ANNEX A
(to Recommendation T.30)

Procedure for G3 document facsimile transmission in the general

switched telephone network incorporating error correction

A.1 *Introduction*

A.1.1 This Annex is intended to apply to document facsimile apparatus covered by Recommendation T.4, Annex A. It describes the procedures and signals to be used where facsimile equipment incorporates error correction capabilities. When existing equipment is operating in a non-CCITT manner, they shall not interfere with equipment operating in accordance with the Series T Recommendation.

A.1.2 Use of this Annex is optional

A.1.3 *Outline of the error correction method*

The error correction method described in this Annex is based on the half-duplex page selective repeat ARQ (automatic repeat request) technique.

An HDLC frame structure is utilized for all binary coded facsimile message procedures.

The transmitting terminal can decide to use either 256 or 64 octets for the frame size by using DCS command. The receiving terminal must be able to receive 256 and 64 octets of frame size.

The transmitting station divides the coded data specified in Recommendation T.4, § 4 into a number of frames and transmits them with each frame number.

When the previous message has not been satisfactorily received, the receiving station transmits PPR response to indicate that the frames specified in the associated facsimile information field are required to be retransmitted.

When PPR is received, the transmitting station retransmits the requested frames specified in PPR information field.

When PPR is received four times for the same block, either the EOR command is transmitted for end of retransmission or CTC (continue to correct) command is sent for continuous retransmission.

In the case of continuous retransmission, the modem speed may fall back or continue at the same speed in accordance with the decision of the transmitting terminal.

A.2 *Definitions*

A.2.1 The signals and definitions used in the error correction procedure are as defined in the main body of this Recommendation unless specified otherwise.

A.2.2 Frame formats of RCP frame and FCD frame for the in-message procedure are defined in Recommendation T.4, Annex A.

A.2.3 *Relations between a page, blocks, partial pages and frames*

One page of coded data as specified in Recommendation T.4, § 4 is divided into a number of blocks. The block contains a number of frames. A partial page is defined as one transmitted block or a number of retransmitted frames.

A.2.4 *Block size*

The block size is defined as the maximum number of frames that can be sent by the transmitter before receiving the response.

A.3 *Block size and frame size*

A.3.1 For T.4 error correction mode, a transmitting terminal indicates frame size by using DCS signal.

A.3.2 The following values of frame size are applicable: 256 or 64 octets. These values of frame size do not include either FCF or frame number octet. Therefore, the total length of the HDLC information field including both the FCF and the frame number octet is as follows: 258 or 66 octets.

A.3.3 The receiving terminal must have the following condition:

frame size: 256 or 64 octets.

block size: 256 frames.

A.3.4 The transmitting terminal may send the block whose size is less than 256 frames at the end of each page. This block is called a short block

A.3.5 The frame size should not be changed during a transmission of one page. In order to change the frame size, indication of mode change should be made using PPS | (mu | OM or EOR | (mu | OM command at the page boundary.

A.4 *Information field* | (see also § 5.3.6)

The HDLC information field is of variable length and contains the specific information for the control and message interchange between two facsimile stations. In this Recommendation it is divided into two parts, the facsimile control field (FCF) and the facsimile information field (FIF).

1) *Facsimile control field (FCF)* — The facsimile control field is defined to be the first 8 bits or 16 bits of the HDLC information field. FCF of 16 bits should be applied only for the optional T.4 error correction mode. This field contains the complete information regarding the type of information being exchanged and the position in the overall sequence. The bit assignments within the FCF are as follows:

Where X appears as the first bit of FCF, X will be defined as follows:

— X is set to 1 by the station which receives a valid DIS signal;

— X is set to 0 by the station which receives a valid and appropriate response to a DIS signal;

— X will remain unchanged until the station again enters the beginning of phase B.

2) *Facsimile information field (FIF)* — In many cases the FCF will be followed by the transmission of additional 8-bit octets to further clarify the facsimile procedure. This information for the basic binary coded system would consist of the definition of the information in DIS, DCS, DTC, CSI, CIG, TSI, NSC, NSF, NSS, CTC, PPS and PPR signals.

A.4.1 *Command to receive* | (see also § 5.3.6.1.3)

From the transmitter to the receiver.

Format: X100 XXXX

1) *Continue to correct (CTC)* — This command indicates that the transmitting station shall continue to correct the previous message. (This is a response to the 4th PPR received, and indicates that the transmitting station shall immediately send the requested frames specified in PPR information field.)

