until the 0 db line of T.S. B-1 coincides with the mark on the right-hand side of the grid of WS 1 for the existing assignment (C.3.5.2) and draw the corresponding field strength curve, by transparency, for the path AB for the phase DL (black pencil). Do the same for the phase JA, and if necessary for other phases in special cases (such as when interference may occur during one phase only, e.g. when skip may be present on the interference path during other phases).
- b) When T.S. B-2 is used, slide the grid of WS 1 vertically until the 0 db line of T.S. B-2 coincides with the mark on the right-hand side of the grid of WS 1 (C.3.5.2). Then mark on the grid of WS 1 the times corresponding to the ends of the horizontal portion of the curve of T.S. B-2, and also the time corresponding to the lowest point of the curve. At these times, mark on the grid (black pencil), but using the db scale of T.S. B-2, the appropriate field strength values for the phase DL, taken from the field strength tables (Table A). Then trace a curve through these marks, using the curves of T.S. B-2 as guides. Do the same for the phase JA, and if necessary for other phases in special cases (such as when interference may occur during one phase only, e.g. when skip may be present on the interference path during other phases).
- C.3.5.7 Repeat the same procedure for the interference path CB (red pencil).

- C.3.5.8 Using T.S. B-1, B-2 or C-1, and taking into account the provisions of C.3.5.11 to C.3.5.17 below, copy or transfer in full lines the periods of time during which the median MUF is above the assigned frequency in question, for the phases DL, JL, DA, JA, for the existing assignment AB (black pencil). (In T.S. B-1 these periods are indicated as a straight full line).
- C.3.5.9 Repeat step C.3.5.8 for the interference path CB (red pencil).
- C.3.5.10 Repeat step C.3.5.8 for the new or amended assignment DC (green pencil).
- C.3.5.11 In using, in accordance with paragraphs C.3.5.8, C.3.5.9 and C.3.5.10, the MUF indications given in the T.S. for determining the periods of probable use of an existing assignment, allowance must be made for the fact that in practice operations may start before and often continue after, the hour at which the median F2-MUF becomes equal to the assigned frequency. Apart from the possibility of propagation by other modes, this is because the MUF is just as likely to exceed the median value as it is to fall below it.
- C.3.5.12 The basis for the allowance is given in T.S. B-1 in the form of the MUF indications at the top of each sheet, which consist of full lines for periods during which the frequency is below the median MUF (the locus of the end of these full lines indicates fairly closely the MUF curve) and of dotted lines when the frequency is above the median MUF by not more than 15% (that is to say, above the median MUF, but slightly

below the upper decile value of the median MUF-- called UDF in the Preface to T.S. B-1). When WS 1 shows full lines together with such dotted lines, propagation during the periods indicated by the dotted lines will be possible between about 50% and 10% of the days (50% at the junction of the dotted line and the full line, and 10% at the other end of the dotted line - see Preface to T.S. B-1), and this possibility is to be taken into account.

C.3.5.13

When doing steps C.3.5.8, C.3.5.9 and C.3.5.10, taking into account the foregoing allowances, the full lines indicate the period during which the median MUF is above the assigned frequency in question. This indication is enough for CB (interference path), (para. C.3.5.9), because the interfering signal will reach the point to be protected, B, insofar as the assigned frequency is below the median MUF by any amount (full line), or above the median MUF by not more than 15% (dotted line) the strength of that signal being shown by the field strength curve already drawn for path CB.

C.3.5.14

However, this indication is not complete for paths AB and CD, (C.3.5.8 and C.3.5.10). In both these cases, it is necessary to know not only if the assigned frequency in question is below the median MUF, but also by what amount, and whether for path AB the calculated field strength is also below the values of T.S. A-2 (see C.4.3.2 (4)). At the period when the assigned frequency is below the median MUF, but it is too low or for path AB the calculated field strength is below the values of T.S. A-2, the circuit AB cannot be operated successfully at that period on the assigned frequency.

- C.3.5.15 Hence, when drawing, for each phase, the periods during which the assigned frequency is below the median MUF for paths AB and/or CD, from the curves in T.S. C-1 and B-2, as indicated in C.3.5.8 and C.3.5.10, proceed as follows:
- C.3.5.15.1 When the assigned frequency is above the median MUF by more than 15%, no line should be drawn for the period concerned.
- C.3.5.15.2 When the assigned frequency is higher, by not more than 15% than the median MUF, indicate the period concerned by a dotted line.
- C.3.5.15.3 When the assigned frequency is higher, by not more than 15% than the median MUF, and the dotted line drawn in accordance with C.3.5.15.2 does not form an extension of a full line drawn in accordance with C.3.5.15.4, indicate the highest median MUF during the corresponding period.
- C.3.5.15.4 When the assigned frequency is completely or partially below the median MUF at a specific phase, draw a full line from the time when the ascending MUF curve cuts the ordinate of the assigned frequency until the time when the descending MUF curve again cuts this ordinate. When the assigned frequency is lower than 18000 kc/s, this line should be drawn in dashes during the time when the median MUF is higher than 1.7 times the assigned frequency. Write, above the dashes, the value of the maximum median MUF during this period. When the assigned frequency is above 18000 kc/s, a full line should be drawn, even if the median MUF is higher than 1.7 times the frequency.
- C.3.5.15.5 Repeat the same procedure in cases where T.S. C-1 is being used for paths over 4000 km, when the assigned frequency is below the median MUF and the field strength at the relevant

receiving point is below the value required by Technical Standard A-2, but cut, with strokes, the full line or dashes so drawn (C.3.5.15.4).

C.3.5.16 Assignments relating to Broadcasting Services possibly notified above 5060 kc/s should be examined as follows from the point of view of the MUF.

C.3.5.16.1 With respect to new or amended assignments of this type, the provisions of paragraphs C.3.5.15.1, C.3.5.15.2, C.3.5.15.3 and C.3.5.15.5 should be applied. However, with the exception of those assignments with frequencies above 18,000 kc/s, the periods during which the median MUF to the various parts of the notified service area lies between the assigned frequency and 1.33 times this frequency should be shown by a full line on WS 1, and the periods during which the median MUF is higher than 1.33 times the assigned frequency should be shown by a dashed line. When the assigned frequency is above 18,000 kc/s, a full line should be drawn for all periods during which the median MUF is higher than 1.33 times the assigned frequency. It is to be noted that the examination for the periods concerned should not be conducted only with respect to those parts of the notified service area which are the farthest from the transmitting station concerned.

C.3.5.17 Assignments relating to meteorological broadcasts (see paragraph C.4.3) or press broadcasts (see paragraph C.4.4) should be examined as follows from the point of view of the MUF :

C.3.5.17.1 With respect to existing assignments of this type, with the exception of those on frequencies above 18,000 kc/s, the part of the notified service area (Column 5a or Column 5b) for which

the median MUF at the period considered lies between the assigned frequency and 1.33 times this frequency, should be determined at each period. For this purpose, day, transition and night hours should in general be considered separately for each of the four phases of solar activity, and service range or area to be protected should be determined for each of the periods, using T.S. B-2 or T.S. C-1. When the assigned frequency is above 18,000 kc/s, the part of the notified service area to be determined should be the one for which the median MUF at the period concerned is above the assigned frequency. It is to be noted that the examination would not be conducted only with respect to those parts of the service area so determined which are the farthest from the transmitting station concerned.

C.3.5.17.2 With respect to new or amended assignments of this type, the provisions of paragraphs C.3.5.15.1, C.3.5.15.2, C.3.5.15.3 and C.3.5.15.5 should be applied. However, with the exception of those assignments on frequencies above 18,000 kc/s, the periods during which the median MUF to the various parts of the notified service area (Column 5a or Column 5b) lie between the assigned frequency and 1.33 times this frequency should be shown by a full line on WS 1, and the periods during which the median MUF is higher than 1.33 times the assigned frequency should be shown by a dashed line. When the assigned frequency is above 18,000 kc/s, a full line should be drawn for all periods during which the median MUF is higher than the assigned frequency, even if the median MUF is higher than 1.33 times the assigned frequency. It is to be noted that the examination for the periods concerned should not be conducted only with respect to those parts of the notified service area which are the farthest from the transmitting station concerned.

C.3.5.18 WS 1, when completed, graphically indicates the value of the field strengths at the various periods, as well as the relationship between the assigned frequency and the median MUF. Fuller guidance, if required, can be obtained by observing the trend of the MUF curves, from either T.S. C-1 or T.S. B-1.

C.4 APPLICATION OF T.S. A-2 IN ESTABLISHING THE MINIMUM VALUE OF FIELD STRENGTH TO BE PROTECTED

In applying the following procedures, it has to be noted that the calculated field strength of the existing assignment (I_w) is the total (A) of WS 3, in which the gain of the transmitting antenna of the existing assignment (if assumed or notified) has been included (see paragraph C.3.3.1 and C.3.3.2).

C.4.1 FX point-to-point circuits

- (1) Write down the geographical location of the receiving point likely to be affected, as obtained from the map in Tables 1 to 4 of T.S. A-2, and the value of the minimum field strength to be protected (I_m) obtained from T.S. A-2 for that point, time block, season (at least for DC and JN) and the type of transmission concerned. If the existing assignment has more than one type of transmission (e.g. 6A13) it is necessary to write down the value for each type (see C.4.1(5) below).
- (2) When a directional antenna for reception is assumed, I_m is the value obtained from T.S. A-2 reduced by an amount equal to the gain of the antenna assumed for reception (see C.3.3.4 d)).
- (3) When the calculated field strength (I_w) of the existing assignment is above the minimum value (I_m) to be protected: protect I_w .
- (4) When I_w is lower than I_m (in all time blocks and seasons) the protection ratio of the type of transmission concerned should not be calculated, but it is necessary to check whether

the protection ratio should be calculated for alternative notified types of transmission. If this is unnecessary, indicate in the "General Remarks" Column of WS 3 and of the report :

"xx db < T.S. A-2"

- (5) In certain cases of more than one type of transmission, as for example 6A13, when protection ratio of the A3 emission should not be calculated because I_w is below I_m , the protection ratio of the A1 emission should be calculated if I_w is higher than I_m for A1. In such a case, care should be taken to use the appropriate receiver discrimination for the narrower emission (A1 in the above example) when the assignments are on adjacent channels.

C.4.2

Broadcasting Service or Services where a service area or range is indicated, except meteorological broadcasts (see paragraph C.4.3) and press broadcasts (see paragraph C.4.4).

- (1) Write down the geographical position of the limit of the affected service area in the direction of the interfering station, as obtained from the map in Tables 1 to 4 of T.S. A-2, and the value of I_m obtained from T.S. A-2 for that point, time block, season (at least DC and JN) and the type of transmission involved. The service area or range is limited to the frontier of the country in the direction of the interfering station when INTR appears in Column 5a of the existing assignment. If the

existing assignment has more than one type of transmission, it is necessary to write down the value of I_m for each type.

- (2) A directional receiving antenna is not assumed and hence no allowance for RAD due to antennae is involved.
- (3) When the calculated field strength (I_w) of the existing assignment is above the minimum value (I_m) to be protected: protect I_w .
- (4) When I_w is lower than I_m in all time blocks and seasons, decrease the service area or range to that at which the field strength is I_m , and modify the interference distance correspondingly, taking into account the variations of these distances, according to the time block or season: protect I_m in this new area or at this new range.

C.4.3 Meteorological broadcasts where a service area or range is indicated

- C.4.3.1 Where the area of reception indicated in Column 5a, or the service range indicated in Column 5b, seems large in relation to the power and frequency used, an enquiry should be made from W.M.O. for more specific information. Should this reveal that the notified area seems to be too large, a telegram will be sent to the notifying Administration requesting information on actual points of reception. In principle, the protection ratio

is calculated for the whole of the receiving area so determined, subject to the field intensity being adequate and, in the case of long-range broadcasts, at the distances, and in the areas determined from the point of view of the MUF, according to the provisions of paragraph C.3.5.17.1. Where the indication in Column 5a is INTR, or any similar indications signifying a "National" service, protection should be calculated, in principle, only to the frontier of the country in the direction of the interfering station.

C.4.3.2 These principles should be applied as follows :

- (1) The value of the minimum field strength to be protected (I_m) is obtained by applying the procedure described in C.4.2 (1).
- (2) The use of a directional transmitting antenna is assumed when the distance exceeds about 1600 km. The appropriate allowance for TAG will then be applied.
- (3) The use of a directional receiving antenna :
 - a) is not assumed if A1 manual telegraphy is employed, and therefore no allowance for RAD is involved;
 - b) is assumed if automatic telegraphy is employed when the distance exceeds about 1600 km, and the appropriate allowance for RAD will be applied.
- (4) When a directional antenna for reception is assumed, I_m is the value obtained from T.S. A-2 reduced by an amount equal to the gain of the antenna assumed for reception (see C.3.3.4.d).

- (5) Where the calculated field strength (I_w) of the existing assignment is above the minimum value (I_m) to be protected: protect I_w .
- (6) Where I_w is lower than I_m , decrease the area notified, or the service range, to the value at which I_m is reached and increase the interference distance correspondingly: protect I_m in this new area or at this new range.

C.4.4 Press broadcasts where a service area or range is indicated

- C.4.4.1 If the area of reception indicated in Column 5a, or the service range indicated in Column 5b, seems unduly large in relation to the power and frequency used, a telegram should be sent to the notifying Administration requesting information on actual points of reception. In principle, the protection ratio is calculated for the whole of the receiving area so determined, subject to the field intensity being adequate and, in the case of long-range broadcasts, at the distances and in the areas determined from the point of view of the MUF, according to the provisions of paragraph C.3.5.17.1. Where the indication in Column 5a is INTR or any similar indication signifying a "National" service, protection should be calculated, in principle, only to the frontier of the country in the direction of the interfering station.

C.4.4.2 These principles should be applied as follows :

- (1) The value of the minimum field strength to be protected (I_m) is obtained by applying the procedure described in C.4.2 (1).

- (2) The use of a directional transmitting antenna is assumed when the distance exceeds about 1600 km. The appropriate allowance for TAG will then be applied.
- (3) The use of a directional receiving antenna :
- a) is not assumed if A1 manual telegraphy or Hellschreiber is employed, and therefore no allowance for RAD is involved;
 - b) is assumed if automatic telegraphy is employed when the distance exceeds about 1600 km. and the appropriate allowance for RAD will be applied.
- (4) When a directional antenna for reception is assumed, I_m is the value obtained from T.S. A-2 reduced by an amount equal to the gain of the antenna assumed for reception (see C.3.3.4.d)
- (5) Where the calculated field strength (I_w) of the existing assignment is above the minimum value (I_m) to be protected : protect I_w .
- (6) Where I_w is lower than I_m , decrease the area notified, or the service range, to the value at which I_m is reached and increase the interference distance correspondingly : protect I_m in this new area or at this new range.

C.5 APPLICATION OF T.S. A-3 IN ESTABLISHING THE RECEIVER DISCRIMINATION

- C.5.1 The allowance for the discrimination provided by the receiver is determined from the formulae or from the tables of T.S. A-3; it is recorded on the Working Sheet and will be deducted from the interfering field.

C.5.2

No allowance is taken into account in respect of the frequency deviations within the frequency tolerance limits specified in Appendix 3 to the Radio Regulations. In fact, the receivers assumed to be used in establishing T.S. A-3 have been taken, in general, as having a pass-band which is larger than the necessary bandwidth of the emission to be received, and this results, in effect, as if an allowance for frequency deviation were introduced in T.S. A-3.

(The only information that the I.F.R.B. gets from the notifications in this respect is the entry in Column 7 which is supposed to be the necessary bandwidth of the emission; but in reality, these data indicate, in nearly all cases, the nominal bandwidth of the equipment used, in particular for those classes of emission using a wide bandwidth (such as A3, A3A, A3B, A7B, A9B, etc.). For single frequency (including frequency shift) emissions, however, (such as A1 or F1) it can usually be assumed that the bandwidth notified is the necessary bandwidth, except in certain cases, for example A1 for aural or low speed reception, where bandwidths of 1 or 2 kc/s are wrongly notified. The purpose of the following rules is to cope with these difficulties and at the same time to arrive at a solution which does not over-protect the assignment by applying twice, directly and indirectly, the same allowance for frequency deviations).

C.5.3.

To take into account the probable instabilities of transmitters and receivers from a practical point of view, the following rules are applied :

- a) for the assignment referred to in the new notice, when considering the probability of causing harmful interference, the notified bandwidth should be taken as the necessary bandwidth of the emission.

- b) for an existing assignment, when considering the protection to be afforded, the pass-band of the receiver should be determined according to the notified bandwidth, class of emission and nature of service, as shown in the following Table :

T A B L E

of pass-band of the receiver of the wanted emission (range 3950 - 28000 kc/s)

Class of emission or class of station	Bandwidth notified (kc/s)	Pass-band of the receiver (Bwa) (kc/s)
A1	Any	1
F1	Any	1,5
A2	Any	2
A3 Double sideband	Any	6
Broadcasting	Any	10
All other classes of emission or of station	Any	As notified

C.5.4 T.S. A-3 should be used as follows:

C.5.4.1 In applying T.S. A-3 for existing assignments, when the notified class of emission in Column 7 is A3 (telephony DSB), the formulae or Tables for 6 kc/s, as the pass-band of receiver of the wanted emission, should be used whatever the notified bandwidth is.

C.5.4.2 The following transmissions are designated in T.S. A-3 by the symbol TG:

A2B, A2H

A4, A4A, A4B

A7, A7A, A7B, A7H, A7J

A9, A9A, A9B, A9J

F2, F4, F6, F9

Hellschreiber (symbol S in column 7)

C.5.5 When the principle represented by symbol "OOCA" may be applicable (see paragraphs C.6.4.1 and E.3.2.3.5 to E.3.2.3.13), the allowance for receiver discrimination should be ascertained and entered in the appropriate column of WS 3, using the appropriate formula or Table of T.S. A-3, in conjunction with the actual frequency separation between the new (or amended) assignment and the existing affected assignment. The corresponding allowance for receiver discrimination should then be ascertained, using the same Table, when the frequency separation has been increased by 3 kc/s (see paragraph C.6.4.1). It is considered that, in adding to the protection ratio of the existing assignment (calculated on the basis of the receiver discrimination first ascertained) the

difference between the two values of the receiver discrimination obtained from the Table, the result represents the protection ratio of the channel adjacent to the outer upper channel which is affected. The difference between the two values of the discrimination should be entered in the "General Remarks" Column of WS 3 and in the report to the Board in the following way:

"OOCA ... db plus"

C.6 APPLICATION OF T.S. A-1 IN ESTABLISHING THE MINIMUM SIGNAL/INTERFERENCE PROTECTION RATIO REQUIRED

C.6.1 Definition

The minimum signal/interference protection ratio required for a specific type of transmission is obtained from Technical Standard A-1. In the case of types of transmission for which two figures are shown in this Standard, between parenthesis, the lower of these figures is called in the present Rules "minimum limit of T.S. A-1" and the higher figure is called "upper value of T.S. A-1". In cases where a single figure is shown in this Standard, this figure is called "minimum limit of T.S. A-1".

C.6.2 Signal/interference protection ratio required for an existing assignment with a single type of transmission

The "minimum limit" and the "upper value" of the signal/interference protection ratio required for an existing assignment with a single type of transmission are those shown in T.S. A-1. However, some particular cases should be treated as follows:

C.6.2.1 A1, A2 telegraphy

C.6.2.1.1 With respect to existing assignments for which an A1 transmission has been notified with a bandwidth (for instance 1 kc/s) implying a speed higher than manual, and consequently the use of automatic receiving equipment, the following procedure should be applied:

- a) When a directive transmitting antenna has not been notified, the signal/interference protection ratio required is 26 (7-25), 30 (11-29) or 32 (13-31) db, as appropriate, when the calculated field strength is not below the value obtained from the corresponding table of T.S. A-2, for telegraphy automatic reception.
- b) When the calculated field strength is less than this value, but is not below the value obtained from the corresponding table of T.S. A-2 for telegraphy aural reception, the signal/interference protection ratio required is that shown in T.S. A-1 for telegraphy and reception.
- c) With respect to other circuits of this kind, irrespective of their length, but for which a directive transmitting antenna is notified or assumed, the signal/interference protection ratio required is that shown in T.S. A-1 for telegraphy automatic reception when a directive receiving antenna is assumed, and the minimum field intensity to be protected should be obtained from the corresponding Table of T.S. A-2 for telegraphy automatic reception (see C.3.3.4.d). When no directive receiving antenna is assumed, the signal/interference protection ratio required is that given in a) above.

C.6.2.2 F1 telegraphy

Existing assignments for F1 radiotelegraph circuits are considered in all cases as relating to telegraphy automatic reception.

C.6.2.3 Telephony

- a) With respect to existing assignments for telephony of any type (double sideband, single sideband, or independent sideband) notified as CP, if a directive transmitting antenna has not been notified, the signal/interference protection ratio required is 32 (13-31), 36 (17-35) or 38 (19-37) db, as appropriate, when the calculated field strength is not below the value obtained from the corresponding Table of T.S. A-2, for telephony for connection to the public network.
- b) When the calculated field strength is less than this value, but is not below the value obtained from the corresponding tables of T.S. A-2, for telephony not for connection to the public network, the signal/interference protection ratio required is that shown in T.S. A-1 for telephony not for connection to the public network.
- c) With respect to other circuits of this kind notified as CP, irrespective of their length, but for which a directive transmitting antenna is notified or assumed, the signal/interference protection ratio required is that shown in T.S. A-1 for telephony for connection to the public network and the minimum field intensity to be protected should be obtained from the corresponding Table of T.S. A-2 for telephony for connection to the public network (see C.3.3.4.d). If, however, the calculated field

intensity is less than that obtained from the corresponding Table of T.S. A-2 for telephony for connection to the public network but not less than that obtained from the corresponding Table for telephony not for connection to the public network (see C.3.3.4.d), the circuit will be treated as CO, and the signal/interference protection ratio required is that shown in T.S. A-1 for telephony not for connection to the public network.

- d) With respect to circuits of this kind notified as CO, CR, CV or OT, the signal/interference protection ratio required is that shown in T.S. A-1 for telephony not for connection to the public network and the minimum field intensity to be protected should be obtained from the corresponding Table of T.S. A-2 for telephony not for connection to the public network (see C.3.3.4.d).

C.6.3 Signal/interference protection ratio required for an existing assignment with more than one class of emission or type of transmission (see also C.6.4)

- C.6.3.1 As the assignment concerned includes a combination of classes of emission or types of transmission, the signal/interference protection ratio required for this assignment involves a combination of the signal/interference protection ratios required for these classes of emission or types of transmission. Subject to the provisions of paragraph C.6.3.2 below, this combination should be as follows: the "minimum limit of T.S. A-1" should be the minimum limit required for the notified class of emission or type of transmission which requires the lowest of the minimum limits

shown in the last column of T.S. A-1; similarly, the "upper value of T.S. A-1" should be the upper value applicable to the notified class of emission or type of transmission which requires the highest of the upper values shown in the last column of T.S. A-1. The signal/interference protection ratio of the existing assignment should be calculated on the basis of the type of transmission or class of emission which is susceptible to the greatest probability of harmful interference.

C.6.3.2 In applying the provisions of paragraph C.6.3.1 to existing assignments which have been notified with class of emission A1, A2 or F1 (or any combination of these classes of emission) associated with one or more other classes of emission with wider bandwidths (for instance A3 or A9), and for which a directive transmitting antenna is notified or assumed, it should be assumed that automatic telegraphy is involved (see in this connection C.6.2.1 and C.6.2.2); the lowest and highest values defined in Technical Standard A-1 will have to be selected, bearing in mind the signal/interference protection ratio required for the assignment in question.

C.6.4 Signal/interference protection ratio required for an existing assignment with two or more 3 kc/s baseband channels (Single sideband or independent sideband frequency division multi-channel systems, carrying either telegraphy or telephony or any combination of basic modulating signals.)

C.6.4.1 In the case of an existing assignment which includes a single independent sideband emission with four 3 kc/s baseband channels (12A3B, 12A7B, or 12A9B), the provisions of paragraph C.6.3.1 should be supplemented, where appropriate, by the following :

C.6.4.1.1 Application of the principle represented by symbol "OOCA" in the case of new assignments (see paragraphs E.3.2.3.5 to E.3.2.3.13)

In examining a notice of a new assignment, the principle represented by the symbol "OOCA" (only the upper outer 3 kc/s baseband channel is affected, i.e. the outer 3 kc/s baseband channel adjacent to the highest frequencies) is applicable when the following circumstances arise :

- a) any number of existing assignments (see paragraphs E.3.2.3.5 to E.3.2.3.13) which include four 3 kc/s baseband channels, the assigned frequency of which differ from those of the new assignment, are affected, their calculated protection ratio being below the "minimum limit of T.S. A-1",
- b) the protection ratio of the 3 kc/s baseband channel adjacent to the upper outer 3 kc/s baseband channel which is affected, calculated according to the procedure specified in paragraph C.5.5, is at least equal to the "minimum limit of T.S. A-1".

C.6.4.1.2 Application of the principle represented by symbol "OOCA" in the case of an amendment to an existing assignment (see paragraphs E.3.2.3.5 to E.3.2.3.13)

When an amendment to an existing assignment is being examined, the principle represented by symbol "OOCA" (only the upper outer 3 kc/s baseband channel is affected, i.e. the outer 3 kc/s baseband channel adjacent to the highest frequencies) is applicable when the following circumstances arise :

- a) any number of existing assignments (see paragraphs E.3.2.3.5 to E.3.2.3.13) which include four 3 kc/s baseband channels, the assigned frequencies of which differ from those of the amended assignment, are affected, their calculated protection ratio being reduced as a result of the amendment to below the "minimum limit of T.S. A-1",
- b) the protection ratio of the 3 kc/s baseband channel adjacent to the upper outer 3 kc/s baseband channel which is affected, calculated according to the procedure specified in paragraph C.5.5, is at least equal to the "minimum limit of T.S. A-1".

C.6.4.2

When an existing assignment includes an emission with two or more 3 kc/s baseband channels (classes of emission A3A, A3J, A3B, A7A, A7J, A7B, A9A, A9J, A9B), with a bandwidth equal or superior to 6 kc/s, and on examining a notice of an amendment to an existing assignment, if the calculated protection ratio is not reduced as a result of the amendment when applying T.S. A-3, it should be considered whether the amendment increases the number of 3 kc/s baseband channels affected. For this purpose the 3 kc/s baseband channels of the existing assignment should be considered, for the application of T.S. A-3, as independent 3 kc/s emissions and the result indicated, as appropriate, by the symbol "MCA db plus" or "NoMCA".

C.6.5

Examination of new notices with more than one class of emission or type of transmission

- C.6.5.1 The probability of harmful interference being caused to existing assignments should first be calculated for the class of emission, or type of transmission, notified as having the widest bandwidth.
- C.6.5.2 In the case where the finding for this part of the notice is unfavourable, it should be ascertained whether or not the rest of the notice, with the other classes of emission of equal or narrower bandwidth, could be given a favourable or qualified favourable finding.
- C.6.5.3 Where the finding for any part of the notice is favourable or qualified favourable, it is necessary to bear in mind that the application of certain principles could perhaps result in another part of the same notice, which would otherwise have been given an unfavourable finding, now fulfilling a condition which would justify the formulation of a qualified favourable finding. Such is the case of a change or the addition of a new class of emission, the new bandwidth notified not exceeding the existing bandwidth (see paragraphs E.7.5 and E.8.5) or the case where the protection ratio is not reduced as the result of an alteration, the number of channels affected not being increased (see paragraphs E.7.5.2 and E.8.5.2). In such a case, the relevant principle should be applied to this other part of the notice during the first examination, reference being made to the particular paragraph of these Rules of Procedure.

C.6.6 Auroral absorption (AA)

When the path of the existing assignment, or the interference path, lies wholly or partly within the auroral zone, account is taken of the additional attenuation due to "auroral absorption". Whether these attenuations are already included in the field intensity values used in calculating the protection ratio (as when the path in question has a length exceeding 4000 km and the field intensity values are derived from T.S. B-1), or computed separately (as when the path is less than 4000 km in length, and the field intensity values are deducted from T.S. B-2, whilst the additional attenuation due to "auroral absorption" is calculated by a procedure based on that described in National Bureau of Standards Circular 462), the "auroral absorption" value is included, where appropriate, in the desired field intensity and in that of the interference field. It is thus taken into account in the calculated protection ratio.

C.7 INTERPRETATION OF MEDIAN MUF VALUES IN RELATION TO THE PROBABILITY OF THE USE OF THE FREQUENCY OF AN ASSIGNMENT

C.7.1 As a general rule, the MUF values for the four phases of solar activity should be examined separately, and for each of these phases, the lines drawn on WS 1 for the three paths (new or amended assignment, existing assignment and interference path) should be analysed to assess the probability that propagation will be sustained on the three paths simultaneously, i.e. that there will be a "common time" of normal use of both assignments.

