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SECTION 8

MARITIME MOBILE SERVICE

Recommendation E.200

OPERATIONAL PROVISIONS FOR THE MARITIME MOBILE SERVICE

Introductory Notes

1 Pursuant to Resolutions Nos. Mar2 **|** (em **|** 2 and Mar2 **|** (em **|** 3 and Recommendation Mar2 **|** (em **|** 8 of the *World Administrative Maritime Radio Conference* [1], the CCITT drew up Recommendations E.200/F.110 and D.90 concerning operational and accounting provisions for the Maritime Mobile Service Radio Conference [2], adopted texts dealing with the basic principles on operating and accounting procedures, leaving the detailed application of these principles to be covered by CCITT Recommendations.

2 Article 66 (No. 5085) of the *Radio Regulations* [3] specifies that the provisions of the *Telegraph Regulations* [4] and the *Telephone Regulations* [4], taking into account CCITT Recommendations, shall apply to radiocommunications in so far as the relevant provisions of the *Radio Regulations* do not provide otherwise.

3 Since, in accordance with Article 69 of the *Radio Regulations* , Article 66 entered into force on 1 January 1981, the provisions of this Recommendation were applicable from that date.

4 References commencing with the letters J, K, L and M concern provisions in Divisions J, K, L and M respectively of Recommendation D.90 entitled *Charging, accounting and refunds in the Maritime Mobile Service* .

5 For the purpose of this Recommendation the term *Maritime Mobile Service* should be understood to embrace the Maritime Mobile-Satellite Service as well as the MF, HF, VHF and UHF radio media, unless specifically stated otherwise.

6 Throughout this Recommendation the term *Administration* means that recognized private operating agency/agencies are included. However, where this term is used in respect of notification by Administrations to the General Secretariat of the ITU, this applies only to recognized private operating agencies that have been authorized by Administrations to carry out such notification.

7 For the purpose of this Recommendation, the terms *mobile station* and *land station* should be considered as analogous to *ship station* and *coast station* respectively used in the *Radio Regulations* .

This Recommendation is also included in the Series F Recommendations under the number F.110.

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DIVISION A

GENERAL

1 Definitions

A1 1.1 The **controlling operator** is the first land-based operator handling the radiotelegram, radiotelex call or radiotelephone call in the direction from mobile station.

A2 1.2 *Accounting authority identification code*

For the meaning of this term see J2 in Recommendation D.90.

A3 to A20 not allocated

2 Order of priority

A21 2.1 The order of priority for communications , in the maritime mobile service shall be as follows, except where impracticable in a fully automated system in which, nevertheless, communications described in A22 shall receive priority.

A22 a) Distress calls , distress messages and distress traffic ;

A23 b) Communications preceded by the urgency signal ;

A24 c) Communications preceded by the safety signal ;

A25 d) Communications relating to radio direction-finding ;

A26 e) Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations;

A27 f) Communications relating to the navigation, movements and needs of ships, and weather observations messages destined for an official meteorological service;

A28 g) Radiotelegrams relative to the application of the United Nations Charter (**ETATPRIORITE**);

A29 h) Government radiotelegrams with priority (**ETATPRIORITE**) and government calls for which priority has been expressly requested;

A30 i) Ordinary private radiotelegrams and **RCT** radiotelegrams for which priority has been requested.

A30 | fIbis j) Service communications relating to the working of the telecommunication service or to communications previously exchanged;

A31 k) Government communications other than those shown in A29, ordinary private communications and RCT radiotelegrams;

The term *communications* as used in A21 to A32 means radiotelegrams , radiotelephone calls and radiotelex calls

A32 l) Radiomaritime letters.

DIVISION B

RADIOTELEGRAMS

1 Preparation and handing-in of radiotelegrams

1.1 *Plain language*

B1 1.1.1 Groups of letters and figures from the *International Code of Signals* are considered as plain language in radiotelegrams.

1.2 *Indication of station of origin*

B2 1.2.1 When, because of duplication of names, the name of a station is followed by its call sign, the latter shall be joined to the name of the station by a fraction bar.

Examples: **OREGONB/FOZOC** (not **OREGONOZOC**);

Examples: **ROSEB/FDDOR** (not **ROSEDDOR**).

B3 1.2.2 When a land station retransmits a radiotelegram received from a mobile station , it shall transmit, as office of origin, the name of the mobile station in which the radiotelegram originated as this name appears in the appropriate list of stations, followed by its own name. Where appropriate, B2 shall also apply.

B4 1.2.3 In order to avoid any confusion with a telegraph office or a fixed station of the same name, the land station may, if desirable, complete the indication of the name of the mobile station of origin by the word **SHIP** or **AIRCRAFT** , placed before the station of origin.

1.3 *Use of accounting authority identification codes by mobile stations*

B5 1.3.1 The mobile station operator should, as a standard operating procedure, give the *accounting authority identification code* (AAIC) at the end of the preamble line. If the AAIC is missing, the land station operator should request **QRC?**

1.4 *Time of handing-in*

B6 1.4.1 In the transmission of radiotelegrams originating in a mobile station, the date and time of handing-in at this station are given by two groups of figures in the preamble line, the first indicating the day of the month (1 to 31) and the second consisting of a group of figures (0001 to 2400) indicating the hours and the minutes.

B7 1.4.2 The time of handing-in is indicated in Coordinated Universal Time (UTC).

Note — For practical operating purposes, UTC may be considered as equivalent to Greenwich Mean Time (GMT).

1.5 *Address*

B8 1.5.1 The address of radiotelegrams destined for mobile stations must be as complete as possible and must include:

B9 a) the name or the designation of the addressee, with supplementary particulars, if necessary;

B10 b) the name of the mobile station followed, when necessary, by its call sign, the latter joined by a fraction bar to the name of the station as shown in the *List of Ship Stations* [5];

B11 c) the name of the land station through which the radiotelegram is to be forwarded, as it appears in the appropriate list of stations.

B12 1.5.2 If the mobile station does not appear in the *List of Ship Stations* [5], the sender should, if possible, indicate the nationality and route followed by the mobile station.

B13 1.5.3 However, the name and call sign required under B10 may be replaced, at the risk of the sender, by particulars of the passage made by such mobile station, indicated by the names of the ports or airports of departure and of destination, or by any equivalent indication.

B14 1.5.4 Mobile stations may add to the name of the office of destination:

— the name of the territorial subdivision; and/or

— the destination or country.

if it is doubtful whether, without such addition, the radiotelegram could be correctly routed without difficulty.

B15 1.5.5 The controlling operator retains or deletes the particulars in B14 or further amends the name of the office of destination as is necessary or sufficient for forwarding the radiotelegram to its proper destination.

2 Counting of words

B16 2.1 The word count of the office of origin is decisive in the case of radiotelegrams destined for mobile stations, and that of the controlling operator is decisive in the case of radiotelegrams originating in mobile stations.

B17 2.2 If two land stations participate in the handling of a radiotelegram, the decision of the controlling operator accepting the radiotelegram from the originating mobile station will prevail and will be valid for international accounting.

3 Routing of radiotelegrams

B18 3.1 Radiotelegrams should be routed via the land station that is considered most suitable in relation to the mobile station concerned.

B19 3.2 However, to expedite or to facilitate the routing of radiotelegrams to a land station, a mobile station may transmit them to another mobile station. The latter shall dispose of such radiotelegrams in the same manner as if they originated with itself (see B39 to B42).

B20 3.3 If the sender of a radiotelegram handed in at a mobile station has indicated the land station to which he desires his radiotelegram to be sent, the mobile station shall, in order to effect this transmission to the land station indicated, wait, if necessary until the conditions specified in B18 and B19 are fulfilled.

B21 3.4 In order to facilitate disposal of traffic, and subject to such restrictions as individual Administrations may impose, land stations may, in exceptional circumstances and with discretion, without incurring additional charges, exchange radiotelegrams and service messages relating thereto.

4 Transmission of radiotelegrams

4.1 *Routine repetition*

Refer also to K26 in Recommendation D.90.

B21A 4.1.1 Routine repeptition means the repetition of isolated figures and mixed groups containing figures in the address and text parts. Any such repetition should be given after the text part and be preceded by the code **COL** .

B21B 4.1.2 In view of Recommendation F.1, routine repetition is not compulsory. It is used at the discretion of the sending station where the transmission conditions warrant it.

B21C 4.1.3 Where a mobile station gives a routine repetition, the land station shall use the repeated groups to check the received address and text parts, but should not retransmit the routine operation.

4.2 *Doubtful reception*

B22 4.2.1 In the mobile service, when communication becomes difficult, the two stations in communication should make every effort to complete the radiotelegram in course of transmission. The receiving station may request not more than two repetitions of a radiotelegram of which the reception is doubtful.

B23 4.2.2 If this triple transmission is ineffective, the radiotelegram is kept on hand in case a favourable opportunity for completing its transmission occurs.

B24 4.2.3 If the transmitting station considers that it will not be possible to re-establish communications with the receiving station within twenty-four hours, it proceeds as follows:

B25 4.2.4 If the transmitting station is a mobile station, it immediately informs the sender of the reason for the non-transmission of his radiotelegram. The sender may then request:

B26 a) that the radiotelegram be transmitted through another land station or through other mobile stations; or

B27 b) that the radiotelegram be held until it can be transmitted without additional charge; or

B28 c) that the radiotelegram be cancelled.

