Draft Decision on

Sharing Broadband Satellite Spectrum

Inviting public comment and input

November 10th 2026

INTRODUCTION

1 The Telecommunication Regulation Authority (TRA) **is seeking your feedback** on whether we should allow fixed broadband non-geostationary orbit (**NGSO**) satellite licensees to exceed the equivalent power flux density (**EPFD**) limits set out in Tables 22-1A through 22-1D[1] of Article 22 of the International Telecommunications Union (**ITU**) Radio Regulations.

2 The purpose of making this change would be to establish the conditions for fixed broadband NGSO satellite licensees improving the services they provide to customers in the FSM.

3 Our preliminary decision is that we should allow this change, subject to certain conditions and operational parameters.

4 The purpose of this consultation is to gather and consider public comments, so we can consider stakeholders' views on our draft decision before we decide whether to make a final decision approving this change.

CONSULTATION FEEDBACK INFORMATION

5 The TRA invites written comments and feedback on this Draft Decision and on the draft determinations in **Attachment 2**. We have provided a comments form for responses, which can be found in **Attachment 1**.

6 Responses may be submitted in person at TRA's offices in Pohnpei, or sent to consultations@tra.fm. Responses are due by **December 10th 2026**.

7 Submissions will be made public, unless there is a specific request for confidentiality made under Section 322 of the Act.[2]

8 After receiving feedback, we will publish the submissions, and our response to submissions which will state our views and reasons for either making changes or maintaining our initial views.

BACKGROUND

9 The objectives of the FSM Telecommunications Act of 2014 (**the Act**) include "*promoting the long-term interests of users*,"[3] "*providing conditions for effective competition among service providers in the Federated States of Micronesia and encouraging efficient and sustainable investment in and use of communications networks and services,*"[4] "*promoting the effective and efficient use of the radio frequency spectrum,*"[5] and "*extending access to*

[1] Our original proposal also included Table 22-1E. For the reasons discussed below, we are excluding that Table from our draft decision.
[2] See the comments form (Attachment 1) for details.
[3] Section 303(1)(a) of the Act.
[4] Section 303(1)(c) of the Act.
[5] Section 303(1)(h) of the Act.

communications services to all persons in the Federated States of Micronesia, to the greatest extent reasonable in the circumstances."[6]

10 Our functions and powers under the Act include the powers to *"specify the technical standards and procedures for … the operation of communications networks, and the provision of communications services*,"[7] "*manage the radio frequency spectrum required to provide communications services*,"[8] and "*undertake consultations on matters relating to communications*."[9]

11 In the exercise of our powers, we are required to ensure that spectrum is managed and used in a manner that is (a) open, non-discriminatory, competitively neutral, objective and transparent; (b) consistent with any applicable international treaties, commitments, recommendations or standards legally binding on the FSM; and (c) economically efficient and permits evolution to new technologies and services.[10]

12 We are now considering whether we should exercise those powers to authorize fixed broadband NGSO satellite licensees to exceed the single-entry EPFD limits in Tables 22-1A through 22-1D of Article 22 of the ITU Radio Regulations, subject to certain operational conditions and parameters, for the 10.7-12.7 GHz, 17.8-18.6 GHZ, and 19.7-20.2 GHz bands.

SPECTRUM SHARING BY BROADBAND SATELLITE SYSTEMS

13 Geostationary and non-geostationary broadband satellite systems share certain global spectrum bands to provide services to their customers. These include the 10.7-12.7 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz bands, which are used, for example, for fixed-satellite services (e.g. broadband connectivity) and broadcast-satellite services. When multiple satellite systems use the same spectrum in the same geographic area, this raises the risk that the operation of those satellite systems might interfere with each other.

14 In order to manage the risk that fixed broadband NGSO satellite systems interfere with geostationary orbit (**GSO**) satellite systems, the ITU developed a set of rules in Article 22 of the Radio Regulations that restrict the operations of those NGSO systems. In summary, the single-entry EPFD limits in Tables 22-1A to 22-1E of Article 22 of the Radio Regulations establish the maximum power that an NGSO satellite system can produce at a receiving earth station or space station of a GSO satellite system. NGSO satellite system operators comply with these limits by restricting the power with which an NGSO system can broadcast, limiting the number of satellites from the NGSO system that can operate in a given geographic area, and restricting the NGSO system's operations within a certain distance of the transmission path of a GSO satellite.

