

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

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In the Matter of )  
 )  
Amendment of the U.S. Table of )  
Frequency Allocations to Designate ) RM-9911  
the 2500-2520/2670-2690 MHz Frequency )  
Bands for the Mobile-Satellite Service )

OPPOSITION TO PETITION FOR RULEMAKING

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August 28, 2000

No. of Copies rec'd 014  
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## EXECUTIVE SUMMARY

The Wireless Communications Association International, Inc. ("WCA") has a direct and immediate interest in the Petition for Rulemaking filed by the Satellite Industry Association ("SIA"). WCA is the primary advocate of the fixed wireless broadband industry on matters affecting the use of Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") spectrum in the 2.5 GHz band. In its Petition, SIA requests that the Commission allocate spectrum in the 2500-2520/2670-2690 MHz bands to the Mobile Satellite Service, for the purpose of providing MSS operators additional spectrum for Third Generation ("3G" or "IMT-2000") services. SIA's proposal thus threatens the integrity of spectrum on which fixed wireless broadband providers have spent billions of dollars, and which educators use extensively to provide a wide variety of distance learning services in large and small markets across the United States.

The Commission should dismiss SIA's Petition. Incredibly, SIA's Petition makes no mention of the fact that the 2500-2520 and 2670-2690 MHz bands are already heavily utilized by incumbent MDS and ITFS licensees. Interested parties thus cannot tell whether SIA intends to share the targeted spectrum with MDS/ITFS incumbents on a co-primary basis, whether it intends to share the spectrum but demote MDS/ITFS incumbents to secondary status, or whether it intends to relocate MDS/ITFS incumbents from the spectrum altogether. If SIA is in fact advocating relocation, interested parties cannot tell whether SIA believes comparable alternative spectrum is available and whether it intends to compensate MDS/ITFS incumbents for their costs of relocation.

Furthermore, what little SIA has to say about the public interest is devoted almost entirely to its contention that MSS is "the most likely candidate to ensure availability of Internet access to more of the global population than is currently served by landline systems." All available evidence discredits that statement: as reflected by the failure of Iridium and the severe financial difficulties encountered by the remaining major MSS providers, it is questionable whether the MSS industry will even survive, much less emerge as a vital source of broadband service. Indeed, MSS providers would not begin providing IMT-2000 services in the 2500-2520/2670-2690 MHz bands *for at least another five years*. By contrast, the MMDS operators that currently occupy that spectrum are *already* providing broadband services to heretofore underserved areas, and the Commission is *already* processing two-way MDS/ITFS applications that propose to expand the reach of those services in the near term. Given that consumer demand for broadband services is expected to skyrocket to unprecedented levels over the next several years, there simply is no public interest justification for the Commission to sacrifice the ongoing rollout of fixed wireless broadband services in the 2.5 GHz band for the benefit of MSS.

Finally, SIA mischaracterizes the U.S. position at WRC-2000 with respect to allocation of spectrum for IMT-2000. The U.S. did *not*, as SIA suggests, indicate that WRC-1992's allocation of 2.5 GHz spectrum to MSS should entitle the MSS industry to a similar allocation in the United States. To the contrary, both the USG and the WRC have concluded that the public interest would be best served by permitting each national administration to determine how best to allocate spectrum and, if necessary, conduct further studies on the issue and determine independently which spectrum should be devoted to IMT-2000, taking into account the existing and future needs of incumbents that occupy, *inter alia*, the 2500-2520/2670-2690 MHz bands. Nothing in SIA's Petition warrants any departure from that approach.

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**OPPOSITION TO PETITION FOR RULEMAKING**

The Wireless Communications Association International, Inc. (“WCA”), by its attorneys, hereby submits its opposition to the Petition for Rulemaking (“Petition”) filed by The Satellite Industry Association (“SIA”).

**I. STATEMENT OF INTEREST.**

WCA is the trade association of the fixed wireless broadband industry. As the Commission is aware, WCA and its predecessors have served as the primary industry advocate for users of Multipoint Distribution Service (“MDS”) and Instructional Fixed Television Service (“ITFS”) spectrum since the mid-1970s, and have participated extensively in every Commission proceeding since then involving the MDS/ITFS spectrum at issue here - - the 2500-2690 MHz, or 2.5 GHz, band. WCA’s members include the operators of nearly all wireless communications systems operating in the 2.5 GHz band, MDS and ITFS licensees who provide spectrum for use in such systems, equipment and content suppliers, and consultants.

Taking no heed of the recent explicit refusal by the United States Government (“USG”) to reserve the 2.5 GHz band for the Mobile Satellite Service (“MSS”) (a position subsequently

ratified at the recently completed World Radiocommunication Conference in Istanbul ("WRC-2000")), SIA asks the Commission to amend the U.S. Table of Frequency Allocations to allocate the 2500-2520 and 2670-2690 frequency bands for MSS, to provide MSS operators with additional spectrum for Third Generation ("3G" or "IMT-2000") mobile services.<sup>1/</sup> Furthermore, with no regard for the USG's determination that further technical studies should precede any allocation of spectrum for IMT-2000 services (a finding also ratified at WRC-2000), SIA asks that the Commission allocate the 2500-2520 and 2670-2690 frequency bands to MSS immediately, so as to permit licensing of MSS systems in the 2.5 GHz band within the next two years.<sup>2/</sup>

Oddly, SIA makes no mention of the fact that the 2500-2520 and 2670-2690 MHz frequency bands are already heavily utilized by incumbent MDS and ITFS licensees. SIA's proposal does not take into account the billions of dollars that fixed wireless broadband providers have invested in this spectrum or the effect it may have on the ongoing nationwide rollout of competitive fixed wireless broadband service in the 2.5 GHz band. Moreover, SIA takes no account of the possible effects its proposal could inflict on the substantial number of schools and universities whose ITFS distance learning initiatives would grind to a halt without the spectrum SIA now seeks to appropriate for MSS.<sup>3/</sup>

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<sup>1/</sup> Petition at 1.

