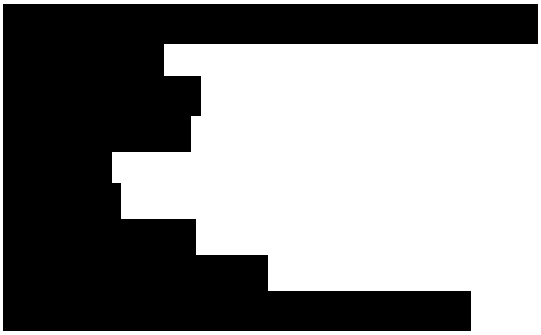
**NOTE: This correspondence mirrors responses provided to the FCC concerning file number 2173-EX-ST-2024 on December 19, 2024. The instant application involves virtually identical parameters, but proposes testing inside the United Kingdom.**

**FCC INQUIRY 1:**
Name, address, and contact information of the mobile partner operator, Vodafone, that AST SpaceMobile plans to test with in the United Kingdom. Also, please provide a copy of the mobile partner agreement(s) reflecting the frequencies on which the test will be conducted.

**RESPONSE:**



Please also see Exhibit A to this attachment.

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**FCC INQUIRY 2:**
The location(s) from where the TT&C and feeder link operations will be performed/conducted for the subject test?

**RESPONSE:**
Feeder link operations will occur in the V-band with a ground station located in the United Kingdom pursuant to applicable local authorizations. TT&C operations will occur outside the United Kingdom at the following locations, consistent with the FCC space station authorization at ICFS Call Sign S3065 and all applicable local authorizations:

S-band: 2025-2110 MHz (Earth-to-space) and 2200-2290 (space-to-Earth)
1. Punta Arenas, Chile
2. Awarua, New Zealand
3. Hartebeesthoek, South Africa
4. Puertollano, Spain
5. Mingenew, Australia
6. Jeju, South Korea
7. Port Louis, Mauritius
8. Vimercate, Italy
9. Santa Maria, Azores, Portugal
10. Shetland, UK
11. Peterborough – Australia
12. Nangetty – Australia

13. Kandy, Sri Lanka
14. Absheron, Azerbaijan
15. Plana, Bulgaria
16. Blönduós, Iceland

UHF band: 430-440 MHz (Earth-to-space) (space-to-Earth)
1. Wilde, Argentina
2. Perth, Australia
3. Vinogradets, Bulgaria
4. Knoll Fort, St. Helena
5. Juju, South Korea

Future nominal TT&C operations will transition to routinely licensed V-band gateways in various jurisdictions.

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**FCC INQUIRY 3:**
The antenna contour diagram(s) of the downlink beam(s) over the United Kingdom and the coverage map of all the downlink beams associated with the subject test.

**RESPONSE:**
Please see attached Exhibit B to this attachment.

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**FCC INQUIRY 4:**
Technical interference analysis, including link budget(s), demonstrating that there will be no harmful interference to any other authorized operation(s) in the neighboring countries to United Kingdom. The analysis should take into account the worst-case scenario of satellite transmitting at different power levels required for rain fade, cloud cover and clear sky conditions over the coverage area(s).

**RESPONSE:**
Please see Exhibit B to this attachment.

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**FCC INQUIRY 5:**
Information regarding the operator's ability to cease emission(s) on command under Section 5.107 of the Commission's rules and ITU Radio Regulation 22.1 in the event of harmful interference.

**RESPONSE:**
As detailed in the application, AST SpaceMobile will maintain the following "stop buzzer" operator with the ability to cease emissions on demand in the unlikely event of harmful interference:

| | |
|---|---|
| **Name of Contact** | Federico Fawzi |
| **Contact Details** | Title: Vice President Network Infrastructure & Critical Satellite Systems |

| | |
|---|---|
| | Phone: 432-276-3465<br>Email: frequencycoordinator@ast-science.com |

In compliance with Section 5.107 of the Commission's rules and ITU Radio Regulation 22.1, in the event of harmful interference the stop buzzer operator will enjoy remote access to the V-band gateway earth station and spacecraft during testing, and will be available to mute all test-related emissions space-to-ground and ground-to-space when instructed by phone or email.

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**FCC INQUIRY 6:**
Any mitigation measures that would be necessary in order to comply with the requirement to immediately eliminate harmful interference pursuant to ITU Radio Regulation No. 8.5.

**RESPONSE:**
In compliance with ITU Radio Regulation 8.5, in the unlikely event of a report regarding potential harmful interference, AST SpaceMobile will immediately mute all emissions between the BB1s and involved ground stations in the United Kingdom. As noted in response to FCC Inquiry 5, the stop buzzer operator has remote "kill switch" control and will be available by telephone and email during any testing conducted pursuant to the instant request for STA. Testing will not resume until resolution of the concern.

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**FCC INQUIRY 7:**
Distinctions between the technical parameters in the instant FCC Form 442 and ITU filing (USASAT-NGSO-20).

**RESPONSE:**
The STA form specifies the power levels intended for testing at a specific location in United Kingdom. The power required for this test is significantly lower than what would be needed during actual operations, which would cover a broader geographic area relative to an isolated test site.

From a technical standpoint, the edge case representing the maximum potential for interference occurs within the service band of 947.5 - 957.5 MHz, covering 10 MHz. At this edge case, the maximum power level is 52.6, with the emission designator 10M0G1W. This is the upper limit permitted under the STA. However, the actual power needed for consistent operation at the required bitrate for service is below the 44.5 specified in the filing.

-*-*-END-*-*-

**Exhibit A**

**Exhibit B**