INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.91

(07/96)

SERIES D: GENERAL TARIFF PRINCIPLES

General tariff principles – Charging and accounting in the mobile services

Transmission in encoded form of maritime telecommunications accounting information

ITU-T Recommendation D.91

(Previously CCITT Recommendation)

ITU-T D-SERIES RECOMMENDATIONS

GENERAL TARIFF PRINCIPLES

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ITU-T RECOMMENDATION D.91

TRANSMISSION IN ENCODED FORM OF MARITIME TELECOMMUNICATIONS ACCOUNTING INFORMATION

Source

ITU-T Recommendation D.91 was revised by ITU-T Study Group 3 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 1st of July 1996.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T 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 World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

CONTENTS

Recommendation D.91

TRANSMISSION IN ENCODED FORM OF MARITIME TELECOMMUNICATIONS ACCOUNTING INFORMATION

(Melbourne, 1988; revised in 1990 and in 1996)

1 Introduction

1.1 Under the provision of Recommendation D.90, Administrations engage in international billing and accounting for radiocommunications handled each month.

1.2 A growing number of Administrations are processing this monthly international accounting data using computer-based billing and accounting systems. Information is drawn from traffic history tapes or diskettes or manually encoded from data, such as inward international accounts and statistical summaries prepared by manual abstraction from copies of traffic tickets.

1.3 It is usual at present to complete computer processing by producing conventional printed accounts following the specifications described in the various accounting Recommendations (D.90). Where the receiving Administration also uses computer facilities, however, this information has to be re-encoded for processing through its system.

1.4 Transmission of data in encoded form avoids the decoding/re-encoding step. It also offers a faster transfer of information than by printed forms through the mail. The latter remains true even if the forwarding Administration has prepared the data by manual/mechanical means.

2 Aim

2.1 The aim of this Recommendation is:

2.1.1 To enable Administrations using computer-based billing and accounting systems to transfer information to each other in encoded form, without the need for decoding into conventional printed form and subsequent encoding into machine-readable form.

2.1.2 To enable other Administrations, if they so desire, to benefit from the greater efficiency of speedier transfer of information to them and to prepare themselves for the introduction of computer working by introducing transmission of data in encoded form in advance of installation of a computer.

2.1.3 To facilitate provision of printed output from computer-based systems in a format suitable for manual/mechanical processing where it is to be forwarded to Administrations not using computer facilities.

2.1.4 To facilitate provision of printed output from manual/mechanical accounting systems in a format suitable for data encoding where it is to be forwarded to Administrations employing computer processing.

3 Method

3.1 Data record

3.1.1 The aim of this Recommendation can be met by use of a standard data record format for the various elements of information to be transferred. The information elements and their sequence must be compatible with the provisions of the various accounting Recommendations so that decoding to

and encoding from printed output for exchange of information with Administrations using manual/mechanical systems will be as simple as possible.

3.1.2 Between Administrations operating computer-based billing and accounting systems, adherence to the standard data record format for data transmission purposes will ensure that simple interface programme will be needed to enable any one computer installation to generate suitable input for, and accept output from, other computer installations.

3.2 Data transfer

3.2.1 Procedures already exist for transfer of data in conventional (printed) form through the mails. Data in encoded form could be transferred by mailing of magnetic or paper tapes, diskettes, paper tape transmission by telex or data transmission over circuits utilized for this purpose.

3.2.2 While mailing of tapes avoids the encoding task for the receiving Administration there can be delays and loss in transit. In addition, there can be difficulties caused by the fragility of paper tape and incompatibility of various forms of magnetic tape recording.

3.2.3 Transfer of data via the telex service using paper tape transmission and reception can be advantageous for Administrations whether they have computer-based accounting systems or manual/mechanical systems. As both page copy and punched paper tape can be generated at the receiving point, users of either type of accounting system can benefit. Page copy can be used for checking paper tape, with the latter becoming input to a computer. Page copy can also be used as the incoming international account avoiding the need for use of the postal service.

3.2.4 Where large volumes of data are to be exchanged, transmission over higher speed circuits offers significant benefits. Where suitable data links are in use for service transmissions, these could be utilized. Data terminals and modems capable of transmission speed in the range 600 to 2400 bits per second should be sufficient, but higher speeds could be used. For manual/mechanical systems, data received on data terminals can be reproduced as page copy representing an incoming international account. For computer-based accounting systems, data transmission offers the possibility of complete automation of the process by computer-to-computer transfer.