<sup>2/</sup> *Id.* at 8-9.

<sup>3/</sup> The ill effects of third-party incursions into ITFS spectrum are well documented:

As the Commission well knows, disputes over interference resolution can drag on for

WCA's opposition to SIA's proposal should come as no surprise to SIA or the Commission: it is a matter of public record that, in the context of WRC-2000 Agenda Item 1.6.1, WCA vigorously opposed proposals that spectrum in the 2.5 GHz band be globally reserved for IMT-2000 use. WCA was a leading proponent of the proposal ultimately offered by the U.S. and agreed to at WRC-2000, *i.e.*, that there should be no specific spectrum allocation for IMT-2000 at this time, and that each national administration should maintain the flexibility to determine the specific frequency bands that will be available in its country for terrestrial and satellite IMT-2000 services, taking into account the needs of incumbent users.<sup>4/</sup> SIA is asking the Commission now to abandon that policy and set aside a significant portion of the 2.5 GHz

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months while the interference continues unabated. . . Educators cannot afford these kinds of delays. ITFS stations transmit instructional programming to students enrolled in for-credit courses. If a teacher expects to receive a science program at a particular time, but instead receives interference . . . , the teacher will face a disruptive class with no lesson plan. If this happens several times in a row, the teacher may simply give up on the instructional program for the duration of the school year, and all of the potential value of ITFS will be lost.

*Ex Parte* Letter from William D. Wallace, Esq., Counsel for the Catholic Television Network, re: MM Docket No. 97-217 (filed April 8, 1998).

<sup>4/</sup> *See, e.g.*, Letter from Paul J. Sinderbrand, Esq., Counsel for The Wireless Communications Association International, Inc., to Donald Abelson, Chief, International Bureau, Federal Communications Commission, re: Draft Proposal for the Work of the Conference, Agenda Item 1.6.1-- Document USA-IMT (Rev. 8) (Dec. 3, 1999); Letter from Paul J. Sinderbrand, Esq., Counsel for The Wireless Communications Association International, Inc., to John T. Gilseman, International Communications and Information Policy, United States Department of State, re: U.S. position on PCC.III Document 1342 (Canada) - Frequency Band Plans for Point-to-Multipoint Systems in the Ranges 2150-2160 and 2500-2690 MHz (Sept. 2, 1999). In a similar vein, WCA has supported the Commission's proposal to permit flexible use of spectrum in the 2110-2150 MHz band, so that it may be used for fixed wireless broadband and/or IMT-2000 services. *See* Comments of The Wireless Communications Association International, Inc., ET Docket No. 95-18, at 3-10 (filed Feb. 3, 1999).

band for satellite IMT-2000 services, with no compelling explanation save for SIA's now-discredited speculation about the competitive prospects of MSS. For the reasons set forth below, there is no legitimate public interest justification for the Commission to proceed down that road.

## II. DISCUSSION.

### *A. The Spectrum Requested By SIA Is Allocated To And Occupied By Incumbent MDS/ITFS Licensees.*

SIA asks the Commission to allocate the 2500-2520 MHz and 2670-2690 MHz frequency bands for MSS, and that the Commission do so in sufficient time to permit licensing of MSS systems in the targeted spectrum within the 2000-2002 time frame. Amazingly, however, SIA makes no mention of the fact that these frequency bands have long been and continue to be heavily occupied by incumbent MDS and ITFS licensees.<sup>5/</sup> SIA is well aware that MMDS operators already are in the process of licensing and/or leasing this spectrum for the purpose of providing competitive two-way fixed wireless broadband service in local markets across the United States, and that the spectrum is already used extensively by ITFS licensees for distance learning and other educational services.<sup>6/</sup> Yet since SIA has not acknowledged that incumbent

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<sup>5/</sup> More specifically, the frequency bands desired by SIA are occupied by licensees holding a full 6 MHz of spectrum on MDS channel H3 (2674-2680 MHz) and on ITFS channels A1 (2500-2506 MHz), B1 (2506-2512 MHz), A2 (2512-2518 MHz) and G4 (2680-2686 MHz); 2 MHz of spectrum on ITFS channel B2 (2518-2520 MHz); and 4 MHz of spectrum on ITFS channel G3 (2670-2674 MHz). See 47 C.F.R. §§ 21.901(b)(6), 74.902(a). See also *Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Fixed Television Service*, 10 FCC Rcd 9589, 9594 (1995) (noting that MDS is a "heavily encumbered service") (the "MDS BTA Report and Order").

