

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
The Establishment of Policies and Service	)	IB Docket No. 99-81
Rules for the Mobile Satellite Service in	)	
the 2 GHz Band	)	

To: The Commission

**REPLY COMMENTS OF  
THE SATELLITE INDUSTRY ASSOCIATION**

The Satellite Industry Association ("SIA") hereby respectfully submits its Reply Comments in response to the Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding.<sup>1</sup>

The SIA is a national trade association representing the leading U.S. satellite manufacturers, service providers and launch service companies. The SIA was established to serve as an advocate for the U.S. commercial satellite industry on regulatory and policy issues common to its members. With seventeen current executive member companies providing a broad range of manufactured products and services, SIA represents the unified voice of the U.S. commercial satellite industry on policy and regulatory matters of common concern. The Association is dedicated to promoting the use of satellite technology in global communications.<sup>2</sup>

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<sup>1</sup> *In the Matter of the Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2GHz Band*, FCC 99-50, released March 25, 1999 (*Notice of Proposed Rule Making in IB Docket No. 99-50*) ("2 GHz Notice").

<sup>2</sup> The SIA is an operating entity of the Satellite Broadcasting and Communications Association ("SCBA") and represents the United States commercial satellite industry. SIA's executive members are: American Mobile Satellite Corp., Boeing Commercial Space Company, COMSAT Corp., Ellipso Inc., GE American Communications Inc., Globalstar LP, Hughes Communications Inc., Iridium LLC, Lockheed

On June 24, 1999, SIA submitted comments in this proceeding addressing four issues. It recommended application of the Big LEO service rules to 2 GHz MSS and use of Universal Service Fund benefits to encourage development of satellite service to underserved communities. It also explained why the Commission should not require enhanced 9-1-1 capabilities (“E911”) for 2 GHz MSS systems. Finally, it argued vigorously against the use auctions to assign 2 GHz MSS or any satellite spectrum in the United States.

SIA has reviewed the comments filed in this proceeding and limits its reply to issues raised by the commenters concerning E911 and auctions.

### **I. Enhanced 9-1-1 Capabilities**

In response to comments received on the Commission’s request for comments on whether to impose E911 capabilities on 2 GHz MSS, SIA incorporates into its Reply Comments in this proceeding its discussion of E911 with respect to Global Mobile Personal Communications by Satellite (“GMPCS”) systems, including 2 GHz MSS, from its recently filed Reply Comments in the Commission’s proceeding on implementation of the GMPCS Memorandum of Understanding and Arrangements.<sup>3</sup> A copy of SIA’s GMPCS Reply Comments is attached hereto.

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Martin Corp., Loral Orion Network Systems Inc., Loral Space & Communications Ltd., Motorola Inc., Orbital Sciences Corp., PanAmSat Corp., Teledesic Corp., TRW Inc., and Williams Vyvx Services Inc.

<sup>3</sup> Comments of the Satellite Industry Association, filed July 21, 1999 in response to *Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements*, FCC 99-37, released March 5, 1999 (*Notice of Proposed Rulemaking* in IB Docket No. 99-67).

## II. Competitive Bidding

With respect to the competitive bidding issue, SIA reiterates and renews its longstanding opposition to the use of auctions to assign spectrum in the 2 GHz MSS band and other satellite bands. All of the 2 GHz MSS applicants joined SIA in proclaiming opposition in their comments to any use of competitive bidding to select among the 2 GHz MSS applicants.<sup>4</sup> The only commenting party calling for auctions is BellSouth Corporation (ABellSouth≅), an incumbent user of 2 GHz spectrum.

BellSouth alleges that use of auctions will ensure that 2 GHz MSS licensees will be able to perform their relocation payment obligations to incumbents in the 2 GHz band.<sup>5</sup> However, far from ensuring that a successful 2 GHz MSS applicant would have the resources to meet its relocation obligations, BellSouth=s proposed auction framework would likely spawn an array of additional cost burdens, uncertainties, and financial risks on top of those that MSS system operators already confront, that would actually serve to make it less likely that it would have resources available when needed to reimburse incumbents.

