

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of

Interference Immunity Performance  
Specifications for Radio Receivers

Review of the Commission's Rules and  
Policies Affecting the Conversion to  
Digital Television

ET Docket No. 03-65

MM Docket No. 00-39

**REPLY COMMENTS OF THE  
CELLULAR TELECOMMUNICATIONS & INTERNET ASSOCIATION**

The Cellular Telecommunications & Internet Association (“CTIA”)<sup>1</sup> respectfully submits this reply to comments filed on the Notice of Inquiry (“NOI”) in the above-referenced proceedings.<sup>2</sup> The initial comments of CTIA in these dockets commended the Commission for its rapid follow-up on the Spectrum Policy Task Force Report with respect to the creation of spectrum utilization efficiencies through receiver performance standards, but cautioned that mandatory requirements can also undercut the effectiveness of competitive market forces. The position of CTIA was strongly supported on the record by other commenters. CTIA therefore believes that, if receiver standards are to be considered — even on a trial or experimental basis

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<sup>1</sup> CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. CTIA membership covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> FCC 03-54, rel. Mar. 24, 2003 (“NOI”).

— mandatory standards should be considered only in those bands where spectrum efficiency is not already dictated by effective market forces.

CTIA, and the majority of other commenters, strongly supported the FCC’s position that for CMRS, “market incentives and voluntary industry programs” have been far more effective than any proposed regulatory regime that would subject all receivers to a set of mandatory standards.<sup>3</sup> Indeed, the record echoes CTIA’s initial position that intense market competition, flexible use policies, and cooperative industry efforts have enabled CMRS service providers, in partnership with equipment manufacturers, to innovate rapidly and introduce advanced services and products frequently.<sup>4</sup> Under such circumstances, commenters explained, the introduction of regulatory mandates relating to equipment performance could have the unintended consequence of depriving system designers and network engineers of the flexibility necessary to define new products and enhancements that make more efficient and intensive use of the radio spectrum.<sup>5</sup>

CMRS systems are, in many ways, uniquely sensitive to market forces driving efficient use of the spectrum. CMRS operators have worked closely with manufacturers of radio equipment and, in fact, many operators have extensive labs where products are exhaustively tested before being deployed in the field. This allows the carrier to design its network with a

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<sup>3</sup> See Comments of AT&T Wireless Services, Inc., ET Docket No. 03-65 (filed July 21, 2003) (“AWS Comments”) at 3-5; Comments of BellSouth Corporation and Cingular Wireless LLC (“BellSouth/Cingular Comments”), ET Docket No. 03-65 (filed July 21, 2003); Comments of Ericsson Inc., ET Docket No. 03-65 (filed July 21, 2003) at 1-2, 5-7; Comments of Metrocall Holdings, Inc., Arch Wireless Operating Company, LLC, Weblink Wireless I, L.P., the Allied National Paging Association and the American Association of Paging Carriers, ET Docket No. 03-65 (filed July 21, 2003) at 2-6; Comment of Motorola, Inc., ET Docket No. 03-65 (filed July 21, 2003) (“Motorola Comments”) at 9; Comments of Nokia Inc., ET Docket No. 03-65 (filed July 21, 2003) at 2, 5-6; Comments of Nortel Networks, ET Docket No. 03-65 (filed July 21, 2003) at 3; Comments of the Telecommunications Industry Association, ET Docket No. 03-65 (filed July 21, 2003) at 3.

<sup>4</sup> See, e.g., AWS Comments at 3-5; Comments of Motorola at 9.

<sup>5</sup> See, e.g., AWS Comments at 9-10; BellSouth/Cingular Comments at 10-16.

great deal of precision, balancing the layout and number of cell sites to achieve desired capacity, coverage, and signal quality goals given the known signal-to-noise ratio of the phone and the noise environment of the area in which a network is to be deployed. This, in turn, dictates a carrier's cost structure, the economic viability of its services, and its ability to differentiate itself in the real world. Thus, in a highly competitive market where customers have alternatives, such as CMRS, receiver performance is directly tied to market performance.

CTIA and other commenters have recognized, however, that in certain contexts — generally those areas where command-and-control regulatory models prevail — market forces do not necessarily dictate the efficient use of spectrum.<sup>6</sup> In such contexts, users have less incentive to upgrade existing networks, even if technological improvements would optimize spectrum use, because the costs of upgrading are the primary “market force” impacting the users’ spectrum decisions. Unlike CMRS operators, public safety users, for example, are not economically impacted on a day-to-day basis even if their system is antiquated and spectrum-inefficient, and public safety users therefore have less reason to expend the funds necessary to upgrade their networks. Similarly, there is little incentive for broadcast equipment manufacturers to build efficient receivers because their end users’ experience is not solely associated with the manufacturer’s product; rather, the end user experiences a combination of the equipment and the signal provided by an unaffiliated broadcaster. CMRS providers, on the other hand, generally

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<sup>6</sup> See, e.g., Comments of the Association of Public-Safety Communications Officials-International, Inc., ET Docket No. 03-65 (filed July 21, 2003) at 1-2 (stating “[APCO] agree[s] with the Commission’s observation that market incentives and voluntary industry programs may not be sufficient ‘in situations where we continue to find that command and control spectrum management techniques are in the public interest [e.g., public safety]. . . .’”); Comments of the Public Safety Wireless Network Program, ET Docket No. 03-65 (filed July 21, 2003) at 5 (stating “PSWN Program agrees that individual services should be free to adopt standards pertinent to their operations. . . . [h]owever, public safety services, and all non-public safety radio services with safety-of-life implications, demand consistent, mandatory standards to effectuate interoperable, interference-immune receiver solutions”); AWS Comments at 9.

retail both the equipment and the service, and are, in the end user's mind, responsible for the total experience.

Under these circumstances, CTIA opposes the introduction of receiver performance regulations in the CMRS bands. Quite apart from the legal issues raised by some commenters regarding the adoption of such standards,<sup>7</sup> CTIA believes that existing market forces have proven to be more than adequate to ensure efficient and effective use of CMRS spectrum and, in fact, that receiver requirements could have the contrary effect of impinging on competition and limiting the introduction of new innovative uses. To the extent that the Commission believes receiver standards are warranted, even if on an experimental or test basis, CTIA believes such regulations should be limited to those bands, such as public safety and broadcast spectrum, where market incentives may not be effective in ensuring efficient spectrum use.

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<sup>7</sup> See, AWS Comments at 14-18; Comments of the Consumer Electronics Association, ET Docket No. 03-65 (filed July 21, 2003) at 11-13.

CTIA encourages the Commission to continue its inquiry into receiver standards as part of its overall follow through on the Spectrum Policy Task Force Report recommendations. While CTIA does not believe the record supports any further consideration of mandatory receiver specifications for bands used by CMRS providers, bands where efficiency is not compelled by economic market forces may warrant further scrutiny. CTIA looks forward to working with the Commission in encouraging the development and evolution of technologically innovative and economically efficient uses of the spectrum.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Christine Blomquist, hereby certify that on this 18<sup>th</sup> day of August, 2003, the foregoing Comments of the Cellular Telecommunications & Internet Association were filed electronically on the FCC's Electronic Comment Filing System and copies were served via email to the following:

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