October 24, 2025

Managing Director
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Dear Sir or Madam:

The Mobile Satellite Services Association (MSSA) appreciates the opportunity provided by the Eastern Caribbean Telecommunications Authority (ECTEL) to submit comments on the Consultation Document regarding the Recommendation to Amend the Licence Classification Notice to Include Non-Terrestrial Networks and Services Licence and the Telecommunications (Fees) Regulations of the ECTEL Member States for Point-to-Multipoint Wireless Services (the "Consultation").

MSSA is a non-profit industry association, founded in 2024, that seeks to promote and advance the emerging ecosystem for advanced Non-Terrestrial Network (NTN) services, including but not limited to direct-to-device (D2D). MSSA supports the efforts of advanced NTN solutions providers, including terrestrial mobile and satellite operators, original equipment manufacturers, infrastructure providers, chip vendors, and others. MSSA is focused on facilitating a global ecosystem utilizing spectrum already allocated and licensed for mobile satellite services (MSS) and well-suited for integration into a broad range of mobile devices. More specifically, MSSA seeks to facilitate global mobile connectivity via satellite through open, standards-based solutions. More information about MSSA is available at www.MSS-Association.org.

MSSA is pleased to respond below to the Consultation and looks forward to continued collaboration with ECTEL on the topics discussed in the Consultation Document.

The Consultation Document appropriately recognizes that D2D and other advanced NTN services have the potential to expand connectivity significantly in the Eastern Caribbean region and the rest of the world. Technology innovations and globally harmonized standards are driving the convergence of satellite services and terrestrial mobile services. These innovations are allowing satellites to communicate directly with conventional terrestrial mobile handsets and other end-user devices and they create exciting opportunities to complement services provided by mobile network operators, close the digital divide, and provide ubiquitous coverage.

D2D and other advanced NTN services will be particularly valuable as a complement to existing terrestrial services and will facilitate expanded connectivity to underserved and unserved parts of urban and suburban areas, as well as rural and remote areas. In addition, D2D and other advanced

NTN services will help to satisfy short-term, urgent requirements—*e.g.,* with respect to disaster response. In short, these services offer the capabilities that create exciting opportunities to complement terrestrial services currently being provided by mobile network operators to facilitate ubiquitous coverage in ECTEL administrations.

***Enabling D2D and other advanced NTN services in MSS spectrum***

D2D and other advanced NTN services can be implemented in MSS spectrum without the need for new allocations or the adoption of new regulations at the national or international level. Indeed, D2D services can be offered by leveraging existing International Telecommunication Union (ITU) allocations and the national MSS licensing frameworks that already enable the provision of other MSS services, including in the following portions of the L and S bands:

- 1518-1525 MHz (space-to-Earth) paired with 1668-1675 MHz (Earth-to-space);
- 1525-1559 MHz (space-to-Earth) paired with 1626.5-1660.5 MHz (Earth-to- space);
- 1610-1613.8 MHz, (Earth-to-space), 1613.8-1626.5 MHz (Earth-to-space and space-to-Earth) and 2483.5-2500 MHz (space-to-Earth); and
- 1980-2010 MHz (Earth-to-space) paired with 2170-2200 MHz (space-to-Earth).

The introduction of D2D and other advanced NTN services in MSS spectrum will be accelerated by reliance on 3GPP standards for NTN operations. 3GPP Release 17 enhances features in the 5G Core Architecture to support NTNs for several use cases, including coverage extension, IoT, disaster communication, global roaming, and broadcasting. Building on this foundation, 3GPP Release 18 identifies three specific MSS frequency band ranges under 6 GHz (recognized across all ITU Regions) for NTN implementation.

***Protecting against interference in use of IMT bands for D2D***

MSSA respectfully recommends that ECTEL take a cautious and informed approach to the potential licensing of D2D operations in IMT/mobile service (MS) spectrum. While MSSA supports innovation in connectivity solutions, the reuse of IMT/MS bands on satellites raises important technical issues that have not been fully evaluated. In particular, D2D operations in IMT/MS bands pose interference risks to existing terrestrial services—including mobile network operators—as well as to adjacent mobile-satellite services in the L band (above 1518 MHz) and S band (1980–1995 MHz and 2170–2185 MHz). These potential impacts have not yet been fully studied.

