Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

American Hospital Association's	)	
Proposal For Migration Of	)	**DA 03-3178**
Medical Telemetry Equipment	)	
To Wireless Medical Telemetry Service	)	

JOINT INITIAL COMMENTS OF THE AMERICAN HOSPITAL ASSOCIATION AND THE AMERICAN SOCIETY OF HEALTHCARE ENGINEERING

The American Hospital Association ("AHA") and the American Society of Healthcare Engineering of the American Hospital Association ("ASHE"), by their counsel, jointly file these initial comments in response to the Public Notice issued by the Wireless Telecommunications Bureau on October 15, 2003 and in support of the proposed transition plan submitted to the Bureau by letter dated September 23, 2003, from Rick Pollack, Executive Vice President of the AHA ("the Plan").[1] AHA and ASHE commend the Bureau for issuing the Public Notice and seeking comments on ways to ensure a more orderly transition for the migration of medical telemetry equipment out of the 460-470 MHz band and to best safeguard patient safety, AHA and ASHE's primary concern. As discussed more fully herein, because AHA and ASHE are committed to the expeditious, but orderly, transition of existing medical telemetry systems out of this band, we already have begun developing the process for registering existing systems in the

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[1] *See* Public Notice: *Wireless Telecommunications Bureau Extends Freeze On High Power Use Of 460-470 MHz Band Offset Channels And Seeks Comment on American Hospital Association's Proposal For Migration Of Medical Telemetry Equipment To Wireless Medical Telemetry Service*, DA 03-3178, October 15, 2003 ("Public Notice"). AHA and ASHE will not reiterate in these comments all aspects of the AHA Plan but will highlight selected issues and address new or changed factors.

460-470 MHz band, so that the AHA Plan can be adopted without further delay. As discussed below, AHA and ASHE urge the AHA Plan's expeditious approval.

Prior to 2000, the Commission allowed hospitals and other healthcare facilities to use wireless biomedical telemetry devices to monitor patient parameters such as ECG, oxygen saturation, blood pressure, and respiration by sharing channels on a secondary basis in the VHF and UHF TV bands (subject to Part 15 of its rules) and in the 450-470 MHz band (subject to Part 90 of its rules). When the Commission adopted a new channeling scheme to allow high power operations by private land mobile radio service ("PLMRS") licensees, the Commission recognized the potential for increased interference to existing medical telemetry devices and instituted a freeze on the filing of applications for high power operation on the offset channels in the 450-470 MHz band used by medical telemetry devices.[2]

In response to an increasing number of incidents of interference to medical telemetry devices, in June 2000 the Commission established a new Wireless Medical Telemetry Service ("WMTS") to "enhance the ability of health care providers to offer high quality and cost-effective care to patients with acute and chronic health care needs" and to address "concerns that [pre-WMTS] medical telemetry devices are increasingly at risk of harmful interference due to more extensive use of spectrum resources by [TV and PLMRS] applications."[3] On the basis of the record compiled in that proceeding, the Commission initially allocated the following frequency bands to WMTS: 608-614 MHz (shared with TV Channel 37 and with radio astronomy), 1395-1400 MHz and 1429-1432 MHz (the latter two bands are referred to collectively as the "1.4 GHz band").

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[2] Public Notice: *Freeze on the Filing of High Power Applications for 12.5 KHz Offset Channels in the 450-470 MHz Band*, 10 FCC Rcd 9995 (1995).

[3] *Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service*, 15 FCC Rcd 11206 (2000) ("WMTS Order").

In the *WMTS Order*, the Commission also announced its intention to lift the freeze on high power operations in the 450-470 MHz band in two phases, first in the 450-460 MHz band and later in the 460-470 MHz band.[4] With respect to the latter band, where most non-WMTS medical telemetry equipment operates, the Commission expressly noted the AHA's recommendation for a minimum five-year transition period (ending in 2005) before high power PLMRS operations could commence on the offset channels in the 460-470 MHz band. The Commission cited the AHA's concern that with a transition period of less than five years sufficient spectrum would not be immediately available for migration in all locations and that replacement costs could not be absorbed by healthcare facilities in less than five years.[5]

The Commission, however, declined to accept the AHA's proposal for a five year transition period, stating as follows:

> We find that a five-year transition period is longer than is necessary to prepare for the lifting of the freeze in the 460-470 MHz band. The freeze was announced almost five years ago, so hospitals have been on notice that they may eventually have to change frequencies. Equipment is already available to operate in the 608-614 MHz band we are allocating in this proceeding, and **equipment to operate in the [1.4 GHz] bands allocated in this proceeding should become available over the next two years**. Five more years should not be required for hospitals to make the transition. We will therefore lift the freeze on high power land mobile application[s] in the 460-470 MHz band within three years from the effective date of final rules in this proceeding [October 16, 2000]. We will work closely with the FDA to inform and educate the medical community of the impending lifting of the freeze to accelerate this process.[6]

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4 Within a month of the *WMTS Order*, the Bureau lifted the freeze in the 450-460 MHz band, providing interested parties seven months public notice. *See* Public Notice: *Freeze on the Filing of High Power Applications for 12.5 kHz Offset Channels in the 450-460 MHz Band to be Lifted January 29, 2001*, 15 FCC Rcd 9996 (2000).

