



August 14, 2026

Via e-mail

Mr. Damien Harrigan

Executive Director

Anguilla Public Utilities Commission

Hansa Building II - Unit 1, Cosley Drive, The Valley, Anguilla

e-mail: consultations@puc.ai

Re: AST & Science, LLC response to the Public Consultation on
Satellite Spectrum and Licensing Framework, Including NGSO
Broadband, Direct-to-Device Services and Satellite Earth Stations in
Anguilla

Dear Damien Harrigan:

AST & Science, LLC (AST SpaceMobile) commends The Anguilla Public Utilities Commission for the Public Consultation process on a Satellite Spectrum and Licensing Framework, which includes NGSO Broadband, Direct-to-Device Services, and Satellite Earth Stations in Anguilla. AST SpaceMobile is manufacturing and deploying the first and only space-based cellular broadband network that delivers services directly to unmodified cell phones. The company has advanced its commercialization efforts by expanding partnerships, resulting in agreements with more than 60 mobile network operators (MNOs) globally, which have over 3.0 billion subscribers globally. AST SpaceMobile looks forward to bringing its services to Anguilla and to working collaboratively with the Commission to support the development of a regulatory framework that enables space-based mobile broadband connectivity, strengthens network resilience, and expands coverage for users across the Anguilla territory.

Following the launch of its BlueWalker test satellites in April 2019 and September 2022, AST SpaceMobile successfully demonstrated the technical feasibility of its



groundbreaking satellite-to-mobile architecture, enabling 5G broadband connectivity directly from space to everyday smartphones. In September 2024, the company launched its five first-generation BlueBird Block 1 (BB1) satellites, which provide ten times more throughput when compared to the initial test models. Using this infrastructure and working in partnership with leading MNOs such as Vodafone¹, AT&T², Verizon³, and Rakuten⁴, the company successfully completed high-quality voice and video calls to standard smartphones in 2025, milestones that demonstrate the great possibilities and technical feasibility of this solution, reinforcing its nature that ensure seamless and expanded coverage of terrestrial networks.

Building on the success of Block 1, the company is now deploying its BlueBird Block 2 (BB2) satellites, which mark a significant leap in capacity and scalability. The BB2 generation incorporates enhanced payloads, larger antenna arrays with nearly 2,400 square feet, and more efficient power systems, enabling up to ten times the bandwidth capacity of BB1 and supporting peak data rates of up to 150 Mbps directly to standard, unmodified mobile devices. The first satellite of this new generation was successfully launched in December 2025, and 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.

In 2026, BlueBird 7 — identical to BlueBird 6 — became the second satellite in AST SpaceMobile's next-generation campaign, 3.5 times larger than BlueBirds 1–5. AST SpaceMobile has since announced the successful orbital launch of 6 more satellites, BlueBirds 8-13. With BlueBirds 14, 15, and 16 preparing for their next mission and production advancing through BlueBird satellite 42, the company continues to execute its constellation deployment program at scale, with the goal of deploying up to 60 satellites by the end of 2027, enabling coverage in key global markets. In subsequent years, the constellation is expected to reach approximately 90 satellites, providing global coverage

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 [Rakuten Mobile, AST SpaceMobile achieve satellite-to-mobile video call](#)

and significantly expanding network capacity, with potential for further growth depending on market demand.

To deliver space-based mobile broadband directly to unmodified mobile devices, AST SpaceMobile operates a multispectral architecture that combines the use of terrestrial mobile licensed spectrum, through formal partnerships with MNOs, with complementary Mobile-Satellite Service (MSS) spectrum in the S-band and L-bands. The combined use of IMT licensed spectrum and MSS spectrum will ensure that sufficient spectrum resources for coverage and capacity are available to support space-based mobile broadband services directly to end users' existing mobile devices.

Importantly, AST SpaceMobile's system architecture respects national sovereignty. AST SpaceMobile ensures all user traffic is routed through local or regional gateways, which are fully integrated with our partner MNOs' core networks. This design ensures national control over traffic management, preserves data sovereignty, enables lawful interception and regulatory oversight, and guarantees that data processing and network operations remain under domestic or regionally authorized jurisdiction, in accordance with applicable national requirements.

