The subsequent *Final Report* of the Public Safety Wireless Advisory Committee (PSWAC) further supports UTC's consolidation plan. In recommending definitions for the public safety radio services, the PSWAC report notes the close relationship between Emergency Response and Public Service organizations, separating these organizations from commercial/business entities. PSWAC's recommendations are consistent with UTC's that a further separation of these related services makes sense, dividing them into two broad categories — "public safety" and "public service."

> 4.3.2.1 **Public Safety:** The public's right, exercised through Federal, State or Local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare.
>
> > 4.3.2.1.1 **Public Safety Services:** Those services rendered by or through Federal, State, or Local government entities in support of Public Safety duties.
> >
> > 4.3.2.1.2 **Public Safety Services Provider:** Governmental and public entities or those non-governmental, private organizations, which are properly authorized by the appropriate governmental authority whose primary mission is providing Public Safety services.
> >
> > 4.3.2.1.3 **Public Safety Support Provider:** Governmental and public entities or those non-governmental, private organizations which provide essential public services that are properly authorized by the appropriate governmental authority whose mission is to support Public Safety services. This support may be provided either directly to the public or in support of Public Safety services providers.
>
> 4.3.2.2 **Public Services:** Those services provided by non-Public Safety entities that furnish, maintain, and protect the nation's basic infrastructures which are required to promote the public's safety and welfare.[7]

Although preferring to retain the existing pool structure, the PSWAC *Final Report* recommends a consolidation plan substantially identical to UTC's plan:

> If present service pools are consolidated, the subcommittee recommended that three categories be established. These are 1) Public Safety, 2) Public Services, and 3) Business/Commercial, with the Public Safety frequencies identified by service. The services should be ranked according to their relative importance in performing essential Public Safety responsibilities and preserving the nation's infrastructure. Interservice sharing should be authorized only from higher ranked to lower categories, except in shared systems.[8]

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[7] *Final Report* of the Public Safety Wireless Advisory Committee at p. 44; Appendix C, Section 3.1.

[8] PSWAC *Final Report*, at p. 62; Appendix E, Sections 4.4.8-4.4.17.

UTC's proposed restructuring of the PLMR services would parallel comparable efforts to prioritize access to public communications services. In 1988, the FCC adopted the "Telecommunications Service Priority" (TSP) System for National Security Emergency Preparedness.[9] Developed in close coordination with the National Communications System, the National Telecommunications and Information Administration, the Federal Emergency Management Agency, and other federal and state agencies, the TSP System represents a unified national policy on the priorities for provisioning and/or restoring telecommunications circuits in the event of general service disruption.

Under the TSP system, the following categories have been established for "essential" telecommunications services, ranked in order of highest priority to lowest:

1. National Security Leadership — including Presidential communications and intelligence communications.
2. National Security Posture and US Population Attack Warning — including the conduct of diplomatic negotiations and control of military forces.
3. Public Health, Safety, and Maintenance of Law and Order — including:
   a. Law Enforcement
   b. Continuity of critical state and local government functions
   c. Critical logistic functions and public utility services
   d. Hospitals and distribution of medical supplies
   e. Civil air traffic control
   f. Military assistance to civil authorities
   g. Defense and protection of critical industrial facilities
   h. Transportation to accomplish the foregoing functions
4. Public Welfare and Maintenance of National Economic Posture - including:
   a. Distribution of food and other essential supplies
   b. Prevention and control of environmental hazards or damage.
   c. Transportation to carry out these functions.

The services included in UTC's "Emergency Response" and "Public Service" categories are generally those that would also qualify for priority restoration of public communications services under the TSP system. It would be incongruous, and bad public policy, for the FCC to regroup PLMR services in a manner that would diminish the ability of these priority users to access private spectrum when they would otherwise qualify for priority access to public telecommunications services.

B. UTC's Plan Will Result in a More Even Distribution of Frequency Assignments

UTC's three-pool consolidation will result in a more even distribution of frequency assignments. As noted above, prioritization of access to channels can be achieved today only when there is some control at the coordination and licensing stage. UTC's three-pool

[9] See *Report and Order* in Gen. Docket No. 87-505, 3 FCC Rcd 6650 (1988). See also Appendix A, to Part 64 of the FCC's Rules.

consolidation balances the FCC's desire to more evenly distribute frequency usage with the public safety implications of requiring all types of radio users to share the same channels. Consolidation to three pools (as opposed to two pools, for example) will also facilitate the management of spectrum within the consolidated pools.

C. UTC's Approach Will Simplify Interservice Sharing

Permitting intercategory sharing only from higher, more critical pool "down" to the less critical pools and not vice-versa will greatly simply interservice sharing. By limiting the eligibility for intercategory sharing, fewer requests will need to be accommodated. Moreover, once consolidation occurs and underutilized channels are made available, intercategory sharing will likely grow even less frequent.

Unlike other approaches espoused by commercial interests, UTC's approach will protect those channels identified for critical Emergency Response and Public Service entities from poaching by less critical services. In this way, UTC's plan will ensure that each pool will benefit from the refarming efforts to make available additional spectrum. It will not turn into a spectrum "land rush" where only a few services benefit at the expense of all others.

