

Submitted by Joe Thorsheim on behalf of Aurora Flight Sciences  
 The Boeing Company  
 Frequency Management Services  
 P.O. Box 3707 MC: 2T-22  
 Seattle, WA 98124-2207  
 206-544-6066 Office

**Why an Experimental License is Necessary:**

An experimental license is required to operate a Viasat Enerlinks iii data link.

**Operation Description:**

The data link consists of a ground station communicating to and from an aircraft. The ground station will uplink to the aircraft and the aircraft will downlink to the ground station using the frequency pairs identified in table 3.

Tables (1), (2), and (3) lists the equipment specifications, including frequency band of operation, transmitter output power, emissions, antenna types and gains, as well as maximum ERP.

<b>Frequency Data</b>	
Transmit Frequency Band	4400-4950 MHz
<b>Transmitter Data</b>	
Transmitter Model	Enerlinks iii
Transmitter Manufacturer	Viasat
Transmitter Power Output	5 Watts
<b>Antenna Data</b>	
Antenna Gain and Type	4 dBi Dipole 28 dBi 24 Inch Parabolic Dish
Power Output ERP	2,000 Watts
<b>Emission Data</b>	
Emission Designator	6M87G7D and 13M2G1D

**Table 1 – Ground Equipment Data**

<b>Frequency Data</b>	
Transmit Frequency Band	4400-4950 MHz
<b>Transmitter Data</b>	
Transmitter Model	Enerlinks iii
Transmitter Manufacturer	Viasat
Transmitter Power Output	10 Watts
<b>Antenna Data</b>	
Antenna Gain and Type	3 dBi Dipole
Power Output ERP	13 Watts
<b>Emission Data</b>	
Emission Designator	6M87G7D and 13M2G1D

**Table 2 – Airborne Equipment Data**

<b>Downlink (MHz)</b>	<b>Uplink (MHz)</b>
4418	4717.5
4432	4724.5
4443	4732
4468	4739.5
4478	4747
4488	4762
4498	4784.5
4523	4799.5
4533	
4544	
4558	

**Table 3 – Frequencies**

Table (4) 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>
Warrenton	VA	38-35-32 N	077-42-41 W	1	Mobile/Ground
Manassas	VA	38-43-30 N	077-31-00 W	2	Mobile/Ground
Orange	VA	38-14-50 N	078-02-44 W	80	Mobile/Air
Rome	NY	43-14-02 N	075-24-25 W	2	Mobile/Ground
Rome	NY	43-30-00 N	075-25-00 W	45	Mobile/Air
Aguadilla	PR	18-29-30 N	067-08-04 W	2	Mobile/Ground
Aguadilla	PR	18-29-30 N	067-08-04 W	93	Mobile/Air

**Table 4 – Location Data**

**Stop Buzzer POC:**

Stop Buzzer for this operation is Jason Fine at 703-396-6359 or 571-364-4688.