

From: Gustavo Ruiz

To: Behnam Ghaffari
Date: March 15, 2018

Subject: FCC File No. 0236-EX-CN-2018

Message:

1. Please select the frequency bands that you intend to use during your testing and remove the ones you don't need.

Kratos Response:

For the first UHF band we are requesting 3 channels. The channel frequencies are at 435 MHz, 442 MHz, and 450 MHz with a channel size of 25 kHz. These frequencies are for the aircraft's command and control system.

For the second set of UHF frequencies we are requesting to operate at the following channel frequencies, 421 MHz, 425 MHz, and 428 MHz with each having a channel size of 75 kHz.

The S-band frequencies that are being requested are 2297 MHz, 2300 MHz, and 2302 MHz with each channel having an operating bandwidth of 15 MHz.

2. In great details, please explain the purpose of your testing and furthermore using a UAV.

Kratos Response:

The testing is for the aircraft checkout before a flight test that will take place at an Air Force Research Lab (AFRL) location. Part of the aircraft checkout requires verification of the command and control systems, which operates from 435-450 MHz; the Flight Termination System, which operates from 420 to 430 MHz; the telemetry system, which operates from 2200 to 2400 MHz.

For the command and control system it will operate at only one channel but Kratos would like to verify a few channels to make sure there are will be no issues with the system during flight test. Kratos decided that we can minimize the amount of frequencies to three (low, mid and high end of the operating band).

For the Flight Termination system, it operates from 420 to 430 MHz band but we will only operate at one channel frequency. We requested three channels because those are the channels the UAV may operate at during flight test at the AFRL test location.

For the telemetry system it can operate from 2200 to 2400 MHz. Kratos selected three channels that the UAV may be utilized during flight test.

The main purpose of the aircraft checkout is to mitigate any risk of communication issues when this aircraft conducts its flight test at the AFRL test location. It makes troubleshooting the communication systems easier at the Kratos test facility rather than the AFRL's test location.

3. What are the coordinates (latitude (DD-MM-SS) and longitude (DD-MM-SS)), the maximum height and radius of operation of the UAV?

Kratos Response: The coordinates for the location are latitude 39° 21' with a longitude of 121° 31'. The maximum height of the test operation should no greater than 8 feet (~2.5 meters). The operation radius will be less than one mile from the coordinate location.