15 The purpose of the rules in Article 22 is to protect GSO operations from harmful interference. We support this objective.

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[6] Section 303(1)(i) of the Act.
[7] Section 305(e) of the Act.
[8] Section 305(i) of the Act.
[9] Section 305(n) of the Act.
[10] Section 332(3) of the Act.

16 The effect of these rules, however, is to limit the capacity and availability of the NGSO operations, and therefore the ability of those NGSO satellite systems to serve customers, in any given geographic area. If these rules are more restrictive than necessary to protect GSO systems, a case can be made for revising them.

17 The ITU's single-entry EPFD limits were developed in the late 1990s based in part on certain assumptions made about the expected development of NGSO satellite systems. Some parties consider that these limits no longer reflect the actual operations of satellite systems today, that they are overly conservative, and that other rules could protect GSO operations as effectively, but without imposing unduly rigid restrictions on NGSO operations.

18 Work is ongoing at the ITU to update these single-entry EPFD limits, although it is not clear when this work will be completed. We support the work undertaken by the FSM Department of Transportation, Communications and Infrastructure at the ITU in this regard.

19 We note that Article 22.5CA of the Radio Regulations authorizes individual countries to exceed the single-entry EPFD limits within their own territories.

> *22.5CA 2) The limits given in Tables 22 1A to 22 1E may be exceeded on the territory of any country whose administration has so agreed (see also Resolution 140 (Rev. WRC 15)).*

20 We also note that all of these rules in Article 22 are subject to the overarching obligation in Article 22.2 that NGSO systems not interfere with GSO systems.

> *22.2 § 2 1) Non-geostationary-satellite systems shall not cause unacceptable interference to and, unless otherwise specified in these Regulations, shall not claim protection from geostationary-satellite networks in the fixed-satellite service and the broadcasting-satellite service operating in accordance with these Regulations. No. 5.43A does not apply in this case.*

21 In other words, any decision we may make pursuant to Article 22.5CA is subject to the obligation in Article 22.2.

THE NEW FRAMEWORK IN THE UNITED STATES

22 In 2026, the Federal Communications Commission of the United States of America (**FCC**) issued a decision updating the NGSO-GSO spectrum sharing framework applicable to the 10.7-12.7 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz bands in the United States. [11] This decision replaced the ITU's EPFD framework with a set of "*performance-based GSO protection criteria*" that gives fixed broadband NGSO satellite systems the right to exceed the ITU's EPFD limits with respect to those spectrum bands within the territory of the United States, subject to certain conditions.

[11] FCC, *Modernizing Spectrum Sharing for Satellite Broadband*, SB Docket No. 25-127, Report and Order (FCC 26-26), released May 1, 2026.

23 Specifically, NGSO and GSO operators are required to coordinate their operations in order to establish appropriate measures against interference. If they cannot agree, the FCC imposes the following operational limits on NGSO systems:

a. a short-term protection criterion of 0.1% absolute increase in link unavailability;

b. a long-term protection criterion of 3% time-weighted average throughput degradation for GSO satellite links using adaptive coding and modulation (**ACM**);

c. A supplemental protection criterion of −10.5 dB interference-to-noise (**I/N**) for 80% of the time for GSO satellite links that do not use ACM, such as point-to-multipoint video transmissions; and

d. A supplemental protection requirement for NGSO systems to observe a minimum 3-degree avoidance angle of the GSO arc (i.e., a GSO-arc exclusion zone of 6 degrees).

THE REQUEST

24 On August 13, 2026, we received a request from SpaceX to allow emissions from their Starlink NGSO Fixed-Satellite Service (**FSS**) system to exceed the ITU's Article 22 single-entry EPFD limits for the 10.7-12.7 GHz, 17.8-18.6 GHZ, and 19.7-20.2 GHz bands on the territory of the FSM, subject to the following operating parameters and conditions.

25 The Starlink system would operate with a maximum Nco (co-frequency beams)[12] of 8 in the 10.7-12.7 GHz band, and a maximum Nco of 6 in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

26 The Starlink system would observe a GSO Avoidance Angle of 4^{O} in the 10.7-12.7 GHz band and of 6^{O} in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

27 Our agreement to this request would apply solely to the territory of the FSM and to the Starlink system operating under these parameters.

