NOAA's EESS Spectrum Activity and WRC-11 Agenda Items of Interest to NOAA

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EESS Spectrum Activity

- Working Party 7C
  - Proposed Revision of PDNR ITU-R RS.[AGGREGATE]: Characterization and assessment of degradation to EESS (passive) sensor operations from man made emission power sources

EESS Spectrum Activity (cont.)

- Working Party 7C
  - Proposed Revision of Preliminary Draft New ITU-R Report on Identification of degradation due to interference and characterization of possible interference mitigation techniques for passive sensors operating in the Earth exploration satellite service (passive)

EESS Spectrum Activity (cont.)

- Working Party 7C
  - PDNR ITU-R RS.[PASSIVE_CHARS]: Typical technical and operational characteristics of Earth exploration-satellite service (passive) systems using allocations between 1.4 and 275 GHz

EESS Spectrum Activity (cont.)

- Working Party 7B
  - Re-structuring of data transmission recommendations for EESS/Metsats, replacing existing static interference method with dynamic approach reflective of simulations currently performed in the ITU-R

WRC-11 Agenda Items of Interest to NOAA

- 1.2 Enhancing international spectrum regulatory framework (Res 951)
  - Concern: Flexibility is increased to point where new services or other uses could be approved that could potentially affect Metsat/EESS, particularly passive use

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.3 Spectrum for safe operation of unmanned aircraft systems (UAS), Res 421
  - UAS already in use by NOAA for charting shipwrecks, sending small planes into hurricanes, other environmental monitoring (e.g. weather, sea ice, climate, fisheries, seals) and search and rescue – need allocation

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.5 Harmonization of spectrum for electronic news gathering (ENG), Res 954
  - Must be vigilant for possible new frequency bands that could affect EESS/Metsat, particularly EESS (passive) and use of 2 GHz bands

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.6 Review of footnote RR No. 5.565, Res 950 and Res 955
  - NOAA's needs same as NASA's

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.8 Technical and regulatory issues for fixed service between 71 and 238 GHz, Res 731
  - Monitor activities of Working Party 5C for possible sharing with EESS (passive) services, viz. in 100-102 GHz, 116-122.25 GHz, 148.5-151.5 GHz, 174.8-191.8 GHz, 226-231.5 GHz, 235-238 GHz
  - 100-102 GHz, 148.5-151.5 GHz, 182-185 GHz, 190-191.8 GHz and 226-231.5 GHz are exclusively passive, i.e. RR 5.340 – all emissions are prohibited
  - 174.8-191.8 GHz operationally used by NOAA satellites for monitoring atmospheric moisture

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.15 Possible allocations in 3-50 MHz to radiolocation service for oceanographic radar applications, Res 612
  - In use by NOAA as well as Coast Guasrd and Navy for monitoring oil spills, ship movements, search and rescue and the environment – need allocation

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.16 Passive lightning detection, Res 671
  - Minor interest by National Weather Service
  - United Kingdom is advocate

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.19 Regulatory measures for software-defined radio and cognitive radio systems, Res 956
  - Concerned about effect on metsat microwave sensors should such systems be allowed to operate in passive allocations, particularly 5.340 bands
  - Do not see need at this time to define or identify either CRS or SDR in ITU RRs

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.20 Spectrum for High Altitude Platform Stations (HAPS) in 5850-7075 MHz, Res 734
  - Do not support allocations in 6475-7075 MHz scheduled for use by future NPOESS passive sensors

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.22 Effect of emissions from short-range devices on radiocommunication services, Res 953
  - Support studies to ensure adequate protection of space science services
  - Aggregate effect, similar to that from Ultra-wideband (UWB) use, of particular concern to passive sensing

WRC-11 Agenda Items of Interest to NOAA (cont.)

- 1.24 Extension of current NGSO space-to-Earth Metsat allocation in 7750-7850 MHz, Res 672
  - Additional 50 MHz (7850-7900 MHz) requested to accommodate anticipated increase in spectrum use based on more complex sensors producing higher data rates
  - Likelihood of additional metsat satellites using band will also increase need for spectrum
  - Sharing with existing services in 7850-7900 MHz expected to be same as in current allocation