

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

In the Matter of)	
)	
Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems)	ET Docket No. 00-258
)	
The Establishment of Policies and Services Rules for the Mobile-Satellite Service in the 2 GHz Band)	IB Docket No. 99-81
)	
Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670- 2690 MHz Frequency Bands for the Mobile- Satellite Service)	RM-9911
)	
Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service)	RM-9498
)	
Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service)	RM-10024
)	

OPPOSITION TO PETITIONS FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission’s rules,¹ the Cellular Telecommunications & Internet Association (“CTIA”) hereby submits its opposition to the petitions for reconsideration of the *Third Report and Order*² filed by certain mobile satellite service (“MSS”)

¹ 47 C.F.R. § 1.429 (2003).

² *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band, Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service, Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications*

licensees and their representatives (“MSS Petitioners”) in the above-captioned proceeding.³

There is no basis for the MSS Petitioners’ complaint that the Commission arbitrarily reduced the MSS spectrum allocation. The spectrum that was reallocated from MSS to Fixed and Mobile uses came from spectrum reclaimed from cancelled licenses and from spectrum that had never been assigned to a 2 GHz licensee. As a result, the remaining licensees lost none of their assigned MSS spectrum, and more than enough MSS spectrum remains to enable the remaining 2 GHz licensees to fulfill their business plans. Indeed, as CTIA explained in its own petition for reconsideration, even more of this valuable spectrum should have been reallocated from an industry that has failed to demonstrate either a current or future need for this much bandwidth to support a viable business plan.

Similarly, the MSS Petitioners fail to make a case that the Commission’s decision to reallocate the 1990-2000 MHz band, as opposed to other segments of the MSS spectrum, was either arbitrary or unexplained. In the *Third Report and Order*, the Commission fully explored the options now urged by the MSS Petitioners, and rejected them based on substantial record evidence of harmful interference to adjacent PCS licensees from potential ancillary terrestrial component (“ATC”) operations.

I. THE COMMISSION’S DECISION TO REDUCE THE MSS ALLOCATION WAS REASONABLE AND SUPPORTED BY THE RECORD

There is no basis for the MSS Petitioners’ claims that the Commission failed to justify its decision to reduce the 2 GHz MSS spectrum allocation by 30 megahertz. To the contrary, as

Service, Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service, ET Docket No. 00-258, IB Docket No. 99-81, RM-9911, RM-9498, RM-10024, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order, 18 FCC Rcd 2223 (2003) (“*Third Report & Order*” or “*Third NPRM*”).

³ See Petitions for Reconsideration of ICO Global Communications (Holdings) Limited (“ICO”); TMI Communications and Company, LP and TerreStar Networks Inc. (collectively “TMI”); and the Satellite Industry Association (“SIA”).

CTIA demonstrated in its Petition, the Commission should have cut back the amount of spectrum remaining with MSS operators even further, as well as ruled that any additional spectrum recaptured as a result of missed milestones would be designated for other uses. The Commission's continued subsidization of the failing MSS industry is not supported by the record or based on any demonstrated need by MSS operators.

Indeed, it is the MSS Petitioners' position that is illogical – they claim entitlement to nearly the same amount of spectrum that is currently available for terrestrial services, even though there are likely less than one million customers receiving mobile satellite service around the world today, as compared with over 145 million CMRS subscribers in the United States alone.⁴ As the United States' commercial spectrum manager, the Commission's obligation is to allocate spectrum to where it is needed most, not to allow valuable frequencies to remain idle in the hope that promised, yet entirely speculative, benefits to rural and underserved communities might be realized at some point in the future.⁵ Likewise, ICO's contention that the Commission's subscribership and economic viability findings are out of date⁶ places far too much weight on the Commission's grant of ATC authority. ATC is intended to improve satellite coverage in urban areas, not to serve as the economic driver for an unsuccessful MSS business model.⁷

⁴ *Third Report and Order* at nn.48-49 (citing VoiceStream Comments and CTIA web site (www.wow-com.com)). *See also* CTIA website, www.wow-com.com.

⁵ *Cf.* ICO Petition at 3.

⁶ ICO Petition at 4.

⁷ *See Flexibility for the Delivery of Communications by Mobile Satellite-Service Providers*, IB Docket No. 01-185, *Report and Order*, 18 FCC Rcd 1692 (2003) (“*ATC Order*”).

