

# Technical Description

## The Boeing Company

Submitted 8/25/2021  
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### **JUSTIFICATION:**

The Boeing Company is requesting a Special Temporary Authorization (STA) to support satellite antenna development. Boeing will conduct testing using US Permitted Space Stations and the AvL Technologies 2.4 meter Ka Antenna System. Testing will be conducted fixed ground in Bingen, WA, Hood River OR, Boardman, OR, and Pendleton, OR.

### **OBJECTIVE & TEST DESCRIPTION:**

This requirement supports the testing of AvL Technologies 2.4 meter Ka Antenna System over the air with US Permitted Space Stations. Boeing is requesting to transmit Earth-to-Space on 29.5-30 GHz.

**START DATE:** 9/10/2021

**STOP DATE:** 3/10/2022

### **TERMINALS:**

|                       |   |
|-----------------------|---|
| <b>Manufacture:</b>   | AvL Technologies                                  |
| <b>Model:</b>         | 2.4mKa Antenna System                             |
| <b>Antenna Specs:</b> | AVL max power input: 12.6W, Antenna gain 55.2 dBi |
| <b>ERP:</b>           | 2.57W   |
| <b>Frequencies:</b>   | 29.5-30 GHz                                       |
| <b>Emission:</b>      | 600K00G7D, 10M00G7D, 20M00G7D                     |

### **LOCATIONS:**

|                       |   |
|-----------------------|---|
| <b>Location:</b>      | 118 East Columbia River Way, Bingen, WA 98605 |
| <b>Lat/Lon</b>        | 45-42-23N; 121-27-02W, Radius: 5Km            |
| <b>Station Class:</b> | FX  |

|                       |                                     |
|-----------------------|-------------------------------------|
| <b>Location:</b>      | 902 Wasco St., Hood River, OR 97818 |
| <b>Lat/Lon</b>        | 45-42-41N; 121-31-11W, Radius: 5Km  |
| <b>Station Class:</b> | FX                                  |

|                       |                                |
|-----------------------|--------------------------------|
| <b>Location:</b>      | Tower Road, Boardman, OR 97818 |
| <b>Lat/Lon</b>        | 45-44-54N; 119-47-38W          |
| <b>Station Class:</b> | FX                             |

## Technical Description

**Location:** Pendleton, OR 97801  
**Lat/Lon** 45-41-21N; 118-50-32W  
**Station Class:** FX

**Point of Communication:** US Permitted Space Stations

**STOP BUZZER POINT OF CONTACT:**

Insitu OAC: 509-637-4691