<sup>6/</sup> See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, 13 FCC Rcd

MDS/ITFS licensees even exist, one cannot determine from SIA's Petition precisely what SIA proposes to do with those MMDS operators and ITFS licensees now utilizing the 2.5 GHz band. Specifically, SIA gives no clue as to whether it intends to share the targeted spectrum with incumbent licensees on a co-primary basis, whether it intends to share the spectrum but demote incumbent licensees to secondary status, or whether it seeks to relocate incumbent licensees from the spectrum altogether. If it seeks relocation, SIA does not address whether it believes comparable alternative spectrum is available for incumbent licensees, and whether it intends to compensate incumbent licensees for their costs of relocating to that spectrum.

Contrary to what SIA appears to have assumed here, its proposed reallocation of 2.5 GHz spectrum already occupied by MDS/ITFS incumbents is hardly a trivial matter. The Commission has recognized that MMDS operators are well suited to eliminate the "digital divide" between certain segments of American society that have ready access to broadband services and those that do not:

[MDS/ITFS] transmissions have a greater radius than upperband fixed wireless service, generally 35 miles versus three to five miles for upperband services. This is partly due to the fact that MMDS signals are less attenuated by rain and other severe weather conditions. MMDS's larger radius makes the service well-suited

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19112 (1998) (adopting comprehensive rules for two-way MDS/ITFS services); *Id.* (*Report and Order on Reconsideration*), 14 FCC Rcd 12764 (1999); *Id.* (*Report and Order on Further Reconsideration and Further Notice of Proposed Rulemaking*), MM Docket No. 97-217, FCC 00-244 (rel. July 21, 2000); *Public Notice*, DA 00-666 (rel. Mar. 23, 2000) (scheduling first MDS/ITFS two-way filing window for July 3-10, 2000); *ITFS 2020 Emergency Petition for Postponement of the July 3-July 10, 2000 Filing Window for Two-Way Multipoint Distribution Service Applications*, MM Docket No. 97-217, DA 00-1401 (rel. June 23, 2000) (rescheduling first MDS/ITFS two-way filing window for August 14-18, 2000).

for not only residential customers, but customers in rural, underserved, and unserved areas as well.<sup>7/</sup>

Similarly, as noted by Commissioner Tristani:

In addition to wireline solutions, many observers believe that wireless technologies offer great promise as a broadband solution in smaller cities and rural areas. They note that while new wireline infrastructure in rural areas is very expensive, a wireless solution can offer a cost effective strategy that can be used for rapid market entry.

A multitude of fixed wireless broadband services are currently being deployed or are in the planning stages. While some are more targeted to an urban environment, others provide the necessary range and technical capability for deployment in rural areas. One example is [MDS/ITFS] or wireless cable. It offers the potential to provide broadband access to underserved markets.<sup>8/</sup>

To date, MMDS operators have invested billions of dollars toward acquiring MDS/ITFS spectrum rights for the purpose of providing competitive fixed wireless broadband service, and the successful rollout of those services depends mightily on the continued preservation of the 2.5 GHz band for MDS/ITFS.<sup>9/</sup> For example, Sprint alone has invested over \$1 billion dollars to acquire MDS/ITFS spectrum rights in 90 U.S. markets (comprising 30 million households and

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<sup>7/</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 - - Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services (Fifth Report)*, FCC 00-289, Appendix E at 8 (rel. Aug. 18, 2000) (the “*Fifth Annual CMRS Report*”).

<sup>8/</sup> “Deploying Broadband More Broadly: Working Together to Roll-out Access in America’s Small Cities and Rural Areas,” Remarks of Commissioner Gloria Tristani to the New Mexico Communications Network Symposium, Albuquerque, New Mexico (Nov. 10, 1999) (available at <<http://www.fcc.gov/Speeches/Tristani/spgt919.html>>).

<sup>9/</sup> The Commission’s licensing scheme for MDS involved the auctioning of a single MDS Basic Trading Area authorization for each geographic market, allowing the high bidder to utilize all available channels at both 2150-2162 MHz and 2500-2690 MHz. *See MDS BTA Report and Order*, 10 FCC Rcd at 9608-13.

four million businesses),<sup>10/</sup> and has already launched fixed wireless broadband service via MDS/ITFS in Phoenix and Tucson, Arizona, and has scheduled 10 to 20 additional markets for launch by the end of this year.<sup>11/</sup> WorldCom also has invested over \$1 billion to acquire MDS/ITFS spectrum rights in 16 U.S. markets (comprising more than 31 million households), and is on track with market trials of its fixed wireless broadband service in Boston, Dallas, Baton Rouge, Memphis, and Jackson, MS, with plans to initiate commercial launch of service later this year.<sup>12/</sup> Other MMDS operators have similar plans to launch fixed wireless broadband service in the near term.<sup>13/</sup> All totaled, it has been estimated that the number of fixed wireless broadband subscribers will increase to nearly 10 million by the year 2005, and that 70% of those subscribers will be served via MDS/ITFS.<sup>14/</sup>

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<sup>10/</sup> See, e.g., Iler, "Sprint Broadband Speeds Ahead in Ariz.," *Multichannel News*, at 31 (July 3, 2000).

