

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)	
)	
Replacement of Part 90 by Part 88 to)	
Revise the Private Land Mobile Radio)	
Services and Modify the Policies)	
Governing Them)	
)	
and)	PR Docket No. 92-235
)	
Examination of Exclusivity and)	
Frequency Assignment Policies of the)	
Private Land Mobile Radio Services)	

TO: The Commission

**CONSOLIDATED COMMENTS OF UTC ON PETITIONS FOR
RECONSIDERATION**

Pursuant to Section 1.429 of the Commission's Rules, UTC, The Telecommunications Association (UTC),¹ respectfully submits the following comments on a number of the "petitions for reconsideration" filed on the rule changes adopted in the *Report and Order (R&O)*, FCC 95-255, released June 23, 1995, in the above-captioned rulemaking proceeding.² In this proceeding, the FCC has adopted rules and policies

¹ UTC, The Telecommunications Association, was formerly known as the Utilities Telecommunications Council.

² On September 6, 1995, at 60 Fed. Reg. 172, the Federal Register indicated that an earlier Federal Register published at 60 Fed. Reg. 4480, on August 29, 1995, had inadvertently omitted public notice of the petitions for reconsideration filed in this proceeding. Accordingly, these comments are timely filed being within the proscribed time period of Section 1.429(f) for the actual date of public notice.

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looking toward the more efficient use of the private land mobile radio (PLMR) spectrum below 512 MHz.

As the national representative on communications matters for the nation's electric, gas and water utilities and natural gas pipelines, and as the FCC's certified frequency coordinator for the Power Radio Service, UTC has been an active participant throughout this proceeding. In fact, UTC has itself filed a "petition for reconsideration/clarification" regarding certain aspects of the *R&O*. UTC is therefore pleased to offer the following comments on a number of the petitions for reconsideration.

I. The Commission Adopted The Right Channelization Plan

A number of manufacturers of 5 kHz equipment have requested reconsideration of the Commission's decision to adopt a channelization plan based upon 6.25 kHz channel bandwidths.³ Despite the length of their petitions, these parties have raised no new substantive arguments that should persuade the Commission to reconsider its adopted channelization plan. The issue of the appropriate channel bandwidth has been addressed at length throughout the proceeding and the user community has almost uniformly rejected a 5 kHz based channelization plan.

Contrary to the claims of the 5 kHz manufacturers, the adopted channelization plan will in no way preclude the widespread use of 5 kHz equipment. The rules specifically provide the end user with a choice in technology by allowing the use of

³ E.F. Johnson, Midland International, and Securicor.

equipment that occupies a bandwidth that is less than the maximum allowable bandwidth. It therefore will be left to the marketplace to decide what is the optimum technology. In contrast, if a 5 kHz channelization plan were adopted users would be unable to utilize 6.25 kHz equipment resulting in less choice in the marketplace and in some circumstances a more difficult transition process.

The Commission must also recognize that for the utilities and pipelines that rely on PLMR spectrum for the reliable operation of vital public services, the issue of equipment is not an abstract exercise in what might be technologically possible. Instead, these users have pressing communications requirements that need to be met on an on-going basis. The channelization plan and migration strategy adopted by the Commission provides these users with assurance that private land mobile radio equipment will be available, now, and in the future, that meets their unique operational requirements in terms of capabilities, price and quantity. Further reconsideration of the channelization plan at this point will only serve to delay and add uncertainty to the transition to more narrowband technologies.

II. Treatment Of Low Power Devices

A. Reservation of Low Power Channels Should Be On A Pool By Pool Basis

Several petitions for reconsideration have been filed with regard to the need to ensure the continued operation of low power devices in the PLMR bands.⁴ UTC agrees

⁴ Advanced Meter Reading Technologies (AMRT), Hewlett-Packard Company (HP), Schlumberger Meter Communications Systems (Schlumberger), and Spacelabs Medical.

that low power devices are an important use of the spectrum that need to be accommodated. In the case of the utility industry, a vital low power radio based technology is automatic meter reading (AMR) and other forms of distribution automation/demand side management (DA/DSM) systems. For energy utilities, one key element in the revenue stream is the meter reading. Obtaining this reading on a timely basis in all environmental conditions, and with high accuracy by the implementation of an *automatic* meter reading system can reduce costs. It can also enable demand reads to verify customer billing inquiries on line so that bills are paid more promptly.

