

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of )  
 )  
Biennial Regulatory Review – Amendment of ) WT Docket No. 03-264  
Parts 1, 22, 24, 27, and 90 to Streamline and )  
Harmonize Various Rules Affecting Wireless )  
Radio Services )

**COMMENTS ON FURTHER NOTICE OF PROPOSED RULEMAKING**

The Wireless Communications Association International, Inc. (“WCA”), by its attorneys, hereby submits comments in response to the Commission’s *Further Notice of Proposed Rulemaking* (“*FNPRM*”) in the above-captioned proceeding.<sup>1</sup> The *FNPRM* solicits comment on a proposal by the Cellular Telecommunications & Internet Association (“CTIA”) to modify the Commission’s rules governing the maximum permissible power that can be emitted by a broadband Personal Communications Service (“PCS”) base station, and proceeds to seek input from industry as to “whether these proposals should be applicable to those Part 22 and Part 27 services that operate under a flexible regulatory framework similar to Part 24 broadband PCS.”<sup>2</sup> WCA’s comments are limited to the issue of whether in this proceeding the Commission should be modifying the rules governing maximum base station power levels for the Wireless Communications Service (“WCS”) at 2.3 GHz or for the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) at 2.1 GHz and 2.5 GHz.

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<sup>1</sup> *Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, Further Notice of Proposed Rulemaking and Order, 20 FCC Rcd 13900 (2005)[“*FNPRM*”].

<sup>2</sup> *Id.* at 13923.

As a general proposition, WCA urges the Commission to take a cautious approach when considering changes to the rules governing maximum power levels. It is certainly true that the power rules are not consistent across various services. However, while consistency may have some value, the Commission cannot lose sight of the fact that the maximum power limitations imposed on most services are the result of extensive consideration during notice and comment rulemaking proceedings and often reflect consideration of factors that may not be present with other services. The lack of consistency often is not the result of happenstance, but rather reflects a rational attempt to craft maximum power restrictions appropriate to the environment surrounding each service. Raising maximum power levels, whether directly by changing the numerical limit (*i.e.*, by changing a limit from 1640 Watts to 3280 Watts) or indirectly by changing peak limits to average limits without a downward adjustment to the numerical limit, raises interference concerns that cannot be addressed without considering the nature of the incumbent uses the current rules are designed to protect. Put another way, whatever the merit of CTIA's proposals with respect to PCS, there is no "one size fits all" power limitation that will prove optimum for every situation.

For this reason, WCA urges the Commission not to revisit here the power limits applicable to BRS and EBS base stations. In July 2004, the Commission released a comprehensive rewrite of the BRS and EBS regulatory regime in WT Docket No. 03-66 that, among other things, resulted in those services being governed by Part 27 of the Commission's Rules.<sup>3</sup> Thus, although BRS and EBS are not specifically mentioned in the *FNPRM*, changes to

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<sup>3</sup> *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165 (2004)[*"BRS/EBS Report and Order"*]; *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and*

the Part 27 rules governing maximum base station power levels could affect BRS and EBS unless carefully crafted to preserve the *status quo*.

Because the rules recently adopted in WT Docket No. 03-66 address the very same issues raised by the *FNPRM*, there is no reason to revisit them here. The new rules adopted in that proceeding, and particularly the new technical rules, were based in large part on proposals advanced by WCA in conjunction with representatives of the EBS community.<sup>4</sup> The specific issues relating to establishing maximum base station power levels that are presented by the instant *FNPRM* were addressed in the WCA filings,<sup>5</sup> its proposals were endorsed by the vast majority of those participating in the proceeding, and the resulting Commission rules reflect the result – the Commission has adopted BRS/EBS rules under which a maximum average EIRP that varies according to channel bandwidth and antenna beamwidth is imposed on BRS and EBS digital base stations.<sup>6</sup> Having just dealt with the issues presented by the *FNPRM*, there is no

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*Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Order, 19 FCC Rcd 22284 (2004)[“*BRS/EBS Order*”].

<sup>4</sup> See “A Proposal For Revising The MDS And ITFS Regulatory Regime,” Wireless Communications Ass’n Int’l, Nat’l ITFS Ass’n and Catholic Television Network, RM-10586 (filed Oct. 7, 2002)[“Initial Coalition Proposal”]. Subsequent to October 7, 2002, WCA, Nat’l ITFS Ass’n and Catholic Television Network submitted two supplements that addressed issues left open in the original white paper and sought to clarify points that apparently had been misunderstood by some parties within the industry. See “First Supplement To ‘A Proposal For Revising The MDS And ITFS Regulatory Regime,’” RM-10586 (filed Nov. 14, 2002); “Second Supplement To ‘A Proposal For Revising The MDS And ITFS Regulatory Regime,’” RM-10586 (filed Feb. 7, 2003).

<sup>5</sup> See Initial Coalition Proposal at 25-26. WCA urged the Commission to retain the then-current rules and policies regarding base station power, which capped equivalent isotropically radiated power (“EIRP”) at 33 dBW, but provided for adjustments based on antenna beamwidth and channel bandwidth, and which provided that analog transmissions would be capped based on peak power, while digital transmissions would be regulated based on average power.