B29 4.2.5 If the transmitting station is a land station, it applies the provisions of B43 to B54 to the radiotelegram.

B30 4.2.6 When a mobile station subsequently transmits a radiotelegram thus held to the land station that incompletely received it, this new transmission must bear the service instruction **AMPLIATION** at the end of the preamble line of the radiotelegram.

B31 4.2.7 However, if the radiotelegram is transmitted to another land station subject to the same Administration, the new transmission must bear, at the end of the preamble line, the service instruction **AMPLIATION VIA . | |** (insert here the call sign of the land station to which the radiotelegram was transmitted in the first instance) and the Administration in question may claim only the charges relating to a single transmission.

B32 4.2.8 The other land station, which thus forwards the radiotelegram, may claim from the mobile station of origin any additional charges resulting from the transmission of the radiotelegram between itself and the office of destination.

B33 4.2.9 When the land station designated in the address as the station by which the radiotelegram is to be forwarded cannot reach the destination mobile station and has reason to believe that such mobile station is within the service area of another land station of the Administration to which it is itself subject, it may, if no additional charge is incurred thereby, forward the radiotelegram to this other land station.

B34 4.2.10 A station of the mobile service that has received a radiotelegram and has been unable to acknowledge its receipt in the usual way, must take the first favourable opportunity to give such acknowledgement.

B35 4.2.11 When the acknowledgement of receipt of a radiotelegram transmitted between a mobile station and a land station cannot be given direct, it is forwarded through another mobile or land station by service advice if the latter is able to communicate with the station that has transmitted the radiotelegram in question. In any case, no additional charge shall result.

4.3 *Long-distance radiocommunications*

B36 4.3.1 Administrations reserve the right to organize a long-distance radiocommunication service between land stations and mobile stations, with deferred acknowledgement of receipt or without any acknowledgement of receipt.

B37 4.3.2 Each Administration designates the land station or stations participating in the long-distance radio service. An indication to this effect shall appear in the *List of Coast Stations* [6].

B38 4.3.3 When there is doubt about the accuracy of any part of a radiotelegram transmitted under either of the systems mentioned in B36, the indication *doubtful reception* is entered on the copy delivered to the addressee, and the doubtful words or groups of words are underlined. If words are missing, blanks are left in the places where these words should be.

4.4 *Routine retransmission by mobile stations*

B39 4.4.1 When a land station cannot reach the mobile station for which a radiotelegram is destined, the land station may, in order to forward the radiotelegram to its destination, have recourse to the help of another mobile station provided that the latter consents. The radiotelegram is then transmitted to this other mobile station. The help of the latter is given free of charge.

B40 4.4.2 The same provision is also applicable to traffic from mobile stations to land stations, when necessary.

B41 4.4.4 The station assisting in the free retransmission in accordance with B39 and B40 must enter the service abbreviation **QSP . | |** (name or call sign of the mobile station) at the end of the preamble line of the radiotelegram.

B42 4.4.4 In order that a radiotelegram thus forwarded may be considered as having reached its destination, the station that has made use of this indirect route must have obtained the regular acknowledgement of receipt, either direct or by an indirect route, from the mobile station for which the radiotelegram was destined or from the land station to which it was to be forwarded, as the case may be.

4.5 *Period of retention of radiotelegrams at land stations*

B43 4.5.1 When it has not been possible for a land station to transmit a radiotelegram to a mobile station by the morning of the fifth day (not including the day of handing-in), the land station treats the radiotelegram as undelivered and notifies the sender accordingly.

B44 4.5.2 The sender of a radiotelegram destined for a mobile station may specify the number of days during which the land station may hold the radiotelegram. In that case, the service indication **Jx** (**x** days), specifying the number of days (ten at the most) exclusive of the day of handing-in of the radiotelegram, shall be shown before the address. When it has not been possible for a land station to transmit a radiotelegram bearing the service indication **Jx** within the prescribed period, the land station treats the radiotelegram as undelivered and informs the sender accordingly.

B45 4.5.3 (Spare)

B46 4.5.4 The periods mentioned in B43 and B44 shall be ignored if the land station is sure that the mobile station will soon come within its service area

B47 4.5.5 On the other hand, the lapse of those periods is not awaited when the land station is sure that the mobile station, being in course of a voyage, either has definitely left its service area or will not enter it.

B48 4.5.6 If there is reason to believe that no other land station of the Administration to which it is subject is or will be in touch with it, the land station cancels the radiotelegram as far as concerns the section between itself and the mobile station and informs the office of origin, which notifies the sender.

B49 4.5.7 In the contrary case, the land station forwards the radiotelegram to the land station believed to be in touch with the mobile station, provided, however, that no additional charge results therefrom.

B50 4.5.8 The land station that carries out the redirection alters the address of the radiotelegram by placing after the name of the mobile station that of the new land station charged with the transmission and adding at the end of the preamble line the service instruction **REDIRECTED FROM . | | RADIO** , which must be transmitted throughout the course of the radiotelegram.

B51 4.5.9 If, within the limits of the requisite period of retention of radiotelegrams, the land station that has redirected a radiotelegram to another land station is subsequently in a position to transmit the radiotelegram direct to the destination mobile station, it does so by inserting the service instruction **AMPLIATION** at the end of the preamble line.

B52 4.5.10 It shall then transmit to the land station to which the radiotelegram had been redirected a service advice informing the latter of the transmission of the said radiotelegram.

B53 4.5.11 When a radiotelegram cannot be transmitted to a mobile station owing to the arrival of the latter in a port near the land station, the latter station may, according to circumstances, forward the radiotelegram to the mobile station by other means of communication, at the same time informing the office of origin by service advice of the delivery.

B54 4.5.12 (Spare)

5 Advice of nondelivery

B55 5.1 When, for any reason, a radiotelegram originating in a mobile station and destined for a place on land cannot be delivered to the addressee, an advice of non-delivery is addressed to the land station or the telegraph office that received the radiotelegram.

B56 5.2 After checking the address, the land station forwards the advice, when possible, to the mobile station, if necessary by way of another land station of the same country or of a neighbouring country, as far as existing conditions or special agreements permit.

B57 5.3 When a radiotelegram received at a mobile station cannot be delivered, that station so informs the office or mobile station of origin by a service advice.

B58 5.4 In the case of a radiotelegram originating on land, this service advice is sent, whenever possible, to the land station through which the radiotelegram passed, or, if necessary, to another land station of the same country or of a neighbouring country, as far as existing conditions or special arrangements permit.

B59 5.5 In such cases the name or call sign of the station from which the radiotelegram was received is quoted.

6 Radiomaritime letters

B60 6.1 Each Administration may organize a service of radiomaritime letters between mobile stations and its land stations.

B61 6.2 Such correspondence is transmitted by radio between the mobile and the land stations.

B62 6.3 They may be forwarded on the land section:

B63 a) wholly or partly by post (ordinary or airmail);

B64 b) exceptionally by telegraph, in which case delivery is subject to the periods of delay fixed for letter telegrams.

B65 6.4 Radio retransmission of radiomaritime letters is not permitted in the mobile service.

B66 6.5 Radiomaritime letters shall be addressed only to places in the country in which the land station is situated, unless it is indicated in the *List of Coast Stations* [6] that the station concerned will accept such traffic for onward transmission by post to places in other countries.

B67 6.6 Radiomaritime letters bear the service indication **SLT** . This indication precedes the address.

B68 6.7 Except as otherwise provided in B60 to B70, radiomaritime letters may be accepted, taking into account CCITT Recommendations relating to letter telegrams , if the telegram service is used to convey radiomaritime letters.

B69 6.8 The address must enable delivery to be effected without enquiry or requests for information. Registered or abbreviated addresses are admitted when, exceptionally, radiomaritime letters are forwarded telegraphically on the land section.

B70 6.9 Radiomaritime letters rank, for radio transmission, after ordinary radiotelegrams on hand. Those that have not been transmitted within 24 hours of handing-in are sent concurrently with ordinary radiotelegrams.

7 Special services

B71 7.1 Telegrams with special services are admitted, provided that the Administrations concerned accept them.

B72 7.2 Refer to Recommendation F.1, A266 to A274 for the provisions concerning special services that may be applied for telegrams.

8 Special conditions relating to the Maritime Mobile-Satellite Service

B73 8.1 In the Maritime Mobile-Satellite Service the transmission of radiotelegrams should normally be permitted by radiotelex only.

B74 8.2 The radiotelegram service in B73 should be arranged in such a way that automatic retransmission is possible.

DIVISION C

RADIOTELEX

1 General

1.1 *Routing of calls*

C1 1.1.1 A radiotelex call should be set up via the land station that is considered most suitable in relation to the mobile station concerned.

C2 1.1.2 For radiotelex calls in the direction land station to mobile station, the caller should give the geographical position if possible and may also indicate the land station to be used. Such requests should be respected as far as is practicable.

C3 1.1.3 For radiotelex calls in the direction mobile station to land station, the mobile station shall call the land station it desires to use. The land station shall either handle the call itself or advise the mobile station to use another land station that is more suitable to the mobile station.