AST SpaceMobile looks forward to working with The Anguilla Public Utilities Commission and acknowledges the importance of this public consultation.

RESPONSE TO CONSULTATION

Question 1. Do respondents agree with the Commission's proposed objectives and principles for satellite regulation in Anguilla?

AST SpaceMobile supports the objectives and principles proposed by the Commission. AST SpaceMobile suggests that the framework expressly recognize access to Mobile-Satellite Service (MSS) spectrum in the 1,518–1,559 MHz (space-to-Earth) / 1,626.5–1,660.5 MHz (Earth-to-space) (L-band) and 1,980–2,020 MHz (Earth-to-space) / 2,170–2,200 MHz (space-to-Earth) (S bands) as an additional and equitable avenue of spectrum access, complementary to — rather than a substitute for — access through a commercial arrangement with the incumbent IMT operator.

AST SpaceMobile recommends that the Commission a blanket authorisation as a guiding principle of the framework, consistent with CITELE Recommendation PCC.II/Rec. 6 ("Guidelines for the implementation of National Regulations that facilitate the deployment of satellite services, particularly broadband services, in the Americas")⁵, which is recognized across the region as a facilitator of rapid user-terminal deployment and technologically neutral spectrum access.

Question 2. Should the Commission prioritise particular satellite use cases? If so, please rank them and provide reasons.

Prioritization or sequential ranking is not necessary: a single broadband-capable D2D architecture, once authorized for both IMT and MSS spectrum, can meet all relevant use cases simultaneously. This includes emergency and resilience Direct-to-Device (D2D) service, provided under arrangement with a mobile network operator (MNO) in IMT spectrum, and commercial D2D voice, messaging and data service in MSS spectrum, all delivered concurrently over the same broadband-capable satellite architecture, without one use case displacing or delaying another. D2D is an extension of terrestrial network coverage and can also be used for direct mobile broadband communications from space to unmodified devices, complementing — rather than replacing — the existing network.

AST SpaceMobile therefore recommends that the Commission authorize both IMT and MSS spectrum access concurrently, rather than adopting a prioritized or phased use-case framework. Doing so allows a single satellite architecture to address emergency, resilience and commercial needs at once.

Question 3. Do respondents believe that there is any significant risk from interference between the satellite bands proposed and terrestrial services or any other interference. If so, what mitigating measures are necessary beyond what is already stipulated in the Radio Regulations and 3GPP NTN standards?

IMT scenario: D2D in IMT spectrum is being implemented today globally under MNOs existing licences and using wireless technical rules. Implementation of D2D in IMT

⁵ [Inter-American Telecommunication Commission \(CITELE\)](#)

spectrum does not need to wait for conclusion of AI 1.13 at WRC-27. That agenda item concerns future MSS allocations for direct connectivity to IMT devices; it is not a precondition for D2D operating within spectrum the MNO is already authorised to use. AST SpaceMobile urges Anguilla to move forward with implementing a D2D regime now.

Until AI 1.13 is acted on at WRC-27, AST SpaceMobile suggests that the Commission adopt an out-of-band emission (OOBE) power flux-density limit of -120 dBW/m²/MHz for the protection of adjacent and cross-border users, consistent with the limit already adopted by the U.S. Federal Communications Commission (FCC) for Supplemental Coverage from Space services.⁶ This parameter provides objective technical certainty without requiring an Anguilla-specific interference assessment regime. These authorizations can be conditioned on WRC-27 actions so no re-authorization is required.

MSS scenario: The risk of harmful interference to terrestrial base stations is low, given that MSS spectrum operates under internationally coordinated EIRP, PFD and OOBE limits designed to protect adjacent terrestrial services.

In summary, AST SpaceMobile does not identify a significant risk of harmful interference in either scenario. The Commission can therefore authorize D2D in IMT spectrum immediately, using the interim -120 dBW/m²/MHz OOBE limit described above and updating it automatically upon conclusion of AI 1.13 without requiring operators to re-apply, while authorizing MSS spectrum use under the internationally coordinated limits already governing that band. This approach allows Anguilla to enable both scenarios now, with a clear and non-disruptive path to align with future WRC-27 outcomes.

Question 4. Do you agree with these Ku-Band and Ka Band proposals? If not, please provide alternative proposals with justifications.

