

GUIDANCE ON A LICENSING FRAMEWORK FOR AUTHORIZATION AND OPERATION OF EARTH STATIONS IN MOTION COMMUNICATING WITH GEOSTATIONARY SPACE STATIONS IN THE FIXED SATELLITE SERVICE IN THE FREQUENCY BANDS 10.95-11.2 GHZ, 11.45-11.7 GHZ, 11.7-12.2 GHZ AND 14.0-14.5 GHZ IN THE AMERICAS

The 30th Meeting of the Permanent Consultative Committee II: Radiocommunications (PCC.II),

CONSIDERING:

- a) that the bands 10.7-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz are allocated in Region 2 on a primary basis to the FSS and that there are a large number of geostationary satellite orbit (GSO) FSS satellite networks operating in these frequency bands;
- b) that there is an increasing need for mobile communications, including satellite services, and that some of this need can be in part met by allowing earth stations to operate while stationary or in motion on platforms (such as vessels, aircrafts and vehicles) to communicate with space stations of the FSS;
- c) that earth stations in motion are currently operating or planned to be operated in FSS networks in bands 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz frequency bands;
- d) that sectors including maritime, aeronautical, energy and government can benefit from the services provided using earth stations in motion;
- e) that earth stations aboard unmanned aircraft in the bands 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz in Region 2, 12.2-12.5 GHz in Region 3, 12.5-12.75 GHz, and 14 14.47 GHz fall under the provisions of Resolution 155 (WRC-15) and that these earth stations have additional requirements that must be considered separately;
- f) that Recommendation ITU-R S.1587 “Technical characteristics of earth stations on board vessels communicating with FSS satellites in the frequency bands 5925-6425 MHz and 14-14.5 GHz which are allocated to the fixed-satellite service” describes technical characteristics of Earth Stations on board Vessels (ESVs) operating in the 14-14.5 GHz band;
- g) that Recommendation ITU-R S.1857 “Methodologies to estimate the off-axis e.i.r.p density levels and to assess the interference towards adjacent satellites resulting from pointing errors of vehicle-mounted earth stations in the 14 GHz frequency bands” presents the general antenna pointing error characteristics of vehicle-mounted earth stations (VMESs) and provides a methodology to assess the potential interference towards adjacent satellites operating in the GSO, FSS systems;
- h) that Recommendation ITU-R M.1643 “Technical and operational requirements for aircraft earth stations of aeronautical mobile-satellite service including those using fixed-satellite service network transponders in the band 14-14.5 GHz (Earth-to-space)” provides the technical and operational requirements for aircraft earth stations of aeronautical mobile-satellite service, including those using FSS network transponders operating in the band 14-14.5 GHz;

¹ CCP11-2017-30-4495_i

i) that Recommendation PCC.II/REC. 50 (XXVII-16) “Authorization of earth stations in motion communicating with geostationary space stations in the fixed satellite service in the frequency bands 19.7-20.2 GHz and 29.5-30.0 GHz in the Americas” was adopted to address similar earth stations in motion operations;

j) that Recommendation PCC.II/REC. 52 (XXVII-16) “Generic or blanket licensing regimes for ubiquitously deployed fixed-satellite service earth stations” provides guidance on how generic licenses can facilitate deployment of satellite services to end users;

RECOGNIZING:

a) that some CITELE Administrations have already adopted national regulations to facilitate the use of ESVs, VMESs and earth stations aboard aircraft (ESAAs) in the frequency bands 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz;

b) that some CITELE Administrations have already adopted national regulations in which a generic or blanket licensing regime is used to authorize ESVs, VMESs and ESAAs in the frequency bands mentioned in recognizing 1);

c) that some CITELE Administrations have authorized earth stations in motion operation in their countries;

d) that by the provisions of ITU RR No. 5.457A ESVs may communicate with space stations of the FSS in the band 14-14.5 GHz in accordance with Resolution 902 (WRC-03);

e) that the implementation of national regulatory frameworks in the Americas would facilitate the deployment of innovative and beneficial services e.g. the use of earth stations in motion in the Ku-band²;

RECOMMENDS:

That in the bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space), CITELE Administrations consider implementing a generic or blanket licensing framework to facilitate the deployment of ESVs, VMES and ESAAs communicating with space stations in the fixed satellite service.

² In the frequency bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space).