

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

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

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

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

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

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

FINAL ACTS

OF THE

REGION 3 ADMINISTRATIVE RADIO CONFERENCE

Geneva, 1949

PART I

INTERNATIONAL TELECOMMUNICATION UNION

FINAL ACTS

OF THE

REGION 3 ADMINISTRATIVE RADIO CONFERENCE

Geneva, 1949

PART I

INTERNATIONAL TELECOMMUNICATION UNION

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

FINAL ACTS

of the

REGION 3 ADMINISTRATIVE RADIO CONFERENCE

(Geneva, 1949)

Table of Contents

PART I

•			Page
Preamble			. 1
Article I		Approval of Plan	2
Article II		Transmission of Plan to the P.F.B	2
Article III	. —	Resolutions and Recommendations	2
Article IV	_	Effective dates for the Resolutions	2
Article V		Provision for Non-Represented Members	3
Final Formula and	l Sign	atures	3
Resolution 1		Relating to the Table of Frequency Allocations	- 5
Resolution 2	_	Relating to the Guard Band for the Radio- telephone Distress Frequency 2 182 kc/s	11
Recommendation	1 —	Relating to the Maritime Mobile Radiotelegraph Service in the Bands between 1 605 and 2850 kc/s	12
Recommendation	2 —	Relating to the Maritime Mobile Radiotelephone Service	14
Recommendation	3 —	Relating to the Standardization of Use of Certain Frequencies for the Maritime Mobile Radio- telephone Service	22
Recommendation	4 —	Relating to Frequency Assignments for Coast Stations of the Maritime Mobile Radiotelegraph Service	23
Recommendation	5 —	Relating to the Methods for Reduction of Congestion in the Bands between 1 605 and 3 900 kc/s	24
Recommendation	6 —	Relating to Frequency Tolerances	25
Recommendation	7 —	Relating to the Use of the International Distress	25

PART II

(in a separate volume)

Introduction			1	\mathbf{E}
Section I -	- General	Provisions	2	\mathbf{E}
Article	1 -	- Definitions	2	\mathbf{E}
Article		– Application	2	\mathbf{E}
Section II	— Technic	cal Provisions	3	E
Article	3 -	- Scope of the List	3	\mathbf{E}
Article	4 -	- Power Limitations	3	${f E}$
Article	5 –	- Considerations Applied in the Formulation of the List	3	${f E}$
Article	6 -	- Minimum Frequency Assignment Separations .	4	Ę
Article	7 –	- Band Edge Provisions	5	\mathbf{E}
Article	8 –	- Standard Frequency Transmissions and Time Signals	5	: E
Article	9 . –	- Designation of Frequencies and Guard Bands .	.6	É
Article	10 . –	- Protection of Intermediate Frequency of Receivers	6	: E
Article	11 -	- Recommended Assignments to the Maritime Mobile Service in the 2000 kc/s Band	6	Œ
Article	12 -	- Assignment Conditions in Certain Shared Bands	.7	\mathbf{E}
Article	13 –	- Coordination of the Plan with other Regional and Service Plans	7	Ė
Article	14 -	- Composition of the List	7	E
Article	15 -	- Studies Regarding Implementation of the List.	8	E
Section III	- Reserv	vations, Declarations, and Statement relating to Part II	9	E
Section IV	— Frequ	nency Assignment List	11	Ė

FINAL ACTS

OF THE

REGION 3* ADMINISTRATIVE RADIO CONFERENCE

(Geneva, 1949)

PART I

Preamble

The Delegates of the following countries:

Afghanistan
Australia (Commonwealth of)
Burma
Ceylon
China
Portuguese Colonies
Colonies, Protectorates,
Overseas Territories and
Territories under mandate
or trusteeship of the
United Kingdom of Great
Britain and Northern Ireland

Overseas Territories of the
French Republic and Territories administered as such
India
Indonesia
New Zealand
Pakistan
Philippines (Republic of the)
Territories of the United
States of America

duly authorized by their respective Administrations, having met as the Region 3 Administrative Radio Conference (Geneva, 1949), pursuant to Resolution No. 61 of the Administrative Council of the International Telecommunication Union, do hereby:

^{*} For the definition of Region 3 see Article 5, Radio Regulations (Atlantic City, 1947).

