PART 5A: FREQUENCIES, ORBITS AND SYSTEMS

RECOMMENDATION 546-2*

HYPOTHETICAL TELEPHONE REFERENCE CIRCUIT IN THE AERONAUTICAL, LAND AND MARITIME MOBILE-SATELLITE SERVICES

(Question 82/8)

(1978-1982-1990)

The CCIR,

CONSIDERING

(a) that it is desirable to establish a hypothetical telephone reference circuit for systems in the mobile-satellite services, which would include associated feeder links, in order to afford guidance to designers of equipment and systems for use in telephone networks;

(b) that, in systems in the mobile-satellite services, including associated feeder links, many technical characteristics of the link in the land earth station to mobile earth station direction may differ substantially from those of the link in the mobile earth station to land earth station direction and hence two hypothetical telephone reference channels are required,

UNANIMOUSLY RECOMMENDS

1. that the hypothetical telephone reference channel in the land earth station to mobile earth station direction consists of one land earth station to satellite to mobile earth station link (see Fig. 1);

2. that the hypothetical telephone reference channel in the mobile earth station to land earth station direction consists of one mobile earth station to satellite to land earth station link (see Fig. 2);

3. that the hypothetical telephone reference circuit be comprised of a link between a land earth station 4-wire audio-frequency band interface and a mobile earth station 4-wire audio-frequency band interface as defined in Fig. 3;

4. that echo control devices not be included within the hypothetical telephone reference circuit;

5. that should any voice processing equipment be used, for example, compandors, coders, decoders or voice-activated carrier switches, such equipment should be included within the hypothetical telephone reference circuit.

---

* The Director, CCIR, is requested to bring this Recommendation to the attention of the CCITT.

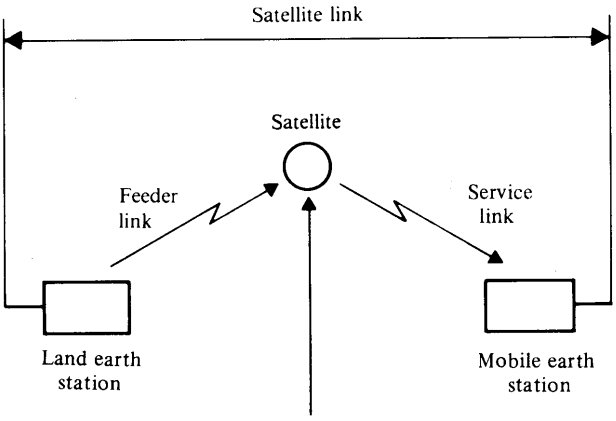

FIGURE 1 – *Land earth station to mobile earth station hypothetical telephone reference channel*

D01-sc

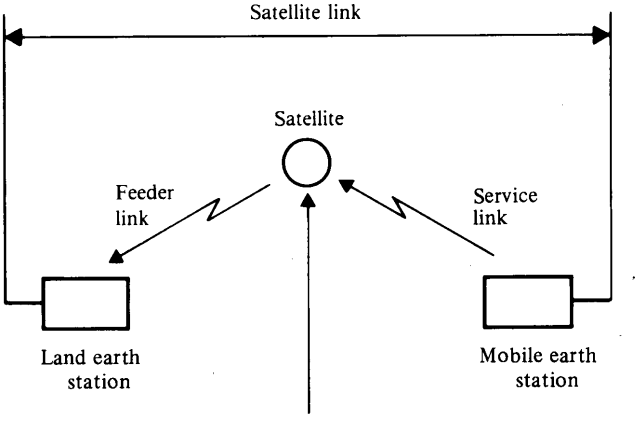

FIGURE 2 – *Mobile earth station to land earth station hypothetical telephone reference channel*

D02-sc

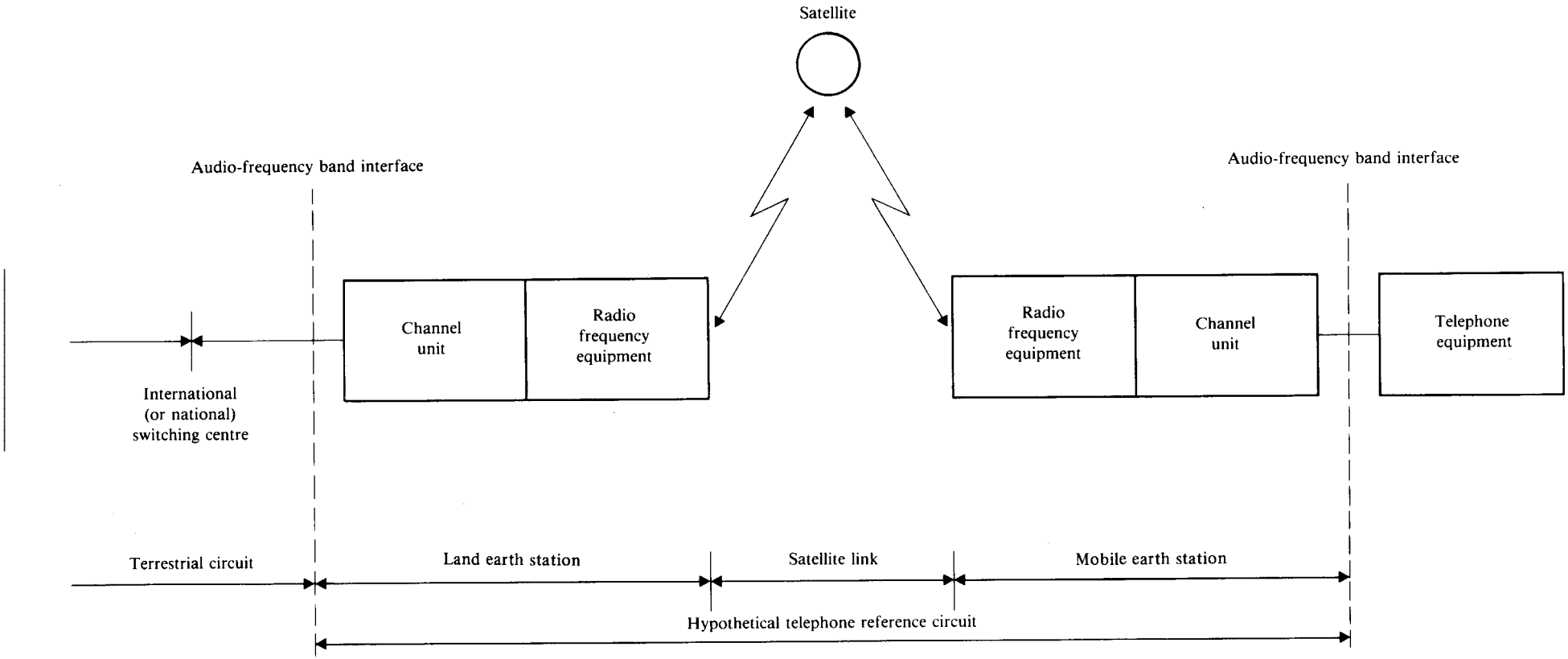

FIGURE 3 – *Functional block diagram of a mobile-satellite system defining the hypothetical telephone reference circuit*

D03-sc