Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-Band	)))	IB Docket No. 96-132

TO: The Commission

OPPOSITION OF COMSAT CORPORATION
TO "MOTION TO REFRESH THE RECORD"

COMSAT Corporation, through its COMSAT Mobile Communications business unit ("COMSAT"), submits this Opposition to the "Motion to Refresh the Record" filed by Motorola, Inc. ("Motorola") and Iridium LLC ("Iridium") on April 15, 1999, in this proceeding.

In their Motion, Motorola and Iridium contend that the record in this proceeding has become stale due to "radical" changes in the satellite market and, in particular, conditions affecting mobile satellite services ("MSS") in the L-band. They ask the Commission to issue a Further Notice of Proposed Rulemaking ("FNPRM") initiating another round of comments and reply comments. As we show below, the changes alleged by Motorola and Iridium have little or no bearing on the issues in this proceeding. They do not warrant the expense of Commission and participant resources and the delay that would be entailed by initiating another comment round in this proceeding.

Introduction

The Commission initiated this proceeding in June 1996, when it issued its NPRM.[1] In the NRPM, the Commission proposed to assign the first 28 MHz of upper and lower L-band spectrum coordinated for U.S. systems to "the only U.S. MSS system authorized to operate in the upper L-band, AMSC."[2] The Commission stated that "[w]e normally allocate spectrum, establish service rules, and license applicants prior to coordinating spectrum internationally."[3] It then explained its proposal to reverse this process with regard to L-band spectrum.

COMSAT, like other parties, submitted comments and reply comments in September and October 1996.[4] In its Comments (at 1-2), COMSAT supported the Commission's proposal, which "recognize[d] that the amount of L-band spectrum ultimately allocated to U.S.-licensed MSS systems will depend upon the outcome of the existing intersystem L-band coordination process." In its Reply Comments (at 5-7), COMSAT also noted two factors that were likely to increase even further the demands on lower L-band spectrum in the near future.

In their Motion, Motorola and Iridium (at 3) pick and choose language from the NPRM they describe as showing the Commission's "four principal reasons" for its proposed policy. However, the general purpose of the Commission's policy is quite evident from the NPRM. In a nutshell, the Commission had authorized AMSC to construct and operate an MSS system, had

---

1 Notice of Proposed Rulemaking, *Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-Band*, 11 FCC Rcd 11,675 (1996).

2 *Id.* at 11,676.

3 *Id.* at 11679.

4 Comments of COMSAT Corporation, IB Docket No. 96-132 (Sept. 17, 1996) ("COMSAT Comments"); Reply of COMSAT Corporation, IB Docket No. 96-132 (Oct. 7, 1996) ("COMSAT Reply").

estimated that the AMSC system would need at least 20 MHz to operate successfully, and now found that it was unlikely to be able to coordinate even that much spectrum for AMSC, much less the full 28 MHz it had authorized AMSC to use, due to the limited L-band spectrum available and the competing demands of other systems in the international coordination process. In other words, it wanted to give AMSC a chance to be economically viable:

> Currently, in the entire L-band, there is 66 MHz of spectrum available to Earth-to-space and space-to-Earth transmissions for U.S. and non-U.S. licensed MSS systems. At present time, Inmarsat and four administrations . . . are coordinating spectrum for a variety of MSS systems in the vicinity of North America. . . .
>
> In the course of international coordination, it has become clear that the U.S. will not be able to secure sufficient spectrum in the upper L-band for its existing licensee, AMSC. . . . In fact, is unlikely that we will be able to coordinate more than 10 to 12 MHz in the upper L-band. Such an amount appears insufficient to operate the satellite system we authorized AMSC to build. . . . In sum, it appears that the available 10-12 MHz will be insufficient even for the one satellite AMSC has already launched.
>
> . . .
>
> The proposal we make today is a reasonable and appropriate step. Based on our assumptions about the economic viability of MSS systems, it appears that successful coordination of spectrum for one MSS system is possible only if we coordinate spectrum simultaneously in the upper and lower L-bands. . . .[5]

Indeed, the Commission noted:

> Even under the proposal we make today, we are pessimistic about coordinating all 28 MHz of spectrum. We do expect, however, to coordinate enough spectrum to permit AMSC to operate at least one of its three satellites in a cost-effective manner.[6]

And it stated that, "[i]f contrary to our expectation, we are able to coordinate more than 28 MHz of spectrum in the upper and lower L-bands, we propose to allow other parties to apply for the additional spectrum."[7]

---

5 11 FCC Rcd at 11,679-81.

6 *Id.* at 11,682.

7 *Id.*

None of this has changed since the issuance of the NPRM. What has changed? According to the Motion (at 2), the following changes in the satellite market "have altered nearly all of the premises accepted in 1996 by the Commission and the commentors in this rulemaking proceeding":

(1) the privatization of Inmarsat;
(2) the commencement of commercial operations of Iridium;
(3) the actual or imminent entry of other new MSS competitors;
(4) the availability of global and regional MSS spectrum in the 2 GHz band;
(5) the fact that the AMSC system has shown little subscriber growth, notwithstanding the exclusive access it has had to L-band spectrum for U.S. service;
(6) the conclusion of the WTO Agreement and the associated increase in requests by non-U.S. companies for access to U.S. spectrum.[8]

In fact, as we show below, most of these changes have little or no bearing on the issues in this proceeding and were well anticipated at the time of the NPRM, and the implications of these changes have been addressed in other Commission proceedings. The Motion presents no valid basis for reopening these proceedings.

I. THE MOTION PRESENTS NO BASIS FOR FURTHER COMMENTS

The Motion identifies and discusses the four alleged "primary reasons" for the NPRM's proposed policy. We address them in turn.

1. The first "primary reason" cited by the Motion (at 3) is the Commission's statement that "it is unlikely that we could coordinate more than 10 MHz in the lower L-band for another U.S. system, and we have previously estimated that 20 MHz is the minimum amount of spectrum necessary for a viable MSS system."[9] Motorola and Iridium argue that this premise has changed

---

8 The Motion provides no data to support this alleged increase.

9 11 FCC Rcd at11,680.

with the actual or forthcoming commencement of service by Iridium and other systems and the Commission's proposals for 2 GHz band allocations. They state that "the Commission itself no longer believes that '20 MHz is the minimum amount of spectrum necessary for a viable MSS system.'"

However, as discussed above, it is clear from the NPRM that the Commission's **first** concern was obtaining enough spectrum for its current licensee, AMSC. The issue then, is not whether a new MSS system could operate effectively using, for example, 5 MHz, but whether the AMSC system could. Obviously, newer systems benefiting from newer technology can be expected to operate with greater spectrum efficiency.[10] However, no investors will fund a system if they expect the Commission will put that system out of operation as soon as a more spectrum-efficient system design comes along. Nor will users be willing to purchase expensive satellite communications equipment if they expect its lifetime will be artificially shortened by Commission fiat.

Moreover, contrary to the Motion's claim that intervening changes have made the record stale, the facts related to AMSC's system design and the spectrum needs associated therewith have not changed. Indeed, Motorola and Iridium briefed this issue extensively in their Comments in 1996.[11] There is thus no need to refresh the record in this regard.

---

[10] The Motion at one and the same time touts the spectrum-efficiency of the Iridium system (*e.g.*, Motion at 2) yet suggests that Iridium is injured by having less spectrum allocated to it (Motion at 6). Presumably, the benefit of being more spectrum-efficient is that a system requires less spectrum.

[11] Comments and Opposition of Motorola Satellite Communications, Inc. and Iridium LLC, IB Docket No. 96-132, at 7-10 (Sept. 3, 1996); Reply Comments of Motorola Satellite Communications, Inc. and Iridium LLC, IB Docket No. 96-132, at 15-20 (Oct. 7, 1996).

In this connection, Motorola and Iridium suggest that Inmarsat's privatization somehow bears on this issue. The only implication of Inmarsat's privatization with regard to the international frequency coordination process is that, rather than represent itself in the coordination proceedings, Inmarsat, as a nongovernmental company organized under the laws of the United Kingdom, will be represented by the U.K. government. Inmarsat's spectrum needs have not been altered by privatization.

Motorola and Iridium obviously mean to suggest that Inmarsat's past spectrum allocations stemmed from its status as an intergovernmental organization.[12] However, they offer no support for this suggestion, which is simply not true. Rather, under the Mexico City agreement, Inmarsat's allocations reflect the fact that it operates a system providing service to large numbers of real (as opposed to projected) customers, unlike AMSC – or, to date, Iridium.[13] Inmarsat's allocations also reflect the central role it plays in provision of capabilities required for GMDSS services, capabilities Motorola chose not to build into the Iridium system.[14]

2. According to the Motion (at 3), the Commission's second "primary reason" for its L-band proposal was that the L-band "is currently the only primary MSS band in which we have licensed geostationary MSS systems."[15] Motorola and Iridium contend this reason is no longer

---

12 In fact, the Commission in the past has penalized COMSAT and Inmarsat for Inmarsat's intergovernmental nature by denying COMSAT general authorization to provide Inmarsat services domestically. Presumably, Inmarsat would have received larger allocations in the coordination process if it had carried additional U.S. traffic.

13 As of January 1999, Inmarsat was providing service to 143,000 terminals worldwide, an increase of 35 percent from January 1998. The Motion offers no information about Iridium's traffic or spectrum use.

14 The Motion states (at 4 n.5) that "Iridium will need additional spectrum to meet its commercial needs as its business expands." COMSAT believes that, if Iridium is able to show sufficient traffic growth to mollify its lenders and support a need for increased spectrum, the Commission should, and undoubtedly will, find it adequate spectrum. That spectrum should not, however, be taken from successful existing systems with large user communities.

15 *Id.* at 11,680-81.

valid, because four applicants for 2 GHz spectrum propose to operate geostationary MSS systems.

The fact that some new geostationary MSS systems are proposing to use the 2 GHz band in no way supports Motorola's opposition to the Commission's proposals in this proceeding. In fact, the 2 GHz band was allocated for MSS services precisely because the L-band does not have sufficient capacity to support both existing and proposed systems. Moreover, it should be clear from the Commission's experience under the Mexico City arrangements that L-band capacity is more crowded now than it was when the Commission issued its NPRM. Hence, the availability of 2 GHz capacity for proposed new systems does not warrant a further round of comments.

3. The Motion (at 3) next cites the Commission's statement that "AMSC is in the best position to provide MSS to the public expeditiously. If AMSC . . . obtains insufficient spectrum for its system, its service will be jeopardized, and no other potential licensee in the lower L-band will be able to provide service for years."[16] According to the Motion, the existence of numerous competitive alternatives in the near future undermines this premise of the NPRM.

However, the NPRM's focus, in the referenced paragraph, was also on the investment AMSC had made, in reliance on and, indeed, as required by the Commission's authorization:

> AMSC's substantial progress toward full implementation thus figures heavily in our public interest analysis, quite apart from the hardship AMSC would suffer if it were unable to recoup its investment of money, time, and other resources. This is especially true because AMSC's expenditures were actually <u>required</u> by the construction and launch milestones in AMSC's license."[17]

---

16 *Id.* at 11,681.

17 *Id.* (emphasis in original).

Motorola and Iridium have not shown that this equitable factor has changed.[18]

4. The fourth "primary reason" cited by the Motion is the Commission's statement that, although it "does not guarantee that other administrations will always accommodate U.S. licensed systems[, . . .] [w]e can and should . . . take reasonable and appropriate steps to ensure that our licensees have a fair opportunity to compete."[19] According to Motorola and Iridium, the fact that AMSC has had exclusive U.S. access to L-band spectrum for four years has changed the Commission's premise. However, as noted above, the AMSC system design has not changed in the 2 ½ years since comments were filed, nor have the spectrum needs related to that design.

We recognize, and have ourselves noted in filings with the Commission, that AMSC's traffic growth appears to be far short of AMSC's previous projections. It is noteworthy that AMSC in the past has not sought to rebut such comments with any traffic or spectrum use statistics. Under the Mexico City arrangements, as we understand them, an AMSC traffic shortfall would result in allocation of less spectrum to AMSC and more to other systems that would actually make use of it. Given the number of systems already using the L-band, however, and the important role Inmarsat plays in the GMDSS, this should not open the door to authorization of additional U.S. systems to operate at L-band. Nor do AMSC's alleged shortcomings provide reason for another round of comments in this proceeding. In any event,

---

18 The Motion (at 6) states that the emergence of foreign competition is a particularly significant change since the issuance of the NPRM, because of the U.S. commitment under the WTO Agreement to provide equal market access to foreign systems. However, the only L-Band systems cited in support of this contention – Inmarsat and TMI – both predated the NPRM, and hence cannot support a claim of changed circumstances. The Commission has already addressed some very important issues relating to the WTO Agreement in its *DISCO II* proceeding. Motorola and Iridium fail to show why the WTO Agreement warrants further comment rounds, and consequent delay, in this proceeding.

19 *Id.*

Motorola and Iridium here have offered only rhetoric, and no relevant factual support, for their contentions concerning AMSC's performance.

Conclusion

For the foregoing reasons, the Commission should deny the Motorola/Iridium Motion.

Respectfully submitted,

COMSAT CORPORATION

By: Neal T. Kilminster

Neal T. Kilminster
Associate General Counsel
6560 Rock Spring Drive
Bethesda, MD 20817
(301) 214-3348

April 26, 1999

Aero Opposition.doc

CERTIFICATE OF SERVICE

I, Neal T. Kilminster, hereby certify that on this 26th day of April, 1999, a copy of the foregoing Reply of COMSAT Corporation, was mailed via first-class mail to the below-listed persons.

James L. Ball*
Federal Communications Commission
2000 M Street, NW, Room 820
Washington, DC 20554
**Hand-Delivered by Courier*

Thomas Tycz*
Federal Communications Commission
2000 M Street, NW, Room 811
Washington, DC 20554
**Hand-Delivered by Courier*

Bruce D. Jacobs
Glenn S. Richards
Robert L. Galbreath
Fisher Wayland Cooper Leader & Zaragoza L.L.P.
2001 Pennsylvania Avenue, NW, Suite 400
Washington, DC 20006

Lon C. Levin
AMSC Subsidiary Corporation
10802 Parkridge Blvd.
Reston, VA 22091

William F. Adler
GLOBALSTAR
3200 Zanker Road
San Jose, CA 95134

Leslie A. Taylor
Guy T. Christiansen
Leslie Taylor Associates
6800 Carlynn Court
Bethesda, MD 20817

William D. Wallace
Crowell & Moring LLP
1001 Pennsylvania Avenue, NW
Washington, DC 20004

Michael D. Kennedy
Barry Lambergman
Motorola, Inc.
1350 I St., NW, Suite 400
Washington, DC 20005

F. Thomas Tuttle
Patricia A. Mahoney
Iridium, Inc.
1401 H Street, NW, 8th Floor
Washington, DC 20005

Philip L. Malet
Alfred M. Mamlet
Brent H. Weingardt
Steptoe & Johnson, LLP
1330 Connecticut Avenue, NW
Washington, DC 200036

Joseph D. Hersey, Jr.
United States Coast Guard
2100 Second Street, SW
Washington, DC 20593-0001

Gerald C. Musarra
Lockheed Martin Corporation
1725 Jefferson Davis Highway, Suite 300
Arlington, VA 22202-4127

Debra A. Smilley-Weiner
Deputy General Counsel
Lockheed Martin Telecommunications
1322 Crossman Avenue, Building 580
Sunnyvale, CA 94089

Raymond G. Bender, Jr.
Richard S. Denning
Dow, Lohnes & Albertson, PLLC
1200 New Hampshire Avenue, NW, Suite 800
Washington, DC 20036-6802

David Otten
Celsat America, Inc.
3460 Torrence Blvd., Suite 220
Torrence, CA 90503

Gary K. Noreen
Radio Satellite Corporation
PO Box 93817
Pasadena, CA 91109-3817

Caressa D. Bennet
Dorothy E. Cukier
Bennet & Bennet, PLLC
1019 - 19th St., NW, Suite 500
Washington, DC 20036

Neal T. Kilminster

Neal T. Kilminster

certificate of service NTK.doc

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
	)	
Establishing Rules and Policies for the Use Of Spectrum for Mobile-Satellite Service In the Upper and Lower L-Band	)	IB Docket No. 96-132
	)	

COMMENTS IN SUPPORT OF MOTION TO REFRESH THE RECORD

Globalstar, L.P., and L/Q Licensee, Inc. ("LQL") (collectively, "Globalstar") are filing these comments in support of the "Motion to Refresh the Record" in the above-referenced proceeding filed by Motorola, Inc., and Iridium LLC (collectively, "Iridium"), on April 15, 1999.