Citing to the *Big LEO Report and Order*, BellSouth also contends that the Commission previously rejected concerns about A[t]he specter of <coordinated multinational auctions=≅ and

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<sup>4</sup> See Comments of Celsat America, Inc., filed June 24, 1999, at 17-20; Comments of Constellation Communications, Inc., filed June 24, 1999, at 6-7; Comments of Globalstar, L.P., filed June 24, 1999, at 12-14; Comments of ICO Services Limited, filed June 24, 1999, at 11-14; Comments of Inmarsat Ltd., filed June 24, 1999, at 12; Comments of Iridium LLC, filed June 24, 1999, at 22-26; Comments of Mobile Communications Holdings, Inc., filed June 24, 1999, at 17-18; Comments of TMI Telecommunications and Company, Limited Partnership, filed June 24, 1999, at 9; see generally Comments of the Boeing Company, filed June 24, 1999, at 19-22; see also Comments of BT North America, Inc., Hughes Telecommunications and Space Company; Telecomunicaciones de Mexico, and TRW, Inc., filed June 24, 1999, at 34-37.

<sup>5</sup> Comments of BellSouth Corporation, filed June 24, 1999, at 2-8 (“BellSouth Comments”).

the Asubstantial delay in service to U.S. customers≡ that auctions could engender and wonders  
 Awhat has changed since 1994 that justifies a different conclusion≡ now.<sup>6</sup>

BellSouth is in error when it portrays the Commission=s position on auctions in the  
 Commission's 2 GHz Notice as a sudden or abrupt departure from its existing policy. The  
 Commission had occasion to revisit the suitability of auctions for purposes of satellite licensing  
 two years following the *Big LEO Report and Order* in its *Notice of Proposed Rulemaking* in the  
 Little LEO proceeding and, at that time, recognized the problems created by the uncertainties that  
 such auctions would engender.<sup>7</sup> The Commission ultimately rejected the use of auctions in the  
 Little LEO proceeding, just as it has proposed to do in the instant 2 GHz MSS proceeding.

Also since 1994, both chambers of Congress have gone on record opposing the use of  
 competitive bidding for assigning global satellite spectrum both in the U.S. and abroad. In fact,  
 only four weeks ago, on July 1, 1999, the U.S. Senate passed S.376, the *Open-Market  
 Reorganization for the Betterment of International Telecommunications Act*. Section 633 of  
 S.376 expressly provides that:

Notwithstanding any other provision of law, the Commission shall  
 not assign by competitive bidding orbital locations or spectrum  
 used for the provision of international or global satellite  
 communications services. The President shall oppose in the  
 International Telecommunications [sic] Union and in other bilateral  
 and multilateral fora any assignment by competitive bidding of  
 orbital locations of spectrum used for the provision of such  
 services.<sup>8</sup>

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<sup>6</sup> *Id.* at 4-5.

<sup>7</sup> *In the Matter of Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies  
 Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite  
 Service*, 11 FCC Rcd 19841, 19869 & ¶¶ 80-81 (1996) (*Notice of Proposed Rulemaking* in IB Docket  
 No. 96-220).

<sup>8</sup> S. 376, 106<sup>th</sup> Cong., 1<sup>st</sup> Sess. § 633 (1999).

Moreover, just last year, the House of Representatives expressed the same sentiment in identical terms in H.R.1872.<sup>9</sup> The Committee Report for that measure stated that:

[t]he Committee believes that auctions of spectrum or orbital locations could threaten the viability and availability of global and international satellite services, particularly because concurrent or successive spectrum auctions in the numerous countries in which U.S.-owned global satellite service providers seek downlink or service provision licenses could place significant financial burdens on providers of such services. This problem could be compounded by the fact that the multi-year period required for the design, construction and launch of global and international satellite systems usually requires service providers to invest substantial resources well before they obtain all needed worldwide licenses and spectrum assignments. The uncertainty created by spectrum auctions could disrupt the availability of capital for such projects, and significantly reduce the available benefits offered by global and international satellite systems.<sup>10</sup>

Finally, as the preponderance of comments plainly demonstrates, the Commission's existing statutory mandate precludes adoption of competitive bidding as a licensing option in this proceeding, in light of the Commission's ability to resolve mutual exclusivity through use of engineering solutions.

Thus, for the above reasons and for the reasons stated in SIA's Comments, the Commission should reject BellSouth's proposal and adopt its tentative conclusion not to employ auctions to license 2 GHz MSS systems in the United States.

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<sup>9</sup> H.R. 1872, 105<sup>th</sup> Cong., 2<sup>nd</sup> Sess. § 649 (1998).

<sup>10</sup> H.R. REP. NO. 494, 105<sup>th</sup> Cong., 2<sup>d</sup> Sess. 64-65 (1998).

**III. Conclusion**

The Satellite Industry Association therefore urges the Commission in authorizing 2 GHz MSS systems in the United States to refrain from requiring enhanced 9-1-1 capabilities and from using competitive bidding as a selection mechanism.

Respectfully submitted,

**The Satellite Industry Association**

By: \_\_\_\_\_

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July 26, 1999

Before The  
Federal Communications Commission  
Washington, D.C.

In the Matter of )  
)  
Amendment of Parts 2 and 25 to Implement ) IB Docket No. 99-67  
the Global Mobile Personal Communications )  
by Satellite (GMPCS) Memorandum of )  
Understanding and Arrangements )  
)  
Petition of the National Telecommunications ) RM No. 9165  
And Information Administration to Amend )  
Part 25 of the Commission's Rules to )  
Establish Emissions Limits for Mobile and )  
Portable Earth Stations Operating in the )  
1610-1660.5 MHz Band )

To: The Commission

**REPLY COMMENTS OF  
THE SATELLITE INDUSTRY ASSOCIATION**

The Satellite Industry Association ("SIA") hereby respectfully submits its Reply Comments in response to the Notice of Proposed Rule Making ("*NPRM*"), FCC 99-37, released March 5, 1999, in the above-referenced proceeding.<sup>1</sup>

SIA is a national trade association representing the leading U.S. satellite manufacturers, service providers and launch service companies in the commercial satellite arena.<sup>2</sup> SIA submitted

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<sup>1</sup> In the Matter of the Application of Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band, Notice of Proposed Rule Making ("*NPRM*"), 64 Fed. Reg. 16687 (Apr. 6, 1999).

Comments in this proceeding on June 21, 1999, as did a number of its constituent members, supporting in large measure the Commission's efforts to expeditiously implement the Memorandum of Understanding ("MoU") and Arrangements for Global Mobile Personal Communications by Satellite (GMPCS) systems, adopted under the auspices of the International Telecommunication Union (ITU), to promote the transborder circulation of GMPCS user terminals.

In these Reply Comments, SIA continues to support the Commission's efforts to implement the GMPCS-MoU and Arrangements in the United States. SIA also supports the Comments expressing agreement with the Commission's proposal not to require submission of traffic data. Finally, together with all of the commenting GMPCS operators and service providers in this proceeding, SIA continues to urge the Commission not to impose geolocation and E911 requirements on GMPCS systems in this proceeding.

**I. The SIA Supports the Commission's Expeditious Action to Implement the GMPCS-MoU and Arrangements**

As it stated in its initial Comments, SIA believes that the *NPRM* is a significant step in the Commission's full implementation of the GMPCS-MoU and in the recognition of the GMPCS-MoU ITU Registry mark, which is placed on satellite user terminals that meet the conditions in the GMPCS-MoU Arrangements. The Commenters in this proceeding resoundingly echo this conclusion.

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<sup>2</sup> The SIA is an operating entity of the Satellite Broadcasting and Communications Ass'n and represents the United States commercial satellite industry. SIA's executive members are: American Mobile Satellite Corporation, Boeing Commercial Space Co., COMSAT Corp., Ellipso Inc., GE American Communications Inc., Globalstar LP, Hughes Communications Inc., Iridium LLC, Lockheed Martin Corp., Loral Orion Network Services Inc., Loral Space & Communications Ltd., Motorola, Inc., Orbital Sciences, Corp. PanAmSat Corp., Teledesic Corp., TRW Inc. and Williams Vyvx Services.

