

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Section 2.106 of the	)	ET Docket No. 95-18
Commission's Rules to Allocate	)	
Spectrum at 2 GHz for Use	)	
by the Mobile-Satellite Service	)	

**Reply Comments of Motorola, Inc.**

**1. Introduction**

Motorola, Inc. ("Motorola") submits the following reply comments in the Federal Communications Commission's Third Notice of Proposed Rulemaking in ET Docket 95-18 ("Notice").<sup>1</sup> Motorola is one of the world's leading providers of wireless communications, semiconductors and advanced electronic systems, components and services. Major equipment businesses include cellular telephone, two-way radio, paging and data communications, personal communications, automotive, defense and space electronics and computers.

Motorola supports the decision of the Commission to reallocate the spectrum at 2110-2150 MHz and urges the Commission to allocate this spectrum for the use of International Mobile Telecommunications (IMT-2000) services, also referred to as third generation (3G) mobile wireless services. In this regard

we endorse the comments filed during the initial round by the Wireless Communications Division of the Telecommunications Industry Association, the Personal Communications Industry Association, and Telephone and Data Systems, Inc. PCIA's comments clearly articulate the fact that IMT-2000 will be a major, worldwide mobile communications service in the near future and it is well past the time for the United States to allocate spectrum for this service.<sup>2</sup> The spectrum at 2110 – 2150 MHz is ideal for IMT-2000 because, as TIA sets forth so persuasively in its comments, it would be a major step toward aligning the U.S. spectrum plan with that of the rest of the world.<sup>3</sup>

With respect to the relocation of incumbent licensees in the 2 GHz band, Motorola supports the comments of Iridium LLC. Our comments on this issue are set forth at section 3, below.

## **2. The Importance of Effective Spectrum Management**

In its Notice, the Commission stated that the 1997 Budget Act requires it to reallocate the 40 MHz of spectrum at 2110-2150 MHz for assignment by competitive bidding. It noted that the 40 MHz specified by Congress for reallocation by auction in the 1997 Budget Act could be used to provide a number of possible Fixed and Mobile Services and it invited comment on the proposed allocation. The Budget Act does not require the Commission simply to

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<sup>1</sup> Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, Memorandum Opinion and Order and Third Notice Of Proposed Rule Making and Order, FCC 98-309 (Released November 27, 1998) ("Notice").

<sup>2</sup> Comments of the Personal Communications Industry Association at 2-3.

<sup>3</sup> Comments of the Wireless Communications Division of TIA at 8-9

auction the spectrum indiscriminately, however, and Motorola hopes that this Notice represents a recommitment by the Commission to its important role in the management of this nation's radio spectrum.

The responsibility to allocate spectrum in the public interest is central to the Commission's role as the primary federal regulatory agency dealing with telecommunications. The Commission was never intended to function as a mere auction house when it comes to the use of spectrum in the United States. Rather, it is expected to use its expertise in telecommunications policy, science, and law to make spectrum allocation decisions that best benefit the public interest.<sup>4</sup>

Unfortunately, the Commission has not fully met this expectation during the recent past. Instead, it began to consider the possibility that auctions by themselves will result in the spectrum being used to its highest purpose in the public interest. The most obvious example of this policy resulting in neither enlightened spectrum management nor a positive auction result is the auctioning of the Wireless Communications Service spectrum. In contrast, where the Commission has used its inherent capabilities to engage in enlightened spectrum management the results were much more successful. A clear example of this was the auctioning of the original PCS spectrum.

The policy of allocating by auction was not only misguided, but it squandered the valuable institutional expertise that the Commission has built up

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<sup>4</sup> See 47 U.S.C. §309(j)(6)(E).

over time. Indeed, some who advocate this flawed “allocate by auction” policy view it as merely the first step down the road toward letting the marketplace be

the sole determiner of how spectrum is used in this country. Not surprisingly, they follow the logic of their position to its natural conclusion and foresee the day when the Commission is eliminated from the process altogether.<sup>5</sup> In Motorola's view, nothing could be more disastrous for this country, its consumers, and its telecommunications industries.

Rather than managing spectrum use intelligently, such a laissez-faire regime would permit the operation, on any spectrum, of any service that does not create harmful interference with existing transmissions.