1.2 *Information to be supplied, as necessary, by the calling party*

C4 1.2.1 Calls to a mobile station:

a) telex number and/or answer-back code of the calling subscriber;

b) telex number of the mobile station;

c) name or call sign of the mobile station;

d) telex number and/or name of the land station to be used, or the approximate geographical position of the mobile station.

C5 1.2.2 Calls from a mobile station:

a) telex number of the mobile station;

b) the *accounting authority identification code (AAIC)* | in the single-operator or manual service (see Annex A to Recommendation D.90);

c) destination country and/or network;

d) called subscriber’s telex number and/or answer-back code.

1.3 *Call duration*

C6 1.3.1 The chargeable duration of a call will be fixed at the end of the call:

a) in the direction from mobile station by the controlling operator ;

b) in the direction to mobile stations:

— by the land station operator in manual and single-operator service;

— by the operator of the international position of the outgoing country in the semiautomatic service.

C7 1.3.2 If two land stations participate in the handling of the call, the opinion of the land station that has accepted the call from the originating mobile station shall prevail.

C8 1.3.3 When, through any fault of the service, difficulty is experienced in the course of a call, the chargeable duration shall be reduced automatically or manually to the total time during which transmission conditions were satisfactory, taking into account CCITT Recommendations (F.60 and F.61).

1.4 *Validity of requests*

C9 1.4.1 If it becomes obvious that the required mobile station cannot be reached by the land station, the caller should be informed as soon as possible in order to have the opportunity to have the call cancelled if required. In any event, the caller should be informed no later than in the morning of the second day following the day on which the call request was made.

C10 1.4.2 In an automatic service any information concerning the failure to set up a call shall be sent back to the calling subscriber. The standardized expressions and abbreviations will be used to account for this failure. The period of validity for store and forward calls in the automatic service shall be as in Recommendation F.72.

1.5 *Exchange of radiotelegrams by radiotelex*

C11 1.5.1 Stations of the Maritime Mobile Service that are equipped for radiotelex may transmit and receive radiotelegrams by means of radiotelex.

C12 1.5.2 Stations of the Maritime Mobile-Satellite Service should normally transmit and receive radiotelegrams by means of radiotelex only.

2 **Traffic from mobile stations**

2.1 *Automatic service*

C13 2.1.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

C14 2.1.2 After connection with the desired land station is established, the mobile station should select directly the appropriate telex destination code (Recommendation F.69) and the number of the subscriber of an Administration’s telex network.

2.2 *Single-operator service*

C15 2.2.1 The land station operator selects the called subscriber directly via the automatic telex network if automatic procedures (C13) are not possible.

2.3 *Semiautomatic service*

C16 2.3.1 The telex operator of the international exchange of the land station country selects the called subscriber directly if automatic procedures (C13) or single-operator procedures (C15) cannot be applied.

2.4 *Manual service*

C17 2.4.1 The land station operator applies manual procedures if automatic (C13), single-operator (C15) or semiautomatic (C16) procedures are not possible.

2.5 *Store-and-forward service*

C17A 2.5.1 The mobile station transmits the message to the land station using automatic procedures, and the land station retransmits the message over the designated land network.

C17B 2.5.2 The manual, semi-automatic and automatic procedures for store-and-forward in the terrestrial telex network, as laid down in Recommendations F.72, U.80 and U.81, should be taken into account.

2.6 *Procedures*

C18 2.6.1 The manual, semiautomatic and automatic procedures for the terrestrial telex network, as laid down in Recommendations F.60 and F.61, should be taken into account.

3 Traffic to mobile stations

3.1 *Automatic procedure (direct access by the calling subscriber to the called subscriber)*

C19 3.1.1 Whenever possible automatic procedures should be used; i.e., the calling subscriber should contact the called subscriber directly without the aid of an operator.

C20 3.1.2 The subscriber of an Administration's telex network should select the appropriate address code, including the mobile station number, and if necessary the ocean area number, to connect him through a land station with which his Administration has established routing of maritime traffic for the ocean area desired.

C21 3.1.3 If the subscriber, for some technical reason, cannot establish contact with the mobile station directly, semiautomatic (C35) or single-operator (C24) procedures should be used.

C22 3.1.4 On international telex links a destination code will be used in accordance with Recommendation F.69, unless otherwise agreed bilaterally.

C23 3.1.5 Once a call has been established (indicated by an exchange of answer-backs), the subscriber should start a new line before sending his message (Recommendation F.60, § A.2.2 refers).

3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

3.2.1 *Booking*

C24 3.2.1.1 If automatic working (C19) is not possible the subscriber selects the foreign land station in question using automatic direct selection and submits the call details to the land station operator.

C25 3.2.1.2 Where an Administration permits its subscribers to book a call directly with a land station in another country, the charges set by the land station must be levied by the calling subscriber's Administration.

C26 3.2.1.3 In addition to the information in C4, the calling subscriber must designate his national telex network.

C27 3.2.1.4 As an alternative to C25 and C26, land stations may accept direct calls from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station's country that will take responsibility for the payment of charges.

C28 3.2.1.5 The procedures described in C25 and C27 may only be applied when an appropriate bilateral agreement exists between the two Administrations concerned. If such an agreement does not exist, the land station should refuse such calls to avoid accounting difficulties.

C29 3.2.1.6 In C24 and C27 above, the ca ll to the foreign land station will be charged as an ordinary international telex call for its entire duration, regardless of whether it merely serves the purpose of booking the radiotelex call or whether the land station can extend the connection to the mobile station without having to recall the originating subscriber.

3.2.2 *Setting-up*

C30 3.2.2.1 When demand operation can not be used, the caller will be disconnected until the mobile station is available. The land station operator then recalls the caller using automatic direct selection; the land station's country being considered as the outgoing country for the call.

C31 3.2.2.2 In case C30, the land station includes in the bill:

a) the landline charge ;

b) the land station charge

C32 3.2.2.3 When demand operation has been used, the bill made out by the land station operator includes only:

— the land station charge

C33 3.2.2.4 All information regarding collection of charges for single-operator calls (see C15) should be submitted by the land station Administration on a regular basis to be determined by the Administrations involved.

C34 3.2.2.5 The methods to be used in collecting the charges are described in Recommendation D.90.

3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*

C35 3.3.1 If automatic (C19) or single-operator (C24) procedures are not possible, the telex operator of the international exchange of the outgoing country receives the booking and selects the mobile station directly. The procedures of Recommendation F.60, § 3.3 shall be applied.

3.4 *Manual procedure*

3.4.1 *Booking*

C36 3.4.1.1 If automatic (C19), single-operator (C24) or semiautomatic (C35) procedures are not possible, the subscriber should make his booking at the international telex centre of the outgoing country or network.

C37 3.4.1.2 If conditions permit, the international telex position should select the foreign land station in question directly. Otherwise the international telex position of the land station country should be selected to give the necessary assistance to obtain contact with the land station in question.

3.4.2 *Setting-up*

C38 3.4.2.1 The land station operator obtains the caller directly or with the assistance of his own international telex position, which selects the caller. Otherwise he selects his own international telex position in order to be connected to the international telex position of the outgoing country, which then selects the caller.

C39 3.4.2.2 Within 24 hours of the call's termination, the land station shall pass the following information to the international telex centre of the origin country, where it is recorded for charging and accounting purposes:

a) the calling subscriber's telex number;

b) the mobile station's call sign;

c) the chargeable duration of the call;

d) the land station charge to be collected.

3.5 *Store-and-forward*

C39A 3.5.1 The subscriber uses two-stage s election, calling the land station desired and storing the message for retransmission to the mobile station.

4 Radiomaritime telex letter

4.1 *Definition*

C40 4.1.1 **radiomaritime telex letter** : A message sent by telex direct from a mobile station to a selected land station or to a selected public telegraph office for delivery by mail or any other appropriate means.

4.2 *Operational procedures*

C41 4.2.1 A ship subscriber will select the access code allocated for the radiomaritime telex letter service, or the access code allocated for the fully automatic telex service (see Recommendation F.126) followed, if appropriate, by the telex number of the telegraph office.

C42 4.2.2 The ship operator shall supply the following information:

a) telex number of the mobile station (as provided in Recommendation F.125),

b) AAIC,

c) addressee’s name and address,

d) words ‘‘RADIOMARITIME TELEX LETTER’’.

BLANC

DIVISION D

RADIOTELEPHONE

1 General

1.1 *Language to be used*

D1 1.1.1 Where applicable and where language difficulties exist, the abbreviations and signals in Appendix 14 of the *Radio Regulations* [3] and the *Phonetic Alphabet and Figure Code* in Appendix 24 of the *Radio Regulations* should be used in radiotelephone communications between land stations and mobile stations.

1.2 *Priority*

D2 1.2.1 Apart from the general order of priority shown in A21 to A32, radiotelephone calls shall have precedence, so far as possible, over other telephone calls of the same class.

1.3 *Routing of calls*

D3 1.3.1 A radiotelephone call should be set up via the land station that is considered most suitable in relation to the mobile station concerned.