4 Specific recommendations

4.1 It is recommended that:

4.1.1 Where possible data transferred in printed form should be replaced by data transferred in encoded form.

4.1.2 For data transferred in encoded form, the standard data record format detailed in Annex A should be followed.

4.1.3 Transmission of data in encoded form should be by the following means:

a) physical transfer of magnetic tapes (the standard file structure is given in Annex A);

b) physical transfer of diskettes (3½ inch/MS DOS);

c) use of data transmission over telephone circuits, dedicated circuits, telegraph circuits or special data links.

4.1.4 Transmission methods (international packet switching service, electronic mailbox, etc.), operating practices and technical standards should be agreed between the Administrations concerned and should conform to the appropriate ITU-T Recommendations.

5 Code maintenance

5.1 The Secretariat of the ITU-T is responsible for maintenance of the table of service codes and the table of facility codes in Appendices A.I and A.II to Annex A.

5.2 New codes can be allocated by the authority of the Director of the ITU-T. Applications should be made through the ITU-T Secretariat who will arrange for the notification of new codes in the Operational Bulletin.

Annex A

(to Recommendation D.91)

Monthly international accounting information

Fixed record formats

A.1 File description (Structure of data file, Appendix A.VI to Annex A)

A.1.1 Version magnetic tape

The version file has EBCDIC-format (Extended Binary Coded Decimal Interchange Code). The length of the formatted records is 230 characters, blocked by 10.

A.1.2 Version diskette

3½ inch/MS DOS. The length of the formatted record is 230 characters, labelling, Appendix A.VII to Annex A.

A.1.3 The tape, which will contain a header and a trailer record, may consist of several batches. For each accounting authority or country there may be a batch (or, if more than one currency is involved, one batch for each currency) for each of the following services:

– satellite from-ship traffic;

– terrestrial radio from-ship traffic;

– terrestrial radio to-ship telephone and telegram traffic;

– terrestrial radio to-ship telex traffic;

– credit card/reversed charge from-ship traffic for both services.

Each of the traffic batches will contain an accounting authority header record followed by the traffic items and ended by the summary record.

A.1.4 Record description

Fields in numeric format should be right justified with zero filling. Fields in alphanumeric format should be left justified with space filling. Similarly unused fields should be zero or blank filled as appropriate.

A.1.4.1 Main header record 00

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code
3	8	Alphanumeric	CDAAIC	AAIC of tape originator
11	6	Numeric	CREATN	Creation date of tape YYMMDD
17	20	Alphanumeric	REFERN	Invoice number
37 to 39	3	Numeric	RECLEN	Record length
40-230	–	Alphanumeric	–	Unused field

A.1.4.2 Record accounting authority 01

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 01
3	8	Alphanumeric	CDAAIC	AAIC of accounting authority if traffic code 3 or 4, of origin (or recipient in the case of XCF or CC calls) Administration if traffic code 1, 2 or 5 in field CDDIRE
11	1	Numeric	CDDIRE	Traffic codes: 1 = Terrestrial telephone and telegram traffic chargeable to the shore customer 2 = Terrestrial telex traffic chargeable to the shore customer 3 = Terrestrial traffic chargeable to the ship customer 4 = Satellite traffic chargeable to the ship customer 5 = Credit card/reversed charge originating from ship (for use only if such traffic is not included in code 1 records)
12	50	Alphanumeric	NATADM	Name of Administration if codes 1, 2 or 5. Name of accounting authority if codes 3 or 4
62	3	Alphanumeric	CDCURR	Monetary unit or currency of invoice using ISO codes e.g. gold franc = XFO; Special Drawing Rights = XDR; Pound Sterling = GBP; US Dollar = USD; Deutsche Mark = DEM
65	8	Numeric	RATCON	Rate of conversion (zero filled if not applicable), 1 unit of invoice currency = XXXXXX units of currency of settlement
73	1	Numeric	DECIMN	Number of decimal places in RATCON
74	4	Numeric	YEAMON	Month in which the bulk of the traffic was transmitted YYMM
78	1	Alphanumeric	CDSUPP	Supplement; if there are any charges for backdated traffic filed before the month stated in YEAMON, insert "s", if not space fill
79 to 230	–	Alphanumeric	–	Unused field (spaces)