<sup>6</sup> See 47 C.F.R. §§ 27.50(h)(1), (4). See also *BRS/EBS Order*, 20 FCC Rcd at 22286-87. WCA must note that the BRS/EBS approach effectively provides a sliding scale under which the maximum EIRP is infinitely variable based on channel bandwidth. Although the Commission appears in the *FNPRM* to prefer what it calls a “step” approach in to avoid “complexity and difficulty in determining compliance,” WCA should note that the BRS/EBS rules have not proven to be complex or difficult to apply. See *FNPRM*, 20 FCC Rcd at 13929. While WCA expresses no view on how the Commission should regulate

reason for the Commission to revisit its decisions regarding BRS and EBS base station transmissions here.

Similarly, the Commission should refrain from utilizing this proceeding as a vehicle for revisiting the maximum EIRP at which a WCS base station operating in the 2305-2320 MHz or 2345-2360 MHz bands may transmit. Section 27.50(a) of the Commission's Rules provides that a fixed WCS station operating in those bands may transmit at no more than 2000 watts *peak* EIRP.<sup>7</sup> Given that numerous WCS licensees are deploying low-powered cellular wireless broadband services utilizing their spectrum and would be subject to increased interference were Section 27.50(a) amended to increase the interference they must suffer from other Advanced Wireless Service licensees, there is no public interest basis to support revising the WCS maximum power limit.

The record developed in response to the pending Amended Request for Waiver of Section 27.50(a) filed on behalf of WCS Wireless, LLC ("WCS Wireless Waiver Request")<sup>8</sup> establishes the potential for harmful interference that can arise if the EIRP limit is expressed in terms of average rather than peak without also adjusting the 200 watt numerical limit.<sup>9</sup> This is

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PCS power levels, the experience to date in BRS/EBS provides no reason to depart from the current formulation of the rule.

<sup>7</sup> See 47 C.F.R. § 27.50(a).

<sup>8</sup> WCS Wireless, LLC, Amended Request for Waiver of Section 27.5, File Nos. 0002109551 *et al.* (filed May 16, 2005) ["Waiver Request"]. Although the title page of the Waiver Request indicates that WCS Wireless, LLC ("WCS Wireless") seeks a waiver of Section 27.5 of the Commission's Rules, the subsequent text makes clear that WCS Wireless is seeking a waiver of Section 27.50(a). Although the record before the Commission concerning the WCS Wireless Waiver Request focuses solely on the peak vs. average issue, the arguments advanced by WCA and others against using average power are equally applicable to any proposal to increase the 2000 watt numerical limit. See *FNPRM*, 20 FCC Rcd at 13930-31. The record demonstrates that adverse consequences would befall WCS licensees deploying wireless broadband technologies if other WCS licensees are permitted to increase the EIRP of their transmissions.

<sup>9</sup> See Reply of Wireless Communications Ass'n Int'l, Inc., DA 05-1662 (filed July 15, 2005); Petition of Wireless Communications Ass'n Int'l, Inc. to Deny, File No. 0002240823 (filed Aug. 3, 2005); Letter

precisely the type of “unintended consequences that might flow from the technical aspects of the CTIA proposal” the *FNPRM* fears would result from application to other services.<sup>10</sup> Whether in this proceeding or in response to the WCS Wireless Waiver Request, were the Commission to modify Section 27.50(a) to specify the maximum EIRP in terms of average power, rather than peak power, it would permit increases in maximum peak EIRP of up to 13 dB or more (depending upon the peak-to-average power level of the technology involved). And that, among other things, would have material implications for network design, as it would increase the geographic area in which brute force overload, intermodulation interference and interference due to out-of-band emissions occurs. In the interest of brevity, WCA will refrain from repeating all of the arguments it has advanced to date against increasing the maximum WCS EIRP limit as requested by the WCS Wireless Waiver Request, and instead incorporates those arguments into this docket by reference.<sup>11</sup>

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from Paul J. Sinderbrand, Counsel, Wireless Communications Assn’ Int’l Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, DA 05-1662 (filed August 22, 2005); Letter from Paul J. Sinderbrand, Counsel, Wireless Communications Assn’ Int’l Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, DA 05-1662 (filed Sept. 21, 2005).

<sup>10</sup> *FNPRM*, 20 FCC Rcd at 13925.

<sup>11</sup> Because the WCS and BRS/EBS power limits are greater than the PCS power limit, the issue raised by Crown Castle International Corp. regarding application of the CTIA PCS proposal to the 1670-1675 MHz band is equally applicable to both BRS and WCS here. *See id.* Thus, if despite the arguments set forth above the Commission nonetheless elects to examine the BRS and WCS maximum power limits, it must assure that the result is not to decrease the maximum power level of authorized operations.

Therefore, for the foregoing reasons, WCA urges the Commission to refrain from revisiting the rules governing maximum BRS, EBS and WCS base station power levels in this proceeding.

Respectfully submitted,

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