D4 1.3.2 For radiotelephone calls in the direction land station to mobile station, the caller should give the geographical position if possible and may also indicate the land station to be used. Such requests should be respected as far as is practicable.

D5 1.3.3 For radiotelephone calls in the direction mobile station to land station, the mobile station shall call the land station it desires to use. The land station shall either handle the call itself or advise the mobile station to use another land station that is more suitable to the mobile station.

1.4 *Information to be supplied by the calling party*

D6 1.4.1 Calls to a mobile station:

a) complete telephone number of the calling subscriber;

b) appropriate identification of the mobile station;

c) name of the land station to be used or the approximate geographical position of the mobile station;

d) name of the called party, if applicable. All calls to mobile stations in the maritime mobile service are treated as personal calls, with the possible exception of the Maritime Mobile-Satellite Service.

D7 1.4.2 Calls from a mobile sta tion:

a) appropriate identification of the mobile station;

b) the *accounting authority identification code (AAIC)* | in the single-operator or manual service (see Annex A to Recommendation D.90);

c) the information specified in Article 60 of the *Instructions for the International Telephone Service* [7].

1.5 *Call duration*

D8 1.5.1 The chargeable duration of a call will be fixed at the end of the call:

a) in the direction from the mobile stations by the controlling operator;

b) in the direction to mobile stations;

— by the land station operator in manual and single-operator service;

— by the operator of the international centre of the outgoing country in the semiautomatic service.

D9 1.5.2 If two land stations participate in the handling of the call, the opinion of the land station that has accepted the call from the originating mobile station shall prevail.

D10 1.5.3 When, through any fault of the service, difficulty is experienced in the course of a call, the chargeable duration shall be reduced automatically or manually to the total time during which transmission conditions were satisfactory, taking into account CCITT Recommendations.

1.6 *Validity of requests*

D11 1.6.1 If not cancelled by the caller or refused by the addressee, requests for calls from land to mobile stations:

a) in the VHF and MF bands shall remain valid until 0800 local time on the day following the day on which the request was made;

b) in the HF band shall remain valid until 0800 local time on the second day following the day on which the request was made.

D12 1.6.2 However, if it becomes obvious that the required mobile station is outside the coverage area of the land station, the caller shall be informed as soon as possible in order to have the call cancelled.

D13 1.6.3 All requests for calls from mobile stations to land shall be cancelled where the call is not immediately attended to or on completion of the successive attempts provided for by the rules of each Administration, unless there has been an express request to the contrary by the calling mobile station, which shall be able to determine the waiting period for listening in on the land station frequency with a view to making a further attempt to set up the call.

1.7 *Exchange of radiotelegrams by radiotelephony*

D14 1.7.1 Stations of the Maritime Mobile Service that are equipped for radiotelephony may transmit and receive radiotelegrams by means of radiotelephony. Stations of the Maritime Mobile-Satellite Service should normally transmit and receive radiotelegrams by means of radiotelex only.

2 **Traffic from mobile stations**

2.1 *Automatic service*

D15 2.1.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

D16 2.1.2 After connection with the desired land station is established, the mobile station should select directly the appropriate telephone country code (Recommendation E.163) and the number of the subscriber of an Administration's telephone network.

2.2 *Single-operator service*

D17 2.2.1 The land station operator selects the called subscriber directly via the automatic telephone networks if automatic working (D15) is not possible.

2.3 *Semiautomatic service*

D18 2.3.1 The telephone operator of the international exchange of the land station country selects the called subscriber directly if automatic (D15) or single-operator (D17) procedures cannot be applied.

2.4 *Manual service*

D19 2.4.1 The land station operator applies manual procedures if automatic (D15), single-operator (D17) or semiautomatic (D18) working is not possible.

2.5 *Store-and-forward service*

D19A 2.5.1 The mobile station transmits the message to the land station using automatic procedures, and the land station retransmits the message over the designated land network.

D19B 2.5.2 The manual, semi-automatic and automatic procedures for store-and-forward in the terrestrial telex network, as laid down in Recommendations F.72, U.80 and U.81, should be taken into account.

2.6 *Procedures*

D20 2.6.1 The automatic, semiautomatic and manual procedures for the terrestrial telephone network, as laid down in Recommendation E.141 and the *Instructions for the International Telephone Service* [7] should be taken into account.

3 Traffic to mobile stations

3.1. *Automatic procedure (direct access by the calling subscriber to the called subscriber)*

D21 3.1.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

D22 3.1.2 The subscriber of an Administration's telephone network should select the appropriate address code, including the mobile station number and if necessary the ocean area number, to connect him through a land station with which his Administration has established routing of maritime traffic for the ocean area desired.

D23 3.1.3 If the subscriber, for some technical reason, cannot establish contact with the mobile station directly, single-operator (D24) procedures should be used.

3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

3.2.1 *Booking*

D24 3.2.1.1 If automatic procedures cannot be applied, the subscriber selects the foreign land station in question using automatic direct selection. The land station operator records the call details.

D25 3.2.1.2 Where an Administration permits its subscribers to book a call directly with a land station in another country, the charges set by the land station must be levied by the calling subscriber's Administration.

D26 3.2.1.3 In addition to the information in D6, the calling subscriber must designate his country and national telephone number.

D27 3.2.1.4 As an alternative to D24 and D25, land stations may accept direct calls from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station's country that will take responsibility for the payment of charges.

D28 3.2.1.5 The procedures described in D25 and D27 may only be applied when an appropriate bilateral agreement exists between the two Administrations concerned. If such an agreement does not exist, the land station should refuse such calls to avoid accounting difficulties.

D29 3.2.1.6 In D24 and D27 above, the call to the foreign land station will be charged as an ordinary international telephone call for its entire duration, regardless of whether it merely serves the purpose of booking the radiotelephone call or whether the land station can extend the connection to the mobile station without having to recall the originating subscriber.

3.2.2 *Setting-up*

D30 3.2.2.1 When demand operation cannot be used, the caller will be disconnected until the mobile station is available. The land station operator then recalls the caller using automatic direct selection, the land station country being considered as the outgoing country for the call.

D31 3.2.2.2 In case D30, the land station includes in the bill:

a) the landline charge;

b) the land station charge.

D32 3.2.2.3 When demand operation has been used, the bill made out by the land station operator includes only:

— the land station charge.

D33 3.2.2.4 All information regarding collection of charges for single-operator calls (see D17) should be submitted by the land station Administration on a regular basis to be determined by the Administrations involved.

D34 3.2.2.5 The methods to be used in collecting the charges are described in Recommendation D.90.

3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*

D35 3.3.1 If automatic (D21) or single-operator (D24) procedures are not possible, the telephone operator of the international exchange of the outgoing country receives the booking and selects the mobile station directly. Normal international semiautomatic telephone procedures shall be applied.

3.4 *Manual procedure*

3.4.1 *Booking*

D36 3.4.1.1 If automatic (D21), single-operator (D24) or semiautomatic (D35) procedures cannot be applied, the subscriber should make his booking at the international centre of the outgoing country.

D37 3.4.1.2 If conditions permit, the international position should select the foreign land station in question directly. Otherwise the international position of the land station country should be selected to give the necessary assistance to obtain contact with the land station in question.

3.4.2 *Setting-up*

D38 3.4.2.1 The land station operator obtains the caller directly or with the assistance of his own international telephone centre, which selects the caller. Otherwise he selects his own international telephone centre in order to be connected to the international telephone centre of the outgoing country, which then selects the caller.

D39 3.4.2.2 After the call's termination, the land station shall pass the following information to the international telephone centre of the country of origin, where it is recorded for charging and accounting purposes:

a) the calling subscriber's telephone number;

b) the mobile station's name and/or call sign;

c) the chargeable duration of the call;

d) the land station charge to be collected.

D40 3.4.2.3 Otherwise all information regarding collection of charges should be submitted to the caller's Administration on a regular basis to be determined by the Administrations involved.

3.5 *Store-and-forward*

D40A 3.5.1 The station uses two-stage selection, calling the land station desired and storing the message for retransmission to the mobile station.

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DIVISION E

RADIOTELEXOGRAM

1 General

1.1 *Definition*

E1 1.1.1 A radiotelexogram is a message sent by telex direct from a subscriber to a foreign land station for transmission to a mobile station or a message sent from a mobile station to a land station for transmission by telex direct to a foreign subscriber (see Note in E.5).

1.2 *Provision of service*

E2 1.2.1 Operating, charging and accounting procedures should be subject to bilateral agreement between the Administrations concerned. If such an agreement does not exist, the land station should refuse such radiotelexograms in the shore-to-ship direction.

E3 1.2.2 Alternatively, land stations may accept radiotelexograms from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station country that will take responsibility for the payment of charges.

1.3 *Validity of requests*

E4 1.3.1 If it becomes obvious that the required mobile station is outside the coverage area of the land station, the caller shall be informed as soon as possible in order to have the radiotelexogram cancelled.

2 Operational procedures

E5 2.1 The transmission of radiotelexograms should be in accordance with Divisions B and C as appropriate except as specified below or where varied through bilateral agreement.