SIA also supports Comments expressing agreement with the Commission's proposal to refrain from requiring submission of traffic data by GMPCS operators and service providers.<sup>3</sup>

## **II. The Commission Should Not Impose Geolocation or E911 Capabilities on GMPCS Providers in this Proceeding**

In their Comments, several government entities and public safety organizations argue that the Commission should impose specific emergency service obligations (E911) upon GMPCS service providers,<sup>4</sup> including the Phase II 125 meter position location standard adopted for terrestrial wireless systems.<sup>5</sup> In contrast, the satellite interests that responded on this issue, including SIA, unanimously oppose the imposition of E911 and specific position location requirements.<sup>6</sup> There are many valid reasons identified for not adopting E911 and position location requirements for GMPCS systems. SIA strongly urges the Commission to follow the recommendations of the satellite industry and not impose specific emergency calling requirements on GMPCS systems in this proceeding.

Less than two years ago, the Commission stated that the commercial Mobile-Satellite Service ("MSS") has not yet developed sufficiently to warrant imposition of E911 standards, and that the Commission would not consider imposing such requirements until the MSS industry has

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<sup>3</sup> See Comments of Comsat Corp. ("Comsat Comments"), at 11; Comments of Constellation Communications, Inc. ("Constellation Comments"), at 11; Comments of Inmarsat Ltd. ("Inmarsat Comments"), at 4; Comments of Iridium LLC ("Iridium Comments"), at 10; Comments of Skybridge L.L.C. ("Skybridge Comments"), at 6.

<sup>4</sup> See Comments of the National Search & Rescue Committee ("NSARC Comments") at 2; Comments of the Ass'n of Public-Safety Communications Officials-Int'l, Inc. ("APCO Comments"), at 2-3; Comments of the U.S. Coast Guard ("USCG Comments"), at 5-8; Comments of the Nat'l Telecommunications & Information Admin. ("NTIA Comments"), at 26; Comments of the National Emergency Number Ass'n ("NENA Comments"), at 2-3.

<sup>5</sup> 47 C.F.R. § 20.18(e).

<sup>6</sup> See Comments of AMSC Subsidiary Corp. ("AMSC Comments"), at 16-17; Comsat Comments, at 12-16; Constellation Comments, at 13-15; Joint Comments of L/Q Licensee, Inc., Globalstar, L.P. & AirTouch Satellite Services U.S., Inc. ("Globalstar Comments"), at 26-29; Comments of ICO Global Communications (Holdings) Limited ("ICO Comments"), at 6-7; Inmarsat Comments, at 10; Iridium Comments, at 12; Comments of Motorola, Inc. ("Motorola Comments"), at 18-19; Comments of Orbital Communications Corp. ("Orbcomm Comments"), at 11-16; Comments of Teledesic LLC ("Teledesic Comments"), at 11-12.

developed “into a mobile public telephone service like cellular or broadband PCS.”<sup>7</sup> Clearly, that has not yet happened, and MSS services are far from being “interchangeable” with cellular or broadband PCS.

As several parties point out in their Comments, technological advances necessary for implementing E911 requirements for satellite systems have not occurred since the Commission’s orders on E911 services in 1996 and 1997.<sup>8</sup> Moreover, it is clear in the Comments from the satellite industry that the technology for global satellite systems is still in a developing stage.<sup>9</sup> Several satellite companies confirm that the current technical capabilities of GMPCS satellite systems are not sufficiently like those of terrestrial wireless systems to simply impose the same technical requirements.<sup>10</sup> For example, some GMPCS systems can locate a terminal only within a large area, *e.g.*, 10 kilometers, for billing and caller registration purposes.<sup>11</sup> To implement terrestrial-like capabilities, the modifications to satellite system architecture, earth stations and switches necessary to improve terminal location identification and implement other E911 requirements could cost hundreds of millions of dollars.<sup>12</sup>

Moreover, adding Global Positioning System (“GPS”) receivers to GMPCS terminals to obtain more accurate position location does not provide an easy solution. The addition of GPS to GMPCS user terminals, among other things, “increases the cost of the user terminal, may require the addition of a GPS receiving antenna or complicate the design of an L-band transmit/receive

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<sup>7</sup> Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Services (“E911 Recon. Order”), 12 FCC Rcd 22665, at ¶ 87 (1997)

<sup>8</sup> Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Services, 11 FCC Rcd 18676, 18718 (1996), on recon., 12 FCC Rcd 22665 (1997); *see* Iridium Comments, at 12.

