INTERNATIONAL TELECOMMUNICATION UNION

ITU-T S.6

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TELEGRAPHY

ALPHABETICAL TELEGRAPH TERMINAL EQUIPMENT

CHARACTERISTICS OF ANSWERBACK UNITS (ITA2)

ITU-T Recommendation S.6

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation S.6 was published in Fascicle VII.1 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 S.6

CHARACTERISTICS OF ANSWERBACK UNITS (ITA2)

(based on former Recommendations S.6 [1]*, S.6 bis* [2] *and S.6 ter* [3]*,*
Geneva, 1976, 1980 and Malaga-Torremolinos, 1984)

The CCITT,

considering

(a) Recommendations F.60 [4] and F.21 [5] concerning the telex and gentex services respectively;

(b) that start-stop equipment is capable of receiving communications without the help of an operator;

(c) that this advantage is useful to users of the international Telegraph Alphabet No. 2 (ITA2);

(d) that it is therefore desirable that the identity of either the calling or the called party should be capable of being checked;

(e) that it may be necessary to verify the correct functioning of the line and of the distant terminal equipment;

(f) that it is desirable to give confidence to the calling party that the reception of the called station's answer-back code is related to the proper working of that station as a whole,

unanimously declares the view

(1) that a code transmitter filling the requirements specified below should be supplied for the subscribers' sets taking part in the international telex and gentex services and, upon request, for other telegraph services using start-stop equipment and ITA2;

(2) that operation of the code transmitter should be effected by the sequence of signals figure-shift **D** (combinations Nos. 30 and 4) in ITA2;

(3) that, for services [1)] other than gentex, the answerback code emission should be composed of a series of 20 signals, as follows:

1 letter-shift or figure-shift;

1 carriage-return;

1 line-feed;

16 signals chosen by each Administration for the subscriber's code signal;

1 letter-shift; (optional – see the Recommendation cited in [8]);

(4) that, for the gentex service[1)], the answerback code emission should be composed of a series of 20 signals, as follows:

1 carriage-return,

1 line-feed,

1 figure-shift,

16 signals chosen by each Administration in accordance with Recommendation F.21 [5],

1 letter-shift;

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1) As regards the information to be conveyed by answerback codes and the order of presentation of that information, reference should be made to the Recommendation cited in [6] for the telex service or to Recommendation F.21 [5] for the gentex service or to Recommendation F.130 [7] for maritime mobile services.

(5) that, when a telex or gentex answer-back code includes less than 16 significant characters chosen by the Administration, the necessary number of filling characters should be inserted in accordance with Recommendation F.60 [4] or F.21 [5] respectively;

(6) that, for services other than telex and gentex, when the answerback code includes less than 16 significant characters, it is necessary to insert as many letter-shifts as are necessary, by distributing them among the significant characters, to make up the total of 16 signals. This would give the calling subscriber the chance of noting clearly the end of the requested code transmission;

(7) that if a complex installation connected to the telex network incorporates both outgoing-only terminals and terminals which may be called, then the call number of the group of terminals which may be called, or of one of them, should appear in the answerback code of the outgoing-only terminal.

Administrations may also wish to apply this to public installations connected to the telex network which not only transmit but also receive and distribute messages;

(8) that the answerback signals should comply with the transmission characteristics specified in Recommendation S.3;

(9) that the delay between the beginning of reception of the start unit of combination No. 4 by the equipment in the "figures" position and the beginning of the start unit of the first signal in the answerback sent by this equipment should lie between:

- 150 and 600 ms for 50-baud equipment;
- 100 and 600 ms for 75-baud equipment;
- 75 and 600 ms for 100-baud equipment;

(10)that the start-stop equipment in the telex service should be designed so that reperforators should not perforate the *Who are you?* (WRU) signal (figure-shift **D**);

(11) that manufacturers should be informed that the answer-back mechanism should preferably be constructed so that the 20 positions in the answer-back code may be freely used for any combination in ITA2.

References

[1] CCITT Recommendation *Characteristics of answer-back units for start-stop apparatus of the telex service*, Green Book, Vol. VII, Rec. S.6, ITU, Geneva, 1973.

[2] CCITT Recommendation *Answer-back units for 75-baud start-stop apparatus in accordance with International Alphabet No. 2*, Green Book, Vol. VII, Rec. S.6 *bis*, ITU, Geneva, 1973.

[3] CCITT Recommendation *Answer-back units for 100-baud start-stop apparatus in accordance with International Alphabet No. 2*, Green Book, Vol. VII, Rec. S.6 *ter*, ITU, Geneva, 1973.

[4] CCITT Recommendation *Operational provisions for the international telex service*, Rec. F.60.

[5] CCITT Recommendation *Composition of answer-back codes for the international gentex service*, Rec. F.21.

[6] CCITT Recommendation *Operational provisions for the international telex service*, Rec. F.60, § 3.4.2.

[7] CCITT Recommendation *Maritime answer-back codes*, Rec. F.130.

[8] CCITT Recommendation *Operational provisions for the international telex service*, Rec. F.60, § 3.4.2.4.