

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

_____)	
<i>In the Matter of</i>)	
)	
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)	ET Docket No. 00-258
New Advanced Wireless Services, including Third)	
Generation Wireless System)	
)	
The Establishment of Policies and Services Rules)	IB Docket No. 99-81
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-)	RM-9911
2690 MHz Frequency Bands for the Mobile-)	
Satellite Service)	
)	
Petition for Rule Making of the Wireless)	
Information Networks Forum Concerning the)	RM-9498
Unlicensed Personal Communication Service)	
)	
Petition for Rule Making of UTStarcom, Inc.,)	
Concerning the Unlicensed Personal)	RM-10024
Communications Service)	
_____)	

**ICO GLOBAL COMMUNICATIONS REPLY COMMENTS ON
THIRD NOTICE OF PROPOSED RULEMAKING**

ICO Global Communications (Holdings) Limited hereby replies to the comments filed in response to the Third Notice of Proposed Rulemaking.¹ As a threshold matter, the comments

¹ 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 System, *Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order*, FCC 03-16 (rel. Feb. 10, 2003), 68 Fed. Reg. 11986 (Mar. 13, 2003) (the “*Third NPRM*” or “*Third Report and Order*,” depending on context).

demonstrate convincingly that the Commission erred in its decision to reallocate spectrum near 2 GHz from the Mobile-Satellite Service (“MSS”) to a “service to be named later.” Hundreds of pages of comments were filed, but the suggested uses for the reallocated spectrum are uniformly uninspiring, and the public interest arguments that are rather half-heartedly advanced in support of these suggestions are surprisingly thin. Taken as a whole, the comments therefore support the proposition that the former MSS spectrum should be used for nothing other than MSS. In other words, the reallocation was a mistake, and the Commission should quickly correct it.²

However, if the Commission adheres to its MSS reallocation decision and proceeds to debate the future of the 1990-2000 MHz, 2020-2025 MHz, and 2165-2180 MHz segments pending the resolution of all appeals, the Commission should strive to make the remaining 2 GHz MSS allocation as hospitable for the MSS as possible. Specifically, (1) the 1995-2000 MHz segment should be preserved for MSS uplinks, *excluding* ancillary terrestrial components if necessary; (2) the 1990-1995 MHz segment, if not used for MSS uplinks, should be designated for PCS use (whether for new entry or for resolution of the 800 MHz public safety controversy); and (3) the 2170-2180 MHz band (10 megahertz of the former MSS downlink) should be restored for MSS to create a mildly asymmetric pairing of 1995/2000-2020 MHz uplinks with 2170-2200 MHz downlinks. These points are all discussed briefly in turn.

Commenters on the *Third NPRM* expressed much stronger opinions about what *should not* be done with reallocated MSS spectrum than about what *should* be done. In fact, the same large terrestrial incumbents who pressured the Commission to take spectrum away

² ICO has petitioned for reconsideration of the reallocation decision and that petition will be the subject of a separate round of comments. However, because this proceeding involves continuing consideration of so many possible uses for the former MSS spectrum, it is not always easy to

from the MSS now seem quite underwhelmed with the possibilities the reallocation has opened up for them. Verizon’s “embrace” of a PCS designation for 1990-1995 MHz has all the enthusiasm of a condemned prisoner accepting his sentence.³ CTIA notes that if PCS operations are permitted at 1910-1915 MHz (and 1990-1995 MHz), it “will likely result in some PCS handsets users [*sic*] experiencing some degradation.”⁴ If that is the best that can be said for terrestrial use of a band that is of such paramount importance to the MSS industry, then clearly the Commission should reconsider its balancing of the competing public interests.

Furthermore, the situation at the top of the 1990-2000 MHz band is even worse: There is no support for any licensed use of the 1996-2000 MHz band, and the commenters are virtually unanimous in stating that the primary reason for not licensing commercial service in the 1915-1920 MHz and 1995-2000 MHz segments is because of the effect on the separation between PCS bands – it has nothing to do with any MSS interference. Most commenters believe this “guard band” between MSS and PCS should be 5 megahertz wide rather than 4, ruling out any licensed use above 1995 MHz rather than 1996 MHz. In order to justify reallocation of 10 megahertz away from the MSS, the Commission needs to articulate a truly compelling set of public interest benefits, and using 40-50% of the reallocated spectrum as a guard band flunks this test.

The situation is no better with other portions of the reallocated MSS spectrum. The 2020-2025 MHz fragment is given scant attention by most commenters, and Cingular and Verizon – two key proponents of the reallocation of this spectrum – tellingly treat these 5

separate arguments about what the Commission should have done last January from arguments about what the Commission should do now.