LQL is the licensee of the Globalstar™ Mobile-Satellite Service ("MSS") Above 1 GHz satellite system, and is authorized to use the 1.6/2.4 GHz bands for transmission links between satellites and users.[1] Globalstar, L.P., a Delaware limited partnership, holds the right to offer capacity on the Globalstar system and owns and operates the international MSS business. Globalstar has an interest in

[1] See Loral/Qualcomm Partnership, L.P., 10 FCC Rcd 2333 (Int'l Bur. 1995). The license was later assigned to LQL, a wholly-owned subsidiary of LQP.

this proceeding as described in comments filed by LQL on the proposals in the original "Notice of Proposed Rulemaking." [2]

Globalstar urges the Commission to take the action recommended by Iridium, that is, to issue a "Further Notice of Proposed Rulemaking" for the purpose of updating the record on which to evaluate rules and policies governing use of the lower and upper L-band. Motion, 3-9. Comments on the original "Notice of Proposed Rulemaking" in this docket were filed two and one-half years ago. As Iridium points out, since that time, there have been substantial changes in the competitive and regulatory environments for MSS in the United States, which undermine the premises of the Commission's proposed rules and policies for the L-band. These changes are so pervasive as to make the record in this proceeding essentially meaningless as well as stale. Accordingly, Globalstar agrees with Iridium that the passage of time has made it essential for the Commission to issue a "Further NPRM," and to seek additional comments from interested parties.

For example, in the L-Band NPRM, the Commission proposed to license the lower L-band on an exclusive basis to AMSC Subsidiary Corporation. The Commission reasoned that it should promote MSS provided by geostationary satellite systems and that it needed to provide AMSC with sufficient spectrum to

---

[2] Establishing Rules and Policies for the Use of Spectrum for Mobile-Satellite Service in the Upper and Lower L-Band, 11 FCC Rcd 11675 (1996) ("L-Band NPRM"); see "Comments of L/Q Licensee, Inc., and Opposition to Proposed Modification of License" (filed Sept. 3, 1996).

develop a successful business.[3] Iridium has explained why the assumptions underlying these policies have changed over the past two and one-half years.

Globalstar also notes that the proposed exclusive assignment of spectrum to AMSC is inconsistent with more recent policy. In particular, the Commission recently sought comment on sharing techniques between satellite systems of like orbit and between nongeostationary and geostationary systems at Ku-band.[4] And, in a recent NPRM proposing licensing and service rules for MSS at 2 GHz, the Commission proposed to license all nine applicants, including geostationary and nongeostationary systems, and require them to share the available spectrum through intersystem coordination and/or band segmentation.[5] These rulemakings represent an advancement in the Commission's policy on spectrum management and a recognition of the need to improve the efficient use of scarce spectrum resources allocated for MSS. Accordingly, the Commission should reconsider whether it is necessary, consistent with current policy, and non-discriminatory to assign the lower L-band to AMSC on an exclusive basis.

Finally, Globalstar notes that the Commission has accepted for filing a number of applications for authorizations in the lower L-band by service providers

---

[3] See L-Band NPRM, 11 FCC Rcd at 11680-81.

[4] See Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-band Frequency Range, FCC 98-310 (released Nov. 24, 1998).

[5] See The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, FCC 99-50 (released Mar. 25, 1999).

proposing to use AMSC's satellite and by foreign satellite systems.[6] Yet, in the L-Band NPRM, the Commission proposed to authorize only AMSC and not to accept applications for use of the lower L-band until the amount of spectrum available to AMSC has been determined.

The acceptance of these applications creates obvious inconsistencies in the Commission's proposals for the lower L-band. For example, although it has accepted applications for authority to use the lower L-band, the Commission has not proposed licensing and service rules for operators in the lower L-band (other than AMSC) against which to evaluate the pending applications. Moreover, the Commission's action in accepting these applications discriminates against potential applicants who took the Commission at its word in the L-Band NPRM and have not filed applications to use this spectrum.

The Commission should rectify these inconsistencies by re-noticing its policies and rules for the lower L-band. It should also reconsider how it will treat applicants to use the lower L-band, and either dismiss all pending applications, or open a processing round which includes these applicants and others, to ensure that all interested parties have an equal chance to compete for the available spectrum.

---

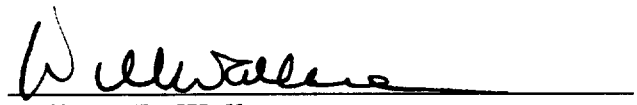
[6] Globalstar has opposed the applications of six companies proposing to use the lower L-band. See Applications of SatCom Systems, Inc., File No. 647-DSE-P/L-98; TMI Communications and Company, L.P., File No. 730-DSE-P/L-98; KITComm Satellite Communications Ltd., File Nos. 85-SAT-LOI-98 & 123-SAT-MISC-98; GE LogistiCom, Inc., File No. 1263-DSE-P/L-98; Eaton Corporation, File No. SES-LIC-19980821-01124; Newcomb Communications, Inc., File No. SES-LIC-19980415-00436. GE LogistiCom has subsequently withdrawn its application.