Article I

Approval of Plan

Approve the Region 3 Frequency Assignment Plan (Geneva, 1949) annexed hereto and which appears in a separate volume as the Plan of the Conference, and take note of the Reservations, Declarations, and Statement associated therewith:

Article II

Transmission of Plan to the P.F.B.

Agree to send the Region 3 Frequency Assignment Plan (Geneva, 1949) to the Provisional Frequency Board for incorporation in the draft new International Frequency List which will be reviewed and approved by the Special Administrative Radio Conference, but retain for their respective Administrations the right to submit, if it should be found necessary, amendments and additional requirements for the Special Administrative Radio Conference;

Article III

Resolutions and Recommendations

Agree to adopt the Resolutions and make the Recommendations contained in these Final Acts:

Article IV

Effective Dates for the Resolutions

Agree to adopt the following effective dates for:

Resolution 1: As far as posible, immediately in cases where the tables of frequency allocations Cairo (1938) and Atlantic City (1947) are in agreement, and, in any case, as soon as the new International Frequency List becomes effective,

Resolution 2: As far as possible, immediately; and

Article V

Provision for Non-Represented Members

Provide that Administrations of Region 3 countries Members of the Union, which Administrations were not represented at the Region 3 Administrative Radio Conference (Geneva, 1949), may accept these Final Acts, and indicate their intent to comply therewith, without reservation, and, moreover signify their approval of the Region 3 Frequency Assignment Plan (Geneva, 1949), by informing the Secretary General of the Union; who shall bring this information to the notice of all Members of the Union.

Final Formula and Signatures

IN WITNESS WHEREOF, the undersigned being delegates of their respective Administrations have affixed their signatures to this instrument, in a single copy, of which the French text shall be authentic, to be deposited in the archives of the International Telecommunication Union, which shall forward a certified copy to each signatory Administration.

Done at Geneva, November 4, 1949.

For Afghanistan:

M. HUSSEIN

For the Commonwealth of Australia:

D. McDONALD

J. M. DOBBYN

G. E. PROSSER

For Burma:

S. S. Moorthy RAO

For Ceylon:

D. P. JAYASEKARA .

For China:

C. F. CHUNG

T. S. LING:

For the Portuguese Colonies:

A. SOUTO CRUZ

For the Colonies, Protectorates, Overseas Territories and Territories under mandate or trusteeship of the United Kingdom of Great Britain and Northern Ireland:

J. L. CREIGHTON

I. St. Q. SEVERIN

For the Overseas Territories of the French Republic and Territories administered as such:

J. LALUNG-BONNAIRE

G. SARRE

P. RICHARD

For India:

S. S. Moorthy RAO

J. N. SHAHANI

V. SUNDARAM

For Indonesia:

L. F. J. VERBOEKET

C. J. van KOETSVELD

For New Zealand:

G. SEARLE

J. M. POWER

For Pakistan:

M. HUSAIN

M. R. SIDDIQI

For the Republic of the Philippines:

A. ALVENDIA

For the Territories of the United States of America:

J. N. PLAKIAS

Resolution 1

Relating to the Table of Frequency Allocations

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

- a. that the International Radio Conference (Atlantic City, 1947), adopted a new Table of Frequency Allocations, which abrogates and replaces the Table contained in the General Radio Regulations (Cairo, 1938);
- b. that, to establish a procedure to bring the Atlantic City Table into force, that Conference adopted a "Resolution Relating to the Preparation of the New International Frequency List";
- c. that that Resolution establishes the Provisional Frequency Board (P.F.B.) charged with the preparation of the draft new International Frequency List for the bands specified in the Resolution;
- d. that the Annex to that Resolution provides that certain frequency bands excluded from the list of those bands for which the P.F.B. is to prepare a List will be dealt with by Regional or Service Conferences; and
- e. that it is appropriate and necessary both for the preparation of the Region 3 Frequency Assignment List and for the continuing administration of radio services in these bands in Region 3 to adopt for Region 3 appropriate annotations to the Table of Frequency Allocations,

resolves:

that Administrations of Region 3 agree that in assigning frequencies to stations for the various services, they will conform to the additional annotations contained in the following extract from the Atlantic City Table of Frequency Allocations:

TABLE OF FREQUENCY ALLOCATIONS

(Annotated for Region 3)

- 1. In the following Table of Frequency Allocations, the services to which each band is allocated are listed in alphabetical order. The order of listing does not, therefore, indicate any priority.
- 2. The definitions of services and classes of stations applicable to this Allocation Table are those set forth in Article 1 of the Atlantic City Radio Regulations.
- 3. Numbers preceded by the letters "AC", which appear in any section of this table, refer to the footnotes with the same numbers appearing in the Table of Frequency Allocations contained in Article 5 of the Atlantic City Radio Regulations.

