

## Technical Description

Submitted by Joel Thorsheim  
The Boeing Company  
Global Spectrum Management  
P.O. Box 3707 MC: 1K-105  
Seattle, WA 98124-2207  
206-544-6066 Office

This experimental license application is being submitted in lieu of a Special Temporary Authorization (STA) extension. The STA was previously granted under FCC Call Sign WN9XYF and file number 2113-EX-ST-2018.

Tables (1) and (2) lists the equipment that will be used for the Ground Control Station and manned and unmanned aircraft.

<b>Frequency Data</b>	
Transmit Frequencies	2267, 2310, 2377, and 2395-2483 MHz
<b>Transmitter Data</b>	
Transmitter Power Output	6 Watt total (3 transmitters with 2 Watts each) optional 20 Watt amplifier with single transmitter
<b>Antenna Data</b>	
Power Output ERP	12.3 Kilowatts ERP 15 Watts ERP
<b>Emission Data</b>	
Emission Designators	5M0D1D, 10M0D1D, 20M0D1D

**Table 1 – Ground Equipment Data**

<b>Frequency Data</b>	
Transmit Frequencies	2267, 2310, 2377, and 2395-2483 MHz
<b>Transmitter Data</b>	
Transmitter Power Output	6 Watts (3x2Watts)
<b>Antenna Data</b>	
Power Output ERP	15 Watts ERP
<b>Emission Data</b>	
Emission Designators	5M0D1D, 10M0D1D, 20M0D1D

**Table 2 – Unmanned/Manned Aircraft Equipment Data**

Table (3) lists the locations/areas of operations, as well as the station class of the operation.

<b>City</b>	<b>State</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Radius (KM)</b>	<b>Station Type</b>
Bingen	WA	45-42-23 N	121-27-23 W	1	Fixed Ground Testing Only
Hood River Airport	OR	45-40-18 N	121-32-24 W	1	Fixed Ground Control Station
Boardman	OR	45-44-54 N	119-47-38 W	1	Fixed Ground Control Station
Wasco (Jackass Springs)	OR	45-31-19 N	120-46-58 W	1	Fixed Ground Control Station
The Dalles (Wasco Butte)	OR	45-36-26 N	121-19-53 W	1	Fixed Ground Control Station
Bald Peter	OR	45-39-23 N	121-41-33 W	1	Fixed Ground Control Station
Dee (Long Branch)	OR	45-34-31 N	121-46-13 W	1	Fixed Ground Control Station
Opal City (Grey Butte)	OR	44-25-04 N	121-05-51 W	1	Fixed Ground Control Station
Arlington	WA	45-43-13 N	120-10-45 W	1	Fixed Ground Control Station
Boardman Airborne <b>(Unmanned Aircraft)</b>	OR	45-44-54N	119-47-38W	50	Mobile up to 10,000 Feet Flight Level
Bingen Airborne <b>(Manned Aircraft)</b>	OR	45-42-23 N	121-27-23 W	200	Mobile up to 10,000 Feet Flight Level

**Table 3 – Location Data**

**Stop Buzzer**

Stop buzzer for this operation is a 24-7 staffed number at 509-637-4691.

**Start Date:** September 1, 2019

**Stop Date:** August 30, 2021