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Independent Communications Authority of South Africa
Attn: Mr. Mandla Mchunu – Project Manager
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RE: Comments on the Draft Amendment of the Radio Frequency Spectrum Regulations, 2015 and Draft Amendment of the Radio Frequency Spectrum Fees Regulation, 2010, in Terms of the Electronic Communications Act, 2005 (Act No. 36 of 2005)

Amazon Leo¹ appreciates the opportunity to comment on the Independent Communications Authority of South Africa's ("ICASA") Draft Amendment of the Radio Frequency Spectrum Regulations, 2015 and the Draft Amendment of the Radio Frequency Spectrum Fees Regulation, 2010, in Terms of the Electronic Communications Act, 2005 (Act No. 36 of 2005) (the "Draft Fee Regulations" or "Public Consultation").² Amazon Leo commends ICASA's continued commitment to modernizing and strengthening the regulatory framework for satellite services in South Africa and recognizes that the Draft Fees Regulations give effect to the findings of the 2024 Inquiry into the Licensing Framework for Satellite Services ("2024 Inquiry"),³ to which Amazon submitted written comments.⁴ Here, Amazon Leo respectfully offers recommendations that are consistent with recent objectives identified by ICASA's Satellite Licensing Framework Committee Chairperson, Thabisa Faye, who noted that proposed amendments aim "to provide regulatory certainty, support innovation and investment in satellite services, and promote efficient spectrum use in South Africa."⁵

¹ Kuiper Systems LLC is a wholly owned subsidiary of Amazon.com Services LLC (collectively, "Amazon"). On November 13, 2025, Amazon replaced the Project Kuiper code name with Amazon Leo, its permanent brand for its satellite broadband network.

² See Independent Communications Authority of South Africa, *Draft Amendment of the Radio Frequency Spectrum Fees Regulation, 2010, in Terms of the Electronic Communications Act, 2005 (Act No. 36 of 2005)*, Government Gazette No. 54677, Notice 3926 of 2026 (May 15, 2026) ("Fees Public Consultation"); See Independent Communications Authority of South Africa, *Draft Amendment of the Radio Frequency Spectrum Regulations, 2015, in Terms of the Electronic Communications Act, 2005 (Act No. 36 of 2005)*, Government Gazette No. 54677, Notice 3927 of 2026 (May 15, 2026) ("Frequency Public Consultation").

³ See Independent Communications Authority of South Africa, *Consultation on the proposed new Licensing Framework for Satellite Services*, Government Gazette No. 51044, Notice 2678 of 2024 (Aug. 14, 2024) ("2024 Inquiry").

⁴ See Amazon Comments at Independent Communications Authority of South Africa, *Satellite Licensing Framework Submissions*, (filed Nov. 12, 2024), <https://www.icasa.org.za/uploads/files/AMAZON.pdf>.

⁵ See Independent Communications Authority of South Africa, *ICASA Publishes Draft Amendments to the Radio Frequency Spectrum Regulations and Radio Frequency Spectrum Fees Regulations*, (May 15, 2026), <https://www.icasa.org.za/news/2026/icasa-publishes-draft-amendments-to-the-radio-frequency-spectrum->

I. Background

Amazon Leo is deploying a global constellation of low-Earth orbit satellites to deliver affordable, high-speed broadband connectivity to unserved and underserved communities worldwide. Amazon Leo began launching its constellation of Non-geostationary Orbit (“NGSO”) Fixed-Satellite Service (“FSS”) satellites in low-Earth orbit (the “Amazon Leo System”) in April 2025.⁶ Since committing to invest over 10 billion U.S. dollars in the Amazon Leo System, Amazon Leo has made significant strides toward further deployment, including the continued expansion of its terrestrial infrastructure and the unveiling of innovative customer terminals that will offer high performance in small form factors and at affordable price points. Amazon Leo’s goal is to deliver service to select customers as part of a commercial beta and to roll out more widely as it launches more satellites and adds coverage and capacity to the system.