A.1.4.3 Record communication (traffic) 02

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 02
3	7	Alphanumeric	CDCS/CES	Code of coast station/CES
10	6	Numeric	DATCOM	Date of traffic format YYMMDD
16	4	Numeric	TMETFC	Time of commencement of traffic HHMM (UTC), space fill if not applicable
20	20	Alphanumeric	CALSIG	Call sign of vessel/ID code
40	32	Alphanumeric	NAMORG	Origin identification[a)]
72	32	Alphanumeric	NAMDES	Destination identification[a)]
104	2	Numeric	CDKIND	Code kind of traffic (see Appendix I to Annex A)
106	2	Numeric	CDFACI	Facility code
108	6	Numeric	NUMWRD	Number of words or duration of call format HHMMSS
114	8	Numeric	TXAMOU	Amount of facility charge, otherwise zero fill
122	10	Numeric	BITNUM	Number of bits
132	6	Numeric	MERENU	Message reference number
138	1	Numeric	CHARAT	Charge rate: e.g. 1 = peak; 2 = cheap; 3 = standard
139	10	Numeric	TAXTOT	Total amount of charge (negative amounts impossible)
149	1	Numeric	DECIMN	Number of decimal digits in TXAMOU and TAXTOT
150 to 230	–	Alphanumeric	–	Unused field (spaces)

a) If possible, insert the ITU country code (1 to 3 digits) of the land based subscriber (ships name in the other direction). For credit card calls, the credit card number should be shown in the origin field.

A.1.4.4 Summary record 03

Position	Length	Format	Name of Field	Contents
1	2	Numeric	CODART	Determination of record code to 03
3	16	Numeric	AMTTOT	Total amount (negative amounts possible)
19	1	Numeric	DECIMN	Number of decimal digits in AMTTOT
20 to 230	–	Alphanumeric	–	Unused field (spaces)

A.1.4.5 Trailer record 99

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 99
3	2	Numeric	NOBATC	Number of batches
5	16	Numeric	AMTTOT	Total amount of all charges
21	1	Numeric	DECIMN	Number of decimal digits in AMTTOT
22 to 230	–	Alphanumeric	–	Unused field (spaces)

A.2 Characteristics and structure of the tape

A.2.1 Physical structure of recording

For recording, the ISO-Norm 1863 is to be used, except that the recording density will be 1600 BPI.

Method of recording: EBCDIC
Record density: 1600 BPI
Number of tracks: 9
Width of tape: ½ inch
Interblock gap: 0.6 inch
Block prefix 3 inch.

A.2.2 Structure of tape

Mono-tape, mono-file.

A.2.3 Tape and file label

Character code for label and EBCDIC code

Volume header label: Volume 1 (see Appendix A.III to Annex A)

First file header label and end of file label: HDR1 and EOF1 (see Appendix A.IV to Annex A)

Second file header label and end of file label: HDR2 and EOF2 (see Appendix A.V to Annex A).

Appendix A.I

(to Annex A to Recommendation D.91)

Table of service codes (CDKIND)

Code	Description
02	Telephone satellite automatic (A)
03	Telephone satellite manual (A)
04	Telephone VHF automatic
05	Telephone VHF manual
06	Telephone medium-wave automatic

Table of service codes (CDKIND) (continued)

Code	Description
07	Telephone medium-wave manual
08	Telephone short-wave automatic
09	Telephone short-wave manual
10	Unused
11	Unused
12	Telex satellite automatic (A)
13	Telex satellite manual (A)
14	Telex VHF automatic
15	Telex VHF manual
16	Telex medium-wave automatic
17	Telex medium-wave manual
18	Telex short-wave automatic
19	Telex short-wave manual
20	Unused
21	Unused
22	Telegram satellite (A)
23	Telegram VHF
24	Telegram medium-wave
25	Telegram short-wave
26	Telephone aeronautical – Terrestrial
27	Telephone aeronautical – Satellite
28	Data transmission aeronautical – Terrestrial
29	Data transmission aeronautical – Satellite
30	Telex multi-address parent (A)
31	Telex multi-address offspring (A)
32	Telegram
33	Telephone-satellite automatic high speed data (A)
34 to 39	Unused
40	Telex single address (C)
41	Telex multi-address parent (C)
42	Telex multi-address offspring (C)
43	PSS single address (C)
44	PSS multi-address parent (C)
45	PSS multi-address offspring (C)
46	Unused
47	Status request (C)
48	Unused
49	Unused

