

UNITED STATES OF AMERICA

PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.10: *to consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution 234 (WRC-12)*

Background Information: WRC-12 adopted agenda item 1.10 in order to consider additional allocations to the mobile-satellite service (MSS) taking into account ITU-R studies in accordance with Resolution 234 (WRC-12). Resolution 234 (WRC-12) invites the ITU-R to complete, for WRC-15, sharing and compatibility studies towards additional allocations to the mobile-satellite service in the Earth-to-space and space-to-Earth directions, within portions of the bands between 22 GHz and 26 GHz, while ensuring protection of existing services within these bands as well as taking into account No. 5.340 and No. 5.149.

WARC-92 allocated numerous bands to the MSS. However, WRC-97 and WRC-2000 made modifications to and suppressed some of these MSS allocations because sharing with other services was difficult or the conditions of use by MSS in some bands were impractical. WRC-12 considered possible new MSS allocations in the 4-16 GHz range under agenda item 1.25, but ITU-R studies and WRC-12 determined that sharing with existing services by small mobile terminals in this range would require complex regulatory provisions. No MSS allocations resulted. However, WRC-12 agreed to include agenda item 1.10 on the agenda for WRC-15, to consider possible MSS allocations in the 22-26 GHz range.

Sharing studies under this agenda item assumed characteristics for MSS networks required for operation through local atmospheric propagation conditions. The work underway in the ITU-R for this agenda item indicates that in most, if not all, cases sharing between the many services currently allocated in the 22-26 GHz range and MSS systems would be infeasible/impractical.

Proposals:

NOC USA/1.10/1

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations
(See No. 2.1)

22-24.75 GHz

Allocation to services		
Region 1	Region 2	Region 3

22-22.21	FIXED MOBILE except aeronautical mobile 5.149	
22.21-22.5	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532	
22.5-22.55	FIXED MOBILE	
22.55-23.15	FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A 5.149	
23.15-23.55	FIXED INTER-SATELLITE 5.338A MOBILE	
23.55-23.6	FIXED MOBILE	
23.6-24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	
24-24.05	AMATEUR AMATEUR-SATELLITE 5.150	
24.05-24.25	RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150	
24.25-24.45 FIXED	24.25-24.45 RADIONAVIGATION	24.25-24.45 RADIONAVIGATION FIXED MOBILE
24.45-24.65 FIXED INTER-SATELLITE	24.45-24.65 INTER-SATELLITE RADIONAVIGATION 5.533	24.45-24.65 FIXED INTER-SATELLITE MOBILE RADIONAVIGATION 5.533
24.65-24.75 FIXED FIXED-SATELLITE (Earth-to-space) 5.532B INTER-SATELLITE	24.65-24.75 INTER-SATELLITE RADIOLOCATION- SATELLITE (Earth-to-space)	24.65-24.75 FIXED FIXED-SATELLITE (Earth-to-space) 5.532B INTER-SATELLITE MOBILE 5.533

24.75-29.9 GHz

Allocation to services		
Region 1	Region 2	Region 3

24.75-25.25 FIXED FIXED-SATELLITE (Earth-to-space) 5.532B	24.75-25.25 FIXED-SATELLITE (Earth-to-space) 5.535	24.75-25.25 FIXED FIXED-SATELLITE (Earth-to-space) 5.535 MOBILE
25.25-25.5	FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space)	
25.5-27	EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A	

Reasons: Sharing with incumbent services in all cases is either not feasible or will require technical and operational constraints that will be impractical for use by the MSS. Additionally specific atmospheric propagation conditions around 24 GHz create additional sharing difficulties.

SUP USA/1.10/2

RESOLUTION 234 (WRC-12)

Additional primary allocations to the mobile-satellite service within the bands from 22 GHz to 26 GHz

Reasons: This is consequential to the above proposal to leave Article 5 unchanged under agenda item 1.10 of WRC-15.