



INTERNATIONAL TELECOMMUNICATION UNION

**CCITT**

**E.201**

THE INTERNATIONAL  
TELEGRAPH AND TELEPHONE  
CONSULTATIVE COMMITTEE

**TELEPHONE NETWORK AND ISDN –  
OPERATION, NUMBERING, ROUTING  
AND MOBILE SERVICE**

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**REFERENCE RECOMMENDATION  
FOR MOBILE SERVICES**

**Recommendation E.201**

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Geneva, 1991

## FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation E.201 was prepared by Study Group II and was approved under the Resolution No. 2 procedure on the 23rd of August 1991.

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## CCITT NOTES

- 1) In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication Administration and a recognized private operating agency.
- 2) A list of abbreviations used in this Recommendation can be found in Annex A.

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## **Recommendation E.201**

### **REFERENCE RECOMMENDATION FOR MOBILE SERVICES**

#### **1 Introduction and scope**

1.1 This Recommendation provides a reference point in sections 3 to 5 below for CCITT Recommendations related to mobile services. Its purpose is to identify and group together all mobile related CCITT Recommendations, in a clear and logical manner for easy reference.

1.2 This Recommendation also provides a reference point in section 6 below for CCIR Recommendations related to mobile services. Other international standards organizations, e.g. International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO) also publish texts (e.g. ICAO Annex 10 to the convention on International Civil Aviation Aeronautical Telecommunications) on mobile services. These documents as well as CCIR reports on mobile services are not listed in this Recommendation.

1.3 This Recommendation will be useful as a guide to Administrations or other bodies which are new to the mobile arena. It is also recommended as a reference document when considering the introduction of new mobile systems or services.

1.4 This Recommendation will be kept up to date by the CCITT. Representatives of the CCIR will inform the CCITT Secretariat of any changes or additions to the CCIR documents referenced.

#### **2 Recommendation structure**

2.1 This Recommendation includes references on all mobile services and systems for which CCITT and CCIR Recommendations are, or are planned to be, available. The CCITT Recommendations are listed by grouping mobile systems and services into three categories:

Section 3 – Satellite systems and services (maritime, aeronautical and land);

Section 4 – VHF/UHF systems and services (maritime and aeronautical);

Section 5 – Terrestrial public land mobile systems and services (e.g. cellular).

2.2 Within sections 3 to 5, CCITT Recommendations are listed under the following sub-headings:

- numbering and identification plans;
- routing;
- signalling and switching;
- system descriptions and operational procedures;
- packet services;
- international telex services;
- transmission planning;
- charging;
- interworking;
- traffic engineering.

2.3 Where a Recommendation covers more than one category, e.g. both satellite and UHF/VHF mobile services, it is listed under each category.

2.4 The CCIR Recommendations are all listed in section 6 below, categorized as follows:

- aeronautical terrestrial services;
- land terrestrial services;
- maritime terrestrial services;
- satellite services.

### **3 Satellite systems and services**

#### *3.1 Numbering and identification plans*

- Rec. E.210 Ship station identification for VHF/UHF and maritime mobile-satellite services
- Rec. E.215 Telephone/ISDN numbering plan for the mobile-satellite services of INMARSAT
- Rec. E.216 Selection procedures for the INMARSAT mobile-satellite telephone and ISDN services
- Rec. F.120 Ship station identification for VHF/UHF and maritime mobile-satellite services
- Rec. F.125 Telex numbering plan for the mobile-satellite services of INMARSAT
- Rec. F.126 Selection procedures for the INMARSAT mobile-satellite telex service

#### *3.2 Routing*

- Rec. X.353 Routing principles for interconnecting public maritime mobile satellite data transmission systems with public data networks

#### *3.3 Signalling and switching*

- Rec. Q.1100 Structure of the Recommendations on the INMARSAT mobile-satellite systems
- Rec. Q.1101 General requirements for the interworking of the terrestrial telephone network and INMARSAT Standard-A system
- Rec. Q.1102 Interworking between Signalling System R2 and INMARSAT Standard-A system
- Rec. Q.1103 Interworking between Signalling System No. 5 and INMARSAT Standard-A system
- Rec. Q.1111 Interfaces between the INMARSAT Standard-B system and the international public switched telephone network ISDN

- Rec. Q.1112 Procedures for interworking between INMARSAT Standard-B system and the international public switched telephone network/ISDN
- Rec. Q.1151 Interfaces between the INMARSAT aeronautical mobile-satellite system and the international public switched telephone network/ISDN
- Rec. Q.1152 Procedures for interworking between INMARSAT aeronautical mobile-satellite system and the international public switched telephone network/ISDN

