

Request for Special Temporary Authority

Booz Allen Hamilton, requests an FCC-issued Special Temporary Authority (STA) in order to conduct technical development, testing, and demonstration of LTE communications for tactical military operations.

Please note that location is 12° 26' 30" N /144° 39' 22" E – STA form defaults to west longitude

Booz Allen Hamilton is actively engaged in the development of LTE technology for Public Safety and FirstNet applications and is extending this technology into a number of defense- and government-related applications.

The proposed operations will be conducted from August 28 through September 15, 2018 on and around the United States Naval Base Guam, located near Santa Rita, Guam. Operations will be itinerant and temporary in nature and will involve setting up a temporary LTE network to provide network communications in a military environment. The goal of the LTE demonstration is to provide a validated, credible, and repeatable demonstration of how LTE technology can be used to provide advanced communications to a variety of security and public safety operations.

The proposed operations would consist of up to two temporary deployable single-sector 2100 MHz Band 4 LTE microcells and associated user devices.

The vendor providing the microcell is Fenix Laboratories and the user devices will be Samsung smartphones. Booz Allen Hamilton, will be providing system integration and testing services and will be responsible for the over the air operation of the system.

Band 4 is desired for conducting this testing for the following reasons:

- Worldwide spectrum and commercially available user device availability.
- Commercial LTE equipment is not available in military spectrum.

The technical parameters of the proposed system include:

- 10 MHz Bandwidth, 2 x 2 MIMO
- 2 x 5W
- Downlink frequency band 2110 – 2155 MHz
- Uplink frequency band 1710 – 1755 MHz
- Single-sector omnidirectional temporary base station operation
- Antenna height above ground of no more than 6 meters
- User devices consist of Samsung Galaxy S7 smartphones
- Operation of mobile devices within 5km of base station location

The proposed operation is not expected to cause any harmful interference or affect users as operation will be confined to restricted areas of Naval Base Guam and adjacent waters, operate at low power levels, and with low height/low gain antennas. The specific operating frequencies will be selected based on monitoring the 2110-2155 MHz spectrum and will be coordinated with the existing licensees, AT&T, T-Mobile, and Verizon Wireless. These licensed users are:

| Licensee | Uplink (MHz) | Downlink (MHz) |
|----------------|--------------|----------------|
| DoCoMo Pacific | 1710-1720 | 2110-2120 |
| | 1745-1755 | 2145-2155 |
| Club 42 | 1720-1730 | 2120-2130 |
| Teleguam | 1730-1735 | 2130-2135 |
| iConnect | 1735-1740 | 2135-2140 |
| MobiPCS | 1740-1745 | 2140-2145 |

As with all STA operations, Booz Allen Hamilton understands that operations are secondary to those of licensed users, and that demonstration operations must cease in the event that licensed users experience interference or as directed by the FCC. Booz Allen Hamilton will retain the ability to shut the system off in the event that interference is reported. The single point of contact for this STA operation is:

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