

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

In the Matter of	)	
	)	
Amendment of Part 27 of the Commission’s	)	
Rules to Govern the Operation of Wireless	)	WT Docket No. 07-293
Communications Services in the 2.3 GHz Band	)	
	)	
Establishment of Rules and Policies for the	)	IB Docket No. 95-91
Digital Audio Radio Satellite Service in the	)	GEN Docket No. 90-357
2310-2360 MHz Frequency Band	)	RM-8610

**CONSOLIDATED REPLY  
OF THE WCS COALITION**

The WCS Coalition, by its attorneys and pursuant to Section 1.429(g) of the Commission’s Rules, hereby submits its consolidated reply to the filings made by the Boeing Company (“Boeing”) and the Aerospace and Flight Test Radio Coordinating Council (“AFTRCC”)<sup>1</sup> opposing in part the WCS Coalition’s Petition for Partial Reconsideration<sup>2</sup> of the *Report and Order* in this proceeding.<sup>3</sup>

---

<sup>1</sup> See Opposition of the Aerospace and Flight Test Radio Coordinating Council to Petitions for Reconsideration, WT Docket No. 07-293, *et al.* (filed Oct. 18, 2010) [“AFTRCC Opposition”]; Opposition of the Boeing Company, WT Docket No. 07-293, *et al.* (filed Oct. 18, 2010) [“Boeing Opposition”]. In their filings, AFTRCC and Boeing also oppose the proposal by AT&T Inc. (“AT&T”), which the WCS Coalition has endorsed, to permit mobile devices to transmit in the 2347.5-2360 MHz band when frequency division duplex (“FDD”) technology is deployed, just as is permitted when time division duplex (“TDD”) technology is used. See AFTRCC Opposition at 8-10; Boeing Opposition at 8-9. In the interest of brevity, the WCS Coalition will refrain from addressing these arguments in detail. Instead the WCS Coalition incorporates by reference the response being submitted today by AT&T, which establishes that there is no rational basis for precluding FDD mobiles in a band where TDD mobile operations are clearly permitted.

<sup>2</sup> See Petition of the WCS Coalition for Partial Reconsideration, WT Docket No. 07-293, at 7 (filed Sept. 1, 2010) [“WCS Coalition Petition”].

<sup>3</sup> Amendment of Part 27 of the Commission’s Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, *Report and Order and Second Report and Order*, 25 FCC Rcd 11710 (2010) [“*Report and Order*”].

The question before the Commission is straightforward – what role, if any, should Recommendation ITU-R M.1459<sup>4</sup> play in the coordination process between Wireless Communications Service (“WCS”) licensees and the Aeronautical Mobile Telemetry (“AMT”) community as mandated by newly-adopted Section 27.73(a)? Appreciating the inherent limits of ITU-R M.1459, Paragraph 184 of the *Report and Order* would appear to answer that question, stating in no uncertain terms that “although the interference protection mechanism outlined in Recommendation ITU-R M.1459 has been used in the past for the coordination of base stations and AMT receivers, we will rely upon the AMT entity and the WCS licensee to use accepted engineer practices and/or standards to evaluate each AMT/WCS deployment based on the relevant operating characteristics and to come to a mutually acceptable agreement.”<sup>5</sup>

The latest filings by AMT interests only reinforce the need for the Commission to clarify that WCS deployment will not be held hostage to ITU-R M.1459. The WCS Coalition appreciates that AFTRCC now promises that in coordinating with WCS interests as required by Section 27.73, it will “take into account local conditions,”<sup>6</sup> citing line of sight obstructions, the actual performance characteristics of the AMT receive antennas, pointing angles and field of view as examples of the sorts of elements it is prepared to consider during the coordination process.<sup>7</sup> Boeing also acknowledges that coordination must “tak[e] into account local conditions and the relevant operating characteristics of both systems.”<sup>8</sup> Indeed, Boeing concedes that “[t]he ITU-R Recommendation . . . makes certain assumptions about the characteristics of a subject AMT receive antenna” and where an AMT facility

---

<sup>4</sup> Recommendation ITU-R M.1459, *Protection Criteria for Telemetry Systems in the Aeronautical Mobile Service and Mitigation Techniques to Facilitate Sharing with Geostationary Broadcasting-Satellite and Mobile-Satellite Services in the Frequency Bands 1 452-1 525 MHz and 2 310- 2 360 MHz* (2002) [“ITU-R M.1459”].

<sup>5</sup> *Report and Order*, 25 FCC Rcd at 11786 (citations omitted).

<sup>6</sup> AFTRCC Opposition at 5.

<sup>7</sup> *See id.* at 5-8.

<sup>8</sup> Boeing Opposition at 6.

does not comport with the “relevant operating characteristics,” appropriate “protection characteristics for that AMT receive antenna” will have to be developed.<sup>9</sup>

Unfortunately, while Boeing’s suggestion that Paragraph 184 and the current iteration of Section 27.73(a) can be read in harmony may have some surface appeal, it is belied by the record in this proceeding. Boeing appears to recognize that the power flux density limits set forth in the *recommends* section of ITU-R M.1459 cannot be slavishly applied without regard to the particular circumstances.<sup>10</sup> However, AFTRCC continues to advocate use of the power flux density limits set forth in the ITU-R M.1459 *recommends* as hard limits without regard to whether they are appropriate for the AMT operations at issue.<sup>11</sup> This illustrates the problem that the WCS community will face in attempting to coordinate WCS broadband deployments unless the Commission strikes the unnecessary reference to ITU-R M.1459 in Section 27.73(a) and makes clear that the flexible approach of Paragraph 184 controls.<sup>12</sup>

AFTRCC’s position regarding the application of the *recommends* limits is impossible to square with the language of ITU-R M.1459 itself. The Recommendation states that the power flux density values in the *recommends* of ITU-R M.1459 are “needed for protection of the aeronautical mobile service for telemetry systems in the 2 310-2 360 MHz band shared with the BSS (DSB).” Thus, on their face the *recommends* limits have no applicability to AMT facilities in the 2360-2390 MHz band. Nor do they have applicability to potential interference from terrestrial sources. Moreover, as noted in the WCS Coalition Petition, ITU-R M.1459 concedes both that “telemetry

---

<sup>9</sup> *Id.* at 7.

<sup>10</sup> *See id.* at 6-7. Of course, given this concession, one must ask what purpose is served by retention of the reference to ITU-R M.1459 in Section 27.73(a).

<sup>11</sup> *See* AFTRCC Opposition at 6; WCS Coalition Petition at 15, *citing* Letter from William K. Keane, Counsel to AFTCC, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 07-293, *et al.*, at 1 (filed June 22, 2010).

<sup>12</sup> Indeed, while Boeing suggests that the Commission can take comfort in AFTRCC’s experience as a frequency coordinator (*see* Boeing Opposition at 6), the record shows that AFTRCC has over-reached in seeking to protect the interests of its members. *See* WCS Coalition Petition at 16 n.33.

stations in the aeronautical mobile service have a wide range of characteristics *and some may have less stringent protection criteria values*” than are reflected in the Recommendation<sup>13</sup> and that “pfd’s are currently specified in a 4 kHz bandwidth [and that] limiting the interference levels in such a narrow bandwidth may *lead to overly protective criteria.*”<sup>14</sup> Given that the Recommendation acknowledges that the power flux density limits in the *recommends* section can result in the over-protection of AMT facilities, it is imperative that WCS/AMT coordination be based on the actual protection need of the AMT facility (as called for by Paragraph 184), and not by the arbitrary limits of ITU-R M.1459.

Finally, there is no merit to AFTRCC’s suggestion that the WCS Coalition’s request for modification of Section 27.73(a) is somehow barred by Section 1.429 of the Commission’s Rules.<sup>15</sup> The record before the Commission leading up to the adoption of the *Report and Order* established that ITU-R M.1459 was not an appropriate foundation for coordination between WCS and AMT interests,<sup>16</sup> and the WCS Coalition’s own filings clearly established that the Commission’s regulatory regime for mitigating WCS interference to AMT must be based on the actual operating characteristics of both the potential interferer and the potential victim.<sup>17</sup>

The WCS Coalition’s proposed modification of Section 27.73 is merely a response to the disconnect between the language of Paragraph 184 (which is consistent with the WCS Coalition’s filings) and that of Section 27.73(a) – an inconsistency that was not apparent until release of the *Report and Order*. Importantly, there was no reference whatsoever to ITU-R M.1459 in the draft rules

---

<sup>13</sup> WCS Coalition Petition at 16, *citing* ITU-R M.1459 at 2 (emphasis added).

<sup>14</sup> *Id.* at 16 n.35, *citing* ITU-R M.1459 at 13 (emphasis added).

<sup>15</sup> See AFTRCC Opposition at 4-5.

<sup>16</sup> See, e.g., Comments of GE Healthcare, WT Docket No. 07-293, *et al.*, at 2-3 (filed Apr. 23, 2010) (“The ITU-R M.1459 recommendation contains numerous cautionary statements as to its potential to yield overly conservative and incorrect conclusions if misapplied.”) (citation omitted).