Table of service codes (CDKIND) (concluded)

Code	Description
50	Unused
51	Multi-address shore (C)
52	Status report shore-LES (C)
53	EGC - Shore-ship (C)
54	EGC - INMARSAT (C)
55	Mailbox
56	Polling
57	Unused
58	Unused
59	Unused
60	Telephone satellite automatic global beam (M)
61	Telephone satellite automatic spot beam (M)
62	Telephone satellite automatic global beam group call (M)
63	Telephone satellite automatic spot beam group call (M)
64	Telephone satellite manual (M)
65	Data satellite automatic global beam (M)
66	Data satellite automatic spot beam (M)
67	Data satellite automatic global beam group call (M)
68	Data satellite automatic spot beam group call (M)
69	Data satellite manual (M)
70	Telephone satellite automatic global beam (B)
71	Telephone satellite automatic group call (B)
72	Telephone satellite manual (B)
73	Data satellite automatic global beam (B)
74	Data satellite global beam group call (B)
75	Data satellite manual (B)
76	High speed data satellite automatic (B)
77	High speed data satellite automatic group call (B)
78	High speed data satellite manual (B)
79	Telex satellite automatic (B)
80	Telex satellite automatic group call (B)
81	Telex satellite manual (B)
82	Telex satellite multi-address parent (B)
83	Unused

NOTES

1 Each service is offered at the discretion of the LES-operator.

2 The inclusion of a service code in this document does not oblige any LES-operator to offer that particular service.

3 Where possible, for B and M type terminals, LES-operators should differentiate services between global and spot beams.

Appendix A.II

(to Annex A to Recommendation D.91)

Table of facility codes (CDFACI)

Code	Description
34	Personal call
35	Reversed charge (collect) call
36	Credit card call
37	Advice of duration and charge (ADC)
38	Personal call with ADC
39 to 50	–
51	Telex letter
52	–
53	Voice bank
54	Database access (telephone or telex)

Appendix A.III

(to Annex A to Recommendation D.91)

Volume header label

Position	Assignment of field	Contents
1 to 4	Label identifier and number	Volume 1
5 to 10	Volume No.	6 characters alphanumeric
11	Access	1 character (space)
12 to 31 + 32 to 37	Reserved	A (space)
38 to 50	Identification of owner	13 characters alphanumeric
51	Record density	A (space)
52 to 79	Reserved	A (space)
80	Version of standard label	3
81 to 230	–	Unused field (spaces)

Appendix A.IV

(to Annex A to Recommendation D.91)

First file header label and end of file label

Position	Assignment of field	Contents	
1 to 4	Label identification and number	HDR1	EOF1
5 to 21	File identification	All characters alphanumeric	
22 to 27	Total file identification	Spaces	Spaces
28 to 31	Number of file section	"0001"	"0001"
32 to 35	Number of file sequence	"0001"	"0001"
36 to 39	Number of generation	"0001"	"0001"
40 to 41	Version number on generation	"00"	"00"
42 to 47	Creation date	YYMMDD	
48 to 53	Expiry date	Spaces	Spaces
54	Access	Spaces	Spaces
55 to 60	Block counting	Zero	Block count
61 to 73	System code	All characters alphanumeric	
74 to 230	Reserved field	Spaces	Spaces

Appendix A.V

(to Annex A to Recommendation D.91)

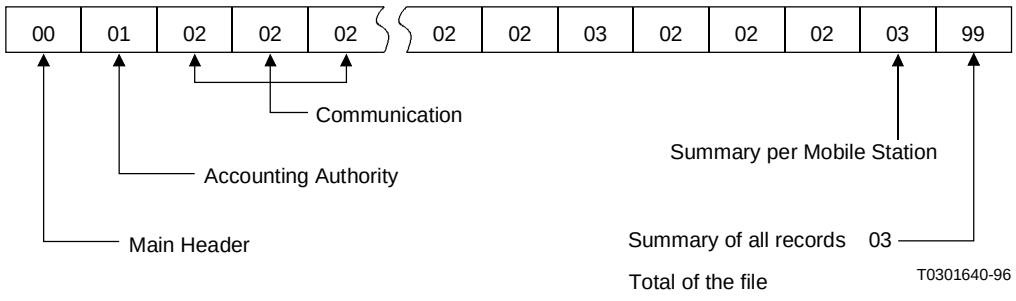
Second file header label and end of file label