28 Starlink would respond promptly to any harmful interference complaints, taking all reasonable steps to resolve verified harmful interference.

29 Starlink operations would remain subject to the obligation in Article 22.2 not to cause unacceptable interference to GSO networks by respecting the following protection criteria:

a. Short-term protection: a maximum absolute increase in unavailability of 0.1%

[12] This represents the number of radio frequency beams using the same frequencies that an NGSO system uses to serve a given geographic area at the same time.

b. Long-term protection:

(1) GSO links not using ACM: -10.5 dB I/N (or below) for at least 80% of the time, and

(2) GSO links using ACM: 3% average throughput reduction.

30 We requested further information from SpaceX on August 27, 2026, which they provided on September 2, 2026.

31 SpaceX submits that our agreement to its request under Article 22.5CA of the ITU Radio Regulations would enable Starlink to deliver significantly improved broadband performance within the FSM, with the following anticipated benefits:

a. Enhanced coverage and service quality in rural, remote and underserved areas;

b. Increased network capacity on the same network and typically higher user data rates;[13]

c. More stable service when many users are online or when weather is poor;

d. Improved resilience for emergency communications, government and critical infrastructure;

e. Contribution to economic development and alignment with Micronesia's national broadband strategy; and

f. Better ability to use the newest Starlink satellites at their designed performance.

32 SpaceX also submits that no GSO satellite system operators have reported instances of interference, either to SpaceX or to the best of SpaceX's knowledge to the FCC, after SpaceX was authorized by the FCC to exceed the ITU EPFD limits in the United States.

CONSULTATION PROCESS

33 On September 18, 2026, we published a Consultation Paper[14] inviting public comment on authorizing SpaceX to exceed the single-entry EPFD limits in Tables 22-1A through 22-1E of Article 22 of the ITU Radio Regulations, subject to certain operational parameters.[15] We also proposed extending this authorization to other fixed broadband NGSO licensees in the FSM.

34 We noted in our Consultation Paper that we consider that SpaceX's request, if we approve it, has the potential to improve broadband fixed satellite services provided to consumers in the FSM.

[13] i.e. "speeds."

[14] Telecommunication Regulation Authority, *A Consultation Paper on Sharing Satellite Spectrum*, published September 18, 2026 (**Consultation Paper**).

[15] These are set out at paragraph 40 of the Consultation Paper.

35 We received comments in response to our Consultation Paper from Amazon Leo (**Amazon**) on October 16, 2026. Their submissions and our responses to their comments are summarized below.

Question 1

36 We asked parties whether we should allow SpaceX's Starlink fixed broadband NGSO satellite system to exceed the single-entry EPFD limits in Tables 22-1A through 22-1E of Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands within the territory of the FSM.

Comments from parties

37 Amazon agreed with our proposal, subject to their comments in response to question 3 below. Amazon noted that this decision could help the practical record that would be useful as the ITU's rules are reviewed at the ITU World Radiocommunication Conference 2027 (WRC-27).

38 However, Amazon recommended a change to the scope of the authorization. They noted that Table 22-1E in Article 22 of the ITU Radio Regulations provides single-entry EPFD limits for the 3700-4200 MHz band, and recommended that we move incrementally and focus our efforts narrowly on the Ku-band and Ka-band.

TRA Responses

39 We note Amazon's comments. We agree that we should move incrementally and focus on the Ku-band and Ka-band at this time. We will therefore not include Table 22-1E in the authorization to exceed the single-entry EPFD limits in Article 22 of the ITU Radio Regulations.

40 **Draft Decision**: We are therefore of the preliminary view, and propose to determine, that we should authorize SpaceX's Starlink system to exceed the single-entry EPFD limits in the Tables 22-1A through 22-1D of Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands within the territory of the FSM.

