

EXHIBIT 1

ORBITAL SCIENCES CORPORATION's ("ORBITAL") current experimental license authorizes the operation of low-Earth orbiting transmission facilities as part of its Basic, Advanced Technology Satellite ("BATSAT") program. As explained in ORBITAL's original application, the goal of the BATSAT program is the development of a basic LEO spacecraft platform configuration capable of supporting payloads conducting research in advanced technology for telecommunications and other research areas that require a space-based platform. This modification application constitutes the next step in that program -- seeking authorization to deploy and operate a particular research payload on a BATSAT Microstar satellite.

Specifically, ORBITAL seeks to modify its current experimental license to authorize operations of a Ka-band payload for research by Teledesic Corporation. Teledesic currently holds a license to construct, launch, and operate a non-geostationary orbit ("NGSO") satellite system in the Fixed Satellite Service ("FSS") using Ka-band frequencies not currently licensed to any other commercial satellite system.^{1/} By the early part of the next decade, Teledesic plans to launch a global network of low-Earth orbit satellite that will deliver affordable yet advanced broadband services to people who cannot be adequately served by existing technologies. The requested modification will enable empirical testing of the bus and payload system designs.

The availability of an experimental satellite at the proper frequencies will facilitate performance evaluation, technical studies, and testing with respect to equipment alternatives under representative operating conditions. Now that the final design of the Teledesic system has been substantially completed, computer simulations and interpolations of data simply are no longer adequate substitutes for experimentation with an actual orbiting satellite. Efficient operating protocols are critical to the success of an NGSO system. The only manner to optimize and verify the design of an operating protocol and demonstrate its reliability is through experiments using an operational, in-orbit satellite. There are at present no satellite in orbit that use the Ka-band frequencies that have been assigned to Teledesic. The BATSAT program offers an ideal platform for performing research necessary to determine vital operational information.

ORBITAL and Teledesic^{2/} intend to conduct an experimental program designed to test the operating characteristics and data communication and position

^{1/} See *Teledesic Corp.*, 12 FCC Rcd. 3154 (Int'l Bur. 1997). The downlink (18.8-19.3 GHz) frequencies requested correspond to the frequencies licensed to Teledesic on a primary basis, and the TT&C (17.85 GHz) frequency requested is in the range authorized for use on a secondary basis.

^{2/} Teledesic has filed concurrently herewith and application for experimental authorization for a mobile earth terminal to communicate with the Ka-band payload.

determination capabilities of an NGSO FSS satellite through a series of communications and tracking experiments on a purely development, non-commercial basis. The experimental program is an integral part of Teledesic's development of its innovative new services. The Ka-band payload will be tested in four distinct modes. First, in broadcast mode, the payload will transmit noise through the spot beam antenna to the user terminal using a downlink signal in the frequency range from 18.8-19.3 GHz tunable in 50 MHz steps. Second, in transponder mode, the payload will receive an uplink signal in the frequency range from 28.6-29.1 GHz and downlink the signal to the same transmitting site using the frequency range from 18.8-19.3 GHz. Third, in TT&C mode, the payload will transmit a fixed, repeating, pseudo-random noise sequence 2047 bits long at a center frequency of 17.85 GHz to simulate a TT&C signal using the footprint coverage antenna. Fourth, in spectral survey mode, the payload will monitor uplink power using Automatic Gain Control (AGC) via the feedback control signal, within the uplink frequency range from 28.6-29.1 GHz.

Because ORBITAL and Teledesic will be conducting the experimental program together, there will not be any risk of adverse interference to the satellite licensee in this band -- Teledesic. As a result of the low power and careful selection of channels, ORBITAL does not anticipate any other risk of harmful interference to any other licensed terrestrial operations. Notwithstanding these prophylactic measures for avoiding interference, ORBITAL will also maintain the ability to shut down the tests immediately if it receives any complaints of harmful transmissions caused by its activities under this experimental license.