Position	Assignment of field	Contents	
1 to 4	Label identifier and number	HDR2	EOF2
5	Record format	"F"	"F"
6 to 10	Length of block	"10"	"10"
11 to 15	Length of record	"00160"	"00160"
16 to 50	Reserve system	All characters alphanumeric	
51 to 52	Length of offset cell buffer	"00"	"00"
53 to 230	Reserved field	Spaces	Spaces

Appendix A.VI

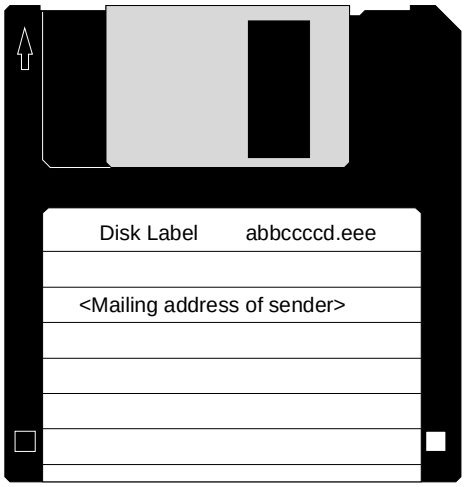
(to Annex A to Recommendation D.91)

Structure of data file Recommendation D.91



Appendix A.VII

(to Annex A to Recommendation D.91)



Disk label

a = System (A: INM-A, B: INM-B, C: INM-C, M: INM-M, X: INM-X-different satellite services, R: Radio maritime terrestrial).

bb = Sending Administration
(First two characters of accounting authority code).

cccc = Receiving Administration
(First four characters of accounting authority code).

d = Bulk of traffic (one character for traffic month):
where 1 to 9 is equal to January to September;
(zero) 0 is equal to October;
A is equal to November;
B is equal to December.

eee = Extension, normally TXT, if data are compressed EXE.

Example

ADPFR013.TXT

CNODP01B.EXE.

Appendix I

(to Recommendation D.91)

Procedures and actions for the international exchange of traffic information in encoded form

I.1 Introduction

The purpose of this appendix is to outline the procedures and actions for the international exchange of traffic information in encoded form according to this Recommendation.

I.2 Physical medium

The standard medium is considered to be a diskette (3½ inch/MS DOS). Other media may be agreed bilaterally. The file shall consist of fixed length, i.e. record of 230 characters.

I.2.1 General recommendations

It is recommended that:

– only valid records appear on the file;

– no duplicate records are shown on the file;

– checks are done to ensure no records from previous files are included on the current file;

– records are produced in the correct date and time sequence for each mobile station;

– calls for which no charge is to be made (zero priced) and credit data are not included in the file;

– any new fields in the record should be added to the end of the used fields.

I.2.2 Mandatory rules

A diskette may contain traffic of more than one type, i.e. a mixture of INMARSAT-A and -C, but only if each of the types are contained within their own header and trailer. The header and trailer for each type should clearly state the type of traffic contained in the file.

I.2.3 Labelling of diskettes

The medium shall be labelled according to the requirements as specified in Annex I.A to Appendix I.I.

I.2.4 Transportation procedures

I.2.4.1 General

Each user is responsible for sending the diskette in a secure way to the destination. Annex I.E to Appendix I gives an overview of addresses concerned.

I.2.4.2 Delivery procedures

Frequency of traffic data-exchange is subject to bilateral agreements.

Sending memorandum

When processing traffic data on a diskette the production of a summary report is mandatory. The report is called "sending memorandum", as described in Annex I.B to Appendix I. The sending memorandum should be directed as follows:

1) one copy should be sent by facsimile to the destination;

2) the second copy should be enclosed with the diskette.

I.2.4.3 Receiving procedures

After executing the data from the received diskette the production of a summary report is mandatory. The report is called "receiving memorandum" and has to be sent by facsimile to the sender of the diskette.

Receiving memorandum

– in case of correct diskette use Annex I.C to Appendix I;

– in case of errors in the data use Annex I.D to Appendix I;

– in case of damaged unreadable diskette, the receiver should notify the sender and return medium.

I.2.4.4 Handling of rejections

In case of rejection an acceptance letter should be sent in addition to the receiving memorandum and any rejections should be specified by mentioning mobile name, call sign, identity and traffic month on this letter. Rejections must only be notified on paper.

