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JUN 25 1993

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

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

)
Amendment of Part 90 of the
) Commission's Rules to Adopt
) Regulations for Automatic
) Vehicle Monitoring Systems)

ET Docket No. 93-61
RM-8013

To: The Commission

COMMENTS OF THE
UTILITIES TELECOMMUNICATIONS COUNCIL

Pursuant to Section 1.415 of the Commission's Rules, the Utilities Telecommunications Council (UTC) hereby submits its comments with respect to the Notice of Proposed Rulemaking (NPRM), 8 FCC Rcd 2402 (1993), in the above captioned matter.

While not opposing the adoption of rules that will facilitate the development of a Location Monitoring Service (LMS)

combination electric-gas-water utilities serving millions of customers to small, rural electric cooperatives and water districts serving only a few thousand customers. Utility distribution automation systems in the 902-928 MHz band would be impacted by the widespread deployment of location monitoring systems in the 902-928 MHz band. UTC is therefore pleased to have this opportunity to comment on the Commission's proposals.

II. DEVELOPMENT OF A LOCATION MONITORING SERVICE SHOULD NOT PRECLUDE USE OF 902-928 MHz BAND BY UNLICENSED SYSTEMS

A. Background

In the NPRM the Commission proposes to amend its current Rules to enhance the use of automatic vehicle monitoring (AVM) systems in the 902-928 MHz band. AVM systems are used to locate and track vehicles using non-voice methods, and to relay information to and from vehicles. The Commission believes that these systems will likely constitute important components of the future Intelligent Vehicle Highway System and facilitate tracking of cargo in the trucking, railroad, and maritime industry.

The Commission proposes to expand the service to encompass the location of all objects, animate and inanimate, and to allow licensees to provide service on a private carrier basis to individuals, and the Federal Government, as well as all Part 90 eligibles. The Commission also proposes to rename the AVM service as the Location and Monitoring Service (LMS) and to define LMS as:

the use of non-voice signalling methods from and to radio units to make known the location of such units.

Under this proposal LMS systems may also transmit and receive status and instructional messages related to the units involved. The Commission notes that this definition will give licensees the flexibility to use LMS systems to monitor or locate any object and will greatly expand the potential uses for such systems.

There are currently two types of AVM systems. Wideband AVM systems utilize a pulse-ranging multilateration scheme. In this type of system, a wideband (up to 8 MHz) pulse is transmitted from the unit the licensee wishes to locate. The pulse is received at a number of fixed receiver locations. The difference in the time of arrival of the pulse at the various fixed locations is then used to calculate the location of the object.

The other type of AVM systems are narrowband which transmit a signal that is only tens or hundreds of kilohertz wide. In these systems an electronic device, referred to as a tag, is placed in or affixed to the object to be located. When the object passes near one of the system's stations, the station transmits an interrogating signal. The interrogating signal is either modulated with unit-specific information and reflected back to the station's receiver or the tag transmits its own signal in response to the interrogation.

Due to their incompatibility the Commission proposes that wideband and narrowband LMS systems not be licensed on the same spectrum within the 902-928 MHz band. The Commission proposes that wideband LMS systems be licensed on the 904-912 and 918-926 MHz bands and narrowband LMS systems be licensed on the 902-904, 912-918, and 926-928 MHz bands.

B. The FCC Must Adopt Measures To Ensure Against Undue Interference To Unlicensed Operations

While not opposing the adoption of rules that will facilitate the introduction of LMS systems into the 902-928 MHz band, UTC is concerned about the ability of LMS systems and other entities currently occupying the 902-928 MHz band to handle the increased congestion. Of particular concern to UTC is a suggestion by the Commission that Part 15 users may need to be removed from the 902-928 MHz band, or at least restricted in where and how they operate.

A number of utilities operate automatic meter reading equipment and other distribution automation equipment in the 902-928 MHz band on a Part 15 unlicensed basis. While entities that operate on a Part 15 basis are understood to have no interference protection rights, the FCC should not cavalierly dismiss the significant operational and financial investment in equipment that utilities and others have made in the 902-928 MHz band in order to meet the spectrum requirements of an esoteric service

that may not develop.^{1/}

In GEN. Docket 89-354 the Commission specifically amended its rules to facilitate the design and use of spread spectrum frequency hopping devices in the 902-928 MHz band on an unlicensed basis.^{2/} In adopting these rules the FCC encouraged the development of unlicensed spread spectrum systems, stating:

We desire to encourage the development and implementation of this exciting new family of technologies and therefore seek to provide an appropriate regulatory framework in which there is maximum flexibility for the use of spread spectrum systems consistent with the basic precept of the Part 15 rules that non-licensed operations are not to cause harmful interference to established services.^{3/}

To adopt a rule requiring the removal of Part 15 spread spectrum systems, or precluding their use in any significant manner, at this time would constitute a reckless disregard for the substantial time, money and efforts that have gone into the development of these systems.

Further, in its personal communications services (PCS) proceeding, GEN. Docket 90-314, the FCC recognized that allocation of spectrum to unlicensed devices serves the public

^{1/} The Commission previously reviewed utilities' use of other critical systems operating on a Part 15 basis, namely Power Line Carrier (PLC) systems, and adopted reasonable provisions designed to ensure the successful sharing of spectrum by unlicensed PLC systems and licensed radio services. See First Report and Order in GEN Docket No. 87-505, 4 FCC Rcd 3493 (1989), reconsid denied 5 FCC Rcd 7314 (1990).

^{2/} Report and Order, GEN. Docket No. 89-354, FCC 90-233, released July 9, 1990.

^{3/} Report and Order, GEN. Docket No. 89-354, at para. 8.

interest by fostering the rapid introduction of new technologies by permitting manufacturers to experiment with, and directly market to the public, products using new designs and technologies, without the delays associated with a licensed radio service.^{4/}

The FCC should attempt to balance the needs of existing users in the 902-928 MHz band and those of LMS systems by adopting measures to mitigate potential interference. Specifically, UTC urges the Commission to establish three separate bands within the 902-928 MHz band: (1) a wideband LMS band; (2) a narrowband LMS band; and (3) an exclusive Part 15 band. Further, UTC encourages the FCC to require LMS systems to utilize compatible spread spectrum frequency hopping systems featuring "active avoidance" capabilities so that Part 15 systems could continue to occupy the 902-928 MHz band without undue disruption.

IV. CONCLUSION

In adopting rules to facilitate the development of LMS the Commission should attempt to balance the needs of existing Part 15 operations in the 902-928 MHz band and the need for additional LMS systems. LMS systems must not preclude the continued use of the 902-928 MHz band by unlicensed devices.

^{4/} Notice of Proposed Rulemaking, GEN. Docket 90-314, 7 FCC Rcd 5676, 5693 (1992).

WHEREFORE, THE PREMISES CONSIDERED, the Utilities
Telecommunications Council respectfully requests the Commission
to take actions consistent with the views expressed herein.

Respectfully submitted,

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COUNCIL

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June 25, 1993