<sup>17</sup> See, e.g., Comments of the WCS Coalition, WT Docket No. 07-293, *et al.*, at 10-11, App. A at xiv and App. B (filed Apr. 23, 2010).

put out for comment by the Wireless Telecommunications Bureau and the International Bureau on April 2, 2010 (much less the specific reference adopted in the *Report and Order*) and thus there was no reason for the WCS Coalition to address the applicability of that Recommendation at that time.<sup>18</sup> Ironically, the current assertion by AFTRCC that the disputed language must be retained to protect AMT cannot be squared with AFTRCC's failure to suggest the addition of a reference to ITU-R M.1459 to the draft of Section 27.73(a) when it filed its comments and its unauthorized reply comments in response to the *Technical Public Notice*.<sup>19</sup>

Elimination of the reference to ITU-R M.1459 in Section 27.73(a) is the best available approach to providing the WCS and AMT communities with clarity regarding the interplay between Paragraph 184 and newly-adopted Section 27.73(a). Doing so should facilitate the coordination process that will have to be completed prior to deployment of many WCS base stations. Therefore, the WCS Coalition recommends that the Commission amend Section 27.73(a) to read as follows:

(a) Wireless Communications Service (WCS) licensees operating base stations in the 2345-2360 MHz band shall, prior to operation of such base stations, achieve a mutually satisfactory coordination agreement with the Aerospace and Flight Test Radio Coordinating Council (AFTRCC) for any AMT receiver facility within 45 kilometers or the radio line of sight, whichever distance is larger, of the intended WCS

---

<sup>18</sup> Commission Staff Requests That Interested Parties Supplement The Record On Draft Interference Rules For Wireless Communications Service and Satellite Digital Audio Radio Service, *Public Notice*, 25 FCC Rcd 3319 (2010) [the "*Technical Public Notice*"]. Throughout its filing, Boeing characterizes the eleventh-hour NTIA proposal to include the ITU-R M.1459 language ultimately adopted by the Commission as a "compromise" with the WCS Coalition. See Boeing Opposition at 4-5. In fact, however, this language was not a topic of discussion with NTIA, and it was not part of the compromise (which was limited to agreement over the appropriate out-of-band emission restrictions below 2305 MHz and above 2360 MHz). The WCS Coalition never agreed to the inclusion of that language in the rule. Moreover, contrary to Boeing's assertion, NTIA never suggested that the language at issue here is "necessary" to protect AMT facilities or a "critical portion" of its proposal – to the contrary, ITU-R M.1459 is not even mentioned in the detailed, four page NTIA letter explaining the rationale for its draft rules. See Letter from Karl B. Nebbia, Associate Administrator, Office of Spectrum Management, NTIA, to Julius Knapp, Chief, Office of Engineering and Technology, FCC, WT Docket No. 07-293 (filed May 4, 2010).

<sup>19</sup> See Comments of AFTRCC on Public Notice, WT Docket No. 07-293, *et al.* (filed Apr. 23, 2010); Reply Comments of AFTRCC, WT Docket No. 07-293, *et al.* (filed Apr. 30, 2010). The *Technical Public Notice* only provided for a single round of comment, and did not provide for the submission of formal reply comments. See *Technical Public Notice* at 1. Boeing did not submit any comments in response to the *Technical Public Notice*.

base station location. ~~This coordination is necessary to protect AMT receive systems consistent with Recommendation ITU-R M.1459.~~ The locations of the current and planned Federal and non-Federal AMT receiver sites may be obtained from AFTRCC.

Respectfully submitted,

THE WCS COALITION

By: /s/ Paul J. Sinderbrand  
Paul J. Sinderbrand  
Mary N. O'Connor

Wilkinson Barker Knauer, LLP  
2300 N Street, NW  
Suite 700  
Washington, DC 20037-1128  
202.783.4141

Its Attorneys

November 1, 2010

**CERTIFICATE OF SERVICE**

I, Jennifer L. Canose, hereby certify that the foregoing Consolidated Reply of the WCS Coalition was served this 1<sup>st</sup> day of November, 2010, by depositing a true copy thereof with the United States Postal Service, first class postage prepaid, addressed to the following:

William K. Keane  
Forrest R. Avett  
Duane Morris LLP  
505 9<sup>th</sup> Street, N.W., Suite 1000  
Washington, DC 20004-2166

Audrey L. Allison  
The Boeing Company  
1200 Wilson Boulevard  
Arlington, VA 22209

Bruce A. Olcott  
Joshua T. Guyan  
Squire, Sanders & Dempsey L.L.P.  
1201 Pennsylvania Avenue, N.W.  
Washington, DC 20004

/s/ Jennifer Canose  
Jennifer L. Canose