Nor was the Commission's reallocation of 30 megahertz of the 2 GHz MSS spectrum aimed at "penalizing" MSS licensees or otherwise hobbling the industry.⁸ Rather, sixteen megahertz of the reallocated spectrum was abandoned by MSS licensees that were unable to meet even the first – and simplest – construction milestone, and the other 14 megahertz was never assigned to any of the MSS licensees.⁹ MSS licenses were granted in 2001 based on the Commission's determination that 7 megahertz would be sufficient to sustain a viable offering,¹⁰ a finding that has never been refuted, and seems generous in hindsight, given that the hoped-for demand in MSS shows no sign of materializing. The licensees remaining in the band had no reason to believe then or now that they would be given additional spectrum as a result of their fellow licensees' missed milestones or that any unassigned spectrum would be designated for MSS. On the contrary, a year before awarding the 2 GHz MSS licenses, the Commission indicated that one of the options for spectrum reclaimed after milestone reviews would be to make it available to new entrants, and it reaffirmed that reallocation alternative in the *MSS Further Notice*.¹¹ The Commission also specifically proposed to reallocate 10-14 megahertz of MSS spectrum to advanced wireless services ("AWS") without waiting for the bands to be

⁸ Cf. ICO Petition at 3; TMI Petition at 4.

⁹ *Third Report & Order* ¶ 32. ICO's contention that the Commission should "keep the prior allocation in place" until the milestone review orders are "final" (ICO Petition at 9-10) is unavailing because the Commission's decision to reduce the amount of spectrum allocated for MSS was not dependent on the availability of "recaptured" frequencies. Rather, the Commission determined that MSS, regardless of the number of licensees, could operate in less than 70 megahertz and that the public interest would be served by making 30 megahertz of the 2 GHz band available for Fixed and Mobile services.

¹⁰ *Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, IB Docket No. 99-81, *Report and Order*, 15 FCC Rcd. 161267, 16139 ¶ 17 (2000) ("*MSS Service Rules Order*").

¹¹ *MSS Service Rules Order*, 15 FCC Rcd at 16139, 16144-49 ¶¶ 18, 31-44.

abandoned.¹² Thus, the Commission’s implementation of these proposals was both predictable and adequately explained, and the MSS Petitioners’ purported surprise at the decision is implausible.

As the Commission notes, given the remarkable growth in CMRS subscribership, its “conclusion to reallocate some MSS spectrum for Fixed and Mobile services is supported by the record and other public information.”¹³ Contrary to the contentions of the MSS Petitioners, there is no evidence that this reallocation will impair MSS development.¹⁴ To the extent that MSS licensees are able to overcome the deficiencies inherent in their own business plans, the Commission is correct that the “remaining MSS allocations, both in the 2 GHz band and other bands, will be sufficient to support growth of this service for the foreseeable future.”¹⁵

II. THE COMMISSION’S DECISION TO REALLOCATE THE 1990-2000 MHZ SEGMENT OF THE MSS BAND IS FULLY JUSTIFIED

Contrary to the MSS Petitioners’ arguments, the Commission’s decision to reduce the amount of “globally consistent” satellite spectrum by 10 megahertz was carefully considered and justified by the record. Although the Commission specifically recognized that “globally harmonized spectrum is an important resource,” in reallocating the 1990-2000 MHz band, it appropriately took into account “potential interference [from adjacent MSS/ATC licensees] to

¹² *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, 16 FCC Rcd 16043, 16057 ¶ 31 (2001) (“*MSS Further Notice*”).

¹³ *Third Report & Order* ¶¶ 30-31.

¹⁴ *Cf.* SIA Petition at 2; TMI Petition at 4-5. To the extent SIA is complaining about the Commission’s failure to assign more than 3.5 MHz of paired spectrum to each 2 GHz licensee (SIA Petition at 2), such objection obviously is untimely.