<sup>11/</sup> *Id.* See also "MCI, Sprint Reveal Pact To Pave MDS Deployment," *CT Wireless* (July 10, 2000); "Fixing It Up," *tele.com*, at 30 (July 10, 2000); "Sprint Steams Ahead with MDS," *Kagan Broadband*, at 1 (June 28, 2000).

<sup>12/</sup> See, e.g., *id.*; "MCI WorldCom Adds Dallas to 'Fixed Wireless' Service Trials," available at <[http://www.wcom.com/about\\_the\\_company/press\\_release/display.phtml?R/20000405](http://www.wcom.com/about_the_company/press_release/display.phtml?R/20000405)>; Goodman, "MCI WorldCom Plans Wireless Test," *Washington Post*, at E1 (March 28, 2000).

<sup>13/</sup> See, e.g., *Fifth Annual CMRS Report*, Appendix E at 2 (discussing broadband services deployed or soon to be deployed over MDS/ITFS frequencies).

<sup>14/</sup> Smith, "Wireless Rides To The Rescue," *Wireless Week*, at 16 (Feb. 7, 2000). Moreover, despite the fact that a substantial portion of the MDS community has been focused of late on using MDS/ITFS spectrum to provide fixed wireless broadband service, approximately one million homes continue to receive multichannel video programming service from MDS/ITFS-based wireless cable systems — systems that are often the only source other than the incumbent cable operator of both local broadcast programming and cable programming services. See *Kagan Wireless Cable-Private Cable Investor*, at 6 (Nov. 5, 1999). The Commission has recognized the continuing need to protect spectrum used for competitive terrestrial multichannel video

The Commission simply cannot ignore the fact that any threat to the integrity of MDS/ITFS spectrum at 2.5 GHz would delay the ongoing nationwide rollout of MDS/ITFS broadband service, and would place MMDS operators at an extreme disadvantage *vis-a-vis* incumbent cable operators and local exchange carriers who already are deploying broadband services without the same regulatory constraints.<sup>15/</sup> In addition, approximately 1275 entities hold over 2175 different ITFS licenses, covering approximately 8000 ITFS channels. Over 70,000 locations serve as registered receive sites, and it is estimated that the number of actual locations at which ITFS programming is viewed may be many times that.<sup>16/</sup> Furthermore,

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programming service. Indeed, in its recent *Report and Order* in IB Docket No. 98-172, the Commission explicitly rejected proposals to allocate the 18.3-18.55 GHz band on a primary basis to the Geostationary Satellite Orbit Fixed Satellite Service (“GSO/FSS”), noting, *inter alia*, that such an allocation would prevent terrestrial multichannel video programming distributors in the 18 GHz band from expanding their operations to compete effectively with incumbent cable operators. *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172 *et al.*, FCC 00-212, at ¶ 29 (rel. June 22, 2000).

<sup>15/</sup> To the extent that SIA has relocation of MDS/ITFS incumbents in mind, it must be emphasized that neither the Commission’s staff nor any proponent of relocation has yet been able to identify any band to which existing MDS/ITFS licensees could migrate. However, given the already heavy existing usage of spectrum in and around the 2 GHz band, it is likely that such relocation would be to a substantially less desirable band, *i.e.*, at or above 5 GHz. As discussed above, bands at or above 5 GHz lack the superior propagation characteristics that make it possible for cellularized MDS/ITFS-based fixed wireless systems to serve rural and other underserved areas at 2.5 GHz. At higher frequencies, the cost of transmission and reception equipment will increase, far more equipment will be necessary as more cells are required, and with more cells the recurring costs of operating and maintaining the network will increase dramatically, thus effectively eliminating the technical and economic efficiencies that are unique to fixed wireless broadband service in the 2.5 GHz band.

<sup>16/</sup> ITFS stations are currently utilized for a wide variety of services, including the provision of formal telecourses (on the K-12, secondary and post-secondary levels) to schools, hospitals, workplaces and other places of learning; transmission of other educationally valuable

although ITFS spectrum is being used extensively today for the distribution of video distance learning materials, there is substantial enthusiasm within the educational community for utilizing ITFS capacity to provide schools with Internet access at speeds far in excess of that available with dial-up service.<sup>17/</sup> All of this has long been a matter of public record, and SIA's failure to address it only further highlights the insufficiency of its Petition.

In sum, Section 1.407 of the Commission's rules states that the Commission may initiate a rulemaking proceeding where a petitioning party "discloses sufficient reasons in support of the action requested to justify the institution of a rulemaking proceeding, and where notice and public procedure thereon are required or deemed desirable by the Commission . . . ."<sup>18/</sup> As reflected above, SIA has given the Commission *no* reason to initiate a rulemaking in this case:

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programming (such as news, public affairs and similar material) into schools; provision of professional and worker training (such as for teachers, health professionals and public safety officers); and transmission of teleconferences for educational, training and administrative purposes. See, e.g., <<http://www-distlearn.pp.asu.edu/info/iitp.html>> (describing ITFS program at Arizona State University); <<http://www.hor.tec.sc.us/distance/ITFS.htm>> (describing South Carolina's ITFS Satellite Network, operated by South Carolina Educational Television and utilized by colleges and universities within the state to share educational opportunities); <<http://www.gsu.edu/~wwwdls/programs/itfs.html>> (describing ITFS program operated by Georgia State University in conjunction with Georgia Institute of Technology and DeKalb College); <[http://www.sunydutchess.edu/telecomm/Distance\\_Learning.html](http://www.sunydutchess.edu/telecomm/Distance_Learning.html)> (describing ITFS program at Dutchess County Community College (Dutchess County, NY)); <[http://www.csustan.edu/TLC/dist\\_lrn.htm](http://www.csustan.edu/TLC/dist_lrn.htm)> (describing ITFS program at California State University, Stanislaus); <<http://mediaresources.ucr.edu/dlhome.html>> (describing ITFS program at California State University, Riverside); <<http://www.brevard.cc.fl.us/distlrn/DLP.HTM>> (describing ITFS program at Brevard Community College (Cocoa, FL)).

<sup>17/</sup> In addition, the deployment of high-speed MDS/ITFS-based Internet access services will provide residential and small-business consumers with the opportunity to access a wide variety of educational materials being made available by ITFS licensees and other educators over the World Wide Web.

<sup>18/</sup> 47 C.F.R. § 1.407.

SIA's proposal cannot be granted under any circumstances, since the spectrum SIA desires for MSS is already occupied by MDS/ITFS incumbents whom SIA does not even acknowledge in its Petition. By giving the Commission no indication whatsoever as to how incumbents are to be accommodated under its proposal, SIA has given the Commission nothing to propose for public comment in a *Notice of Proposed Rulemaking*. The Commission should therefore dismiss SIA's petition.<sup>19/</sup>

*B. Reallocation of 2.5 GHz Spectrum For MSS Would Delay The Deployment of Broadband Service to Rural and Other Underserved Areas.*

What little SIA has to say about the public interest is devoted almost entirely to its contention that MSS is "the most likely candidate to ensure availability of Internet access to more of the global population than is currently served by landline systems," since "it is generally less expensive and more efficient to use satellite systems to serve rural, remote and currently underserved areas."<sup>20/</sup> At the outset, however, it must be emphasized that even if SIA's rose-colored projections for MSS were proven to be accurate, SIA's proposed reallocation of 2.5 GHz spectrum for MSS would do little to promote the widespread deployment of broadband service on a "reasonable and timely basis." SIA itself admits that the ITU's

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<sup>19/</sup> See *Martin R. Leader*, 15 FCC Rcd 3238, 3240 (2000) (denying petition for rulemaking to allow television stations to transmit DTV signals using COFDM modulation; Commission stated that petitioner "presented no persuasive evidence in its petition . . . that the interests of broadcasters, equipment manufacturers and consumers would not be harmed," and that granting of petitioner's request would "lead to significant delay in the implementation and provision of DTV services to the public").

<sup>20/</sup> Petition at 4.

allocation of 2500-2520 MHz and 2670-2690 MHz for MSS does not go into effect until January 1, 2005, and that MSS providers would not launch IMT-2000 services in that spectrum until after that date.<sup>21/</sup> In other words, even if the Commission were to grant SIA's proposal, MSS IMT-2000 services would not be launched on the targeted spectrum *for at least another five years*. By contrast, the MMDS operators whom SIA seeks to displace are *already* providing broadband services to heretofore underserved areas, and the Commission is *already* processing two-way MDS/ITFS applications that propose to expand the reach of those services in the near term.<sup>22/</sup> Moreover, there is every indication that consumer demand for broadband services over the next five years will accelerate.<sup>23/</sup> When viewed in this context, SIA's contention that MSS "can easily provide [broadband] service to rural and underserved areas" must be taken with a sizable grain of salt.

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<sup>21/</sup> Petition at 8-9. *See also id.* at (ii) ("The time needed for construction, launch and operation of an MSS system is four to six years.").

<sup>22/</sup> As noted above, the Commission's first filing window for two-way MDS/ITFS applications was completed on August 18, 2000. *See ITFS 2020 Emergency Petition for Postponement of the July 3-July 10, 2000 Filing Window for Two-Way Multipoint Distribution Service Applications*, n.7 *supra*.

<sup>23/</sup> It has been estimated that while less than three percent of all Internet users in North America currently use broadband services, demand for those services among Internet users will reach 50% by 2006. *See* Remarks by Deborah A. Lathen, Chief, Cable Services Bureau, Federal Communications Commission, to the Personal Communications Industry Association of America, Orlando, Florida (Sept. 23, 1998); Comments of Sprint Corporation, CC Docket No. 98-146, at 2 (filed Mar. 20, 2000).

In any case, the MSS industry's recent performance discredits SIA's claim that MSS is "the most likely candidate to ensure availability of Internet access" to areas unserved by landline systems:

Fifty [satellite] business concerns have filed proposals with the FCC for launching broadband systems to date. Other potential players have announced systems intended specifically for Europe and the Middle East and thus [are] exempt from U.S. licensing requirements. Still, not one such broadband public satellite network is operational today.<sup>24/</sup>

Of course, where MSS is concerned, the well-publicized saga of Iridium is the most telling case in point:

Iridium's failure has been nothing short of spectacular. The project involved a constellation of 66 satellites designed for mobile voice telephony, and circling some 485 miles above the earth — at a cost of \$5 to \$7 billion. A bankruptcy judge in New York gave Iridium permission to incinerate its satellites in the atmosphere when the company announced that it had not received suitable buyers.<sup>25/</sup>

Equally telling is the fact that Iridium has yet to find a buyer for its assets, even at fire sale prices.<sup>26/</sup> The company's most recent suitor, Castle Harlan Inc., abandoned its plans to purchase

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<sup>24/</sup> Sweeney, "Late for the Sky - - The Slow Emergence of Satellite Broadband," 1, 45 (July 1, 2000).

<sup>25/</sup> Emmett, "The World According to Satellite," *Broadband Wireless*, at 1, 20 (June/July 2000). See also Goodman, "Iridium Fails to Attract Qualified Buyer," *The Washington Post*, at E1 (Mar. 18, 2000).

<sup>26/</sup> See Foust, "Iridium Gets One More Chance at Survival," *Space.com* (Aug. 1, 2000) (available at <<http://daily news.yahoo.com/h/space>>).

the company for just \$50 million in cash, citing its inability to confirm that Iridium would generate “even low levels of revenue with a high degree of certainty.”<sup>27/</sup>

Contrary to what SIA would have the Commission believe, Iridium’s implosion is by no means an isolated case. The company’s next most prominent competitor, ICO Global Communications, only recently emerged from Chapter 11 bankruptcy reorganization and does not plan to commence operation until 2003.<sup>28/</sup> Even Globalstar, the most significant player remaining in the MSS industry, has provided little assurance that MSS can be relied upon to deliver affordable broadband service to underserved areas within a reasonable period of time:

The company that would compete most directly with ICO-Teledesic, Loral Space and Communications-backed Globalstar Telecommunications, also has had its share of turmoil. Globalstar, which offers voice and limited data service, got off to a shaky start when it lost 12 satellites in 1998 and had to delay its launch as a result. More recently, it has defaulted on a \$250 million loan to give it more cash for the year, announced a first-quarter loss that was greater than expected, fallen behind on subscriber numbers and watched its stock fall to \$8 from a high of \$44 in late 1999.<sup>29/</sup>

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<sup>27/</sup> See Degan, “Castle Harlan Won’t Proceed With Iridium LLC Asset Buy,” *Dow Jones Newswires* (July 28, 2000) (available at <<http://interactive.wsj.com/archive>>).

<sup>28/</sup> “New ICO Tackles 3G,” *Wireless Week* (May 22, 2000) (available at <<http://www.wirelessweek.com/News/May00/five522.htm>>). Abreu, “Net Satellite Venture to Get \$315 Million,” *The Standard.com* (July 11, 2000) (noting that satellite data provider OrbComm has announced that it will lay off 20% of its workforce and slow down production of satellites in order to conserve cash) (available at <<http://biz.yahoo.com/st/000711/16732>>).

<sup>29/</sup> *Id.* See also Foley, “Another Long Shot at Round-the World Cellular,” *The New York Times*, Section 3 at 4 (Aug. 27, 2000) (“Last October, [Globalstar CEO Bernard] Schwartz told financial analysts that Globalstar would have 500,000 subscribers and \$500 million in revenue this year. So far, though, it only has 13,000 subscribers and, for the first half of the year, only \$2 million in revenue.”)

Similarly, Globalstar's results for the second quarter of this year have given the financial community little reason to be optimistic.<sup>30/</sup> Indeed, in a particularly revealing indictment of the company's long-term economic prospects, Globalstar's largest investor, Loral Space & Communications Ltd., recently stated that it won't sacrifice itself to save Globalstar.<sup>31/</sup>

The above-described difficulties suffered by Iridium, ICO and Globalstar reflect a fundamental overriding problem within the MSS industry, namely that the market for MSS has not been proven to be large enough to sustain the extremely high cost of launching, maintaining and marketing a global MSS system, and will only become smaller as terrestrial mobile providers continue to expand their operations throughout the world.<sup>32/</sup> While it is certainly possible that MSS might overcome long odds and eventually evolve into a source of broadband

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<sup>30/</sup> "Globalstar Posts Loss, Billable Minutes Jump," *Reuters* (July 19, 2000) (quoting C.E. Unterberg Harris research report: "Subscriber ramp appears very slow in spite of significant geographic (gateway) expansion during the quarter . . . Although May to June results are up, the improvements are from a small base and do little to address the company's larger liquidity issues.") (available at <<http://biz.yahoo.com/rf/000719/n19543408.html>>).

<sup>31/</sup> See Pohl, "Loral Up 8% As Co. Allays Fears Over Globalstar," *Dow Jones Newswire* (Aug. 3, 2000) (available at <<http://interactive.wsj.com.archive/>>). Previously, another Globalstar investor, Qualcomm, had indicated that it was not planning to invest more money in the company. Cholewka, "Globalstar Clears The Air," *Forbes.com* (June 21, 2000) (available at <<http://biz.yahoo.com/fo/000621/mu2912.html>>).