AST SpaceMobile has no comments on this proposal.

Question 5. Do you agree with the proposed V, E and W band allocations and the terms on which they can be used, or are there other uses to which some of this

⁶ [FCC Advances Supplemental Coverage from Space Framework | Federal Communications Commission](#)

spectrum should be put such as terrestrial microwave to the exclusion of satellite services? Provide justifications for your answers.

AST SpaceMobile supports with the use of V-band for gateway feeder links and service links, to support both the high-capacity backhaul and the user-facing connectivity required by NGSO constellations.⁷

The Commission should also enable the use of the E-band to support service and gateway feeder links. The ranges 71–74 GHz (space-to-Earth) and 81–84 GHz (Earth-to-space) — part of the broader E-band — already carry a primary allocation to the Mobile-Satellite Service and the Fixed-Satellite Service worldwide under Article 5 of the ITU Radio Regulations. Each directional segment offers 3 GHz of continuous bandwidth, making this spectrum particularly well suited to feeder links, service links, and other high-capacity applications required by future broadband NGSO constellations. AST SpaceMobile therefore encourages the Commission to recognize this spectrum early in its planning, so as to anticipate in a timely manner the spectrum needs of the systems that will be deployed in the coming years.

AST SpaceMobile recommends that licensees be allowed wider, contiguous bandwidth blocks in V-band and E-band alike, rather than the narrow, fragmented sub-bands shown in the proposed table. Narrow channels increase guard-band overhead and limit gateway throughput. AST SpaceMobile recommends the adoption of contiguous blocks, consistent with the FCC's approach for NGSO V-band gateway earth stations, to optimize spectrum use and ensure high-quality service.

AST SpaceMobile has no comments on the W band.

Question 6. Are there existing terrestrial fixed links, mobile networks, broadcasting systems, government systems, aviation/maritime systems or other services in Anguilla that may be affected by use of the proposed satellite bands? Please

⁷ AST SpaceMobile currently operates feeder links in the Q/V range in other jurisdictions, specifically at 37.5–39.5 GHz (space-to-Earth) and at 42.5–43.5 GHz and 47.2–50.2 GHz (Earth-to-space).

identify the frequencies, locations, technical characteristics and likely interference mechanisms.

AST SpaceMobile does not identify a significant concern in this regard, across any of the bands under consideration in this consultation — V-band, E-band, IMT spectrum, or MSS spectrum.

The higher bands (V/Q) operate in specific ranges, with highly directive antennas and under the technical parameters set out in the ITU Radio Regulations (Articles 21 and 22 — power flux-density limits, antenna radiation pattern compliant with ITU-R Recommendations S.580 and S.465), which substantially limits the potential for interference with the known existing microwave links in Anguilla (Digicel at 10 GHz, FLOW at 11 GHz).

Regarding E-band, AST SpaceMobile similarly identifies no significant concern: this band operates at frequencies (71–76/81–86 GHz) well above those used by any known terrestrial service in Anguilla, with highly directive, high-gain antennas that further confine emissions to the intended link path, consistent with the same ITU-R technical framework noted above.

Regarding IMT spectrum, AST SpaceMobile identifies no significant concern because D2D service operates entirely within the terrestrial MNO's own existing licensed spectrum and authorised technical parameters — there is no new or additional spectrum use, and therefore no new interference vector beyond what the MNO's own licence already governs.

Regarding MSS spectrum, there are no significant concern because MSS bands are allocated to the satellite service on a primary or co-primary basis and are subject to internationally coordinated EIRP, power flux-density, and out-of-band emission limits specifically designed to protect adjacent terrestrial services, including any existing or future terrestrial use in adjacent bands in Anguilla.

Question 7. Should the Commission require satellite applicants to submit an Anguilla-specific interference assessment before authorisation? If so, what should that assessment include?

MSS scenario: Provided that ITU-R technical parameters and recommendations are enacted in Anguilla, and an up-to-date database of existing operators and links is maintained, no additional Anguilla-specific interference assessment is necessary for satellite services in MSS spectrum.

IMT scenario: Where the satellite operator provides D2D service under commercial arrangement with the terrestrial IMT licensee, interference assessment obligations is not required if the satellite network operator meets the IMT technical rules.