An AMR system can also provide additional residential applications such as:

- Tamper detection
- Outage detection (particularly for electric utilities)
- Billing date options
- Remote disconnect/reconnect

Depending on the type of AMR system, this data can either be logged for later polled retrieval, or retrieved in real time.

The above applications also apply in varying degrees to both residential and industrial/commercial customers. In addition, there are some specific requirements for AMR DA/DSM that include:

- Real time pricing
- Demand billing
- Interruptible service contracts (especially electricity)

DA/DSM systems provide a utility with load profile and real time consumption information about its energy distribution system that enables the automatic control and regulation of energy generation and flow.

Because these systems operate at very low power levels, they are an extremely efficient use of the spectrum. UTC understands that there may be other industries with similar needs for low power channels, but there are variations in criticality of operations, scope of operations, and number of channels required.

While UTC concurs with HP on the importance of ensuring adequate spectrum for low power devices, UTC believes that the specific reservation of low power frequencies should be determined by the individual coordinators for a specific consolidated service pool. In this way the coordinators of a particular pool will be able to establish frequencies for low power use or other specialized needs in accordance with the unique requirements of the eligible users of the pool. For example, to the extent medical telemetry devices are licensed in a Business/Commercial Pool, the coordinator(s) of that pool should have authority to designate channels for the operation of medical telemetry devices and compatible systems. It would be unwise to designate channels or licensing restrictions before the pools are defined and the managers of this spectrum have an opportunity to develop plans for the optimal usage of spectrum in each band.

B. Exemption From Technical Standards Should Be Broadened

Schlumberger, AMRT and HP all request that the Commission broaden the Section 90.217 exemption for transmitters operating with less than 120 milliwatts from

having to comply with most technical standards imposed on type accepted equipment.⁵

Currently the rule section only applies only to low power operations licensed in the Business Radio Service. UTC concurs with these commenters that there is no need to restrict the application of this rule section to Business Radio Service licensees.

Expansion of the application of this rule section will provide manufacturers with more design flexibility and thereby provide users with more choices and service capabilities.

Accordingly, UTC urges the FCC to extend the scope of Section 90.217 to include all transmitters operating under 120 milliwatts regardless of the radio service.

III. Flexibility Needed In Administration Of Power/Antenna Height Limits

A. Use of Alternate Propagation Models

In order to curtail overly powerful systems, the Commission adopted a “safe harbor” table of power/height combinations based in large part on a proposal by the Land Mobile Communications Council (LMCC). Under these rules, an applicant is generally not restricted in the size of the service area it may request, but it must be able to demonstrate that its particular power/height combination is not excessive given the area it needs to serve. The rules further allow an applicant to make a special showing if the table would produce an anomalous result, with the frequency coordinator given authority to review and initially pass on the sufficiency of the showing. Several petitioners have noted that the power/height tables were developed using propagation curves based on average terrain conditions, and therefore may yield inaccurate results in certain areas of

⁵ 47 C.F.R. Section 90.217.

the country with extreme variations in terrain.⁶ UTC agrees with these petitioners and therefore supports AICC's recommendation that license applicants should be permitted to base their radio system coverage on any commonly accepted propagation model, provided that the applicant describes the propagation model used and explains why that model will provide more accurate results.⁷ In this way utilities and pipelines operating in unusual terrain will have the flexibility to more readily design systems to meet requisite signal coverage requirements.

