

# ORIGINAL

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C.

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of : )  
)  
Redesignation of the 17.7-19.7 GHz Frequency )  
Band, Blanket Licensing of Satellite Earth Stations ) IB Docket No. 98-172  
in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency ) RM-9005  
Bands, and the Allocation of Additional Spectrum ) RM-9118  
in the 17.3-17.8 GHz and 24.75-25.25 GHz )  
Frequency Bands for Broadcast )  
Satellite-Service Use )

## REPLY COMMENTS OF CELSAT AMERICA, INC.

Celsat America, Inc. ("Celsat"), by undersigned counsel, hereby submits the following reply to the comments on the Notice of Proposed Rulemaking released by the Federal Communications Commission (the "Commission") on September 18, 1998 in the above-captioned proceeding (the "NPRM"). Celsat is an applicant both in the 2 GHz mobile satellite service proceeding<sup>1</sup> and in the second processing round for the Ka-band. In response to the cut-off date of December 22, 1997 established by the Commission for additional applications in the Ka-band,<sup>2</sup> Celsat filed an amendment to its 2 GHz application requesting feeder link spectrum in the Ka-band.<sup>3</sup> In the amendment, Celsat advised the Commission of its ability to use spectrum

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<sup>1</sup> See Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, 12 FCC Rcd 7388 (1997).

<sup>2</sup> See Report No. SPB-106.

<sup>3</sup> See 88-SAT-AMEND-98. Celsat's application in the second processing round for the Ka-  
(continued...)

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for feeder links in those portions of the Ka-band designated for GSO/FSS, since feeder links for a GSO MSS system are the engineering equivalent of service links in a GSO/FSS system.

Celsat's 2 GHz application proposes a dual mode satellite/terrestrial MSS system. Celsat intends to introduce vigorous competition into the MSS marketplace, giving the American public the benefits of a technologically superior service at an economical cost. Among the many advantages of its system:

- Celsat's very low price for a phone call (**8 cents per minute including long distance**) will make its service affordable to all Americans.
- Celsat's inexpensive PCS sized handset will make its service highly user friendly.
- Celsat's average radiated power of 1/4 watt will be one half the radiated power employed by some competitors.
- The very high link margins and the high elevation angle of Celsat's satellite will provide excellent signal quality for clarity and robustness (i.e., relative immunity to loss of signal).
- Celsat's system possesses unparalleled spectral efficiency.<sup>4</sup>
- A single Celsat satellite will provide 50,000 low cost voice circuits over the entire United States.<sup>5</sup>

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<sup>3</sup> (...continued)  
band seeks 850 MHz of spectrum anywhere in the 27.5-30.0 GHz range (i.e., anywhere in the existing Ka-band uplink) and 850 MHz of spectrum anywhere in the 17.7-20.2 GHz range (i.e., anywhere in the existing Ka-band downlink).

<sup>4</sup> See Master System Application of Celsat, Inc. for a GEO Satellite-Based MSS Space/Ground Hybrid Personal Communications Service, File Nos. 26/27/28-DSS-P/LA-97, 88-SAT-AMEND-98 (April 8, 1994) at page 22.

<sup>5</sup> Amendment to Application of Celsat, file no. 192-SAT-AMEND-97, filed September 25, 1997 at page 2.

- Celsat's affordable MSS service can provide immediate position-determination and voice access for every person in the United States, which could make the lives of millions of Americans much safer.

To facilitate the earliest possible introduction of this innovative service, Celsat offers the following comments and urges the Commission to conclude expeditiously this proceeding.

1. Mobile-Satellite Service Feeder Link Designation

The Commission proposes that the 29.1-29.5 GHz segment of the uplink band and the 19.3-19.7 GHz segment of the downlink band be used for MSS feeder links. In fact, these portions of the Ka-band appear to be allocated only to NGSO MSS feeder links.<sup>6</sup> At the time the Ka-band Order was released there were only two MSS systems licensed in the Ka-band and both were NGSO systems (i.e., Motorola's Iridium system and TRW's Odyssey system).<sup>7</sup> TRW has since returned its license to the Commission, leaving only a single NGSO system licensed in the Ka-band.<sup>8</sup> Although at the time the Ka-band Order was released it may have been appropriate to restrict the segment of the Ka-band designated for MSS/FL to NGSO systems, this restriction is no longer sensible. Given the clear need for feeder link spectrum for both NGSO and GSO

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<sup>6</sup> See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, 11 FCC Rcd 19005, ¶ 21 (1996) ("Ka-band Order").

<sup>7</sup> Id.

<sup>8</sup> See Letter from Counsel, TRW, Inc. to Secretary, Federal Communications Commission (January 7, 1998).

systems, the Commission should permit both GSO and NGSO systems to use those portions of the Ka-band designated for MSS feeder link use.

2. Relocation Issues

The Commission seeks comment in the NPRM on the treatment of relocation costs in the event some or all of the terrestrial fixed service users must be relocated.<sup>9</sup> Given the sharing possibilities presented by novel technologies such as Celsat's, it should not be necessary for the wholesale relocation of terrestrial fixed users from the Ka-band. In the event, however, the Commission determines that such wholesale relocation is nevertheless desirable, the Commission should require only those Ka-band licensees who cannot share spectrum with the terrestrial fixed users to pay the relocation costs. This policy provides an incentive for companies to develop and implement technologies that permit sharing and, thereby, increase the efficient use of spectrum.

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<sup>9</sup> NPRM at ¶ 41.

3. Conclusion

For all of the foregoing reasons, Celsat urges the Commission to act expeditiously on the NPRM and finalize a band plan which will permit the full implementation of Celsat's highly affordable and innovative MSS system.

Respectfully submitted,

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Dated: December 21, 1998

CERTIFICATE OF SERVICE

I, Ava Smith, hereby certify that on this 21<sup>st</sup> day of December, 1998, copies of the foregoing "Reply Comments of Celsat America, Inc." were served by hand delivery on the following parties:

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