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April 9, 2001

Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
TW-A325
Washington, D.C. 20554

Re: *ET Docket No. 00-221*

Dear Ms. Salas:

We enclose on behalf of the American Hospital Association Task Force on Medical Telemetry a copy of its reply comments in the above-referenced proceeding. Please contact the undersigned if you have any questions.

Sincerely,

WILKINSON BARKER KNAUER, LLP

By: Lawrence J. Movshin
Timothy J. Cooney
Jeffrey S. Cohen

cc: Chairman Michael K. Powell
Commissioner Gloria Tristani
Commissioner Susan Ness
Commissioner Harold W. Furchtgott-Roth
Thomas J. Sugrue, Wireless Telecommunications Bureau
William Kunze, Wireless Telecommunications Bureau
Donald Abelson, International Bureau
Thomas S. Tycz, International Bureau
Bruce Franca, Office of Engineering and Technology
Julius P. Knapp, Office of Engineering and Technology
Hugh Van Tuyl, Office of Engineering and Technology
Thomas Mooring, Office of Engineering and Technology

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

In the Matter of	)	
	)	
Reallocation of the 216-220 MHz,	)	ET Docket No. 00-221
1390-1395 MHz, 1427-1429 MHz,	)	
1429-1432 MHz, 1432-1435 MHz,	)	
1670-1675 MHz, and 2385-2390 MHz	)	
Government Transfer Bands	)	

To: The Commission

REPLY COMMENTS OF THE AMERICAN HOSPITAL ASSOCIATION TASK FORCE ON WIRELESS MEDICAL TELEMETRY

The American Hospital Association Task Force on Medical Telemetry (the "Task Force"), by its attorneys and pursuant to section 1.415 of the Commission's rules, 47 C.F.R. § 1.415, hereby replies to comments filed in response to the Notice of Proposed Rule Making in the above-captioned proceeding.[1] The Task Force limited its initial comments to proposals affecting the current allocation of spectrum in the 1.4 GHz band to the Wireless Medical Telemetry Service ("WMTS"), and thus also limits this reply to those commenters who addressed this band or the needs of WMTS. The Task Force urges the Commission to reject proposals inconsistent with the spectrum plan as outlined in the Task Force's initial comments, the only plan that ensures that the amount of spectrum allocated for WMTS is sufficient for effective operations.

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[1] *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,* ET Docket No. 00-221, *Notice of Proposed Rule Making*, FCC 00-395 (rel. Nov. 20, 2000) ("*NPRM*").

I. BACKGROUND

In its comments, the Task Force demonstrated that WMTS users continue to have a substantial need for exclusive use of the spectrum recently allocated for WMTS in ET Docket No. 99-255.[2] Accordingly, the Task Force indicated that it would oppose any action by the Commission which does not protect the full allocation for WMTS in the 1.4 GHz band or that otherwise does not preclude co-channel operations by other services that could create harmful interference to WMTS licensees.[3] Further, the Task Force opposed all three spectrum allocation options proposed by the Commission, because each is based on the mistaken notion that WMTS can share a co-primary allocation with utility telemetry services ("UTS") in only 3 MHz of spectrum.[4] Due to the nature of these services, WMTS and UTS cannot operate on a co-channel basis. The Task Force thus proposed a "modified Option 2," under which WMTS and UTS will effectively be accorded primary status in 2.5 MHz each within the 1427-1432 MHz band and will have secondary access to the other 2.5 MHz, subject to a frequency management plan developed jointly by the Task Force and UTS licensee, Itron, Inc.[5]

II. THE COMMISSION MUST REJECT ANY PROPOSALS THAT REDUCE THE AMOUNT OF DEDICATED SPECTRUM ALLOCATED TO WMTS.

Commenting parties representing the "Little LEO" community have advocated the adoption of band plan option 3, which would shift slightly the WMTS allocation to 1427-1430 MHz and

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2 Comments of the Task Force at 3-6.

3 *Id.* at 2.

4 *Id.* at 6-9.