Question 2

41 We asked parties whether the authorization to exceed the single-entry EPFD limits in Article 22 of the ITU Radio Regulations should be subject to the following operational parameters:

a. Starlink operations would remain subject to the obligation in Article 22.2 not to cause unacceptable interference to GSO networks by respecting the following protection criteria:

(1) Short-term protection: a maximum absolute increase in unavailability of 0.1%

(2) Long-term protection:

1. GSO links not using ACM: -10.5 dB I/N (or below) for at least 80% of the time

2. GSO links using ACM: 3% average throughput reduction

b. SpaceX must respond promptly to any harmful interference complaints, taking all reasonable steps to resolve verified harmful interference.

c. The Starlink system must observe a minimum GSO Avoidance Angle of 4^{O} in the 10.7-12.7 GHz band and of 6^{O} in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

d. The Starlink system must operate with a maximum Nco (co-frequency beams) of 8 in the 10.7-12.7 GHz band, and a maximum Nco of 6 in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

e. Our agreement to SpaceX's request shall apply solely to the territory of the Federated States of Micronesia.

Comments from parties

42 Amazon supported the proposed operational parameters as a reasonable basis for authorizing SpaceX's request, commenting that the existing EPFD limits are overprotective and outdated.

43 Amazon submitted, though, that the differentiated treatment of the Ku-band and the Ka-band in the proposed operational parameters, did not reflect a technical basis for applying greater restrictions in one band than the other. Amazon asked that we remain open to reviewing these parameters where operators present technical demonstrations of compatibility.

TRA Responses

44 We note Amazon's comments regarding the proposed operational parameters. We will remain open to reviewing those parameters in the future, if such a review is supported by the evidence.

45 **Draft Decision**: We are therefore of the preliminary view, and propose to determine, that we should apply the operational parameters set out in paragraph 41 above as a condition of authorizing licensees to exceed the single-entry EPFD limits in Tables 22-1A through 22-1D of Article 22 of the ITU Radio Regulations.

Question 3

46 We asked parties whether the authorization to exceed the ITU's single-entry EPFD limits in Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands (subject to agreed operational parameters) should be applied to all fixed broadband NGSO satellite licensees in the FSM, and not only to SpaceX's operations.

Comments from parties

47 Amazon strongly agreed with our proposal to extend the authorization to exceed the ITU's single-entry EPFD limits to all future fixed broadband NGSO system licensees while operating in the FSM. They submitted that the existing EPFD limits are overprotective and limit NGSO systems to a fraction of their potential capacity, and that our proposal would allow all NGSO systems to recover this lost capacity in the FSM.

48 Amazon also submitted that we should preemptively extend these operational parameters to all future fixed broadband NGSO system licensees, rather than approve them on a case-by-case basis.

TRA Response

49 We note Amazon's comments regarding extending the authorization to all fixed broadband NGSO system licensees. We also consider that there is merit in applying this authorization preemptively to all future fixed broadband NGSO system licensees in the FSM, rather than requiring each such licensee to request separately the right to exceed the ITU's single-entry EPFD limits for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands. For the avoidance of doubt, the authorization will only apply to systems licensed in the FSM while operating in the FSM.

50 **Draft Decision**: We are therefore of the preliminary view, and propose to determine, that the authorization to exceed the ITU's single-entry EPFD limits in the applicable Tables in Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands (subject to agreed operational parameters) should be applied to all fixed broadband NGSO satellite licensees in the FSM.

DRAFT DECISION

51 Having considered our initial views and the comments of the interested party, we propose to make the following (draft) determinations:

a. Fixed broadband NGSO satellite system licensees are authorized to exceed the single-entry EPFD limits in the Tables 22-1A through 22-1D of Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands while operating within the territory of the FSM.

b. This authorization is subject to the following operational parameters:

(1) The NGSO satellite system licensee's operations shall remain subject to the obligation in Article 22.2 not to cause unacceptable interference to GSO networks by respecting the following protection criteria:

1. Short-term protection: a maximum absolute increase in unavailability of 0.1%

2. Long-term protection:

a. GSO links not using ACM: -10.5 dB I/N (or below) for at least 80% of the time

b. GSO links using ACM: 3% average throughput reduction

(2) The NGSO satellite system licensee shall respond promptly to any harmful interference complaints, taking all reasonable steps to resolve verified harmful interference.

(3) The NGSO satellite system licensee's operations shall observe a minimum GSO Avoidance Angle of 4^{O} in the 10.7-12.7 GHz band and of 6^{O} in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

(4) The NGSO satellite system licensee's operations shall operate with a maximum Nco (co-frequency beams) of 8^{O} in the 10.7-12.7 GHz band, and a maximum Nco of 6 in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

c. This authorization applies solely to the territory of the Federated States of Micronesia.

d. This authorization applies to all existing and future fixed broadband NGSO satellite system licensees.