#### 3.4 *System description and operational procedures*

- Rec. E.200 Operational provisions for the maritime mobile service
- Rec. F.110 Operational provisions for the maritime service
- Rec. F.111 Principles of service for mobile systems
- Rec. F.122 Operational procedures for the maritime satellite data transmission service
- Rec. F.127 Operational procedures for the interworking between the telex service and the service offered by the INMARSAT Standard-C system
- Rec. F.114 Service and operational provisions for public land mobile systems (draft – target completion date, end 1992)
- Rec. M.1100 General maintenance aspects of maritime satellite systems
- Rec. M.1110 Maintenance organization for the maritime satellite service
- Rec. M.1120 Functions, maintenance responsibilities and maintenance facilities of a coast earth station for telephony services

#### 3.5 *Packet services*

- Rec. X.351 Special requirements to be met for packet assembly/disassembly facilities (PADs) located at or in association with coast earth stations in the Public Mobile-Satellite service

#### 3.6 *International telex services*

- Rec. F.130 Maritime answer-back codes
- Rec. U.60 General requirements to be met in interfacing the international telex network with maritime satellite systems
- Rec. U.61 Detailed requirements to be met in interfacing the international telex network with maritime satellite systems

#### 3.7 *Transmission planning*

- Rec. G.473 Interconnection of a maritime mobile-satellite system with the international automatic switched telephone service: transmission aspects
- Rec. F.112 Quality objectives for 50-baud start-stop telegraph transmission in the maritime mobile-satellite service.

### 3.8 *Charging*

Rec. D.90 Charging, accounting and refunds in the maritime mobile services

Rec. D.91 Transmission in encoded form of the maritime telecommunications accounting information

### 3.9 *Interworking*

Rec. X.324 General arrangements for interworking between packet switched public data networks (PSPDNs) and public mobile systems for the provision of data transmission services.

Rec. X.350 General interworking requirements to be met for data transmission in the international public mobile-satellite systems

Rec. X.352 Interworking between packet switched public data networks and public maritime satellite data transmission systems

### 3.10 *Traffic engineering*

No existing or planned Recommendations identified in this area.

## **4 VHF/UHF systems**

### 4.1 *Numbering and identification plans*

Rec. E.210 Ship station identification for VHF/UHF and maritime mobile-satellite services

Rec. E.211 Selection procedures for VHF/UHF maritime mobile services

Rec. F.120 Ship station identification for VHF/UHF and maritime mobile-satellite services

### 4.2 *Routing*

No existing or planned Recommendations identified in this area.

### 4.3 *Signalling and switching*

No existing or planned Recommendations identified in this area.

### 4.4 *System description and operational procedures*

Rec. E.200 Operational provisions for the maritime mobile service

Rec. F.110 Operational provisions for the maritime mobile service

Rec. F.111 Principles of service for mobile systems

Rec. F.113 Service provisions for aeronautical public correspondence supported by mobile-satellite systems (draft – target completion date, June 1991)

Rec. F.114 Service and operational provisions for public land mobile systems (draft – target completion date, end 1992)

#### 4.5 *Packet services*

No existing or planned Recommendations identified in this area.

#### 4.6 *International telex services*

Rec. F.130 Maritime answer-back codes

Rec. F.131 Radiotelex service codes

Rec. U.62 General requirements to be met in interfacing the international telex network with the fully automated maritime VHF/UHF radio system

Rec. U.63 General requirements to be met in interfacing the international telex network with the maritime "direct printing" system

#### 4.7 *Transmission planning*

No existing or planned Recommendations identified in this area.

#### 4.8 *Charging*

Rec. D.90 Charging, accounting and refunds in the maritime mobile services

Rec. D.91 Transmission in encoded form of the maritime telecommunications accounting information

#### 4.9 *Interworking*

No existing or planned Recommendations identified in this area.

#### 4.10 *Traffic engineering*

No existing or planned Recommendations identified in this area.

### **5 Terrestrial public land mobile systems and services (e.g. cellular)**

#### 5.1 *Numbering and identification plans*

Rec. E.212 Identification plan for land mobile stations

Rec. E.213 Telephone and ISDN numbering plan for land mobile stations in public land mobile networks (PLMN)

Rec. E.214 Structure of the land mobile global title for the Signalling Connection Control Part (SCCP)

## 5.2 *Routing*

Rec. E.173 Routing plan for interconnection between public land mobile networks and fixed terminal networks

Rec. Q.1032 Signalling requirements relating to routing of calls to mobile subscribers

## 5.3 *Signalling and switching*

Rec. Q.1000 Structure of the Q.1000-Series Recommendations for public land mobile networks

Rec. Q.1001 General aspects of public land mobile networks

Rec. Q.1002 Network functions

Rec. Q.1003 Location registration procedures

Rec. Q.1004 Location register restoration procedures

Rec. Q.1005 Handover procedures

Rec. Q.1051 Mobile Application Part

Rec. Q.1061 General aspects and principles relating to digital PLMN access signalling reference points

Rec. Q.1062 Digital PLMN access signalling reference configurations

Rec. Q.1063 Digital PLMN channel structures and access capabilities at the radio interface (Um reference point)