Frequency Band and (Bandwidth) kc/s	Allocation to Services	General References	Region 3 Conference Annotations
10-14	Radionavigation		
150-160 (10)	a) Fixedb) Maritime mobile		
160-200 (40)	Fixed		
200-285 (85)	a) Aeronautical mobile b) Aeronautical radionavigation (AC 13)		

Frequency Band and (Bandwidth) kc/s	Allocation to Services	General References	Region 3 Conference Annotations
285-325 (40)	a) Aeronautical radionavigation b) Maritime radionavigation (radiobeacons) (AC 16)		
325-405 (80)	a) Aeronautical mobile b) Aeronautical radionavigation (AC 17) (AC 18) (AC 19) (AC 20)		
405-415 (10) (AC 21)	a) Aeronautical mobile b) Aeronautical radionavigation c) Maritime radionavigation (radio direction-finding)	,	
415-490 (75)	Maritime mobile (AC 24) (AC 25)		
490-510 (20) (AC 26)	Mobile (distress and calling)		See Recommendation 7
510-5 2 5 (15)	Mobile (AC 27)		,
525-535 (10)	Mobile		

Frequency Band and (Bandwidth) kc/s	Allocation to Services	General References	Region 3 Conference Annotations
535-1 605 (1070)	Broadcasting (AC 29)		
1 605-1 800 (195)	a) Fixed b) Mobile		See Recommendations 1, 2 (Section I), and 5
1 800-2 000 (200)	a) Amateur b) Fixed c) Mobile except aeronautical mobile d) Radionavigation (AC 33)		See Recommendations 1, 2 (Section I), and 5. The following Member countries will sub-allocate* this band to amateurs as follows**: India: 1 800-1 900 priority; Pakistan: 1 800-1 900 exclusively; Pakistan: 1 900-2 000 priority; U.S.A.Territories: 1 800-2 000 on non-interference basis to Loran.
2 000-2 065 (65)	a) Fixed b) Mobile		See Recommendations 1, 2 (Section I), and 5
2 065-2 105 (40) (AC 34)	Maritime mobile		See Recommendations 1, 2 (Section I), and 5
2 105-2 300 (195) (AC 34)	a) Fixed b) Mobile	See Recommendation No 24 of the Fifth Meeting, C.C.I.R. (Stockholm, 1948)	See Resolution 2 See Recommendations 1, 2 (Section I), 3, 4, and 5

^{*} Subject to the provisions of the Radio Regulations (Atlantic City, 1947).

^{**} The Republic of Korea intends to sub-allocate to a mateurs the badn 1 $950-2\ 000$ exclusively.

Frequency Band and (Bandwidth) kc/s	Allocation to Services	General References	Region 3 Conference Annotations
2 300-2 495 (195)	a) Broadcasting (AC 36) b) Fixed c) Mobile		See Recommendations 1, 2 (Section I), and 5
2 495-2 505 (10)	Standard frequency (AC 38)	See Recommendation N°18 of the Fifth Meeting, C.C.I.R. (Stockholm, 1948)	
2 505-2 850 (345)	a) Fixed b) Mobile		See Recommendations 1, 2 (Section I), 3, and 5
3 155-3 200 (45)	a) Fixed b) Mobile except aeronautical mobile (R) (AC 35)		See Recommendation 5
3 200-3 230 (30)	a) Broadcasting (AC 36) b) Fixed c) Mobile except aeronautical mobile (R) (AC 35)		See Recommendation 5
3 230-3 400 (170)	 a) Broadcasting (AC 36) b) Fixed c) Mobile except aeronautical mobile 		See Recommendation 5

Frequency Band and (Bandwidth) kc/s	Allocation to Services	General References	Region 3 Conference Annotations
3 500-3 900 (400)	a) Amateur b) Fixed c) Mobile		See Recommendation 5 The following Member countries will sub-allocate* this band to amateurs as follows**: Australia: 3 500-3 800 exclusively; Indonesia: 3 500-3 550 exclusively; Japan: 3 500-3 575
			exclusively; New Zealand : 3 500-3 900 exclusively; Philippines : 3 500-3 550 exclusively; 3 550-3 600 priority; U.S.A. Territories : 3 500-3 900 exclusively.

