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RESOLUTION 674 (WRC-23)

**Studies on possible allocations to the Earth exploration-satellite service (passive)
in the bands 4 200-4 400 MHz and 8 400-8 500 MHz**

The World Radiocommunication Conference (Dubai, 2023),

considering

- a)* that the frequency band 6 425-7 250 MHz has been used by the Earth exploration-satellite service (EESS) (passive) to perform sea surface temperature (SST) measurements;
- b)* that SST measurements are important for detecting and forecasting meteorological events that drastically impact the safety and security of administrations and the populations of their countries;
- c)* that SST data sets are an essential resource for monitoring and understanding climate variability and climate change;
- d)* that SST measurement by satellite, in the microwave domain, remains the only measurement enabling daily and global measurement of SST, independently of meteorological conditions (i.e. the presence of clouds);
- e)* that SST measurement over different frequency channels might improve radio-frequency interference mitigation;
- f)* that certain frequency bands used for SST measurement have unique physical characteristics, so complementary frequency bands need to be carefully studied,

noting

that, under No. **5.458**, passive microwave sensor measurements are carried out over the oceans in the frequency band 6 425-7 075 MHz and planned to be carried out over the oceans in the frequency band 8 400-8 500 MHz, and passive microwave sensor measurements are carried out in the frequency band 7 075-7 250 MHz,

recognizing

- a)* that some complementary bands need to be determined in order to ensure continuity of SST measurement by the EESS (passive);
- b)* that, due to the sensitivity of the brightness temperature of the sea surface with regard to frequency, it is appropriate to perform SST measurements in frequency bands within the range 4-9 GHz,

resolves to invite the ITU Radiocommunication Sector to complete in time for the 2027 world radiocommunication conference

sharing and compatibility studies to determine the possibility of a future allocation to the EESS (passive) in the frequency bands 4 200-4 400 MHz and 8 400-8 500 MHz,

invites administrations

to participate actively in the studies and provide the information required for the studies listed in *resolves to invite ITU Radiocommunication Sector to complete in time for the 2027 world radiocommunication conference* by submitting contributions to ITU-R,

invites the 2027 world radiocommunication conference

to examine the results of these studies with a view to considering a new primary allocation in all Regions to the EESS (passive) in the frequency bands 4 200-4 400 MHz and 8 400-8 500 MHz, without protection from existing services in these frequency bands and in adjacent bands.