³ Verizon Comments at 5 (“After extensive technical analysis and consultation with PCS equipment manufacturers, Verizon has determined that [PCS use of 1910-1915 MHz and 1990-1995 MHz] *could be achieved* without causing harmful interference to existing PCS phones, *subject to the condition that . . .*”) (emphasis added).

⁴ CTIA Comments at 4.

megahertz as a scrap to be thrown to federal government users.⁵ CTIA, which was terribly concerned about adjacent-band interference at the edge of the PCS band just a few short weeks ago, now blithely suggests (without any supporting technical analysis) that perhaps 2020-2025 MHz would be a good place for a new TDD service, immediately adjacent to the top of the MSS uplink band.⁶ At 2165-2180 MHz, some commenters suggest an asymmetric pairing with other Advance Wireless Services (“AWS”) spectrum.⁷ Others suggest that some or all of this spectrum be reserved for future use⁸ – raising the question whether it can really ever be in the public interest for the Commission to take spectrum away from one service for the purpose of designating it for nothing rather than something.

All in all, it seems difficult to argue with Verizon’s assessment that “[u]nfortunately, the manner in which the band was reallocated does not facilitate the availability of significant amounts of paired spectrum that can be harmonized with other worldwide allocations.”⁹ The irony is that the worldwide harmonization that Verizon implicitly holds up as the ideal is in fact the situation that prevailed here before the Commission gave in to Verizon and others by reallocating almost half of the 2 GHz MSS spectrum. Now that the Commission has seen more clearly how little the reallocated spectrum will benefit the terrestrial services, and how much

⁵ Verizon Comments at 8-9; Cingular Comments at 3.

⁶ CTIA Comments at 5-6. CTIA presents no interference analysis of this possibility, despite the fact that in the very next paragraph CTIA states that placing a TDD service *anywhere in the 2155-2180 MHz band* would create an unacceptable risk of interference to PCS operations at 2110-2155. CTIA Comments at 6. As noted in ICO’s initial comments, ICO’s interest in the future of the 2020-2025 MHz band is fairly attenuated because of the design tradeoffs that were made to accommodate past zig-zagging on the MSS allocation. Nonetheless, ICO believes that all parties to this proceeding, including CTIA, should be held to minimum standards of logical coherence.

⁷ Verizon Comments at 7; CTIA Comments at 6; Cingular Comments at 6.

⁸ Cingular Comments at 6.

⁹ Verizon Comments at 7.

more important the frequencies are for the MSS industry, it should grant ICO's petition for reconsideration and restore most if not all of the reallocated spectrum to the MSS.

However, even if the Commission refuses to acknowledge that the reallocation of so much MSS spectrum was a mistake, there are three specific band plan decisions that the Commission should reach based on the comments on the *Third NPRM*. **First, instead of letting the 1995/6-2000 MHz band lie relatively fallow as a "guard band," the Commission should permit MSS operators to continue to use those frequencies for MSS operations that do not include the operation of an ancillary terrestrial component ("non-ATC MSS").** The logic supporting this conclusion is both straightforward and compelling. The public gets no benefit from a guard band except to the extent that the guard band solves an interference problem. While there continues to be some disagreement about how serious an interference problem is created by granting ATC authority to MSS networks immediately adjacent to PCS providers, there is no dispute that PCS networks have always been expected to operate in such a way as to be compatible with adjacent-band MSS operations of a non-ATC character. Thus, whatever additional interference is created by the granting of ATC authority in the rest of the MSS band, it can be resolved by a 5 megahertz "non-ATC MSS" band just as easily as it can by a 5 megahertz guard band. Since the public will get actual service from the non-ATC MSS band, but none from a guard band, the non-ATC MSS allocation is the unambiguously superior solution.

Second, if the Commission insists on reallocating the 1990-1995 MHz band, broadband PCS operations are preferable to MDS operations. One obvious reason for preferring broadband PCS as a spectrum neighbor is that MDS interests have so far insisted on the need for 12 megahertz (2 x 6) of "replacement" spectrum rather than 10 (2 x 5). Since every megahertz is precious, ICO would prefer to lose only five megahertz of the 1990-2000 MHz

segment rather than six. In addition, it appears to ICO that MDS operations – at least to the extent that they remain truly MDS operations rather than PCS operations by another name – will be less compatible with adjacent-band MSS operations. MDS transmitters, expected to have higher transmission power than regular PCS base stations, could more severely interfere with the satellite uplink. Direct hits, generated by the MDS transmitters looking into the satellite receiver at the edge of coverage, could cause widespread interference effects even over areas very far from the United States. In addition, MDS transmitters will generate more interference to the ATC base stations than the PCS base stations.¹⁰