## 5.4 *System description and operational procedures*

Rec. F.111 Principles of service for mobile systems

Rec. F.114 Service and operational provisions for public land mobile systems (draft – target completion date, end 1992)

## 5.5 *Packet services*

No existing or planned Recommendations identified in this area

## 5.6 *International telex services*

No existing or planned Recommendations identified in this area

## 5.7 *Transmission planning*

Rec. G.173 Transmission planning aspects of the speech service in public land mobile networks (draft – target completion date, December 1992)

## 5.8 *Charging*

Rec. D.93 Charging and accounting in the international land mobile telephone service (provided via cellular radio systems)



## 5.9 *Interworking*

- Rec. E.220 Interconnection of land mobile systems (draft – target completion date, February 1992)
- Rec. Q.1031 General signalling requirements on interworking between ISDN or PSTN and the PLMN
- Rec. X.324 General arrangements for interworking between packet switched public data networks (PSPDNs) and public mobile systems for the provision of data transmission services

## 5.10 *Traffic engineering*

- Rec. E.750 Introduction to the E.750-Series of Recommendations on traffic engineering aspects of mobile networks (draft – target completion date, February 1992)
- Rec. E.751 Reference connections for traffic engineering (draft – target completion date, February 1992)
- Rec. E.770 Terrestrial mobile and fixed network interworking traffic Grade of Service concept (draft – target completion date, February 1992)
- Rec. E.771 Network Grade of Service parameters and target values for circuit switched terrestrial mobile services (draft – target completion date, February 1992)

## **6 CCIR mobile related texts**

### 6.1 *Aeronautical Terrestrial service*

No existing Recommendations identified in this area.

### 6.2 *Land Terrestrial service*

- Rec. 622 (Vol. VIII-1) Technical and operational characteristics of analogue cellular systems for public land mobile telephone use
- Rec. AH/8 (8/1013) Future public land mobile telecommunication systems (FPLMTS)
- Rec. 623 (Vol. VIII-1) Data transmission bit rates and modulation techniques in the land mobile service
- Rec. 624 (Vol. VIII-1) Public land mobile communication systems location registration

### 6.3 *Maritime Terrestrial service*

- Rec. 585-1 (MOD F) 8/1026 Assignment and use of Maritime Mobile service identities
- Rec. 625 (MOD I) 8/1028 Direct-printing telegraph equipment employing automatic identification in the Maritime Mobile service

Rec. 476-4 (Vol. VIII-2)	Direct-printing telegraph equipment in the Maritime Mobile service
Rec. 490 (Vol. VIII-2)	The introduction of direct-printing telegraph equipment in the Maritime Mobile service. Equivalence of terms
Rec. 492-3 (MOD F) (8/1030)	Operational procedures for the use of direct-printing telegraph equipment in the Maritime Mobile service
Rec. 493-3 (MOD F) (8/1037)	Digital selective-calling system for use in the Maritime Mobile service
Rec. 541-2 (MOD F) (8/1038)	Operational procedures for the use of digital selective-calling (DSC) equipment in the Maritime Mobile service
Rec. 586-1 (Vol. VIII-2)	Automated VHF/UHF maritime mobile telephone system
Rec. 587-1 (Vol. VIII-2)	Coast station identities and initiation of location registration in an automated VHF/UHF maritime mobile telephone system
Rec. P/8 (MOD F) (8/1044)	Operational procedures for an international maritime VHF radiotelephone system with automatic facilities based on DSC signalling format

#### 6.4 *Satellite services*

Rec. 546-1 (MOD F) (8/1065)	Hypothetical, telephone reference circuit in the aeronautical, land and maritime mobile-satellite services
Rec. 547 (Vol. VIII-3)	Noise objectives in the hypothetical reference circuit for systems in the Maritime Satellite service
Rec. 549-1 (Vol. VIII-3)	Side tone reference equivalent of handset used on board a ship in the Maritime Mobile-Satellite service and in automated VHF/UHF maritime mobile radio telephone systems
Rec. 552 (Vol. VIII-3)	Quality objectives for 50-baud start-stop telegraph transmission in the Maritime Mobile-Satellite service
Rep. 751 (Vol. VIII-3)	Methods for the subjective assessment of speech quality in the Maritime Mobile-Satellite service
Rec. 548 (Vol. VIII-3)	Overall transmission characteristics of telephone circuits in the Maritime Mobile-Satellite service
Rec. 550-1 (Vol. VIII-3)	Use of echo suppressors in the Maritime Mobile-Satellite service
Rec. 553 (Vol. VIII-3)	Interface requirements for 50-baud start-stop telegraph transmission in the Maritime Mobile-Satellite service

## 7 **Recommendation history**

First published 1991.

## 8 **Recommendation E.201**

ANNEX A  
(to Recommendation E.201)

**Alphabetical list of abbreviations used  
in this Recommendation**

FPLMTS	Future public land mobile telecommunication systems
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization