

## Description of Experimental Program

ORBCOMM seeks authority to use a 50 kHz feeder link uplink at each of the two antennas at its four gateway Earth stations both to test the suitability of this band for these purposes, as well as to provide a supplementary capability for addressing satellite anomalies during the brief period ORBCOMM's low Earth orbit satellites are within range of the U.S. gateways. ORBCOMM seeks to use this experimental capability in connection with its currently licensed NVNG Mobile Satellite System (Call Sign S2103). ORBCOMM satellites occasionally incur a single event upset, and use of this band will allow the gateways to clear the problem by communicating with the satellite, without disrupting the other feeder link operations while the satellites are over the United States. Each of the U.S. gateway sites includes two antennas to ensure continuity of coverage and allow the gateways to control multiple satellites, and ORBCOMM will use that same equipment to conduct these experimental activities without disrupting its regular operations.

ORBCOMM had previously conducted similar tests and operations pursuant to an experimental authorization (Call Sign WB2XDL), and seeks to re-initiate that program in light of ORBCOMM's current efforts to design a second-generation satellite constellation. By assisting ORBCOMM both in satellite restoration and in design of its second generation system potentially to incorporate multiple feeder links, the public will benefit from enhanced satellite services.

The proposed operations will not pose any risk of harmful interference. There are no other low Earth orbit satellite systems licensed to operate in the United States. The prior licensees that would have had operations in this band (Final Analysis and Leo One) have had their authorizations cancelled or returned. In any event, ORBCOMM's gateway operations are controlled 24/7 out of ORBCOMM's operations center in Dulles, Virginia, and thus ORBCOMM can immediately cease transmission in this band if there are any complaints of interference. Finally, ORBCOMM understands and acknowledges that it will be receiving experimental authority only, and thus will operate on a secondary basis and will have to tolerate interference caused by any other users authorized to operate in this band.