I.3 Contents of the data files

I.3.1 General

Annex I.F to Appendix I shows the structure of the data file and the different records.

When allocating the different types of data fields, the record description shown in Annexes I.G to I.K of this appendix, must be strictly adhered to.

D.91 format covers fields 1-160 which are mandatory and may be inserted after field 160 to 230 by bilateral agreement. It has to be considered that all unused numeric fields are filled with zeroes and all unused alphanumeric fields are filled with blanks.

I.3.2 Record 00 "Main header"

This type of record has to be used once in each file and contains sender information about the invoice in question.

For details see Annex I.G to Appendix I.

I.3.3 Record 01 "Accounting authority"

This type of record has to be used once in each file and contains all necessary information for the recipient of the diskette.

For details see Annex I.H to Appendix I.

I.3.4 Record 02 "Communication"

This type of record has to be used for each mobile station per call.

For details and descriptions, see Annexes I.I and I.K to Appendix I.

I.3.5 Record 03 "Summary"

This type of record has to be used in order to express the total amount of a mobile station.

For details and description, see Annex I.J to Appendix I.

I.3.6 Record 99 "Trailer"

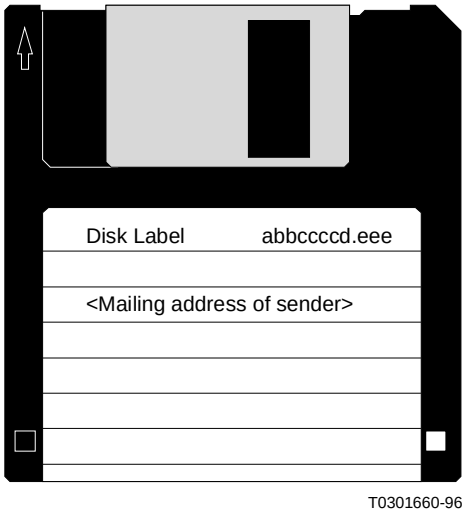
This type of record has to be used in order to express the total amount of file.

For details and description, see Annex I.K to Appendix I.

Annex I.A

(to Appendix I to Recommendation D.91)

Labelling of diskettes



Disk label

a = System (A: INM-A, B: INM-B, C: INM-C, M: INM-M, X: INM-X-different satellite services, R: Radio maritime-terrestrial).

bb = Sending Administration
(First two characters of accounting authority code).

cccc = Receiving Administration
(First four characters of accounting authority code).

d = Bulk of traffic (one character for traffic month):
where 1 to 9 is equal to January to September;
(zero) 0 is equal to October;
A is equal to November;
B is equal to December.

eee = Extension, normally TXT, if data are compressed EXE.

Example

ADPFR013.TXT

CNODP01B.EXE.

Annex I.B

(to Appendix I to Recommendation D.91)

SENDING MEMORANDUM < date >

Sender	:	< AAIC >
		< administration/ service provider >
		< address >
Addressee	:	< AAIC >
		< administration/ service provider >
		< address >
Label	:	< label >
Creation date	:	< date >
Reference number	:	< reference number >
Bulk of traffic	:	< mm/yy >
Number of physical records (total) Number of physical records disk 1 Number of physical records disk 2	:	< number >
Total amount, currency	:	< amount > < cur >

Annex I.C

(to Appendix I to Recommendation D.91)

Correct diskette

RECEIVING MEMORANDUM < date >

Sender	:	< AAIC >
		< administration/ service provider >
		< address >
Addressee	:	< AAIC >
		< administration/ service provider >
		< address >
Label	:	< label >
Creation date	:	< date >
Reference number	:	< reference number >
Bulk of traffic	:	< mm/yy >
Number of physical records (total) Number of physical records disk 1	:	< number >

Number of physical records disk 2
Total amount, currency : < amount > < cur >

Date of processing : < date >

Annex I.D

(to Appendix I to Recommendation D.91)

Diskette with error

RECEIVING MEMORANDUM < date >

Sender : < AAIC >
< administration/
service provider >
< address >

Addressee : < AAIC >
< administration/
service provider >
< address >

Label : < label >

Creation date : < date >

Reference number : < reference number >

Bulk of traffic : < mm/yy >

Reject reason : < reject reason >

Report of errors as follows:

< complete record 02 >

Annex I.E

(to Appendix I to Recommendation D.91)

Mailing list

< country/administration >

– **Accounting statement** shall be sent to:
  – address;
  – phone;
  – fax.
– **Delivering of disk** shall be sent to:
  – name of contact person;
  – address;

  - phone;
  - fax.
- **Facsimile address** of memorandums:
  - name of contact person;
  - address;
  - phone;
  - fax.
- **Enquiries and complaints:**
  - name of contact person;
  - address;
  - phone;
  - fax.