<sup>9</sup> *See* ICO Comments, at 6-7; Motorola Comments, at 19.

<sup>10</sup> *See* 47 C.F.R. § 20.18 (E911 requirements for CMRS systems).

<sup>11</sup> *See* Constellation Comments, at 14; Globalstar Comments, at 26 n.66; *see also* Orbcomm Comments, at 12-13. In contradistinction to the USCG Comments, currently operating or soon-to-operate GMPCS systems do not have capabilities consistent with the terrestrial Phase II standard.

<sup>12</sup> *See* AMSC Comments, at 16; Comsat Comments, at 14-15.

antenna, and substantially reduces the battery life of a user terminal.”<sup>13</sup> Notably, a GMPCS terminal may be able to operate where GPS does not,<sup>14</sup> suggesting that it may be necessary to develop a satellite system technology for position location beyond GPS.

Furthermore, in the E911 rulemaking proceeding noted above, the Commission recognized that “emergency service requirements for global MSS systems should be developed in an international forum to take into account compatibility and consistency with international standards, and to avoid burdening United States MSS licensees with a patchwork of different requirements.”<sup>15</sup> As several Commenters noted, an international forum continues to be the appropriate place to deal with emergency calling services for global satellite systems.<sup>16</sup>

The organizations seeking imposition of E911 requirements fail to take these technical and cost factors into account. Rather, these commenters simply assume, without a technical basis, that GMPCS systems can achieve the same capabilities as terrestrial cellular systems.<sup>17</sup> This is clearly an erroneous premise for such an onerous rule, as the Commission recognized in the E911 proceeding. The mere suggestion that E911 service by GMPCS systems would be desirable cannot provide a rational basis for imposition of such a requirement.<sup>18</sup>

While GMPCS systems are unable at this time to meet the E911 requirements adopted for terrestrial wireless services, satellite systems are providing and will offer significant advantages in

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<sup>13</sup> Constellation Comments, at 14; Orbcomm Comments, at 13-14.

<sup>14</sup> Motorola Comments, at 19.

<sup>15</sup> E911 Recon. Order, at ¶ 89.

<sup>16</sup> See Comsat Comments, at 14-15; ICO Comments, at 6-7; Globalstar Comments, at 28; Orbcomm Comments, at 16. See also Comments of the Ministry & Posts Telecommunications of Japan.

<sup>17</sup> See NSARC Comments, at 2 (arguing that because MSS phones will be used by persons in remote areas, a position location requirement should be imposed to route the call to the proper response agency); NTIA Comments, at 26 (“a user in need of emergency assistance should receive help independent of which type of wireless device that person is using”).

<sup>18</sup> While APCO speculates that the necessary technology will be available when GMPCS terminals are commercially available, if E911 is to be implemented, the technology should at least be available prior to a system’s in-service date. APCO Comments at 2-3.

emergency services, including, for example, search and rescue missions.<sup>19</sup> The Commission already has in place rules on cooperating with distress and safety organizations.<sup>20</sup>

Finally, several commenters note that this examination is inappropriate within the confines of the instant proceeding on implementing the GMPCS-MoU and Arrangements and can only further delay implementation of the GMPCS-MoU and Arrangements.

Accordingly, the Commission should not impose specific requirements for providing emergency services on GMPCS networks, including geolocation, at this time. Such requirements would burden and could impair the development of GMPCS systems. Instead, the Commission should encourage the GMPCS industry to work with the international community to establish global emergency calling standards.

### III. CONCLUSION

For the reasons set forth above, the Satellite Industry Association supports the Commission's proposals to implement the GMPCS-MoU and Arrangements but urges the Commission not to impose position location capability and emergency calling requirements on GMPCS providers.

Respectfully submitted,  
**The Satellite Industry Association**

/s/ Patricia A. Mahoney

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<sup>19</sup> See AMSC Comments, at 17; Orbcomm Comments, at 15-16.

<sup>20</sup> See, e.g., 47 C.F.R. § 25.143(f).

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July 21, 1999