Question 8. Should gateway earth stations (larger stations that aggregate traffic rather than being user specific) be subject to site-specific coordination zones, exclusion zones, registration, public notice, or neighbour-jurisdiction coordination before deployment?

AST SpaceMobile recommends a light-touch regime for gateway earth stations, limited to compliance with the technical recommendations of the ITU Radio Regulations (e.g., antenna pattern, power flux-density and coordination under Articles 9, 21 and 22), without additional site-specific coordination zones, exclusion zones, or case-by-case public notice requirements. This approach is justified because gateways are deployed at fixed locations and, as such, do not create a significant interference risk, and are considerably easier to coordinate than user terminals. Given their static nature and their small number relative to the user-terminal base, a gateway lends itself to a one-time, predictable coordination process, without the need for extensive exclusion zones or case-by-case public consultation.

Question 9. Do you agree with this framework for satellite licensing and authorisation? If you have alternative proposals, please provide explanations and justifications.

AST SpaceMobile recommends the adoption of a licensing framework that distinguishes clearly between the MSS and IMT scenarios, avoiding a one-size-fits-all approach to satellite authorisation.

For example, other countries, such as Brazil, apply a single network registration model under Anatel, covering all terminals on a given satellite system without requiring a separate operating licence when the satellite provider merely supplies wholesale capacity to a duly authorized local operator. Taking the Brazilian model as a reference, AST SpaceMobile suggests the following:

IMT scenario: require only a "signal landing" authorisation to supply the signal to the terrestrial mobile operator (IMT), which would retain the licence and primary regulatory responsibility.

MSS scenario: require a specific authorisation for the use and assignment of the S-band, granted directly to the satellite operator, independent of the IMT operator.

This approach is consistent with CITEL Recommendation PCC.II/Rec. 6, which promotes blanket authorisation regimes as facilitators of satellite broadband deployment in the Americas. It is also consistent with the regulatory practice of other jurisdictions in the region — including Mexico, Peru and Colombia — which do not require an additional operating licence for a satellite provider when it only supplies wholesale capacity to a duly authorized local operator.

Question 10. Do you agree with the information requirements for applications for large and high-power earth stations?

The information requirements for applications for large and high-power earth stations should follow a light-touch regulatory approach, limited to the parameters already standardized by the ITU-R (EIRP, antenna pattern, power flux-density, coordination and ITU filing status, because these parameters are the same ones already verified through

the operator's international coordination and notifying-administration filing process. Requiring the applicant to re-submit or re-demonstrate them at the national level would therefore duplicate an assessment already performed at the ITU level, without producing any additional protection against interference.

Question 11. Do respondents agree that MNOs should be permitted to provide satellite services using spectrum already assigned to them? If not please explain why not with justifications.

AST SpaceMobile clarifies that its answer addresses the following reading of this question: an MNO can offer satellite-enabled D2D service only through a commercial arrangement with a licensed satellite operator that owns and operates the space segment — not by becoming, or being licensed as, a satellite operator itself. The space segment requires its own satellite licence and cannot be assumed by a terrestrial IMT license merely by holding terrestrial spectrum rights.

On this basis, AST SpaceMobile agrees that MNOs should be permitted to make their existing IMT spectrum available for D2D service, provided this occurs under commercial arrangement with a licensed satellite operator who has operational control of the satellite. The regulatory burden should continue to fall on the MNO, as spectrum licences, while the satellite operator is the satellite operator.

Question 12. Do respondents agree that these power limits are appropriate and if not what is the alternative bearing in mind the impact on service quality? Please provide justifications for your answers.

Considering the evolution of the studies being conducted within the ITU-R, the Commission should consider pfd limits per frequency band, calculated using the baseline IMT UE parameters previously defined by ITU-R Working Party 5D, namely a body loss equal to 4 dB instead of the 0 dB proposed by Ofcom, and an antenna gain equal to -3 dBi, the same value proposed by Ofcom. In several studies, these values have proven sufficient to protect the operation of terrestrial networks while enabling improved coverage for D2D services.