When the transmitter receives PPR four times, the modem speed may fall back or continue the previous transmission speed using CTC command.

This command should have the FIF of 2 octets, which corresponds to the bits No. 1-16 of DCS standard command (See Table 2/T.30). The receiving terminal uses only the bits No. 11-14 to determine the data signalling rate.

Format: X100 1000

A.4.2 *Pre-message response signals* | (see also § 5.3.6.1.4)

From the receiver to the transmitter.

Format: X010 XXXX

1) *Response for continue to correct (CTR)* — This signal is the digital response to CTC signal, so that the receiving terminal can accept the contents included in CTC signal.

Format: X010 0011

A.4.3 *Post message commands* | (see also § 5.3.6.1.6)

From the transmitter to the receiver.

Format: X111 XXXX

1) *Partial page signal (PPS)* — This command indicates the end of a partial page or a complete page of facsimile information and also indicates to return to the beginning of phase B or C upon receipt of MCF.

Format: X111 1101

The frame construction of PPS command and transmission order of bits included in I1-I3 are shown in Figure A-1/T.30.

Figure A-1/T.30, (N), p.

2) *End of retransmission (EOR)* — This command indicates that the transmitter decides to terminate the retransmission of error frames in the previous partial page and to transmit the next block upon receipt of ERR response.

Format: X111 0011

The frame construction of EOR command is shown in Figure A-2/T.30.

Figure A-2/T.30, (N), p.

3) *Receive ready (RR)* — This command is used to ask for the status of the receiver.

Format: X111 0110

Note 1 — This command is defined for flow control.

Note 2 — For flow control method, make reference to § A.5.

A.4.4 *Post-message responses* | (see also § 5.3.6.1.7)

From the receiver to the transmitter.

Format: X011 XXXX

1) *Partial page request (PPR)* — This signal indicates that the previous message has not been satisfactorily received and that the frames specified in the associated facsimile information field are required to be retransmitted.

Format: X011 1101

The facsimile information field of the PPR signal is a fixed length of 256 bits, each bit corresponds to an FCD frame i.e., the first bit to the first frame etc. For FCD frames which are received correctly, the corresponding bit in the PPR information field will be set to ‘‘0’’; those that are received incorrectly or not received will have their bit set to ‘‘1’’.

If more than one PPR signal is transmitted, the bit corresponding to an FCD frame which has been received correctly must always be set to ‘‘0’’.

The frame construction of PPR response is shown in Figure A-3/T.30.

The process of an error correction is shown in Figure A-4/T.30.

Note 1 — The number of frames in a partial page is less than or equal to 256 frames. Therefore, in some circumstances there may be extra bits that do not correspond to any frames. These bits are set to ‘‘1’’ (see Figure A-5/T.30).

Note 2 — The first bit in the FIF corresponds to the first frame (frame No. 0).

2) *Receive not ready (RNR)* — This signal is used to indicate that the receiver is not ready to receive more data.

Format: X011 0111

Note 1 — This signal is defined for flow control.

Note 2 — For flow control, make reference to § A.5.

3) *Response for end of retransmission (ERR)* — This signal is the digital response to EOR signal.

Format: X011 1000

Figure A-3/T.30, (N), p.

Figure A-4/T.30, (N), p.

Figure A-5/T.30, (N), p.

A.5 *Flow control procedure*

A.5.1 Flow control in the transmitting station is made by continuous flag transmission between frames or before the first frame.

A.5.2 The maximum transmission time of flags should be less than the value of timer T1.

A.5.3 In case of transmission on a noisy channel, a long flag sequence may be destroyed by noise. Therefore, it is recommended that the receiver implement a control procedure to discard invalid frames which are obtained from erroneous flag sequences.

A.5.4 Flow control in the receiving station is made using RR/RNR signals as shown in Figure A-6/T.30.

A.5.4.1 Inactivity timer T5 is defined as follows:

T5 = 60 s ± 5 s.

Note — As the use of the T5 timer reduces transmission efficiency, implementation which minimizes its effect is desirable.

A.5.4.2 The timer T5 is started at the timing of the first RNR response recognition.

A.5.4.3 If the timer T5 has expired, the transmitter sends a DCN command for call release.