¹⁵ *Third Report & Order* ¶ 31. In addition, the Commission correctly states that “[b]y retaining a reduced MSS allocation, we also serve the public interest by providing spectrum that can be used by those MSS entities that are proceeding with plans to implement service in these bands.” *Id.* ¶ 29.

existing PCS operations at 1930-1990 MHz.”¹⁶ As the evidence demonstrates, and no one seriously disputes, out-of-band emissions (“OOBE”) from MSS/ATC transmitters in spectrum close to 1990 MHz will cause harmful interference to PCS receivers and “PCS receivers will not be able to sufficiently reject in-band MSS/ATC emissions without adequate separation.”¹⁷ Moreover, as the Commission found, the international needs of 2 GHz MSS licensees can be accommodated in the remaining 10 MHz of overlapping international spectrum.¹⁸ CTIA agrees with the Commission that in this instance, the concerns with interference into existing PCS operations “outweigh the benefits of increased global harmonized spectrum.”¹⁹

While SIA asserts that the issue of OOBE interference “was fully addressed by the Commission through its decision to adopt stringent OOBE limits on MSS ATC operations,”²⁰ SIA neglects to mention the Commission’s concurrent finding that such limits alone would not mitigate the potential for interference. Rather, as the Commission explained, OOBE restrictions must be “coupled with reallocation of the 1990-2000 MHz band” to provide adequate protection to PCS.²¹ As CTIA repeatedly explained in the record, a significant spectral separation between PCS receivers and MSS/ATC transmitters, *as well as* strict OOBE limits, are necessary to eliminate or reduce the potential for harmful interference, in part because adequate separation is

¹⁶ *Third Report & Order* ¶ 35.

¹⁷ See Letter from Diane J. Cornell, CTIA, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 01-185, at 2 (filed Jan. 17, 2003) (“CTIA Jan. 17, 2003 Ex Parte”); see also *Third Report & Order* ¶ 25 (citing Letter from Diane J. Cornell, CTIA, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 01-185, at 4-10 (filed Jan. 14, 2003) (“CTIA Jan. 14 Ex Parte”); and Letter from Donald C. Brittingham, Director, Wireless Spectrum Policy, Verizon Corp., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 01-185, at 1-6 (filed Jan. 6, 2003)).

¹⁸ *Third Report & Order* ¶ 35.

¹⁹ *Id.*

²⁰ SIA Petition at 9.

²¹ *ATC Order*, App. C1 at § 3.1.

necessary to enable the OOB limits to be achievable in practice, and in part because PCS handsets will not be able to sufficiently reject in-band MSS/ATC without adequate separation.²²

In addition, SIA's reliance on a technical analysis submitted by Nextel Communications, Inc., for the proposition that interference is unlikely to PCS networks from MSS/ATC operations²³ is misguided and ignores the Commission's statement that "we share CTIA's concerns regarding potential interference to existing PCS operations at 1930-1990 MHz." As CTIA previously explained, Nextel's analysis incorrectly assumed that the probability of PCS mobiles receiving weak signals is low, when in fact PCS signals are often attenuated in urban as well as remote environments, and would thus be subject to interference from MSS/ATC emissions.²⁴ Moreover, SIA's suggestion that interference is unlikely to result because PCS carriers have failed to detect any interference between adjacent PCS networks in the 1930-1990 MHz band does not support SIA's argument that MSS operations will have no adverse effect on adjacent PCS systems.²⁵ Wireless carriers have made clear that their concerns about MSS/ATC interference stemmed from the fact that MSS/ATC *mobile transmitters*, which have the potential to cause significant interference to adjacent PCS *mobile receivers*, would be operating in the 1990-2000 MHz band.²⁶ By contrast, there are no PCS mobile transmitters in the 1930-1990 MHz band – in fact, the frequencies used for PCS mobile transmitters are *separated by 20 megahertz* from the 1930-1990 MHz frequencies used for PCS mobile receivers.

²² CTIA Jan. 17, 2003 Ex Parte at 2; CTIA Jan. 14 Ex Parte at 10; Letter from Thomas E. Wheeler to Michael K. Powell, IB Docket no. 01-185, ET Docket No. 95-18 (filed Jan. 22, 2003).

²³ SIA Petition at 9.

²⁴ See Letter from Diane J. Cornell, CTIA, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 01-185, at 2 (filed Jan. 24, 2003) ("CTIA Jan. 24 Ex Parte").

²⁵ See SIA Petition at 9 (contending that "[b]ecause of the current heavy use of the 1930-1990 MHz band by PCS licensees, any potential interference that could result should have already been detected between adjacent PCS networks.").

