

**1. Introduction**

By the instant application (“Application”), Leidos, Inc. (“Leidos”) requests that the Commission grant Special Temporary Authority (“STA”) to permit Leidos to operate the facilities (the “Facilities”) specified in the instant application.

**2. Purpose of the Operation**

The requested STA will authorize operation of a radio being developed by Leidos suitable for maritime data transfer applications, as well as an experimental radio, manufactured by Kongsberg Seatex AS, whose function is also maritime data transfer. Operations will be conducted in support of a demonstration of autonomous bathymetric data collection (mapping of the sea floor), wherein data is transmitted in real-time, via the aforementioned radios, to a shore-based display and operator station. Having access to these transmitting facilities will allow Leidos to refine its autonomous operations while also returning bathymetric data ashore, immediately after collection, in near real-time. These prototype radios are not FCC certified, and therefore Leidos seeks an STA for these operations. This Application describes the following types of transmissions:

**Shore-Based Temporary –Fixed Transmissions**

Shore-based transmissions will originate from temporary-fixed locations within 8.05 km (5 miles) of the specified centerpoint coordinates at 30-19-50 N.Lat; 089-11-32 W.Long.

**Off-Shore Mobile Transmissions**

Off-shore mobile transmissions will originate from the R/V Pathfinder, a 40’ systems research vessel owned and operated by Leidos, , within 92.6 km (50 nautical miles) of the specified centerpoint coordinates at 29-35-45 N.Lat; 088-42-15 W.Long.

A waiver of the Station ID requirements of 47 CFR §5.115(a) is respectfully requested.

**3. Directionality/Orientation**

For the Leidos Radio (4.5-4.7 GHz):

Although a “Yes” reply has been inserted on the form indicating a directional antenna, this experiment may involve the use of an omnidirectional antenna as well as a directional antenna.

In the event that an omnidirectional antenna is employed, such antenna will be used at 2W Output Power/2W ERP, as specified on the application.

In the event that a directional antenna is employed, such antenna will be used at 16W Output Power/16W ERP, as specified on the application, and the following information will apply:

Beamwidth in degrees: 25 degrees in azimuth; 56 degrees in elevation

For the Kongsberg Radio (5852-5872 MHz):

Width of beam in degrees at the half-power point: 9.00

**4. Stop Buzzer**

Leidos is well aware of its obligation under Commission rules to immediately terminate operation in the event of interference to any other licensed emitter. Leidos is a long-standing Commission licensee and the company will take any and all actions to ensure that it complies with its obligations as a licensee of experimental facilities. The Stop Buzzer in the event of interference is:

Primary Byron Scott: Cell (228) 623-8487  
Secondary John Kiernan: Cell (401) 309-2196