

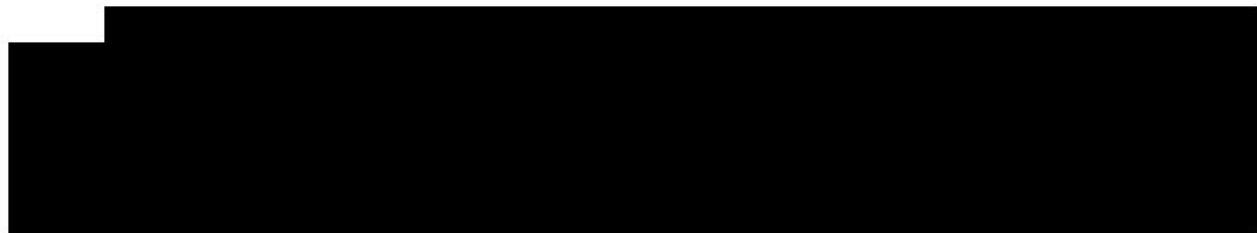
**EXHIBIT A - REQUEST FOR SPECIAL TEMPORARY AUTHORITY  
TO CONDUCT EXPERIMENTAL OPERATIONS**

**Background and Description of Testing**

AST & Science, LLC (“AST SpaceMobile”), pursuant to Section 5.61 of the Federal Communications Commission’s (“FCC” or the “Commission”) Rules, 47 C.F.R. § 5.61, hereby requests experimental special temporary authority (“STA” or “Authority”) to test off-the-shelf cellular handsets acting as mobile earth stations located in the jurisdiction identified in Table 1, in cooperation with its named local terrestrial wireless partner (“Cellular Partner”), employing AST SpaceMobile’s initial five (5) commercial non-geostationary orbit (“NGSO”) satellites (“Block 1 Bluebirds” or “BB1s”), operating from Low-Earth Orbit (“LEO”) to communicate with handsets inside the Cellular Partner’s authorized terrestrial wireless frequencies, pursuant to all required local authorizations.<sup>1</sup> AST SpaceMobile’s international testing will advance the Commission’s unambiguous goal of rapidly deploying supplemental coverage from space (“SCS”) to provide critical connectivity to unserved and underserved markets, demonstrating the Commission’s commitment to U.S. leadership in SCS across the globe.

<b>International Testing Specifications</b>	
<b>Jurisdiction</b>	Japan
<b>Applicable Telecommunications Regulatory Body</b>	Japan Aerospace Exploration Agency (“JAXA”)
<b>Cellular Partner</b>	Rakuten [REDACTED]
<b>STA Term</b>	180 days, commencing on March 15, 2025

*Table 1. International SCS Testing Specifications*



<sup>1</sup> 47 C.F.R. § 5.61(a)(1). AST SpaceMobile successfully launched its Block 1 Bluebirds on September 12, 2024, pursuant to authority granted by the Commission under Call Sign S3065.

<sup>2</sup> See FCC Call Signs WW9XBG, WL2XRE, and pending experimental license application file no. 087-EX-CM-2024 (“OET Licenses”).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

AST SpaceMobile will conduct the tests on a non-protected, non-interference basis in accordance with the technical specifications set forth in Exhibit B, and any local regulatory requirements, including applicable in-band, out-of-band, and cross-border limits, consistent with ITU Radio Regulation Article 4.4 and this STA. AST SpaceMobile will utilize the proposed testing to provide real-world data demonstrating that SCS services will complement its Cellular Partner's existing network while avoiding harmful interference to the Cellular Partner's network and to the networks of non-partner licensees.

In addition to carefully coordinating with its Cellular Partner to ensure that the proposed testing occurs solely in geographic areas and frequencies approved by the local authority, in compliance with local regulations and ITU Radio Regulation Article 4.4, the BB1s will employ interference mitigations to protect other authorized spectrum uses, including the use of protection zones, and allocation of the off-the-shelf handsets to a carefully selected closed user group that AST SpaceMobile will supervise with the help of its Cellular Partner. Individual handsets under test will also be configured to operate on the Cellular Partner's networks and frequencies and should not present an interference threat even in the unlikely event that an end user attempts to

use one outside of the Cellular Partners' network footprints. These measures should give the Commission confidence that AST SpaceMobile's foreign operations will not affect third parties and that the Commission's grant of this Authority will meet its international obligations regarding the prevention of interference.

**Gateway Earth Station Operations and TT&C**

AST SpaceMobile will conduct gateway earth station operations in Japan using V-Band frequencies in compliance with the applicable laws, regulations, rules, and licensing procedures of the applicable jurisdiction. [REDACTED]

[REDACTED]

TT&C operations will occur outside Japan at the locations set forth in Appendix A of the FCC space station authorization at ICFS Call Sign S3065 in accordance with all applicable local authorizations.

**Interference Protection**

The proposed testing will not create harmful interference for any other authorized spectrum use.<sup>3</sup>

[REDACTED]

[REDACTED]

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<sup>3</sup> See Exhibit C.



[REDACTED]

**Justification for STA**

Grant of this Authority is appropriate in the instant circumstances and serves the public interest.

First, the proposed operations align with the Commission’s effort to implement its “single network future” seamlessly blending terrestrial and satellite networks that requires international coordination.<sup>4</sup> These efforts will also support the American leadership in SCS by building on the Commission’s innovative regulatory solutions and applying them to receive foreign authority. Second, the instant circumstances serve the public interest. The Commission has expressly acknowledged the dramatic public interest benefits of SCS D2D services, including their ability to fill coverage gaps and to aid first responders, and has stated that it wants to deliver these benefits “as rapidly as possible.”<sup>5</sup> The instant proposed tests will help advance this Commission objective.

Third, favorable treatment of the instant request for STA will not prejudice any third-party or create harmful interference to other authorized spectrum users.

[REDACTED]

In the unlikely event of harmful interference, AST SpaceMobile’s “stop buzzer” contact<sup>7</sup> will maintain the ability to immediately mute transmissions between the BB1s and earth stations in Japan.

Accordingly, AST SpaceMobile respectfully requests that the Commission grant this experimental STA for D2D satellite communications for 180 days beginning March 15, 2025.

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<sup>4</sup> See *Single Network Future: Supplemental Coverage from Space*, GN Docket No. 23-65, IB Docket No. 22-271, Report and Order and Further Notice of Proposed Rulemaking, FCC 24-28 (rel. Mar. 15, 2024).

<sup>5</sup> *Id.*, ¶ 53.

<sup>6</sup> [REDACTED]

<sup>7</sup> See Exhibit B.