

RECOMMENDATION 553

INTERFACE REQUIREMENTS FOR 50-BAUD START-STOP TELEGRAPH TRANSMISSION
IN THE MARITIME MOBILE-SATELLITE SERVICE*

(Study Programme 17A/8)

(1978)

The CCIR,

CONSIDERING

- (a) that proper interworking of this telegraph transmission with the international telegraph services must be ensured;
- (b) that the shore station equipment will interface with the international terrestrial telegraph networks and will therefore need to conform to CCITT Recommendations where applicable;
- (c) that the ship station will include a local end with its termination consisting of start-stop equipment using International Telegraph Alphabet No. 2,

UNANIMOUSLY RECOMMENDS

1. that the shore station equipment interfacing with terrestrial telegraph channels should conform to CCITT Recommendation R.101 (see Annex I) as applicable to 50-baud services:

1.1 for signals from the terrestrial network entering the shore station, the relevant points are:

TABLE I

Item	Parameter	Recommendation R.101 Point
<i>a</i>	Input modulation rate	2.1
<i>b</i>	Isolated character stop elements	2.2
<i>c</i>	Minimum interval between start elements	2.3
<i>d</i>	No restrictions on the use of combinations of Telegraph Alphabet No. 2	2.4
<i>e</i>	Effective net margin	2.5
<i>f</i>	Minimum input start element duration	2.6

1.2 for signals from the shore station entering the terrestrial network, the relevant points are:

TABLE II

Item	Parameter	Recommendation R.101 Point
<i>g</i>	Output distortion	3.1
<i>h</i>	Output modulation rate	3.2
<i>i</i>	Minimum output stop element	3.3

2. that the transmission characteristics of the ship terminal start-stop equipment should conform to CCITT Recommendation S.3 as applicable to 50-baud services.

* The CCITT is at present considering the adoption of a similar Recommendation.

ANNEX I

The relevant sections of CCITT Recommendation R.101* are reproduced below for information:

“2. Start-stop channel inputs

- 2.1 The maximum speed tolerance that shall be accepted on continuous incoming 50-baud start-stop signals where a stop element of 1.4 units is employed shall be $\pm 2\%$.
- 2.2 The system shall accept isolated incoming 50-baud start-stop signals that have a 1-unit stop element.
- 2.3 The minimum interval between start elements of undistorted successive continuous characters that may be presented at the channel input when the nominal modulation rate is 50 bauds shall be 145 5/6 ms.
- 2.4 There shall be no restriction on the continuous transmission of all characters specified in 1. above (e.g. combination No. 32 of International Telegraph Alphabet No. 2) when they are presented at the maximum permitted rate.
- 2.5 The effective net margin on all channel inputs when undistorted signals are received from a transmitter having a nominal character length and rate shall be at least 40%.
- 2.6 To be recognized as valid, an input character start element shall be of at least 0.4 units' duration at the nominal modulation rate of the input channel.

3. Start-stop channel outputs

- 3.1 The maximum degree of gross start-stop distortion shall be 3%.
- 3.2 The maximum difference possible between the mean modulation rate of the channel output signals and the nominal modulation rate shall be 0.2%.
- 3.3 When 50-baud characters are presented at any input rate within the specified range of this Recommendation, the minimum stop element duration released at the output shall be 1.25 units.”
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* This Recommendation is at present under study and may be modified.