II. Recommendations for Amendment of the Radio Frequency Spectrum Regulations, 2015

a. Recommendations on Proposed Amendment Section 28A. Earth Stations in Motion

Annexure K. Amazon Leo supports ICASA’s proposed inclusion of Annexure K and its identification of the Ka-band frequencies 17.7–20.2 GHz (space-to-Earth) and 27.5–30 GHz (Earth-to-Space) for NGSO FSS ESIM use. Such clarity is important to encourage the broad deployment of ESIM services that can deliver resilient, high-speed connectivity to land, aeronautical, and maritime vehicles and vessels throughout the country, including, for instance, on remote roads and highways, at off-grid or rural mining operations, and on cargo ships entering South African ports. Amazon further appreciates that Annexure K aligns with the spectrum allocations of the European Conference of Postal and Telecommunications Administrations Electronic Communications Committee’s Decision 15(04), which provides an internationally recognized framework for all three types of NGSO FSS ESIM operations. Such harmonization promotes regulatory certainty, reduces unnecessary administrative burdens, and enables the faster deployment of ESIM services for consumers, enterprises, and public-interest users.

To further build upon the public benefits of ESIM services, Amazon Leo respectfully encourages ICASA to explicitly recognize that the 17.3–17.7 GHz band may also be used for FSS NGSO ESIM services. This matches a growing trend internationally. For example, in the United States, the FCC has explicitly authorized the use of the 17.3–17.8 GHz range for GSO and NGSO FSS ESIM communications on an unprotected basis.⁷ Additionally, Chile has explicitly authorized Amazon Leo to use the 17.3–17.7 GHz band for ESIM operations.⁸ Because South Africa already allocates 17.3–17.7 GHz to FSS consistent with ITU Region 1 allocations, explicit recognition in Annex K would represent a straightforward clarification.

Visiting ESIM. Amazon Leo supports ICASA’s recognition of visiting ESIM operations and the proposed license exemption for foreign ESIMs duly authorized in their home jurisdiction, which advances regulatory certainty and removes deployment barriers. To avoid ambiguity and increase regulatory

[regulations-and-radio-frequency-spectrum-fees-regulations](#) (quoting Councillor and Satellite Licensing Framework Committee Chairperson Thabisa Faye).

⁶ Amazon Leo successfully launched Amazon Leo’s first 27 satellites on April 28, 2025. That mission was the first of more than 80 to deploy Amazon Leo’s initial constellation. *See Amazon Leo mission updates: 350+ satellites now in orbit after record Ariane 6 launch, ULA Atlas V next, Amazon Leo* (June 18, 2026), <https://www.aboutamazon.com/news/innovation-at-amazon/project-kuiper-satellite-rocket-launch-progress-updates>. Amazon Leo has now successfully launched over 350 satellites, with additional launches planned in the coming weeks and months. *See id.*

⁷ *See* 47 C.F.R. § 2.106 at NG527(vi).

⁸ SUBTEL, Public Concession, Decree 683 (Oct. 1, 2025).

certainty for operators seeking to deploy services in South Africa, Amazon Leo respectfully encourages ICASA to revise Section 28A(7) to state that a license “is not required,” rather than that ESIM “must require no licensing.” By creating a clear regulatory requirement, ICASA will encourage the entry of operators seeking to deploy ESIM services.

Land ESIM. Amazon Leo respectfully encourages ICASA, in finalizing Regulation 28A and Annexure K, to expressly include land ESIM (“L-ESIM”) on a case-by-case basis alongside aeronautical ESIM and maritime ESIM. This calibrated approach would maximize ICASA’s regulatory options and discretion by allowing it to authorize L-ESIM only in specific frequency bands where the interference environment and demonstrated co-existence capabilities support such use. Additionally, to provide further clarity to FSS operators seeking to deploy L-ESIM services within the country, Amazon respectfully urges ICASA to explicitly include within the Amendment of the Radio Frequency Spectrum Regulations, 2015, a definition of ESIM which explicitly encompasses Land ESIM capabilities,⁹ and proposes the following additions to the definition provided by ICASA in the 2024 Notice and subsequent Notice of Findings:¹⁰

Earth stations placed on moving platforms, *including on-board ships (maritime ESIM), aircraft (aeronautical ESIM), or land vehicles (land ESIM)*, that communicate with geostationary satellite orbit (GSO) or non-GSO systems operating in the fixed-satellite service.

