

**Modification of Experimental License**  
**Call Sign: WD2XJX**  
**File Number: 0044-EX-ML-2006**

ViaSat, Inc. wishes to modify its existing experimental license, call sign WD2XJX. The modifications consist of adding and modifying frequency bands of operation. The Experimental license is used by ViaSat's antenna systems (AS) group in Atlanta for the purposes of antenna development. Specifically, this license modification will allow the licensee to provide RF signal testing within the address locations noted in the application. ViaSat will transmit low level CW signals for the purpose of injecting a test signal into antenna systems undergoing factory testing with the purpose of undergoing factory testing involving antenna boresight and antenna focus and alignment testing. The licensee will also test for Passive Intermodulation Products using the 9.14m antenna pointed in the zenith position for one set of frequencies.

Tables 1, 2 and 3 below provide a summary of all the frequencies and their associated power and emissions which are to be modified or added.

Technical inquiries can be directed to either Daryl Hunter at ViaSat or Ken Ryan at Skjei Telecom.

Daryl Hunter, ViaSat, Inc.  
6155 El Camino Real  
Carlsbad, CA 92009  
Email: [daryl.hunter@viasat.com](mailto:daryl.hunter@viasat.com)  
Phone: 760-476-258

Submitted on January 14, 2008 by: Kenneth G. Ryan, P.E., Consultant to ViaSat, Inc.  
Skjei Telecom, Inc.  
7777 Leesburg Pike, Suite 315N  
Falls Church, VA 22043  
Phone: 703-917-4020  
Email: [ken.ryan@skjeitelecom.com](mailto:ken.ryan@skjeitelecom.com)

Table 1: Frequencies and Power Levels Required  
 Location 1: Duluth (Gwinnett), GA  
 3235 Satellite Blvd, Building 400 or 800 TBC, Duluth, GA

Purpose: To allow licensee to provide RF signal testing within the address location of this building. Transmit low level CW signals for the purpose of injecting a test signal into the antenna system undergoing boresight testing. No changes to this section of the license are requested.

|   | Station |       | Frequency Band | Vendor and PN for Transmitting equipment |                            | Antenna Pointing angles from Location 1 |           | Polarization | Antenna Size | Transmit output power | Effective ERP |
|---|---------|-------|----------------|--|----------------------------|---|-----------|--------------|--------------|-----------------------|---------------|
|   | Type    | Class | (MHz)          | Agilent RF Source                        | Scientific Atlanta Antenna | Azimuth                                 | Elevation |              | (ft)         | (dBm)                 | (watts)       |
| C | FX      | NON   | 2200           | 83751B                                   | 22-4A , 28-2               | 90°                                     | -2°       | RHC or LHC   | 4            | -40                   | 0.00003       |
| C | FX      | NON   | 2250           | 83751B                                   | 22-4A , 28-2               | 90°                                     | -2°       | RHC or LHC   | 4            | -40                   | 0.000031      |
| C | FX      | NON   | 8200           | 83751B                                   | 22-4A , 28-8               | 90°                                     | -2°       | RHC or LHC   | 4            | -50                   | 0.000049      |

Table 2: Frequencies and Power Levels Required  
 Location 2; Duluth (Gwinnett), GA  
 1725 Breckinridge Plaza, Duluth, GA

Purpose: To allow licensee to provide an RF signal at Zenith only for detection of Passive Intermodulation Products by injecting short duration test signals into antenna system undergoing factory testing.

|   | Station |       | Frequency Band | Vendor and PN for Transmitting equipment |                            | Antenna Pointing angles from Location 2 |           | Polarization | Antenna Size | Transmit output power | Effective ERP |
|---|---------|-------|----------------|--|----------------------------|---|-----------|--------------|--------------|-----------------------|---------------|
|   | Type    | Class | (MHz)          | Agilent RF Source                        | Scientific Atlanta Antenna | Azimuth                                 | Elevation |              | (ft)         | Watts                 | (dBW)         |
| R | FX      | NON   | 7900-8400      | MCL                                      | Model 16469                | 0°                                      | 90°       | RHC or LHC   | 13.8         | 2KW                   | 82 dBW        |

Table 3: Frequencies and Power Levels Required  
 Location 2; Duluth (Gwinnett), GA  
 1725 Breckinridge Plaza, Duluth, GA

Purpose: To allow licensee to provide RF signal testing within the address location of this building. Transmit low level CW signals for the purpose of injecting a test signal into the antenna system undergoing factory testing for antenna focus and alignment.

|   | Station |       | Frequency Band | Vendor and PN for Transmitting equipment |                            | Antenna Pointing angles between receive and transmit location |           | Polarization       | Antenna Size | Transmit output power | Effective ERP |
|---|---------|-------|----------------|--|----------------------------|---|-----------|--------------------|--------------|-----------------------|---------------|
|   | Type    | Class | (MHz)          | Scientific Atlanta Source                | Scientific Atlanta Antenna | Azimuth   | Elevation |                    | (ft)         | (dBm)                 | (watts)       |
| R | FX      | N0N   | 1435 to 1559   | 2150                                     | 22-8A , 28C-1              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 1.0           |
| R | FX      | N0N   | 1650 to 1660.5 | 2150                                     | 22-8A , 28C-1              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 1.0           |
| R | FX      | N0N   | 1668.4-1850    | 2150                                     | 22-4A , 28C-2              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 1.0           |
| R | FX      | N0N   | 2000-2400      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 1.0           |
| R | FX      | N0N   | 3400-4200      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 4.0           |
| R | FX      | N0N   | 4500-4800      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 4.0           |
| R | FX      | N0N   | 5700-6850      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 4.0           |
| R | FX      | N0N   | 7000-7100      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 4.0           |
| R | FX      | N0N   | 7250-7750      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 4.0           |
| R | FX      | N0N   | 7900-8400      | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 5.0           |
| R | FX      | N0N   | 10700-14500    | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 5.0           |
| R | FX      | N0N   | 17300-21200    | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 5.0           |
| R | FX      | N0N   | 27500-31000    | 2150                                     | 22-4A , 28C-8              | 0°  | 0 to 2°   | Linear or Circular | 4            | -30                   | 5.0           |

Key: C = existing licensed frequency band (no changes)  
 M = modification to existing licensed frequency band  
 R = Required new frequency band.