MSSA recommends that ECTEL administrations permit D2D operations in IMT/MS spectrum only after relevant technical and coexistence issues are better understood—including through the completion of preparatory work for WRC-27 under Agenda Item 1.13, and the completion of

appropriate coexistence studies outside of that preparatory process—and after regulatory recommendations have been developed to address potential issues, such as out-of-band emissions, cross-border interference, and satellite-to-satellite interference.

MSSA also believes that comprehensive interference and coexistence studies are essential to evaluate these risks and to develop appropriate mitigation measures, such as guard bands and power limitations. At present, no consensus has been reached on these measures, either regionally or internationally. Therefore, MSSA recommends that ECTEL defer any decisions regarding the authorization of D2D operations in IMT/MS spectrum until the conclusion of the work under WRC-27 Agenda Item 1.13.

The outcomes of this agenda item are expected to provide valuable technical guidance and international alignment, helping to ensure that any future licensing framework is both effective and sustainable. MSSA remains committed to supporting ECTEL and regional stakeholders in these ongoing discussions and stands ready to contribute technical expertise.

Finally, MSSA urges ECTEL to view with caution any suggestion that D2D uses of IMT/MS spectrum can or should be allowed to proceed on a "non-interference" basis under No. 4.4 of the ITU Radio Regulations. As noted by the Radio Regulations Board (RRB) in its report to WRC-23,[1] the use of this provision (which permits certain uses on a non-interference basis) in the case of satellite networks should be approached with caution—including because of the high risk that interference that necessarily results from the operation of tens of thousands of satellites in increasingly congested spectrum bands and orbits. MSSA published more on this topic in a white paper submitted to the most recent CITEL PCC.II meeting, titled "Spectrum Management Considerations for D2D Services."[1]

***Administrative cost recovery will foster better adoption of D2D in MSS spectrum***

MSSA believes that imposing the proposed revenue fees on D2D services would complicate the adoption of D2D in the ECTEL region. A revenue-based approach to licensing fees would be problematic for several reasons. Most obviously, such revenue-based fees would amount to a tax on end users and could reduce the viability of D2D business cases that could otherwise prove transformative for the ECTEL markets. Furthermore, many D2D services will be provided on a regional basis, with relatively small amounts of revenue associated with any single jurisdiction. Indeed, a given device might be located in multiple jurisdictions over a relatively short period of

[1] *See* MSSA, "Spectrum Management Considerations for D2D Services", CITEL, 46th Meeting of PCC.II, Document 6336/25. Available at: https://www.mss-association.org/wp-content/uploads/2025/09/Spectrum-Mgt-Considerations-for-D2D-Services-Presented-at-CITEL-1-Oct-2025.pdf.

time, making it difficult to process relevant data, allocate revenues and costs, and otherwise administer the revenue-based fee mechanism across jurisdictions. Almost certainly, the costs of administering such a mechanism would be disproportionately high given the amount of the fee itself.

Instead, MSSA recommends that ECTEL adopt a cost-recovery fee structure. Collecting licensing fees via administrative cost-recovery mechanisms would avoid the issues described above and help to ensure the certainty and stability necessary to facilitate investment. The satellite communications sector is capital-intensive, with high upfront costs and long investment cycles. Therefore, satellite operators place a premium on regulatory certainty, spectrum stability, and favorable licensing conditions to make informed decisions about market entry and long-term investment in ECTEL administrations.

***Avoiding duplicative compliance measures already imposed on MNOs will foster adoption***

MSSA anticipates that market forces will give rise to a number of business models over time. For example, MSSA expects that many D2D services will be offered in partnership with existing MNOs. In such cases, additional existing regulatory and compliance obligations, such as lawful intercept and quality of service rules mentioned in the Consultation Document, can be extended to D2D operations through such MNOs via the contractual arrangements between the parties.

Respectfully submitted,

/s/

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