<sup>32/</sup> See, e.g., Sweeney, "Late For the Sky -- The Slow Emergence of Satellite Broadband," *America's Network*, at 48 (July 1, 2000) (quoting broadband analyst at Jupiter Communications: "[T]he biggest problem facing all of these systems is time to market and anticipating what terrestrial broadband will be doing two and three years out. You might not have a market by the time you have a system up."); Bartash, "Globalstar Stares at Ghost of Iridium," *CBSMarketwatch.com* (May 13, 2000) ("Few analysts still believe there's definitely a market for Globalstar's service. Land-based wireless networks have spread like wildfire in the developed countries while the people who really need phone service, those in developing nations, likely can't afford its high cost.").

service for rural and underserved areas, the MSS industry's own history renders that notion highly speculative at best. In any event, sufficient spectrum is already allocated for MSS in the United States that can be used for providing IMT-2000.<sup>33/</sup>

By contrast, MMDS operators already are well positioned to offer broadband services to rural and other underserved areas at a substantially lower cost, and in fact are in the process of doing so. Given that MMDS operators are addressing the very problem that SIA allegedly seeks to solve here, it would be an odd result if the Commission were to now reallocate MDS/ITFS spectrum to MSS in view of the lack of demand for MSS IMT-2000 services. Accordingly, the public interest in rapid deployment of broadband service to all market segments militates strongly in favor of full preservation of 2.5 GHz spectrum for MDS/ITFS, and, consequently, denial (if not outright dismissal) of SIA's Petition.

*C. SIA Has Mischaracterized the USG's Position at WRC-2000 Regarding Allocation of Spectrum for IMT-2000.*

SIA makes much of the fact that the International Telecommunication Union ("ITU") allocated the 2500-2520 MHz and 2670-2690 MHz bands for MSS on a co-primary basis at the WRC-1992 conference in Malaga.<sup>34/</sup> In the same breath, however, SIA also states that "[t]he U.S. has recommended that the 2.5 GHz MSS bands be identified for [the] satellite component of IMT-2000, while the entire 2500-2690 MHz band would be identified for the terrestrial

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<sup>33/</sup> MSS systems already have access to approximately 171 MHz of spectrum in the United States. See 47 C.F.R. § 2.106 (reflecting allocation to MSS of 68 MHz in the 1.5/1.6 GHz bands, 33 MHz of "Big LEO" spectrum at 1610-1626.5/2483-2500 MHz, and 70 MHz in the 2 GHz band (1990-2025/2165/2200 MHz)).

<sup>34/</sup> Petition at 2, 6-7

component of IMT-2000.”<sup>35/</sup> The implication here is that the USG views the events of WRC-1992 as a mandate to set aside 2.5 GHz spectrum for MSS in the United States. This is a distortion of the USG’s actual position at WRC-2000 with respect to IMT-2000.

SIA’s failure to account for the existence of MDS/ITFS incumbents in the 2.5 GHz band is peculiar given the USG’s own public statements on the issue not long before the filing of SIA’s Petition. An example of this is the U.S. Information Paper regarding WRC-2000 Agenda Item 1.6.1 that was distributed at CITEL’s March 2000 meeting:

In looking toward identification of spectrum for potential domestic use by advanced communications applications including IMT-2000, the United States must consider the investment of existing licensees, the impact on consumers and other users of existing services and the flexibility to authorize other systems based on national needs. . . The United States uses the 2500-2690 MHz band for important fixed point-to-point and point-to-multipoint operations that provide video and telecommunications services to homes, schools, colleges, universities and businesses. These important existing uses present significant challenges to the United States as it examines their potential use by advanced mobile communications including IMT-2000.<sup>36/</sup>

The U.S. position on the incumbency issue was subsequently reaffirmed in the USG’s formal proposal for Agenda Item 1.6.1. Specifically, the USG identified a series of frequency bands at or below 2.5 GHz (including the 2483.5-2690 MHz band) for terrestrial or satellite IMT-2000 services.<sup>37/</sup> In so doing, however, the USG also proposed to amend footnote S5.388

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<sup>35/</sup> *Id.* at 2.

<sup>36/</sup> United States of America, Information Paper, Agenda Item 1.6.1., available at <[http://www.fcc.org/wrc00/usdraft/usinfo\\_1-0601\\_1.doc](http://www.fcc.org/wrc00/usdraft/usinfo_1-0601_1.doc)> (footnotes omitted).

<sup>37/</sup> SIA is incorrect when it baldly asserts that “[t]he U.S. has recommended that the 2.5 GHz MSS bands be identified for [the] satellite component of IMT-2000, while the entire 2500-2690 MHz band would be identified for the terrestrial component of IMT-2000.” Petition at 2. In

to the ITU's Table of Frequency Allocation, to "clearly identify *and provide equal treatment of all bands for IMT-2000.*" In its explanatory statement, the USG summarized its position as follows:

The United States realizes that it may not be possible for many administrations to make available the large amount of contiguous, globally-harmonized spectrum for use by IMT-2000 and other advanced communications applications. The difficulty arises from the need of many administrations to consider the investment of existing licensees, the impact on consumers and other users of existing services and the flexibility to authorize other systems based on national needs. Many administrations are currently studying the identified bands to determine their availability for IMT-2000 and other advanced communication applications, the availability of comparable replacement spectrum to which current and emerging uses might migrate, and the costs of relocation as compared to the benefits of global harmonization of spectrum for IMT-2000 and other advanced communication applications. The [U.S.] proposal acknowledges the importance of these national studies, and calls for the adoption of Resolution YYY (WRC-2000) -- resolving that administrations expeditiously complete their studies and update ITU-R regarding their findings.<sup>38/</sup>

Any doubts as to the wisdom of the USG's position were quashed at the WRC-2000 conference in Istanbul, at which the USG's position on IMT-2000 was largely incorporated in the Final Acts of WRC-2000 and the ITU's International Table of Frequency Allocations. Specifically, the WRC added the following new footnote S5.AAA to the Table:

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point of fact, the USG proposed to identify the following existing MSS allocations for the satellite component of IMT-2000: 1525-1559/1626.5-1660.5 MHz, 1610-1626.5/2483.5-2500 MHz, 1980-2010/2170-2200 MHz, 2500-2520/2670-2690 MHz, and 2010-2025/2160-2170 MHz (Region 2 only). U.S. Proposals for the Work of the Conference, Proposal for Terrestrial and Satellite Components of IMT-2000, Addendum 3 to Document 12-E, World Radiocommunication Conference, Istanbul, May 8 - June 2, 2000, at 4 (the "USG Agenda Item 1.6.1 Proposal"). The USG also proposed to identify the 698-960 MHz, 1710-1885 MHz and 2500-2690 MHz frequency bands for the terrestrial IMT-2000 use. *Id.* at 3.

<sup>38/</sup> *Id.* at 3.

The bands, or portions of the bands, 1710-1885 MHz and 2500-2690 MHz, are identified for use by administrations wishing to implement [IMT-2000] in accordance with Resolution [COM5/24] (WRC-2000). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations.<sup>39/</sup>

Furthermore, in the Resolution accompanying footnote S5.AAA, the WRC recognized that “the identification of a band for IMT-2000 does not establish priority in the Radio Regulations and does not preclude the use of the band for any application of the services to which they are allocated,”<sup>40/</sup> noted that footnote S5.AAA “[does] not prevent administrations from having the choice to implement other technologies in the frequency bands identified for IMT-2000, based on national requirements”;<sup>41/</sup> and recognized that spectrum identified for IMT-2000 in footnote S5.AAA “does not preclude the use for IMT-2000 of other bands allocated to the mobile service.”<sup>42/</sup> The WRC further recognized that a variety of services, including fixed (including point-to-multipoint distribution/communication systems) and mobile, are in operation or planned in the 2500-2690 MHz band, and that “studies of potential sharing and coordination between the satellite component of IMT-2000 and the terrestrial component of IMT-2000, mobile-satellite service applications and other high-density applications in other services such as point-to-multipoint communication/distribution systems in the bands 2500-2520 MHz and

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<sup>39/</sup> Provisional Final Acts of the World Radiocommunication Conference (Istanbul, 2000) - WRC-2000), Article S5, at 21.

<sup>40/</sup> *Id.*, Resolution [COM5/24] (WRC-2000), at 3.

<sup>41/</sup> *Id.*

<sup>42/</sup> *Id.*

2670-2690 MHz bands are not finished.”<sup>43/</sup> The WRC concluded by recommending that national administrations conduct studies that address, *inter alia*, “harmonized frequency arrangements for the implementation of IMT-2000 . . . *that take into account the services currently using the bands or planning to use the bands . . .*”<sup>44/</sup>

In sum, the events of WRC-1992 notwithstanding, both the USG and the WRC-2000 have rejected the MSS industry’s request for a specific spectrum allocation for MSS IMT-2000 services, and instead have concluded that the public interest would be best served by permitting each national administration determine independently which spectrum should be devoted to IMT-2000 and, if necessary, conduct studies on possible bands for IMT-2000, taking into account the existing and future needs of incumbents in the frequency bands identified for IMT-2000 use, including 2500-2520 MHz and 2670-2690 MHz. SIA, on the other hand, asks the Commission to make a specific allocation for MSS IMT-2000 services in the 2500-2520 MHz and 2670-2690 MHz bands, with no regard whatsoever for the needs of incumbents in that spectrum. For this reason (in addition to those cited in Sections II(A) and (B) *infra*), SIA’s Petition should be dismissed or denied.<sup>45/</sup>

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<sup>43/</sup> *Id.*, Resolution [COM5/26] (WRC-2000), at 1.

<sup>44/</sup> *Id.*, Resolution [COM5/24] (WRC-2000), at 5 (emphasis added).

<sup>45/</sup> *See, e.g., Amendment of Section 73.3597 of the Commission’s Rules (Applications for Voluntary Assignments or Transfers of Control)*, 4 FCC Rcd 1710 (1989) (Commission dismisses petition for rulemaking requesting readoption of Commission’s three-year “trafficking” rule for cable television systems; Commission found that petitioners had for the most part merely restated the arguments the Commission rejected when it originally eliminated the rule) (subsequent history omitted).

**WHEREFORE**, for the reasons set forth above, the Commission should dismiss or deny SIA's Petition.

Respectfully submitted,

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August 28, 2000

## CERTIFICATE OF SERVICE

I, Andrew Kreig, hereby certify that I have on this 28th day of August, 2000, caused copies of the foregoing Opposition to Petition for Rulemaking to be served by depositing a copy with the United States Postal Service, first class postage prepaid addressed as follows:

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