< country/administration >

-
-

-

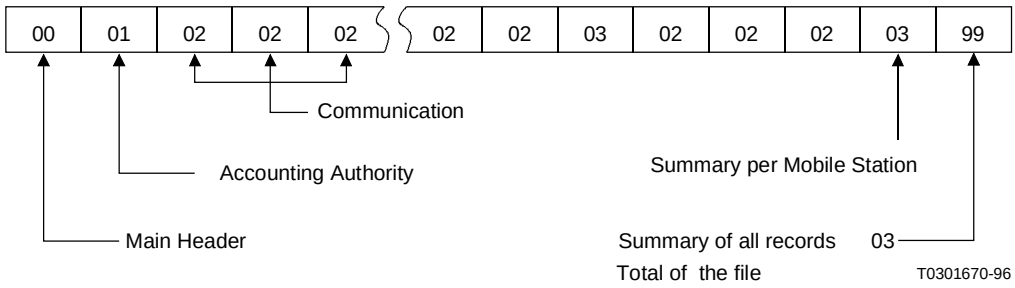
< country/administration >

-
-
-

Annex I.F

(to Appendix I to Recommendation D.91)

Structure of data file Recommendation D.91



Annex I.G

(to Appendix I to Recommendation D.91)

Main header record (00)

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code
3	8	Alphanumeric	CDAAIC	AAIC of tape originator
11	6	Numeric	CREATN	Creation date of tape YYMMDD
17	20	Alphanumeric	REFERN	Invoice number
37 to 39	3	Numeric	RECLEN	Record length
40-230	–	Alphanumeric	–	Unused field

NOTE – Field "REFERN":

This field contains the reference number which can be determined by the transmitting organization itself and is used for assigning the corresponding documents.

Annex I.H

(to Appendix I to Recommendation D.91)

Record accounting authority (01)

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 01
3	8	Alphanumeric	CDAAIC	AAIC of accounting authority if traffic code 3 or 4, of origin (or recipient in the case of XCF or CC calls) Administration if traffic code 1, 2 or 5 in field CDDIRE
11	1	Numeric	CDDIRE	Traffic codes: 1 = Terrestrial telephone and telegram traffic chargeable to the shore customer 2 = Terrestrial telex traffic chargeable to the shore customer 3 = Terrestrial traffic chargeable to the ship customer 4 = Satellite traffic chargeable to the ship customer 5 = Credit card/reversed charge originating from ship (for use only if such traffic is not included in code 1 records)
12	50	Alphanumeric	NATADM	Name of Administration if codes 1, 2 or 5. Name of accounting authority if codes 3 or 4
62	3	Alphanumeric	CDCURR	Monetary unit or currency of invoice using ISO codes, e.g. gold franc = XFO; Special Drawing Rights = XDR; Pound Sterling = GBP; US Dollar = USD; Deutsche Mark = DEM
65	8	Numeric	RATCON	Rate of conversion (zero filled if not applicable), 1 unit of invoice currency = XXXXXX units of currency of settlement
73	1	Numeric	DECIMN	Number of decimal places in RATCON

Position	Length	Format	Name of field	Contents
74	4	Numeric	YEAMON	Month in which the bulk of the traffic was transmitted YYMM
78	1	Alphanumeric	CDSUPP	Supplement; if there are any charges for backdated traffic filed before the month stated in YEAMON, insert "s", if not space fill
79 to 230	–	Alphanumeric	–	Unused field (spaces)

NOTES

1 Field "CDDIRE":

Figure "4" entered in this field indicates traffic routed via an INMARSAT-LES. Figures "1", "2" and "3" specify traffic transmitted by a RADIO MARITIME INSTALLATION.

2 Field "CDCURR":

The recommended currencies are special drawing rights (XDR) and gold francs (XFO). Administrations/service providers specifying amounts in other currencies are requested to indicate the amounts in XDR in the future.

3 Fields "RATCON" and "DECIMN":

These fields, which are intended for use in the national services only, are filled with zeroes.