C.7.2 Periods where the assigned frequency is "normally usable"
for the circuit concerned

C.7.2.1 In order to obtain an indication of the periods during which the assigned frequency is to be considered as "normally usable", in other words the periods during which the assignment concerned is to be considered as "normally usable", graphical information shown on WS 1 (see paragraph C.3.5.18), in particular the relationship frequency/median MUF at the various periods, should be interpreted as follows:

- a) When during certain periods this relationship is represented by a full line (median MUF above the assigned frequency, but not higher than 1.7 times this frequency), this indicates that the assigned frequency is below the MUF, but not so low as to involve excessive absorption. The frequency is then to be considered as "normally usable" during these periods.
- b) When during certain periods, this relationship is represented by a dashed line (median MUF higher than 1.7 times the assigned frequency), this indicates that the assigned frequency, if it is below 18000 kc/s, is too low with respect to the median MUF, and that a higher frequency should normally be used in order to avoid excessive absorption. In certain cases referred to in paragraphs C.7.2.2, C.7.2.3 and C.7.2.4, the frequency concerned is to be considered, however, as "normally usable" during these periods. If the frequency is higher than 18000 kc/s, it is to be considered as "normally usable" during all the periods where it is below the MUF, subject to T.S. A-2 conditions.

- c) When during certain periods, this relationship is represented by a full line or a dashed line (median MUF higher than the assigned frequency), but if this line is cut by strokes, this indicates that the requirements for the minimum field strength to be protected, as specified in T.S. A-2, are not fulfilled. The frequency is then to be considered as not "normally usable" during these periods.
- d) When during certain periods, this relationship is represented by a dotted line (median MUF below the assigned frequency, but by not more than 15%), this indicates that the assigned frequency is higher than the median MUF, but below its upper decile value. The frequency is then to be considered as "normally usable" during these periods.
- e) When during certain periods, this relationship is not represented by any line (median MUF below the assigned frequency by more than 15%) this indicates that the assigned frequency is higher than the median MUF and its upper decile value, and that, as a consequence of "skip", there is no propagation. The frequency is then to be considered as not "normally usable" during these periods.
- f) In applying the above provisions in cases where Broadcasting Services (paragraph C.4.2), meteorological broadcasts (paragraph C.4.3) or press broadcasts (paragraph C.4.4) are involved, the provisions of paragraph C.3.5.16 or C.3.5.17, as appropriate, should be taken into account.

C.7.2.2

When an assignment is notified with a specific time of daily use not exceeding about 12 hours (for instance specific hours, or symbol such as HJ, HN, HT, J, N, T, etc. notified in Columns 10 or 13c), if during this time or part of this time the relationship median MUF/frequency is shown on WS 1 as a full line for at least

two phases of solar activity and as a dashed line for the other phase(s), it should be assumed that the frequency is "normally usable" at the time notified during all the phases insofar as the field strength is above the minimum to be protected, according to T.S. A-2, for that time and phases.

C.7.2.3

When an assignment is notified with symbol H24 in Column 10, if during a certain time of the day (for instance HJ or HN), or part of this time, the relationship median MUF/frequency is shown on WS 1 as a full line for three phases of solar activity and as a dashed line for the fourth phase, it should be assumed that the frequency is "normally usable" at this time during all phases, insofar as the field strength is above the minimum to be protected, according to T.S. A-2, for the time and phases concerned. If in these circumstances, the relationship median MUF/frequency is shown for the other part of the day as a full line for one phase only, it should be assumed that the frequency is not "normally usable" in this other part of the day during this latter phase.

C.7.2.4

Circuits less than 2000 kilometres long: If, for part of the day, HJ or HN, the relationship median MUF/frequency is shown on WS 1 as a full line for at least two phases of solar activity, and as a dashed line for the other phases, it should be assumed that, throughout the four phases, the frequency is "normally usable" during this part of the day only (insofar as the field

strength is above the minimum to be protected according to T.S. A-2, for that part of the day during all phases), provided, however, that the length of the full line throughout the remainder of the day does not exceed 50% of this remaining part of the day during two or more phases. In such circumstances, no account should be taken of propagation during this remaining part of the day, and the remark "HJ (or HN) assumed", represented by "HJ sup" or "HN sup", followed by the country symbol, should be included in the General Remarks Column of WS 3 and in the report. When the remark refers to the new notice, it will also be entered in Column 13c of the Master Register, if the Finding which permits recording is based on this assumption (see paragraphs E.3.2.3.5 to E.3.2.3.9).

C.7.3 Skip on the Interference Path

C.7.3.1 When the median F2-MUF is less than 85% of the assigned frequency during the period in question, it will be assumed that skip will occur on the interference path and will help in protecting the receiving point of the existing assignment.

C.7.3.2 During daylight on the interference path, and for frequencies higher than about 10 Mc/s, paragraph C.7.3.1 will be applicable. In such circumstances, "skip ... km" will be inserted in the General Remarks Column of WS 3 and in the report. However, to make allowance for the fact that propagation may occur by means other than reflection off the F2 layer, the Finding defined in

paragraphs E.3.2.3.5 to E.3.2.3.9 will be reached. In what follows, this will be known as applying the "Skip" procedure.

C.7.4 Application of the "LtCT" procedure

When the existing assignment is affected for a part only of the time during which the frequency is "normally usable" by the assignment, the "LtCT" (little common time) procedure is applicable (see paragraphs E.3.2.3.5 to E.3.2.3.9). This will occur in the following circumstances:

C.7.4.1 FX and FB Services

- a) When the existing assignment is affected during less than 25% of the period when the frequency is "normally usable" by this assignment in more than one of the four phases, with a maximum time of two hours during each or any of the four phases when the assignment is affected, or
- b) When the existing assignment is affected during less than 25% of the period when the frequency is "normally usable" by this assignment in only one phase, without any maximum time. Should, however, the MUF for the existing circuit which is affected during only one phase be between the assigned frequency and 1.33 times this frequency, a time-limit of two hours will be applied if the period when the assignment is affected lies between 0800 and 2400 hours, local time, at the transmitter.

C.7.4.2 Tropical Broadcasting Service

When the existing assignment is affected during less than 25% of the period during which the frequency is used by the existing assignment if the periods during which the assignment is affected are only between 0100 and 0500 hours, local time, in the reception zone.

C.7.4.3 In cases referred to in C.7.4.1 and C.7.4.2 above, the symbol "LtCT" should be inserted in the "General Remarks" Column of WS 3 and in the report.

C.8 APPLICATION OF THE PRINCIPLE REPRESENTED BY SYMBOL "AASA"

C.8.1 When examining a notice of a new assignment, if the calculated protection ratio of an existing assignment, after adding any appropriate allowances for receiving antenna discrimination (RAD, C.3.3.4) is below the minimum limit of T.S. A-1, the Master Register should be scrutinised in order to find whether there already exists one or more assignments, which fulfil the conditions laid down in paragraph C.8.4, recorded on behalf of the Administration which submitted the new notice.

C.8.2 When examining a notice of an amendment to an existing assignment, if the calculated protection ratio of another existing assignment, after adding any appropriate allowances for receiving antenna discrimination (RAD, C.3.3.4) is reduced and is below the minimum limit of T.S. A-1, the Master Register should be scrutinised in order to find whether there already exists one or more assignments, which fulfil the conditions laid down in paragraph C.8.4, recorded on behalf of the Administration which submitted the notice.

C.8.3 In cases where there already exists in the Master Register one or more assignments of this kind, the protection ratio of affected assignments should be calculated, on the one hand with respect to the new or amended assignment, and on the other hand, with respect to the other existing assignment(s) of the same Administration. If the former calculated protection ratio is not below the latter, after adding to each of them the appropriate allowances for receiving antenna discrimination (RAD, C.3.3.4) the principle represented by symbol "AASA" (there exists already one or more assignments of the same Administration) is applicable provided that the period during which the assignments are affected is not extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased. These last two conditions will be expressed, as applicable, in the Working Sheet and the report to the Board by the symbols LsCT, SCT and MCA, signifying respectively: less common time than before, same common time as before, larger number of affected channels. (see paragraphs E.3.2.3.5. to E.3.2.3.9, E.5.1, E.6, E.7 and E.8).

C.8.4 The principle represented by symbol "AASA" is applicable only in the following cases:

C.8.4.1 if the existing assignments(s) (AASA) are entered in the Master Register on the same frequency as the new or modified assignment or on a different frequency, provided that in this latter case, the bandwidth necessary for the transmission of the existing assignment(s) (AASA) includes that of the new or modified assignment;

C.8.4.2 if the existing assignment(s) do not have, in Column 13a, the symbols B, CV, CX, T or X or the symbol D accompanied, in Column 13b, by the symbols D, DD or 115 or, in Column 13c, the symbols 103, 40, 48, 218; or, as a general rule, if the existing assignment(s) do not have the symbol 139 or 139* in Column 13b or the symbol GGG in Column 13c (see, however, paragraphs C.11.7.2 and C.11.8.2); it is applicable, to the extent required, if the existing assignment or assignments have the symbol D in Column 13a and the symbol 116 in Column 13b.

C.8.5 The principle represented by symbol "AASA" is applicable in all Services other than Broadcasting.

C.8.6 In all cases where protection ratios are compared under the provisions of paragraph C.8.3, symbol "AASA" should be entered as follows in the "General Remarks" Column of WS 3 and in the report, followed by the particulars in Columns 1, 4a, 6, 8 and 10 of the existing assignment(s) of the same Administration (AASA), and by the numerical result of the comparison:

"AASA ... db plus" or "AASA ... db minus"

C.9 APPLICATION OF THE PRINCIPLES REPRESENTED BY SYMBOL "AVLP"
AND "AASA-AVLP"

C.9.1 When examining an amendment to certain columns of an existing assignment, the protection ratio of probably affected assignments should be calculated, on the one hand after, and on the other hand before, the amendment. If the protection ratio, after adding the appropriate allowance for receiving antenna discrimination (RAD, C.3.3.4) is reduced as a result of the amendment, but before the amendment was already at least 10 db below the minimum limit of T.S. A-1 during a period equal or more extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased, the principle represented by symbol "AVLP" (the protection ratio was already at least 10 db below the minimum limit) is applicable in accordance with those provisions of paragraphs E.3.2.3.5 to E.3.2.3.13 which refer to each of the columns concerned.

C.9.2 When examining a new notice, cases may arise, where there already exists in the Master Register one or more assignments, which fulfil the conditions laid down in paragraphs C.8.4.1 and C.8.4.2, recorded on behalf of the Administration which submitted the new notice (AASA), but where the principle represented by

symbol "AASA" cannot be applied because the comparison of the protection ratios does not give the appropriate result (see paragraph C.8.3). However, if the protection ratio afforded to the affected assignment by the already existing assignment(s) of the notifying Administration, after adding the appropriate allowance for receiving antenna discrimination (RAD, C.3.3.4) was already at least 10 db below the minimum limit of T.S. A-1 during a period equal or more extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased, the principle represented by symbol "AASA-AVLP" is applicable (see paragraphs E.3.2.3.5 to E.3.2.3.13, E.5.1, E.6, E.7 and E.8).

C.10 PROTECTION REQUIRED FOR EXISTING ASSIGNMENTS OF CERTAIN TYPES

C.10.1 Protection of existing assignments with receiving points located in the territory of the Administration submitting a new notice

C.10.1.1 In cases where one or more existing assignments are affected (i.e. when their calculated protection ratios, after adding the appropriate allowance for receiving antenna discrimination (RAD, C.3.3.4) are below the minimum limit of T.S. A-1), but only with respect to one or more points of reception located in the territory of the Administration which submitted the new notice, this result should not be taken into account in reaching the finding, and, with respect to this point(s) of reception, Remark G should be entered in Column 13b of WS 3 and in the report. This procedure is applied even in cases where "skip" (see paragraph C.7.3.2) contributes to the protection of these points of reception.

C.10.1.2 The provisions of paragraph C.10.1.1 are not applicable when other points of reception (of the same or other existing assignments) which are not situated on the territory of the notifying Administration are also affected, if "skip" does not contribute to their protection (see paragraph C.7.3.2) and if none of the principles represented by the symbols listed in paragraph E.3.2.3.7 is applicable. In such cases, Remark G should be entered between parenthesis in the Column 13b of WS 3 and in the report.

C.10.1.3 In cases where Remark G is entered in Column 13b of WS 3, the protection ratio of the affected assignment(s) should also be indicated on the WS 3 and in the report.

C.10.2 Protection of existing assignments in the Fixed (FX) and Land Mobile (FB) Services notified with more than one locality of reception or a region (including networks, but excluding press or meteorological broadcasts) (SPR)

C.10.2.1 The principle represented by symbol "SPR" (the affected assignment has more than one point or area of reception, part of which only is affected) is applicable to existing assignments as follows:

C.10.2.1.1 In the case of the Fixed Service (including assignments with symbol ZN in Column 5a, but excluding press or meteorological broadcasts, see paragraphs C.4.3 and C.4.4) when the number of reception points to which the frequency concerned is "normally usable"

during the periods of "normal use" of the new or amended assignment, is not less than six, and when the number of reception points affected in the existing assignment is not more than 25% (i.e. not more than 2/8, or 3/12) of the foregoing number. For calculation of the reception points only those in respect of which the MUF is appreciably similar will be considered (generally those located in the same region of the earth).

C.10.2.1.2 In the case of the Land Mobile Service, when the indication in Column 5a is an area and when the size of the area which is affected is not more than 25% of the area of which the frequency concerned is "normally usable" by the existing assignment during the periods of "normal use" of the new or amended assignment.

C.10.2.1.3 In cases provided for in paragraph C.10.2.1, symbol "SPR" followed by the indication of the ratio referred to in paragraphs C.10.2.1.1 and C.10.2.1.2, should be entered in the "General Remarks" Column of WS 3 and in the report.

C.10.2.2 In applying the principle represented by symbol "SPR", a point or area of reception, in respect of which Remark G is given by application of paragraph C.10.1, should not be taken into account (see also paragraphs E.3.2.3.5 to E.3.2.3.12).

C.10.3 Protection of existing assignments notified for occasional use
(Remark No. 103 in Column 13c)

C.10.3.1 An existing assignment, or particulars of an existing assignment, which bear in Column 13c of the Master Register Remark No. 103, indicating occasional use, should be taken into consideration in the examination of a new notice only in cases where there exist, on the same frequency, on behalf of the same Administration,

at least six assignments (including assignments with Remark No. 103 and assignments without Remark No. 103). In such a case a technical examination of the new notice should be made with respect to these assignments and when the number of affected assignments is not more than 25% (i.e. not more than 2/8, or 3/12 etc.) of the number of the existing assignments concerned, a qualified favourable finding should be given: this rule will be referred to in the following Rules of procedure as the "application of the principle represented by symbol N103". In all cases where an assignment bearing Remark No. 103 in Column 13c is involved in a technical examination, Symbol "N103" followed, in parenthesis, by the country symbol of the affected assignment, should be entered in the "General Remarks" Column of WS3 and in the report to the Board (see paragraphs E.3.2.3.5 to E.3.2.3.13).

10.3.2 For the application of the provisions of paragraph C.10.3.1, any existing assignment which bears Remark No. 93 in Column 13c, should be considered as representing at least six stations, each one of them with an individual assignment, and the finding reached should be considered as valid for each one of these stations.

C.10.3.3 Existing assignments which, in Column 13c, bear Remark 40 ("will be used only in cases of extreme necessity") or Remark 48 ("standby circuit") or Remark 218 ("will be used only in exceptional circumstances"), are dealt with in accordance with paragraph C.10.3.1.

C.10.4 Protection of existing assignments with emissions which spread into a non-appropriate band (Remark 116 in Column 13b)

Existing assignments with emission(s) which spread into a band not appropriate to the service concerned and the assigned frequency of which is within the appropriate band, bear Remark 116 in Column 13b of the Master Register (see paragraph C.2.2). Such assignments should be taken into consideration in the technical examination of new notices only when such notices relate to new or amended assignments in the frequency band appropriate to the class of station concerned. They should not be taken into consideration, as far as the overlapping emissions are concerned, in the case of new notices of assignments in the adjoining band.

C.10.5 Protection of existing assignments for services affected by "ground wave" propagation in the frequency bands above 14350 kc/s

An existing assignment for a service effected by means of ground wave propagation notified with a service range up to 100 km is considered not to be affected unless the separation between the transmitters of the existing and new (or amended) assignments is less than 200 km.

C.10.6 Protection of existing assignments concerning stations in the permitted services (No. 138 of the Radio Regulations)

Subject to the provisions of paragraph C.2.2, consideration must be given to an existing assignment concerning a station in a permitted service (symbol GGG in Column 13c) during the examination of a new notice concerning a station in a primary service, a permitted service or a secondary service (Nos. 137 to 139 of the Radio Regulations).

C.10.7 Protection of existing assignments concerning stations in the secondary services (No. 139 of the Radio Regulations)

Subject to the provisions of paragraph C.2.2, an existing assignment concerning a station in a secondary service (symbol 139 in Column 13b) is not taken into consideration during the examination of a new notice unless the latter concerns a station in a secondary service.

C.10.8 Protection of existing assignments to coast stations in the bands allocated to the maritime mobile service and shared with other services

The bands in question are the following:

4,438	-	4,650 kc/s
25,010	-	25,070 kc/s
25,110	-	25,600 kc/s
26,100	-	27,500 kc/s

In these bands, existing assignments to coast stations are protected by the methods set out in Chapter G of the present Rules of Procedure. The F.R.D. co-operates in this connection with the T.E.D. (see paragraph G.8) and the findings are prepared in accordance with the provisions of Chapter G.

C.10.9 Protection of existing assignments to Aeronautical OR stations in the bands between 3,950 kc/s (4,000 kc/s in Region 2) and 28,000 kc/s which are shared by the Aeronautical Mobile OR Service and other services

C.10.9.1 The shared bands in which, under the provisions of the Frequency Allotment Plan for the Aeronautical Mobile OR Service, assignments to Aeronautical OR stations were envisaged, are as follows:

Region 1 :	4,750 - 4,850 kc/s
	5,430 - 5,480 kc/s
	23,200 - 23,350 kc/s
Region 2 :	4,438 - 4,650 kc/s
	23,200 - 23,350 kc/s
Region 3 :	5,430 - 5,480 kc/s
	23,200 - 23,350 kc/s

C.10.9.2 In the case of assignments to Aeronautical OR stations in other shared frequency bands between 3,950 kc/s (4,000 kc/s in Region 2) and 28,000 kc/s, special reference should be made to the Aeronautical Group.

C.10.9.3 The following procedures shall be applied for the technical examination of a new assignment to another authorised class of station, with respect to existing assignments to Aeronautical OR stations notified for H24 operation in the bands referred to in para. C.10.9.1 above.

C.10.9.3.1 If the notified night service range of the existing assignment is less than that indicated in the attached table, protect the notified service range provided that the calculated field strength is above the minimum field strength to be protected according to T.S.A-2. If the calculated field strength is below the minimum field strength to be protected according to T.S. A-2, reduce the service range accordingly to the distance at which the minimum field strength is obtained.

C.10.9.3.2 If no service range is notified or if the notified night service range is in excess of that indicated in the attached table, protect the service range indicated in the table, provided that the calculated field strength at this service range is above the minimum field strength to be protected according to T.S. A-2. If the calculated field strength is below the minimum field strength to be protected according to T.S. A-2, reduce the service range accordingly to the distance at which the minimum field strength is obtained.

T A B L E

(see paragraphs C.10.9.3.1 and C.10.9.3.2)

<u>F R E Q U E N C Y B A N D</u>			Service Range to be protected at night	
Region 1	Region 2	Region 3	Hemisphere	
			Northern Km	Southern Km
	4438 - 4650			
4750 - 4850				
5430 - 5480		5430 - 5480		

C.10.9.4 If the new assignment under examination is to a station in a service other than the Aeronautical Mobile OR Service (i.e. BC, FB, FX, etc.) the T.E.D. should examine the assignment against all existing assignments. However, as far as the existing assignments

to stations in the Aeronautical Mobile OR Service are concerned in the shared bands referred to above (excluding the band 23200 - 23350 kc/s which would normally only be used for day-time operations), the calculations for night-time protection will be made according to paragraphs C.10.9.3.1 and C.10.9.3.2 above. The Finding with respect to the assignment in the Aeronautical Mobile OR Service is formulated according to paragraph E.10.

C.11 EXAMINATION OF NEW NOTICES OF CERTAIN TYPES

C.11.1 New notices for assignments notified as amending or replacing collective listings for mobile stations

In the case of an assignment to a station other than a mobile station (including those which have other classes such as FB ML or FA MA) which is notified as amending or replacing a collective listing for mobile stations which already appears in the Master Register for the Administration concerned as reflecting the use of a specific frequency or band of frequencies by mobile stations:

- a) the assignment will be considered as a new assignment and a note on the following lines will be inserted in the WS 3 and in the report:

"Rpl kc/s ML"

- b) the principle represented by symbol "AASA" will not be applied (see paragraph C.8)
- c) the collective listing will be deleted if and when the new assignment is recorded in the Master Register.

C.11.2 New notices for assignments to standard frequency stations
(see also paragraph E.9)

Assignments to individual standard frequency stations on the standard frequencies specified in the Table of Frequency Allocations will not be the subject of a technical examination.

C.11.3 New notices for assignments notified as being in occasional use

C.11.3.1 Whenever a new notice bears the indication "occasional" (Remark No. 103 in Column 13c) and when not more than four existing assignments are affected by the new or amended assignment, a qualified favourable finding should be given instead of an unfavourable finding: this rule will be referred to in the following Rules of procedure as the "application of the principle represented by Symbol N103". Symbol "N103" should then be inserted in the General Remarks Column WS3 and in the report to the Board, and Remark No. 103 should be inserted in Column 13c of the Master Register, when appropriate (see paragraphs E.3.2.3.5 to E.3.2.3.13).

C.11.3.2 For the application of the provisions of paragraph C.11.3.1, any existing assignment which bears Remark No. 93 in Column 13c, should be considered as representing at least six stations each one of them with an individual assignment, and the finding reached should be considered as valid for each one of these stations.

C.11.3.3 New notices marked "will be used only in case of extreme necessity" (Remark No. 40 in Column 13c) or "standby circuit" (Remark No. 48 in Column 13c) or "will be used only in exceptional circumstances" (Remark No. 218 in Column 13c) are handled in accordance with paragraph C.11.3.1.

C.11.4 New notices concerning assignments not in conformity with the provisions of No. 501 of the Radio Regulations, including assignments with emissions which spread into a non-appropriate band (see also paragraphs B.28, B.73, E.3.1.4 to E.3.1.6, E.3.2.8 and E.3.3)

C.11.4.1 In cases where an Administration notifies under the provisions of No. 115 of the Radio Regulations an assignment not in conformity with No. 501 of the Radio Regulations (for example an assignment not in conformity with the Table of Frequency Allocations or an assignment with emissions which spread into a band non-appropriate to the Service concerned and the centre frequency of which is within an appropriate band), the normal technical examination should be made in order to assess the probability of harmful interference caused to assignments which are already recorded in the Master Register and which are operated according to the Radio Regulations.

C.11.4.2 In examining an assignment notified under the provisions of No. 115 of the Radio Regulations, the principles represented by symbols "AASA" (paragraph C.8), "AVLP" (paragraph C.9.1), "AASA-AVLP" (paragraph C.9.2), "OOCA" (paragraphs C.6.4.1.1 and C.6.4.1.2) and "SPR" (paragraph C.10.2) will not be applied.

C.11.4.3 When an administration notifies an assignment not in conformity with the provisions referred to in No. 501 of the Radio Regulations, but without making any reference to No. 115 of those Regulations, the Board will not carry out the technical examination with respect to Nos. 502 or 503 of the Regulations, and will return the notice to the notifying Administration with the Finding DX (see E.3.1.4). If the notifying Administration re-submits the notice in question and again makes no reference to No. 115 of the Regulations, the Board will carry out the normal technical examination and will apply none of the principles listed in paragraph E.3.2.3.7, except for the principle represented by the symbol Skip (See C.7.3).

C.11.4.4 Any frequency assignment notified on a band limit is considered not to conform to the provisions referred to in No. 501 of the Radio Regulations unless the two adjacent bands are appropriate to the service in question.

C.11.5 New notices for services effected by "ground wave" propagation in the frequency bands above 14350 kc/s

New notices for ground wave services with a service range up to 100 km will be treated as follows:

C.11.5.1 On frequencies above 23350 kc/s: the assignment will be considered as not liable to cause harmful interference to existing assignments except to those reception points of existing assignments which are situated within 200 km of the transmitting station of the new (or amended) assignment.

C.11.5.2 On frequencies below 23350 kc/s: the assignment will be subject to the normal technical examination with respect to the probability of causing harmful interference to existing assignments already recorded in the Master Register. However, before treatment of such a notice, the Administration will be requested to reconsider the notice.

C.11.6 New notices of restoration of frequency assignments previously cancelled (see also paragraph B.17)

If an Administration cancels a frequency assignment, or some particulars of the basic technical characteristics recorded in a frequency assignment, and later requests that this assignment, or the particulars concerned, be restored to the Master Register,

the notice will be subject to a technical examination in respect of all assignments and amendments to existing assignments which have been recorded in the Master Register between the date of cancellation and the date of receipt of the notice of restoration.

C.11.7 New notices concerning stations in permitted services

(No. 138 of the Radio Regulations)

C.11.7.1 When examining a new notice concerning a modification to the characteristics of an existing assignment for a station in a permitted service, consideration should be given, subject to the provisions of paragraph C.2.2, to the existing assignments in the primary and permitted services (Symbol GGG in Column 13c), but not to stations in secondary services (Symbol 139 or 139* in Column 13).

C.11.7.2 The "AASA" principle is applicable if the existing assignment or assignments (AASA) concern a primary or permitted service (Symbol GGG in column 13b).

C.11.8 New notices concerning stations in secondary services

(No. 139 of the Radio Regulations)

C.11.8.1 When examining a new notice concerning a station in a secondary service, consideration should be given, subject to the provisions of paragraph C.2.2, to existing assignments in the primary services, the permitted services (Symbol GGG in Column 13c) and the secondary services (Symbol 139 or 139* in Column 13b).

C.11.8.2 The "AASA" principle is applicable if the existing assignment or assignments (AASA) concern stations in a primary service, a permitted service (Symbol GGG in Column 13c) or a secondary service (Symbol 139 in Column 13b).

C.11.9 New notices for frequency assignments to Aeronautical OR stations in the bands between 3,950 kc/s (4,000 kc/s in Region 2) and 28,000 kc/s which are shared by the Aeronautical Mobile OR Service and other services (see also paragraph E.10)

C.11.9.1 The shared bands in which, under the provisions of the Frequency Allotment Plan for the Aeronautical Mobile OR Service, assignments to Aeronautical OR stations were envisaged are as follows:

Region 1 :	4,750 - 4,850 kc/s
	5,430 - 5,480 kc/s
	23,200 - 23,350 kc/s
Region 2 :	4,438 - 4,650 kc/s
	23,200 - 23,350 kc/s
Region 3 :	5,430 - 5,480 kc/s
	23,200 - 23,350 kc/s

C.11.9.2 In the case of assignments to Aeronautical OR stations in other shared frequency bands between 3,950 kc/s (4,000 kc/s in Region 2) and 28,000 kc/s, special reference should be made to the Aeronautical Group.

C.11.9.3 If the new notice under examination relates to an assignment to a station in the Aeronautical Mobile OR Service, the T.E.D. should first examine the assignment against all existing

assignments other than those to stations in the Aeronautical Mobile OR Service. The folder is then sent to F.R.D. (Aeronautical Section) for examination against existing assignments to stations in the Aeronautical Mobile OR Service.

C.11.9.3.1 For the technical examination of a new assignment to an Aeronautical OR station with respect to existing assignments to Aeronautical OR stations in the frequency bands listed in para. C.11.9.1 above, contours of repetition distances to give a protection ratio of 15 db, during day-time, between desired and interfering signals at an aircraft flying at the limit of its service range, have been drawn up by the I.F.R.B. (Technical standards D-2).

C.11.9.3.2 The method of using these contours is described in Chapter F of these Rules of Procedure.

CHAPTER D

TECHNICAL PROCEDURE APPLICABLE IN THE
FREQUENCY BANDS BETWEEN 10 kc/s AND
2850 kc/s, 3155 kc/s AND 3400 kc/s,
3500 kc/s AND 3950 kc/s
(4000 kc/s IN REGION 2)

D.1 CO-ORDINATION

No technical examination is necessary with respect to an assignment likely to be affected for which co-ordination has been effected for the use of the frequency, as indicated in Appendix 1 to the Radio Regulations (page 336) and in the explanation of the use of the symbol "COORD" in an annex to the weekly I.F.R.B. Circular.

D.2 TECHNICAL EXAMINATIOND.2.1 Checking of the preliminary examination

Where technical examination is necessary, this examination will start with the checking, by the T.E.D., of the preliminary examination of the notice made by the F.R.D., especially with regard to Numbers 496 and 501 of the Radio Regulations and with the notes or remarks that should be indicated with a Finding, in accordance with the provisions of the Radio Regulations.

D.2.2 Selection of assignments likely to be affected

Thereafter, the tabulation prepared by the Mechanical and Electronic Systems Operation Department will be carefully examined by the T.E.D. to select all assignments which may be affected by the operations specified in the notice, including all assignments which appear on the tabulation, but excluding those which bear symbols D, T, X or Y in column 13a and/or symbols D or DD in column 13b. In

addition, assignments which bear 116, 139 or 139* in column 13b should be taken into consideration to the extent required. Certain symbols may be preceded or followed by one or more other symbols in columns 13a and 13b. The technical data of all probably affected assignments, extracted from the tabulation, should be entered in WS 5, inside the folder containing the notice.

D.3 USE OF FORMS WS 5

Specimen of Form WS 5 is given in Annex 4.

D.3.1 Information to be entered

The information to be entered in columns 1, 4a, 4b, 5a, 6, 7, 8, 9 and 10 is only a copy of the data given on the notice or tabulation. In addition, the following procedures will be followed by the T.E.D.