Services, technologies, and standards would not be set by means of administrative processes at the FCC, but would be dependent upon agreement by industry groups, shielded from antitrust liability, to craft voluntary standards.<sup>6</sup>

Such a system would encourage the deployment of any wireless service in any spectrum where it could be squeezed in, without regard for the need to develop nationwide systems. It would also thwart the alignment by the U.S. with spectrum allocations in other regions of the world in conformity with ITU designations. This is not, however, what is called for by the Communications Act and it is not what is needed to enable the telecommunications industry to best serve the needs of the public going into the 21<sup>st</sup> Century.

The Commission's process for managing our nation's radio spectrum has traditionally involved three important and distinct steps. Each step has an important function and each impacts on the others. The first step is the

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<sup>5</sup> Thomas W. Hazlett, "Underregulation: The Case of Radio Spectrum," paper presented at the Cato Institute's Telecommunications Conference, "Beyond the Telecommunications Act of 1996," Washington, D.C., September 12, 1997, and reprinted in *Regulator's Revenge The Future of Telecommunications Deregulation* (Cato Institute, 1998) p.87.

allocation, i.e., the decision as to what use a particular band of spectrum should be put. In the past, the Commission has performed this function well and the result has been the development of services on a national basis which have met the needs of the public and have been successful financially. From broadcasting to direct satellite broadcasting, from cellular telephone to personal communications services, the record is replete with examples of how the Commission has performed this function with excellence in the past.

For the most part, the wireless telecommunications industry has been a beneficiary of sound spectrum management. The industry is growing rapidly and is meeting the needs of both personal consumers and business. People are no longer tied to their home or office locations in order to communicate by phone. Parents can be paged if needed while away from home. Dispatch radio provides a critical tool necessary for police, fire and emergency medical personnel, as well as utilities, construction firms, and both large and small businesses. Travelers can phone from their seats on airplanes. In addition, U.S. consumers use a number of other possibly less apparent wireless products every day. For example, cordless phones, remote control garage door openers, and remote auto door locks are all devices that have been unobtrusively integrated into our day-to-day routines.

Sound spectrum management was a key element in the successful development and implementation of all these products and services. As a result, U.S. consumer today have a broad range of products and services available to

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<sup>6</sup> *Id.*

fill their communications needs. Without such sound spectrum management decisions, generally based on a rational balancing of competing interests, the U.S. would be a significantly less safe, less prosperous and less enjoyable country in which to live.

The second step involves the development of service and technical rules. These are generally designed to protect spectrum users from harmful interference. For most services, the technical rules address issues such as maximum transmitter power levels and maximum signal power permitted at the edge of a service area. Service rules are intended to promote competition among service licensees and ensure that systems are built out rapidly, for example, eligibility requirements, size of designated service area, amount of spectrum to be licensed, and build-out requirements. While this process varies from service to service, its purpose is to take the basic spectrum use decisions in the allocation and apply them on a market by market basis to assure that the public will benefit in actuality as the allocation is implemented. The advocates of eliminating the Commission's role in this process have never made a convincing case that the market will achieve these results on its own.

The final step in the process is the assignment or licensing activity. It is here that the justifiable dissatisfaction with the approach used historically resulted in a search for a better method of selecting among competing applicants. The Commission for many years used comparative hearings to assign licenses when applicants for a particular service or license in a given locale could not co-exist technically and were, thus, "mutually exclusive." While

support for auctions is not universal, the auction as an alternative to comparative hearings is a rational and pragmatic solution.

The danger in recent years has been a temptation on the part of the Commission to let the auction as an assignment or licensing function subsume the entire allocation function. Wireless telecommunications, and the many civil societal needs it fills, contribute far too much to the U.S. economy and quality of life to be dependent on such a dubious academic theory.

Members of Congress have recently expressed concern about the direction the auction policy appears to be taking. House Telecommunications Subcommittee Chairman, Billy Tauzin (R-LA); Ranking Minority Member, John Dingell (D-MI); Senator John Breaux (D-LA); Senator Slade Gorton (R-WA); and Senator Spencer Abraham (R-MI) sent a letter to the Commission last December stating that in a forthcoming notice on private wireless the Commission should revise its policies and increase the use of engineering solutions, negotiations and other means of avoiding mutual exclusivity in license applications.<sup>7</sup>

The letter suggested that the Commission should give more weight to a provision in the law explicitly directing the use of engineering solutions to avoid auctions:

Since [the enactment of auction authority in 1993] many of us have been concerned that, in both its spectrum management activities and its implementation of [auction authority], the commission has frequently ignored this provision of the law, and has instead adopted policies that resulted in mutual exclusivity which could have been avoided.<sup>8</sup>

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<sup>7</sup> Congressional Letter to Chairman Kennard, December 22, 1998.

