September 25, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: GE Healthcare *Ex Parte*
ET Docket No. 08-59

Dear Ms. Dortch:

In a recent letter,[1] the Wireless Communications Association ("WCA") took issue with a claim made in GE Healthcare's ("GEHC") September 10, 2008 *ex parte* filing that a statement from WCA's May 27, 2008 comments in this proceeding supports the viability of GEHC's MBANS proposal. The WCA statement at issue, as quoted in GEHC's *ex parte*, was:

> WCA has no objection to the proposed reallocation, provided that BSNs truly will be limited to secondary status . . .

This WCA quote was listed with several quotes from other commenters under the general heading, "Comments Support Proposal's Technical Viability." GEHC's rationale for including the WCA quote is simple: both the intent and the objective meaning of the proposed MBANS rules[2] was that MBANS devices (including BSNs) be limited to secondary status, as required under 47 C.F.R. § 2.105(c)(2), thus satisfying the qualifier in the WCA quote.

GEHC has now come to understand that WCA's concern centered around the phrase "in the 2360-2400 MHz band" attached to the draft footnote NG186 and Sections 95.1611 and 95.1617 in GEHC's proposed rules. To be clear, this language was taken from the existing Part 95, Subpart I Medical Implant Communications Service rules.[3] There was no ulterior motive, as theorized in WCA's letter, by GEHC to create a service with "super-secondary status" that would not be secondary to other primary services in all

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[1] *Ex Parte* filing by the Wireless Communications Association International, Inc., ET Docket No. 08-59 (filed Sept. 16, 2008, *Erratum filed* Sept. 17, 2008) ("*WCA Ex Parte*").

[2] *Ex Parte* filing by GE Healthcare, ET Docket No. 06-135 (filed Dec. 27, 2008).

[3] *See* 47 C.F.R. §§ 95.1211(c), 95.1217(a), and 2.106 n. US345.

bands. GEHC intends for MBANS to be secondary in the usual sense, as required by 47 C.F.R.§ 2.105(c)(2) (*i.e.*, secondary to *all* primary services, regardless of frequency band, so long as the primary services operate consistent with their authorizations). In the interest of clarifying GEHC's MBANS proposal and removing any doubt among WCA's members and the Commission regarding GEHC's intentions to secure only "secondary" status for MBANS operations, GEHC now proposes to modify its draft footnote NG186 and Sections 95.1611 and 95.1617 of its proposed rules as follows:

NG186: The 2360-2400 MHz band is allocated on a secondary basis for non-Federal mobile use for Medical Body Area Network Service (MBANS) operations. MBANS mobile and MBANS aeronautical mobile uses are prohibited in the 2360-2390 MHz band. MBANS stations are authorized by rule on the condition that they do not cause harmful interference to, and must accept interference from, stations authorized to operate on a primary basis ~~in the 2360-2400 MHz bands~~.

§ 95.1611 Channel use policy.

* * *

(b) Operation is subject to the condition that MBANS transmitters do not cause harmful interference to, and must accept interference from, stations authorized to operate on a primary basis ~~in the 2360-2400 MHz bands~~.

§ 95.1617 Labeling requirements.

(a) MBANS master transmitters shall be labeled as provided in Part 2 of this chapter and shall bear the following statement in a conspicuous location on the device: "This device may not interfere with stations authorized to operate on a primary basis ~~in the 2360-2400 MHz bands,~~ and must accept any interference received, including interference that may cause undesired operation."

* * *

GEHC would also like to take this opportunity to point out that the concerns raised by WCA in their comments and recent letter do serve to highlight a large "elephant in the room" in this proceeding: namely, the issue, raised by GEHC in several previous filings, which AFTRCC has failed to substantively address, that significant spurious out of band emissions ("OOBE") can be expected into the proposed 2360-2400 MHz band from a variety of sources operating in the same or adjacent bands. These sources include Amateur Radio, ubiquitous Part 15 and Part 18 devices and Part 27 WCS transmitters, which WCA has acknowledged will contribute to "blanketing interference"[4] into the band.

As explained in a recent detailed ex parte letter, MBANS devices would be designed to operate robustly in the presence of such emissions using contention-based protocols and frequency diversity/agility.[5] However, if AFTRCC's account of AMT employing "exquisitely sensitive receivers" operating in a noise-limited mode and located in urban environments, is to be believed, one would expect such OOBE to cause *significant*

[4] Comments of the Wireless Communications Association International, Inc., ET Docket No. 08-59, 3 (filed May 27, 2008).

[5] *Ex Parte* filing by GE Healthcare, ET Docket No. 08-59, 7 (filed Sept. 18, 2008).

interference to AMT operations. More specifically, if AFTRCC's static, worst-case, minimum coupling loss analysis, which it put forth in order to argue that low-power MBANS devices would interfere with AMT operations, is applied to the expected OOBE from these existing services, absurd minimum separation distances are obtained:

- Fundamental emissions of a typical 10 Watt EIRP amateur radio transmission would interfere with aeronautical telemetry operations at a radius of 1,370 km line-of-sight, and the spurious OOBE of such operation, even assuming excellent 60 dB suppression, would interfere with AMT operations at a radius of 4.4 km.
- The allowable, spurious OOBE from a single, 2.4 GHz, Part 15 unlicensed, intentional radiator would interfere with aeronautical telemetry operations at a radius of 1.2 km. Moreover, due to the ubiquity of these devices, aggregation effects would greatly compound this effect.
- The allowable spurious OOBE from a single, 2.4 GHz, Part 18 ISM device (e.g., microwave oven, plasma discharge light, etc.) would interfere with aeronautical telemetry operations at a radius of 4.5 km.
- The allowable spurious OOBE from a single WCS device would interfere with aeronautical telemetry operations at a radius of 17.8 km.

Since, in fact, AMT operations seem to be functioning quite acceptably today in the presence of these types of devices without such separation, it seems obvious that something is wrong with AFTRCC's analysis.

Respectfully submitted,

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