3.X.Z INTERFERENCE REDUCTION AND EFFICIENT USAGE OF THE RF SPECTRUM RESOURCES

The CCSDS,

considering

(a) that efficient use of RF spectrum resources is imperative with the increasing congestion of the frequency bands;

(b) that the SFCG has recommendations and resolutions which express technical agreements that may be used by CCSDS member agencies to make best use of allocated bands and to avoid interference;

noting

(i) that the effectiveness of SFCG recommendations and resolutions depends upon voluntary acceptance and use by member agencies;

(ii) There is no formal process by which agencies formally agree to accept and be bound by SFCG recommendations;

recommends

(1) that CCSDS agencies comply with the SFCG regulations reported in Table I (or later version);

(2) that frequency selection be coordinated with an appropriate organization, such as SFCG, to ensure the orderly use of available allocations;

(3) that the power spectral density of space radiocommunication (Earth-to-space, space-to-Earth, space-to-space) links be reduced by using appropriate modulation and channel coding in accordance with CCSDS Recommendations, in order to reduce the potential for harmful interference.

Number	Title	Applicability
REC 4-3R3	Utilization of 2 GHz Band by Space operations	Fully applicable
REC 5-1R7	Use of the 8450-8500 MHz for Space Research, Category A	Fully applicable
REC 12-2	Use of the 14.0 - 15.35 GHz and 16.6 - 17.1 GHz Bands for Space Research, Category A	Fully applicable
REC 23-1R4	Efficient Spectrum Utilization for Space Research Service, Deep Space (Category B), in the Space-to-Earth Link	Fully applicable
7-1R6	Transponder Turnaround Frequency Ratios and Radio Frequency Channel Plans for Space Research, Category B	Limited to Recommends 2) and Table II[1]
12-5R3	Limitations on Earth-Space Link Power Levels in the 2025-2110 MHz Band	Fully applicable
39-2	Limitations on Earth-Space Link Power Levels in the EESS 7190-7250 MHz Band	Fully applicable

Table 1: list of applicable SFCG regulations.

[1] Turnaround ratios reported in REC 7-1R6 are covered by recommendations 2.6.1 – 2.6.15)