5 *WMTS Order,* 15 FCC Rcd at 11227 (para. 64).

6 *Id.* at 11227-28 (para. 65) (emphasis supplied).

The Commission's prediction that WMTS equipment capable of operating in the 1.4 GHz band would be available within two years did not prove accurate. Within six months of the adoption of the *WMTS Order*, the Commission initiated a separate rulemaking to develop the technical regulations that would govern the co-channel and adjacent channel land mobile services allocated spectrum in this band – critical information in the development path for WMTS systems. Moreover, and in conjunction with the development of those rules, the Commission separately reexamined the frequencies in the 1.4 GHz band being allocated to WMTS. Until the actual allocation and the rules that would govern other users in the band were finalized, full scale product development could not proceed. The specific allocation for WMTS and the rules governing the use of the re-allocated 1.4 GHz band by WMTS and its frequency "neighbors" were not finalized until August 2002,[7] and as a result, the AHA understands that WMTS equipment in the 1.4 GHz band is not available on a widespread basis in the marketplace.[8]

The delay in the adoption of the rules for the 1.4 GHz band has also caused problems with the ability to find interference-free spectrum in the 608-614 MHz band. ASHE has been made aware of several situations where WMTS deployment in a hospital has been hampered

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[7] *See Reallocation of the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz and 2385-2390 MHz Government Transfer Bands*, 17 FCC Rcd 368 (2002); *Amendment to Parts 1, 2, 27 and 90 of the Commission's Rules To License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz and 2385-2390 MHz Government Transfer Bands,* 17 FCC Rcd 9980 (2002).

[8] Although the AHA expressed in the Proposal its belief that some WMTS equipment was, in fact available for sale, an informal survey of the major manufacturers of WMTS systems suggests that all are still in the process of obtaining required regulatory approvals for the bulk of their planned new product lines.

(and in some instances prohibited) due to existing proximal users in the band.[9] The 1.4 GHz band had been envisioned as alternative spectrum to be used in these instances. In the interim until equipment is available, hospitals are left with few alternatives to coordinate frequency usage.

As discussed in the Plan, the serious budget shortfalls facing hospitals nationwide, as well as the delays experienced by manufacturers in marketing equipment in the 1.4 GHz band, have prevented many hospitals from making the transition to WMTS frequencies. While the AHA anticipates that many hospitals will comment individually to describe their specific circumstances, the Commission must be cognizant of a number of factors that have affected the health care industry generally that have contributed to hospitals' inability to abandon existing equipment in favor of new WMTS facilities. Since the WMTS was created in 2000, health care facilities have had to dedicate substantial financial resources to increased building security and to the emergency preparation for mass terrorist attacks of all types that arose out of the post 9/11 focus on these matters. In addition, health care facilities have expended significant funds to comply with HIPAA, the congressionally mandated health care privacy regulation. And in addition to the direct impact of a slowing national economy on state and federal funding and on individual gift-giving contributions, health care facilities continue to bear the obligation, as the medical facility of "last resort" to treat the ever-growing population of uninsured Americans that also flows from the nation's tougher economic conditions. The Commission must consider that all of these elements have conspired to deny hospitals the capital otherwise anticipated to meet the Commission's initially announced three-year transition. Best efforts and good faith intent

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[9] For example: in one case, a high-powered, adjacent-channel TV station is blocking use of this band for a several mile radius in a major metropolitan area. In another case, a registered WMTS system in one hospital is blocking the use of the band in another hospital across the street.

notwithstanding, a large number of hospitals continue to use the 460-470 MHz band for wireless medical monitoring of patient health and safety. These facts simply cannot be ignored by the Commission in considering what steps need to be taken for this band.

The AHA has been working with its member hospitals and manufacturer members of its Medical Telemetry Task Force since final rules governing the 1.4 GHz band were announced to determine what impact a flash cut lifting of the freeze on or about October 16, 2003 would have on patient care. Over the last nine months, it has become apparent that with many health care facilities still utilizing medical telemetry equipment in the 460-470 MHz band, allowing higher-powered land mobile use in these channels would result in numerous instances of harmful interference, and the resultant endangering of patient safety.