Third, to the extent the Commission is considering the use of reallocated MSS spectrum for an asymmetric AWS designation, it should also consider an asymmetric MSS allocation. The comments show fairly low demand for the 2165-2180 MHz spectrum, in part

¹⁰ In addition, although the MDS interests state their case with an unmistakable sense of entitlement based on the fact that the Commission decided some time ago to reallocate their channels 1 and 2/2A for AWS, it would not make sense to award the 1990-1996 spectrum to them. ICO certainly believes that licensees who are displaced by Commission action deserve to be made whole, but the MDS service has long been a commercial failure, and a Commission decision that the spectrum would be better used for AWS is certainly defensible. However, if the MDS licensees are to receive full relocation rights for the loss of their spectrum, then MSS licensees like ICO (which had already qualified for a Selected Assignment at 1990-1993.88 MHz) should also receive replacement spectrum – yet the MSS licensees have actually had their spectrum reduced. Or, to put the matter another way, it seems irrational on its face for the Commission to take the 1990-1996 MHz spectrum away from the MSS on the ground that it is allegedly unlikely to need it, and then give that spectrum to a service with a very long track record of proven commercial failure. ICO acknowledges that recent rule changes regarding MDS may have improved its commercial prospects considerably, but that is clearly true of the MSS as well. Furthermore, while MDS interests protest that they paid for their licenses, Title III of the Communications Act does not create different classes of licenses based on the manner in which they were acquired. The solution might be to treat MSS like MDS, and accord full relocation rights; or it might be to treat MDS like MSS, and simply take away the MDS spectrum at 2150-2162 MHz and give the displaced MDS licensees replacement licenses in other frequencies already designated for MDS; or it might be some other solution. In any event, like cases must be treated alike, and the MDS licensees cannot be thought to have a superior claim to the 1990-1996 MHz MSS band merely because the Commission took away their spectrum earlier than it took away the MSS spectrum.

because it cannot be symmetrically paired with any other available spectrum. However, commenters propose a variety of asymmetric pairings for AWS using some or all of these frequencies, and argue that an asymmetric pairing will be useful because downstream capacity requirements for AWS are likely to be greater than upstream requirements. ICO agrees with these commenters that an asymmetric allocation may be useful, but not just for AWS. To the extent that the Commission is prepared to consider asymmetric pairings for the next generation of mobile data services, MSS licensees should receive the same consideration as terrestrial services. ICO therefore recommends that the 2170-2180 MHz band be restored to MSS (yielding 30 megahertz of globally available downlink spectrum at 2170-2200 MHz) even if the Commission reallocates all but 20 or 25 megahertz of the uplink spectrum. This would still leave the 2155-2170 MHz band available for the asymmetric part of the AWS pairing, giving both AWS and MSS roughly comparable proportions of downlink and uplink spectrum. Given that both MSS and AWS licensees will be providing mobile data services, it would obviously be inequitable to give all of the available asymmetric spectrum to just one of the two services, particularly when MSS licensees have already been required to build satellites that tune over the 2170-2200 MHz range.

In conclusion, ICO emphasizes once again that the highest possible use of the 1990-2000 MHz band and at least the top 10 megahertz of the paired downlink spectrum at 2165-2180 MHz would clearly be the use that is also legally the soundest: ATC-enabled MSS networks. However, even if the Commission reaffirms its decision to reallocate some of the MSS spectrum at 2 GHz, the further consideration of the future of these bands in the *Third NPRM* raises new possibilities for more balanced solutions that have not been previously considered. ICO therefore urges the Commission (1) to permit non-ATC MSS in the 1995-2000 MHz band,

instead of making this a fallow guard band; (2) to license a broadband PCS provider in the 1990-1995 MHz band; and (3) to use 10 megahertz of the former MSS downlink at 2165-2180 to create an asymmetric MSS pairing of 2170-2200 MHz downlink with 1995-2020 MHz uplink.

Respectfully submitted,

Christopher J. Wright
Mark A. Grannis
HARRIS, WILTSHIRE & GRANNIS LLP
1200 Eighteenth Street, NW
Washington, DC 20036

/s/ Lawrence H. Williams
Lawrence H. Williams
Suzanne Hutchings
ICO GLOBAL COMMUNICATIONS (HOLDINGS) LTD.
1730 Rhode Island Avenue, NW
Suite 100
Washington, DC 20036

April 28, 2003