**B. Authority of Frequency Coordinators To Impose
More Restrictive Height/Power Limits**

The Association of Public-Safety Communications Officials-International, Inc. (APCO) requests clarification that, at least in the case of public safety, coordinators should be granted the express authority to limit applicants to the parameters necessary to provide an adequate signal up to their jurisdictional boundaries.⁸ While UTC takes no position on this matter with respect to the frequencies coordinated by APCO, UTC believes that the frequency coordinator's role with respect to other PLMR services should remain advisory in nature. However, the rules should reflect the expanded role of frequency coordinators in terms of reviewing applicants' technical submissions and offering recommendations to mitigate potential interference. Specifically, UTC would support LMCC's proposed clarification that a coordinator's recommendation regarding

⁶ Alarm Industry Communications Committee (AICC), p. 6; and American Automobile Association (AAA), pp. 2-3.

⁷ AICC, p. 6.

⁸ APCO, p. 7.

power/height limits be treated as a rebuttable presumption by the Commission with the burden falling on the applicants to demonstrate to the Commission why they need additional power/height, or other system parameters.

C. Definition of New Station

The *R&O* grandfathers existing systems from the application of the new power/height requirements and instead only applies the rules to “new stations.” UTC agrees with LMCC that the FCC should clarify that the term “new station” does not include base and mobile relay facilities that are added to an existing system even if the base and mobile relays are authorized to operate on different frequencies.

IV. Additional Points Of Clarification

A. Alternative Methods Of Demonstrating Efficiency Should Be Allowed

The Commission adopted the following spectrum efficiency standards: (1) as of August 1996, one talk path per 12.5 kHz and/or a data rate exceeding 4800 bits per second per 6.25 kHz; and (2) as of January 2005, one talk path per 6.25 kHz and/or a data rate of 4800 bits per second per 6.25 kHz. Since the primary purpose of the efficiency standard is to ensure that the new radio systems are making efficient use of the spectrum, it would make sense to allow alternative means of demonstrating equivalent or superior efficiency. For example, as Schlumberger notes it can be mathematically demonstrated that a low power utility meter reading concentrator serving hundreds or thousands of end units would exceed the Commission’s standard for channel efficiency. For this reason,

UTC supports Schlumberger's request to reconsider or clarify that the adopted spectrum efficiency standard does not necessarily preclude alternative methods of demonstrating spectrum efficiency.⁹

B. Permissive Changes To Type Accepted Equipment Should Be Allowed

UTC supports the request by the Telecommunications Industry Association (TIA) and Motorola to allow manufacturers to perform "Class II" permissive changes to type accepted equipment that is authorized prior to August 1, 1996, without having to meet the new 12.5 kHz bandwidth requirements.¹⁰ Such changes are often made as a result of changes in manufacturing techniques to accommodate availability of parts and subcomponents. In this way users will be able to maintain their existing equipment throughout its intended useful life.

V. Conclusion

Petitions of 5 kHz manufacturers notwithstanding, the *Report and Order's* channelization plan represents reasoned and balanced approach to the introduction of a range of more efficient technologies into the PLMR spectrum below 512 MHz. This choice should not now be revisited.

As different service pools will have distinct communications requirements the issue of reserving specific channels for particular functions, such as low power devices, is

⁹ Schlumberger, p. 5.

¹⁰ TIA, p. 2; and Motorola pp.3-4.

a matter best resolved by the eligible users of the individual pools. For this reason it is vital that the Commission provide the various coordinators, acting alone in their own radio service or in conjunction with other coordinators in a consolidated radio service, the authority and flexibility to control licensing on channels within the pool in ways that will meet the unique requirements of the users of that radio service.

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

Respectfully submitted,

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September 21, 1995

CERTIFICATE OF SERVICE

I, Kim B. Winborne, secretary with UTC, *The Telecommunications Association*, hereby certify that I have caused to be sent, by first class mail, postage prepaid, this 21st day of September 1995, a copy of the foregoing to each of the following:

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