Experimental Application File No. 0108-EX-PL-2006
Supplementary Submission

This supplementary submission addresses two issues that may arise with respect to ORBCOMM's application for experimental authority for placing an additional receiver package on-board a planned replacement satellite for its non-voice, non-geostationary (NVNG) mobile satellite system – coverage of the continental United States (CONUS) and orbital debris mitigation plans.

Experimental Coverage Authority

As ORBCOMM explained in its application, it will be adding a receiver to an otherwise "technically identical" replacement satellite in order to validate the concept of extending the coverage of the Coast Guard monitoring of the Automatic Identification System ("AIS") transmissions of ships at sea. Because of the ambiguity as to what constitutes a "technically identical" satellite, out an abundance of caution ORBCOMM is seeking experimental authority for this replacement and demonstration satellite. In order to fulfill the Coast Guard program, ORBCOMM requires that its experimental authority include CONUS. Such broad geographic coverage is necessary both (i) to provide maximum experimental information on the efficacy and accuracy of satellite monitoring of the AIS signals, and (ii) to enhance the reliability of the data downloads by providing diversity and redundancy in the downlinks of the collected information to any of the ORBCOMM earth station gateways located in the "four corners" of the United States (Ocilla, Georgia; St. Johns, Arizona; Arcade, New York; and East Wenatchee, Washington). Moreover, use of all of the ORBCOMM gateways will minimize the latency of the AIS data downloads, thereby maximizing the timeliness of the information delivered to the Coast Guard in fulfillment of the contract. For all of these reasons, ORBCOMM requests that the experimental authority not be limited to a particular geographic area within the United States.

Orbital Debris Mitigation

Under Section 5.63(e) of the Commission's Rules, applicants are required to submit prescribed information on their orbital debris mitigation plans "except where the satellite system has already been authorized by the FCC." In this case, the ORBCOMM satellite system has already been licensed by the Commission (*Application of Orbital Communications Corporation for Authority to Construct, Launch and Operate a Non-Voice, Non-Geostationary Mobile-Satellite System*, 9 FCC Rcd 6476 (1994)), and the particular replacement satellite for which ORBCOMM is seeking experimental authority is identical to the previous satellites (also manufactured by Orbital Sciences Corporation), with the exception of an additional receiver package to evaluate the potential of low-Earth orbit satellites to monitor AIS transmissions in support of the Coast Guard's monitoring mission. As such, the satellite incorporates the same features that minimize the risk of accidental explosions or collisions so as not to become a source of orbital debris.