D.3.2 Information in column 5b

When not indicated in the notice or in the tabulation, the distance for FX circuits has to be ascertained and entered. When the notified distance is wrong, it should be corrected in the notice.

D.3.3 Information in column 9

In the bands above 1605 kc/s, paragraph C.3.3.1 shall apply. In the bands above 3500 kc/s, paragraphs C.3.3.2 to C.3.3.4 shall apply (if necessary) according to the length and other characteristics of the circuits concerned.

D.3.4 Information in column 10

D.3.4.1

The term HJ, or J, when notified in column 10 or in column 13c, is taken to mean that transmission on the frequency concerned takes place only between sunrise and sunset, i.e. in general between approximately 0600 and 1800 hours local time. Similarly the term HN, or N,

when notified in column 10, is taken to mean that transmission takes place only between sunset and sunrise, i.e. in general, between approximately 1800 and 0600 hours local time.

D.3.4.2 The term HT, or T, when notified in column 10 or in column 13c, is taken to mean that transmission takes place on the frequency concerned only during transitional periods between daylight and darkness, i.e. in general, between approximately 0400 - 0800 hours and 1600 - 2000 hours local time.

D.3.4.3 Many assignments have H24 in column 10, meaning the hours of use of the circuit. However, when specific periods of use of the frequency (i.e. times of the day, or seasons, or phases of solar activity) are specifically notified in column 13c, the technical examination should be made only on the basis of these periods of use.

D.3.5 Tables of field strengths to be used

For the bands concerned, especially for frequencies below 535 kc/s, it should be remembered that as a general rule signals over the wanted or unwanted paths may be propagated by ground wave (land or sea) during both day and night hours, and that the sky wave is predominant at night at longer distances. Hence the tables of field strength with the mode of propagation which gives the highest field at a particular point, when propagation both by ground and sky wave is possible, should be used in the calculations. Signals on frequencies above 1605 kc/s are usually propagated by sky wave, both by day and night; in such circumstances, the ground wave propagation table is to be used only when the distances involved are short and the ground wave is predominant. When using the sky wave field-strength table, care should be taken to choose the appropriate column for the latitude of the midpoint of the path.

D.3.6 Field-strength values

Above 3500 kc/s, paragraph C.3.5 (where appropriate) shall apply according to the length and other characteristics of the circuit concerned.

D.4 APPLICATION OF T.S. A-2 IN ESTABLISHING THE MINIMUM FIELD STRENGTH TO BE PROTECTED

- D.4.1 In applying the following procedure, it has to be noted that :
- I_w is the calculated field strength of the existing assignment, to be entered in the column "actual F.S. (A)" of WS 5;
- I_m is the mean value of the "minimum field strength to be protected" of the existing assignment given in T.S. A-2 for the time block, season and type of transmission concerned, to be entered in the column "minimum F.S. T.S. A-2 (B)" of WS 5.

- D.4.1.1 When a directional antenna for reception is assumed above 3500 kc/s, I_m is the value obtained from T.S. A-2 reduced by an amount equal to the gain of the antenna assumed for reception (see C.3.3.4d).

D.4.2 Fixed point-to-point circuits

- (1) Write down in the column "Guide No." the geographical location of the receiving point(s) of the existing assignment likely to be affected, as obtained from the map in Tables 1 to 4 of T.S. A-2, and enter the corresponding mean noise grade, for each season (at least DC and JN) and time block (at least mid-day and mid-night), in the column "NG T.S. A-2". Enter in the column "MIN. F.S. T.S. A-2 (B)" the corresponding minimum field strengths to be protected, I_m for the noise grade and type of transmission in question.

- (2) If the existing assignment has more than one type of transmission (e.g. 6A13) it is necessary, sometimes, to write down the values of I_m for each type (see 3) c) below).
- (3) Enter the distance between the transmitting and receiving point(s) of the existing assignment in the column "notified SR or distance 5b" and write down for this distance and the frequency in question, the day and night field strengths for 1 kW in the column "F.S. 1 kW" by consulting the Tables of T.S. A-5. Add to these figures the appropriate allowances in db for power, antenna efficiency (see page 3, T.S. A-5), and antenna gain, if appropriate, (TSA-4) and enter the total as I_w in the Column "actual F.S. (A)".
- When I_w is higher than I_m : protect I_w .
 - When I_w is lower than I_m , in all time blocks and seasons the protection ratio for the type of transmission concerned should not be calculated, but it is necessary to check whether the protection ratio should be calculated for alternative notified types of transmission. If this is unnecessary, indicate in the General Remarks column of WS.5 and in the report :

"xx db < T.S. A-2"

 which means "The field is less than that shown in T.S.A-2 by xx db".
 - In certain cases of more than one type of transmission, as for example 6A13, when the protection ratio for the A3 emission should not be calculated because I_w is below I_m , the protection ratio for the A1 emission should be calculated if I_w is higher

than I_m for A1. In such case, care should be taken to use the appropriate receiver discrimination (A1 in the above example) when the assignments are on adjacent channels.

- (4) To calculate the actual protection of the existing assignment, the interfering distance should be determined with respect to the affected receiving point, and the field strength for 1 kW at this distance, and the appropriate allowances in db for power, antenna efficiency, or antenna gain if appropriate, and receiver discrimination should then be written down in the respective columns. The sum of these values, representing the actual interfering field, should be entered in the column "actual F.S. (c)".
- (5) The difference between A or B (I_w or I_m , as appropriate) and C, is the actual protection ratio and should be written down in the column "actual protection (A-C or B-C)", and the Finding made according to the result, compared with the relevant signal/interference protection ratio required, given in T.S. A-1, for the type of transmission and frequency range concerned.

D.4.3 Circuits other than fixed point-to-point (FB, FC, etc. where the protection is required in an area, notified or not, instead of any specified point), except broadcasting and non-directional radiobeacons

- (1) Write down in the column "Guide No." the geographical location of the limit of the notified service range of the existing assignment likely to be affected in the direction of the transmitting station of the new or amended assignment, as obtained from the map

in Tables 1 to 4 of T.S. A-2, and enter the corresponding mean noise grade, for each season (at least DC and JN) and time block (at least mid-day and mid-night) in the column "NG T.S. A-2". Enter in the column "MIN. F.S. T.S. A-2 (B)" the corresponding minimum field strengths to be protected, I_m , for the noise grade and type of transmission in question. The service range is limited to the frontier of the country in the direction of the interfering station when INTR appears in column 4b of the existing assignment.

- (2) If the existing assignment has more than one type of transmission (e.g. 6A13) it is sometimes necessary to write down the values of I_m for each type (see paragraph (3) d) below).
- (3) Enter the distance between the transmitting point and the limit of the service range notified, or to the frontier of the country, as appropriate, of the existing assignment in the column "notified SR or distance 5b" and write down for this distance and for the frequency in question, the day and night field strengths for 1 kW in the column "F.S. 1 kW" by consulting the Tables of T.S. A-5. Add the appropriate allowances in db for power, antenna efficiency (see page 3, T.S. A-5), or antenna gain, if appropriate, and enter the result as I_w in the column "actual F.S. (a)".
- a) When I_w is higher than I_m : protect I_w .
- b) When I_w is less than I_m , protect I_m , but in this case, the length of the notified service range should be adjusted and reduced to the limit corresponding to I_m . For this purpose, deduct the allowances for power, antenna efficiency and antenna gain if appropriate, from I_m and enter the result for mid-day and for mid-night conditions in the column "F.S. 1 kW"; and from the Tables of T.S. A-5 obtain the respective distances, by day and by night, where this field strength is obtained; these distances should be taken as the actual service ranges and should be written in the column "actual SR" and also between brackets in

the Column "actual SR to protect" of the affected station, to be reproduced in the report.

- c) The same procedure as indicated in b) above is applicable for calculating the length of the service range when no distance or other indications appear in Column 5a or 5b of the existing assignment.
 - d) When an existing assignment has more than one type of transmission, having different values of I_m , it will be necessary to calculate the different service ranges, for each type of transmission, and enter these figures in the WS 5.
- (4) To calculate the actual protection for the existing assignment, the interfering distances should be determined, as appropriate, with respect to the notified service range or to the service range so calculated (different for day and night, see paragraph (3) b) above), and the field strength for 1 kW at these distances, and the appropriate allowances in db for power, antenna efficiency, or antenna gain if appropriate, and receiver discrimination, should then be written down in the respective columns. The sum of these values, representing the actual interfering field, should be entered in the Column "actual F.S. (C)".
- (5) The difference between A or B (I_w or I_m , as appropriate) and C, is the actual protection ratio and should be written down, in the Column "actual protection (A-C or B-C)", and the Finding made according to the result, compared with the relevant signal/interference protection ratio required, given in T.S. A-1, for the type of transmission and frequency range concerned.

D.4.4 Broadcasting

- (1) When examining notices of new or amended assignments to broadcasting stations above 1605 kc/s, the procedure indicated in paragraph D.4.3 is applicable.
- (2) For similar assignments below 1605 kc/s, however, although the preliminary technical procedure is the same as that indicated in paragraph D.4.3(1), thereafter the following procedure should be applied :
 - a) When I_w is higher than I_m : protect I_w .
 - b) When I_w is lower than I_m , protect I_m , but in this case, the length of the notified service range should be adjusted and reduced to the limit given by I_m . For this purpose, deduct the allowances in db for power and efficiency, and gain, if appropriate, of the antenna, from I_m and enter the result, for midday and for midnight conditions, in the Column "F.S. 1 kW"; and obtain the respective distances, by day and by night from the Tables of T.S. A-5, where this field strength is obtained; these distances should be taken as the actual service ranges and should be entered in the Column "actual SR" and also between brackets in the Column "actual SR to protect" of the affected station, to be reproduced in the report.
 - c) The same procedure as indicated in b) above is applicable for calculating the length of the service range when no distance or other indications appear in Column 5a or 5b of the existing assignment.
- (3) Thereafter, the procedure in D.4.3(4) and D.4.3(5) is applicable.

- (4) In establishing the minimum field strength to be protected, I_m , for the Broadcasting Service in the bands below 1605 kc/s, paragraph 8 of the Preface to T.S. A-2 should be taken into account when applicable. As far as the Board is aware, the only Regional Agreement for which this paragraph is at present applicable, is the Copenhagen Plan annexed to the European Broadcasting Convention (1948). In these circumstances, the average minimum field strengths to be protected for the European Broadcasting Area, as defined in No. 133 of the Radio Regulations, are as follows :

150 - 285 kc/s	day 38 db,	night 63 db,
525 - 1605 kc/s	day 37 db,	night 60 db

D.4.5 Non-directional radiobeacons

D.4.5.1

Nos. 458 to 464 of the Radio Regulations lay down technical conditions for frequency assignments made to maritime radiobeacons between 285 kc/s and 325 kc/s. The minimum field strength required for satisfactory service in the notified service area, according to the Region and latitude, is also specified therein, and it is laid down that the radiated power shall be kept to the level required to maintain the desired field strength at the maximum range. The Board applies similar provisions in the case of frequency assignments to maritime radiobeacons in other frequency bands allocated to the maritime radionavigation service.

D.4.5.2

Nos. 433 to 437 of the Radio Regulations lay down technical conditions for frequency assignments made to aeronautical radiobeacons between 160 kc/s and 415 kc/s. The minimum field strength required for satisfactory service in the notified service area, according to the Region and latitude, is also specified therein, and it is laid down that the radiated power shall be kept to the level required to maintain the desired field strength at the maximum range. The Board

applies similar provisions in the case of frequency assignments to aeronautical radiobeacons in frequency bands allocated to the aeronautical radionavigation service.

D.4.5.2.1

However, the Administrations in the SEA Region East of 90°E between 15°N and 15°S, consulted by the Board, have agreed, in respect of aeronautical radiobeacons operating in the bands between 160 kc/s and 415 kc/s :

- a) to use 185 $\mu\text{V}/\text{m}$ as the minimum field strength to be protected for frequency planning purposes, in accordance with the provisions in the I.C.A.O. Document 7967 MID/SEA - Report of the Joint Middle East/South East Asia Regional Air Navigation Meeting, Rome, January/February, 1959 (paragraph 5.3 - 1.6.1.1);
- b) to accept the application by the Board of 185 $\mu\text{V}/\text{m}$ as the minimum field strength to be protected, instead of 120 $\mu\text{V}/\text{m}$ as prescribed by No. 437 of the Radio Regulations, to their frequency assignments for aeronautical radiobeacons in these bands in the technical examination of frequency assignment notices submitted under Article 9 of the Radio Regulations.

D.4.5.2.2

The countries or territories concerned are the following :

Australia (North of 15°S)	(AUS)
Burma (South of 15°N)	(BRM)
Cambodia	(CBG)
Caroline Islands	(CAR)
Gilbert and Ellice Islands	(GIL)
Guam	(GUM)
Indonesia	(INS)
Laos (South of 15°N)	(LAO)
Malaysia	(MLA)
Marshall Islands	(MRL)

Territory of New Guinea	(NGU)
New Hebrides (North of 15°S)	(NHB)
Nicobar Islands	(IND)
Territories of Papua	(PAP)
Philippines (South of 15°N)	(PHL)
Solomon Islands	(SLM)
Thailand (South of 15°N)	(THA)
Viet-Nam (South of 15°N)	(VTN)

D.4.5.2.3 Hence the minimum field strength to be protected should for aeronautical radiobeacons in the countries and territories listed in paragraph D.4.5.2.2 be taken as $185 \mu\text{V/m}$ during technical examinations in the bands between 160 kc/s and 415 kc/s.

D.4.5.2.4 In examining a notice of an assignment to an aeronautical radio-beacon in frequency bands which are allocated to the Aeronautical Radionavigation Service, reference should be made to the current I.C.A.O. Plan for the area concerned. If the assignment to the beacon in question appears in this plan, the Board will assume that the assignment has been coordinated with the Administrations which accepted the Plan; and only those assignments made by countries which were not parties to the I.C.A.O. Plan will be examined with a view to assuming the probability of "harmful interference".

D.4.5.3 When examining notices of a new or amended assignment for a non-directional radiobeacon, the radius of the service area in Column 5b provides the data on which the Finding is based and the notice is incomplete if this information is lacking. The power of a beacon, when notified, does not give a reliable guide to its performance, and a modification of power, only, of a radiobeacon assignment does not necessarily increase the probability of harmful interference to other assignments. On the other hand, a modification increasing the service area, even when no increase of power

is notified, may increase the probability of harmful interference to other assignments and a technical examination is necessary.

D.4.5.4

Technical Standard A-5 is used in calculations of the ground wave attenuation between the limit of the service area notified for the new or amended assignment to the limit of the service area of the existing assignment which has to be protected. When the radius of the service area notified for the new or amended non-directional radio-beacon exceeds 200 km, however, sky wave propagation must be taken into account. Usually the service area of non-directional radiobeacons involve shorter distances.

D.4.6

Meteorological or press broadcasts when a reception area or useful range is indicated (above 3500 kc/s) :

Above 3500 kc/s, paragraphs C.4.3 or C.4.4 (if required) shall be applied to the lengths and other characteristics of the circuits concerned.

D.5

APPLICATION OF T.S. A-3 IN ASSESSING THE RECEIVER DISCRIMINATION

D.5.1

The allowance for the discrimination provided by the receiver is determined from the formulae or from the Tables of T.S. A-3, it is recorded in the working sheet and deducted from the interfering field.

D.5.2

No allowance is made for frequency deviations within the frequency tolerance limits specified in Appendix 3 to the Radio Regulations. In fact, the receivers assumed to be used in establishing T.S. A-3 have been taken, in general, as having a pass-band which is larger than the necessary bandwidth of the emission to be received, and this results, in effect, as if an allowance for frequency deviation were introduced in T.S. A-3.

(The only information that the Board gets from the notifications in this respect is the entry in Column 7, which is supposed to be the necessary bandwidth of the emission; but in reality, these data indicate in nearly all cases, the nominal bandwidth of the equipment used, in particular for those classes of emission using a wide bandwidth (such as A3, A3A, A3B, A7B, A9B, etc.). For single frequency (including frequency shift) emissions, however, (such as A1 or F1) it can usually be assumed that the bandwidth notified is the necessary bandwidth, except in certain cases, for example A1 for aural or low speed reception, where bandwidths of 1 or 2 kc/s are wrongly notified. The purpose of the following rules is to cope with these difficulties and at the same time to arrive at a solution which does not over-protect the assignment by applying twice, directly and indirectly, the same allowance for frequency deviations.)

D.5.3

To take into account the probable instabilities of transmitters and receivers from a practical point of view, the following rules are applied :

- a) for a new assignment, when considering the probability of causing harmful interference, the notified bandwidth should be taken as the necessary bandwidth of the emission;
- b) for an existing assignment, when considering the protection to be afforded, pass-band of the receiver should be determined according to the notified bandwidth as shown in the following Table.

T A B L E

OF PASS-BAND OF THE RECEIVER OF THE WANTED EMISSION (RANGE 10 - 3950 Kc/s)

Range 10 - 535 Kc/s

Class of emission or class of station	Bandwidth notified (Kc/s)	Pass-band of the receiver (Bwa) (Kc/s)
A1	* 0,3 or less 0,31 - 0,5 0,51 - 0,75 0,76 or more	0,3 0,5 0,75 1
F1	* 0,3 or less 0,31 - 0,5 0,51 - 0,75 0,76 - 1,00 * see D5, 4, 3 1,01 or more	0,3 0,5 0,75 1 1,5
Aeronautical or maritime radionavigation land station (AL or NL) A2, A3	any	2
A2	any	2
A3 Double sideband	any	6
Broadcasting	any	10
All other classes of emission or of station	any	as notified

Range 535 - 3950 Kc/s

Class of emission or class of station	Bandwidth notified (kc/s)	Pass-band of the receiver Bwa (kc/s)
A1	any	1
F1	any	1.5
Aeronautical or maritime radionavigation land station (AL or NL) A2, A3	any	2
A2	any	2
A3 Double sideband	any	6
Broadcasting	any	10
All other classes of emission or of station	any	as notified

D.5.4 TS A-3 should be used as follows :

D.5.4.1 In applying TS A-3 for existing assignments, when the notified class of emission in Column 7 is A3 (telephony DSB), the formulae or Tables for 6 kc/s, as the pass-band of receiver of the wanted emission, should be used whatever the notified bandwidth is.

D.5.4.2 The following transmissions are designated in TS A-3 by the symbol TG :

A2B, A2H

A4, A4A, A4B

A7, A7A, A7B, A7H, A7J

A9, A9A, A9B, A9J

F2, F4, F6, F9

Hellschreiber (symbol S in Column 7)

D.5.4.3 For those special cases of A1, F1, F9, etc. related to radio-beacons, Decca, etc. and for the bands below 535 kc/s, where the notified bandwidth is narrower than 0.3 kc/s and the receiver used also has a very narrow pass-band, the pass-band to be taken for the receiver used should be the notified bandwidth of the emission.

D.5.5 When the principle represented by symbol "OOCA" may be applicable (see paragraphs D.6.4.1 and E.3.2.3.5 to E.3.2.3.13) the allowance for receiver discrimination should be ascertained and entered in the appropriate column of WS 5, using the appropriate table of TS A-3, in conjunction with the actual frequency separation between the new (or amended) assignment and the existing affected assignment. The corresponding allowance for receiver discrimination should then be ascertained, using the same Table, when the frequency separation has been increased by 3 kc/s (see paragraph D.6.4.1). It is considered that, in adding to the protection ratio of the existing assignment

(calculated on the basis of the receiver discrimination first ascertained) the difference between the two values of the receiver discrimination obtained from the Table, the result represents the protection ratio of the channel adjacent to the upper outer channel which is affected. The difference between the two values of the discrimination should be entered in the "General Remarks" Column of WS 5 and in the report to the Board in the following way :

"OOCA ... db plus".

D.6 APPLICATION OF TS A-1 IN ASSESSING THE MINIMUM SIGNAL/INTERFERENCE PROTECTION RATIO REQUIRED

D.6.1 Definition

The minimum signal/interference protection ratio required for a specific type of transmission is obtained from Technical Standard A-1. For types of transmission for which two figures are shown in brackets, the lower of these figures is called in the present Rules "minimum limit of TS A-1" and the higher figure is called "upper value of TS A-1". When a single figure is shown in this column, this figure is called "minimum limit of TS A-1".

D.6.1.1 Above 3500 kc/s

For frequencies above 3500 kc/s, paragraph C.6 will be applied (WS 3, therein referred to, should be read as WS 5).

D.6.1.2 Below 3400 kc/s

For frequencies below 3400 kc/s, the following paragraphs will be applied.

D.6.2

Signal/interference protection ratio required for an existing assignment with a single type of transmission (frequencies below 3400 kc/s)

The "minimum limit" and (where appropriate) the "upper value" of the signal/interference protection ratio required for an existing assignment with a single type of transmission are those shown in the relevant column of TS A-1. However, in the bands between 1605 kc/s and 3400 kc/s, some particular cases should be treated as follows :

D.6.2.1

A1, A2 telegraphy (between 1605 kc/s and 3400 kc/s)

D.6.2.1.1

For existing A1 radiotelegraph circuit assignments with a notified bandwidth (for instance 1 kc/s) implying a speed higher than manual, and consequently the use of automatic receiving equipment, the following procedure should be applied :

- a) If a directive transmitting antenna has not been notified, the signal/interference protection ratio required is 17 (5-16) db, 21 (9-20) db or 23 (11-22) db, as appropriate when the calculated field strength is not below the value obtained from the corresponding Table of TS A-2 for telegraphy automatic reception.
- b) When the calculated field strength is less than this value but is not below the value obtained from the corresponding Table of TS A-2, for telegraphy aural reception, the signal/interference protection ratio required is that shown in TS A-1 for telegraphy aural reception.
- c) When the use of directional antennae has been notified for circuits of this kind, the minimum field strength to be protected should be obtained from the corresponding Table of TS A-2, for telegraphy automatic reception, and the signal/interference protection

ratio required is that shown in TS A-1 for telegraphy automatic reception.

D.6.2.2 F1 telegraphy (between 1605 and 3400 kc/s)

Existing assignments for F1 radiotelegraph circuits are considered in all cases as relating to telegraphy automatic reception.

D.6.2.3 Telephony (between 1605 kc/s and 3400 kc/s)

- a) With respect to existing assignments for telephony of any type (double sideband, single sideband or independent sideband) notified as CP, if a directive transmitting antenna has not been notified, the signal/interference protection ratio required is 28 (11-27) db, 32 (15-31) db or 34 (17-33) db, as appropriate, when the calculated field strength is not below the value obtained from the corresponding Table of TS A-2 for telephony for connection to the public network.
- b) When the calculated field strength is less than this value, but is not below the value obtained from the corresponding Table of TS A-2 for telephony not for connection to the public network, the signal/interference protection ratio required is that shown in TS A-1 for telephony not for connection to the public network.
- c) When a directive transmitting antenna is notified for other circuits of this kind notified as CP, the signal/interference protection ratio required is that shown in TS A-1 for telephony for connection to the public network and the minimum field intensity to be protected should be obtained from the corresponding Table of TS A-2, for telephony for connection to the public network. If, however, the calculated field intensity is less than that obtained from the corresponding Table

of TS A-2 for telephony for connection to the public network, but not less than that obtained from the corresponding Table for telephony not for connection to the public network, the circuit will be treated as CO, and the signal/interference protection ratio required is that shown in TS A-1 for telephony not for connection to the public network.

- d) The signal/interference protection ratio required is that shown in TS A-1 for telephony not for connection to the public network for circuits notified as CO, CR, CV or OT, and the minimum field intensity to be protected should be obtained from the corresponding Table of TS A-2 for telephony not for connection to the public network.

D.6.3

Signal/interference protection ratio required for an existing assignment with more than one class of emission or type of transmission (see also D.6.4) (between 10 kc/s and 3400 kc/s)

D.6.3.1

As the assignment concerned includes a combination of classes of emission or types of transmission, the signal/interference protection ratio required for this assignment involves a combination of the signal/interference protection ratios required for these classes of emission or types of transmission. Subject to the provisions of paragraph D.6.3.2 below, this combination should be as follows : the minimum limit of TS A-1 should be the minimum limit required for the notified class of emission or type of transmission which requires the lowest of the minimum limits shown in the relevant column of TS A-1; similarly, the upper value of TS A-1 should be the upper value applicable to the notified class of emission or type of transmission which requires the highest

of the upper values shown in the relevant column of TS A-1. The signal/interference protection ratio of the existing assignment should be calculated on the basis of the type of transmission or class of emission which is susceptible to the greatest probability of harmful interference.

D.6.3.2

In applying paragraph D.6.3.1 to existing assignments notified with class of emission A1, A2 or F1 (or any combination thereof) associated with one or more other classes of emission with wider bandwidths (for instance A3 or A9), and when a directional transmitting antenna is notified, it should be assumed that automatic telegraphy is involved (see in this connection paragraphs D.6.2.1 and D.6.2.2); the "minimum limit of TS A-1" and the "upper value of TS A-1" should be chosen with an eye to the signal/interference protection ratio required for the assignment.

D.6.4

Signal/interference protection ratio required for an existing assignment with two or more 3 kc/s base band channels (single sideband or independent sideband frequency division multi-channel systems, carrying either telegraphy or telephony or any combination of basic modulating signals).

D.6.4.1

In the case of an existing assignment which includes a single independent sideband emission with four 3 kc/s baseband channels (12A3B, 12A7B or 12A9B), the provisions of paragraph D.6.3.1 should be supplemented, where appropriate, by the following :

D.6.4.1.1

Application of the principle represented by symbol "OOCA" in the case of a new assignment (see paragraphs E.3.2.3.5 to E.3.2.3.13)

In examining a notice of a new assignment, the principle represented by the symbol "OOCA" (only the upper outer 3 kc/s baseband channel is

affected, i.e. the outer 3 kc/s baseband channel adjacent to the highest frequencies) is applicable when the following circumstances arise :

- a) any number of existing assignment (see paragraph E.3.2.3.13) which include four 3 kc/s baseband channels, the assigned frequency of which differ from those of the new assignment, are affected, their calculated protection ratio being below the "minimum limit of TS A-1",
- b) the protection ratio of the 3 kc/s baseband channel adjacent to the upper outer 3 kc/s baseband channel which is affected, calculated according to the procedure specified in paragraph D.5.5, is at least equal to the "minimum limit of TS A-1".

D.6.4.1.2

Application of the principle represented by symbol "OOCA" in the case of an amendment to an existing assignment (see paragraphs E.3.2.3.5 to E.3.2.3.13)

When an amendment to an existing assignment is being examined, the principle represented by symbol "OOCA" (only the upper outer 3 kc/s baseband channel is affected, i.e. the outer 3 kc/s baseband channel adjacent to the highest frequencies) is applicable when the following circumstances arise :

- a) any number of existing assignments (see paragraphs E.3.2.3.5 to E.3.2.3.13) which include four 3 kc/s baseband channels, the assigned frequencies of which differ from those of the amended assignment, are affected, their calculated protection ratio being reduced as a result of the amendment to below the "minimum limit of TS A-1",
- b) the protection ratio of the 3 kc/s baseband channel adjacent to the upper outer 3 kc/s baseband channel which is affected, calculated according to the procedure specified in paragraph D.5.5, is at least equal to the "minimum limit of TS A-1".

D.6.4.2

When an existing assignment includes an emission with two or more 3 kc/s baseband channels (classes of emission A3A, A3J, A3B, A7A, A7J, A7B, A9A, A9J, A9B) with a bandwidth equal or superior to 6 kc/s, and on examining a notice of an amendment to an existing assignment, if the calculated protection ratio is not reduced as a result of the amendment when applying T.S.A-3, it should be considered whether the amendment increases the number of 3 kc/s baseband channels affected. For this purpose the 3 kc/s baseband channels of the existing assignment should be considered, for the application of TS A-3, as independent 3 kc/s emissions and the result indicated, as appropriate, by the symbol "MCA db plus" or "NoMCA".

D.6.5

Examination of new notices with more than one class of emission or type of transmission (between 10 kc/s and 3400 kc/s)

D.6.5.1

The probability of harmful interference being caused to existing assignments should first be calculated for the class of emission, or type of transmission, notified as having the widest bandwidth.

D.6.5.2

If the finding for this part of the notice is unfavourable, it should be ascertained whether or not the rest of the notice, with the other classes of emission of equal or narrower bandwidth, could be given a favourable or qualified favourable finding.

D.6.5.3

When the finding for any part of the notice is favourable or qualified favourable, it must be remembered that certain principles could perhaps be applied to another part of the same notice and lead to a "qualified favourable" finding, even when the finding would

normally have been unfavourable. This holds true when a change is made or a new class of emission added (the new bandwidth not exceeding the existing one - see paragraphs E.7.5 and E.8.5) or when the protection ratio is not reduced because of a change (the number of channels affected remaining unchanged) (see paragraphs E.7.5.2 and E.8.5.2). In such circumstances, the relevant principle should be applied to this other part of the notice during the first examination, reference being made to the particular paragraph of these Rules of Procedure.

D.7 APPLICATION OF THE PRINCIPLE REPRESENTED BY SYMBOL "LtCT"

D.7.1 Above 3500 kc/s:

Above 3500 kc/s, paragraph C.7 shall be applied, if appropriate, in view of the circuit length and other characteristics (interpretation of median MUF with a view to the probability of a frequency's being used), and especially paragraph C.7.4, concerning application of the principle represented by the symbol "LtCT". "WS 3" in paragraph C.7 should of course be read as "WS 5".