²⁶ See CTIA Jan. 24 Ex Parte at 2.

CTIA also disagrees with SIA that harmful interference to PCS systems from MSS/ATC operations can be resolved through routine coordination.²⁷ From a practical perspective, coordination of mobile units cannot be achieved because the MSS/ATC system operator would have no control or advance knowledge of the geographic locations of its mobile stations relative to PCS mobile stations, or vice versa. Moreover, given that MSS operations will not be subject to interference from PCS systems in the 1930-1990 MHz band, MSS/ATC licensees will have no incentive to negotiate with PCS operators to prevent interference.²⁸ Accordingly, a two-pronged solution is needed to reduce the risk of interference from MSS/ATC mobile transmitters to PCS handsets – specifically, there must be “adherence to strict out-of-band spurious emission standards *plus* adequate frequency separation to enable the more stringent spurious limits to be achievable in practice.”²⁹

Furthermore, the Commission’s decision to reallocate the 1990-2000 MHz band is supported by its finding that maintaining the 2000-2020/2180-2200 MHz band for MSS provides ample internationally harmonized spectrum for MSS operations. As the Commission stated, “[n]ot all of the eight authorized MSS networks will be deployed, not all of the proposed MSS networks will be providing global service, and most MSS licensees propose to operate throughout the currently allocated band (2000-2020 MHz).”³⁰ Under these circumstances, the Commission properly concluded that the remaining MSS entities will be able to adapt their frequency use within the U.S. to the allocated spectrum without significant difficulty, and use

²⁷ See SIA Petition at 9.

²⁸ See CTIA Jan. 24 Ex Parte at 2.

²⁹ *Id.* (emphasis added).

³⁰ *Third Report & Order* ¶ 35.

spectrum within the international allocation of 1980-2010 MHz outside the U.S.³¹ Given that only one 2 GHz satellite has been launched to date and no commercial MSS service has been initiated in that band, the Commission's determination that the interests of existing PCS operators and their millions of customers outweigh the need to retain the entire international MSS uplink allocation was entirely reasonable.

This decision also left the Commission with additional options for the most efficient use of the 1990-2000 MHz band, which it is exploring now in a separate proceeding.³² For example, the Commission's *Third Report and Order* paved the way for the possible reallocation of the 1910-1915/1990-1995 MHz band for terrestrial service, which offers the potential for an additional block of spectrum to be made available for a PCS-like service that can take full advantage of the economies of scale that flow from an allocation immediately adjacent to existing PCS spectrum.³³ This would offer enormous benefits to the millions of customers who could be served via this spectrum, and reinforces the wisdom of the Commission's MSS reallocation decision. These benefits could not have been realized by reallocating other portions of the MSS band at 2000-2020 MHz for PCS, as SIA suggests,³⁴ because other reallocations

³¹ *Id.*

³² See *Third NPRM* at ¶¶ 39-61.

³³ As CTIA noted in its comments on the *Third NPRM*, although allocation of the "G block" for terrestrial services would narrow the gap between the PCS base transmit and the MSS/ATC mobile transmit bands to 5 megahertz, there are some system solutions that could be used to mitigate the resulting interference problems when drawing up service rules for a *new* allocation, including requiring MSS/ATC licensees to use the lower part of their spectrum for satellite transmissions. CTIA Comments on *Third NPRM* at 4 (filed April 14, 2003). In addition, CTIA has previously noted that, in the future, technological improvements such as improved filtering in PCS mobile receivers could enable a reduction in the required separation between PCS and MSS/ATC on a going-forward basis for new handsets. CTIA Jan. 17, 2003 Ex Parte. These measures do not, however, provide relief from interference for current users in the 1930-1990 MHz PCS bands.

³⁴ SIA Petition at 7-8.

would not have allowed sufficient separation from MSS/ATC operations to enable a paired PCS block to be implemented without raising the same interference concerns described above.

The reality is that the *Third Report and Order* leaves MSS licensees with more than enough spectrum to serve any credible projection of future user requirements. MSS licensees who meet their milestones have ample spectrum in which to grow their businesses and expand their offerings. Indeed, as CTIA argued in its petition for reconsideration, the Commission has been overly generous in the spectrum it has made available for MSS – the public interest would be better served if the Commission reallocated more MSS spectrum to other uses.

Respectfully submitted,

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