Note — A radiotelexogram is different from a radiotelex call. In particular, a radiotelexogram is normally transmitted between the mobile station and the land station as a radiotelegram by Morse telegraphy or by radiotelephony

E6 2.2 *Information to be supplied to the land station, as necessary, by the calling party*

E7 2.2.1 *Radiotelexogram to a mobile station*

a) telex number and/or answerback code of the calling subscriber;

b) the national telex network to which the subscriber belongs;

c) the date and time of origin;

d) the word RADIOTELEXOGRAM;

e) name or designation of the addressee with supplementary particulars if necessary;

f) the name of the mobile station followed, when necessary, by its call sign or where this is not known, the particulars of the passage made by the mobile station;

g) any specific delivery instructions.

E8 2.2.2 *Radiotelexogram from a mobile station*

a) name and/or call sign of the mobile station;

b) identification of the accounting authority;

c) the date and time of origin;

d) the word RADIOTELEXOGRAM;

e) destination country and/or network;

f) called subscriber’s telex number and answerback code.

References

[1] *Final Acts of the World Administrative Maritime Radio Conference* , ITU, Geneva, 1974.

[2] *Final Acts of the World Administrative Radio Conference (WARC)* , ITU, Geneva, 1979.

[3] *Radio Regulations* , ITU, Geneva, 1982.

[4] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations* , ITU, Geneva, 1973.

[5] *List of ship stations* , ITU, Geneva, 1987.

[6] *List of coast stations* , ITU, Geneva, 1986.

[7] *Instructions for the international telephone service , (1st October 1985)* , ITU, Geneva, 1985.

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TEXTE

Disk 44 NF01/017 (OPM = NF02)

NF02/005 (OPM = NF03)

NF02/015 (OPM = NF03)

NF03/010 (OPM = NF04)

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SHIP STATION IDENTIFICATION FOR VHF/UHF AND

MARITIME MOBILE-SATELLITE SERVICES

1 Introduction

1.1 The purpose of this Recommendation is to specify a method by which an internationally unique ship station identification may be assigned to all the ships participating in the Maritime Mobile Services.

Recommendation E.210

1.2 *Terminology*

The following terms are used in this Recommendation:

1.2.1 **Maritime Mobile (Terrestrial) Service**

F: service mobile maritime (de Terre)

S: servicio m´ovil mar´itimo (terrenal)

Conventional Maritime Mobile Services such as the HF Maritime Service, the MF Maritime Service and the VHF Maritime Service (as defined in the *Radio Regulations* [1]).

Maritime Mobile-Satellite Service

F: service mobile maritime par satellite

S: servicio m´ovil mar´itimo por sat´elite

As defined in the *Radio Regulations* [1].

1.2.2 **coast station**

F: station c | ti`ere

S: estaci´on costera

A land station in the Maritime Mobile Service.

This Recommendation is also included in the F and Q Series as Recommendations F.120 and Q.11 *ter* | espectively.

coast earth station

F: station terrienne c | ti`ere

S: estaci´on terrena costera

An earth station in the Fixed-Satellite Service or, in some cases, in the Maritime Mobile-Satellite Service, located at a specified fixed point on land to provide a feeder link for the Maritime Mobile-Satellite Service.

Note — In this Recommendation the term coast station is also intended to include, for simplicity, coast earth station.

1.2.3 **ship station identity**

F: identit´e de la station de navire

S: identidad de estaci´on de barco

The ship's identification X_1, X_2. | | $X_k$identifying the ship uniquely. The ship station identity may be transmitted on the radio path.

ship station number

F: num´ero de station de navire

S: n´umero de estaci´on de barco

The number that identifies a ship for access from a public network and forms part of the international number to be dialled or keyed by a public network subscriber.

Note 1 — The formats of the ship station number are defined in other Series E and F Recommendations:

— Recommendation E.215 for telephone and ISDN numbering in the Maritime Mobile-Satellite Service;

— Recommendation F.125 for telex numbering in the Maritime Mobile-Satellite Service;

— numbering plans for maritime mobile (terrestrial) systems for further study.

Note 2 — In this Recommendation the term ship station is intended to also include, for simplicity, ship earth station.

1.2.4 **coast station identity**

F: identit´e de la station c | ti`ere

S: identidad de estaci´on costera

The coast station identification X_1, X_2. | | $X_k$transmitted on the radio path.

Note — In this Recommendation the term coast station identity is intended to also include, for simplicity, coast earth station identity.

1.3 *Basic considerations*

The considerations that form the basis of this ship station identification system are:

a) that every ship shall have a unique ship station identity;

b) that the same unique ship station identity should be used in both VHF/UHF and Maritime Mobile-Satellite Systems;

c) that the same unique ship station identity should be used for all telecommunication services;

d) that it is desirable that the ship station number and the ship station identity are related in a simple and unambiguous manner;

e) that the capacity of the ship station identification system shall be sufficient to admit all ships wanting, or required, to participate in the various Maritime Mobile Services at present and in the foreseeable future;

f) that the ship identity system shall be a numerical system, and should use the full range of decimal digits;

g) that two or three of the digits, $X_1X_2X_3$, of the ship station identity shall indicate the ship's nationality.

2 Ship station identification

Ship station identity is established as nine digits.

$$X_1X_2X_3X_4X_5X_6X_7X_8X_9$$

The initial three digits define the nationality of the ship as indicated in the following sections.

Since the whole or a part of the ship station identity is used in the ship station number, certain restrictions may be imposed on the allocation of ship station identities for the Maritime Mobile-Satellite Service. Such restrictions are identified in Recommendations E.215 and F.125. The use of the ship station identity in maritime mobile (terrestrial) systems is for further study.

3 Assignment of ship station identification

3.1 *Assignment of blocks of numbers*

Blocks of numbers should be assigned to countries so that individual Administrations may systematically assign ship station identities within those blocks.

3.2 *Identification of ship's geographical region*

The first digit of each ship station identity is intended to identify the geographical region to which the nationality (registry) of the ship relates. Only the digits 2 through 7 are used for this purpose to identify easily the world's regions as follows:

2 — Europe

3 — North America

4 — Asia (except Southeast Asia)

5 — Oceania and Southeast Asia

6 — Africa

7 — South America.

Arrangements may therefore be made to systematically assign a ship station identity to each ship as soon as national blocks are allocated. The digits zero (0) and one (1) are allocated for other purposes as indicated in Table 1/E.210.

The digits eight (8) and nine (9) are not used for identification of geographical regions. However, for maritime VHF/UHF systems, the digits 8 and 9 may be used to expand network access as shown in § 8.2. The allocation of the first digit of the ship station identity is summarized in Table 1/E.210.

3.3 *Identification of ship's nationality*

Since blocks of the ship station identities would be systematically assigned by country, a ship's nationality can be determined by analysing the first three digits of its ship station identity.

The digits to be analysed are called Maritime Identification Digits (MID). Examples of the maritime identification digits for ships are given in Table 2/E.210.

4 Assignment of maritime identification digits

Each MID represents a discrete capacity assigned according to a plan that relates assigned capacity to ship population. A plan has been developed by the World Administrative Radio Conference for the Mobile Services (MOB-83) [2] and is contained in Appendix 43 to the Radio Regulations. The Radio Regulations make provision for the allocation of additional MID for a specific country when necessary.

H.T. [T1.210]

TABLE 1/E.210

Allocations of first digit (X↓1) in the ship station identity

{ First digit (*X* 1) of ship station identity }	Use
0 Group call/coast station identiy }	{
1	Reserved for future expansion
2	Europe
3	North America
4	Asia (except South East Asia)
5	Oceania and South East Asia
6	Africa
7	South America
8	See § 8.2
9	See § 8.2

Tableau 1/E.210 [T1.210], p.1

H.T. [T2.210]

TABLE 2/E.210

Country Maritime identifications Digits (MID) }	{ Ship station identity	
P from 231 000 000 to 231 999 999 }	231	{
Q from 233 000 000 to 234 999 999 }	233, 234	{
R from 236 000 000 to 238 999 999 }	236, 237, 238	{
S from 240 000 000 to 249 999 999 }	240 to 249	{

Tableau 2/E.210 [T2.210], p.

5 Group calls

$X_1 = 0$, $X_2 = 1$ to 9 and $X_1 = 0$, $X_2 = 0$, $X_3 = 0$, $X_4 = 0$ to 9 are assigned to indicate a group call to a group of ships having a community of interest. Such calls may be barred in the public switched network and/or at the coast stations. Control of group calls may also be achieved by the use of special group service access to the coast stations. The group call numbering scheme used in the INMARSAT system is given in Annex B to Recommendation E.215.

6 Coast station identity

$X_1 = 0$, $X_2 = 0$, $X_3 = 1$ to 9 are assigned to indicate coast station identities in maritime mobile (terrestrial) systems.

7 Future expansion of the ship station identification system

X_1 = 1 as in the format 1 XXXXXXXX has been reserved for future expansion.

Note — X_1 = 1 is used in the INMARSAT standard A system for identification of ship earth stations (see Recommendations E.215 and F.125).

8 Considerations related to ship station identity assignments

8.1 The ship station identity, or part of it, will be included in the ship station number. The way in which this is done for *INMARSAT mobile numbers* is described in Recommendations E.215 and F.125.