4 Fields "YEAMON":

This field contains the indication of the month for which the majority of communication records follow.

Annex I.I

(to Appendix I to Recommendation D.91)

Record communication (02)

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 02
3	7	Alphanumeric	CDCS/CES	Code of coast station/CES
10	6	Numeric	DATCOM	Date of traffic format YYMMDD
16	4	Numeric	TMETFC	Time of commencement of traffic HHMM (UTC), space fill if not applicable
20	20	Alphanumeric	CALSIG	Call sign of vessel/ID code
40	32	Alphanumeric	NAMORG	Origin identification[a)]
72	32	Alphanumeric	NAMDES	Destination identification[a)]
104	2	Numeric	CDKIND	Code kind of traffic (see Appendix I to Annex A)
106	2	Numeric	CDFACI	Facility code
108	6	Numeric	NUMWRD	Number of words or duration of call format HHMMSS
114	8	Numeric	TXAMOU	Amount of facility charge, otherwise zero fill
122	10	Numeric	BITNUM	Number of bits
132	6	Numeric	MERENU	Message reference number
138	1	Numeric	CHARAT	Charge rate: e.g. 1 = peak; 2 = cheap; 3 = standard

Position	Length	Format	Name of field	Contents
139	10	Numeric	TAXTOT	Total amount of charge (negative amounts impossible)
149	1	Numeric	DECIMN	Number of decimal digits in TXAMOU and TAXTOT
150 to 230	–	Alphanumeric	–	Unused field (spaces)

[a] If possible, insert the ITU country code (1 to 3 digits) of the land based subscriber (ships name in the other direction). For credit card calls, the credit card number should be shown in the origin field.

NOTES

1 Special codes are:

a) EIK104 for Norway
EIK304

b) FPB111 for France

c) DNK108 for Denmark

d) DRA115 for Germany

2 Field "CDCS/CES":

This field contains the abbreviated name of the LES (three characters) followed by the LESO-CODE (three numbers).

3 Field "TAXTOT":

This field contains no negative amounts.

4 Field "CALSIG":

This field is used for the ID-code of the calling station (INMARSAT-A = seven characters, INMARSAT-C and INMARSAT-M = nine characters).

In the case of RADIO MARITIME traffic, the call sign of the coast station has to be entered.

5 Field "NAMORG":

This field should contain the name of the calling station. However, since it is impossible for the different national and international reference registers to be always completely updated, it is not necessary to fill in this field.

6 Field "NAMDES":

This field must be filled in as an indication of the fact that there has been traffic.

7 Field "CDKIND":

8 Field "CDFACI":

9 Field "NUMWRD":

For INMARSAT-A traffic, the duration of the connection in seconds or minutes is indicated in this field.

In the case of INMARSAT-C traffic, this field is filled with zeroes.

In the case of RADIO MARITIME traffic, the duration of the connection or the number of works is indicated (depending on the field CDDIRE).

10 Field "BITNUM" and "MERENU":

These fields are needed for INMARSAT-C traffic to indicate the number of bits transmitted.

11 Field "TAXTOT":

This field contains the amount payable for the connection. Data sets with amounts equalling zero are not entered.

Annex I.J

(to Appendix I to Recommendation D.91)

Summary record (03)

Position	Length	Format	Name of Field	Contents
1	2	Numeric	CODART	Determination of record code to 03
3	16	Numeric	AMTTOT	Total amount (negative amounts possible)
19	1	Numeric	DECIMN	Number of decimal digits in AMTTOT
20 to 230	–	Alphanumeric	–	Unused field (spaces)

NOTE – Field "AMTTOT":

As been agreed, this field contains the amount corresponding to the sum of the fields TAXTOT of the previously listed ID/CALSIG.

Annex I.K

(to Appendix I to Recommendation D.91)

Trailer record (99)

Position	Length	Format	Name of field	Contents
1	2	Numeric	CODART	Determination of record code to 99
3	2	Numeric	NOBATC	Number of batches
5	16	Numeric	AMTTOT	Total amount of all charges
21	1	Numeric	DECIMN	Number of decimal digits in AMTTOT
22 to 230	–	Alphanumeric	–	Unused field (spaces)

NOTES

1 Field "NOBATC":

This field is used for entries of the accounting authority records (CODART 01) stored on the data carrier.

2 Field "AMTTOT":

This field contains the total amount or the sum of all data sets related to CODART 02 stored on the data carrier.

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