5 *Id.* at 9-14.

convert this allocation from exclusive to a co-primary status with UTS.[6] As mentioned above, however, the Task Force has already demonstrated that this option is based on the Commission's incorrect assumption, as reflected in the *NPRM,* that WMTS effectively can share 3 MHz of spectrum on a co-primary basis with UTS.[7] In its comments, Itron states that 3 MHz would not be sufficient for effective UTS operations either. Itron explains that if either WMTS or UTS were to use 2 MHz in a market (Itron already operates systems which use 2 MHz), then the one remaining MHz would be inadequate for the other service.[8]

The Task Force notes that no party has challenged the fact that WMTS requires the full 8 MHz already allocated for this service in the 1.4 GHz band. However, because the *NPRM* suggested that co-primary sharing of the 1429-1432 MHz band would be acceptable to the Task Force, parties supporting adoption of option 3 may not have appreciated the fact that this option would in fact reduce the amount of spectrum allocated and required for WMTS.

Thus, both Final Analysis and SIA are incorrect when they each separately state that option 3 is "the only option that considers and accommodates" all parties, including WMTS.[9] Clearly, by compressing WMTS and UTS into 3 MHz, option 3 does not serve the needs of either WMTS or UTS. Only the Task Force's modified option 2 provides a sufficient and acceptable spectrum allocation for both WMTS and UTS.

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6 Comments of Final Analysis Communication Services, Inc. and Orbital Communications Corporation (collectively, "Final Analysis") at 4-12; Comments of the Satellite Industry Association ("SIA") at 2-5.

7 Comments of the Task Force at 7-9.

8 Comments of Itron at 11-12.

9 Comments of Final Analysis at 7; Comments of SIA at 2.

The Task Force also opposes the alternative band plan proposed by MicroTrax. According to MicroTrax, if an allocation of the 1670-1675 MHz band for its proposed Personal Location and Monitoring Service was not feasible, the entire 1.4 GHz band should be divided into a number of portions and assigned via combinatorial competitive bidding.[10] MicroTrax's plan is not feasible because, as an initial matter, the nature of the WMTS is such that the service would be statutorily exempt from competitive bidding. To accommodate WMTS, the Commission would instead need to create a set-aside of 8 MHz, the amount of spectrum currently allocated. In addition, WMTS is unable to share the 1.4 GHz band with incompatible uses, which would be difficult to avoid if adjacent spectrum is auctioned to a variety of licensees. For these reasons, the Task Force cannot accept this alternative plan and the Commission should dismiss this proposal.

III. ADOPTION OF MODIFIED OPTION 2 WOULD ACCOMMODATE ACTUAL SPECTRUM NEEDS FOR WMTS AND BEST SERVE THE PUBLIC INTEREST.

In its comments, Final Analysis outlines several factors in support of an allocation for MSS feeder links in the 1430-1432 MHz band, including the promise of future MSS-based services.[11] However, the spectrum needs of the Little LEOs are uncertain in the face of the current financing problems affecting the mobile satellite industry, and at the very least are not as clearly demonstrated as the spectrum needs for WMTS. In sharp contrast with the record of the uncertain needs of Little LEOs, the record developed by the Task Force's comments in both this and the WMTS proceedings clearly shows that the spectrum needs for WMTS are known, existing, realistic, and critically necessary for the public safety.

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[10] Comments of MicroTrax at 9-11.

[11] Comments of Final Analysis at 4-12, 15-18.

As summarized in the Task Force's comments,[12] the wireless medical telemetry community has conclusively demonstrated that it requires all of the spectrum allocated to the WMTS, in order to accommodate the growing need for wireless medical telemetry, overcome spectrum shortages, prevent potentially hazardous interference problems, and to provide the numerous medical and therapeutic benefits that flow from the availability of reliable spectrum for wireless medical telemetry devices.

The Commission noted "there is insufficient spectrum available to accommodate all of the petitions and requests," and thus invited comment on how to ensure that the spectrum is put to the best use.[13] The case for adopting modified option 2 is strengthened when the benefits of WMTS are coupled with the Task Force's efficient spectrum sharing plan which accommodates other users. Specifically, as a result of the diligent and cooperative efforts of the Task Force and Itron, both WMTS and UTS licensees will be able to share this spectrum notwithstanding the co-channel technical incompatibilities of wireless medical telemetry and utility telemetry. Therefore, the FCC can maximize the use of the 1427-1432 MHz band by adopting the Task Force's modified option 2 and associated spectrum management plan with Itron.

