

## **Exhibit 1**

### **I. Introduction**

By the instant application (“Application”), Dynetics, Inc. (“Dynetics”) requests that the Commission grant Special Temporary Authority (“STA”) to permit Dynetics to operate the facilities (the “Facilities”) specified in the instant application from March 2, 2019 to June 2, 2019.

### **II. Purpose and Nature of the Operation**

Dynetics, headquartered in Huntsville, Alabama, delivers high-quality, high-value engineering, scientific, and information technology (IT) solutions to customers within the U.S. government and a range of other market segments. Dynetics provides complete lifecycle analysis, engineering, and hardware, to support customer missions.

An experimental STA is in support of the following DARPA Mobile Force Protection contract, for operation of Fortem low weight, low power prototype radar for detection and tracking of small UAS, and the Microhard 2-way digital datalink:

Agency: DARPA Mobile Force Protection (MFP)  
Contract No. : HR0011-17-9-0017  
Government POC: Jean-Charles (JC) Lede  
703-526-2844, [jc.lede@darpa.mil](mailto:jc.lede@darpa.mil)

Waiver of the Station ID rules set forth at Section 5.115 is respectfully requested.

### **Ground-Based Transmissions**

- Temporary Fixed Ground operations will be performed at Eglin Air Force Base (with a radius of 2km), to be used for transmission of the ground portion of the Microhard 2-way digital datalink.

### **Airborne Transmissions**

- The mobile airborne stations will be used for transmission of the airborne portion of the Microhard 2-way digital datalink and the airborne-only Fortem radar and will operated at and around Eglin Air Force Base. The centerpoint of the airborne operations at Eglin Air Force Base is defined as centered at 30-38-19 N.Lat.; 086-18-28 W.Long. with a radius of 5 km. The elevation of the ground AMSL at the centerpoint coordinates is 143m. The distance of the nearest aircraft landing area from the centerpoint coordinates is 18 km. The maximum altitude of the airborne stations will be 500 feet (153m)

### **III. Modulating Signal Information (Datalink)**

The digital datalink can operate with 8 different modulations, including BPSK, QPSK, and QAM, and different data rates, as follows:

BPSK\_1/2  
QPSK\_1/2  
QPSK\_3/4  
16QAM\_1/2  
16QAM\_3/4  
64QAM\_2/3  
64QAM\_3/4  
64QAM\_5/6

The data rates and modulation schemes are divided into 3 modes with maximum emission bandwidths of approximately 2, 4, and 8 MHz. The three emission designators identified represent the maximum emission bandwidths for these modes using 64QAM\_5/6 modulation. The digital datalink can operate on any of 20-26 channels of 1-MHz spacing within the frequency range of 1812 MHz to 1839 MHz, however the datalink will operate only within the requested action frequency range including the stated maximum usable emission bandwidths.

### **IV. Interference Mitigation**

Dynetics is well aware of its obligations under Part 5 of the Commission's rules to avoid interference to co-channel licensees in non-experimental services, and will take all steps to ensure compliance with this obligation. As stated above, Dynetics will work with the Commission and/or other stakeholders to carve out a smaller action frequency range or as a minimum, two specific frequencies within the requested action frequency range to avoid interference to co-channel licensees in non-experimental services. With respect to interference mitigation, Dynetics understands that FAA (or other government stakeholders) may restrict radiation to certain azimuth and/or elevation sectors in order to ensure that the proposed Facilities do not pose a threat of interference to adjacent emitters. Accordingly, this is to confirm that Dynetics stands ready to work with the FAA to identify any reasonably necessary restrictions for the system.

### **V. Stop Buzzer**

Dynetics advises that the following will be available by wireless telephone and will act as "stop buzzers" if any issues regarding interference arise during testing:

Primary: Baron Johnson; Mobile: (352) 339-5272  
Secondary: Steve Norris; Mobile: (256) 585-7885