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Federal Communications Commission
Office of Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In re Application of

**MOTOROLA GLOBAL COMMUNICATIONS,
INC.**

for Authority to Construct, Launch, and
Operate the Celestri Multimedia LEO System

File No. 79-SAT-P/LA-97

Received

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Satellite Policy Director
International Bureau

CONSOLIDATED RESPONSE of TELEDESIC CORPORATION

Teledesic Corporation hereby submits its Consolidated Response to the comments on the above-captioned application of Motorola Global Communications, Inc. Teledesic agrees with *every other commenting party* that Motorola has failed to carry its burden of demonstrating that its proposed Celestri system can operate without causing harmful interference to previously licensed operations.¹ In this Response, Teledesic wishes only to emphasize that Motorola's universally recognized failure to prevent harmful interference to licensed stations requires that its

¹ See Comments of Fixed Point-to-Point Communications Section, Wireless Communications Division, Telecommunications Industry Ass'n; Comments of Loral Space & Communications Ltd. ("Loral Comments"); Comments of KaStar Satellite Communications Corp. In addition, Reply Comments have already been filed by Lockheed Martin Corporation, and petitions to deny or defer were filed by GE American Communications, PanAmSat, Hughes, Primestar, USSB, and EchoStar. Teledesic's Consolidated Response is directed only toward the Comments that have been filed; the petitions will be addressed, if at all, only in reply to Motorola.

application be denied, regardless of whether the licensed stations that would receive the interference are part of geostationary, non-geostationary, or even terrestrial systems.

In its petition to deny Motorola's application, Teledesic has already demonstrated that the Celestri application suffers from deep technical flaws, and cannot be granted consistent with settled law or sound policy.² In particular, Motorola's proposed constellation design and switching algorithm are inadequate and cannot support the "satellite diversity" scheme upon which the Celestri application is based. Because of these technical flaws, Motorola's proposal would cause harmful interference to other licensed operations, including Teledesic's,³ and would fail to achieve the global coverage required under the Ka-band service rules.

Commenters are *unanimous* in their view that Motorola has failed to discharge its clear responsibility to avoid interference to licensed systems. Indeed, it is apparent from the comments that the Celestri proposal will cause harmful interference not only to Teledesic's licensed NGSO FSS operations, but also to other previously licensed systems in the frequencies sought by Motorola.

It is important to recognize that Motorola's responsibility to avoid harmful interference to or from *previously licensed* operations is precisely the same in all segments of the Ka band, regardless of whether the previously licensed operations are geostationary or non-geostationary. Ever since the early days of FCC regulation of the radio spectrum, it has been "clear that the 'newcomer' is responsible, financially and otherwise, for taking whatever steps may be necessary

² Teledesic Corporation Petition to Deny (filed Dec. 22, 1997).

to eliminate objectionable interference.”⁴ The Commission reaffirmed this policy in the satellite context in the recent *DISCO II* rules, making clear that no U.S. licensed system will be required to “significantly alter” its operations to remedy a later applicant’s failure to eliminate the possibility of harmful interference.⁵

In addition to this clear Commission precedent, it would be contrary to the public interest for the Commission to allow an unlicensed system proposal to go forward without a demonstration that the proponent would protect the systems of previously existing licensees. As noted by Loral:

Application of any other policy would allow unlicensed systems to dictate the design of licensed systems. This policy would not be in the public interest since licensees would have to continuously modify their system design to account for unlicensed systems, delaying the implementation of services, and possibly affecting their quality as well as discouraging investment and undermining business plans. Licensees, . . . relying on the Commission’s actions, have invested millions of dollars to develop their licensed systems, would suffer higher costs as a result of redesign, and would encounter significant delays in providing service. An untested system such as Celestri has the burden to prove to the Commission . . . that its interference mitigation techniques will not harm licensed systems in which millions of dollars have already been invested, and in which

[Footnote continued from previous page]

³ See *Teledesic Corp.*, 12 F.C.C. Rcd. 3154 (Int’l Bur. 1997).

⁴ *Sudbrink Broadcasting of Georgia, Inc.*, 65 F.C.C.2d 691, 692 (1977) (citing *Midnight Sun Broadcasting Co.*, 11 F.C.C. 1119 (1947)).

⁵ Amendment of the Commission’s Regulatory Policies to Allow Non-U.S.-Licensed Space Stations to Provide Domestic and International Satellite Service in the United States, FCC 97-399 (rel. Nov. 26, 1997), ¶ 149.

billions of dollars are to be invested.⁶

Loral also notes that “an FCC license would not mean anything if new proposals continuously jeopardized its development. The Commission should promote a stable regulatory environment and protect its licensees.”⁷ Loral’s statements are just as true for NGSO FSS licensees as for GSO FSS licensees. Motorola must protect *all* previously licensed stations of the same or a higher category of service.⁸

In some portions of the spectrum requested in the Celestri application, Motorola would bear the *additional* burden of avoiding interference to or from *later-licensed* GSO FSS systems, in accordance with the Commission’s band plan for the Ka band.⁹ In other words, in the portion of the Ka band in which GSO FSS operations are primary, Celestri must protect *future* GSO FSS systems in addition to existing ones. This *additional* burden, however, does not relieve Motorola of its more fundamental obligation to avoid harmful interference to existing licensees such as Teledesic.

⁶ Loral Comments at 8.

⁷ *Id.*

⁸ *Cf.* 47 C.F.R. § 2.104(d) (discussing relative priorities of primary, permitted, and secondary services).

⁹ 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, CC Docket No. 92-297, First Report and Order and Fourth Notice of Proposed Rulemaking (rel. July 22, 1996).

By designing a system that creates harmful interference with virtually every other technology licensed in the Ka band, Motorola has utterly failed to discharge its most important and elementary obligation as an applicant for an FCC license. Teledesic agrees with every other commenter that Motorola's application cannot be granted unless and until it can provide a compelling technical demonstration of its ability to protect licensed systems from harmful interference problems.

Respectfully submitted,

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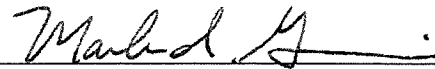
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