^{*} Subject to the provisions of the Radio Regulations (Atlantic City, 1947).

Frequency Band and (Bandwidth) Mc/s	Allocation to Services	General References	Region 3 Conference Annotations
148-170 (22) (AC 84)	a) Fixed b) Mobile (AC 82)		See Recommendation 2 (Section II)

^{**} The Republic of Korea intends to sub-allocate to amateurs the band 3 500 - 3 550 exclusively.

Resolution 2

Relating to the Guard Band for the Radiotelephone Distress Frequency 2 182 kc/s

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

- a. that Number 814 of Article 34, Radio Regulations (Atlantic City, 1947) states that "The Administrations concerned will ensure, by special arrangements if necessary, that an adequate guard band is provided for this frequency" (2 182 kc/s);
- b. that the International Conference on the Safety of Life at Sea (London, 1948), recognizing the content of Articles 28 and 34, Radio Regulations (Atlantic City, 1947), proceeded to require that certain ships be fitted with radiotelephone apparatus capable of operating, for safety purposes, on the frequency 2 182 kc/s and on at least one other working frequency;
- c. that, pursuant to Recommendation No. 6 of the International Radio Conference (Atlantic City, 1947) to the C.C.I.R., relating to the watch on the distress frequency 2 182 kc/s, the Fifth Meeting C.C.I.R. (Stockholm, 1948) studied the problem and, in its Recommendation No. 24, proposed that Administrations conduct further tests of suitable automatic alarm devices for the frequency 2 182 kc/s, and communicate the results to the C.C.I.R. for the purpose of co-ordination; and

d. that the Region 1 (Geneva, 1949) and Region 2-F.I.A.R. *(Washington, 1949) Conferences established a guard band of 2 170 to 2 194 kc/s for the frequency 2 182 kc/s,

resolves:

that apart from the transmissions authorized in the band centered on the frequency 2 182 kc/s, all emissions capable of causing harmful interference to the safety services provided on the frequency 2 182 kc/s are forbidden in the band 2 170 — 2 194 kc/s.

Recommendation 1

Relating to the Maritime Mobile Radiotelegraph Service in the Bands between 1 605 and 2 850 kc/s

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

- a. that the Atlantic City Radio Regulations in Article 5 provide that in Region 3 the band of frequencies 2 065 2 105 ke/s is allocated exclusively to the Maritime Mobile Service;
- b. that the Atlantic City Radio Regulations designate specific calling frequencies for each of the bands of frequencies above 4 000 kc/s allocated by those Regulations for maritime mobile radiotelegraph stations to facilitate the intercept of initial calls from mobile stations using these bands;
- c. that the use of at least one specified calling frequency within the exclusive Maritime Mobile Service band 2065 2105 kc/s in Region 3 is likewise desirable to facilitate the intercept of initial calls from ship telegraph stations using frequencies within this band;

^{*}F.I.A.R. = Fourth Inter-American Radio (Conference)

- d. that the Atlantic City Radio Regulations prescribe in Number 115 that the band 2 065 2 105 kc/s shall be limited, in Region 2, to ship stations (telegraphy exclusively);
- e. that Number 751 of the Atlantic City Radio Regulations states that "Except where regional agreements specify otherwise, the frequencies assigned to ship stations for radiotelegraph communication in the bands between 1 605 and 2 850 kc/s must, as far as possible, be harmonically related (sub-harmonics) to the frequencies assigned to ship stations in the 4 000 kc/s radiotelegraph band (see section V)"; and
- f. that Number 269 of the Atlantic City Radio Regulations states that "In Region 2, the frequency band 2088.5 2093.5 kc/s is reserved exclusively for calling (telegraphy only)",

recommends:

