TO

THE EASTERN CARIBBEAN TELECOMMUNICATIONS AUTHORITY (ECTEL)

A/C Managing Director

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Subject: AST & Science, LLC response to the Consultation Paper on 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.

1. INTRODUCTION AND OVERVIEW OF AST SPACEMOBILE:

AST & Science, LLC (AST SpaceMobile) is developing the foundation for an increasingly interconnected society through a space-based broadband mobile solution designed to connect directly to standard, unmodified mobile devices (direct-to-device – D2D).

Following the launch of its BlueWalker test satellites in April 2019 and September 2022, the company successfully demonstrated the technical feasibility of its groundbreaking satellite-to-mobile architecture, enabling 5G broadband connectivity directly from space to everyday smartphones. More recently, in September 2024, AST SpaceMobile launched five first-generation BlueBird Block 1 (BB1) satellites, that delivers ten times the throughput of the initial test models.

In early 2025, AST SpaceMobile, in partnership with leading mobile network operators (MNOs) such as Vodafone[1], AT&T[2], Verizon[3], and Rakuten[4], successfully completed space-based video calls using standard, unmodified smartphones. These milestones highlight the complementary nature of the solution to ensure seamless and expanded coverage of terrestrial networks.

Building on the success of Block 1, the company is now advancing to the BlueBird Block 2 (BB2) satellites, which will mark a significant leap in capacity and scalability. The BB2 generation incorporates enhanced payloads, larger antenna arrays, and more efficient power systems, enabling up to ten times the bandwidth capacity of BB1 and supporting higher data rates for broadband services. This transition reflects AST SpaceMobile's strategy of moving from proof of concept to large-scale commercial deployment, positioning the constellation to deliver continuous, reliable coverage to millions of users worldwide.

Regarding the deployment planning, AST SpaceMobile is set to begin a new phase of launches, aiming to deploy 45–60 satellites by the end of 2026 — ensuring coverage across key global markets, including the Caribbean region — and to reach approximately 90 satellites in the following years. This deployment will ensure global coverage and significantly expand capacity, with the potential for further growth depending on demand,

[1] https://www.vodafone.com/news/technology/vodafone-makes-historic-satellite-video-call-from-a-smartphone
[2] https://about.att.com/story/2025/ast-spacemobile-video-call.html
[3] https://www.verizon.com/about/news/verizon-ast-spacemobile-bluebird-2
[4] https://rakuten.today/blog/rakuten-mobile-and-ast-spacemobile-achieve-japan-first-satellite-to-mobile-video-call.html

ultimately delivering continuous space-based broadband mobile connectivity directly to unmodified devices worldwide.

Therefore, AST SpaceMobile commends ECTEL for its leadership in recognizing Non-Terrestrial Networks (NTNs) as a key enabler of digital inclusion, and for its efforts to establish a Non-Terrestrial Networks and Services (NNS) Class Licence and update related spectrum fee frameworks, and submit its comments as follows.

2. COMMENTS RELATED TO SECTION 5 (RECOMMENDATIONS):

RECOMMENDS 1

AST SpaceMobile generally supports ECTEL's Recommends 1, particularly the introduction of the new Non-Terrestrial Networks and Services (NNS) Class Licence to authorize operators providing broadband Internet and direct-to-device (D2D) services through non-terrestrial platforms. However, we suggest a small revision to the phrase "and that do not require the installation of ground-based infrastructure/facilities in the ECTEL Member States," as outlined below in blod:

> 1. The introduction of a new licence under the Class Licence category in the Classification Notice. The proposed Class Licence will be to licence NTN operators (NGSO, GSO, HIBS, HAPS and other similar technologies) that intend only to offer telecommunications services directly to customers using non-terrestrial communications platforms (satellites, unmanned aircrafts, balloons, etc.) and that do not **necessarily** require the installation of ground-based infrastructure/facilities in the ECTEL Member States,

but may establish such infrastructure/facilities where it is beneficial for network performance or regulatory needs. The new class licence will be designated as Non- Terrestrial Networks and Services ('NNS') licence. The proposed NNS licence will be granted to NTN operators that wish to provide broadband Internet service and D2D services directly to customers, in the ECTEL Member States. Please see a copy of the draft NNS licence in Annex 1;

Justification:

While many NTN systems can operate without local facilities, some operators — such as AST SpaceMobile — use local or regional gateways to improve network performance, enhance data sovereignty, and ensure efficient traffic management and service reliability. Accordingly, while the regulatory framework should not mandate local gateways, ECTEL may wish to acknowledge the strategic advantages of encouraging voluntary gateway deployment within or near its Member States. This clarification maintains the flexibility of the Class Licence while also recognizing the benefits of allowing local or regional infrastructure when appropriate.