Indeed, as Iridium points out (Motion, at 9-12), further review of the L-band policies would be meaningful only if the Commission holds in abeyance action on these pending applications.

Accordingly, for the reasons set forth in Iridium's Motion and above, the Commission should issue a "Further NPRM" regarding use of the L-band, hold all pending applications for the L-band in abeyance, and open a filing window for interested parties to file applications to use the lower L-band frequencies.

Respectfully submitted,

L/Q LICENSEE, INC.
GLOBALSTAR, L.P.



William D. Wallace

CROWELL & MORING LLP
1001 Pennsylvania Avenue, N.W.
Washington D.C. 20004
(202) 624-2500

Its Attorneys

Of Counsel:

William F. Adler
Vice President, Legal and
Regulatory Affairs
Globalstar, L.P.
3200 Zanker Road
San Jose, CA 95134
(408) 933-4401

Date: April 26, 1999

CERTIFICATE OF SERVICE

I, William D. Wallace, hereby certify that I have on this 26th day of April, 1999, caused true and correct copies of the foregoing "Comments in Support of Motion to Refresh the Record" to be served via hand delivery (indicated by an *) or first-class United States mail, postage prepaid, upon:

The Honorable William Kennard *
Chairman
Federal Communications Commission
445 12th Street, S.W., Room 8-B201
Washington, D.C. 20554

The Honorable Susan Ness *
Commissioner
Federal Communications Commission
445 12th Street, S.W., Room 8-B115
Washington, D.C. 20554

The Honorable Gloria Tristani *
Commissioner
Federal Communications Commission
445 12th Street, S.W., Room 8-C302
Washington, D.C. 20554

James Ball *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Thomas Tycz *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

The Honorable Harold Furchtgott-Roth *
Commissioner
Federal Communications Commission
445 12th Street, S.W., Room 8-A302
Washington, D.C. 20554

The Honorable Michael Powell *
Commissioner
Federal Communications Commission
445 12th Street, S.W., Room 8-A204
Washington, D.C. 20554

Roderick Porter, Acting Chief *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Linda Haller *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Cassandra Thomas *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Harry Ng *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Fern Jarmulnek *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Jennifer Gilsenan *
International Bureau
Federal Communications Commission
445 12th Street, S.W., Room 6C-723
Washington, D.C. 20554

Bruce D. Jacobs
Fisher Wayland Cooper Leader & Zaragoza LLP
2001 Pennsylvania Avenue, N.W.
Suite 400
Washington, D.C. 20006

Raymond G. Bender, Jr.
Richard S. Denning
Dow, Lohnes & Albertson, PLLC
1200 New Hampshire Avenue, N.W.
Suite 800
Washington, D.C. 20036-6802

Caressa A. Bennet
Dorothy E. Cukier
Bennet & Bennet, PLLC
1019 19th Street, N.W., Suite 500
Washington, D.C. 20036

Philip L. Malet
Maury D. Shenk
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036

Michael D. Kennedy
Barry Lambergman
Motorola, Inc.
1350 I Street, N.W.
Washington, D.C. 20005

Patricia A. Mahoney
Audrey Allison
Iridium LLC
1575 Eye Street, N.W.
Washington, D.C. 20005

Lon C. Levin
Vice President and Regulatory Counsel
AMSC Subsidiary Corporation
10802 Parkridge Boulevard
Reston, VA 22091

Joseph D. Hersey, Jr., Chief
Spectrum Management Division
United States Coast Guard
2100 Second Street, S.W.
Washington, D.C. 20593-0001

David Otten
President and CEO
Celstat America, Inc.
3460 Torrance Boulevard, Suite 220
Torrance, CA 90503

Howard D. Polsky
COMSAT Corporation
6560 Rock Spring Drive
Bethesda, MD 20817

Gary K. Noreen
Radio Satellite Corporation
P.O. Box 93817
Pasadena, CA 91109-3817

Debra A. Smilley-Weiner
Lockheed Martin Telecommunications
1322 Crossman Avenue
Building 580
Sunnyvale, CA 94089

Gerald C. Musarra
Lockheed Martin Corporation
1725 Jefferson Davis Highway
Suite 300
Arlington, VA 22202-4127

William D. Wallace