

From: Josh Kannenberg

To: Travis Nguyen

Date: June 08, 2021

Subject: 0372-EX-CN-2021

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Message:

In response to correspondence of June 1, applicant provides the following:

(1) Explain why do you need such high level of power, 1.97 megawatts and 3.13 Megawatts ERP.

Given extraordinary data requirements for military satellite communications, a very high signal to noise ratio is required which drives the high ERP of the SNAP unit. The SNAP unit is required to function in inclement weather (rain, sand storms, snow, hail, high precipitation), further driving the need for high power.

(2) With this extremely high power, please explanation of how would you specifically avoid causing harmful interference to incumbent Upper Microwave Flexible Use Service operations, Fixed Microwave Service and TV Broadcast Auxiliary operations.

The Lockheed Martin team will follow the steps outlined below in accordance with the operation instructions provided in the Army SNAP User manual to avoid causing harmful interference with the terrestrial systems identified by FCC.

1. Identify the location of satellite azimuth and elevation based on orbital slot and SNAP terminal location.
2. Verify no obstructions are present in line of sight from the SNAP.
3. Turn the High Powered Amplifier (HPA) switch to off to disable the SNAP transmitter. This will also be verified with the SNAP modem user interface.
4. Power on the SNAP and conduct satellite acquisition.
5. The SNAP is pointed to the satellite such that a high signal to noise ratio is obtained on the SNAP receiver, which is verified on the user interface. This confirms the SNAP is directed at the proper satellite and receiving the signal of interest.
6. The SNAP transmitter is enabled. The data package is uplinked to the satellite while the conditions in steps 1-4 have been met during the SatCom authorization time window, with an Army Field Service Representative on site.

(3) Any stop buzzer information just in case interference occurs?.

Primary POC: Craig Phillips, Phone: 256-722-4678.