In addition, the limits could be expressed using a reference bandwidth of 5 MHz instead of 1 MHz, as described below:

Frequency (MHz)	dBW/M2/5MHz
700	-108.21
800	-106.92
900	-106.21
1.500	-102.15
1900/2100	-99.95
2300	-98.13
2500	-97.16

These values provide the appropriate level of protection to terrestrial mobile networks, including terrestrial IMT, while enabling the further development and wider deployment of D2D services.

Question 13. Do respondents agree that a minimum elevation angle of 10° is appropriate and if not what is the alternative bearing in mind the constraints on coverage that would result if the angle were to be made larger. Please provide justifications for your answers.

The minimum elevation angle of 10° is appropriate acceptable, consistent with Ofcom's analysis (Table 17, threshold of -127 dBW/MHz/m² at 10°). However, the Commission should consider a possible exception of 5° in coastal and maritime areas without line of sight to terrestrial base stations, subject to automatic geofencing, to maximize coverage in low actual interference-risk scenarios.

Question 14. Should D2D services in shared 3GPP NTN bands outside IMT spectrum be subject to the same interconnection, quality-of-service and other

obligations as terrestrial mobile services? If not, which obligations should be change/removed/modified?

AST SpaceMobile does not support full regulatory equivalence between satellite D2D operators and terrestrial mobile operators. AST SpaceMobile identifies several distinct reasons why a satellite D2D operator should not be regulated as if it were a terrestrial mobile operator:

First, the underlying technology is fundamentally different: D2D relies on a non-terrestrial, space-based architecture with distinct propagation characteristics, latency, capacity, and device constraints compared with a terrestrial cellular network, consistent with GSOA's own observation that D2D and 3GPP NTN services "may have different technical characteristics, service capabilities, coverage models, latency, capacity, device constraints and deployment objectives" than terrestrial mobile networks.

Second, in the MNO-partnership model, which AST SpaceMobile is pursuing, the satellite D2D operator does not serve retail end users directly: it supplies a wholesale, space-based extension of coverage to the terrestrial mobile network operator, which remains the licensed spectrum holder, customer of record, and point of contact for the end user. Other satellite operators may adopt a different model, serving end users directly under an MSS authorisation without an MNO intermediary; in that scenario, the operator itself holds the customer relationship, and any applicable retail-facing obligations should attach to that direct relationship rather than being imported wholesale from the terrestrial mobile framework. Obligations designed for an operator with its own retail customer relationship and dedicated national network are therefore not a natural fit for a wholesale, upstream satellite component operating under the MNO-partnership model.

It is important to note that in any model, the Commission should not just apply terrestrial obligations as they may not match satellite technology and be fit for purpose. AST SpaceMobile urges the Commission to consider if proposed regulations including those governing performance, emergency services or the like, are appropriate for the technology being used for the service provider. A fit for purpose approach should be used.

Question 15. What emergency calling obligations should apply to D2D services in Anguilla?

Where D2D service is provided under commercial arrangement with a terrestrial MNO partner, no separate mandatory emergency-calling obligation be imposed on the satellite operator, since that obligation is already discharged by the MNO partner under its existing licence. For D2D services provided independently of an MNO partner — The Commission should consider the adoption of rules that are based on satellite technology capability to provide these emergency services.

Question 16. Do you agree with our proposals for E-band? If not, please provide comments with justifications.

Regarding E-band, AST SpaceMobile recommends that the Commission recognize the ranges 71–74 GHz (space-to-Earth) and 81–84 GHz (Earth-to-space) as of particular interest for future satellite broadband deployment. These segments — part of the broader E-band — already carry a primary allocation to the Mobile-Satellite Service and the Fixed-Satellite Service worldwide under Article 5 of the ITU Radio Regulations. Each directional segment offers 3 GHz of continuous bandwidth, making this spectrum particularly well suited to feeder links, service links, and other high-capacity applications required by future broadband NGSO constellations. AST SpaceMobile therefore encourages the Commission to recognize this spectrum in its planning so it is available to satellite operators in the near future to meet capacity demands.

Question 17. Do you agree with our proposals for W-band? If not, please provide comments with justifications.

AST SpaceMobile has no comments on this proposal.

Question 18. Do you agree with this telecommunications licensing fee approach? If not, what are the alternatives given the existing legislative requirements?