D.7.2 Between 10 kc/s and 2850 kc/s, 3155 kc/s and 3400 kc/s, and between 3500 kc/s and 3950 kc/s (4000 kc/s in Region 2):

In circumstances other than those mentioned in paragraph D.7.1, when the existing assignment is affected for a small proportion only of the time during which the frequency is being used by the assignment, the principle represented by the symbol "LtCT" (little common time) shall apply (see E.3.2.3.5 to E.3.2.3.9) to the following:

D.7.2.1 FX and FB Services

When the existing assignment is affected during less than 25% of the period during which the frequency is used with a maximum time of two hours.

D.7.2.2 Broadcasting service in tropical zone (above 1605 kc/s)

When the existing assignment is affected during less than 25% of the period during which the frequency is used, the periods during which the assignment is affected fall between 0100 and 0500 hours, local time, in the reception zone.

D.7.2.3 In the circumstances referred to in D.7.2.1 and D.7.2.2 above, the symbol "LtCT" should be inserted in the "General Remarks" column of WS 5 and in the report.

D.8 APPLICATION OF THE PRINCIPLE REPRESENTED BY THE SYMBOL "AASA"

D.8.1 When examining a new notice concerning a new assignment, if the calculated protection ratio of an existing assignment is below the minimum limit of T.S. A-1, the Master Register should be scrutinised to ascertain whether there already exists one or more assignments, meeting the conditions laid down in paragraph D.8.4, recorded on behalf of the Administration which submitted the new notice.

D.8.2 When examining a new notice of an amendment to an existing assignment, if the calculated protection ratio of another existing assignment is reduced and is below the minimum limit of T.S. A-1, the Master Register should be scrutinised to ascertain whether there already exists one or more assignments, meeting the conditions laid down in paragraph D.8.4, recorded on behalf of the Administration which submitted the new notice.

D.8.3 When there already exists one or more assignments of this kind in the Master Register, the protection ratio of affected assignments should be calculated, on the one hand with respect to the new or

amended assignment, and on the other hand, with respect to the other existing assignment(s) of the same Administration. If the former calculated protection ratio is not less than the latter the principle represented by symbol "AASA" (there exists already one or more assignments of the same Administration) is applicable provided that the period during which the assignments are affected is not extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased. These last two conditions will be expressed, as applicable, in the Working Sheet and the report to the Board by the symbols LsCT, SCT and MCA, signifying respectively: less common time than before; same common time as before; larger number of affected channels, (see paragraphs E.3.2.3.5 to E.3.2.3.9, E.5.1, E.6, E.7 and E.8).

- D.8.4 The principle represented by symbol "AASA" is applicable only when:
- D.8.4.1 the existing assignment or assignments (AASA) are entered in the Master Register on the same frequency as the new or modified assignment, or on a different frequency provided that in this latter case the necessary bandwidth for the existing assignment or assignments (AASA) includes that of the new or modified assignment.
- D.8.4.2 the existing assignment or assignments show the date 3 December 1951, or any other date representing the signature of a pertinent plan, in Column 2a or Column 2b, or even another date in Column 2a (be it observed that the finding will vary according to whether the date in Column 2a is or is not the date 3 December 1951).
- D.8.5 The principle represented by the symbol "AASA" is applicable in all services, except in the Broadcasting Service, above 1605 kc/s.
- D.8.6 Whenever protection ratios are compared under paragraph D.8.3, symbol "AASA" should be entered as follows in the "General Remarks" Column of WS 5 and in the report, followed by the particulars in Columns 1, 4a, 6, 8 and 10 of the existing assignment(s) of the same Administration (AASA), and by the numerical result of the comparison:
- "AASA ... db plus" or "AASA ... db minus"

D.9 APPLICATION OF THE PRINCIPLES REPRESENTED BY SYMBOLS "AVLP" AND "AASA-AVLP"

D.9.1 During examination of an amendment to certain columns of an existing assignment, with the date 3 December 1951 recorded in Column 2a or Column 2b, or any other date on which a pertinent plan was signed, the protection ratio of probably affected assignments should be calculated, both before and after the amendment. If the protection ratio is reduced as a result of the amendment, but before the amendment was already at least 10 db below the minimum limit of TS A-1 during a period equal or more extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased, the principle represented by symbol "AVLP" (the protection ratio was already at least 10 db below the minimum limit) is applicable in accordance with those provisions of paragraphs E.3.2.3.5 to E.3.2.3.13 which refer to each of the columns concerned.

D.9.2 During examination of a new notice, one or more assignments meeting the conditions laid down in paragraph D.8.4.1 and with the date 3 December 1951 recorded in Column 2a or 2b or any other date of signature of a pertinent plan, may already exist in the Master Register on behalf of the Administration which submitted the new notice (AASA), but the principle represented by the symbol "AASA" cannot be applied because the comparison of the protection ratios does not give the appropriate result (see paragraph D.8.3). However, if the protection ratio afforded to the affected assignment by the already existing assignment(s) of the notifying Administration was already at least 10 db below the minimum limit of T.S. A-1 during a period equal or more extended and, if the existing assignments include a multichannel emission, the number of channels affected is not increased, the principle represented by symbol "AASA-AVLP" is applicable, (see paragraphs E.3.2.3.5 to E.3.2.3.13, E.5.1, E.6, E.7 and E.8).

D.10 PROTECTION REQUIRED FOR EXISTING ASSIGNMENTS OF CERTAIN TYPES

D.10.1 Protection of existing assignments with receiving points in the territory of the Administration submitting a new notice

D.10.1.1 When one or more existing assignments are affected (i.e. when their calculated protection ratios are below the minimum limit of T.S. A-1), but only with respect to one or more points of reception located in the territory of the Administration which submitted the new notice, this result should not be taken into account in reaching the finding and, with respect to this point(s) of reception, Remark G should be entered in Column 13b of WS 5 and in the report.

D.10.1.2 Paragraph D.10.1.1 is not applicable when other points of reception (of the same or other existing assignments) not in the territory of the notifying Administration, are also affected, if none of the principles represented by the symbols listed in paragraph E.3.2.3.7 is applicable. In such cases, Remark G should be entered in brackets in Column 13b of WS 5 and in the report.

D.10.1.3 Whenever Remark G is entered in Column 13b of WS 5, the protection ratio of the affected assignment(s) should also be indicated on the WS 5 and in the report.

D.10.2 Protection of existing assignments in the Fixed (FX), Land Mobile (FB) and Maritime Mobile (FC) Services notified with more than one locality of reception or a region (including networks but excluding press or meteorological broadcasts) (SPR)

- D.10.2.1 The principle represented by the symbol "SPR" (the affected assignment has more than one point or area of reception, some of which only are affected) is applicable to existing assignments in the Fixed Land Mobile and Maritime Mobile Services, as follows:
- D.10.2.1.1 In the Fixed Service (including assignments with symbol ZN in Column 5a, but not including press or meteorological broadcasts, see paragraphs C.4.3 and C.4.4) when the number of reception points for transmission to which the frequency concerned is used by the existing assignment at times when the new or amended assignment is also being used is at least equal to six, and when the number of reception points affected in the existing assignment is not more than 25% (i.e. not more than 2/8 or 3/12, etc.) of the preceding number. For calculation of the reception points only those in respect of which the MUF is appreciably similar will be considered (generally those located in the same region of the earth).
- D.10.2.1.2 In the Land Mobile or Maritime Mobile Services, when the indication in Column 5a is an area and the size of the area affected is not more than 25% of the area for transmission to which the frequency concerned is used by the existing assignment at times when the new or amended assignment is also being used.
- D.10.2.1.3 In all other services, and subject to paragraphs D.10.2.1.1 and D.10.2.1.2, except for stations of the classes represented by AL, NL and BC, and press broadcasts (observation 68 in Column 13c) and weather broadcasts (observation 14 in Column 13a).
- D.10.2.1.4 In the circumstances provided for in paragraph D.10.2.1, the symbol "SPR" followed by the ratio referred to in paragraphs D.10.2.1.1 and D.10.2.1.2, should be entered in the "General Remarks" Column of WS 5 and in the report.
- D.10.2.2 In applying the principle represented by symbol "SPR" a point or area of reception, in respect of which Remark G is given by

application of paragraph D.10.1, should be overlooked (see also paragraphs E.3.2.3.5 to E.3.2.3.12).

D.10.3 Protection of existing assignments notified for occasional use
(Remark 103 in Column 13c)

D.10.3.1 An existing assignment, or particulars of an existing assignment, which bear in Column 13c of the Master Register Remark No. 103, indicating occasional use, should be taken into consideration in the examination of a new notice only in cases where there exist, on the same frequency, on behalf of the same Administration, at least six assignments (including assignments with Remark No. 103 and assignments without Remark No. 103). In such a case a technical examination of the new notice should be made with respect to these assignments and when the number of affected assignments is not more than 25% (i.e. not more than 2/8, or 3/12, etc.) of the number of the existing assignments concerned, a qualified favourable finding should be given: this rule will be referred to in the following Rules of Procedure as the "application of the principle represented by symbol N103". In all cases where an assignment bearing Remark No. 103 in Column 13c is involved in a technical examination, Symbol "N103" followed, in parenthesis, by the country symbol of the affected assignment, should be entered in the "General Remarks" Column of WS5 and in the report to the Board (see paragraphs E.3.2.3.5 to E.3.2.3.13).

D.10.3.2 For the application of the provisions of paragraph D.10.3.1, any existing assignment which bears Remark No. 93 in Column 13c, should be considered as representing at least six stations, each of them with an individual assignment, and the finding reached should be considered as valid for each one of these stations.

D.10.3.3 Existing assignments which, in Column 13c, bear Remark 40 ("will be used only in cases of extreme necessity") or Remark 48 ("standby

circuit") or Remark 218 ("will be used only in exceptional circumstances"), are handled in accordance with paragraph D.10.3.1

D.10.4 Protection of existing assignments with emissions spreading into an inappropriate band (Remark 116 in Column 13b)

Existing assignments with emissions which spread into a band not appropriate to the service concerned and the assigned frequency of which is within the appropriate band, bear Remark 116 in Column 13b of the Master Register (see paragraph D.2.2). Such assignments should be taken into consideration in the technical examination of new notices only when such notices relate to new or amended assignments in the frequency band appropriate to the class of station concerned. They should not be taken into consideration as far as overlapping emissions are concerned, in the case of new notices of assignments in adjoining band.

D.10.5 Protection of existing assignments concerning stations of permitted services (Radio Regulations, No.138)

Subject to paragraph D.2.2, an existing assignment concerning a station in a permitted service shall be considered in examination of a new assignment notice concerning a station in a primary, permitted, or secondary service (Radio Regulations, Nos. 137 to 139).

D.10.6 Protection of existing assignments concerning stations of secondary service (Radio Regulations, No. 139):

Subject to paragraph D.2.2, an existing assignment concerning a station in a secondary service ("139" or "139*" in Column 13b)

is considered during examination of a new assignment notice only if the latter concerns the station of a secondary service.

D.10.7

Protection of collective assignments concerning frequencies assigned to particular countries for inter-ship communications:

Protection for all planned and subsequent intership communication assignments to individual Administrations on frequencies contained in a plan or list against interference from other services sharing the band will be calculated in the area of operation notified when this area is limited and clearly defined. Otherwise, if the area is not so limited and defined, the SPR principle is applicable.

D.10.8

Protection of collective assignments concerning frequencies assigned to particular countries for ship-shore communications:

When ship-to-shore assignments bear no indication of the reception point(s), the protection should be calculated with respect to the minimum field strength to be protected at that point on the shore under the jurisdiction of the Administration concerned, which is closest to the transmitting station of the subsequent assignment for which technical examination is required.

D.10.9

Protection of existing assignments to aeronautical OR stations in the bands between 2505 kc/s and 3950 kc/s (4000 kc/s in Region 2) which are shared by the Aeronautical Mobile OR Service and other services

D.10.9.1

The shared bands in which, under the provisions of the Frequency Allotment Plan for the Aeronautical Mobile OR Service, assignments to Aeronautical OR stations were envisaged are as follows:

Region 1 : 3155 - 3230 kc/s
3800 - 3900 kc/s

Region 2 : 2505 - 2850 kc/s
3155 - 3230 kc/s

Region 3 : 3155 - 3230 kc/s
3900 - 3950 kc/s

D.10.9.2 In the case of assignments to Aeronautical OR stations in other shared frequency bands between 2505 kc/s and 3950 kc/s (4000 kc/s in Region 2), special reference should be made to the Aeronautical Group.

D.10.9.3 The following procedures shall be applied for the technical examination of a new assignment to another authorised class of station, with respect to existing assignments to Aeronautical OR stations notified for H24 operation in the bands referred to in paragraph D.10.9.1 above.

D.10.9.3.1 If the notified night service range of the existing assignment is less than that indicated in the attached table, protect the notified service range provided that the calculated field strength is above the minimum field strength to be protected according to TS A-2. If the calculated field strength is below the minimum field strength to be protected according to TS A-2, reduce the service range accordingly to the distance at which the minimum field strength is obtained.

D.10.9.3.2 If no service range is notified or if the notified night service range is in excess of that indicated in the attached table, protect the service range indicated in the table, provided that the calculated field strength at this service range is above the minimum field strength to be protected according to TS A-2. If the calculated field strength is below the minimum field strength to be protected according to TS A-2, reduce the service range accordingly to the distance at which the minimum field strength is obtained.

TABLE

(see paragraphs D.10.9.3.1 and D.10.9.3.2)

F R E Q U E N C Y B A N D			Service Range to be protected at night	
Region 1	Region 2	Region 3	Hemisphere	
			Northern km	Southern km
	2505 - 2850		1010	380
3155-----3230			1010	380
		3900 - 3950	1010	380
3800 - 3900			1010	380

D.10.9.4

If the new assignment under examination is to a station in a service other than the Aeronautical Mobile OR Service (i.e. BC, FB, FX, etc.) the T.E.D. should examine the assignment against all existing assignments. However, as far as the existing assignments to stations in the Aeronautical Mobile OR Service are concerned in the shared bands referred to above, the calculations for night-time protection will be made according to paragraphs D.10.9.3.1 and D.10.9.3.2 above. The Finding with respect to the assignment in the Aeronautical Mobile OR Service is formulated according to paragraph E.10.

D.11

EXAMINATION OF NEW NOTICES OF CERTAIN TYPES

D.11.1

New notices for assignments notified as amending or replacing collective listings for mobile stations

When an Administration notifies an assignment to a station other than a mobile station (including those which have other classes such as FB ML or FA MA) specifying that the notice amends or replaces a collective listing for mobile stations already appearing in the Master Register for the Administration concerned, as reflecting the use of a specific frequency or band of frequencies by mobile stations:

- a) the assignment will be considered as a new assignment and a note on the following lines will be inserted in the WS 5 and in the report:

"Rpl kc/s ML"

- b) the principle represented by symbol "AASA" will not be applied (see paragraph D.8)
- c) the collective listing will be deleted if and when the new assignment is recorded in the Master Register.

D.11.2 New notices for assignments to standard frequency stations (see also paragraph E.9)

New notices of assignments to individual standard frequency stations on the standard frequencies specified in the Table of Frequency Allocations will not be the subject of a technical examination.

D.11.3 New notices for assignments notified as being in occasional use

- D.11.3.1 Whenever a new notice bears the indication "occasional" (Remark No.103 in Column 13c) and when not more than four existing assignments are affected by the new or amended assignment, a qualified favourable finding should be given instead of an unfavourable finding: this rule will be referred to in the following Rules of Procedure as the

"application of the principle represented by Symbol N103". Symbol "N103" should then be inserted in the General Remarks Column of WS5 and in the report to the Board, and Remark No. 103 should be inserted in Column 13c of the Master Register, when appropriate (see paragraphs E.3.2.3.5 to E.3.2.3.13).

D.11.3.2 For the application of the provisions of paragraph D.11.3.1, any existing assignment which bears Remark No. 93 in Column 13c, should be considered as representing at least six stations, each one of them with an individual assignment, and the finding reached should be considered as valid for each one of these stations.

D.11.3.3 New notices marked "will be used only in case of extreme necessity" (Remark No. 40 in Column 13c) or "standby circuit" (Remark No. 48 in Column 13c) or "will be used only in exceptional circumstances" (Remark No. 218 in Column 13c) are dealt with in accordance with paragraph D.11.3.1.

D.11.4 New notices concerning assignments not in accordance with No. 501 of the Radio Regulations, or assignments with emissions which spread into an inappropriate band (see also paragraphs B.28, B.73, E.3.1.4 to E.3.1.6, E.3.2.8 and E.3.3)

D.11.4.1 When an Administration notifies under the provisions of No. 115 of the Radio Regulations, an assignment not in accordance with No. 501, (for example an assignment not in conformity with the Table of Frequency Allocations or an assignment with emissions which spread into a band not appropriate to the service concerned, and the assigned frequency of which is within an appropriate band), the normal technical examination should be made to assess the probability of harmful interference caused to assignments already recorded in the Master Register and operated in accordance with the Radio Regulations.

D.11.4.2 In examining an assignment notified under No. 115 of the Radio Regulations, the principles represented by symbols "AASA" (paragraph D.8), "AVLP" (paragraph D.9.1), "AASA-AVLP" (paragraph D.9.2), "OCCA" (paragraphs D.6.4.1.1 and D.6.4.1.2) and "SPR" (paragraph D.10.2) will not be applied.

D.11.4.3 When an Administration notifies an assignment not in accordance with the provisions quoted in No. 501 of the Radio Regulations, but with no reference to No. 115, the Board will not carry out the technical examination with respect to Nos. 502 or 503 of the Regulations, and will return the notice to the notifying Administration with the Finding DX (see E.3.1.4). If the notifying Administration re-submits the notice in question and again makes no reference to No. 115 of the Regulations, the Board will carry out the normal technical examination and will apply none of the principles listed in paragraph E.3.2.3.7.

D.11.4.4 All frequency assignments notified on a band-edge shall be considered as not in accordance with the provisions quoted in No. 501 of the Radio Regulations, unless the two adjacent bands are appropriate for the service in question.

D.11.5 New notices of restoration of frequency assignments previously cancelled (see also paragraph B.17)

If an Administration cancels a frequency assignment, or some of the basic technical characteristics recorded, and later requests that this assignment, or the particulars concerned, be restored to the Master Register, the notice will be subject to a technical examination in respect of all assignments and amendments to existing assignments which have been recorded in the Master Register between the date of cancellation and the date of receipt of the notice of restoration.

D.11.6 New assignment notices concerning stations of permitted services (Radio Regulations, No. 138) :

D.11.6.1 When examining a new notice concerning a modification to the characteristics of an existing assignment to a station in a permitted service, consideration should be given, subject to paragraph D.2.2, to the existing assignments in the primary and permitted services (GGG in Column 13c), but not to stations in secondary services (139 or 139* in Column 13b).

D.11.6.2 The principle "AASA" shall apply if the existing assignment or assignments (AASA) concern a primary or permitted service.

D.11.7 New notices concerning stations in secondary services (Radio Regulations, No. 139) :

D.11.7.1 When examining a new notice concerning a station in a secondary service, consideration should be given, subject to paragraph D.2.2 to existing primary-service and permitted-service assignments (symbol GGG in Column 13c) and to the assignments of secondary services (symbol 139 in Column 13b).

D.11.7.2 The principle "AASA" shall apply if the existing assignment or assignments (AASA) concern stations of a primary or permitted service or those of a secondary service (139 in Column 13b),

D.11.8 New notices concerning frequencies assigned by particular countries for inter-ship communications :

There is no technical examination of notices concerning frequencies assigned by individual countries for inter-ship communications, whether the frequencies in question appear in the E.A.R.C. (1951) Lists or not.

D.11.9 New notices for frequency assignments to Aeronautical OR stations in the bands between 2505 kc/s and 3950 kc/s (4000 kc/s in Region 2) which are shared by the Aeronautical Mobile OR Service and other services (see also paragraph E.10)

D.11.9.1 The shared bands in which, under the provisions of the Frequency Allotment Plan for the Aeronautical Mobile OR Service, assignments to Aeronautical OR stations were envisaged are as follows:

Region 1 : 3155 - 3230 kc/s
3800 - 3900 kc/s

Region 2 : 2505 - 2850 kc/s
3155 - 3230 kc/s

Region 3 : 3155 - 3230 kc/s
3900 - 3950 kc/s

D.11.9.2 In the case of assignments to Aeronautical OR stations in other shared frequency bands between 2505 kc/s and 3950 kc/s (4000 kc/s in Region 2), special reference should be made to the Aeronautical Group.

D.11.9.3 If the new notice under examination relates to an assignment to a station in the Aeronautical Mobile OR Service, the T.E.D. should first examine the assignment against all existing assignments other than those to stations in the Aeronautical Mobile OR Service. The folder is then sent to F.R.D. (Aeronautical Section) for examination against existing assignments to stations in the Aeronautical Mobile OR Service.

D.11.9.3.1 For the technical examination of a new assignment to an Aeronautical OR station with respect to existing assignments to Aeronautical OR stations in the frequency bands listed in paragraph D.11.9.1 above, contours of repetition distances to give a protection

ratio of 15db, during day-time, between desired and interfering signals at an aircraft flying at the limit of its service range, have been drawn up by the I.F.R.B. (Technical Standards D-2).

D.11.9.3.2

The method of using these contours is described in Chapter F of these Rules of Procedure.

CHAPTER E

FINDINGS WITH RESPECT TO FREQUENCY ASSIGNMENT NOTICES CONCERNING FREQUENCY BANDS BETWEEN 10 AND 28,000 kc/s, WITH THE EXCEPTION OF BANDS ALLOCATED EXCLUSIVELY TO THE BROADCASTING SERVICE BETWEEN 5,950 AND 26,100 kc/s¹⁾. TO THE AERONAUTICAL MOBILE SERVICE BETWEEN 2,850 AND 18,030 kc/s²⁾, OR TO THE MARITIME MOBILE SERVICE BETWEEN 4,000 AND 28,000 kc/s³⁾.

E.1 GENERAL

E.1.1 When Working Sheet No. 3 or No. 5 and (when required) Working Sheet No. 1 have been filled up in accordance with the Procedure described in Chapter C or D, as appropriate, they are finally completed by the finding reached, according to the result of the technical examination, with respect to the frequency assignment notice for each existing assignment likely to be affected (Partial finding), and then by the overall finding, which corresponds to the most unfavourable of the partial findings issued.

E.1.2 Each finding is represented by one or more symbols which are inserted in column 13a of the Master Register, if the assignment is recorded therein, and which may be accompanied by one or more additional symbols representing remarks entered in columns 13b and 13c of the Master Register. The meaning of the various symbols entered in columns 13a, 13b and 13c of the Master Register is given in the

1) See Article 10 of the Radio Regulations

2) See Chapter F of the present Rules of Procedure

3) See Chapter G of the present Rules of Procedure

Preface to the International Frequency List. In addition to these the Board employs other symbols on the working sheets which are not entered in the Master Register. Their meaning is given in the contents section of the I.F.R.B. weekly circular.

E.2 PARTIAL FINDINGS

E.2.1 For any notice of a new assignment, or an amendment to an existing assignment, the finding reached by the Board with respect to any individual existing assignment likely to be affected is represented by a symbol which is defined in Table 6, Part 1 of the Preface to the International Frequency List and may in some cases be accompanied by one or more symbols defined in Part 2 of the same Table. The finding issued may thus be represented by symbol A and accompanied, as the case may be, by a remark represented by symbol A or G, or by E or G, etc..

E.2.2 Findings are issued by comparing the ratio between the calculated field strengths of the wanted and interfering signals during the period of common normal use of the frequencies with the values of the signal/interference protection ratio of Technical Standard A.-1 (T.S.A.-1) appropriate for the class of station and class of emission concerned, which are based on the statistical distribution of signal levels established by the C.C.I.R. in defining a satisfactory service. In principle :

- a) a Favourable Finding (No. 510 of the Radio Regulations (R.R.)) should be given when the ratio between the calculated field strengths of the wanted and interfering signal is equal to or greater than the upper value

./...

defined in T.S.A-1 (which represents statistically the value which will afford a satisfactory service during at least 90% of the time),

- b) a Qualified Favourable Finding (No. 511 of the R.R.) should be given when the ratio between the calculated field strengths of the wanted and interfering signal is between the upper and lower values given in T.S.A-1 (which represents statistically the value which will afford a satisfactory service during at least 75% of the time),
- c) an Unfavourable Finding (No. 513 of the R.R.) should be given when the ratio between the calculated field strengths of the wanted and interfering signal is less than the lower value given in T.S.A-1 (which represents statistically the value which will not afford a satisfactory service during at least 75% of the time)

E.3 OVERALL FINDING

For any notice of a new assignment or an amendment to an existing assignment, the finding reached by the Board with respect to all the existing assignments likely to be affected is represented by one or more symbols in accordance with the following provisions.

E.3.1 Unfavourable findings as a result of which the assignment is not recorded in the Master Register and the notice is returned to the notifying Administration.

E.3.1.1 Finding represented by symbols B and X.

This finding is issued in the following cases :

./...

E.3.1.1.1 When, except for the cases covered by paragraph E.3.2.3.7., the calculated protection ratio of the existing assignment likely to be affected, after adding any appropriate allowance for receiving antenna discrimination (RAD-- para. C.3.3.4), is below the minimum limit of T.S.A-1 during more than 75% of the period of normal use of the frequency by the new or amended assignment. There is no need in this case to indicate on the working sheet or in the report to the Board, the periods during which the existing assignment is affected.

E.3.1.1.2 When, except for the cases covered by paragraph E.3.2.3.7., the calculated protection ratio of the existing assignment likely to be affected, after adding any appropriate allowance for receiving antenna discrimination (RAD - para. C.3.3.4.) is below the minimum limit of T.S.A-1 during less than 75% of the period of normal use of the frequency by the new or amended assignment. In this case, the periods (time of day and phases of solar activity) during which the new or amended assignment affects the existing assignment should be indicated both on the working sheet and in the report to the Board.

E.3.1.2 Finding represented by symbols B and X and accompanied by the remark represented by symbol 518

This finding is issued with respect to every notice which has been the subject of a previous finding represented by symbols B and X and has been re-submitted to the Board, in accordance with the provisions of No. 515 of the R.R., with

./...

amendment which increase the probability of harmful interference with an assignment likely to be affected. This finding may apply to part of the notice or to the whole.

E.3.1.3 Finding represented by symbols B and X and accompanied by the remark represented by symbol 535

This finding is issued with respect to every notice which has been the subject of a previous finding represented by symbols B and X and has been re-submitted to the Board, but, the Board's finding being the same, has been received by the latter more than 180 days after the date on which the notice was returned to the notifying Administration.

E.3.1.4 Finding represented by symbols D and X

This finding is issued with respect to any notice not in conformity with the provisions of No. 501 of the R.R., when it bears no specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 or No. 116 of the said Regulations, as appropriate.

E.3.1.5 Finding represented by symbols D and X and accompanied by the remark represented by symbol 535

This finding is issued with respect to any notice which has been the subject of a previous finding represented by symbols D and X or by symbols DB and X, and is re-submitted to the Board, but which is received by them more than 180 days after the date on which the notice was returned to the notifying Administration.

./...

E.3.1.6 Finding represented by symbols D, B and X

This finding is issued with respect to any notice when it refers to :

- a) a new assignment which is not in conformity with the provisions of No. 501 of the R.R., if the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 or No. 116 of the said Regulations, as appropriate, and when the finding is unfavourable with respect to No. 502 or No. 503 of the said Regulations
- b) an amendment to the basic characteristics of an existing assignment in conformity with the provisions of No. 501 of the R.R., when, the amendment notified not being in conformity with the said Regulations, the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 116 of the R.R., and when the finding is unfavourable with respect to No. 502 or No. 503 of the said Regulations
- c) an amendment to the basic characteristics of an existing assignment not in conformity with the provisions of No. 501 of the R.R., if the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of Nos. 115 or 116 of the said Regulations, as appropriate, and when the finding is unfavourable with respect to Nos. 502 or 503 of the said Regulations
- d) a new assignment, or an amendment to the basic characteristics of an existing assignment, when the notice is not in conformity with the provisions of No. 501 of the R.R., when it has been the subject of a previous finding represented by symbols D and X, and when it fails to

include a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 or No. 116 of the R.R., as appropriate.

E.3.2 Findings as a result of which the notice is recorded in the Master Register and the assignment concerned is taken into account during the examination of frequency assignment notices subsequently received

E.3.2.1 Favourable Finding represented by symbol A in column 13a and unaccompanied by the remark represented by symbol A in column 13b.

E.3.2.1.1 Symbol A appearing in column 13a may be accompanied :

- a) in column 13a, by symbols U, W or Z
- b) in column 13b, by symbols C, F or G or by a number
- c) in column 13c, by symbols C, D, E, F, PROV, GGG, K-KK, P-PP or Y-Z.

These various symbols each retain their individual meaning whatever the group of symbols entered in column 13. Any assignment bearing symbol A in column 13a, but not in column 13b, shall be known as an "A assignment".

E.3.2.1.2 This finding is issued in the following cases :

E.3.2.1.3 When, in case of a new assignment, the calculated protection ratio of the existing assignment likely to be affected, during the period of common normal use of both the existing and the new assignments, is equal to or greater than the upper value of T.S.A-1, without taking into account any appropriate allowances which may have been assumed for transmitting antenna gain (TAG - para. C.3.3.2.), and receiving antenna discrimination (RAD - para. C.3.3.4.).