In order to distinguish between *INMARSAT mobile numbers* consisting of 9 and 12 digits (if they coexist), the digit X_7 of the *ship station identity* must take the fixed value 0. This constraint is *not valid* when only 12 digit numbers exist in the future (see Recommendation E.215).

The relationship between the nine-digit ship station identity and the part of it which is used in the ship station number is illustrated in Table 3/E.210. If the part of the identity used in the number is shorter than nine digits, then the corresponding identity is obtained by adding trailing zeros to form nine-digit ship station identities. This principle must be observed when allocating ship station identities for ships in the Maritime Mobile-Satellite Service (see Recommendations E.215 and F.125).

H.T. [T3.210]

TABLE 3/E.210

{ Part of ship station identity used in ship station number } Digits on the automatic network } Digits in the ship station identity }	{ Ship stations identity	{	
MID X 4X 5X 6	6	MID X 4X 5X 6 000	9
MID X 4X 5X 6X 7	7	MID X 4X 5X 6X 7 00	9
MID X 4X 5X 6X 7X 8	8	MID X 4X 5X 6X 7X 8 0	9
MID X 4X 5X 6X 7X 8X 9	9	MID X 4X 5X 6X 7X 8X 9	9

Table 3/E.210 [T3.210], p.

8.2 Numbering plans for the maritime mobile (terrestrial) services are for further study. The principle of § 8.1 is likely to apply for these services also.

For maritime mobile (terrestrial) services, additional ship station numbering techniques may be used to expand network access to more ship stations on a regional and national basis as follows:

Ship station number | fIShip station identity

(or part thereof)

| Y $X_4X_5X_6X_7$ $M_yI_yD_y$ $X_4X_5X_6X_7$ 00

| | $_4X_5X_6X_7X_8$ $M_nI_nD_n$ $X_4X_5X_6X_7X_8$ 0

In this arrangement, the digits 8Y may be 80 to 89 to define as many as ten foreign MIDs (shown as $M_yI_yD_y$) to permit automatic calling of ships of particular nationalities. The coast station would be required to translate a given 8Y to a particular foreign MID. The digit 9 may be used to indicate the maritime identification digits for ships of the same nationality as the network and the coast station. The coast station would be required to translate 9 to one particular national MID (shown as $M_nI_nD_n$).

Reference

[1] *Radio Regulations* , ITU, Geneva, 1982.

[2] *Final Acts of the World Administrative Radio Conference for the Mobile Services* | (MOB-83), ITU, Geneva, 1983.

Recommendation E.211

SELECTION PROCEDURES FOR VHF/UHF MARITIME MOBILE SERVICES

1 General

The purpose of this Recommendation is to define selection procedures for VHF/UHF maritime mobile services. The number plan used in these selection procedures is not based upon the use of a T digit as defined in Recommendation E.215. The use of a T digit in VHF/UHF maritime mobile services is for further study.

VHF/UHF maritime mobile services are more localized than maritime mobile-satellite services. National procedures will be adopted to provide access to the VHF/UHF maritime mobile services.

2 Procedures for shore-to-ship calls

Individual Administrations will wish to automate their maritime services in their own timescales and to suit their own service requirements and network limitations. However, any scheme adopted by an Administration should be compatible with other schemes and should not inhibit progression towards a worldwide maritime service. In view of the restrictions imposed by national networks on shore originated calls, three levels of operation have been identified to ensure that future evolution of the service can take place.

2.1 *Level 1: Manual or single-operator service operation*

2.1.1 Some Administrations will operate the VHF/UHF service on a manual or single-operator basis (a single-operator service is one in which the coast station operator in one country corresponds with subscribers of another country or vice versa).

2.1.2 It will be necessary to ensure that the facilities are compatible with essential functions, e.g., distress, in any automatic scheme. Additional equipment could be required to cater for new ship calling arrangements and use of a worldwide numbering scheme

2.2 *Level 2: Minimum automation*

2.2.1 The caller controls access to the relevant coast station and forwards the number of the required ship, i.e. there is no intelligent system in the network able to indicate the location of the ship customer is required to identify the location of the ship.

2.2.2 The level of automation requires a minimum of equipment, the required functions mainly consisting of interfacing with the network, call control, signalling over the radio channels and operational control of the radio channels. There would be a requirement to permit coexistence of the manual service and the automatic service.

2.2.3 An example of such a numbering sequence is given below. Access to coast stations is provided by dedicated number combinations taken from the national numbering plan.

Pi International prefix

Pi I_1 I_2 1 or 2 digit country code

PiI_1 I_2N_1 N_2 Code to identify VHF/UHF service

PiI_1 I_2N_1 N_2S_1 S_2 Code to identify coast station

PiI_1 I_2N_1 N_2S_1 S_2MIDXXX Ship station number.

The number of digits in the code $N_1N_2S_1S_2$ will vary from one country to another, but the maximum international significant number length of 12 digits must be taken into account. In the example given, a subscriber in one country is calling a ship off the coast of another country. If the ship was off the coast of the subscriber's own country, the national prefix would be dialled instead of the international prefix and country code.

2.3 *Level 3: Automatic national ship location*

2.3.1 The caller controls the access to a particular country (or part of a country or a group of countries) and dials the number of the required ship i.e. an intelligent system is contained in the network so that it can indicate the location of the ship. The network is then responsible for routing the call on the basis of a known ship's location. All ships participating within the relevant area must report their location to a coast station, preferably on an automatic basis.

2.3.2 Equipment additional to level 2 of operation would be necessary, particularly in relation to the network's responsibility for locating the ship.

2.3.3 A numbering sequence suitable for this level of operation is:

Pi International prefix

Pi I_1 I_2 I_3 1, 2 or 3 digit country code

PiI_1 I_2 $I_3$$N_1$ N_2 N_3 Code(s) to identify VHF/UHF service

PiI_1 I_2 $I_3$$N_1$ N_2 N_3MIDXXX Ship station number.

The code(s) $N_1N_2N_3$will vary in length from one country to another. The example given concerns a subscriber in one country calling a ship off the coast of another country. If the ship was off the coast of the subscriber's own country, the national prefix would be dialled instead of the international prefix and country code.

3 Implementation of automatic schemes in national networks — Shore-originated calls

There are variations of the numbering schemes given in §§ 2.2 and 2.3. Some examples of these variations are given below.

3.1 *Two-stage selection*

3.1.1 Some countries may find it necessary to use a two-stage selection technique. A subscriber would dial a coast station or maritime centre and would be offered a second stage of dialling to facilitate the insertion of the ship station number. Numbering sequences for provision of access to the coast station or maritime centre would be the same as for an ordinary telephone call in that country. The second stage of dialling could be associated with multi-frequency push button equipment already available or specifically provided for subscribers requiring maritime service calls.

3.1.2 If the first stage of dialling is used to provide access to a particular coast station, the scheme would be associated with level 2 of operation. If the first stage of dialling is used to provide access to a maritime centre that is able to locate the ship, then levels 2 or 3 of operation would be appropriate.

3.2 *Digit insertion [(1 + 6) arrangement]*

3.2.1 When ship station numbers become seven digits in length (stage 2 of the numbering plan), some countries will be unable to transmit the full seven digits through their national networks. As the first digit of an MID (Maritime Identification Digits) indicates the zone (continent) in which a country is located, a technique may be adopted on a zonal (continental) basis in which the first digit of the MID is not dialled by the subscriber. The digit would then be inserted at the coast station (and/or maritime centre), on the assumption that the MID is allocated to a country in the same zone as the coast station (and/or maritime centre).

3.2.2 Access to ships registered in countries outside the zone in which the coast station is located would be given on a manual basis by countries operating the 1 + 6 system.

3.2.3 The digit insertion technique can be associated with levels 2 and 3 of operation.

3.3 *National numbering and conversion arrangement*

3.3.1 Some countries may find it necessary temporarily to allocate ship’s numbers compatible with their national numbering plans. An example of such a technique is given below.

3.3.2 When a ship enters the service area of a VHF/UHF coast station, the ship station's identity would be forwarded by the coast station to its parent Maritime Centre. The Maritime Centre would then assign, temporarily, a national telephone number which would correspond to the ship station identity of the ship. This pair of numbers would be stored at the Maritime Centre and the coast station.

3.3.3 A shore-based subscriber calling this ship would access the Maritime Centre and use the ship station number to obtain the corresponding temporary national telephone number. Once this is available, the call could be completed automatically from the Maritime Centre. Alternatively, the call could be completed by the caller either on a manual, semiautomatic or automatic basis as appropriate.

3.3.4 The temporary national telephone number would be used for routing the call to the serving VHF/UHF coast station. At that point the corresponding ship station identity, which would be stored at the coast station, would be sent over the radio path to extend the connection to the ship.

3.4 *VHF/UHF system using 87S*

This scheme can be used in national networks where the subscriber does not need to know the location of the ship. The national subscriber would dial the international prefix of the country, the maritime international code (87), a digit to identify the VHF/UHF service and the ship station number (which in this case is the same as the ship station identity). This method can be used by the subscribers belonging to a national network to reach ships which are in the coverage area of the coast stations of that national network. As long as no internationally coordinated location registration of ships is implemented, a subscriber in another country would follow the procedure described in § 2.3.