A.5.4.4 If RNR response is not received correctly, an RR command is retransmitted to the receiver. After three unsuccessful attempts, the transmitter sends a DCN command for call release.

A.5.4.5 After receiving RNR response, the transmitter immediately sends an RR command until an MCF/PIP response or an ERR/PIN response is received correctly.

A.5.4.6 An MCF or ERR response indicates that the busy condition is cleared and the receiver ready to receive the data which follows the interruption.

Figure A-6/T.30, (N), p.6

A.6 *Procedure interrupt*

A.6.1 Procedure interrupt signals are not allowed at the partial page boundaries.

A.6.2 Procedure interrupt after detection or transmission of PIP and PIN signals is accomplished by using the procedure defined in the main body of this Recommendation. This procedure is outside the scope of the error correction mode specified in this Annex A.

A.7 *Flow Diagrams*

The following flow diagrams shows the phase B, pre-message procedures, phase C, message procedure, phase D, post-message procedures and phase E, call release, for both the transmitting and receiving stations.

For the Notes and an explanation of terms to the flow diagrams, see § A.7.1.

Figure A-7/T.30 (feuillet 1 sur 2), (N), p.7

Figure A-7/T.30 (feuillet 1 sur 2), (N), p.8

Figure A-7/T.30 (feuillet 2 sur 2), (N), p.9

Figure A-7/T.30 (feuillet 2 sur 2), (N), p.10

Figure A-8/T.30, (N), p.11

Figure A-9/T.30, (N), p.12

Figure A-10/T.30, (N), p.13

Figure A-11/T.30, (N), p.14

Figure A-12/T.30, (N), p.15

Figure A-13/T.30, (N), p.16

Figure A-14/T.30, (N), p.17

Figure A-15/T.30, (N), p.18

Figure A-16/T.30, (N), p.19

Figure A-17/T.30, (N), p.20

Figure A-18/T.30, (N), p.21

Figure A-19/T.30, (N), p.22

Figure A-20/T.30, (N), p.23

Figure A-21/T.30, (N), p.24

Figure A-22/T.30, (MC), p.25

Figure A-23/T.30, (MC), p.26

Figure A-24/T.30, (N), p.27

Figure A-25/T.30, (N), p.28

A.7.1 *Flow diagram key*

COMMAND REC The ‘‘command received’’ subroutine searches for an error-free standard command. The decision diamonds in the flow diagram refer to the most recent standard command received (e.g., EOM, MPS, etc.). COMPT REMOTE REC The FIF associated with the DIS has indicated a ‘‘compatible remote receiver’’. DOC TO XMIT The station has ‘‘at least one document to be transmitted’’.

COMPT REMOTE XMTR The FIF associated with the DIS has indicated a ‘‘compatible remote transmitter’’ which has documents to send. RESPONSE REC The ‘‘response received’’ subroutine which searches for an error-free standard response. LAST DOC The ‘‘last document’’, for the given operating mode, has been transmitted. SET MODE The system controller will ‘‘set the appropriate mode’’ of operation.

3RD TRY The command has been repeated three times without an appropriate response. CAPABLE RE-XMIT The transmitting station is ‘‘capable of retransmitting’’ a document which was not received with acceptable quality. MSG CARRIER REC The ‘‘message channel carrier has been received’’. This carrier is 1800 Hz for the Group 3 modulation scheme, and 1700 Hz for the Group 3 optional modulation scheme, 2100 Hz for the Group 2 modulations, and 1300-2100 Hz for the Group 1 modulation scheme.

PHASE/TRAIN OK The phasing/training-TCF signal has been analyzed and the results of ‘‘phasing/training were OK’’. CHANGE MODE The transmitting unit desires to exit from the transmitting mode of operation and reestablish the capabilities. NSP REQ A ‘‘non-specified procedure’’ has been ‘‘recognized’’ by a unit compatible with the station initiating that procedure. COPY QUALITY OK By some algorithm, the ‘‘copy quality was deemed OK’’.

REPHASE/TRAIN By some algorithm, it is deemed desirable to transmit a new phasing/training signal. FLAG There has been the detection of a ‘‘flag’’. RECEIVE A FRAME The unit has ‘‘received one complete HDLC frame’’. FCS ERROR The HDLC frame received contained an ‘‘FCS error’’.

