

Public Interest Statement

I. Introduction

By the instant application (“Application”), Dynetics, Inc. (“Dynetics”) requests that the Commission grant a two year conventional experimental license (“License”) to permit Dynetics to operate the facilities (the “Facilities”) specified in the instant application.

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.

This License is intended to be a continuation of the temporary–fixed operations previously authorized under STA, under call sign WM9XNO (File No. 0002-EX-ST-2018). The only changes to such operations will be (i) deletion of the Mesa, AZ site (i.e., the only site location for the License will be Huntsville, AL); and (ii) update to the contract information (see below).

An experimental license is requested to test the wireless two-way data link for the Gremlins Air Vehicle prototype UAS. This activity is necessary to support the AFRL Gremlins Phase III contract for continued testing of the Gremlins system. Operations are required on a temporary-fixed basis at and around Huntsville, AL. This activity is necessary to test a prototype system being developed for the AFRL Gremlins Phase III contract. Contract Information is as follows:

Agency:	DARPA
Contract No:	HR001118C0071
Government POC:	Nate Young, Nathan.Young.ctr@darpa.mil, 571.218.4977

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

A. Power Levels

The Station will use an omnidirectional (azimuth) antenna with a gain of 1 dBi. Thus the ERP of the ground stations will be a maximum of 5 Watts, mean (average).

B. Equipment and Technical Specifications

The wireless data link, FGBR-115RA-2 developed by FreeWave Technologies, has a 2-level Gaussian Frequency Shift Keying (FSK) modulation. The FGBR-11RA-2 will be used in a single frequency, no frequency hopping, mode. The transmitter utilizes an occupied bandwidth of approximately 230.4 kHz. Only two ground stations will be used simultaneously at each location.

III. 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.

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 Commission and/or FAA to identify any reasonably necessary restrictions for the system.

IV. Stop Buzzers

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: Chris Statler (256-503-9283)
Secondary: Samuel Petersen (573-578-7748)

For the foregoing reasons, Dynetics respectfully submits that approval of this Application is in the public interest, convenience and necessity.