The inclusion of L-ESIM within the ESIM framework also aligns with ITU and international precedent. Brazil, for instance, enables L-ESIM in 27.9–28.4 GHz and 29.5–30 GHz, with additional frequencies available case by case,¹¹ while broader L-ESIM licensing is reflected in the NGSO licensing regimes, for instance, in the United States,¹² the United Kingdom,¹³ and Australia.¹⁴ Additionally, in Europe, the European Conference of Postal and Telecommunications Administrations’ Electronic Communications Committee’s Decision (15)04 establishes harmonized standards for NGSO FSS ESIM, including L-ESIM,

⁹ Amazon recognizes that ICASA defines “mobile earth station” and “land mobile earth station” in the 2021 National Radio Frequency Plan 2021 (NRFP-21), but limits the definition to operations in the land Mobile Satellite Service. Amazon, here, proposes a definition to encompass L-ESIM operations in the FSS. See Independent Communications Authority of South Africa, *National Radio Frequency Plan 2021 (NRFP-21)*, Government Gazette No. 46088, Notice 911 of 2022 (Mar. 25, 2022).

¹⁰ See 2024 Inquiry at § 1; Independent Communications Authority of South Africa, *Notice Regarding Its Findings on the “Consultation on the Proposed New Licensing Framework for Satellite Services,”* Government Gazette No. 52530, Notice 3144 of 2025, § 1.6 (Apr. 17, 2025).

¹¹ National Telecommunications Agency (Anatel), Act No. 18530, Art. 1, 7 (Nov. 30, 2025).

¹² See 47 C.F.R. § 25.103 (defining Vehicle-Mounted Earth Station to include NGSO communications); see generally *Amendment of Parts 2 and 25 of the Commission’s Rules to Facilitate the Use of Earth Stations in Motion Communicating with Geostationary Orbit Space Stations in Frequency Bands Allocated to the Fixed Satellite Service and Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations*, 35 FCC Rcd 5137 (2020).

¹³ See Ofcom, *Non-Geostationary Satellite Earth Stations, Licensing Guide*, Guidance, at 6-7 (Mar. 24, 2026), <https://www.ofcom.org.uk/siteassets/resources/documents/manage-your-licence/satellite-earth-stations/guidance/ngso-guidance.pdf?v=414938>.

¹⁴ See Australia Communications and Media Authority, *Business operating procedure Interim arrangements for the submission and processing of applications for space and space receive apparatus licences authorising the use of earth stations in motion (ESIM) in the fixed-satellite service communicating with non-geostationary space stations in the frequency ranges 17.7–18.6 GHz, 18.8–19.3 GHz, 19.7–20.2 GHz, 28.5–29.1 GHz and 29.5–30 GHz*, at 2, Appendix A-B (Aug. 2022).

under a license-exempt regime in the 17.3–20.2 GHz, 27.5–29.1 GHz, and 29.5–30.0 GHz bands,¹⁵ and 29 CEPT members have implemented, in full or part, that Decision.¹⁶

Disabling Devices. Amazon Leo respectfully recommends that section 28A(8) be supplemented with clearer guidance on the process, criteria, and timelines for disabling devices found to be operating without authorization. Such guidance would help ensure consistent enforcement, allow operators a defined opportunity to remedy non-compliance where appropriate, and reduce the risk of unnecessary seizure where disabling the device would adequately address the regulatory concern.

b. Recommendations on Proposed Amendment Section 28B. Space Segments

No-Fee Registration. Amazon Leo commends ICASA for advancing targeted space segment updates that support regulatory certainty and efficient satellite deployment in South Africa. Amazon Leo supports the Draft Regulation 28B's proposed no-fee registration requirement for foreign satellite space segment operators.¹⁷ The proposed framework serves as a proportionate Open Skies-aligned¹⁸ mechanism that gives ICASA visibility and direct contact points without imposing duplicative licensing burdens. This approach appropriately reflects ICASA's findings that space segment authorization should be streamlined, efficient, and simple without excess administrative burdens.

To provide further clarity to space station operators, Amazon respectfully encourages ICASA to adopt the following definitions for (1) Satellite Space Segment Operator, (2) Foreign Satellite Space Segment Operator, and (3) Satellite Space Segment Operator Providing Services:

- (1) Satellite Space Segment Operator: A satellite system that has been registered by ICASA to provide satellite capacity over the Republic of South Africa via licensed telecommunications services providers and/or telecommunications network operators.
- (2) Foreign Satellite Space Segment Operator: A foreign satellite system notified by a foreign Administration that has been registered by ICASA to provide satellite capacity over the Republic of South Africa via licensed telecommunications services providers and/or telecommunications network operators.
- (3) Satellite Space Segment Operator Providing Services: A Satellite Space Segment Operator or Space Segment Operator licensed by ICASA to establish an Electronic Communications Network Service or Electronic Communications Network, as defined in the Electronic Communications Act, 2005 (Act No. 36 of 2005).

