

Submitted by Joe Thorsheim on behalf of Aurora Flight Sciences
The Boeing Company
Frequency Management Services
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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.

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

Table 1 – Ground Equipment Data

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

Table 2 – Airborne Equipment Data

Downlink (MHz)	Uplink (MHz)
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.

City	State	Latitude	Longitude	Radius (KM)	Station Type
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.