

Nelco's Response wrt

Consultation Paper Assignment of Spectrum in E& V Bands, and Spectrum for Microwave Access (MWA) & Microwave Backbone (MWB)"

Nelco Ltd. would like to thank TRAI for giving them the opportunity to respond to the consultation paper on "Assignment of Spectrum in E& V Bands, and Spectrum for Microwave Access (MWA) & Microwave Backbone (MWB)". Nelco is a Satellite Communication Service Provider (SCSP) in India and have been participating into various consultative process of TRAI. Our comments aim to highlight the importance of satellite systems and support the balanced regulatory condition that promotes terrestrial as well as satellite communication services.

In the overall communication services, there are various services being provided using different frequency bands – IMT, Satellite Communication (Satcom), Microwave, Wi-fi services etc. Satcom services plays important role if providing connectivity to unserved and underserved areas in India as well as is used for providing backhaul for terrestrial mobile services. The spectrum band between 17.7GHz to 19.7GHz is important for satcom services & is used in most of very high throughput Ka-band Geostationary satellite system as well as in LEO & MEO services. It is important that regulatory policies have technical conditions which enable compatible operation of Fixed Satellite Services (FSS) and microwave access (MWA) / microwave backbone (MWB) services in this band.

Considering above, we would like to focus our response to related question in the consultation paper:

Q3. Keeping in view the provisions of ITU's Radio Regulations on coexistence of terrestrial services and space-based communication services for sharing of the same frequency range, do you foresee any challenges in ensuring interference-free operation of terrestrial networks (i.e., MWA/ MWB point to point links in 6 GHz, 7 GHz, 13 GHz, and 18 GHz bands) and space-based communication networks using the same frequency range in the same geographical area? If so, what could be the measures to mitigate such challenges? Suggestions may kindly be made with justification.

Nelco's Response:

Frequency segment 17.7-19.7 GHz (the 18 GHz band) is part of the Ka band, which is globally allocated for Fixed-Satellite Service (FSS). Satellites operating in the Fixed-Satellite Service (FSS) in the 17.7-19.7 GHz band currently and successfully coexist with terrestrial MWA/MWB links in co-primary allocations for the Fixed Service (FS). Coexistence of both services while using the same frequency ranges in the same geographical area has proven to work successfully based on coordination. If such coordination regime is not altered, we do not foresee any challenges in ensuring interference-free operation between the space and terrestrial uses based on the coprimary allocations to the FSS and the MWA/MWB.

Operational coordination agreements are the best way to guarantee a successful coexistence for the FSS and FS in the 17.7-19.7 GHz band, as beams are inherently narrow and directed to specific and definite points, either in space or on the ground. This includes gateway earth stations for geostationary (GSO) and non-Geostationary (NGSO) systems.

We suggest maintaining an assignment of spectrum for the MWA/MWB based on individual point-to-point links authorization in the band 17.7-19.7 GHz for all types of Telecom Service Provider (TSP) schemes. Exclusive LSA-wide assignment of spectrum may disrupt the effective coordination-based co-existence regime between satellite services & MWA/MWB services.

In summary, we suggest retaining the existing method of point-to-point link authorization in 17.7Ghz to 19.7Ghz, which will ensure the coexistence between satcom services (FSS) and MWA/MWB services based on spectrum coordination.