- 1. that the following apply to radiotelegraph stations of the Maritime Mobile Service open to public correspondence and operating on authorized frequencies in the bands between 1 605 and 2 850 kc/s;
- 2. that the frequency 2 091 kc/s be used only for call, reply and authorized operating signals by all ship telegraph stations to establish communication with other ship telegraph stations or with coast telegraph stations;
- 3. that all ship telegraph stations be able to send and receive emissions of class A1 on the calling frequency 2 091 kc/s and on at least one authorized working frequency within the bands between 1 605 and 2 850 kc/s;
- 4. that the calling frequency to be used by a coast telegraph station operating in the bands between 1 605 and 2 850 kc/s be its normal working frequency as shown in heavy type in the List of Coast and Ship Stations, and such a station should transmit its

- calls at specified times in the form of traffic lists on its working frequency or frequencies indicated in the List of Coast and Ship Stations;
- 5. that a ship telegraph station, after establishing communication on the calling frequency 2 091 kc/s, indicate its authorized working frequency, and this frequency be used for the transmission of traffic;
- 6. that apart from signals and messages relating to distress, urgency, and safety, ship telegraph stations and coast telegraph stations operating in these bands employ, as far as possible, class A1 emission only;
- 7. that the frequency band 2 088.5 2 093.5 kc/s be reserved exclusively for calling (telegraphy only); and
- 8. that nothing contained in this Recommendation precludes the use of the frequency 2 091 kc/s by stations not open to public correspondence.

Relating to the Maritime Mobile Radiotelephone Service

Section I. Bands included between 1 605 and 2 850 kc/s.

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

a. that Article 34, Radio Regulations (Atlantic City, 1947), entitled "Maritime Mobile Radiotelephone Service", establishes, for the first time, a world-wide calling and distress frequency for the Maritime Mobile Service of radiotelephony, namely, the frequency 2 182 kc/s, and contains certain other operating provisions, applicable internationally, for the use of the frequency 2 182 kc/s, principally with regard to distress, call and reply, watch and traffic;

- b. that Number 589 of Article 28, Radio Regulations (Atlantic City, 1947) requires that all ship stations using the frequency 2 182 kc/s for call and reply must be provided with at least one other frequency in the bands between 1 605 and 2 850 kc/s in which radiotelephone services are admitted;
 - c. that the International Conference on the Safety of Life at Sea (London, 1948), recognizing the content of Articles 28 and 34, Radio Regulations (Atlantic City, 1947), proceeded to require, by Regulations 2 (d), 4, 8, and 15 of Chapter IV, that certain ships be fitted with radiotelephone apparatus capable of operating, for safety purposes, on the frequency 2 182 kc/s and on at least one working frequency;
- d. that, since it is anticipated that the International Convention for the Safety of Life at Sea, 1948, will come into force on January 1, 1951, prior to the scheduled convening of the next International Radio Conference in 1952, it is clearly desirable that Administrations now lay down such additional recommendations as will provide the basic structure of a safety system, based on the use of the frequency 2 182 kc/s in order to be available to ships when required, as indicated in paragraph (c) above;
- e. that, after close study of the Radio Regulations (Atlantic City, 1947) and of the International Convention for the Safety of Life at Sea (London, 1948), this Recommendation contains the minimum basic additions necessary to establish initially a uniform and effective maritime radiotelephone safety system for Region 3 countries;
- f. that, fundamentally this Recommendation states that certain ship stations and coast stations be capable of transmitting and receiving on the frequency 2 182 kc/s and, while tending to limit the extent to which this frequency may be used, allows its use for general contact purposes in order that stations will listen thereon for

- calls and thus at the same time, for signals and messages relating to distress, urgency, and safety;
- g. that the frequency 2 182 kc/s should be continuously available for safety and distress purposes;
- h. that, since it will be used throughout the world and thus be subject to interference from all areas within interference range, restrictions as to the power, extent and type of communications, etc., on 2 182 kc/s are necessary, to minimize interference and provide maximum utilization for safety and distress; and
- i. that, pursuant to Number 814 of the Radio Regulations (Atlantic City, 1947), the Region 3 Administrative Radio Conference (Geneva, 1949), in Resolution 2 of its Final Acts, established a guard band for the frequency 2 182 kc/s,

recommends:

A. General

- that when using the frequency 2 182 kc/s for other than distress calls and distress traffic, and urgency and safety signals and messages, the mean power of the unmodulated carrier wave in the antenna of mobile stations should not exceed 100 watts;
- 2. that, in the case of coast stations of the Maritime Mobile Radiotelephone Service operating in these bands, the mean power of the unmodulated carrier wave in the antenna should not exceed 1 000 watts for day 1 operation and 500 watts for night 2 operation, except where conditions are such as to render these limitations unreasonable or unnecessary;

¹ "Day" means the period of time included between one hour after local sunrise and one hour before local sunset.