- E.3.2.1.4 When, in case of an amendment to an existing assignment which bears symbol A in column 13a but not in column 13b, the calculated protection ratio of the existing assignment likely to be affected, during the period of common normal use of both the existing and amended assignments, is reduced by 2 db or less as a result of the amendment and, if any existing assignment includes an emission with two or more 3 kc/s base band channels (see para. C.6.4.2), the number of channels affected is not increased as a result of the amendment.
- E.3.2.1.5 When, in case of an amendment to an existing assignment, the calculated protection ratio of the existing assignment likely to be affected, during the period of common normal use of both the existing and the amended assignments, is after the amendment, equal to or above the upper value of T.S.A-1, without taking into account any appropriate allowances for transmitting antenna gain (TAG - para. C.3.3.2), and receiving antenna discrimination (RAD - para. C.3.3.4).
- E.3.2.1.6 When there is no period of common normal use of both the existing assignment likely to be affected and the new or amended assignment. In such a case symbol "NoCT" should be inserted in the Remarks Column of Working Sheet No. 3 or No. 5, and the report to the Board.
- E.3.2.2 Finding represented by symbol E in column 13a and accompanied by the remark represented by symbol C in column 13c, followed by a date

./...

E.3.2.2.1 Symbol E appearing in column 13a may be accompanied :

- a) in the same column, by symbols U, W or Z
- b) in column 13b, by symbols C or G
- c) in column 13c by symbols E, F, GGG, K-KK, P-PP, or Y-Z.

These various symbols retain their individual meaning whatever the group of symbols entered in column 13. Any assignment bearing symbol E in column 13a shall be known as an "E assignment".

E.3.2.2.2 This finding is issued when there is an amendment to the basic characteristics of an existing assignment, with respect to which :

- a) no symbol representing a finding is entered in column 13a of the Master Register; or
- b) symbol E is entered in column 13a of the Master Register; and in both cases, also, one of the following conditions is met:

- 1) the calculated protection ratio resulting from the modification, after adding any appropriate allowance for receiving antenna discrimination (RAD, para. C.3.3.4), is below the minimum limit of TSA-1, but is not more than 2 db below the original protection ratio.
- 2) the reduction of the original protection ratio is more than 2 db but the principle represented by the symbol AVLP (see C.9) is applicable.

./...

E.3.2.3 Finding represented by symbol A in column 13a and accompanied by the remark represented by symbol A in column 13b (Qualified Favourable Finding, referred to as an "AA Finding", see No. 511 of the R.R.).

E.3.2.3.1 Symbol A appearing in column 13a and accompanied by symbol A in column 13b, may also be accompanied :

- a) in column 13a by symbols U, W or Z
- b) in column 13b, by symbols C, or G, or by a number
- c) in column 13c, by symbols C, D, E, F, PROV, GGG, K-KK, P-PP or Y-Z.

These various symbols retain their individual meaning whatever the group of symbols entered in column 13. Any assignment bearing symbol A in column 13a and symbol A in column 13b shall be known as an "AA assignment".

E.3.2.3.2 This finding is issued in the following cases :

E.3.2.3.3 When during the period of common normal use of both the new or amended assignment and the existing assignment likely to be affected, the calculated protection ratio of the existing assignment is between the minimum limit and the upper value of T.S.A-1, after adding any appropriate allowance for receiving antenna discrimination (RAD - para. C.3.3.4).

E.3.2.3.4 When the calculated protection ratio of the existing assignment likely to be affected is equal to or greater than the upper value of T.S.A-1 only as a result of the assumption of transmitting antenna gain (TAG - para. C.3.3.2).

./...

E.3.2.3.5 When, in the case of a new assignment, during the period of common normal use of both the new assignment and the existing assignment likely to be affected, the calculated protection ratio of the existing assignment, after adding any appropriate allowance for receiving antenna discrimination (RAD - para. C.3.3.4) is below the minimum limit of T.S.A-1, but one or more of the principles represented by the symbols listed in paragraph E.3.2.3.7 are applicable, subject to the provisions of paragraphs E.3.2.3.8 to E.3.2.3.13.

E.3.2.3.6 When, in the case of an amendment to an existing assignment, during the period of common normal use of both the amended assignment and the existing assignment likely to be affected, the calculated protection ratio of the existing assignment, after adding any appropriate allowance for receiving antenna discrimination (RAD - para. C.3.3.4) is reduced as a result of the amendment and is below the minimum limit of T.S.A-1, but one or more of the principles represented by the symbols listed in paragraph E.3.2.3.7 are applicable, subject to the provisions of paragraphs E.3.2.3.8 to E.3.2.3.13.

E.3.2.3.7 The principles referred to are as follows :

- a) "Skip" (see para. C.7.3.2)
- b) "LtCT" (see para. C.7.4 or D.7)
- c) "HJ sup" or "HN sup" (see para. C.7.2.4)
- d) "N103" (see paras. C.10.3 and C.11.3 or D.10.3 and D.11.3)
- e) "AASA" (see para. C.8 or D.8)
- f) "AVLP" (see para. C.9.1 or D.9.1)

- g) "AASA-AVLP" (see para. C.9.2 or D.9.2)
- h) "OOCA" (see paras. C.6.4.1.1 and C.6.4.1.2 or
paras. D.6.4.1.1 and D.6.4.1.2)
- i) "SPR" (see para. C.10.2 or D.10.2)

(Note : Protection by skip (symbol "Skip") has been classed under this paragraph for the sake of convenience and to simplify use of the Rules of Procedure, though it is of course a physical phenomenon independent of any assumption adopted by the Board)

E.3.2.3.8 These principles are applied as follows :

E.3.2.3.9 The principles represented by the symbols "Skip", "LtCT", "HJ sup" or "HN sup", "AASA", "AVLP", "AASA-AVLP" and "OOCA" are applicable to any number of affected assignments whatever finding is reached with respect to other existing assignments likely to be affected.

E.3.2.3.10 The principle represented by symbol "N 103" is applicable to a number of affected assignments not exceeding the appropriate figure indicated in paragraphs C.10.3, D.10.3, C.11.3 or D.11.3, as appropriate, whatever finding is reached with respect to other existing assignments. If the number of affected assignments to which this principle is applicable exceeds this figure, an unfavourable finding (see para. E.3.1.1) should be reached with respect to each of these affected assignments.

E.3.2.3.11 The principle represented by symbol "SPR" should not be applied to an affected assignment simultaneously with the principle "OOCA", when a qualified favourable finding ("AA Finding") could be formulated with respect to this affected assignment only through the simultaneous application of both principles to this assignment.

E.3.2.3.12 The principle represented by symbol "SPR" should not be applied when, in addition to the affected assignments to which it is applicable, there are others which have already motivated an unfavourable finding. In such a case, an unfavourable finding (see para. E.3.1.1) should be reached with respect to each of the affected assignments to which the principle represented by symbol "SPR" would be applicable and symbol "SPR" should be entered in parenthesis in the working sheet and in the report to the Board.

E.3.2.3.13 For the purpose of applying the principle represented by symbol "N 103", in cases where more than one assignment of the same administration is affected, but these assignments fulfil the conditions laid down in paragraph E.5.1, they should be regarded as a single assignment.

E.3.2.4 Unfavourable Finding represented by symbol B in column 13a and accompanied by the remarks represented by symbol 515 in column 13b, and by symbol B in column 13c, followed by a date.

E.3.2.4.1 Symbol B, appearing in column 13a and accompanied by symbol 515 in column 13b and by symbol B in column 13c, may also be accompanied :

- a) in column 13a, by symbols U, W or Z
- b) in column 13b, by a number
- c) in column 13c, by symbols C, P-PP, or Y-Z

These various symbols retain their individual meaning whatever the group of symbols entered in column 13. Any assignment bearing symbol B in column 13a shall be known as a "B assignment".

- E.3.2.4.2 This finding is issued when a notice which has previously been given an unfavourable finding (B and X) is re-submitted to the Board under No. 515 of the Radio Regulations, when the Board's finding remains unchanged and when the characteristics notified anew, if amended, are not such as to increase, by comparison with the original characteristics, the probability of harmful interference to other existing assignments. This finding may apply to the whole or only to a part of the notice.
- E.3.2.4.3 Symbol B appearing in Column 13a, accompanied by symbol 515 in column 13b and by symbol B followed by a date in Column 13c shall remain recorded in the Master Register against the assignment concerned while the Board is conducting the investigation mentioned in No. 516 of the Radio Regulations. As a result of this investigation the Board shall make whatever changes are required in the entries in Column 13 of the Master Register (see paras. E.3.2.7 and E.3.3.8).
- E.3.2.5 Unfavourable Finding represented by symbol B in Column 13a and accompanied by the remarks represented by symbols B and 515 in Column 13b and by symbol B in Column 13c, followed by a date.
- E.3.2.5.1 Symbol B, appearing in Column 13a and accompanied by symbols B and 515 in Column 13b and by symbol B in Column 13c, may also be accompanied :
- a) in Column 13a, by symbols U, W or Z
 - b) in Column 13b, by a number
 - c) in Column 13c, by symbols C, P-PP or Y-Z

These various symbols retain their individual meaning whatever the group of symbols entered in Column 13. Any assignment bearing symbol B in Column 13a, accompanied by symbols B and 515 in Column 13b, shall be known as a "BB assignment".

E.3.2.5.2 This finding is issued when a notice which has previously been given an unfavourable find (BX) is re-submitted with amendments which are such as to increase the probability of harmful interference to other existing assignments, and after receiving, for that reason, a second unfavourable finding (BX) is submitted for the third time without any amendment, or with amendments which, though improving the protection ratio, do not attain the corresponding value of the original submission.

E.3.2.5.3 If symbol B appears in Column 13a, accompanied by symbols B and 515 in Column 13b and by symbol B followed by a date in Column 13c, the entry shall remain in the Master Register until the Board has completed the investigation mentioned in No. 516 of the Radio-Regulations. On completion of the investigation, the Board shall make whatever changes are required in the entries in Column 13 of the Master Register (see paras. E.3.2.7 and E.3.3.8).

E.3.2.6 Finding represented by symbol B in Column 13a, accompanied by symbol C in Column 13c, followed by a date.

E.3.2.6.1 Symbol B appearing in Column 13a and accompanied by symbol C in Column 13c may also be accompanied :

- a) in Column 13a, by symbols U, W or Z
- b) in Column 13b, by symbol C and a number
- c) in Column 13c, by symbols B, E, P-PP or Y-Z

These various symbols retain their individual meanings whatever the group of symbols entered in Column 13. Any assignment bearing symbol B in Column 13a shall be known as a "B assignment".

E.3.2.6.2 This finding is issued when an amendment to an existing assignment which has previously been given an unfavourable finding (represented by symbols B and X) and which has been entered in the Master Register under No. 515 of the Radio Regulations (see para. E.3.2.4) does not increase the probability of harmful interference to existing assignments, or when the calculated protection ratio of the other existing assignments is reduced by 2 db or less.

E.3.2.6.3 As a result of the investigation mentioned in No. 516 of the Radio Regulations, the Board shall make whatever amendments are required in the entries appearing in Column 13 of the Master Register (see paras. E.3.2.7 and E.3.3.8).

E.3.2.7 Unfavourable Finding represented by symbols C and V in Column 13a

E.3.2.7.1 Symbols C and V appearing in Column 13a may be accompanied :

- a) in Column 13a, by symbols U, W or Z
- b) in Column 13b, by symbol C and a number
- c) in Column 13c, by symbols C, P-PP or Y-Z

These various symbols retain their individual meaning whatever the group of symbols recorded in Column 13. Any assignment bearing symbols C and V in Column 13a shall be known as a "CV assignment".

./...

E.3.2.7.2 This finding is issued in the case of any assignment with respect to which the Board has reached a finding represented by symbol B in Column 13a, accompanied or not in Column 13b by symbol 515 and possibly symbol B, and accompanied in Column 13c by symbols B followed by a date, when the I.F.R.B. has undertaken the investigation mentioned in No. 516 of the Radio Regulations, but has been unable to establish the reasons for which the emissions represented by the entry concerned have not given rise to complaints of harmful interference affecting emissions represented by one or more assignments, with which, in the Board's view, the above-mentioned emissions are incompatible.

E.3.2.8 Finding represented by symbol D in Column 13a and accompanied by the remark represented by symbol 116 in Column 13b - Only the section of the assignment located in the appropriate frequency band shall be taken into account during the examination of notices subsequently received.

E.3.2.8.1 Symbol D appearing in Column 13a may be accompanied :

- a) in Column 13a, by symbols A, B, U, W or Z
- b) in Column 13b, by symbols A, C or G or by a number
- c) in Column 13c, by symbols B, C, D, P-PP, E, PROV or Y-Z.

These various symbols retain their individual meaning whatever the group of symbols entered in Column 13. Any assignment bearing symbol D in Column 13a shall be known as a "D assignment".

E.3.2.8.2 This finding is issued with respect to any notice when the emissions represented by the assignment concerned encroach upon a frequency band not allocated to the service

to which the station belongs. The assigned frequency being, however, located in a frequency band assigned to that service and on condition that the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 116 of the Radio Regulations. The Board shall examine such notices in the normal way with respect to the provisions of Nos. 502 or 503 or 504 of the Radio Regulations.

E.3.3 Findings as a result of which the notice is recorded in the Master Register and the assignment concerned is not taken into account during the examination of notices subsequently received

Note a). The cases where the Board considers that a frequency assignment, or part of a frequency assignment, is not in conformity with the provisions of No. 501 of the Radio Regulations, are defined in detail in the section entitled "Classification of the provisions of the Convention and of the Radio Regulations, in terms of the application of the provisions of No. 501 of the said Regulations". In general, the following cases may be quoted :

- 1) the frequency bandwidth occupied by the emission (see No. 90 of the R.R.) is located in a frequency band which is not allocated to the service to which the station belongs
- 2) the assigned frequency is located in a frequency band allocated to the service to which the station belongs, but the frequency bandwidth occupied by the emission encroaches on a frequency band which is not allocated to that service, and no reference has been made by the notifying administration to No. 116 of the R.R.

- 3) the assigned frequency is not located in a frequency band allocated to the service to which the station belongs, and the frequency bandwidth occupied by the emission encroaches on a frequency band which is in fact allocated to that service
- 4) the assigned frequency coincides with a limit of two bands allocated to different services
- 5) the emissions of a station belonging to any service to which the band concerned is allocated in the geographical area in which the emitting station is located, are designed to be received in a region or an area for which no allocation to the relevant service is made in the Table of Frequency Allocations
- 6) the notice refers to a class of emission not authorized under the Radio Regulations

Note b). During the technical examination of the assignments which are not in conformity with the provisions mentioned in No. 501 of the R.R., the principles set forth in paragraph E.3.2.3.7 shall not apply, except for the principle represented by the symbol "Skip".

Note c). As far as application of the technical procedure and the finding to be issued are concerned, any amendment to the basic characteristics of an existing assignment not in conformity with the provisions mentioned in No. 501 of the R.R. shall be deemed to be a new assignment (see No 533 of the R.R.)

./...

- E.3.3.1 Finding represented by the symbol DA in Column 13a and accompanied by the remarks represented by symbols D and 525 in column 13b and symbol 115 in column 13c.

This finding is issued for any new assignment or any amendment to the basic characteristics of an existing assignment, when the assignment concerned is not in conformity with the provisions of No. 501 of the R.R., but was the subject of a favourable finding with respect to the provisions of Nos. 502 or 503 of the said Regulations, and when the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the R.R., or when the notice in question has been the subject of a previous finding represented by symbols D and X.

- E.3.3.2 Finding represented by symbol DA (column 13a) and accompanied by the remarks represented by symbols D, A and 525, in column 13b, and symbol 115, in column 13c.

This finding is issued in the case of any new assignment or of any amendment to the basic characteristics of an existing assignment when the assignment concerned is not in conformity with the provisions of No. 501 of the R.R., but was the subject of a previous qualified favourable finding with respect to the provisions of Nos. 502 or 503 of the said Regulations, and when the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the Radio Regulations, or when the notice in question has been the subject of a previous finding represented by symbols D and X.

E.3.3.3 Finding represented by symbol DB in column 13a and accompanied by the remarks represented by symbols D and 526 in column 13b, and symbols B and 115 in column 13c.

This finding is issued in the case of any new assignment, or of any amendment to the basic characteristics of an existing assignment, when the assignment concerned is not in conformity with the provisions of No. 501 of the R.R., and when the following conditions apply :

- a) the assignment notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the said Regulations
- b) the notice in question has been the subject of a previous finding represented by symbols DB and X
- c) the Board's finding with respect to provisions 502 or 503 of the R.R., remains unfavourable
- d) the notifying administration has advised the Board that the assignment had been in use for at least sixty days without any complaint of harmful interference having been received.

E.3.3.4 Finding represented by symbol DA in column 13a and accompanied by the remarks represented by symbols D and 530 in column 13b.

This finding is issued in the case of any new assignment or of any amendment to the basic characteristics of an existing assignment, when the assignment concerned is not in conformity with the provisions of No. 501 of the R.R., and when the following conditions apply :

- a) the notice does not include a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the said Regulations
- b) the notice in question has been the subject of a previous finding represented by symbols D and X
- c) the Board's finding with respect to the provisions of Nos. 502 or 503 of the R.R. is favourable (finding represented by symbol A unaccompanied by the remark represented by symbol A)

E.3.3.5 Finding represented by symbol DA (column 13a) and accompanied by the remarks represented by symbols D, A and 530 (column 13b).

This finding is issued for any new assignment or for any amendment to the basic characteristics of an existing assignment, when the assignment concerned is not in conformity with No. 501 of the R.R., and when the following conditions apply :

- a) the frequency notice bears no reference to the effect that the station will be operated in accordance with No. 115 of the R.R.
- b) the frequency notice concerned has been the subject of a previous finding represented by symbols D and X
- c) the Board's finding with respect to the provisions of Nos. 502 or 503 of the R.R., is a qualified favourable one (finding represented by symbol A and accompanied by the remark represented by symbol A)

./...

E.3.3.6 Finding represented by symbol DB (column 13a) and accompanied by the remarks represented by symbols D and 531 (column 13b) and symbol B (column 13c).

This finding is issued for any new assignment or for any amendment to the basic characteristics of an existing assignment, when the assignment concerned is not in conformity with No. 501 of the R.R., and when the following conditions apply :

- a) the notice does not include a specific reference to the fact that the station will be operated in accordance with No. 115 of the said Regulations
- b) the frequency notice in question has been the subject of a previous finding represented by symbols DB and X
- c) the Board's finding with respect to the provisions of Nos. 502 and 503 of the R.R., remains unfavourable
- d) the notifying administration has informed the Board that the assignment has been in use for at least sixty days without any complaint of harmful interference having been received.

E.3.3.7 Finding represented by symbols C and X (column 13a) and accompanied by the remark represented by symbol X (column 13c)

E.3.3.7.1 This finding is issued for any assignment which has been given a finding represented by a symbol B in column 13a and accompanied or not by the remarks represented by symbol 515 and possibly symbol B in column 13b and symbol B or C in column 13c when, as a result of the investigation

mentioned in No. 516 of the R.R., the Board finds that the emissions represented by the assignment in question cause harmful interference to emissions represented by one or more entries already contained in the Master Register. The date on which the Board stops taking into account the assignment concerned when examining frequency assignment notices subsequently received is entered in column 13c after symbol X.

- E.3.3.7.2 Any assignment bearing symbols C and X in column 13a shall be known as a "CX assignment".
- E.3.3.8 Finding represented by symbol T (column 13a) and accompanied by the remark represented by symbol T (column 13c)
- E.3.3.8.1 The definition of these symbols is given in the Preface to the International Frequency List, where their use is explained.
- E.3.3.8.2 Any assignment bearing the symbol T in column 13a shall be known as a "T assignment".
- E.3.3.9 Finding represented by symbol Y (column 13a) and accompanied by the remark represented by symbol Y (column 13c).
- E.3.3.9.1 The definition of these symbols is given in the Preface to the International Frequency List, where their use is explained.
- E.3.3.9.2 Any assignment bearing symbol Y in column 13a shall be known as a "Y assignment".

E.4 CLASSIFICATION OF THE RESULTS OBTAINED IN APPLYING THE TECHNICAL PROCEDURE

With the aid of Working Sheet No. 3 or No. 5 and of Working Sheet No.1 (when required), the protection

./...

ratio of the existing assignment likely to be affected is examined during the period of common "normal use" of both the existing assignment and the new or amended assignment. As has been seen, according to the definition of findings issued with respect to the provisions of No. 502 or No. 503 of the R.R., five cases may arise :

- Case I - No existing assignment is likely to be affected
- Case II - The calculated protection ratio is equal to or greater than the upper value defined in T.S.A-1, without allowing for any appropriate values for transmitting antenna gain (TAG - para. C.3.3.2), and for receiving antenna discrimination (RAD - para. C.3.3.4).
- Case III - The calculated protection ratio lies between the minimum and the upper values defined in T.S.A-1, after adding any appropriate allowances for transmitting antenna gain (TAG - para. C.3.3.2), and for receiving antenna discrimination (RAD - para. C.3.3.4),
- Case IV - The calculated protection ratio is below the minimum limit defined in T.S.A-1, after adding any appropriate allowances for transmitting antenna gain (TAG - para. C.3.3.2) and for receiving antenna discrimination (RAD - para. C.3.3.4).
- Case V - The circumstances are the same as in Case IV, but one or more of the principles listed in paragraph E.3.2.3.7 are applicable in accordance with the rules set out in paragraphs E.3.2.3.8 to E.3.2.3.13. The principles in question are

represented by the following symbols :

"Skip" (C.7.3.2)
 "LtCT" (C.7.4 or D.7)
 "HJ sup" or "HN sup" (C.7.2.4)
 "N 103" (C.10.3 and C.11.3 or D.10.3 and
 D.11.3);
 "AASA" (C.8 or D.8)
 "AVLP" (C.9.1 or D.9.1)
 "AASA-AVLP" (C.9.2. or D.9.2)
 "OCCA" (C.6.4.1.1 and C.6.4.1.2 or D.6.4.1.1
 and D.6.4.1.2)
 "SPR" (C.10.2 or D.10.2)

Reference will be made, in the remainder of the present chapter, to these five cases, known as Case I (E.4), Case II (E.4), Case III (E.4), Case IV (E.4) and Case V (E.4).

E.5 FINDING ISSUED WITH RESPECT TO A NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE R.R.

E.5.1 Case in which the Master Register already contains one or more assignments of the administration which has submitted the new frequency assignment notice (AASA) which either bear no finding symbol in column 13a or bear symbol A in that column (whether accompanied or not by symbol A in column 13b) or symbol E (accompanied by symbol C in column 13c).

According to the results of the technical examination, any symbols which may appear in columns 13a and 13b of the existing assignment or assignments, and any dates which may have been entered in columns 2a or 2b of the latter, the following findings and remarks are formulated. These are set out in two tables, the first of which (Table 1) applies to frequencies between 3,950 kc/s (4,000 kc/s in Region 2) and 28,000 kc/s, and the second (Table 2) to frequencies between 10 kc/s and 3,950 kc/s (4,000 kc/s in Region 2).

TABLE 1 - 3,950 kc/s (4,000 kc/s in Region 2) - 28,000 kc/s

NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS

Case in which the "AASA" principle is applicable (see paragraph C.8) Comparison of the characteristics of the new assignment with those of the existing assignment of the same administration (AASA).	Technical examination	Symbols entered, where appropriate, in columns 13a and 13b of the existing assignment of the same administration (AASA)			Information to be entered on Working Sheet No. 3 and in the report to the Board.
		A	AA	No finding symbol in column 13a, or symbol E.	
		Finding issued and remarks			
1	2	3	4	5	6
E.5.1.1 <u>Same frequency</u> - same transmitter site or new site at a distance from the existing site (AASA) of not more than 5% of the length of the shortest existing circuit.	1. No technical examination if symbol A appears in column 13a of the existing assignment of the same administration (AASA)	A	AA		AASA ... (basic characteristics) E.5.1.1

Table 1 - 3,950 kc/s (4,000 kc/s in Region 2) - 28,000 kc/s

1	2	3	4	5	6
<p>- same reception localities or regions</p> <p>- same technical characteristics</p>	<p>2. A technical examination is made only when symbol E appears in column 13a of the existing assignment of the same administration (AASA) or when no finding symbol is entered in that column. According to the result of the technical examination, the protection ratio against the new assignment of one of the existing assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p>			<p>A</p> <p>A</p> <p>AA</p> <p>AA</p>	<p>NSA</p> <p>AASA ... (basic characteristics) 0 db plus SCT</p>

Table 1 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6
<p>E.5.1.2 <u>Same frequency</u></p> <ul style="list-style-type: none"> - new transmitter site at a distance from the existing site (AASA) of more than 5% of the length of the shortest existing circuit. - different reception localities or regions. - different technical characteristics. 	<p>According to the result of the technical examination, the technical ratio against the new assignment of one of the existing assignments likely to be affected comes under one of the following cases:</p> <ul style="list-style-type: none"> a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4) 	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>NSA</p> <p>(AASA....)</p>

Table 1 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6
<p>E.5.1.3 <u>Different frequency</u></p> <p>but the frequency band occupied by the new assignment lies between the limits of the frequency band occupied by the frequency assignment of the same administration (AASA)</p>	<p>According to the result of the technical examination, the protection ratio against the new assignment of one of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>NSA</p> <p>(AASA....)</p>

Table 1 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

TABLE 2 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

NEW ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS

1	2	Symbols entered, where appropriate in columns 13a and 13b and date entered in column 2a or 2b of the existing assignment of the same administration (AASA)					Information to be entered on Working Sheet No. 5 and in the report to the Board
		Column 2a		Column 2b			
		Initial assignments*	A	AA	A	AA	
			Finding issued and remarks				
3	4	5	6	7	8		
E.5.1.4 <u>Same frequency</u> - same transmitter site or new site at a distance from the existing site (AASA) of not more than 5% of the length of the shortest existing circuit.	No technical examination	A	A	AA	A	AA	AASA ... (basic characteristics) E.5.1.4

Table 2 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8
<ul style="list-style-type: none"> - same reception localities or regions - same technical characteristics 							
<p>E.5.1.5 <u>Same frequency</u></p> <ul style="list-style-type: none"> - new transmitter site at a distance from the existing site (AASA) of more than 5% of the length of the shortest existing circuit - different reception localities or regions - different technical characteristics 	<p>According to the result of the technical examination, the protection ratio against the new assignment of one of the existing assignments likely to be affected comes under one of the following cases:</p> <ul style="list-style-type: none"> a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4) <p>* This finding should be A (without symbol A in column 13b) if the principle AASA is applicable.</p>	<p>A</p> <p>A</p> <p>AA*</p> <p>BX</p> <p>A</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>NSA</p>	

Table 2 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8
<p>E.5.1.6 <u>Different frequency</u></p> <p>but the frequency band occupied by the new assignment lies between the limits of the frequency band occupied by the existing assignment of the same administration (AASA)</p>	<p>According to the result of the technical examination, the protection ratio against the new assignment of one of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>NSA</p>

Table 2 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

E.5.2

Case in which the principle represented by the symbol "AASA" is not applicable (see para. C.8 or D.8)

According to the result of the technical examination, the following findings are issued:

Technical Examination	Finding and Remarks	Information to be entered on Working Sheet No. 3 or No. 5 and in the report to the Board
<p>The calculated protection ratio of any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>NSA</p>

E.6 FINDING ISSUED WITH REGARD TO A CHANGE IN THE BASIC CHARACTERISTICS OF AN EXISTING "AA", "B", or "CV" ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS OR OF AN ASSIGNMENT THAT IS IN ACCORDANCE WITH THESE PROVISIONS AND WHICH EITHER HAS NO FINDING SYMBOL IN COLUMN 13a AND NO DATE IN COLUMN 2a, OR HAS SYMBOL E IN COLUMN 13a

E.6.1 Amendment to the basic characteristics of an existing assignment that has been the subject of a finding represented by the symbol A in column 13a and accompanied by the remark represented by the symbol A in column 13b ("AA" assignment)

E.6.1.1 When a new frequency assignment notice concerning an amendment to an existing assignment of this category is examined, the qualified favourable finding issued with respect to the original notice should be reviewed. For this purpose, the existing entry should be re-examined solely with respect to the assignments entered in the Master Register at the time of the original examination, taking into account the technical characteristics of those assignments as recorded in the Master Register at the time of the re-examination. However, should these technical characteristics have been changed since the original examination in a manner likely to increase the probability of harmful interference to the assignment in which they are entered, the re-examination should be made with respect to the technical characteristics recorded in the master Register at the time of the original examination.

E.6.1.2 Should this re-examination of the existing entry result in a favourable finding represented by symbol A in column 13a, not accompanied by symbol A in column 13b:

- a) Symbol "Rpl AA/A" should be inserted opposite the existing entry in the "General Remarks" column of Working Sheet No. 3 or No. 5 and in the report to the Board.
- b) the notice concerning the amendment should then be examined in accordance with the provisions of paragraph E.7

E.6.1.3 Should the re-examination of the existing entry confirm the qualified favourable finding originally made and represented by symbol A in column 13a, accompanied by symbol A in column 13b:

- a) Symbol "RE AA" (which means: "After re-examination the existing assignment remains an AA assignment") should be inserted opposite the existing entry in the "General Remarks" column of Working Sheet No. 3 or No. 5 and in the report to the Board;
- b) The notice concerning the amendment should then be examined in accordance with the provisions of paragraph E.7.

