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December 1, 2008

The Honorable Kevin J. Martin
Chairman
Federal Communications Commission
445 12th Street, SW
Washington DC 20554

Re: WT Docket No. 07-293; ID Docket No. 95-91;
GEN Docket No. 90-357; RM-8610
Ex Parte Statement

Dear Chairman Martin:

The aerospace industry, through the Aerospace and Flight Test Radio Coordinating Council ("AFTRCC" or "Council") and Member Companies, has requested rules in this docket to protect to protect flight test telemetry operations at 2360-2390 MHz from Wireless Communications Service ("WCS") operations at 2345-2360 MHz.[1] In particular, the industry has requested that the Commission tighten the WCS out-of-band emission limit at the band edge (2360 MHz), retain measurement of WCS power at peak versus average levels, and apply transmit power control to limit interference.

NextWave Wireless, Inc. and Horizon Wi-Com recently filed ex parte letters challenging these requests.[2] NextWave appears to argue that AFTRCC's requests are beyond the scope of this rulemaking, i.e. while it has sought a relaxation of the 110 + 10 log (P) OOBE limit on the "south" end of its band adjacent to the Satellite Digital Audio Radio Service ("SDARS") so as to facilitate deployment of WiMax services, it has not sought to change the 43 + 10 log (P) dB OOBE rule applicable at the "north" end next to the aeronautical telemetry band. NextWave also contends that AFTRCC's request is untimely; that the Council did not seek reconsideration of the 43 + 10 log (P) dB rule when it was adopted eleven years ago; and that "there will be absolutely no impact from relaxation of the WCS 110 + 10 log (P) OOBE limit at 2345 MHz to aeronautical telemetry operations in 2360-2390 MHz." Id. at 2.

NextWave's filing is remarkable for its avoidance of the elephant in the room. The only reason the aerospace companies have registered their concerns is because *today* WCS licensees contemplate a radical change in their use of the band which was not practical under the rules

[1] The Council's Member Companies are shown on the Attachment.
[2] The initial letter is dated November 23. A second letter dated November 26 was filed by NextWave joined by additional WCS parties. The filing parties will be collectively referred to as "NextWave" or "WCS Parties."

adopted 11 years ago: From being warehoused spectrum which has generally lain fallow these many years, to being a band that may see ubiquitous, even intense, mobile and portable use for internet access. In other words, if there be anything "new" about AFTRCC's proposals, it is only because WCS proposes a use of the band previously not feasible under Commission Rules. It is because there may be fundamental changes looming that the Commission quite properly in its Notice of Proposed Rulemaking here invited comment on a "broad[]" array of issues related to the permanent rules for the band including, expressly, the "risk of interference with adjacent channel licensees, whether they are WCS, SDARS **or licensees outside of the 2305-2360 MHz range. . . .**"[3] NextWave says not a word about any of this. But the Commission's comments in its *NPRM* make it patently clear that the issue raised by AFTRCC is ripe for consideration in this proceeding.[4]

NextWave claims that the current OOBE rule "has and will continue to provide AFTRCC and its constituents with adequate protection," [5] and asserts in conclusory fashion that if AFTRCC members were going to receive interference, they would have received it before now from fixed WCS operations. But NextWave omits to mention that there have been minimal WCS operations in the band to date, and that those operations generally have been confined to limited areas where flight testing is not regularly conducted like Detroit, Boston, Richmond, and Knoxville. Of course, the fact that the WCS operations have tended to be fixed also makes that situation very different from that now facing aerospace and the Commission.[6]

Further indicating the lack of WCS development is the fact that in December 2006 the Commission extended the construction period for WCS licensees for three years, from July 21, 2007 to July 21, 2010. It took this action based upon the plea of a number of WCS licensees, including the largest (AT&T), that equipment and other problems relating to the lack of rules for DARS repeaters precluded their ability to provide service, that it made no sense to require them to construct stop-gap systems, and that the extension would "give WCS licensees additional flexibility to develop equipment and deploy services based on opportunities available to them in the future."[7]

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[3] *Notice of Proposed Rulemaking*, FCC 07-215, released December 18, 2007, at paras. 3 and 22 (emphasis added).