² "Night" means the period of time of the 24-hour day other than that encompassed in "Day" operation.

B. Distress

- 3. (1) that the use of the world-wide distress and calling frequency 2 182 kc/s in the Maritime Mobile Radiotelephone Service be subject to the following conditions:
 - (2) that it be used by ship or aircraft radiotelephone stations using frequencies in the bands between 1 605 and 2 850 kc/s when requesting assistance from the maritime services, and also for signals and messages relating to distress, urgency, and safety;
 - (3) that in addition it may be used only:
 - a) for call and reply (see paragraphs 6 and 7 herein), for authorized operating signals associated therewith, and
 - b) by coast telephone stations for announcing transmissions, on other frequencies, which are of general interest to ship stations, including ordinary weather and hydrographic broadcasts;
- 4. that all ship stations and coast stations engaged in radiotelephony in the authorized bands between 1 605 and 2 850 kc/s, and aircraft radiotelephone stations desiring to enter into communication with a station of the Maritime Mobile Radiotelephone Service using frequencies in this band, should be capable of transmitting and receiving on the frequency 2 182 kc/s;
- 5. (1) that, with a view to greater safety of life at sea, all radiotelephone stations of the Maritime Mobile Service which normally keep watch on frequencies in this band take steps, as far as possible, to keep watch on the distress frequency 2 182 kc/s twice each hour for three minutes commencing at x h 00 and x h 30, Greenwich mean time (G.M.T.) 1;
 - (2) that, during the above-mentioned intervals, all trans-

¹ See Radio Regulations (Atlantic City, 1947) Number 826.

missions of stations in the Maritime Mobile Service in the band 2 167 — 2 197 kc/s, except distress, urgency, and safety transmissions, should cease ¹;

C. Call and Reply

- 6. that, except where prior arrangement is made, the frequency 2 182 kc/s be used for call and reply by all ship radiotelephone stations preparatory to establishing communications with other ship radiotelephone stations on a frequency designated for intership working;
- 7. (1) that 2 182 kc/s, which is permitted to be the frequency for call and reply between ship and coast telephone stations, be authorized for that purpose; calling and replying between ship and coast telephone stations may, however, be conducted on the working frequency or frequencies indicated in the List of Coast and Ship Stations;
 - (2) that, in the case where there is more than one channel available for single-frequency operation (simplex), the station called should, wherever possible, reply on the frequency used by the calling station. In the case of two-frequency operation (duplex), the station called should, wherever possible, reply on the other frequency of the associated pair;

D. Watch

8. (1) that coast telephone stations, particularly those open to public correspondence, which work in the authorized bands between 1 605 and 2 850 kc/s shall, as far as possible, during their working hour, keep watch on the frequency 2 182 kc/s either by aural or automatic means for calls from mobile stations ².

¹ See Radio Regulations (Atlantic City, 1947) Number 827.

² Amplification of Numbers 819 and 820 of the Radio Regulations (Atlantic City, 1947).

For this purpose, the presence of a call or a distress or alarm signal from a mobile station may be indicated initially at the coast station by either aural or visual means ¹;

- (2) that the calling signals (spoken name of station, presence of carrier wave, special modulating tones, etc.) to which ship and coast telephone stations are intended to respond be indicated in the List of Coast and Ship Stations ²;
- 9. that, while at sea, ships which are compulsorily fitted with radio-telephone apparatus as the result of an international agreement shall, as far as possible, keep watch, by some aural or automatic means ¹, on the distress frequency 2 182 kc/s, when they are not engaged in communications on other frequencies in the bands between 1 605 and 2 850 kc/s;