E.6.2 Amendment to the basic characteristics of an existing assignment which has been given a finding represented by symbols B or C and V in column 13a

E.6.2.1 When a new frequency assignment notice concerning an amendment to an existing "B" or "CV" assignment is examined, the unfavourable finding issued with regard to the original notice should be reviewed. For this purpose, the existing entry should be re-examined solely with respect to the assignments which were entered in the Master Register at the time of the original examination, taking into account the technical characteristics of these assignments as recorded in

the Master Register at the time of the re-examination. However, should these technical characteristics have been amended since the original examination in a manner likely to increase the probability of harmful interference to the assignment in which they are entered, the re-examination should be made with respect to the technical characteristics recorded in the Master Register at the time of the original examination.

E.6.2.2

Should this re-examination of the original entry result in a favourable finding represented by symbol A in column 13a, not accompanied by symbol A in column 13b:

- a) Symbol "Rpl B or CV/A" should be inserted opposite the existing entry in the "General Remarks" column of Working Sheet No. 3 or No. 5 and in the report to the Board;
- b) The notice concerning the amendment should then be examined in accordance with the provisions of paragraph E.7.

E.6.2.3

Should the re-examination of the existing entry result in a qualified favourable finding represented by symbol A in column 13a, accompanied by symbol A in column 13b:

- a) Symbol "Rpl B or CV/AA" should be inserted opposite the existing entry in the "General Remarks" column of Working Sheet No. 3 or No. 5 and in the report to the Board;
- b) The notice concerning the amendment should then be examined in accordance with the provisions of paragraph E.7.

E.6.2.4

Should the re-examination of the existing entry confirm the unfavourable finding originally reached and represented by symbols B or C and V in column 13a:

- a) Symbol "REB" or "RE CV" (which means : "after re-examination the existing assignment remains a "B" or "CV" assignment") should be inserted opposite the existing entry in the "General Remarks" column of Working Sheet No. 3 or No. 5 and in the report to the Board;
- b) The notice concerning the amendment should then be examined in accordance with the provisions of paragraph E.7.

E.6.3

Amendment to the basic characteristics of an existing assignment either has no finding symbol in Column 13a and no date in Column 2a, or has symbol E in Column 13a

E.6.3.1

The amendment is examined according to the provisions of paragraph E.7.

E.6.3.2

Whenever the amendment consists of a change of some of the characteristics of the existing assignment, the characteristics so amended will bear in Column 13a of the Master Register the symbol representing the finding reached and the remainder of the original assignment will be kept without finding symbol in Column 13a.

E.6.3.3

Whenever the amendment consists of an addition of some characteristics to the existing assignment, only the addition will bear in Column 13a of the Master Register the symbol representing the finding reached and the original assignment will be kept without finding symbol in Column 13a.

E.7 FINDING ISSUED WITH REGARD TO AN AMENDMENT TO THE BASIC CHARACTERISTICS OF AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS (WITH RESPECT TO "AA", "B", "C", "E" ASSIGNMENTS OR THOSE WITHOUT A FINDING SYMBOL - see also paragraphs E.6.1, E.6.2 or E.6.3)

According to the column of the Master Register which is modified by the notice of amendment, the results of the technical examination, any symbols that may be entered in Columns 13a and 13b of the existing assignment, the dates that may have been entered in Columns 2a or 2b of the latter, the following findings and remarks should be made. These are set out in two tables, the first of which (Table 3) applies to frequencies between 3950 kc/s (4000 kc/s in Region 2) and 28000 kc/s, and the second (Table 4) to frequencies between 10 kc/s and 3950 kc/s (4000 kc/s in Region 2).

Note - With respect to amendments to "AA", "B", "C" or "E" assignments or to assignments which bear no finding symbol in Column 13a and no date in Column 2a (such assignments bear in Column 2d symbol "***"), the provisions of the present paragraph E.7 should be applied only after the provisions of paragraph E.6.1 or E.6.2 have been applied, or after the provisions of paragraph E.6.3 have been referred to, as appropriate.

TABLE 3 - 3,950 kc/s (4,000 kc/s in Region 2) - 28,000 kc/s

AMENDMENT TO AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS MENTIONED IN No. 501 OF THE RADIO REGULATIONS

Amended characteristics	Technical examination	Symbols entered, where appropriate, in columns 13a and 13b of the existing assignment				Information to be entered on Working Sheet No. 3 and in the report to the Board
		A	AA	B or C	No finding symbol in column 13a or symbol E	
		Finding issued and Remarks				
1	2	3	4	5	6	7
<p>E.7.1 <u>Column 1:</u> <u>Assigned frequency</u></p> <p>E.7.1.1 - The change in frequency lies within the limits defined in No. 534 of the Radio Regulations.</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2db as a result of the change; or, if any of the existing assignments includes an emission with two or more 3 kc/s base band channels (C.6.4.2), the number of affected channels is not increased. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>Case I (E.4)</p> <p>Case II (E.4)</p> <p>Case III (E.4)</p> <p>Case IV (E.4)</p> <p>Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A A C C/</p> <p>A A C C/</p> <p>A A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A A C C/</p> <p>B C C/</p> <p>A A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A A C C/</p> <p>E C C/</p> <p>A A C C/</p>	<p>) B 0db plus or) B ...db minus) No MCA (if appropriate)</p>
<p>Table 3 - 3,950 kc/s (4,000 kc/s in Region 2) - 28,000 kc/s</p>						

1	2	3	4	5	6	7
E.7.1.1 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the change; or, if one of the existing assignments includes an emission with two or more 3 kc/s base band channels (C.6.4.2), the number of channels affected is increased as a result of the change in frequency. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>C-NSA</p> <p>B ... db plus</p> <p>B ... db plus MCA ... db plus (if appropriate)</p> <p>B ... db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3				
<p>E.7.1.2 The change in frequency goes beyond the limits defined in No. 534 of the Radio Regulations, but the new frequency differs from the existing frequency by not more than 15 kc/s (for the purpose of determining the date to be entered in column 2d, the assignment is regarded as a new assignment)</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected, <u>is not reduced</u> by more than 2 db as a result of the change; or if one of the existing assignments includes an emission with two or more 3 kc/s base band channels (C.6.4.2), the number of channels affected is not increased as a result of the change in frequency. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4)</p> <p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the change, or, if one of the existing assignments includes an emission with two or more 3 kc/s base band channels (C.6.4.2), the number of channels affected is increased as a result of the change in frequency</p>	<p>A A A A</p>	<p>A A AA AA</p>	<p>A A AA B AA</p>	<p>A A AA AA AA</p>	<p>B 0 db plus or B ... db minus No MCA (if appropriate)</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	4	6	7
<p>E.7.1.3 The change in frequency is more than 15 kc/s</p>	<p>The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>For the purpose of applying the technical procedure, the amended assignment is treated as a new assignment (see paragraph E.5).</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA</p> <p>BX</p> <p>AA</p>	<p>C-NSA</p> <p>B ... db plus</p> <p>B ... db plus</p> <p>B ... db plus MCA ... db plus (where appropriate)</p> <p>B ... db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.2 <u>Column 4c:</u></p> <p><u>Transmitter site</u></p> <p>E.7.2.1 The new site is at a distance from the existing site of not more than 5% of the length of the shortest existing circuit.</p>	<p>No technical examination, except when the assignment has no finding symbol in column 13a, or when it has symbol E in that column.</p> <p>In these circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p>	<p>A AC C/</p>	<p>B C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>E C C/</p> <p>A AC C/</p>	<p>E.7.2.1</p> <p>E.7.2.1</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.3 <u>Column 5a:</u> <u>Reception localities or region</u> (change or addition)</p> <p>E.7.3.1 The change or addition involves no alteration of the other technical characteristics of the assignment, nor an extension of the period of common use of the amended assignment and of the assignments likely to be affected.</p>	<p>No technical examination, except when the assignment has no finding symbol in column 13a, or when it has symbol E in that column.</p> <p>In such circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4)</p>	A C C/	A A C C/	B C C/		<p>C-NI E.7.3.1</p> <p>C-NSA B 0 db plus SCT B 0 db plus SCT</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.3.2 The change or addition involves no alteration of the other technical characteristics of the assignment, but entails an extension of the period of common use of the amended assignment and of the assignments likely to be affected.</p>	<p>1. The result of the technical examination with respect to any of the assignments likely to be affected during the additional hours of common use comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>C-NSA</p> <p>B.LsCT</p> <p>B.LsCT</p> <p>B.LsCT</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
E.7.3.2 (continued)	<p>2. With respect to the period of common use of the frequency, as that period was before the change, no technical examination is made except when the assignment has no finding symbol in column 13a or when it has symbol E in that column.</p> <p>In these circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	A C C/	A AC C/	B C C/	 A C C/ A C C/ A AC C/) E C C/) A AC C/)	B.O db plus SCT B.O db plus SCT

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.4 <u>Column 6:</u> <u>Class of station</u> Change or addition, the new class of station notified being in conformity with the Table of Frequency Allocations</p>	<p>No technical examination, except when the assignment has no finding symbol in column 13a, or when it has symbol E in that column.</p> <p>In these circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4)</p>	A C*C*/	A AC*C*/	B C*C*/	 A C*C*/ A C*C*/ A AC*C*/ E C*C*/ A AC*C*/	C-NI *In case of a change only. In case of an addition, a new date is entered in Column 2d. C-NSA C-NI C-NI C-NI C-NI

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.5 <u>Column 7:</u> <u>Class of emission, necessary bandwidth and nature of the transmission</u></p> <p>E.7.5.1 Change of addition, the new notified bandwidth being narrower than or equal to the existing bandwidth (see notes 1, 2 and 3)</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>					
		<p>A C C/ A C C/ A C C/ A C C/ A C C/</p>	<p>A C C/ A C C/ AA C C/ AA C C/ AA</p>	<p>A C C/ A C C/ AA C C/ B C C/ AA C C/</p>	<p>A C C/ A C C/ AA C C/) E C C/) AA C C/)</p>	<p>B.0 db plus or B...db minus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

Notes

- 1) For the purpose of applying paragraph E.7.5 the term "existing bandwidth" designates the bandwidth of the type of transmission which the Board takes into account in using T.S.A-3 with respect to the existing assignment (see paragraph C.5, in particular paragraph C.5.4).
- 2) The provisions of paragraph E.7.5.1 likewise apply to the following changes or additions:

existing	: 2.85 F1	new	: 3A3A, 3A7 or 3A9 (3TG)
existing	: 1.7 F1	new	: 2A7 (2TG)
- 3) The provisions of paragraph E.7.5.1 likewise apply to a change or an addition, the new notified bandwidth being narrower than the existing bandwidth, in cases where the assigned frequency has also been changed, provided that the new emission remains within the limits of the frequency band that was formerly occupied.

1	2	3	4	5	6	7
E.7.5.1 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected is reduced by more than 2 db as a result of the amendment and the result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>3. The procedure defined in 1 and 2 above is also applicable for the change from a telephony system A3 to a system A3A, A3J and A3B (but not A3H) with the same or narrower bandwidth, where the change involves a modification of up to 4 times the new peak power notified (Pp) with respect to the mean power (Pm) of the original emission.</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>B C C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>E C C/</p> <p>A AC C/</p>	<p>C-NSA</p> <p>B...db plus</p> <p>B...db plus</p> <p>B...db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.5.2 Change or addition, the new notified bandwidth being wider than the existing bandwidth (see note 1 to paragraph E.7.5.1)</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment; or, if any of the existing assignments includes an emission with two or more 3 kc/s baseband channels (C.6.4.2), the number of affected channels is not increased; the result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/ A C C/ A C C/ A C C/</p>	<p>A C C/ A C C/ AA C C/ AA C C/</p>	<p>A C C/ A C C/ AA C C/ B C C/ AA C C/</p>	<p>A C C/ A C C/ AA C C/ E C C/ AA C C/</p>	<p>) B.0 db plus or) B...db minus) No MCA (if appropriate)</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
E.7.5.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected is reduced by more than 2 db as a result of the amendment; or, if one of the existing assignments includes an emission with two or more 3 kc/s baseband channels (C.6.4.2), the number of channels affected is increased as a result of the change. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>C-NSA</p> <p>B...db plus</p> <p>B...db plus MCA...db plus (if appropriate)</p> <p>B...db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.6.2 Increase of 2db or less.</p> <p><u>Note</u> - When such a power increase is in addition to a previously noted increase of 2 db or less in respect of which a favourable finding was issued in application of the present paragraph, the frequency notice is dealt with in accordance with paragraph E.7.6.3, the total increase in power notified since the inclusion of the original assignment in the Master Register being taken as a basis for the examination.</p>	<p>No technical examination, except when the assignment has no finding symbol in column 13a, or when it has symbol E in that column.</p> <p>In these circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4)</p>	A C/	A A C/	B C/		<p>B...db plus</p> <p>C-NSA</p> <p>B...db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.6.3 Increase of more than 2 db.</p>	<p>The result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A - C/</p> <p>A - C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A - C/</p> <p>A - C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A - C/</p> <p>A - C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A - C/</p> <p>A - C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>C-NSA</p> <p>)</p> <p>)</p> <p>)</p> <p>B...db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.7 <u>Column 9:</u></p> <p><u>Radiation characteristics of the transmitting antenna</u></p> <p>E.7.7.1 <u>Column 9a</u> (change of azimuth of the maximum radiation of a directive antenna, when it is not a case of correcting an error, or addition of a new directive antenna)</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/ A C C/ A C C/ A C C/</p>	<p>A C C/ A C C/ AA C C/ AA C C/</p>	<p>A C C/ A C C/ AA C C/ B C C/ AA C C/</p>	<p>A C C/ A C C/ AA C C/ E C C/ AA C C/</p>	<p>) B.0 db plus or) B...db minus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
E.7.7.1 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/)</p> <p>BX</p> <p>A AC C/)</p>	<p>C-NSA</p> <p>B...db plus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
<p>E.7.7.3 <u>Column 9c</u></p> <p>E.7.7.3.1 Reduction in antenna gain.</p> <p>E.7.7.3.2 Increase in antenna gain, or change from a non-directive (ND) antenna to a directive antenna.</p>	<p>Treat as E.7.7.2.1</p> <p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>AA C C/</p> <p>AA C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>AA C C/</p> <p>B C C/</p> <p>AA C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>AA C C/)</p> <p>E C C/)</p> <p>AA C C/)</p>	<p>B.0 db plus</p> <p>or</p> <p>B...db minus</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
 - 28,000 kc/s

1	2	3	4	5	6	7
E.7.7.3.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>3. However, if a non-directive (ND) antenna has been changed into a directive antenna, when the power is not less than 1 kW and the length of the circuit at least 500 km, and if the increase in gain is accompanied by a reduction in power (column 8) amounting at least to the difference between the antenna gain in sector M and the absolute value of its gain in sector B, the BX finding issued in case IV is replaced by (see paragraph C.3.3.1.d)</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>B C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>E C/</p>	<p>C-NSA</p> <p>B...db plus</p> <p>B...db plus E.7.7.3.2</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

1	2	3	4	5	6	7
E.7.8.2 The change involves an extension of the hours of use of the frequency.	<p>1. The result of the technical examination with respect to any of the assignments likely to be affected, during the additional hours of use, comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>2. With respect to the hours during which the circuit was used before the amendment, para. E.7.8.1 applies</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>C-NSA</p> <p>B.LsCT</p> <p>B.LsCT</p> <p>B.LsCT</p>

Table 3 - 3,950 kc/s (4,000 kc/s in Region 2)
- 28,000 kc/s

TABLE 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)
AMENDMENT TO AN EXISTING ASSIGNMENT COMPLYING WITH THE PROVISIONS
MENTIONED IN No. 501 OF THE RADIO REGULATIONS

Amended characteristics	Technical examination	Symbols entered, where appropriate, in columns 13a and 13b and date entered in column 2a or 2b of the assignment						Information to be entered on Working Sheet No. 5 and in the report to the Board Board	
		Column 2a			Column 2b				
		Initial assignments*							
			A	A A	A	A A	B		
Finding issued and remarks									
1	2	3	4	5	6	7	8	9	
E.8.1 <u>Column 1</u> <u>Assigned frequency</u> E.8.1.1 The change in frequency lies between the limits defined in No. 534 of the Radio Regulations.	1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the change; or, if any of the existing assignments includes an emission with two or more 3 kc/s baseband channels (C.6.4.2), the number of affected channels is not increased.								

1	2	3	4	5	6	7	8	9
<p>E.8.1.2 The change in frequency goes beyond the limits defined in No. 534 of the Radio Regulations, but the new frequency differs from the existing frequency by not more than 15 kc/s. (For the purpose of determining the date to be entered in column 2a or 2b, the assignment is regarded as a new assignment.)</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the change; or, if one of the existing assignments includes an emission with two or more 3 kc/s baseband channels (C.6.4.2), the number of channels affected is not increased as a result of the change in frequency. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p>	<p>A</p> <p>A</p> <p>AA</p> <p>AA</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p>	<p>A</p> <p>A</p> <p>AA</p> <p>AA</p>	<p>A</p> <p>A</p> <p>AA)</p> <p>B)</p> <p>AA)</p>	<p>B. 0 db plus or B ... db minus No MCA (if appropriate)</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.1.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the change; or, if one of the existing assignments includes an emission with two or more 3 kc/s base-band channels (D.6.4.2), the number of channels affected is increased as a result of the change in frequency (D.6.4.1). The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	A A A A BX A A	A A A A BX A A	A A A A BX A A	A A A A BX A A	A A A A BX A A	A A A A BX A A	C-NSA B... db plus B... db plus B... db plus MCA...db plus (where appropriate) B... db plus
E.8.1.3 The change in frequency is more than 15 kc/s	For the purpose of applying the technical procedure, the amended assignment is considered and treated as a new assignment (see paragraph E.5)							

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.2 <u>Column 4c:</u> <u>Transmitter site</u></p> <p>E.8.2.1 The new site is at a distance from the existing site of not more than 5% of the length of the shortest existing circuit.</p> <p>E.8.2.2 The new site is at a distance from the existing site of more than 5% of the length of the shortest existing circuit.</p>	<p>No technical examination</p> <p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A A C C/</p> <p>A C C/</p> <p>A A C C/</p> <p>A A C C/</p> <p>A A C C/</p> <p>A C C/</p> <p>A A C C/</p>	<p>B C C/</p> <p>A A C C/</p>	<p>E.8.2.1</p> <p>B. 0 db plus or B... db minus</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.2.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment and the result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	C-NSA
		A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	
		A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	} B... db plus
		BX	BX	BX	BX	BX	BX	
		A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.3 <u>Column 5a:</u> <u>Reception localities</u> <u>or regions</u> (change or addition)</p> <p>E.8.3.1 The change or addition involves no alteration of the other technical characteristics of the assignment, nor an extension of the period of common use of the amended assignment and of the assignments likely to be affected.</p>	No technical examination	A C C/	A C C/	A A C C/	A C C/	A A C C/	B C C/	C-NI E.8.3.1

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.3.2 The change or addition involves no alteration of the other technical characteristics of the assignment, but entails an extension of the period of common use of the amended assignment and of the assignments likely to be affected.</p>	<p>1. The result of the technical examination with respect to any of the assignments likely to be affected during the additional hours of common use comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>2. With respect to the period of common use of the frequency as that period was before the amendment, no technical examination is made.</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p> <p>B C C/</p>	<p>C-NSA</p> <p>B.LsCT</p> <p>B.LsCT</p> <p>B.LsCT</p> <p>B.O db plus SCT</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p><u>E.8.4 Column 6:</u> <u>Class of station</u></p> <p>Change or addition, the new class of station notified being in conformity with the Table of Frequency Allocations.</p>	<p>No technical examination</p>	<p>A C*C*/</p>	<p>A C*C*/</p>	<p>A AC*C*/</p>	<p>A C*C*/</p>	<p>A AC*C*/</p>	<p>B C*C*/</p>	<p>C-NI</p> <p>*In case of a change only. In case of an addition, a new date is entered in column 2a or in column 2b, as appropriate.</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

Notes :

- 1) For the purpose of applying the provisions of paragraph E.8.5, the term "existing bandwidth" designates the bandwidth of the type of transmission which the Board takes into account in using T.S.A-3 with respect to the existing assignment (see paragraph D.5, in particular paragraph D.5.4)
- 2) The provisions of paragraph E.8.5.1 likewise apply to the following changes or additions:

existing 2.85 F1	new 3A3A, 3A7 or 3A9 (3 TG)
existing 1.7 F1	new 2A7 (2 TG)
- 3) The provisions of paragraph E.8.5.1 likewise apply to a change or an addition, the new notified bandwidth being narrower than the existing bandwidth, in cases where the assigned frequency has also been changed, provided that the new emission remains within the limits of the frequency band that was formerly occupied.

1	2	3	4	5	6	7	8	9
E.8.5.1 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment and the result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>3. The procedure defined in 1 and 2 above is also applicable for the change from a telephony system A3 to a system A3A, A3J and A3B (but not A3H) with the same or narrower bandwidth where the change involves a modification of up to 4 times the new peak power notified (Pp) with respect to the mean power (Pm) of the original emission.</p>							<p>C-NSA</p> <p>)</p> <p>)</p> <p>)</p> <p>B... db plus</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.5.2 Change or addition, the new notified bandwidth being wider than the existing bandwidth (see note 1 to paragraph E.8.5.1)	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment, if any of the existing assignments includes an emission with two or more 3 kc/s baseband channels (C.6.4.2), the number of affected channels is not increased. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A C C/</p> <p>A C C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p> <p>B CC C/</p> <p>A AC C/</p>	<p>B. 0 db plus or</p> <p>B. ... db minus</p> <p>No MCA (if appropriate)</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.5.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment; or, if one of the existing assignments includes an emission with two or more 3 kc/s baseband channels (D.6.4.2), the number of channels affected is increased as a result of the amendment. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>A C C/ A C C/ A AC C/ BX A AC C/</p>	<p>C-NSA</p> <p>B... db plus</p> <p>B... db plus MCA...db plus (if appropriate)</p> <p>B... db plus</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.6 <u>Column 8:</u> <u>Power</u></p>								
<p>E.8.6.1 Reduction</p>	<p>No technical examination except when the assignment has in column 13a symbol B or symbol A accompanied by symbol A in column 13b.</p> <p>In these circumstances, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p>	<p>A C C/</p>		<p>A C C/</p>			<p>C-NI</p>
				<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>		<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/)</p> <p>B C C/)</p> <p>A AC C/)</p>	<p>B... db minus</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.6.2 Increase of 2 db or less.</p> <p><u>Note</u> -When such a power increase is in addition to a previously notified increase of 2 db in respect of which a favourable finding was issued in application of the present paragraph, the frequency notice is dealt with in accordance with paragraph E.8.6.3, the increase in power notified since the inclusion of the original assignment in the Master Register being taken as a basis for examination.</p>	No technical examination.	A C/	A C/	A A C/	A C/	A A C/	B. C/	B... db plus

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.6.3 Increase of more than 2 db	<p>The result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p>	<p>C-NSA</p> <p>B... db plus</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.7.1 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>A C C/</p> <p>A C C/</p> <p>A AC C/</p> <p>BX</p> <p>A AC C/</p>	<p>C-NSA</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>B... db plus,</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.7.2 <u>Column 9b:</u></p> <p>E.8.7.2.1 Reduction of the angle of aperture of the main lobe</p>	<p>No technical examination, when the assignment is an initial assignment or has in column 13a symbol A not accompanied by symbol A in column 13b.</p> <p>In the other cases, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>	<p>A C/</p>	<p>A C/</p>		<p>A C/</p>			<p>B... db minus</p>
				<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>A A C/</p>		<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>B C/</p> <p>A A C</p>	<p>B... db ...</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.7.3.2 Increase in antenna gain or change from a non-directive (ND) antenna to a directive antenna</p>	<p>1. The calculated protection ratio of any of the assignments likely to be affected <u>is not reduced</u> by more than 2 db as a result of the amendment. The result of technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p>							<p>B. 0 db plus or B....db minus</p>
		A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	
		A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	
		A C C/	A C C/	AA C C/	A C C/	AA C C/	AA C C/)	
		A C C/	A C C/	AA C C/	A C C/	AA C C/	B C C/)	
							AA C C/)	

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.7.3.2 (continued)	<p>2. The calculated protection ratio of any of the assignments likely to be affected <u>is reduced</u> by more than 2 db as a result of the amendment. The result of the technical examination with respect to this assignment comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>3. However, if a non-directive (ND) antenna has been changed into a directive antenna when the power is not less than 1 kW and the length of the circuit at least 500 km, and if the increase in gain is accompanied by a reduction in power (column 8) amounting at least to the difference between the antenna gain in sector M and the absolute value of its gain in sector B, the BX finding issued in base IV is replaced by (see paragraph C.3.3.3.1.d)</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/</p> <p>BX</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p> <p>A A C/</p>	<p>A C/</p> <p>A C/</p> <p>A A C/)</p> <p>BX)</p> <p>A A C/)</p> <p>B C/</p>	<p>C-NSA</p> <p>B... db plus</p> <p>B... db plus E.8.7.3.2</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
<p>E.8.8 <u>Column 10:</u> <u>Hours of use of the circuit</u></p> <p>E.8.8.1 Either the amendment does not involve an extension of the hours of use of the frequency, or else the use of the circuit, originally intermittent, becomes continuous during the same hours or for a shorter period, or vice versa.</p>	<p>No technical examination when the assignment is an initial assignment or has in column 13a symbol A not accompanied by symbol A in column 13b.</p> <p>In other cases, the result of the technical examination with respect to any of the assignments likely to be affected comes under one of the following cases:</p> <p>a) Case I (E.4) b) Case II (E.4) c) Case III (E.4) d) Case IV (E.4) e) Case V (E.4)</p>	<p>A C*/C/</p>	<p>A C*/C/</p>	<p>A C*/C/</p> <p>A C*/C/</p> <p>A C*/C/</p> <p>A AC*/C/</p> <p>BX</p> <p>A AC*/C/</p>	<p>A C*/C/</p> <p>A C*/C/</p> <p>A AC*/C/</p> <p>BX</p> <p>A AC*/C/</p>	<p>A C*/C/</p> <p>A C*/C/</p> <p>A AC*/C/</p> <p>BX</p> <p>A AC*/C/</p>	<p>A C* C/</p> <p>A C* C/</p> <p>A AC*/C/)</p> <p>BX)</p> <p>A AC*/C/)</p>	<p>E.8.8.1</p> <p>*In the case of a change from intermittent to continuous use of a circuit</p> <p>B.SCT or B.MCT according to the circumstances</p> <p>*In the case of a change from intermittent to continuous use of a circuit.</p>

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

1	2	3	4	5	6	7	8	9
E.8.8.2 The amendment involves an extension of the hours of use of the frequency.	<p>1. The result of the technical examination with respect to any of the assignments likely to be affected during the additional hours of use comes under one of the following cases:</p> <p>a) Case I (E.4)</p> <p>b) Case II (E.4)</p> <p>c) Case III (E.4)</p> <p>d) Case IV (E.4)</p> <p>e) Case V (E.4)</p> <p>2. With respect to the hours during which the circuit was used before the amendment, paragraph E.8.8.1 applies.</p>	A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	C-NSA
		A C C/	A C C/	A C C/	A C C/	A C C/	A C C/	
		A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	
		BX	BX	BX	BX	BX	BX	B.LsCT
		A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	A AC C/	

Table 4 - 10 kc/s - 3,950 kc/s (4,000 kc/s in Region 2)

E.9 FINDINGS ISSUED WITH RESPECT TO NEW NOTICES CONCERNING ASSIGNMENTS TO STANDARD FREQUENCY STATIONS (see paragraphs C.11.2 and D.11.2)

The finding A not accompanied by symbol A in column 13b is issued for frequency assignment notices concerning standard frequency stations transmitting on the standard frequencies defined in the Table of Frequency Allocations. This finding is accompanied by symbol F entered in column 13b of the Register.

E.10 FINDINGS ISSUED WITH RESPECT TO NEW NOTICES CONCERNING ASSIGNMENTS TO AERONAUTICAL STATIONS OR STATIONS IN THE BANDS BETWEEN 2 505 kc/s AND 28 000 kc/s WHICH ARE SHARED BY THE AERONAUTICAL MOBILE (OR) SERVICE AND OTHER SERVICES (see also paragraphs C.10.9, C.11.9, D.10.9 and D.11.9)

The following findings should be formulated as appropriate:

- E.10.1 If the protection ratio for day is 15 db or more and the protection ratio for night is also 15 db or more, the finding to be formulated is Finding A.
- E.10.2 If the protection ratio for day is 15 db or more and the protection ratio for night is below 15 db, the finding to be formulated is Finding AA with symbol "HJ sup" appearing in the Remarks Column of Working Sheet No. 3 or No. 5, as appropriate, and in the report to the Board.
- E.10.3 If the protection ratio for day is below 15 db, the finding to be formulated is Finding B.

CHAPTER FTECHNICAL PROCEDURE FOR THE AERONAUTICAL
MOBILE SERVICE EXCLUSIVE BANDS BETWEEN
2,850 kc/s AND 18,030 kc/s AND FINDINGSF.1 CO-ORDINATION

No technical examination involving an assignment likely to be affected is required when co-ordination has been carried out for the use of the frequency as defined in Appendix 1 to the Radio Regulations (page 336) and in the annex to the weekly I.F.R.B. circular under the heading "Explanation of the symbol "COORD".