The proposed scheme contemplates, in some scenarios, a proportional contribution that could approach 40% of total market revenue, a level that is excessive and economically unsustainable for a complementary D2D model, whose local revenues are

marginal relative to those of the host mobile operator. AST SpaceMobile instead recommends a cost-recovery model, consistent with the international standard applied by the FCC, Ofcom⁸ and Anatel.

Should the Commission maintain a periodic review mechanism for the fee methodology, such a review should not increase the regulatory or economic burden on operators unless the Commission's own administrative and spectrum-management costs have actually increased.

Question 19. Do you agree with this spectrum authorisation fee approach? If not, please provide alternative proposals with justifications.

AST SpaceMobile suggests that the Commission revisit this approach. The proposed fees for NGSO spectrum applied to gateway deployment are, in AST SpaceMobile's view, high for the following reasons:

First, gateways are upstream infrastructure, necessary to connect satellites with terrestrial networks, and are a crucial element of satellite infrastructure, but they do not directly serve end users. Charging gateway spectrum at the same rate as service spectrum would, in practice, amount to imposing a double charge on the satellite operator for the same service.

Second, gateways consume substantially more bandwidth than user terminals; if the spectrum fee is prorated based on bandwidth — as under the currently proposed EC\$10,000-per-band approach — the gateway operator would end up paying a disproportionately higher fee relative to the corresponding regulatory benefit.

Accordingly, AST SpaceMobile recommends that the gateway spectrum fee be set at a nominal or purely administrative cost-recovery level, thereby avoiding the double charge described above and aligning the fee with the enabling infrastructure nature of the gateway.

⁸ [Spectrum Pricing: A framework for setting cost based fees](#)

Question 20. Please provide any other comments you have on the consultation as a whole including supporting evidence where available and provide justifications.

AST SpaceMobile offers the following additional comments, drawing on its response to the equivalent consultation in Anguilla:

Type approval: AST SpaceMobile recommends recognizing FCC, Ofcom and European Union as valid equivalents, without any additional type acceptance procedure for NGSO user terminals and D2D-capable handsets.

Blanket earth station authorisation: AST SpaceMobile suggests that a single network-level authorisation covers all standardized terminals, without the need for individual per-device filing.

Local presence: AST SpaceMobile recommends that the local representative serve as the designated point of contact for the Commission and Anguilla's authorities — ensuring a clear, locally accessible channel for such requests — while the underlying data itself need not be stored locally, provided the operator demonstrates the ability to make it available to Anguilla's authorities securely and in a timely manner, regardless of where it is stored.

Spectrum assignment: The Commission should distinguish between the MSS and IMT scenarios. For MSS, AST SpaceMobile recommends a first-come, first-served approach, with periodic review of efficient use. For IMT, spectrum assignment is not applicable to the satellite operator, as D2D relies on spectrum already assigned to and managed by the terrestrial MNO under its existing licence; no separate satellite spectrum assignment process is required.

MNO D2D handsets: AST SpaceMobile recommends that no additional authorisation or fee be required of the satellite operator with respect to devices already licensed by the mobile network operator (MNO).

CONCLUSION

AST SpaceMobile appreciates the opportunity to participate in this public consultation process on a Satellite Spectrum and Licensing Framework, which includes NGSO Broadband, Direct-to-Device Services, and Satellite Earth Stations in Anguilla and thanks The Anguilla Public Utilities Commission for their leadership and commitment to building a forward-looking regulatory framework. AST SpaceMobile looks forward to bringing its space-based cellular broadband service to Anguilla and to working collaboratively with the Commission and local stakeholders, including prospective mobile network operator partners, to support the deployment of a framework that strengthens network resilience, expands connectivity for residents and visitors. We remain fully available to provide any further information or clarification that may be required and look forward to continued engagement with the relevant authorities.

Respectfully,

Rodrigo Cruz Gebrim

Head of International Strategy & Regulatory Affairs (Latin America & Caribbean)

AST SpaceMobile

Email: rodrigo.gebrim@ast-science.com

Cell: +55 61 99161-3587

David Tejeda Méndez

Senior Manager, Latin America and Caribbean Regulatory Affairs and International Strategy

AST SpaceMobile

Email: david.tejeda@ast-science.com

Cell: +52 5513965337