E. Conditions to be Observed by Mobile Stations

- 10. (1) that, in addition to any other frequencies which may be required, every radiotelephone installation compulsorily fitted on board a ship in accordance with an international agreement be able to send and receive class A3 emissions:
 - a) on the frequency 2 182 kc/s, and
 - b) on one intership working frequency, preferably the frequency 2 638 kc/s, with a view to this frequency being considered in the future as a common international intership working frequency at sea;
 - (2) that these frequencies be indicated in the List of Coast and Ship Stations;
 - (3) that, with a view to improving the safety of life at sea by maintaining the watch referred to in paragraph 9 above, the

¹ See Fifth Meeting C.C.I.R. (Stockholm 1948) Recommendation No. 24 relating to the automatic alarm device.

² See footnote 2 page 18.

receiving apparatus associated with the compulsory radiotelephone installation include, wherever possible, at least two receivers in service.

Section II. Band included between 152 and 162 Mc/s *.

The Region 3 Administrative Kadio Conference (Geneva, 1949),

considering:

- a. that Section IV of Article 34, Radio Regulations (Atlantic City, 1947), entitled "Maritime Mobile Radiotelephone Service", establishes, for the first time, a world-wide frequency for use on a simplex basis in the Maritime Mobile Service for calling, safety, intership, and harbour control purposes, namely the frequency 156.8 Mc/s;
- b. that, because, at the time of the Atlantic City Conference, some of the maritime nations of the world had not yet crystallized their thinking on the use of frequencies in this band for maritime use, it was not possible to reach agreement on the world-wide standardization and use of other specific frequencies in this band for maritime purposes;
- c. that informal information obtained by representatives at various European radio conferences after conclusion of the Atlantic City Conference of 1947, however, emphasized the desirability of reaching international agreement on the designation and use of a minimum number of additional frequencies in this band for the Maritime Mobile Radiotelephone Service at the earliest possible time;

^{*} In the Region 3 Administrative Radio Conference (Geneva, 1949), no agreement could be reached on the common use of class A3 or F3 emission on a Regional basis for the frequencies between 152 and 162 Mc/s designated in this Recommendation (See Number 833, paragraph 15 of Article 34, Atlantic City Radio Regulations).

- d. that the possibility of the various maritime nations of the three Regions of the I.T.U. proceeding along divergent lines, and thus making future standardization in this service difficult if not impossible, should be avoided;
- e. that, it is clearly desirable that Administrations now provide for the use of a minimum number of communication channels in this band for the Maritime Mobile Radiotelephone Service; and
- f. that the frequency 156.8 Mc/s is designated in Number 830 of the Atlantic City Radio Regulations for "use on a simplex basis in the Maritime Mobile Service for calling, safety, intership, and harbour control purposes",

recommends:

- 1. that the frequency 156.3 Mc/s be designated for use on a simplex basis in the Maritime Mobile Service, primarily for intership working;
- 2. that the frequency 156.6 Mc/s be designated for use on a simplex basis in the Maritime Mobile Service, primarily for ship-shore working;
- 3. (1) that the frequencies 157.4 Mc/s and 161.9 Mc/s designated for use on a duplex basis in the Maritime Mobile Service for shipshore working;
 - (2) that ship stations transmit on the frequency 157.4 Mc/s and receive on the frequency 161.9 Mc/s;
 - (3) that coast stations transmit on the frequency $161.9~\mathrm{Mc/s}$ and receive on $157.4~\mathrm{Mc/s}$;
 - (4) that this pair of frequencies (157.4 and 161.9 Mc/s) be reserved primarily for use when the coast station transmitting on the frequency 161.9 Mc/s is open to the international service of public correspondence and connects with landline telephone facilities.

Relating to the Standardization of Use of Certain Frequencies for the Maritime Mobile Radiotelephone Service

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

- a. that the new Regulations governing questions of the safety services at sea imply an increase in the number of ships compulsorily equipped with radio installations;
- b. that the great majority of the installations will operate in the radiotelephone service in the band 2 105 2 300 kc/s for ship stations and in the band 2 505 2 850 kc/s for coast stations and for intership working;
- c. that equipment limitations restrict the operation of shipborne installations to a maximum of about ten channels; and
- d. that it is to the interest of the Maritime Mobile Radiotelephone Service to effect standardization of frequencies so that the minimum of channels and equipment is necessary to secure service over a wide area,

recommends:

that, in assigning frequencies, the Administrations of Region 3 take into account the desirability of standardizing the use of frequencies for the Maritime Mobile Radiotelephone Service in the band 2 105 — 2 300 kc/s for ship stations and in the band 2 505 — 2 850 kc/s for coast stations and for intership working.

