

RECOMMENDATION ITU-R S.354-2*

**Video bandwidth and permissible noise level
in the hypothetical reference circuit
for the fixed-satellite service****

(1963-1970-1974)

The ITU Radiocommunication Assembly,

considering

- a) that the hypothetical reference circuit is intended as a guide to designers and constructors of actual systems;
- b) that the costs of establishing and maintaining systems in the fixed-satellite service are critically dependent on the video bandwidth and the overall signal-to-noise ratio to be provided and these should, therefore, not be greater than is strictly necessary for acceptable transmission;
- c) that it is desirable for the noise level in satellite transmission not to exceed the permissible level for international terrestrial transmissions (see ITU-T Recommendation J.61);
- d) that it is desirable for international television programmes via space stations in the fixed-satellite service to be transmitted according to the television standards and system of origin, so as to ensure the best quality of service in conformity with Opinion ITU-R 38,

recommends

1 that, in the hypothetical reference circuit for systems in the fixed-satellite service, as defined in Recommendation ITU-R S.352, the nominal upper limit of the video bandwidth should be compatible with the necessary bandwidth for the television system or systems to be transmitted (see ITU-T Recommendation J.61);

* Radiocommunication Study Group 4 made editorial amendments to this Recommendation in 2001 in accordance with Resolution ITU-R 44 (RA-2000).

** These requirements are provisional. In Question 13/ex-CCIR SG CMTT and Study Programme 13D/ex-CCIR SG CMTT, the ex-CCIR SG CMTT invites Administrations to study the characteristics of a hypothetical reference circuit for the transmission of television by satellite.

2 that the signal-to-weighted noise ratios for continuous random noise at the end of the hypothetical reference circuit, defined in Recommendation ITU-R S.352, should provisionally be equal to the ratios recommended for the 2500 km terrestrial reference circuit in ITU-T Recommendation J.61; for the appropriate television standard.

NOTE 1 – Telecommunication Standardization Study Group 9 intends to study the definitions and characteristics of auxiliary circuits to be associated with picture and sound programme circuits (see Study Programme 17C/ex-CCIR SG CMTT).

NOTE 2 – In the application of *recommends* 2 of this Recommendation, special note should be taken of Note 2* of § 1.2 of ex-CCIR Recommendation 421-3 (Geneva, 1974) with regard to noise in the hypothetical reference circuit.

NOTE 3 – The noise specified above should include the interference noise in Recommendation ITU-R S.483.

* *Note by the Secretariat:* This Note has been deleted in ITU-T Recommendation J.61 which replaces ex-CCIR Recommendation 421-3.