OPTIONAL RESPNS The HDLC frame received contained one of the listed ‘‘optional responses’’. OPTIONAL COMMAND The HDLC frame received contained one of the listed ‘‘optional commands’’. CRP OPTION The facsimile unit has the ‘‘CRP option’’ and can, therefore, request an immediate retransmission of the most recent command.

LOCAL INT Either the ‘‘local’’ machine or the ‘‘local’’ operator wishes to generate an interrupt of the standard facsimile procedures. An operator would use this as a means to request the establishment of voice contact. LINE REQ This means that the local operator has ‘‘requested’’ that the telephone line be connected to the handset for voice contact with the remote end. PRI-Q A general term referring to either PRI-EOM, a PRI-MPS, or a PRI-EOP post-message command, i.e., the fifth bit of the standard post-message command is set to 1. END OF PAGE? The transmitting station may have further data to transmit to complete the page.

4TH PPR? PPR has been received 4 times. TRANSMIT ERROR FRAMES The frames defined in the information field associated with PPR are transmitted using the V.27 | fIter /V.29 modulation system. CONTINUE TO CORRECT? The transmitting station by some algorithm decides to continue correcting the previous message.

CONT WITH NEXT MSG? The transmitting station by some algorithm decides to continue and transmit the next message. The previous message was not satisfactorily transmitted.

PPS×PRI-Q? The terminal has ‘‘received either PPS×PRI-EOM, PPS×PRI-MPS, or PPS×PRI-EOP post-message command’’. PPS×Q? The terminal has ‘‘received either PPS×EOM, PPS×MPS, PPS×EOP or PPS×Null post-message command.’’ EOR×PRI-Q? The terminal has ‘‘received either EOR×PRI-EOM, EOR×PRI-MPS, or EOR×PRI-EOP post-message command.’’ EOR×Q? The terminal has ‘‘received either EOR×EOM, EOR×MPS, EOR×EOP or EOR×Null post-message command’’.

RECEIVE READY? The receiving station is ready to receive the next message. RR RESPONSE REC? The ‘‘RR response received’’ subroutine searches for an error-free response for the RR command. CTC RESPONSE REC? The ‘‘CTC response received’’ subroutine searches for an error-free response for the CTC command.

Note 1 — The non-specified procedure, NSP, refers to a procedure which takes 6 seconds or less to complete. It may not necessarily be a definable signal sequence.

Note 2 — This signal pertains to Group 3 apparatus only.

Note 3 — The PRI-EOM, PRI-EOP, PRI-MPS post-message commands are sent when a local interrupt request is pending.

Note 4 — At any time during the operation an interrupt may be generated which would result in a procedural interrupt. It is understood that if this interrupt happens during the transmission of the document, the EOM/RTC signal will be transmitted prior to invoking the procedural interrupt.

Note 5 — Where the symbol / is used, the term to the left of the symbol refers to Groups 1 and 2 equipment, and the term to the right of the symbol refers to Group 3 equipment.

Note 6 — Where the symbols { } are used, the signals within these symbols are a response to DIS from the calling unit wishing to receive.

Note 7 — Where the symbols ( ) are used, the signals within these symbols are optional.

A.8 *Signal sequence examples in case of error correction procedure*

The examples below are based on the flow diagrams and for illustrative and instructional purposes only. They should not be interpreted as establishing or limiting the protocol. The exchange of the various commands and responses is limited only by the rules specified in this Recommendation.

In these diagrams the dashed lines indicate transmission at the message data rate (Recommendation V.27 **|** fIter , V.29), and (X, Y) means (page modulo number, block modulo number).

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Figure A-26/T.30 (feuillet 1 sur 13), (N), p.

Figure A-26/T.30 (feuillet 2 sur 13), (N), p.30

Figure A-26/T.30 (feuillet 3 sur 13), (N), p.31

Figure A-26/T.30 (feuillet 4 sur 13), (N), p.32

Figure A-26/T.30 (feuillet 5 sur 13), (N), p.33

Figure A-26/T.30 (feuillet 6 sur 13), (N), p.34

Figure A-26/T.30 (feuillet 7 sur 13), (N), p.35

Figure A-26/T.30 (feuillet 8 sur 13), (N), p.36

Figure A-26/T.30 (feuillet 9 sur 13), (N), p.37

Figure A-26/T.30 (feuillet 10 sur 13), (N), p.38

Figure A-26/T.30 (feuillet 11 sur 13), (N), p.39

Figure A-26/T.30 (feuillet 12 sur 13), (N), p.40

Figure A-26/T.30 (feuillet 13 sur 13), (N), p.41

APPENDIX I

(to Recommendation T.30)

Example of non-standard manual-to-manual basic facsimile operation

It is acknowledged that there are existing equipments in the field that may not conform in all aspects to this Recommendation. Therefore, the decision may be made to go to a mode of operation other than specified herein. Figure I-1/T.30 describes, as an example, one of these conditions. Other methods may be possible as long as they do not interfere with the recommended operation.

