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RESOLUTION 657 (WRC-15)

Spectrum needs and protection of space weather sensors

The World Radiocommunication Conference (Geneva, 2015),

considering

- a) that space weather observations are becoming increasingly important in detecting solar activity events that could impact on services critical to the economy, safety and security of administrations;
- b) that these observations are also made from platforms that may be ground-based, airborne or space-based;
- c) that some of the sensors operate by receiving low-level natural emissions of the Sun or the Earth's atmosphere, and therefore may suffer harmful interference at levels which could be tolerated by other radio systems;
- d) that space weather sensor technology has been developed and operational systems have been deployed without much regard for domestic or international spectrum regulations, or for the potential need for protection from interference,

recognizing

- a) that no frequency bands have been documented in any manner in the Radio Regulations for space weather sensor applications;
- b) that the ITU Radiocommunication Sector (ITU-R) has a Study Question ITU-R 256/7 to study the technical and operational characteristics, frequency requirements and appropriate radio service designation for space weather sensors;
- c) that any regulatory action associated with space weather sensor applications should take into account incumbent services that are already operating in the frequency bands of interest,

resolves to invite the 2023 World Radiocommunication Conference

while taking into account the results of ITU-R studies and without placing additional constraints on incumbent services, to consider regulatory provisions necessary to provide protection to space weather sensors operating in the appropriately designated radio service that is to be determined during ITU-R studies,

invites ITU-R

- 1 to document, in time for WRC-19, the technical and operational characteristics of space weather sensors;
- 2 to determine, in time for WRC-19, the appropriate radio service designations for space weather sensors;

3 to conduct, in time for WRC-23, any necessary sharing studies for incumbent systems operating in frequency bands used by space weather sensors, with the objective of determining regulatory protection that can be provided while not placing additional constraints on incumbent services,

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.