

RESOLUTION 766 (WRC-15)

Consideration of possible upgrading of the secondary allocation to the meteorological-satellite service (space-to-Earth) to primary status and a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz

The World Radiocommunication Conference (Geneva, 2015),

considering

- a)* that data collection systems (DCS) operate on geostationary and non-geostationary orbits in the meteorological-satellite (MetSat) service and the Earth exploration-satellite service (EESS) (Earth-to-space) systems in the frequency band 401-403 MHz;
- b)* that DCS are essential for monitoring and predicting climate change, monitoring oceans, and water resources, weather forecasting and assisting in protecting biodiversity, improving maritime security;
- c)* that most of these DCS have implemented satellite downlinks (space-to-Earth) in the frequency band 460-470 MHz which bring significant improvements to the operation of satellite DCS, such as the transmission of information to optimize the usage of the terrestrial data collection platforms;
- d)* that the frequency band 460-470 MHz is currently allocated to MetSat (space-to-Earth) on a secondary basis;
- e)* that No. **5.290** identifies some administrations that already have a primary MetSat allocation, subject to agreement obtained under No. **9.21**;
- f)* that the frequency band 460-470 MHz is currently allocated to the fixed and mobile services on a primary basis and is widely used by these services;
- g)* that there is a need to protect the fixed and mobile services in the frequency band 460-470 MHz and not to constrain their future development;
- h)* that, according to No. **5.289**, EESS applications, other than MetSat, may also be used in the frequency bands 460-470 MHz and 1 690-1 710 MHz for space-to-Earth transmissions, subject to not causing harmful interference to stations operating in accordance with the Table of Frequency Allocations;
- i)* that No. **5.286AA** identifies the frequency band 450-470 MHz for use by administrations wishing to implement International Mobile Telecommunications (IMT),

considering further

- a)* that at least one administration has adopted national regulatory provisions providing a power flux-density (pfd) limit of -152 dBW/m²/4 kHz for protecting systems of the terrestrial services;

b) that, in order to meet this limit, space agencies have designed and are implementing a spread spectrum solution, making the operation of at least one satellite DCS downlink operating in the frequency band 460-470 MHz compliant with the pfd limit mentioned in *considering further a)*,

recognizing

a) that it is necessary for MetSat and EESS operators to have stable regulatory certainty in order to be able to provide long-term continuity for this service of public interest, and that operating under a secondary allocation status is conflicting with this objective;

b) that these space programmes represent long-term effort and investment that span across decades from the time when the programme is officially decided, through the development period and the launch phase to the time when the corresponding satellites are in operation;

c) that space and meteorological agencies are investing in the continuity of these programmes providing subsequent satellites and payloads;

d) that an upgrade to a primary status of the allocation of the frequency band 460-470 MHz to MetSat and EESS (space-to-Earth), alongside appropriate measures to ensure adequate protection of existing primary allocated services in that frequency band, will bring confidence for administrations and space agencies involved in satellite data collection programmes and for the public sectors funding the development and operation of such systems;

e) that it is necessary to keep the priority of MetSat over EESS in the frequency band 460-470 MHz;

f) that MetSat and EESS earth stations will not claim protection from stations in the fixed and mobile services;

g) that the agreements obtained under No. **5.290** remain in force,

resolves to invite the 2019 World Radiocommunication Conference

to consider, based on the results of ITU Radiocommunication Sector (ITU-R) studies, the possibility of upgrading the secondary MetSat (space-to-Earth) allocation to primary status and adding a primary EESS (space-to-Earth) allocation in the frequency band 460-470 MHz, while providing protection and not imposing any additional constraints on existing primary services to which the frequency band is already allocated and in the adjacent frequency bands,

invites ITU-R

1 to conduct and complete, in time for WRC-19, sharing and compatibility studies to determine the feasibility of upgrading the MetSat (space-to-Earth) allocation to primary status, and the addition of a primary EESS (space-to-Earth) allocation in the frequency band 460-470 MHz, while protecting the primary fixed and mobile services to which the frequency band is already allocated and maintaining the conditions contained in No. **5.289**;

2 to complete the studies, taking into account the present usage of the frequency band 460-470 MHz by incumbent services, to determine the appropriate pfd limit to be placed on MetSat (space-to-Earth) and EESS (space-to-Earth) to protect the existing primary services to which this frequency band is already allocated, provided that, if the studies conclude that a less restrictive pfd limit than that contained in *considering further a)* can protect incumbent services, then the pfd limit contained in *considering further a)* shall apply,

invites administrations

to participate actively in the studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R,

instructs the Secretary-General

to bring this Resolution to the attention of the World Meteorological Organization (WMO) and other international and regional organizations concerned.