



Recommendation SFCG 5-1R5

**USE OF THE 8450-8500 MHz BAND FOR SPACE
RESEARCH, CATEGORY A⁽¹⁾⁽²⁾**

The SFCG,

CONSIDERING

- a) that the Radio Regulations permit the use of the 8450 - 8500 MHz band for Category A and Category B⁽³⁾ space research missions;
- b) that the band is one of only three worldwide primary allocations for space research service below 40 GHz;
- c) that the band, because of crowding at 2200-2290 MHz, is particularly suitable for missions to the Libration point for example;
- d) that the 8400 - 8450 MHz band is allocated for and restricted to Category B missions;
- e) that the 14.0 - 15.35 GHz and 37 to 38 GHz bands have been identified as appropriate for Category A missions requiring wide (greater than 10 MHz) bandwidth;

¹ Category A missions are those having an altitude above the Earth of less than $2 \cdot 10^6$ km.

² CCSDS has adopted a similar Recommendation.

³ Category B missions are deep space missions. Deep space is defined by the RR as distances from the Earth equal to or greater than $2 \cdot 10^6$ km.

RECOMMENDS

1. that the 8450 - 8500 MHz band be used for Category A missions requiring an occupied bandwidth of up to 10 MHz per mission and having technical requirements that are best satisfied in the band;
2. that the band be used in particular for the mission to the Libration points with bandwidth requirements up to 10 MHz;
3. that utmost care be taken in the assignment of frequencies to these missions in order to make optimum use of the limited bandwidth available to Cat. A missions, and that the maximum bandwidth, postulated in "RECOMMENDS 1" above, of 10 MHz per mission be strictly respected;
4. that the 8450 - 8500 MHz not be used for Category B missions.