Lawful Intercept Obligations. To further streamline and clarify space station authorizations and compliance obligations, Amazon Leo respectfully recommends that ICASA revise the RICA-related obligation to require lawful interception capabilities from a space segment operator. The current language obliges a satellite space segment operator to handle law enforcement requests themselves: "A Satellite space segment operator providing services in the Republic must provide and maintain lawful interception capabilities to facilitate the implementation of the RICA."¹⁹ As written, the requirements do not meaningfully differentiate between the roles and capabilities of service

¹⁵ ECC Decision (15)04 at 2 (approved July 3, 2015, amended Nov. 20, 2020), <https://docdb.cept.org/download/1496> ("ECC Decision (15)04")

¹⁶ See CEPT, *Implementation status, ECC/DEC/(15)04*, <https://docdb.cept.org/implementation/447> (last visited June 26, 2026).

¹⁷ Frequency Public Consultation at § 28B(2).

¹⁸ See Fees Public Consultation at §§ 2.6-2.7 (discussing an "Open-Sky" approach with respect to fees).

¹⁹ Frequency Public Consultation at § 28B(4).

providers and satellite space segment operators. To more fully address this discrepancy, Amazon Leo respectfully encourages that ICASA adopt the following language after the quoted language above: *“A Satellite space segment operator that provides capacity only in the Republic must provide and maintain contact information for the service provider responsible for lawful interception capabilities to facilitate the implementation of the RICA.”*

Coordination for the Protection of Radioastronomy Devices. Amazon Leo recognizes the importance of collaborating with the radioastronomy community and Managing Authorities to mitigate potential impacts of light and radio interference from its NGSO system on astronomical studies and observations. To ensure that coordination and collaboration efforts remain productive, Amazon Leo respectfully requests that ICASA specify in the Draft Regulation 28B(3) that Managing Authorities not unreasonably withhold agreement and make good faith efforts to coordinate within a reasonable timeframe.

III. Recommendations for Amendment of the Radio Frequency Spectrum Fees, 2010

GES License. Amazon Leo appreciates ICASA’s clarification that the proposed Gateway Earth Station (“GES”) License and User-Terminal Network License are intended to operate as Radio Frequency Spectrum (“RFS”) licenses, rather than as new or additional service license categories.²⁰ The confirmation that the GES License and User-Terminal Network License are spectrum authorizations, rather than encompassed in Electronic Communication license requirements, will promote regulatory certainty, avoid duplicative licensing obligations, and support timely deployment of satellite broadband services in South Africa.

Blanket Licensing. Additionally, Amazon Leo supports ICASA’s adoption of blanket licensing, including for Earth Stations in Motion (“ESIM”), and supports the proposed user-terminal licensing framework reflected in new Sub-Regulation (5)(e).²¹ A blanket license is the appropriate regulatory tool for large numbers of technically identical or comparable user terminals because it allows common technical and interference issues to be assessed once, rather than through terminal-by-terminal licensing that would be administratively burdensome for both ICASA and operators. Amazon Leo also welcomes the proposed definition of “blanket license” and the recognition that the terminal network fee can apply to both stationary VSAT networks and ESIM terminals.

Gateway Fee Factor. Amazon Leo supports ICASA’s proposed gateway fee factor structure, including the use of frequency factors that decrease in higher frequency bands, because a predictable and proportionate fee structure can better reflect the shared, non-exclusive nature of satellite spectrum and reduce barriers to investment.²² Amazon Leo respectfully requests, however, that ICASA define the terms “principal hub station,” “hub ground station,” and any other fee-relevant hub or gateway terms and clarify how frequency ranges above 50 GHz will be handled for purposes of the FREQ factor. Amazon Leo also requests that ICASA clarify that the Gateway Fee applies to a cluster of gateway earth stations—including where stations in the same network are located at different sites—because NGSO systems commonly use multiple gateway stations with the same technical characteristics and spectrum as part of a single integrated network.

²⁰ Fees Public Consultation at § 1.6.

²¹ See *id.* at §§ 2.1 (defining “Blanket Licence”), 2.7.

²² See *id.* at § 2.5.

I. Conclusion

Amazon Leo is grateful for the opportunity to comment on the Public Consultation and welcomes further engagement with ICASA on these important issues.

Respectfully submitted,

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On behalf of Kuiper Systems LLC