4 Procedures for ship-to-shore calls

Ship-originated calls are less restricted than shore-originated call by national network limitations and no levels of operation are required. The prefixes defined in Annex A to Recommendation E.216 will be used. Table A-1/E.216 is applicable to both the Maritime Mobile-Satellite Service and Maritime Mobile VHF/UHF Service. Application of the prefix scheme will be similar to the satellite service as shown in Recommendation E.216.

To standardize dialling procedures for VHF/UHF ship-originated calls, international dialling procedures will be adopted and automatic coast stations throughout the world will act upon such numbering sequences. To allow for ships that rarely leave the coast of a particular country, another technique has been identified whereby national dialling procedures can also be used. Whether or not to adopt this technique would be decided by each Administration.

4.1 *Calling a terrestrial subscriber*

4.1.1 A shipboard subscriber will dial the prefix 00 followed by the required international number, whether or not the coast station is located in the required subscriber's country. Hence, the numbering sequence will be of the form:

00 Prefix for automatic call

$00\, I_1\, I_2\, I_3$ 1, 2 or 3 digit country code

$00I_1\, I_2\, I_3N_1\text{-}N_n$ National (significant) number.

4.1.2 Where national procedures are used, a shipboard subscriber will dial the prefix 0 followed by the required number belonging to the country of the coast station through which the call is being connected. Hence, the numbering sequence would be of the form:

0 Prefix for automatic call of the coast station country

$0\, N_1\text{-}N_n$ National (significant) number.

4.2 *Calling an operator*

4.2.1 A shipboard subscriber will dial an operator prefix, the second digit identifying the type of operator required.

4.2.2 The table below illustrates the principle involved:

| refix	Optional	Type of operator
Digit 1	*Digit 2*	Digits
|	|	$I_1\ I_2\ I_3$ International outgoing operator
|	|	$I_1\ I_2\ I_3$ International information service
|	|	National operator
|	|	National information service

The use of the optional digits is the same as described in Recommendation E.216.

4.2.3 Each Administration may decide which operators to provide, where they are to be located and how the call would be routed. If a request is received from a ship for a type of operator that the Administration does not provide, then the call will be routed to another operator convenient for that Administration.

5 Procedures for ship-to-ship calls (via coast station)

5.1 If the two ships are not off the coast of the same country, the shipboard subscriber will dial the prefix 00 and the appropriate procedure outlined in §§ 2.2 and 3.3 will be followed.

5.2 If the ships are off the coast of the same country, then the coast station would act upon the above procedure, but the national procedure of dialling the prefix 0 followed by the national number of the ship could be adopted.

6 Future evolution

The development of these selection procedures, in order to accommodate the ability of the ISDN/PSTN to support 15 digits (Recommendations E.164 and E.165), and the possible use of a T digit as defined in Recommendation E.215, is for further study.

Recommendation E.212

IDENTIFICATION PLAN FOR LAND MOBILE STATIONS

1 Introduction

The purpose of this Recommendation is to define a future international identification plan for land mobile stations in internationally harmonized public land mobile networks (PLMNs) , and to establish the principles for allocation of international mobile station identities (IMSI) to stations in such networks.

Note — The term ‘‘mobile station’’, as used in this Recommendation, includes both card operated mobile stations and mobile stations which are not card operated. In a card operated station, the IMSI may be contained in the card. In stations which are not card operated, the IMSI is contained in the physical mobile station equipment.

In order to enable land mobile stations to roam among public land mobile networks located in different countries, an international identification plan is required for unique international identification of such stations. It is desirable that the allocation of international mobile station identities should be made independently of the numbering plans used for accessing mobile stations from the different public networks. This will enable Administrations to develop their own national numbering plans for land mobile stations for different services without the need for coordinating them with other countries.

Note — The word ‘‘country’’ in this Recommendation is also used with the meaning of geographical area.

2 Design considerations

The design considerations that form the basis for the international identification plan for land mobile stations are as follows:

2.1 Public land mobile communication services may be provided internationally.

2.2 There could be a number of public land mobile networks (PLMNs) in a country.

2.3 When a number of PLMNs exist in one country, it should not be mandatory to integrate the identification plans of the various networks.

2.4 The identification plan shall permit the identification of the country as well as the PLMN in which the mobile station is registered.

2.5 The number of digits used to identify a PLMN within a country and a specific mobile station of that PLMN is a national matter; however, see § 4.2.2.

2.6 The identification plan should provide for substantial spare capacity to accommodate future requirements.

2.7 The identification plan need not be directly related to the numbering plans in use for different services.

2.8 The identification plan should, if necessary, enable the international mobile station identity to be used for:

a) determination of the PLMN in which a foreign land mobile station is registered;

b) mobile station identification when information about a specific land mobile station is to be exchanged between PLMNs;

c) mobile station identification on the radio control path for registering a mobile station in a foreign PLMN ;

d) mobile station identification for all signalling on the radio control path;

e) mobile station identification for charging and billing of foreign land mobile stations

f) subscription management, e.g., for retrieving, providing, changing and updating subscription data for a specific mobile station.

3 Definitions

The following terms are related to this Recommendation:

3.1 **mobile country code (MCC)**

The part of the mobile station identification uniquely identifying the country of domicile of the mobile station.

3.2 **mobile network code (MNC)**

A digit or a combination of digits in the national part of the mobile station identification uniquely identifying the home PLMN of the mobile station.

3.3 **mobile station identification number (MSIN)**

The part of the mobile station identification following the mobile network code uniquely identifying the mobile station within a PLMN.

3.4 national mobile station identity (NMSI)

The mobile station identification uniquely identifying the mobile station nationally.

The NMSI consists of the MNC followed by the MSIN.

3.5 **international mobile station identity (IMSI)**

The mobile station identification uniquely identifying the mobile station internationally.

The IMSI consists of the MCC followed by the NMSI.

3.6 A comprehensive list of terms related to land mobile systems is given in Recommendation Q.70.

4 Identification plan principles

4.1 *Structure of the mobile station identity*

According to the definitions given in § 3, the international mobile station identity is structured as given in Figure 1/E.212.

Figure 1/E.212, p.

4.2 *Identity allocation principles*

4.2.1 Only numerical characters (0-9) shall be used.

4.2.2 Since the international mobile station identity is not used for dialling and routing purposes through the public switched telephone network (PSTN), public switched data networks (PDNs), integrated services digital network (ISDN), etc., its length will not be influenced by any numbering constraints of these networks. However, Administrations should endeavour to keep the International Mobile Station Identity as short as possible; it shall under no circumstances exceed 15 digits.

4.2.3 The mobile country code (MCC) consists of 3 digits.

The allocation of MCCs is to be administered by the CCITT and is given in Annex A. Further MCCs may be allocated, if required. The first digits 0, 1, 8 and 9 are reserved for future use.

4.2.4 The national mobile station identity is to be assigned by each Administration.

4.2.5 The allocation of mobile network codes should be such that not more than 6 digits of the international mobile station identity have to be analysed in a foreign PLMN for information transfer.

4.2.6 Only one international mobile station identity shall be assigned to each mobile station independent of the number and type of services which terminate in the mobile station.

ANNEX A

(to Recommendation E.212)

List of mobile country or geographical area codes

Note — The countries or geographical areas shown in this annex include those that already have code assignments in the case of other public telecommunication networks.

Zone 2

Code	*Country or Geographical Area*
202	Greece
204	Netherlands (Kingdom of the)
206	Belgium
208	France
212	Monaco
214	Spain
216	Hungarian People’s Republic
218	German Democratic Republic
220	Yugoslavia (Socialist Federal Republic of)
222	Italy
226	Romania (Socialist Republic of)
228	Switzerland (Confederation of)
230	Czechoslovak Socialist Republic
232	Austria
234	United Kingdom of Great Britain and Northern Ireland
235	United Kingdom of Great Britain and Northern Ireland
238	Denmark
240	Sweden
242	Norway
244	Finland
250	Union of Soviet Socialist Republics
260	Poland (People’s Republic of)
262	Germany (Federal Republic of)
266	Gibraltar
268	Portugal

270	Luxembourg
272	Ireland
274	Iceland
276	Albania (Socialist People’s Republic of)
278	Malta (Republic of)
280	Cyprus (Republic of)
284	Bulgaria (People’s Republic of)
286	Turkey
288	Faroe Islands
290	Greenland
292	San Marino (Republic of)

Zone 2, Spare Codes: 64

Zone 3

Code	*Country or Geographical Area*
302	Canada
308	St. Pierre and Miquelon (French Dept. of)
310	United States of America
311	United States of America
312	United States of America
313	United States of America
314	United States of America
315	United States of America
316	United States of America
330	Puerto Rico
332	Virgin Islands (USA)
334	Mexico
338	Jamaica
340	French Antilles
342	Barbados
344	Antigua and Barbuda
346	Cayman Islands
348	British Virgin Islands
350	Bermuda
352	Grenada
354	Montserrat
356	St. Kitts and Nevis
358	St. Lucia
360	St. Vincent and the Grenadines
362	Netherlands Antilles
364	Bahamas (Commonwealth of the)
366	Dominica (Commonwealth of the)
368	Cuba
370	Dominican Republic
372	Haiti (Republic of)