FIGURE I-1/T.30, (M), p.42

APPENDIX II

(to Recommendation T.30)

H.T. [1T13.30]

Index of abbreviations used in Recommendation T.30

Abbreviation	Function	Signal format	Reference
CED	Called station identification	2100 Hz	4.3.3.2
CFR	Confirmation to receive	X010 0001	5.3.6.1.4, 1)
		1850 or 1650 Hz for 3s	4.3.1.2
CRP	Command repeat	X101 1000	5.3.6.1.8, 2)
CIG	{		
Calling subscriber identification			
}	1000 0010	5.3.6.1.2, 2)	
CNG	Calling tone	1100 Hz for 500 ms	4.3.3.3
CSI	{		
Called subscriber identification			
}	0000 0010	5.3.6.1.1, 2)	
CTC	Continue to correct	X100 1000	A.4.1
CTR	{		
Response to continue to correct			
}	X010 0011	A.4.2	
DCN	Disconnect	X101 1111	5.3.6.1.8, 1)
DCS	Digital command signal	X100 0001	5.3.6.1.3, 1)
DIS	Digital identification signal	0000 0001	5.3.6.1.1, 1)
DTC	Digital transmit command	1000 0001	5.3.6.1.2, 1)
EOM	End of message	X111 0001 1100 Hz	5.3.6.1.6, 1) 4.3.2.4
EOP	End of procedure	X111 0100	5.3.6.1.6, 3)
EOR	End of retransmission	X111 0011	A.4.3
ERR	{		
Response for end of retransmission			
}	X011 1000	A.4.4	
FCD	Facsimile coded date	0110 0000	A.2.2
FCF	Facsimile control field	—	5.3.6.1
FIF	Facsimile informtion field	—	5.3.6.2
FTT	Failure to train	X010 0010	5.3.6.1.4, 2)
GC	Group command	1300 Hz for 1.5-10.0 s	4.3.2.1
		2100 Hz for 1.5-10.0 s	
GI	Group identification	1650 or 1850 Hz	4.3.1.1
HDLC	High level data link control	—	5.3
LCS	Line conditioning signals	1100 Hz	4.3.2.2
MCF	Message confirmation	X011 0001 1650 or 1850 Hz	4.3.1.3
MPS	Multi-page signal	X111 0010	5.3.6.1.6, 2)
NSC	{		
Non-standard facilities command			
}	1000 0100	5.3.6.1.2, 3)	
NSF	Non-standard facilities	0000 0100	5.3.6.1.1, 3)
NSS	Non-standard set-up	X100 0100	5.3.6.1.3, 3)

TABLEAU II-1/T.30 [1T13.30], p.43

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H.T. [2T13.30]
Index of abbreviations used in Recommendation T.30
(end)

Abbreviation	Function	Signal format	Reference
PIN	Procedural interrupt negative	X011 0100	5.3.6.1.7, 5)
PIP	Procedural interrupt positive	X011 0101	5.3.6.1.7, 4)
PIS	Procedure interrupt signal	462 Hz for 3 s	4.3.3.1
PPS	Partial page signal	X111 1101	A.4.3
PPR	Partial page request	X011 1101	A.4.4
PRI-EOM	Procedure interrupt-EOM	X111 1001	5.3.6.1.6, 4)
PRI-EOP	Procedure interrupt-EOP	X111 1100	5.3.6.1.6, 6)
PRI-MPS	Procedure interrupt-MPS	X111 1010	5.3.6.1.6, 5)
RCP	{		
Return to control for partial page			
}	0110 0001	A.2.2	
RNR	Receive not ready	X011 0111	A.4.4
RR	Receive ready	X111 0110	A.4.3
RTN	Retrain negative	X011 0010	5.3.6.1.7, 3)
RTP	Retrain positive	X011 0011	5.3.6.1.7, 2)
TCF	Training check	Zeros for 1.5 s	5.3.6.1.3, 4)
TSI	{		
Transmitting subscriber identification			
}	X100 0010	5.3.6.1.3, 2)	

