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March 8, 1990

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Re: Rulemaking Petition of Orbital Communications

Dear Ms. Searcy:

On February 28, 1990, Orbital Communications Corporation filed a petition for rulemaking so that it could offer low-speed data and position determination services over satellites in low-earth orbit. Upon reviewing the petition, we discovered that we had mistakenly reversed the direction of transmissions set forth in the text on page 20. As correctly indicated at footnote 23 of the petition and in the accompanying application, the bandwidth in the 137-138 MHz band will be used for space-to-earth transmissions, and the bandwidth in the 148-149.9 band will be used for earth-to-space transmissions. A revised page 20 is attached. We would appreciate your incorporating this correction in the filed petition.

Sincerely,

Stephen L. Goodman

Stephen L. Goodman
Counsel for Orbital Communications Corporation

IV. ORBCOMM Use Of The Particular Spectrum Sought In This Petition For Rulemaking Will Further The Public Interest

In this petition for rulemaking, ORBCOMM seeks the use of a total of 898 KHz of bandwidth for a low-earth orbiting satellite system. ORBCOMM proposes to utilize 370 KHz of bandwidth in the 137-138 MHz band for space-to-earth transmissions, and 478 KHz of bandwidth in the 148-149.9 band for earth-to-space transmissions.[21/] In addition, ORBCOMM proposes to use 50 KHz of bandwidth at 400.075 to 400.125 MHz to transmit time information and a standard frequency in accordance with currently specified usage.

A. These Frequencies Are Well Suited For The Proposed ORBCOMM Service

ORBCOMM seeks to use presently unused and underused spectrum in the VHF and UHF bands. Operation in these bands is critical to the economics and operating efficiencies of the low-earth orbiting satellite system. Frequencies below 50 MHz encounter severe propagation problems that will result in inadequate system reliability and availability. Operating above the UHF spectrum requires inordinate bandwidth for Doppler compensation. In addition, the low cost of subscriber terminals

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[21/] Although ORBCOMM's strong preference is to use frequencies in the 148-149.9 band, ORBCOMM has preliminarily identified other potential spectrum that might prove suitable. Blocks of spectrum in the 400.15-401 MHz band, 401-402 MHz band, and/or the 402-403 MHz band can practically be used for the low-earth orbiting satellite system. However, use of those frequencies would likely necessitate a redesign of the satellite system, and ORBCOMM has not yet performed an interference analysis for those frequencies.