[4] NextWave's petition for reconsideration point is likewise without merit. AFTRCC participated in the rulemaking in question. Apparently, NextWave's logic is that unless a party exhausts all administrative and judicial remedies, it should be deemed to have willingly "consented" to the rules adopted. Nonsense. In this case AFTRCC was able to assess the implications of the 110 + 10 log (P) limit adopted, and conclude -- rightly -- that there would not be any threat from ubiquitous WCS mobile/portable use. It is that proposition which may now be about to change, and which prompts the need to revisit the 43 + 10 log (P) rule.

[5] November 26 ex parte at 2. WCS interests publicly proclaimed at the May 13 meeting with numerous senior Commission staff members that they would "protect" flight testing. However, the aerospace industry has yet to see any proposal along this line from the WCS Parties.

[6] *See, e.g.*, substantial service showings by Horizon for KNLB-315, KNLB-316, KNLB-312, KNLB-210, and KNLB-317 and for Comcast, WPQL-632, KNLB-284, KNLB-283, KNLB-282, KNLB-281, KNLB-280, WPQL-633, and KNLB-278. NextWave, for its part, appears to have no WCS subscriber base, and to AFTRCC's knowledge, NextWave has never filed a substantial service showing. Likewise, NextWave's latest SEC Form 10-Q reveals no operating revenue from WCS subscriber services. NextWave has been reported as seeking to sell its U.S. spectrum licenses. See http://www.rcrwireless.com/article/20080724/FREE/597451277/1078/newsletter33.

[7] Consolidated Request of the WCS Coalition for Limited Waiver of Construction Deadline for 132 WCS licenses, 21 FCC Red 14134 (WTB 2006) at para. 13.

NextWave asserts that the interference scenarios examined by AFTRCC are "implausible." Id. at note 6. But there is nothing "implausible" about examining the effects of WiMax mobile/portable devices in the upper stories of office and apartment buildings with a clear view of AMT receive sites near metropolitan areas. These are precisely the sort of areas where WiMax-equipped subscribers are likely to be found.

In fact, the WCS Coalition, of which NextWave is a part, found nothing at all improbable in AFTRCC's deployment scenarios -- on the contrary, the Coalition has admitted that mobile, portable, and fixed subscriber premise equipment "could be located at street level, or in the upper stores of high-rise office or apartment buildings, with a clear view of telemetry ground stations."[8]

Furthermore, contrary to NextWave's assertions about impact, AFTRCC has submitted detailed engineering analyses demonstrating that the 43 + 10 log (P) level would, in fact, result in serious interference to flight safety communications. Based, among other things, on the low noise floor of telemetry equipment and the need to compensate for fading effects from aircraft undergoing test maneuvers, there is no margin to spare safely. Moreover, the analyses show graphically what the impact is to flight testing if the current rule is not tightened. AFTRCC's analysis is entitled to controlling weight in contrast to NextWave's generalized claims.[9]

Next, NextWave argues that the rules sought by AFTRCC would be disruptive to WCS operators. But again, there has been extremely limited use of the WCS band to date, and thus a limited universe of equipment that would be affected. AFTRCC would not object to allowing a reasonable grandfathering period for what limited WCS equipment there may be, say, one year -- the same amount of time WCS has proposed to allow SDARS repeaters.[10]

NextWave inexplicably asserts that the OOBE standard proposed would provide greater protection for the aerospace industry than federal government users. But NextWave overlooks that this is a shared, Government/Non-Government band; that the Companies do much of their flight test work in this band with and for Government agencies; and that the rules adopted here -- rules which will apply to the parties under the jurisdiction of the Commission that would cause the interference -- will protect federal flight test operations from WCS OOBE just as much as they will protect commercial flight test operations.

Finally, the WCS Parties argue that adoption of the rules proposed by the aerospace industry would "adversely impact the ability of WCS licensees to productively utilize the 2305-2320/2345-2360 MHz band for the provision of wireless broadband services" including in the A

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[8] Reply Comments of the WCS Coalition filed March 17, 2008 at p. 52 (emphasis added). Telemetry receive antennas are typically mounted on towers up to 100 feet above ground level, and are oriented frequently at the horizontal level.