TABLEAU II-1/T.30 [2T13.30], p.44

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APPENDIX III

(to Recommendation T.30)

H.T. [1T14.30]

List of commands and appropriate responses

Commands	Comments	Appropriate responses
(NSF) (CSI) DIS Identifying capabilities: from a manual receiver or an auto answer unit. } (NSC) (CIG) DTC (TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS) }	{ {	
(NSC) (CIG) DTC Mode setting command: from the calling unit. This is a poll operation. } (TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS) }	{ {	
(TSI) DCS (TSI) (NSS) Mode setting command: from manual transmitter or automatic receiver. This command is always followed by phasing/training. } CFR FTT (NSC) (CIG) DTC (NSF) (CSI) DIS (CRP) }	{ {	
CTC Mode setting command: from the transmitter to the receiver. }	{ (CTR) (CRP)	
(EOR×NULL) Indicate the next block transmission: from the transmitter to the receiver. }	{ (ERR) (RNR) (CRP)	

{
(EOR×MPS) or
(EOR×EOP) or
(EOR×EOM) or
(EOR×PRI×MPS) or
(EOR×PRI-EOP) or
(EOR×PRI-EOM)
}
Indicate the next message transmission:
from the transmitter to
the receiver.
}
	{
	(ERR) (RNR) PIN (CRP)	

{
MPS or EOP or EOM or
(PRI-MPS) or
(PRI-EOP) or
(PRI-EOM)
}
	Post message commands.	MCF RTP RTN PIP PIN (CRP)

(PPS×NULL)	{	

Post-message command for a partial page: from the transmitter to the receiver. }	(PPR) MCF (RNR) (CRP)	

{
(PPS×MPS) or
(PPS×EOP) or
(PPS×EOM) or
(PPS×PRI-MPS) or
(PPS×PRI-EOP) or
(PPS×PRI-EOM)
}
Post-message commands for a complete page:
from the
transmitter to the receiver.
}
(PPR)
MCF
(RNR)
PIP
PIN
(CRP)
}
	{
	
	{	

TABLEAU III-1/T.30 [1T14.30], p.45

H.T. [2T14.30]
List of commands and appropriate responses
(end)

Commands	Comments	Appropriate responses
(RR) Ask for the status of the receiver: from the transmitter to the receiver. } (RNR) (ERR) MCF PIP PIN (CRP) }	{ {	
DCN	Phase E command	None

Note — Where the symbols (| are used, the signals within these symbols are optional.

TABLEAU III-1/T.30 [2T14.30], p.46

APPENDIX IV
(to Recommendation T.30)

Interworking between the standard mode

and the recognized optional mode for the binary coded handshaking procedure

An example of a station having the standard binary coded, recognized optional binary coded and tonal capabilities is given in Figure IV-1/T.30.

Figure IV-1/T.30, (MC), p.47

APPENDIX V
(to Recommendation T.30)

Signal sequence examples

The examples below are based on the flow diagrams and are for illustrative and instructional purpose only. They should not be interpreted as establishing or limiting the protocol. The exchange of the various commands and responses is limited only by the rules specified in this Recommendation. (See §§ 5.3 and 5.4).

The notations used in these diagrams are as follows:

— an arrowhead signifies the receiver of the signal;

— a solid line indicates transmission of the signal at the data rate of 300 bit/s;

— the dashed lines indicate transmission at the message data rate (Recommendations V.27 **|** fIter , V.29);

— a lightning bolt ( ) indicates an invalid frame;

— a bold solid line indicates the transmission of tonal signals.

In the following figures, the examples given assume that DIS will be repeated for T1 seconds unless responded by a valid signal.

Figure V-1/T.30, (MC), p.

Figure V-2/T.30, (MC), p.49

Figure V-3/T.30, (MC), p.50

Figure V-4/T.30, (MC), p.51

Figure V-5/T.30, (MC), p.52

Figure V-6/T.30, (MC), p.53

Figure V-7/T.30, (MC), p.54

Figure V-8/T.30, (MC), p.55

Figure V-9/T.30, (MC), p.56

Figure V-10/T.30, (MC), p.57

Figure V-11/T.30, (MC), p.58

Figure V-12/T.30, (MC), p.59