F.2 TECHNICAL EXAMINATIONF.2.1 Checking of the preliminary examination

F.2.1.1 The F.R.D. begins the technical examination of a notice by checking the preliminary examination, in particular as regards Nos. 496 and 501 of the Radio Regulations, and then proceeds to check the remarks to be attached to the finding in conformity with the Regulations.

F.2.1.2 The F.R.D. checks whether the assignments notified are in accordance with Appendix 26 to the Radio Regulations. No technical examination is required if the notice refers to a frequency assignment in full conformity therewith.

./...

F.2.1.3 When the notified value of the peak radiated power exceeds that specified on page 15 of Appendix 26 to the Radio Regulations, the notice should be referred to the Board member concerned. If it is clear that the notified power relates to the power supplied to the antenna, the following maximum values of unmodulated carrier power will be admitted for either radiotelegraph or radiotelephone stations :

- in the bands 2850 - 3500 kc/s : 2 kW
- in the bands 4650 - 6685 kc/s : 1.5 kW
- in the bands above 8815 kc/s : 1.25 kW

F.2.2 Selection of assignments likely to be affected

F.2.2.1 The Frequency Records Department then carefully examines the tabulation drawn up by the Mechanical and Electronic Operating Department to determine the assignments likely to be affected by the operations mentioned in the notice.

F.2.2.2 Every allotment and assignment contained in the tabulation, with the exception of the assignments bearing the symbols D, T, X or Y in Column 13a and/or the symbols D or DD in Column 13b are taken into account during the technical examination. The assignments bearing number 116 in Column 13b should also be taken into account to the extent required. Some of these symbols may be preceded or followed by one or more other symbols in Columns 13a or 13b.

F.2.2.3 The technical characteristics of the allotments and assignments likely to be affected are then extracted from the tabulation and transcribed on the Working Sheet printed inside the folder referring to the notice.

./...

F.3 TECHNICAL STANDARDS

The I.T.U. Conference which produced the Plan for the Aeronautical Mobile R Service, has established contours which show, for the various frequency orders and for stations at various latitudes, the minimum separation - between two aeronautical stations working on the same frequency - which is necessary to provide a ratio of 15 db in the levels of the signals (desired/interfering signals) from the two aeronautical stations in an aircraft flying at the limit of its service range. These are reproduced as transparencies in the pocket at the back of Appendix 26 to the Radio Regulations (Technical Standards D-1).

F.4 USE OF TECHNICAL STANDARDS - AERONAUTICAL MOBILE R SERVICE

The method of using these contours is as follows:

F.4.1 Take the MWARA or the RDARA maps accompanying this Appendix 26 and select the transparency for the frequency order and sharing conditions under consideration.

F.4.2 Place the centre of the transparency (i.e. the intersection of the axis of symmetry and the latitude line) over the boundary of the area or at the location of the transmitter. Note the latitude of this point and select the contours corresponding to this latitude.

F.4.3 A transmitter located at any point outside the contour will result as defined in paragraph 1 above, in a protection ratio of better than 15 db.

F.4.4 Any transmitter located at a point inside the contour will result in a protection ratio of less than 15 db.

./...

F.4.5 In order to ensure protection to the reception, by aircraft, of the emissions of the aeronautical station where an "interfering" station is within the service range of the aeronautical station, i.e. where the protection due to geographical separation only (as established from the contour charts) is less than 15 db, it is necessary to apply a correction as follows:

Protection Ratio obtained from contours (db)	Correction (db)	Actual Protection Ratio due to geo- graphical separa- tion (db)
15	0	15
13	- 1	12
12	- 2	10
10	- 3	7
8	- 5	3
7	- 7	0
6	- 8	- 2
5	- 9	- 4
3 or less	- 13	- 10 to - 13

F.4.6 For the Northern Hemisphere, the contours should be used in their natural position as published but for the Southern Hemisphere, the transparency should be inverted. This point should be carefully observed when following the boundaries of the area which involve the transition of the equator.

F.4.7 It should be noted that the contours are established for a radiated carrier power of 1 kW by the aeronautical station, on the unmodulated carrier, corresponding to a peak radiated power on telephony of 4 kW; and, if powers different from this are notified, the appropriate correction must be made to the interference range.

./...

F.5 USE OF TECHNICAL STANDARDS - AERONAUTICAL MOBILE OR SERVICE

For the technical examination of assignments to aeronautical OR stations, the same procedure is followed as in the case of an R station. In this event, however, contours of repetition distances to give a protection ratio of 20 db between desired and interfering signals at an aircraft flying at the limit of its service range, have been drawn up by the I.F.R.B. (Technical Standards D-2).

F.6 ENTRY OF NOTICES IN THE MASTER REGISTER

Below is an explanation of the way in which notices are entered in the Master Register when so justified by the Board's findings, together with an indication of the dates to be inserted in Column 2a or Column 2b (see also Chapter B of the present rules of Procedures, paragraphs B.94 to B.131 and B.138 to B.142 and Nos. 590 to 599 of the Radio Regulations).

F.6.1 Stations of the Aeronautical Mobile R Service in the bands exclusively allocated to this service

		Finding and Remark		Date	
		Col.13a	Col.13b	Col.2a	Col.2b
a)	assignment in accordance with the provisions of Appendix 26 (Parts I and II)	A	553	3.12.51	
b)	assignment in accordance with the provisions of Appendix 26 (Parts I and II) but not corresponding to an allotment in Appendix 26 (Part II)	A	558		3.12.51
	(favourable finding)				
	(unfavourable finding)				
	(RR558)	B	558		*
	(RR554)	B	554		*

* Date of receipt of the notice by the I.F.R.B.

	Finding and Remark		Date	
	Col.13a	Col.13b	Col.2a	Col.2b
c) assignment not in accordance with the provisions of Appendix 26 (Parts I and II), but corresponding to an allotment in Appendix 26 (Part II)	B	556		*
d) assignment not in accordance with the provisions of Appendix 26 (Parts I and II)	B	558		*

F.6.2 Stations of the aeronautical mobile OR service in the bands exclusively allocated to this service

a) assignment in accordance with the provisions of Appendix 26 (Parts I and III) - Primary allotment	A	563	3.12.51	
b) assignment in accordance with the provisions of Appendix 26 (Parts I and III), except that the frequency does not correspond numerically to a frequency in Appendix 26 (Part III)	A	565	3.12.51	
c) assignment in accordance with the provisions of Appendix 26 (Parts I and III) - Secondary allotment	A	564		3.12.51

* Date of receipt of the notice by the I.F.R.B.

		Finding and Remark		Date	
		Col.13a	Col.13b	Col.2a	Col.2b
d)	assignment in accordance with the provisions of Appendix 26 (Parts I and III) but not corresponding to an allotment in Appendix 26 (Part III)	(favourable finding (unfavourable finding ((RR564) ((RR565)	A 564 B 564 B 565		3.12.51 * *
e)	assignment not in accordance with the provisions of Appendix 26 (Parts I and III), but corresponding to an allotment in Appendix 26 (Part III) - primary allotment - secondary allotment		B 563 B 564		* *
f)	assignment not in accordance with the provisions of Appendix 26 (Parts I and III)		B 564		*

F.6.3 Stations operating in derogation of the Radio Regulations

favourable finding	DA	D530	*
qualified favourable finding	DA	DA530	*
unfavourable finding	DB	D531	*

* Date of receipt of the notice by the I.F.R.B.

F.7 TREATMENT OF FREQUENCY ASSIGNMENTS TO AERONAUTICAL OR STATIONS
IN THE BANDS ABOVE 2505 Kc/s WHICH ARE SHARED BY THE AERONAUTICAL
MOBILE OR SERVICE AND OTHER SERVICES

The F.R.D. co-operates with the T.E.D. in the treatment of frequency assignments (existing assignments, new assignments and changes to existing assignments) to aeronautical OR stations in the bands above 2505 kc/s which are shared by the aeronautical mobile OR service and other services. The conditions to which this co-operation is subject are specified in paragraphs C.10.9, C.11.9, D.10.9, D.11.9 and E.10.

CHAPTER G

TECHNICAL PROCEDURE APPLICABLE IN THE
FREQUENCY BANDS ALLOCATED EXCLUSIVELY
TO THE MARITIME MOBILE SERVICE
BETWEEN 4000 KC/S AND 28000 KC/S, AND
FINDINGS

G.1 CO-ORDINATION

No technical examination involving an assignment likely to be affected is required when co-ordination has been carried out for the use of the frequency, as defined in Appendix 1 to the Radio Regulations (page 336) and in the annex to the weekly I.F.R.B. circular under the heading "Explanation of the symbol "COORD".

G.2 TECHNICAL EXAMINATION

G.2.1 Checking of the preliminary examination

G.2.1.1 The F.R.D. starts the technical examination of an assignment notice by checking the preliminary examination, particularly with regard to the provisions of Appendix 1 to the Radio Regulations and Nos. 496 and 501 of those Regulations (in this respect, see particularly Nos. 208, 209, 211, 213, 447 to 454, 1147 and 1148 of the Regulations). It also checks any remarks that should accompany each finding, in conformity with the provisions of the Regulations.

G.2.1.2 When the stations concerned are coast radiotelephone stations (transmitting or receiving) the F.R.D. checks whether the assignments notified conform to the provisions of paragraph 3 of Appendix 17 to the Regulations. If they do not, the attention of the notifying administration is drawn to the

provisions of paragraph 4 of that Appendix and to the advisability of using frequencies which conform to the provisions of paragraph 3 of that Appendix.

G.2.1.3

No technical examination is required when the notice concerns

a) the assignment of a transmitting frequency to a coast radiotelephone station, if that assignment conforms to an allotment under Section I of II of Appendix 25 and to the provisions of paragraph 3 of Appendix 17 (in the case of single side-band radiotelephone transmissions with reduced or suppressed carrier, 3A3A or 3A3J, the assignment is considered to conform to an allotment under Appendix 25 if the value of the notified peak power does not exceed four times that of the mean power entered in Column 3 of the said Appendix, in respect of the allotment concerned) or

b) the assignment of a receiving frequency to a coast radiotelephone station, if that assignment conforms to the provisions of Appendix 17.

G.2.2

Selection of assignments likely to be affected

G.2.2.1

When technical examination of a notice is required, the F.R.D. then carefully examines the tabulated list produced by the Mechanical and Electronic Operating Department to determine the assignments likely to be affected by the circuits which are the subject of the notice.

G.2.2.2

When the notice concerns the assignment of a frequency to a coast station operating in accordance with the Table of Frequency Allocations and the other clauses of the Radio Regulations (with the exception of Appendix 25), or to a fixed station operating in accordance with the provisions of No. 213 of those Regulations, the following are taken into consideration during the technical examination :

- a) frequency allotments to coast radiotelephone stations . . . (Appendix 25 of the Regulations);
- b) all assignments appearing in the list, including those bearing the symbol RR 213 in Column 13c and, to the extent required, those which bear the symbol 116 in Column 13b, but with the exception of those with symbols D, T, X or Y in Column 13a or symbol 148 in Column 13b, and with the exception of frequency assignments to coast radiotelephone stations which are not in conformity with the provisions of paragraph 3 of Appendix 17 to the Regulations.

G.2.2.3

When the notice relates to the assignment of a frequency to a station operating in derogation of the Table of Frequency Allocations or of other clauses in the Radio Regulations, or to a fixed station operating in conformity with the provisions of Nos. 208, 209 or 211 of those Regulations, the following are taken into consideration during the technical examination :

- a) frequency allotments to coast radiotelephone stations (Appendix 25 to the Regulations);
- b) entries relating to frequencies prescribed for common use by ship stations (Appendices 15A, 15B and 17 to the Regulations);
- c) all the assignments appearing in the list, including those bearing symbol 148 in Column 13b or symbol RR 213 in Column 13c, as well as frequency assignments to coast radiotelephone stations (transmission or reception) situated in the bands allocated exclusively to this class of station and not in accordance with paragraph 3 of Appendix 17 of the Regulations and, to the extent required, the assignments which bear symbol 116 in Column 13b, but with the exception of those bearing symbols D, T, X or Y in Column 13a.

G.2.2.4 The technical characteristics of all the assignments likely to be affected are then extracted from the tabulated list and transferred to Working Sheet No. 3 printed inside the folder containing the notice.

G.3 TECHNICAL STANDARDS

In making its technical examination of the notices relating to stations likely to cause harmful interference :

- a) to coast station transmissions, the Board uses Technical Standards A-1, A-2, A-3, A-4 and Technical Standard E-1 which applies exclusively to the Maritime Mobile Service between 4000 and 28000 kc/s;
- b) to ship station transmissions, the Board uses Technical Standards A-1, A-2, A-3, A-4, B-2 and E-1;
- c) to fixed station transmissions, the Board uses Technical Standards A-1, A-2, A-3, A-4, B-1, B-2 and C-1.

G.3.1 Technical Standard E-1

This consists of five hundred and seventy six charts on transparent paper, showing curves (contours) of equal field strength. On each chart, the lines of equal field strength (median) have been drawn for the following values :

- field strength : 50, 40, 30, 20, 10, 0, -10, -20, -30, and -40 db relative to 1 $\mu\text{V}/\text{m}$,
- antenna : without horizontal directivity,
- mean power : one kilowatt,
- time of year : December,
- sunspot number : five.

A set of 96 charts has been prepared for each of the six frequency bands 4, 6, 8, 12, 16 and 22 Mc/s. Each set contains 12 charts for each of the 8 latitudes (site of the transmitter) : 0°, 10°, 20°, 30°, 40°, 50°, 60° and 70° N. Each of the 12 charts

corresponds to one of the local times : 0000, 0200, 0400, 0600, 0800, 1000, 1200, 1400, 1600, 1800, 2000 and 2200 hours.

Each chart indicates the geographical limits deduced from the MUF for F2 layer within which reception is possible (skip phenomenon). These charts have to be superimposed on a map of the world (Mercator projection), drawn on the same scale as the curves of equal field. The charts have been prepared for transmitters in the Northern Hemisphere. Field strengths for transmitters located in the Southern Hemisphere are obtained by turning the chart upside down in relation to the Equator. Should any allowances be necessary for auroral absorption and, where applicable, for the gain due to the use of directional antennae, a correction is applied.

The propagation conditions allowed for are those obtained in Winter, in the Northern Hemisphere when sunspot activity is low. These are the times at which frequency sharing is most difficult; they are, in fact, the times chosen by the Conferences which drew up the initial plans for coast stations between 4000 and 28000 kc/s.

G.4 EXAMPLE I : To determine the probability of harmful interference caused by a new coast station B to ship stations receiving transmissions from an existing coast station A

Station A is the station for which the protection has to be assessed. Let us suppose that both by day and night, it uses the frequency 8610 kc/s for Class A1 transmissions (bandwidth : 0.1 kc/s), with a peak power of two kilowatts. Station B is a new station, likely to create harmful interference which will hamper ship stations in picking up transmissions from station A.

Let us suppose that by day and night, it uses the frequency 8609.25 kc/s for Class F1 transmissions (bandwidth : 1 kc/s), with a mean power of 2 kW.

G.4.1

Limit of the service range of station A at any particular time
(see Figure A)

For example, we may choose 1200 hours (noon, local time). With the assistance of Technical Standard A-2, we assess the minimum field strength to be protected for station A, making due allowance for the characteristics of that station (in particular the type of transmission), and for the geographical position of the ship. Let us assume - to simplify matters - that this strength is uniform throughout the service area of station A (which is not the case if the service area is somewhat extensive) and is 4 db. We now take a chart showing curves of equal field strength for 8 Mc/s, 1200 hours, and for the latitude of station A. The point representing the transmitter A is placed on that point on the map which represents the co-ordinates of the station.

The chart on the map is then covered by a sheet of transparent paper on which the outlines of the continents are drawn, in such a way that the site of the transmitter coincides with the appropriate point of the world-map. The mean power of the transmitter A being 1 kW (the Pp/Pm ratio in the case of Class A1 transmissions being equal to 2/1), a curve is then traced through all points where, from Technical Standard E-1 which is established for a mean power of 1 kW, the minimum field strength to be protected is 4 db. This curve represents the limit of the service range of station A.

The service range notified by the Administration is taken into consideration, however, whenever it is less than that found by using Technical Standard A-2.

Where necessary, we also show the limits deduced from the MUF for the F2 layer of the regions where, because of propagation conditions, the reception of transmissions from the station A is not possible (area of silence due to the skip phenomenon).

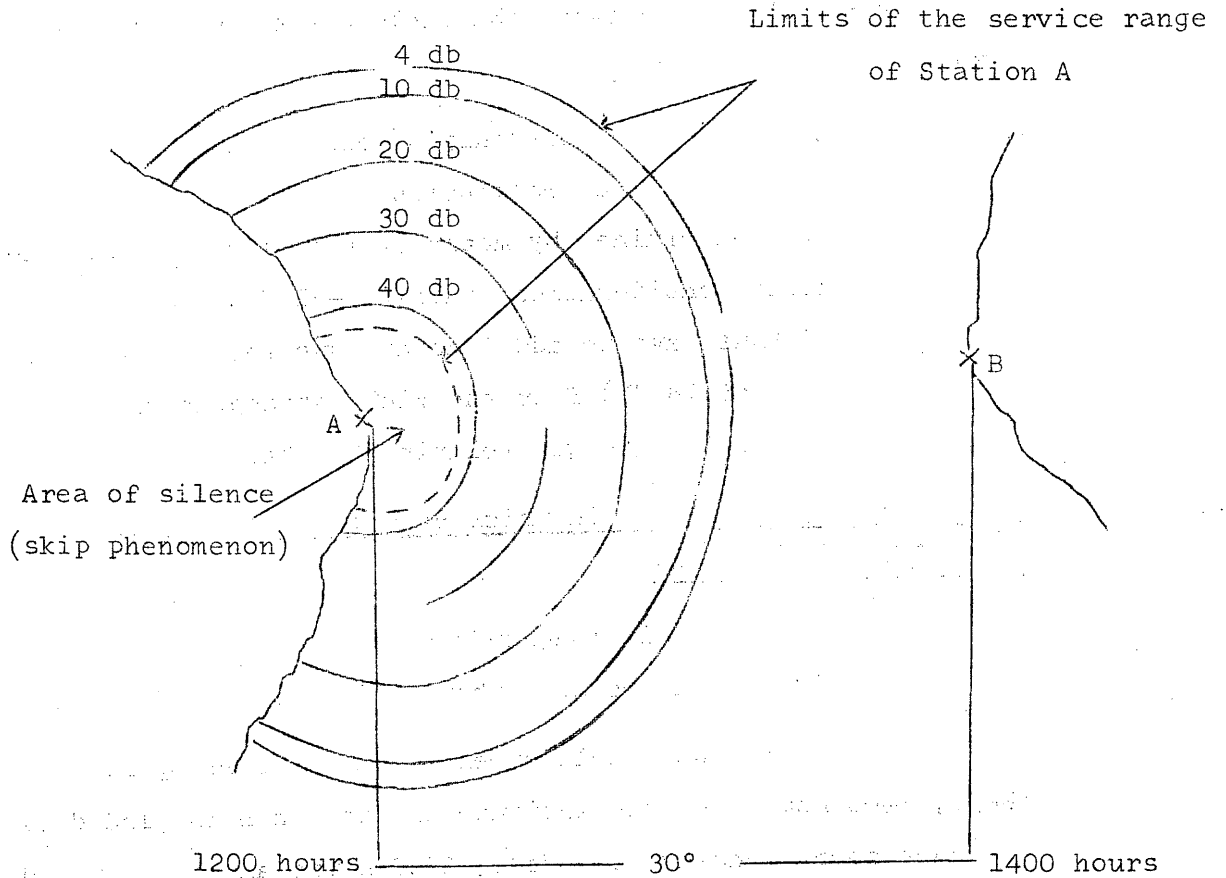


Figure A

G.4.2 Determination of the interference field strength of station B

To obtain the strength of this interference field, we must first consider :

- a) the power of the transmitter : here it is equal to 2 kW (mean power), which increases the field corresponding to 1 kW power by 3 db;
- b) the discrimination of the ship's receiver : this depends on the separation between the frequencies used and the class of emission, and is determined by means of Technical Standard A-3. In the case under consideration, this is -21 db.

We should thus have to add 3 db and subtract 21 db, (i.e. subtract a total of 18 db) from the field strengths shown on the curves of equal field strength relating to station B.

G.4.3 Determination of the area in which harmful interference is probable (see figure B)

If the difference in longitude between stations A and B is 30° , then it is 1400 hours at B when it is 1200 hours at A.

The chart of equal field strength curves corresponding to 8 Mc/s, 1400 hours and the latitude of station B is placed over the chart corresponding to 8 Mc/s, 1200 hours and the latitude of station A, the point designating station B coinciding with the appropriate point of the map.

The sheet of transparent paper showing the service area of station A, previously prepared, is superimposed on the charts.

To determine the protection ratio at each point of the service area of station A, the field strength of station B, (i.e. the field strength indicated on the curves less 18 db to allow for the power of station B and the discrimination of the

ship's receiver) should be subtracted from the field strength of station A (i.e. the field strength indicated on the curves). The difference thus obtained is indicated on the transparent paper at each point of intersection of the curves of equal field strength for stations A and B, lying inside the line showing the service area of station A, and at points where, allowing for propagation conditions, the reception of station B transmission is possible.

According to Technical Standard A-1, the minimum signal/interference protection ratio required is 11 db for the A1 class of emission (manual speed), taking into consideration the fact that the peak power of the station to be protected has been converted into mean power. A line showing the points at which the protection ratio is equal to this minimum (11 db) is traced (it may be necessary to interpolate), and that part of the service area of station A in which the protection ratio is less than 11 db is hatched. (See Figure B on page 10G).

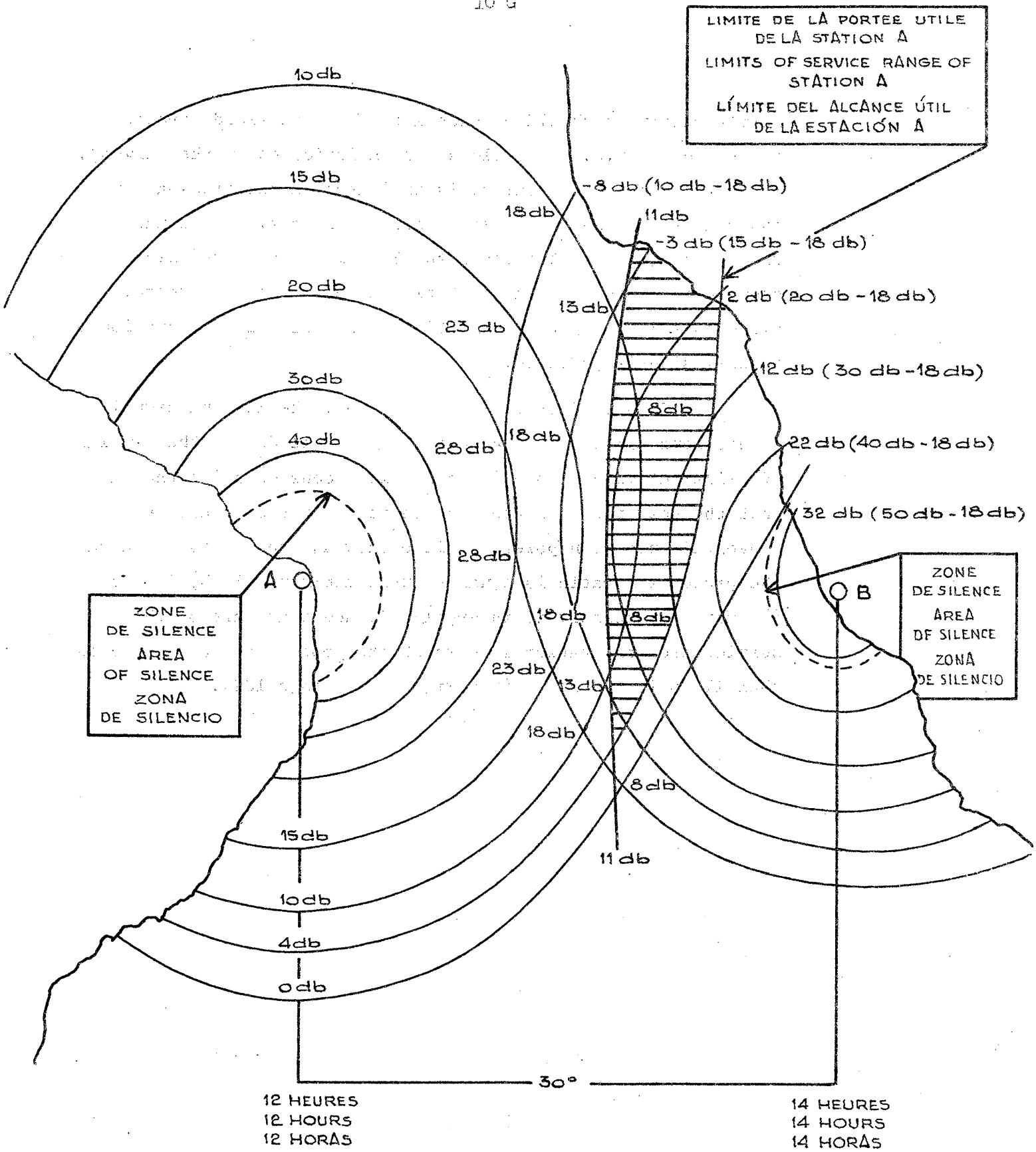


FIGURE B
FIGURA B

The operations described above are repeated at other times to assess the probability of harmful interference during the day, during the night and during intermediate periods.

G.4.4 Finding

The finding will be favourable, qualified favourable or unfavourable according to the extent of the hatched area and the time during which harmful interference may occur :

- a) if this area does not exist or is negligible in extent, the finding is favourable (finding A in Column 13a, not accompanied by the remark represented by Symbol A in Column 13b). In such cases, the symbol "NARSA" (no appreciable reduction in the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board;
- b) if this area reduces only slightly (by less than 25%) the service area of the station to be protected, the conclusion is a qualified favourable finding (Symbol A in Column 13a, accompanied by the remark represented by Symbol A in Column 13b). In such cases the symbol "SRSA" (slight reduction in the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board;
- c) if this area reduces considerably (by 25% or more) the service area of the station to be protected, the finding is unfavourable (Finding BX). In such cases, the symbol "ARSA" (appreciable reduction in the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board.

However, if the station to be protected suffers harmful interference only for a short period in relation to its total operational time (i.e. for less than 25% of the total operational time and for less than two hours per day), the Board reaches a qualified favourable finding (Symbol A in Column 13a accompanied by the remark represented by Symbol A in Column 13b). In such cases symbol "LtCT" is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board.

Moreover, when the calculated protection ratio of the existing assignment - with the addition, if necessary, of the appropriate auroral absorption value (AA, paragraph C.6.6) - is less than the minimum specified in Technical Standard A-1 in more than 25% of the service area of the station to be protected, and for at least 25% of the total operating time of the station (or for more than two hours, if the operating time is more than eight hours), but when one or more of the principles set out in paragraph d) below are applicable (subject to the relevant provisions of paragraphs E.3.2.3.9, E.3.2.3.10 and E.3.2.3.13), the Board reaches a qualified favourable finding (Symbol A in Column 13a accompanied by the remark represented by Symbol A in Column 13b);

d) the principles in question are represented by the following symbols :

- 1) "N 103" (see paragraphs D.10.3 and D.11.3),
- 2) "AASA" (see paragraph D.8),
- 3) "AASA-AVLP" (see paragraph D.9.2).

G.5 EXAMPLE II : Probability of harmful interference caused by a new station B to the coast station A receiving transmissions from ship stations (see figure C)

The purpose of this examination is to establish a ratio between the service area of a receiving coast station before use of a new assignment begins and the service area of that same coast station after use of the new assignment has begun.

It is based on the following hypotheses :

- a) ship stations : mean power : 0.1 kW *), maximum bandwidth authorized in the Radio Regulations for the class of emission mentioned in the Regulations, public correspondence service, continuous operation;
- b) receiving coast station : site presumed near the station likely to cause harmful interference, and corresponding as far as possible to a station listed in the List of Coast Stations.

Station A is the receiving station for which protection has to be assessed. Day and night it receives Class A1 emissions (bandwidth : 0.1 kc/s) from ship stations using 4162.5 kc/s. Station B is the new station likely to cause harmful interference to the station A receiving transmissions from ship stations.

*) In principle when technical examinations are made in the bands allocated to ship stations, the power to be taken into consideration as the power of the ship stations, is 0.1 kW (mean power). However, in the case of a reception frequency recorded in the Master Register for a given radiotelephone coast station, it is necessary to take into account the power of the ship station shown with respect to this assignment.

Day and night it uses 4165 kc/s for Class A3 emissions (bandwidth 6 kc/s) with a mean power of 0.05 kW.

G.5.1 Limit of the service area of the receiving coast station at any particular time

For a particular time of day (for example 2200 hours, local time), with the assistance of Technical Standard A-2, we assess the minimum field strength to be protected for the receiving station A. In this case let us take 5 db. With 0.1 kW as the power of the ship station, the minimum field intensity to be considered at station A for a power of 0.1 kW is 5 db + 10 db = 15 db from the point of view of the use of Technical Standard E-1.

We now take a chart showing curves of equal field strength for 4 Mc/s, 2200 hours, and for the latitude of point A. The point representing receiving station A is placed on that point on the map which represents the co-ordinates of the station.