[9] NextWave cites to a 2002 Order where the Commission re-allocated 2385-2390 MHz to shared use as between flight testing and non-aeronautical mobile telemetry use. November 23 ex parte at note 4. However, as NextWave notes the band was returned to the flight test inventory shortly thereafter. There was no basis upon which to develop the kind of impact analysis presented in this proceeding informed as it is with a specific deployment plan for a specific technology.

[10] Ironically, disruption has not seemed to be a concern for NextWave or other WCS proponents when they opposed grandfathering hundreds of DARS repeaters. *See* Comments of the WCS Coalition filed February 14, 2008 at page 41 ("under no circumstances should the Commission grandfather the temporary terrestrial repeaters Sirius and XM have deployed under cover of STAs").

and B blocks.[11] But no support is offered for this assertion. Moreover, it is belied by recent AFTRCC ex partes demonstrating that 70 + 10 log (P) is eminently achievable for mobile devices. By contrast, interference to flight testing can curtail flight test operations, impose significant costs on manufacturers and the taxpayer--and jeopardize flight safety.

To the extent the WCS Parties are meaning to refer to an inability to use equipment approved for use elsewhere, their argument is undermined by the fact that their equipment will likely be required to meet a standard significantly tighter than 43 + 10 log (P) just to protect SDARS. Moreover, the WCS argument pales in comparison to the protection of flight safety communications -- a consideration which, as shown below, the Commission and the United States have insisted upon both domestically and internationally as against competing interests **including, in particular, competing mobile uses of the 2310-2390 MHz band.**

In particular, the Commission has long recognized that flight testing is a safety service which must be protected "from harmful interference that could result in loss of life."[12] It has likewise determined that the telemetry bands should be classified as Restricted and protected from fundamental emissions of unlicensed devices. In so doing, the agency stressed that the telemetry band "involv[es] safety of life."[13]

In the same vein, the Commission has recognized that the potential cost to manufacturers and the taxpayer from interference to telemetry is significant, e.g. "[F]light test, telemetry, and telecommand operations are vital to the U.S. aerospace industry to produce, deliver, and operate safe and efficient aircraft and space vehicles."[14]

Consistent with this, the United States took extraordinary measures at the 2007 World Radiocommunication Conference to protect the S-band for flight testing as against the kind of use envisioned by WCS, obtaining the following reservation:

> "The United States of America and Canada refer to footnote number 5.394 of Article 5 of the Radio Regulations concerning the use of the 2 300-2 390 MHzband in the United States and the 2 300-2 400 MHz band in Canada and state that, in application of the Final Acts of the World Radiocommunications Conference (Geneva, 2007) in those bands, **the aeronautical mobile service for telemetry has priority over other uses by the mobile services.**"[15]

* * *

[11] November 26 ex parte at 1, 3.

[12] *In the Matter of Amendment of Part 2 of the Commission's Rules Regarding Implementation of the Final Acts of the World Administrative Radio Conference, Geneva, 1979,* FCC 84-306, released July 2, 1984, at 2.

[13] *In the Matter of Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency Devices Without an Individual License,* 4 FCC Rcd 3493, 3502 (1989).

[14] *Second Notice of Inquiry in GEN. Docket No. 89-554, In the Matter Of An Inquiry Relating to Preparation for the International Telecommunication Union World Administrative Radio Conference for Dealing with Frequency Allocations in Certain Parts of the Spectrum,* FCC 90-316, 5 FCC Rcd 6046, 6060, para. 101 (1990).

[15] Declaration No. 78, Document 427-E (WRC-07) (emphasis added).

The aerospace industry has no competitive axe to grind against WCS. Unfortunately, lacking any proposal from the WCS Parties, the industry has had no alternative but to develop one of its own. Accordingly, AFTRCC urges that the WCS arguments be rejected, and AFTRCC's proposals adopted.

Respectfully submitted,

William K. Keane

Counsel for Aerospace and Flight Test Radio Coordinating Council

Attachment

cc: The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell

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