The Commission has already determined in the WMTS proceeding that its allocation of 8 MHz of dedicated spectrum in the 1.4 GHz band for WMTS serves the public interest, and there is no new reason for reversing this decision in light of the absence of challenges to the amount needed by WMTS. Furthermore, the original allocation of dedicated spectrum for WMTS in the 1429-1432 MHz band was part of a delicate balance involving other spectrum allocations, such as the need to

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12 Comments of the Task Force at 3-6.

13 *NPRM* at ¶30.

migrate wireless medical telemetry devices out of the 450-470 MHz band used primarily by private land mobile radio services. If the Commission decides to reduce the original WMTS spectrum allocation in the 1429-1432 MHz band by converting it from exclusive to shared, WMTS licensees would have to find replacement spectrum, resulting in a ripple effect that would place other allocation plans that are dependent on the current WMTS allocations in jeopardy.

IV. IF THE COMMISSION WERE TO ADOPT OPTION 3, THE COMMISSION WOULD NEED TO ENSURE THAT MSS FEEDER LINKS WOULD NOT CAUSE HARMFUL INTERFERENCE TO ADJACENT WMTS OPERATIONS.

Option 3 is unacceptable to the Task Force because this option does not provide enough shared spectrum for WMTS and UTS to avoid co-channel interference problems. Thus, SIA is mistaken when it states that WMTS would receive the same amount of spectrum under option 3 as it received in the WMTS Order.[14] SIA ignores the fact that under option 3 the WMTS allocation becomes shared and that WMTS and UTS cannot operate co-channel.

Final Analysis claims that it can adequately protect radioastronomy operations, by using certain modulation techniques, relying on an additional frequency offset between the MSS and radioastronomy allocations, and expecting radioastronomy users to employ improved receivers.[15] Furthermore, Final Analysis asserts that MSS would be able to coexist with PMRS, based on a limited number of anticipated ground stations (which are "likely" to be located in remote areas), and a sufficiently low power flux density at the ground level.[16] However, Final Analysis has not made any such showings that Little LEOs can protect adjacent WMTS operations. Whether or not Final

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[14] Comments of SIA at 3.

[15] *See* Comments of Final Analysis at 12-14.

[16] *See Id.* at 14-15.

Analysis believes that the same protections for radioastronomy or PMRS would hold true for WMTS operations is unknown, since Final Analysis does not address interference protection for WMTS at all.[17]

Indeed, the Task Force has concerns about whether Little LEOs can conduct adjacent channel operations without causing harmful interference to WMTS users.[18] The Task Force believes that real-world constraints will require Little LEOs to seek increases in their proposed operating powers. Thus, it is very important that the Commission insist at the outset that the Little LEOs substantially demonstrate that they can operate, and will operate, in such a manner as to ensure that their systems will not cause harmful interference to WMTS operations. Only after the Commission can make such a determination should it consider allocating spectrum for MSS feeder links in bands adjacent to WMTS operations.

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[17] The Land Mobile Communications Council ("LMCC") opposes option 3 because it believes that successful sharing between land mobile and satellite services is not possible, and notes that satellite systems are likely to target large markets. Comments of LMCC at 8. The Task Force is similarly concerned because vital WMTS transmissions occurring at major urban hospitals could be subject to harmful interference from Little LEO operations.

[18] *See* Comments of the Task Force at 10 and n. 21. However, the Task Force remains open to reviewing any new technical proposals from Final Analysis or other Little LEOs which would demonstrate that MSS feeder links can operate without harmfully interfering with WMTS operations.

V. CONCLUSION

For the reasons stated above, the Commission should adopt the Task Force's modified option 2 and reject any proposals which would diminish the amount of spectrum presently allocated for WMTS or lead to unacceptable harmful interference to WMTS licensees.

Respectfully submitted,

AMERICAN HOSPITAL ASSOCIATION
TASK FORCE ON MEDICAL TELEMETRY

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