We then superimpose on these two charts a sheet of transparent paper, on which the outlines of the continents appear, so that the site of the reception station coincides with the same point on the planisphere, and a curve is traced through all the points where the field strength is 15 db.

G.5.2 Determination of the interference field strength of station B

To obtain the strength of this interference field, we must first consider :

- a) the mean power of the transmitter : here it is 0.05 kW, which reduces the field corresponding to 1 kW by 13 db;
- b) the selectivity of the coast station's receiver : this is determined by means of Technical Standard A-3. In the case under consideration, this is -6 db.

We should thus have to subtract 13 db, then 6 db, i.e. 19 db, from the field strength determined by means of Technical Standard B-2. Since the field strength given in Technical Standard B-2 is, in this case, 41 db, the interfering field strength at point A is $41 \text{ db} - 19 \text{ db} = 22 \text{ db}$.

G.5.3 Determination of the area in which harmful interference is probable

To the field strength of station B (22 db), we add the minimum protection ratio required for class A1 emission (manual speed), taking into consideration the fact that the peak power of the transmissions received at the station to be protected has been converted into mean power, that is to say 11 db (see Technical Standard A-1). The value obtained shall then be increased by 10 db to take into account the fact that the power of the emissions received by station A is 0.1 kW.

With the chart of equal field strength curves already used (see paragraph G.5.1), we trace, round point A, a curve through all the points where the field strength is $22 \text{ db} + 11 \text{ db} + 10 \text{ db} = 43 \text{ db}$.

The ratio of the surfaces of the service areas determined by the two curves traced (15 db and 43 db) is then assessed.

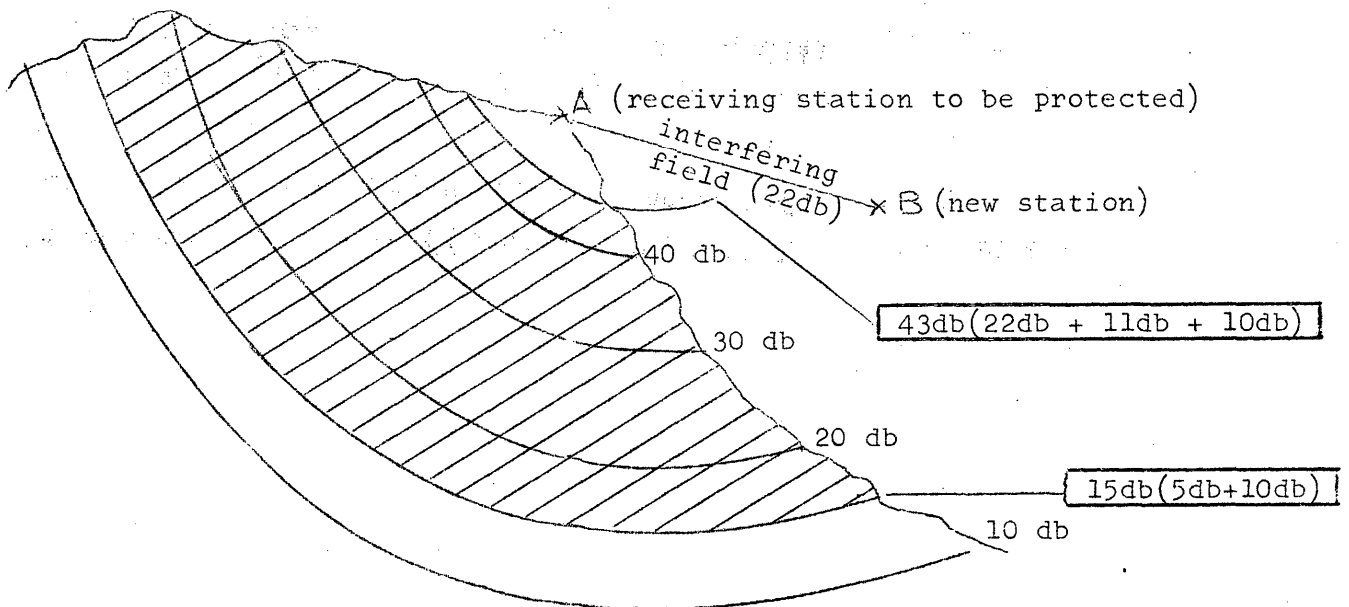


Figure C

The operations described above are repeated at other times to assess the probability of harmful interference during the day, during the night, and during intermediate periods.

G.5.4

Finding

- a) if the original service area is not reduced, the finding is favourable (finding A in Column 13a, not accompanied by the remark represented by Symbol A in Column 13b). In such cases, symbol "NARSA" (no appreciable reduction of the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board;
- b) if the service area is slightly reduced (the ratio between the surface of the new service area and that of the original service area is at least 0.75), the finding is a qualified favourable finding (Symbol A in Column 13a, accompanied by the remark represented by Symbol A in Column 13b). In such cases, symbol "SRSA" (slight reduction of the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board;
- c) if the service area is considerably reduced (the ratio between the surface of the new service area and that of the original service area is less than 0.75), the finding is unfavourable (Finding BX), and symbol "ARSA" (appreciable reduction of the service area) is put in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board.

However, if the reception of ship station transmissions will probably suffer harmful interference for less than 2 hours a day,

the Board reaches a qualified favourable finding (Symbol A in Column 13A accompanied by the remark represented by Symbol A in Column 13b). The symbol "LtCT" is entered in the "General Remarks" column of Working Sheet No. 3 and in the report to the Board.

G.6 TECHNICAL EXAMINATION, IN RELATION TO FREQUENCY ASSIGNMENTS OR ALLOTMENTS TO MARITIME MOBILE STATIONS, OF NOTICES CONCERNING MODIFICATIONS TO EXISTING FREQUENCY ASSIGNMENTS

A notice concerning a change in an existing frequency assignment is examined in relation to frequency assignments or allotments to stations in the Maritime Mobile Service according to the principles set out in this chapter and by comparing the service area of the station to be protected as it was before the change and as it has become as a result of that change. The finding depends on the reduction in service area (see paragraphs G.4.4 and G.5.4).

G.7 TECHNICAL EXAMINATION OF NOTICES IN RELATION TO FREQUENCY ASSIGNMENTS TO STATIONS OTHER THAN THOSE IN THE MARITIME MOBILE SERVICE

When a technical examination has to be made of notices in relation to frequency assignments to stations other than those in the Maritime Mobile Service (fixed stations, for example : see Nos. 208, 209, 211 and 213 of the Regulations), the technical procedure described in Chapter C of these Rules of Procedure applies.

G.8 THE PROTECTION OF EXISTING ASSIGNMENTS MADE TO STATIONS OF THE MARITIME MOBILE SERVICE IN THE MARITIME MOBILE BANDS SHARED WITH OTHER SERVICES BETWEEN 4,000 kc/s AND 28,000 kc/s (SEE PARAGRAPH C.10.8)

The F.R.D. co-operates with the T.E.D. in assessing the protection of these assignments when the new assignment or modification notified is liable to cause harmful interference to stations of the Maritime Mobile Service. The F.R.D. in examining these assignments follows the procedure described in this chapter, and the finding arrived at is in accordance with paragraph G.4.4.

G.9 ENTRY OF ASSIGNMENT NOTICES IN THE MASTER REGISTER

Below is an explanation of the way in which notices are entered in the Master Register when so justified by the Board's findings, together with an indication of the dates to be inserted in Column 2a or Column 2b (see also Chapter B of the present Rules of Procedure, paragraphs B.94 to B.137 and Nos. 573 to 588 of the Radio Regulations).

G.9.1 Coast radiotelephone stations (transmitting frequencies - see paragraph G.2.1.2)

		Finding and Remarks		Date			
		Col. 13a	Col. 13b	Col. 2a	Col. 2b		
a)	assignment in accordance with	{ 6A3, 6A3B	(section I app.25	A	542	3.12.51	4.12.51
			(section II app.25	A	542		
	Appendices 17 and 25	{ 3A3A, 3A3H 3A3J	(section I app.25	A	544	3.12.51	4.12.51
			(section II app.25	A	544		

	Finding and Remarks		Date	
	Col. 13a	Col. 13b	Col. 2a	Col. 2b
b) assignment in accordance with Appendix 17 but not to Appendix 25 (favourable finding (qualified favourable finding (unfavourable finding (RR515)	A	545		*
	A	A545		*
	B	545		*

G.9.2

Coast radiotelephone stations (receiving frequencies - see paragraph G.2.1.2)

a) assignment according to Appendix 17 and corresponding to an allotment in Appendix 25 (6A3, 6A3B (section I app.25 (section II app.25	A	548	3.12.51	4.12.51
	A	548		
allotment in Appendix 25 (3A3A, 3A3H (section I app.25 (3A3J (section II app.25	A	550	3.12.51	4.12.51
	A	550		
b) assignment according to Appendix 17 but not corresponding to an allotment in Appendix 25	B	551		*

* Date of receipt of the notice by the Board

G.9.3 Coast radiotelegraph stations in the bands exclusively allocated to them

	Findings and Remarks		Date	
	Col. 13a	Col. 13b	Col. 2a	Col. 2b
Favourable finding	A		*	
Qualified favourable finding	A	A	*	
Unfavourable finding (RR515)	B			*

G.9.4 Fixed stations operating in accordance with the provisions of Nos. 208, 209 or 211 of the Radio Regulations

Favourable finding	A	148		*
Qualified favourable finding	A	A148		*
Unfavourable finding (RR515)	B	148		*

G.9.5 Fixed stations operating in accordance with the provisions of No. 213 of the Radio Regulations

Favourable finding	A		*	
Qualified favourable finding	A	A	*	
Unfavourable finding (RR515)	B			*

G.9.6 Stations operating in derogation of the provisions of the Radio Regulations

Favourable finding	DA	D		*
Qualified favourable finding	DA	DA		*
Unfavourable finding (RR531)	DB	D		*

* Date of receipt of the notice by the Board

CHAPTER HAPPLICATION BY THE I.F.R.B. OF THE PROVISIONS
OF THE FINAL ACTS OF THE E.A.R.C. SPACE (GENEVA, 1963)Introduction

In accordance with the Final Acts of the E.A.R.C. Space Services sharing Frequency Bands with terrestrial Services between 1 Gc/s and 10 Gc/s, sites and frequencies for earth stations, operating in frequency bands shared with equal rights between space and terrestrial services, shall be selected with respect to geographical separation from terrestrial stations.

The interference potential of the earth stations and terrestrial stations operating in these Frequency Bands is calculated in two steps:

First : the evaluation of Coordination Distance of the new station vis-à-vis the other category of station is calculated with only the characteristics of the earth station known, the terrestrial station being hypothetical only, and with simplifying assumptions also being made concerning the propagation characteristics in the region concerned. The result of this calculation is that an area can be traced out around the site of the newly-notified station on the map; the use of this is that it indicates that any other station being located within that area may find itself in danger of harmful interference arising between it and the station in respect of which the calculation has been made. The distance from the newly-notified station site to the limit of this area is the Coordination Distance for that station in the direction concerned. Therefore, if the limit of this area should cross the frontier of the

notifying Administration into another country the notifying Administration must coordinate its activities with that other country or countries before the Board can accept the notification, and it is for this reason that the Board requires to be able to readily calculate such Coordination Distances.

Second : if necessary, precise calculation between a given station and another station could also be made, and this would be the calculation of the probability of harmful interference occurring between them. The harmful interference is calculated only for one pair of stations at a time, and so does not trace out an area on a map. The two stations concerned must be specified, and the exact attenuation characteristics must be known.

1. Information for Coordination Distance Calculations

This is to be supplied to the Board as laid down in the Final Acts of the E.A.R.C. Space (Geneva, 1963). The information is given in Annexes 12 and 13, and also in Tables 1, 2 and 3 of Recommendation 1A. The following matters should be dealt with as follows :

a) Site Shielding Factor

The method of treatment of this is reasonably clear in Recommendation No. 1A; the method of treatment of the notices should be supplemented as follows :

When a Site Shielding Factor is claimed in a notification, it should also have an azimuthal extent stated, together with a separate indication of the gain of the antenna at the angular height of the obstacle.

However, if such complete data is not given in a notification in which a Site Shielding Factor is claimed, the assignment should be treated without taking into account the Site Shielding Factor. If the Site Shielding Factor could have a critical effect on an unfavourable finding by the Board, the Board should request in the finding form the remainder of the Site Shielding Factor details. In this way the finding is not held up on this account.

b) Power supplied by an earth station transmitter

For calculating interference into a terrestrial station, a 4 kc/s channel is taken as typical. The figure in dbW of the power supplied by an earth station transmitter, symbol P_{earth} in Table 1, is actually to be the power supplied per 4 kc/s of bandwidth. The power notified on the Notification Form, on the other hand, is the power distributed over the full bandwidth of the emission. The worst interference situation per telephone channel of the affected terrestrial station would arise when the interfering power of the earth station transmitter is concentrated into the minimum possible bandwidth, as happens under conditions of minimum modulation. However, it is already assumed (reference Recommendation 1A, Table 1, page 182, item 3) that carrier dispersion techniques are employed such that the minimum bandwidth emitted will be not less than 300 kc/s, and so this will represent the worst interference situation. From this, it follows that the worst interference situation as far as the 4 kc/s bandwidth is concerned will likewise be when the transmitting power is concentrated into a 300 kc/s band, under which conditions the equivalent power in the 4 kc/s band will be the full power minus 19 db. Therefore, when calculating the

Coordination Distance from an earth transmitting station, the equivalent 4 kc/s transmitted power figure should be obtained by subtracting 19 db from the figure notified, expressed in dbW.

c) Effective Radiated Power (e.r.p.) of the hypothetical terrestrial station

In cases where an earth receiving station is notified, its Coordination Distance calculation demands that some assumption be made concerning the effective e.r.p. of the hypothetical terrestrial station that enters into the calculation. In order to avoid delay in treating these cases, reference should be made to Nos. 470B and 470C of the Radio Regulations, set out in the Final Acts of the E.A.R.C. They impose a limit of +55 dbW on the e.r.p. of a terrestrial station, which includes an upper limit of +13 dbW on its transmitter output power.

Therefore, when an earth receiving station is notified, the relevant terrestrial station e.r.p. should be taken as +55 dbW for the purpose of the calculation of Coordination Distance. This assumes the worst case, that is, that the terrestrial station is transmitting its power in the direction of the earth station.

2. Methods of Evaluating Coordination Distances

2.1 Basically, the routine is a simple one, involving only the adding of certain factors in db, and then converting this sum to its equivalent at 4 Gc/s in order to enable the use of the set of Tables in Recommendation No. 1A for the subsequent conversion of this necessary attenuation in db into terms of kilometres of distance. The forms to be used for this are shown as the Annex to this Note, and are

self-explanatory. The final conversion of the equivalent necessary basic transmission loss into kilometres of distance of land, non-tropical sea and/or tropical sea should be done either by use of charts (two such charts are necessary, that is, for land-non-tropical sea and for land-tropical sea) or by a table. In this regard, a chart is most efficient for manual use, while a table is most useful in computer applications.

2.2 When applying the procedure for calculating Coordination Distances between earth stations and terrestrial stations, the gain of the earth stations antenna in the horizontal plane at azimuths other than the planned range of azimuthal angles will initially be taken as 0 db, unless the notice is accompanied by a complete horizontal polar pattern. If this information is absent, and it is found to be necessary, the Administration notifying the earth station will be requested by telegram to furnish the complete horizontal polar pattern.

3. Additional Information that would facilitate the work of the Board

Although it is not called for in the Final Acts of the E.A.R.C. Space (Geneva, 1963) it seems that if the notifying Administration were to include with the Notification Form a transparent map showing the location of the station and at least the nearest frontier of the country accurately it would help the evaluation of the relevant Coordination Distance very considerably. If the map were to be provided to a prearranged scale, a direct chart method of indicating Coordination Distance could be used.

Although the calculation of Coordination Distance involves the use of assumptions, as mentioned earlier, nevertheless it is still essential to be highly accurate in the pinpointing of the station because on the outcome of the Coordination Distance calculations depends whether or not coordination is necessary by the notifying Administration. As attenuation per kilometre is high at these frequencies, the Coordination Distance contours have definite limits, and a few kilometres error in the estimated position of a notified station could conceivably involve the Board in embarrassment by leading to an error as to whether coordination with another country was needed or not. For this reason the provision of a map indication by the notifying Administration is suggested as useful, and in this regard it would be of maximum value if the scale used in all such cases were a prearranged value, say 1 cm = 120 km (1: 12,000,000) or not less than 1 cm = 60 km (1: 6,000,000).

Annex: Two forms of Working Sheets (W.S.)

ANNEXES

COMPLETION OF WORKING SHEET No. 3

(see paragraph C.3)

1. A copy of WS 3 is given in Annex 1.
2. Spaces have been provided so that field strengths during day, transition (0800 and 1600 local time) and night, for phases DL and JA, may be recorded for both the existing assignment and interference path.
3. When the values of field strengths and other relevant technical data obtained from the appropriate Technical Standards, have been entered in WS 3, the values should be added for the existing assignment (Total A) and for the interference path (Total B). The calculated value of the actual protection is given by A-B and should be so indicated in the six spaces available in the column "Actual protection (A-B)" and repeated on the right-hand side of the working sheet reserved for the Finding.
However:
 - a) When the value of the protection ratio is irrelevant because of no common time, a cross (x) should be entered instead of figures in the appropriate space(s) available.
 - b) When some of the values of the "actual protection ratio A-B" are above the upper limit of T.S. A-1, the letter "p" should be entered instead of figures in the appropriate spaces available.
 - c) When the calculated value of the field strength of the existing assignment (Total A) is below the value of T.S. A-2, minus the appropriate allowance, the letter "m" should be entered instead of figures in the appropriate spaces available, and the appropriate symbols as indicated in C.4 should be entered in the "Remarks" Column.

4. The six spaces on the right-hand of the working sheet reserved for the Finding, should be filled in with the figures for the calculated "actual protection" whenever there is little difference in longitude between the paths of the existing circuit on the one hand and of the interfering transmission on the other.

5. In other cases, i.e., when Working Sheet No. 1 is used, the Findings should be set out in the following columns: Time, Season-SS, Actual Protection, and in the following way:

Example:

Time	Season-SS	Actual protection
08 10	D L	5
06 14	J L	4/10
18 22	D A	12
18 02	J A	12

which means that during JL the protection ratio varies between 4 and 10 db from 0600 to 1400 hours GMT.

For different conditions and different protection ratios, the latter should be entered on different lines.

Example:

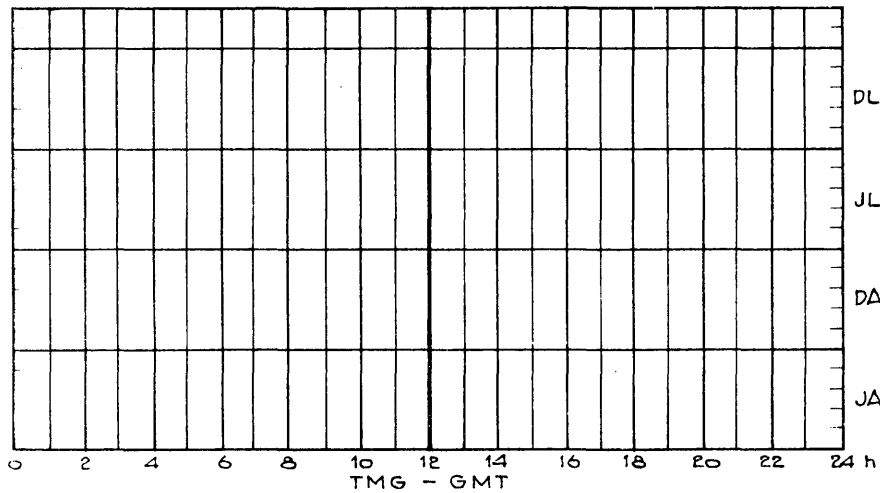
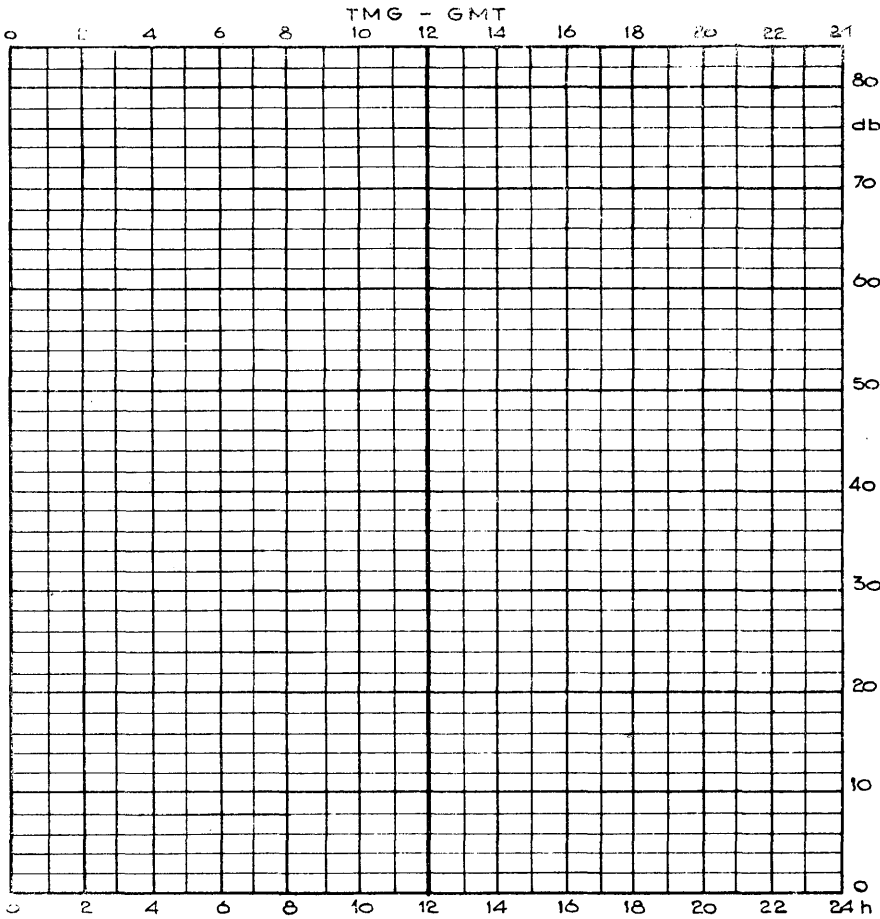
Time	Season-SS	Actual protection
08 10	D J L	5
18 22	D J A	12

The following method of presentation should not be used:

18 22	DL, JA	4/12
-------	--------	------

to show that the ratio between 1800 and 2200 hours GMT is 4 db during DL and 12 db during JA; as such an entry would mean that the ratio varies from 4 to 12 db between 1800 and 2200 hours GMT both during DL and during JA.

ANNEX 3
(see paragraph C.3)



REGISTRY

Refers to No _____ of WS 3

EXISTING ASSIGNMENT

1 _____ kc/s Ctry _____
 4a _____
 5a _____
 5b _____ 6 _____
 7 _____
 8 _____ kW → _____ db
 10 _____ 9c → _____ db
 Dif. GMT → LT _____ _____ db
 RAD db

Curve used Lat/Area File
 FIELD _____
 MUF/LUF _____
 T.S. A-1 _____
 T.S. A-2 _____

NEW ASSIGNMENT

1 _____ kc/s Ctry _____
 4a _____
 5a _____
 5b _____ 6 _____
 7 _____ 8 _____ kW
 10 _____ 9c _____ db
 Dif. GMT → LT _____

Curve used Lat/Area File
 MUF/LUF _____

INTERFERENCE PATH

8 _____ kW → _____ db
 Gain for interf. path _____ db
 T.S. A-3 _____ kc/s → _____ db
 Dif. GMT → LT _____ _____ db
 Distance _____ km

Curve used Lat/Area File
 FIELD _____
 MUF _____

FINDING

GMT	Season SS	db	Code	Remarks

G

RWOM

RWM

FPG

FRD REMARKS

COORD/

1	2a	2b	2c	4a	4b	4c	5a	5b	6	7	8	9a	9b	9c	10	11	13a	13b	13c

CHANGE

ADDITION

FREQUENCY Kc/s	EXISTING ASSIGNMENT										INTERFERENCE PATH				RESULT		FINDINGS		GENERAL REMARKS	SUGGESTIONS		
	4b COUNTRY	5a 5b RECEPTION POINT OR SR IN KM (NOTIFIED)	6 SERVICE	8 POWER kW	(f) POWER db	(2) ANTENNA GAIN OR EFFIC. db	TOTAL CORRECT. (1+2)	NOTIFIED SR OR DISTANCE Sdb		ACTUAL SR		DISTANCE SEPARATION GUIDE No	POWER kW	ANTENNA GAIN OR EFFIC. db	SEP. Kc/s	TOTAL CORRECT (1+2+3)	INTERF. DISTANCE				T.S. A-1	TAG
								FS-1 KW ACTUAL FS (A) J N	FS-1 KW MIN. FS TS Δ (B) J N	FS-1 KW ACTUAL FS (C) J N	FS-1 KW ACTUAL FS (C) J N						ACTUAL PROTECTION (A-C or B-C) J N	13d				
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						

WS 5 (10 - 3900 Kc/s)

T.E.D. REMARKS

OVERALL
FINDING

RAPPORTS DE PROTECTION SIGNAL/BROUILLEUR : Gamme de fréquences de 3500 kHz à 28000 kHz
 SIGNAL/INTERFERENCE PROTECTION RATIOS : Frequency range 3500 kc/s - 28000 kc/s
 RELACIONES DE PROTECCIÓN SEÑAL/INTERFERENCIA : Gama de frecuencias 3500 kc/s - 28000 kc/s

Annexe 5
 Annex 5
 Anexo 5

Type de transmission Type of transmission Tipo de transmisión	10-1605 kc/s			1605-3500 kc/s			3500-28000 kc/s		
	Pp	Pm	Pc	Pp	Pm	Pc	Pp	Pm	Pc
Télégraphie, réception auditive - Telegraphy, aural reception - Telegrafía, recepción auditiva -	8(3-7)	12(7-11)	14(9-13)	11(5-10) ₍₁₎	15(9-14) ₍₁₎	17(11-16) ₍₁₎	15(7-14) ₍₁₎	19(11-18) ₍₁₎	21(13-20) ₍₁₎
Télégraphie, météo et presse à réception auditive, système Hell - Telegraphy, meteo, press, aural reception, Hell system - Telegrafía, meteorología, prensa, recepción auditiva, sistema Hell	9(3-8)	13(7-12)	15(9-14)	13(5-12)	17(9-16)	19(11-18)	17(7-16)	21(11-20)	23(13-22)
Télégraphie, réception automatique sans correction d'erreurs - Telegraphy, automatic reception without error correction - Telegrafía, recepción automática sin corrección de errores	11(6-10)	15(10-14)	17(12-16)	17(10-16)	21(14-20)	23(16-22)	26(13-25)	30(17-29)	32(19-31)
Télégraphie, réception automatique avec correction d'erreurs - Telegraphy, automatic reception with error correction - Telegrafía, recepción automática con corrección de errores	-	-	-	12(7-11)	16(11-15)	18(13-17)	14(8-13)	18(12-17)	20(14-19)
Phototélégraphie - Phototelegraphy - Fototelegrafía	15(11-14)	19(15-18)	21(17-20)	24(16-23)	28(20-27)	30(22-29)	28(18-27)	32(22-31)	34(24-33)
Téléphonie, pas de renvoi sur le réseau téléphonique public - Telephony, not connected to public service network - Telefonía, no conectada a la red de servicio público	12(9-11)	16(13-15)	18(15-17)	15(11-14) (1)	19(15-18) (1)	21(17-20) (1)	18(13-17) (1)	22(17-21) (1)	24(19-23) (1)
Téléphonie, renvoi sur le réseau téléphonique public - Telephony, connected to public service network - Telefonía, conectada a la red de servicio público	25(20-24)	29(24-28)	31(26-30)	28(22-27)	32(26-31)	34(28-33)	32(24-31)	36(28-35)	38(30-37)
Radiodiffusion - Broadcasting - Radiodifusión	34(29-33)	38(33-37)	40(35-39)	34(28-33)	38(32-37)	40(34-39)	34(26-33)	38(30-37)	40(32-39) ₍₂₎
Service mobile aéronautique, télégraphie ou téléphonie - Aeronautical Mobile, telegraphy or telephony - Servicio móvil aeronáutico, telegrafía o telefonía	-	-	-	15	15	15	15	15	15
Radiophares - Radio Beacons - Radiofaros	10	10	10	10	10	10	-	-	-
Système Loran - Loran - Loran	-	-	-	28	28	28	-	-	-

Renvoi (1) - Note (1) - Nota (1) - Sauf pour le service mobile aéronautique - Except in aeronautical mobile service - Excepto en el servicio móvil aeronáutica

Renvoi (2) - Note (2) - Note (2) - Dans l'application de la procédure spécifiée à l'article 10 du Règlement des radiocommunications, le Comité considère un rapport de protection calculé inférieur à 23 db comme dénotant un cas d'incompatibilité apparente.

In the application of the procedure prescribed in Article 10 of the Radio Regulations, a calculated protection ratio of less than 23 db is taken by the Board to indicate an apparent incompatibility.

En la aplicación del procedimiento prescrito en el Artículo 10 del Reglamento de Radiocomunicaciones, la Junta considera que una relación de protección calculada de menos de 23 db indica una incompatibilidad aparente.