Relating to Frequency Assignments for Coast Stations of the Maritime Mobile Radiotelegraph Service

The Region 3 Administrative Radio Conference (Geneva, 1949)

considering:

- a. that the Atlantic City Radio Regulations prescribe in Number 151 that provision will be made in the bands between 2 105 and 2 495 kc/s in Region 2 for coastal telegraphy in the Maritime Mobile Service by special arrangement;
- b. that the recent Region 2 Administrative Radio Conference adopted a Recommendation that the Administrations of Region 2, in compiling and coordinating their frequency lists, make adequate provisions for satisfying the requirements of coast stations using radiotelegraphy in the bands between 2 105 and 2 495 kc/s; and
- c. that it is in the interest of the Maritime Mobile Radiotelegraph Service to effect standardization of frequencies so that the minimum of channels and equipment is necessary to secure service over a wide area,

recommends:

that, in assigning frequencies, the Administrations of Region 3 make provision, as far as possible, for coast telegraph stations in the band $2\ 250\ - 2\ 300\ kc/s$.

Relating to the Methods for Reduction of Congestion in the Bands between 1 605 and 3 900 kc/s

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

that the growing number of requirements for frequencies in the bands between 1 605 and 3 900 kc/s makes it more and more difficult to draw up a frequency assignment plan and entails shared assignments which increase the risk of harmful interference,

recommends:

that the Administrations of Region 3 take the following measures to reduce the number of requirements for frequencies in the band between 1 605 and 3 900 kc/s:

- (1) the employment of frequencies above 100 Mc/s wherever the operating technical conditions of the circuit permit. This is especially recommended for:
 - a) port circuits (by utilizing frequencies in the band 156 162 Mc/s);
 - b) circuits between islands, and between mainlands and islands;
 - c) networks of the Land Mobile Service in larger cities;
- (2) the replacement of fixed radio circuits by landlines wherever conditions permit.

Recommendation 6 Relating to Frequency Tolerances

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

that the Region 3 Frequency Assignment Plan has been based on calculated frequency assignment separations,

recommends:

that the Administrations of Region 3:

- (1) employ transmitters of the highest frequency stability; and
- (2) make every effort to meet, at the earliest possible date, the tolerances specified in column 3 of the Table of Frequency Tolerances given in Appendix 3 of the Radio Regulations (Atlantic City, 1947).

Recommendation 7

Relating to the Use of the International Distress Frequency 500 kc/s

The Region 3 Administrative Radio Conference (Geneva, 1949),

considering:

- a. that the Atlantic City Radio Regulations prescribe in Number 868 that in case of distress, the frequency to be used shall be the international distress frequency, that is, 500 kc/s;
- b. that the Atlantic City Radio Regulations authorize, by Numbers 714, 715, and 716, the use of the frequency 500 kc/s for the dis-

tress call and distress traffic, and for urgency and safety signals and messages; and additionally only for call and reply and, by coast stations, to announce the transmission of their traffic lists;

- c. that the Atlantic City Radio Regulations by Number 717 permit, as an exception, the use of the frequency 500 kc/s for traffic outside regions of heavy traffic under the conditions contained in Numbers 727, 728, and 729;
- d. that the Atlantic City Radio Regulations in Number 719 state that in order to facilitate the reception of distress calls, all stations working on the frequency 500 kc/s must reduce to the minimum their transmissions on this frequency; and
- e. that the excessive use, in this exceptional way, of the international distress frequency 500 kc/s in various parts of Region 3 could cause serious interference which may prevent the reception of distress calls and thus endanger the safety of life at sea,

recommends:

that the Administrations of Region 3 reduce to the barest minimum the use of the international distress frequency of 500 kc/s for purposes other than those prescribed in Numbers 714, 715, and 716 of the Atlantic City Radio Regulations and consider the advisability of declaring Region 3 a region of heavy traffic at the next International Radio Conference.