374	Trinidad and Tobago
376	Turks and Caicos Islands

Zone 3, Spare Codes: 68

Zone 4

Code	*Country or Geographical Area*
404	India (Republic of)
410	Pakistan (Islamic Republic of)
412	Afghanistan (Democratic Republic of)
413	Sri Lanka (Democratic Socialist Republic of)
414	Burma (Socialist Republic of the Union of)
415	Lebanon
416	Jordan (Hashemite Kingdom of)
417	Syrian Arab Republic
418	Iraq (Republic of)
419	Kuwait (State of)
420	Saudi Arabia (Kingdom of)
421	Yemen Arab Republic
422	Oman (Sultanate of)

Zone 4 *(cont.)*

Code	*Country or Geographical Area*
423	Yemen (People's Democratic Republic of)
424	United Arab Emirates
425	Israel (State of)
426	Bahrain (State of)
427	Qatar (State of)
428	Mongolian People's Republic
429	Nepal
430	United Arab Emirates (Abu Dhabi)
431	United Arab Emirates (Dubai)
432	Iran (Islamic Republic of)
440	Japan
441	Japan
450	Korea (Republic of)
452	Viet Nam (Socialist Republic of)
454	Hong-Kong
455	Macao
456	Democratic Kampuchea
457	Lao People's Democratic Republic
460	China (People's Republic of)
467	Democratic People's Republic of Korea
470	Bangladesh (People's Republic of)
472	Maldives (Republic of)

Zone 4, Spare Codes: 65

Zone 5

Code	*Country or Geographical Area*
502	Malaysia
505	Australia

510	Indonesia (Republic of)
515	Philippines (Republic of the)
520	Thailand
525	Singapore (Republic of)
528	Brunei Darussalam
530	New Zealand
535	Guam
536	Nauru (Republic of)
537	Papua New Guinea
539	Tonga (Kingdom of)
540	Solomon Islands
541	Vanuatu
542	Fiji
543	Wallis and Futuna Islands
544	American Samoa
545	Kiribati (Republic of)
546	New Caledonia and Dependencies
547	French Polynesia
548	Cook Islands
549	Western Samoa

Zone 5, Spare Codes: 78

Zone 6

Code	*Country or Geographical Area*
602	Egypt (Arab Republic of)
603	Algeria (People’s Democratic Republic of)
604	Morocco (Kingdom of)
605	Tunisia
606	Libya (Socialist People’s Libyan Arab Jamahiriya)
607	Gambia (Republic of the)
608	Senegal (Republic of)
609	Mauritania (Islamic Republic of)
610	Mali (Republic of)
611	Guinea (Republic of)
612	C **|** te d’Ivoire (Republic of)
613	Burkina Faso
614	Niger (Republic of the)
615	Togolese Republic
616	Benin (People’s Republic of)
617	Mauritius
618	Liberia (Republic of)
619	Sierra Leone
620	Ghana
621	Nigeria (Federal Republic of)
622	Chad (Republic of the)
623	Central African Republic
624	Cameroon (Republic of)
625	Cape Verde (Republic of)
626	Sao Tome and Principe (Democratic Republic of)
627	Equatorial Guinea (Republic of)
628	Gabonese Republic
629	Congo (People’s Republic of the)
630	Zaire (Republic of)
631	Angola (People’s Republic of)

632 Guinea-Bissau (Republic of)

633 Seychelles (Republic of)

634 Sudan (Republic of the)

635 Rwandese Republic

636 Ethiopia

637 Somali Democratic Republic

638 Djibouti (Republic of)

639 Kenya (Republic of)

640 Tanzania (United Republic of)

641 Uganda (Republic of)

642 Burundi (Republic of)

643 Mozambique (People’s Republic of)

645 Zambia (Republic of)

646 Madagascar (Democratic Republic of)

647 Reunion (French Department of)

648 Zimbabwe (Republic of)

649 Namibia

650 Malawi

651 Lesotho (Kingdom of)

652 Botswana (Republic of)

653 Swaziland (Kingdom of)

654 Comoros (Islamic Federal Republic of the)

655 South Africa (Republic of)

Zone 6, Spare Codes: 47

Zone 7

Code	*Country or Geographical Area*
702	Belize
704	Guatemala (Republic of)
706	El Salvador (Republic of)
708	Honduras (Republic of)
710	Nicaragua
712	Costa Rica
714	Panama (Republic of)
716	Peru
722	Argentine Republic
724	Brazil (Federative Republic of)
730	Chile
732	Colombia (Republic of)
734	Venezuela (Republic of)
736	Bolivia (Republic of)
738	Guyana
740	Ecuador
742	Guiana (French Department of)
744	Paraguay (Republic of)
746	Suriname (Republic of)
748	Uruguay (Eastern Republic of)

Zone 7, Spare Codes: 80

Recommendation E.213

TELEPHONE AND ISDN NUMBERING PLAN FOR LAND MOBILE STATIONS IN PUBLIC LAND MOBILE NETWORKS (PLMN)

1 Basic requirements

1.1 It should in principle be possible for any subscriber of the international telephone network or ISDN to call any subscriber of a public land mobile network.

Note — Other constraints may exist (e.g., charging constraints) so that this condition cannot be met in practice.

1.2 The numbering should be composed in such a way as to allow standard telephone or ISDN charging and accounting principles to be used.

1.3 It should be possible for each Administration to develop its own independent numbering plan for mobile stations

1.4 The numbering plan should not prohibit the development of interconnected public land mobile networks to form service areas as defined in Recommendation Q.70.

1.5 It should be possible to change the international mobile station identity (see Recommendation E.212) without changing the telephone or ISDN number allocated to the station and vice versa.

1.6 It should be possible, in principle, for mobile subscribers to roam without constraints among PLMNs.

1.7 The numbering plan should take into account human factors such as the compatibility with user dialling procedures for the most predominant network in each country, i.e. the public switched telephone network (PSTN), and the compatibility between adjacent countries as well.

1.8 Different numbers may be allocated for interconnection with other types of networks than the PSTN [e.g., PDNs] in order to meet specific numbering requirements within these networks.

2 National (significant) mobile number

The national (significant) mobile number could have the following form depending upon the way in which the land mobile numbering plan is integrated with the telephone numbering or ISDN plan :

i) The land mobile numbering plan might be fully integrated with the telephone numbering or ISDN plan. In this case the mobile stations will be allocated a *subscriber number* as defined in Recommendation E.160, § 5. The *national* (significant) *mobile number* then consists of the *trunk code* or *national destination code* allocated to the numbering area corresponding to the home area of the mobile station followed by the *subscriber number* allocated to it.

ii) The public land mobile network might be regarded as a separate numbering area within the telephone network or the ISDN. In this case the national (significant) mobile number will consist of the *trunk code* or *national destination code* allocated to the PLMN and the *subscriber number* within the PLMN.

3 Mobile station roaming number

3.1 The *mobile station roaming number* is a number allocated to a land mobile station for the purpose of rerouting calls to that station when it has roamed out of the area covered by the PLMN [maritime switching centre MSC)] in which the station is permanently registered.

3.2 The composition of the mobile station roaming number may vary depending upon where the mobile station is temporarily located and depending upon the method by which it is allocated.

3.3 One acceptable method for allocating mobile station roaming numbers is for the foreign PLMN (i.e. the network in which the mobile station is currently located) to allocate a temporary national (significant) mobile number to the visiting mobile station within its own numbering plan. The mobile station roaming number would thus have the following composition:

(country code of the country in which the foreign PLMN is located) + (temporary national (significant) mobile number).

The mobile station roaming number is transferred to the home PLMN of the mobile station.

Note — A second method has been identified where the foreign PLMN uses a separate numbering plan for visiting mobile stations where the number used is composed of a prefix indicating a foreign station followed by the country code of the country in which the station is permanently registered and the national (significant) mobile number in its home network

The home PLMN of the mobile station must in this case inform the foreign PLMN about the mobile station roaming number.

The possible use of this method requires further study considering that it may impose a requirement for digit capacity greater than 12 digits for the PSTN or 15 digits for the ISDN.

3.4 It may be advantageous (but it is not obligatory) for the roaming number to be kept secret from both the fixed and/or mobile subscriber. In this situation, the number would only be used within PLMNs and the PSTN/ISDN for rerouting of calls to a mobile station that had registered with a visited PLMN. The number would then not be used for direct routing of a call from a fixed (or mobile) subscriber to the mobile station.

3.5 This approach would allow the reallocation to another mobile station of the roaming number as soon as the station to which the roaming number had been originally allocated had left the visited PLMN. It will of course be desirable for a call to the roaming number, originating from an ordinary subscriber, to be rejected by the visited PLMN. In order to achieve this rejection the necessary signalling facilities and mechanisms at the mobile switching centres will need to be provided.

3.6 The implementation of the above approach, of barring the roaming number to fixed and/or mobile subscribers, should be a matter of bilateral agreement.

May not be required in all cases, e.g. the two PLMNs are located in the same country or in an area with an integrated numbering plan.

4 Number analysis

In respect to routing, charging and accounting, the requirements on number analysis given in Recommendation E.163 for the PSTN and Recommendation E.164 for the ISDN should also be met for calls to mobile stations.