While Congress has mandated that the 2110 – 2150 MHz spectrum must be auctioned, the letter can be read more broadly as a call for a reaffirmation of the Commission's role in managing spectrum, a role that includes allocation in the public interest as well as the crafting of technical and service rules to reduce mutual exclusivity.

This approach is also consistent with recent remarks delivered by Commissioner Ness to the Personal Communications Industry Association.<sup>9</sup> In a thoughtful speech devoted to spectrum management at the Commission, the Commissioner took note of the value of auctions, but went on to say the following:

Auctions, however, are not a substitute for the allocation process. In other words, we should not -- indeed, we must not -- back away from our fundamental duty to allocate and reallocate spectrum in broad categories in accordance with the public interest.

This is so for both policy as well as pragmatic reasons. The value to the public of certain uses of the spectrum does not always translate into pure economic terms.

Commissioner Ness also took note of the significant international implications of spectrum management. She pointed out that the Commission's ability to implement a commercial service allocation domestically must be reconciled with basic allocations for use of the spectrum adopted at ITU biennial World Radio Conferences.

This increasing globalization of spectrum use brings benefits in the form of export opportunities and lower equipment prices. Motorola urges

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<sup>8</sup> *Id.*

the Commission to consider these important factors when deciding the allocation of 2110 – 2150 MHz and to allocate the spectrum for IMT-2000 services.

### 3. Relocation Issues

With respect to the relocation of incumbent licensees in the 2 GHz band, Motorola supports the comments of Iridium LLC -- an applicant for a new MSS system in this band. Motorola agrees with Iridium's view that the Emerging Technologies<sup>10</sup> proceeding provides a sound basis for establishing the relocation reimbursement policies for spectrum earmarked for MSS operations, but that the ubiquitous, nationwide characteristics of this service suggests some refinements to those policies.

In particular, Motorola supports the simultaneous retuning or replacement of all BAS equipment and relocation of all FS incumbents nationwide by a date certain, the creation of a common relocation fund from all MSS licensees in proportion to the amount of spectrum that each licensee has available to it, the adoption of a "comparable facilities" standard for assessing replacement equipment costs, and the establishment of inter-industry negotiations to resolve disputes. Motorola

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<sup>9</sup> Remarks by Commissioner Susan Ness Before PCIA's PCS '98, Orlando FL, September 23, 1998.

<sup>10</sup> See *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies (Emerging Technologies)*, ET Docket No. 92-9, *First Report and Order and Third Notice of Proposed Rule Making*, 7 FCC Rcd 6886 (1992); *Second Report and Order*, 8 FCC Rcd 6495 (1993); *Third Report and Order and Memorandum Opinion and Order*, 8 FCC Rcd 6589 (1993); *Memorandum Opinion and Order*, 9 FCC Rcd 1943 (1994); *Second Memorandum Opinion and Order*, 9 FCC Rcd 7797 (1994), *aff'd*, *Association of Public Safety Communications Officials-International, Inc. v. FCC*, (APCO v. FCC), 76 F. 3d 395 (D.C. Cir. 1996).

also agrees with the Commission's proposal (Notice at ¶51) that subsequent licensees who benefit from the payments made by earlier licensees (whether MSS, FS or MS) should be required to reimburse the latter group for this expense in proportion to the amount of spectrum being used.

#### **4. Conclusion**

In Summary, the Commission's allocation responsibilities may have been over shadowed temporarily during the past several years as the possibility of auctions as a shortcut to allocation was entertained. We believe, however, that today there is a reevaluation of the limits of auctions and the role they should play. Motorola sees a consensus forming that proper allocation analysis should come first and auctioning, for licensing purposes, should conclude rather than lead the process. We urge the Commission to use this proceeding to reinvigorate its role in spectrum management. For reasons we have stated, and for those set forth by the Telecommunications Industry Association, the Personal Communications Industry Association, and Telephone and Data Systems, Inc. in their comments during the initial round in this Notice, we urge the Commission to allocate the spectrum at 2110-2150 MHz to IMT-2000.



Respectfully submitted,

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