RECOMMENDS 2

AST SpaceMobile notes that ECTEL proposes a three percent (3%) gross annual revenue fee, with a minimum of XCD 5,000, for Non-Terrestrial Network and Services (NNS) operators, in addition to a flat spectrum fee for point-to-multipoint operations. While we appreciate the Authority's intent to create a fair and transparent framework, the

application of a percentage-based fee on gross revenue is likely to be excessive and discouraging for satellite operators, particularly those investing in broadband and direct-to-device (D2D) networks. AST SpaceMobile therefore recommends that ECTEL adopt a simplified administrative fee model for the NNS licence, not linked to a percentage of gross revenue. This approach would include a modest fixed licensing fee sufficient to cover regulatory oversight costs and, where applicable, a small flat spectrum usage fee per authorization or per MHz-pair. Such a model would eliminate the uncertainty associated with revenue-based fees, align the ECTEL framework with international best practices, and make the region more attractive for long-term investment in broadband satellite infrastructure.

Justification:

Satellite operations are global in nature, with footprints that span many jurisdictions, and applying a percentage fee on gross revenue in each country can therefore lead to double-counting of income and administrative complexity, reducing the financial predictability needed for long-term investment planning. In addition, satellite systems are capital-intensive, with high upfront costs and payback horizons often exceeding ten years. The inclusion of a variable charge based on revenue introduces further uncertainty at precisely the stage when operators are investing heavily in new infrastructure.

Moreover, broadband D2D services are designed to reach remote and underserved populations, where affordability is essential and per-user margins are very low. A percentage of gross revenue disproportionately penalizes these services, undermining the policy goal of expanding access and narrowing the digital divide. For

these reasons, most administrations around the world have already moved away from revenue-based or auction-style mechanisms for satellite licensing. By maintaining a predictable and transparent fee structure, ECTEL would ensure that its Member States remain competitive destinations for innovative satellite broadband services that directly support digital inclusion and economic growth across the Eastern Caribbean.

ADDITIONAL COMMENTS:

While the consultation does not explicitly propose a per-device fee, AST SpaceMobile considers it important that the regulatory framework explicitly rule out any future application of per-terminal or per-device charges for NTN or D2D systems. When NTN services operate using standard, unmodified mobile devices, those devices are already covered under the existing MNO's licence fees and national spectrum authorizations. Applying any separate device-based fee to the Satellite Network Operator (SNO) would result in double charging for the same end-user equipment and would introduce unnecessary complexity operations. To maintain regulatory clarity and support the growth of broadband satellite connectivity, AST SpaceMobile recommends that the ECTEL framework formally excludes per-device or per-terminal fees for standard mobile devices operating under NTN arrangements, ensuring consistency with global regulatory practice and avoiding distortions in pricing or service accessibility.

Furthermore, AST SpaceMobile notes that some ECTEL Member States may require operators to establish a local legal entity to provide telecommunications services. While AST SpaceMobile recognizes the value of local presence and accountability, the requirement to establish a separate company in each Member State would significantly increase administrative burdens and discourage investment in NTN systems, which by

nature operate across borders and under unified technical architectures. To strike a balance between local oversight and operational feasibility, AST SpaceMobile recommends that the establishment of a single registered entity in any one ECTEL Member State be deemed sufficient to satisfy local representation requirements across the region. This regional approach would facilitate efficient service deployment, enhance investment attractiveness, and maintain the transparency and regulatory oversight desired by ECTEL authorities.

3. COMMENTS RELATED TO THE ANNEX 1

PART 1 (LICENCE) - SECTION 2 (INTERPRETATION)

AST SpaceMobile notes that the emergence of Non-Terrestrial Networks (NTN) operating in partnership with licensed Mobile Network Operators (MNOs) introduces a new and legitimate model of service delivery. In this model, the NTN operator integrates with the MNO's core network to provide direct-to-device (D2D) or broadband connectivity using either MNO's licensed terrestrial spectrum. The traffic remains under the MNO's regulatory oversight and follows approved interconnection and lawful interception procedures.

Therefore, considering that this integration is part of an authorized network arrangement, it should not be interpreted as "bypass" under the licence definition. Clarifying this distinction will ensure that modern NTN–MNO partnerships are recognized as lawful and compliant, while maintaining the original intent of the bypass clause.

Suggested text:

2. INTERPRETATION

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“Bypass” means conduct comprising:

(a) the passing of an international voice service (including a reconstructable voice service as part of a data or mixed voice and data stream) without passing through the international gateway switch of a licensed international voice network operator; or

(b) the termination of international voice services over the domestic public switched telecommunications network by a Person who does not originate the call or possess a valid interconnection agreement with that domestic network operator with respect to international voice services;

Interconnection via a licensed Mobile Network Operator (MNO) or other authorized domestic carrier shall not constitute bypass where the interconnection is performed under a valid commercial and regulatory arrangement and in compliance with applicable law.

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