NEXT STEPS

52 We will carefully consider all submissions received by the deadline specified in paragraph 6 above. Following this, we will publish our Final Decision, including our responses to the submissions and an explanation for any changes we might make to the proposed authorization to exceed the single-entry EPFD limits in Article 22 of the ITU Radio Regulations or to the proposed operational parameters.

Attachments

1 Attachment 1: Comments form

2 Attachment 2: Draft Determinations

Annex – List of defined terms

ACM	adaptive coding and modulation
Act	The FSM Telecommunications Act of 2014
Consultation Paper	*A Consultation Paper on Sharing Satellite Spectrum*, published by the TRA on September 18, 2026
EPFD	equivalent power flux density
FCC	Federal Communications Commission of the United States of America
FSM	The Federated States of Micronesia
FSS	Fixed-Satellite Service
GSO	geostationary orbit
I/N	Interference-to-noise
ITU	International Telecommunications Union
NGSO	non-geostationary orbit
TRA	The Telecommunication Regulation Authority

Attachment 1 - Comments Form

Feedback on Consultation Paper: Sharing Broadband Satellite Spectrum

Information of commenting party

Full name	
Organization	
Phone number	
Email	
Is confidential information being submitted?	Y/N (Specify below)

Comments

	Comment	Proposed changes	Confidentiality[16]
Paragraph Number or Section of Consultation Document, or Consultation Question, that Comment Pertains To	*Please describe comments on specific section or question. Please be as detailed as possible and explain why you hold your views and what the potential impact of the Authority's proposed changes would be*	*Please suggest an alternative to the proposed changes (if applicable)*	*If confidential, please explain reasons for confidentiality request*
(Insert rows as needed)			

Please complete this form in full and submit to consultations@tra.fm or in person before **December 10th 2026** to:

Takuro Akinaga
Chief Executive
FSM Telecommunication Regulation Authority
KSP Building, 2nd Floor
Main Street, Kolonia
Pohnpei FM 96941, Federated States of Micronesia

[16] Confidentiality requests are managed under the rules set out in Section 322 of the Telecommunications Act. Respondents should clearly mark which information is claimed as being confidential and should provide reasons of what commercial harm will result should the information be published. Respondents who make a request for confidentiality should also provide a redacted copy of their submission, with all confidential information removed, that the TRA may publish.

Attachment 2 – Draft Determinations

The Authority has made, and hereby publishes, the following [draft] determinations on authorizing fixed broadband NGSO satellite system licensees to exceed the single-entry EPFD limits in Article 22 of the ITU Radio Regulations while operating in the FSM:

1 Fixed broadband NGSO satellite system licensees are authorized to exceed the single-entry EPFD limits in the Tables 22-1A through 22-1D of Article 22 of the ITU Radio Regulations for the 10.7-12.7 GHz, 17.8-18.6 GHz and 19.7-20.2 GHz bands while operating within the territory of the FSM.

2 This authorization is subject to the following operational parameters:

a. The NGSO satellite system licensee's operations shall remain subject to the obligation in Article 22.2 not to cause unacceptable interference to GSO networks by respecting the following protection criteria:

i. Short-term protection: a maximum absolute increase in unavailability of 0.1%

ii. Long-term protection:

1. GSO links not using ACM: -10.5 dB I/N (or below) for at least 80% of the time

2. GSO links using ACM: 3% average throughput reduction

b. The NGSO satellite system licensee shall respond promptly to any harmful interference complaints, taking all reasonable steps to resolve verified harmful interference.

c. The NGSO satellite system licensee's operations shall observe a minimum GSO Avoidance Angle of 4^{O} in the 10.7-12.7 GHz band and of 6^{O} in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

d. The NGSO satellite system licensee's operations shall operate with a maximum Nco (co-frequency beams) of 8^{O} in the 10.7-12.7 GHz band, and a maximum Nco of 6 in the 17.8-18.6 GHz and 19.7-20.2 GHz bands.

3 This authorization applies solely to the territory of the Federated States of Micronesia.

4 This authorization applies to all existing and future fixed broadband NGSO satellite system licensees.