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Particular signalling facilities

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**RESPONSE TO THE NOT-READY CONDITION  
OF THE TELEX TERMINAL**

Reedition of CCITT Recommendation U.45 published in  
the Blue Book, Fascicle VII.2 (1988)

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## NOTES

- 1 CCITT Recommendation U.45 was published in Fascicle VII.2 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).
- 2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

## **Recommendation U.45**

### **RESPONSE TO THE NOT-READY CONDITION OF THE TELEX TERMINAL**

*(Melbourne, 1988)*

The CCITT,

*considering*

(a) the increasing use of modern electronic terminals, telex automatic emitting devices (TAEDs) and stored-program-controlled exchanges in the international telegraph, telex and gentex networks;

(b) the desirability of standardizing the network and terminal responses to the various not-ready conditions of the terminal;

*and recognizing*

the need to keep the response as short as possible in order to avoid unnecessary charging;

*unanimously recommends*

the adoption of the following procedures in response to the not-ready condition of the telex terminal in new equipments and as far as possible in existing equipments.

#### **1 Definition**

1.1 The following term used in this Recommendation is defined as follows:

##### **the not-ready condition of the telex terminal**

The status of a terminal which prevents the return of the call connect signal or answerback sequence in response to a valid incoming call signal or WRU respectively.

Alternatively, the status which develops within a terminal during an established connection as a result of the exhaustion of the printing paper, or equivalent recording medium, and which results in premature clearing of the connection.

#### **2 Scope**

The provisions of this Recommendation apply only to printed service signals.

#### **3 Call attempts to terminals already in the not-ready condition**

3.1 For networks which do not utilize the additional information characters allowed by Recommendation U.1, § 10.1.2, then a call attempt to a terminal in the not-ready condition and connected to that network shall receive the standard service signal DER, constructed in accordance with Recommendation U.1, Table 1/U.1 and § 10.1.2.

It should be noted, however, that some Administrations use the standard service signal ABS to signal the not-ready condition as a result of loss of power at the called terminal.

3.2 An exception to the above, the service codes listed in Recommendation F.131 shall be used when a call attempt is made from the international telex network to a ship-earth station participating in the maritime mobile service or the maritime mobile-satellite service and which is not capable of accepting the call.

3.3 For networks which can utilize these additional information characters, then a call attempt to a terminal in the not-ready condition and connected to that network shall receive the expanded version of the standard service signal DER, constructed in accordance with Recommendation U.1, Table 1/U.1 and § 10.1.2.

3.4 The additional information characters shall be in accordance with Table 1/U.45 for the not-ready conditions listed, where the character strings PFL, EXM and NAB have meanings as listed in § 4.1.1 of Recommendation F.60.

3.5 For call re-attempts in accordance with Recommendation U.40, it is important that there is no confusion between the basic and expanded form of the service signal. For this reason, the format of the service signal train specified in Recommendation U.1, § 10.1.2 shall be rigidly applied, where the standard service signal is delimited by a carriage-return and line-feed sequence at beginning and end.

The standardization of a specific response to the PFL, EXM and NAB conditions is for further study.

3.6 It should be noted that where an expanded form of a U.1 service signal transits networks which apply signalling conversion rules in accordance with Recommendation U.15, then the additional information characters will be discarded by the conversion process and only the standard service text (i.e. ← ≡ ↓ DER ← ≡) will be translated by the Type D transit centre.

#### **4 Activation of the not-ready condition during an established connection**

4.1 During an established connection, the transition to the not-ready condition in the receiving terminal will generally be indicated by an escalation from a PAPER LOW to a PAPER OUT situation. For terminals which use electronic memory as the recording medium, this will be equivalent to STORE LOW and STORE FULL conditions.

The procedures to be applied during this transition are a national matter.

4.2 On reaching a PAPER OUT (or equivalent) condition, one of the following procedures should be applied:

4.2.1 The receiving terminal shall send a clearing signal to initiate immediate clearing of the connection.

4.2.2 Preferably, in new terminals and as far as possible in existing terminals, the following sequence of events will be activated.

4.2.2.1 Interrupt the incoming text as per Recommendation S.4.

4.2.2.2 Send the following character sequence at automatic speed

← ≡ ↓ EXM ← ≡

to indicate exhaustion of the recording medium.

4.2.2.3 Send the clearing signal to initiate clearing of the connection. (See Table 1/U.45.)

4.2.2.4 The reaction of automatic calling devices (terminals, CF, SFU) to the receipt of EXM and clearing during forward transmission is for further study.

4.2.3 If the transmitting terminal fails to respond to the request to stop transmission, then the receiving terminal shall initiate clearing in accordance with § 4.2.1 above.

4.3 Further incoming calls to this terminal will be handled in accordance with § 3 above.

4.4 In the situation where a transmitting terminal is about to reach a PAPER OUT condition, then it is recommended that the procedures of §§ 4.2.2.2 and 4.2.2.3 be applied.

TABLE 1/U.45

## Response to the not-ready condition in the telex terminal

Not-ready condition of terminal	Effect at exchange	Response of terminal	Signal sent by exchange
During established connection: imminent exhaustion of printing paper (or equivalent recording medium)	None	a) Initiate clearing as per national requirements, or b) Interrupt i/c text as per Rec. S.4; Transmit the sequence ←≡↓EXN←≡; Initiate clearing as per national requirements. (Note 3)	None
During call set-up: (Note 1) – Power failure – Lack of text recording medium – Failure of answerback	No current  Non-receipt of call connect  Non-receipt of valid answerback sequence		(Note 2)  ↓PFL←≡↓DER←≡ (Note 4) ↓EXM←≡↓DER←≡  ↓NAB←≡↓DER←≡

*Note 1* – Or technical failure presenting the same conditions at the exchange.

*Note 2* – Service signal constructed in accordance with Recommendation U.1, § 10.1.2.

*Note 3* – Should the incoming text fail to stop, then clear as per a).

*Note 4* – See also § 3.1.





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