#### **EXHIBIT #1:**

Blue Origin Florida, LLC Date: Mar 19, 2024 FCC File Number:

Application for New Experimental Radio Station Authorization (FCC Form 442)

## **Type of Applicant:**

Blue Origin Florida, LLC is a limited liability company under the laws of the State of Florida.

### **Statement of Research Project**

- A. Blue Origin is an aerospace company developing commercial space launch vehicle technologies. Blue Origin will launch spacecrafts and crew into space with qualified instrumentation from the Space Force Cape Canaveral Station, Florida.
- B. Blue Origin pad resides in Federal quarters following guidance from NASA KSC spectrum management office and the 45<sup>th</sup> Space Wing Range Scheduling office prior to any testing for de-confliction. Blue Origin is part of the notification system obeying any RF silence needs due to rocket launches and/or other missions.
- C. This FCC license applies to a compatibility test effort with the US. Space Force Satellite Control Network (SCN) needed for certification requirements. Ground system operations using a simulator with a directional element will be utilized at the Cape Canaveral Blue Origin facility.
- D. This application covers the ground system emissions for S-band: 2215 +/- 2.5MHz.

### **Description of Directional Antenna Operation**

A simulator will be set on the roof of an Integration Facility at a height of approximately 140 ft. Its antennas will radiate directly to an SCN antenna located at the Eastern Vehicle Checkout Facility (EVCF) at Cape Canaveral. The antenna system's boresight will be aligned to each other's test locations. The testing area encompasses the Blue Origin Launch Complex and through non-industrial NASA KSC area. The test event will be coordinated with NASA KSC and the 45<sup>th</sup> Range Scheduling.

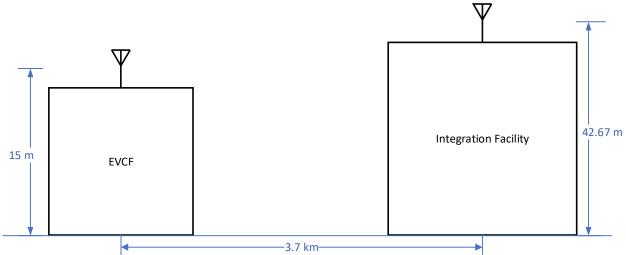
#### **Test Area**

The test area is located at the Blue Origin Integration Facility (Space Complex 36) and the EVCF (Cape Canaveral). The Integration Facility coordinates are Lat: 28.467945 degrees, Lon: -80.542318 degrees. The EVCF coordinates are Lat: 28.486139 degrees and Lon: -80.576139 degrees. The distance between the two locations is approximately 3.7 km across unpopulated areas of NASA KSC and Cape Canaveral.

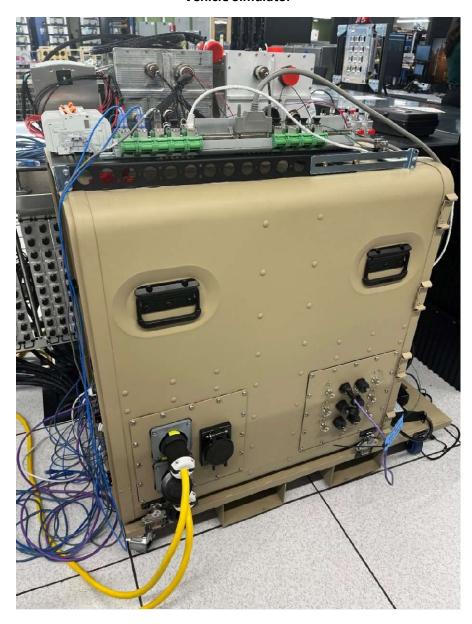


## **Description of Antenna Operation**

S-band systems will emit phase modulated signals from the Integration Facility. The simulator at the Integration Facility will aim towards the EVCF at Cape Canaveral. The Integration Facility S-band antenna is directional with a gain of approximately 16 dBic. The integration facility ERP will be attenuated to (-) 37.5 dBW. The EVCF S-band antenna is a 13m directional antenna with an approximated G/T of 0 dB/K. Each site will utilize one S-band antenna for testing.



# **Vehicle Simulator**



## **Integration Facility Antenna**



## Length of time that will be required to complete the program of experimentation

Blue Origin is planning to schedule the test during the second week of April 2024. There may be a few attempts required during the week based on results or weather forecasts. Blue Origin is seeking an approval for a one-week test duration.