AHA and ASHE applaud the Bureau for decisively issuing the Public Notice to avoid immediate and widespread disruption to medical users in the band, and for seeking comment on an appropriate transition plan. As noted in the Plan, AHA has communicated with the LMCC throughout the development of the Plan, hoping that any solution finally adopted would be one of consensus, and not controversy. While the LMCC's several responses refusing any transitional approach have been disappointing, they have not weakened the resolve of AHA and ASHE to work with the FCC, the Food and Drug Administration ("FDA") and the PLMRS community to formulate a plan for the migration of medical telemetry equipment out of the 460-470 MHz band on a reasonable schedule.

Although the AHA Plan contemplated initiating a six month "notification" period once the Commission had announced its intent to lift the freeze (that is, after the Plan had actually been adopted), the AHA and ASHE already have initiated the efforts needed on their part to be ready for PLMRS use of the band as early as the end of the 180-day freeze extension (April 12,

2004) provided for in the Public Notice. Specifically, ASHE has conducted an informal follow-up survey in which approximately 450 healthcare facilities have indicated that they are currently using the 460-470 MHz band.[10] ASHE also has initiated the efforts needed to expand its current registration process (which covers the WMTS allocated spectrum) to include all hospitals with the need to protect their medical telemetry operations in the 460-470 MHz band during the transition period. It is anticipated that such hospitals will register their geographical coordinates, street address, contact information, equipment manufacturer, model, frequencies and other relevant technical information into the WMTS database, which ASHE intends to compile in a commonly used electronic format (*e.g.*, Microsoft Access) thirty days before the end of the current 180-day extension of the freeze, that is, by March 13, 2004. An electronic copy of the database will be made available to PLMRS frequency coordinators at a nominal fee for their use in assigning high power land mobile operations only to channels that would not create co-channel or adjacent interference to a hospital that registered its operations in the 460-470 MHz band. ASHE also plans to make available periodic updates of the database during the transition period ultimately adopted by the Bureau so that PLMRS frequency coordinators can track hospitals as they migrate out of the frequency band.[11]

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[10] In just a preliminary survey prior to submitting the Plan, the AHA identified more than 165 hospitals, from large urban medical centers and regional facilities to smaller hospitals in less populated areas, which have not been able to migrate from the 460-470 MHz band.

[11] Unlike a more typical frequency coordination database, which is dynamic and changing on a daily basis to add new stations throughout a geographic area, thus requiring constant updating and inter-coordinator communication, once the process of hospital registration is completed in March, the 460-470 MHz database will be relatively static from month to month – not growing at all, and if anything getting substantially smaller over time. Therefore, depending upon the PLMRS demand for channels in any given area, it is likely that a PLMRS coordinator will need very few updates of the information, perhaps as infrequently as quarterly except in those instances where channels are relatively scarce and a coordinator will want to eliminate from its listed information the health care facilities that have moved out of the band.

Because hospitals were not previously required to register or license specific equipment in the 460-470 MHz band, an extensive communication and outreach effort will be needed to contact all affected healthcare facilities. AHA and ASHE have already used their contact information for a substantial majority of healthcare facilities nationwide – and will continue to do so-- but their member rolls do not cover every single hospital. To launch a successful outreach effort, therefore, the Commission's June 2000 intent to "work closely with the FDA to educate and inform the medical community" must be reaffirmed. ASHE and AHA stand ready to work with both agencies, who must become directly involved in publishing official notices to hospitals explaining the need and timing of the migration out of the 460-470 MHz band, and reaffirming the importance of participation in database registration not later than February 15, 2004, so that ASHE can complete the database for use by PLMRS frequency coordinators by March 13, 2004.

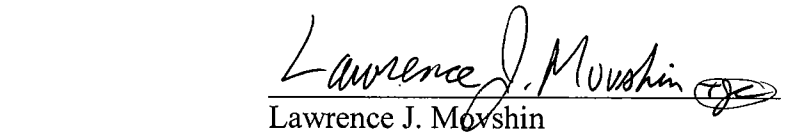
In sum, if an orderly transition for lifting the freeze is not adopted, it is almost certain that interference to existing wireless medical telemetry systems in the 460-470 MHz band will occur. Such interference could prove life-threatening in some cases and may make some hospitals' systems immediately obsolete without the realistic possibility of prompt replacement. We do not believe that such action will serve the Commission's public interest responsibilities in this case. ASHE and the AHA remain willing to compromise with the Commission and the land mobile community on the details of any transition plan, just as we have in the past in considering the spectrum to be allocated for wireless medical telemetry services and the technical rules that might govern that spectrum. However, neither AHA nor ASHE will ***ever*** compromise patient health and safety, and we are sure that this is one tenet that all interested parties in this matter will share. AHA and ASHE appreciate the Bureau's efforts to date to maintain patient safety and

prevent avoidable interference events and look forward to working with the Commission staff, the FDA, and the

representatives of the PLMRS community to fine tune the transition plan in a way that will best serve the public interest.

Respectfully submitted,

AMERICAN HOSPITAL ASSOCIATION
AMERICAN SOCIETY OF HEALTH CARE ENGINEERING



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