Orbital Sciences Corporation
21839 Atlantic Blvd
Dulles, VA 20166
November 18, 2002

Federal Communications Commission
Experimental Radio Services
P.O. Box 358320
Pittsburgh, PA 15251-5320

Re: Experimental STA for Orbital Sciences Corporation

Dear Sir or Madam:

This letter requests a modification to an existing special temporary authority (STA) for Orbital Sciences Corporation (Orbital) explicitly for the purposes of satellites integration and testing. In December of this year, Orbital will begin communications testing of two satellites to be launched in year 2003. The mission of the first satellite is to provide video distribution communications for television system operators. The mission of the second satellite is to provide direct broadcast television service. Orbital or the Satellite operator has already obtained or is in the process of obtaining FCC authorization to transmit at radio frequencies (RF) in the final orbit location and configuration associated with each satellite.

Approval of this STA will allow timely verification of the spacecraft command, control, and telemetry sub-systems, as well as audio/video communications payloads, if any. Orbital does not anticipate any additional coordination to be required, other than those already existing, for the frequency bands of interest. The parameters of the RF transmissions for this STA are provided in the attachment. It should be noted that additional shielding of emissions is expected since testing will be performed inside Orbital structures, shielded rooms, and/or anechoic chambers.

Please call me (703-404-7563) if you have any questions concerning this STA. Thank you in advance for your prompt attention to this matter.

Sincerely,

Timothy R. Lewis
Orbital Sciences Corporation
RF Communications Group

Attachment:

Special Temporary Authority for Orbital Sciences Corporation

Purpose of Operation: Satellites integration and test

Dates of Operation: Original: Effective between June 1, 2002 and December 1, 2002
Modified: Effective between December 1, 2002 and May 1, 2003

Station Locations: Dulles, VA. NL 39-00-56; WL 77-25-42

Beginning of Life Radio Frequency Parameters for satellite 1 (Dulles, VA):

Frequency Span, Null-Null Bandwidth (GHz)	**Modulation Type**	**Maximum Effective Radiated Power (ERP)**
3.700 - 4.200	Continuous wave (CW) and TDMA (CW)	+10 dBW
4.198 - 4.199875	Frequency Shift Keying with Ranging Tones	+10 dBW
6.245 - 6425	Continuous wave (CW)	+1 dBW

Orbital Sciences is aware that other stations may be licensed on these frequencies, and if any interference occurs, transmissions associated with this application will be immediately terminated.

Beginning of Life Radio Frequency Parameters for satellite 2 (Dulles, VA):

Frequency Span, Null-Null Bandwidth (GHz)	**Modulation Type**	**Maximum Effective Radiated Power (ERP)**
Was: 11.69 – 12.03 New: 11.69 – 12.18	Continuous wave (CW)	+10 dBW
Was: 11.69 – 11.71 (unchanged)	Was: Frequency Shift Keying with Ranging Tones New: Phase Shift Keying with Ranging Tones	+10 dBW
Was: 17.29 – 17.63 New: 17.29 – 17.78	Continuous wave (CW)	+1 dBW
New: 17.29 – 17.31	Frequency Shift Keying with Ranging Tones	+1 dBW

Orbital Sciences is aware that other stations may be licensed on these frequencies, and if any interference occurs, transmissions associated with this application will be immediately terminated.