D. UTC's Approach Will Encourage the Use of Advanced Technologies

UTC's plan will also promote the deployment of advanced technologies. This is especially important for the Emergency Response and Public Service categories, where financial oversight by state and local governments and public service commissions makes it more difficult for these entities to deploy systems quickly. By ensuring that channels remain available and that new adjacent operations have similar functional concerns, Emergency Response and Public Service organizations can successfully deploy new, more advanced systems. In some cases, the possibility of intercategory sharing may facilitate the deployment of advanced systems. By permitting sharing between higher and lower ranked services, UTC's plan will allow the development of shared systems, in which the costs of the new system can be divided among the licensees.

III. Two-Pool Consolidation Plans Ignore Practical and Operational Realities of Existing PLMR Licensees

The ill-conceived plans presented by some groups to consolidate the existing radio services into two broad categories are overly simplistic and ignore the needs of those segments of the PLMR community that provide critical public services. A "technical blueprint" recently submitted to the Commission blatantly disregards the distinctions between public service/safety interests and purely commercial interests.[10] Although purporting to be "strictly a technical, non-judgmental document," the proposal is actually highly judgmental and misleading. It is a reflection of the subjective opinions of the author, a trade association representing only a portion of the total PLMR licensees, as to the needs and requirements of all PLMR licensees.

The proposal is premised on the misguided assumption that a two-pool plan can address the needs of users whose operational needs are extremely diverse. Miscalculations in the coordination of commercial interests would undoubtedly cause some hardship on these licensees; miscalculations in the coordination of vital public interests, such as utilities and pipelines, would result in disaster.

A. Problems with Two-Pool Approach

1. The Two-Pool Approach Does Not Present Significant Administrative Advantages or Operational Efficiencies

The blueprint asserts that the two-pool approach will obviate the need for the "costly and cumbersome" concurrence process among the certified frequency coordinators. While true, this is not a unique attribute to the two-pool plan — virtually any consolidation plan will reduce the burden relating to intercategory sharing by reducing the number of services. UTC's three-pool plan, for instance, would likewise reduce this burden, but would also protect public safety/public service operations. The real issue is whether the plan can and will work to ensure efficient use of the spectrum, protect incumbent operations and foster an environment where more advanced, efficient technologies can be implemented. Under these criteria, UTC's three-pool plan is superior.

The blueprint characterizes the two-pool approach as maximizing spectrum efficiencies by eliminating artificial distinctions and cumbersome barriers among the radio services, noting that new digital technologies do not discriminate among users. This is an accurate technological statement, but it does not address the fundamental issue of service consolidation. The issue is not whether the same type of digital radios can be used for different functions in different services, but rather, whether the consolidation plan recognizes the distinction between the level of protection required by different types of users in terms of availability, channel loading and spacing. Ignoring the findings of the Commission, PSWAC and others, the blueprint does not recognize that utilities, pipelines, railroads and other truly public service/safety entities require a greater level of protection for their vital services than purely commercial enterprises.

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[10] "Technical Blueprint," filed January 21, 1996, by the Industrial Telecommunications Association, Inc.

Even the authors of the blueprint recognize that the two-pool plan cannot be effectively administered over the entire band below 512 MHz. Regarding the 470-512 MHz band, they note that "the logic of a two-pool approach breaks down because of the erratic distribution of frequencies among the existing public safety and non-public safety services."[11] For this band, they recommend abandoning their approach and consolidating all services into a single pool. This approach would eliminate even the limited Public Safety protections provided in the two-pool plan, in favor of administrative convenience. The Commission cannot take the easy road out; it must ensure that all public safety services are adequately protected.

2. The Two-Pool Plan Blueprint Threatens Public Safety

In proposing a two-pool approach, the blueprint indicates that its recommended definition for "Public Safety Service" is adapted from the Commission's proposed definition of the term in its public safety *Notice of Proposed Rulemaking*. However, the blueprint does not mention that its proposed definition is actually an amalgamation of several subcategories of "public safety services" developed by PSWAC and tentatively endorsed by the Commission in its *NPRM*. Significantly, the blueprint fails to disclose that its definition omits the "public services" component of the PSWAC proposed definition for "public safety services." Moreover, in proposing the PSWAC definitions the FCC expressed concern that the definition of public safety services be sufficiently broad to encompass utility, pipeline and railroad services.[12] The Final PSWAC Report addresses this concern by explicitly referencing utilities and pipelines in its definition of essential public service infrastructure providers that warrant treatment that is different from other private wireless users.

A fundamental inconsistency in the blueprint is its proposed special protection of the railroad radio services and airport and not other public services. UTC agrees that the railroads and airports have operational and safety requirements that merit different treatment from the majority of the private radio services; however, the authors of the blueprint have not provided any basis to not extend the same protections for other critical public service providers such as utilities and pipelines. In fact, utilities and pipelines may have greater needs for protection of their communications channels due to their unique operating characteristics. Unlike railroads or airports, virtually every location in the US has electric, water and/or gas service; thus, the need for communications channels by these entities is extremely widespread. In fact, many areas have multiple utilities, which greatly increases the need for communications channels to support these services. And unlike airports and railroads, virtually every utility must operate 24 hours a day under all environmental conditions. Clear, reliable communications is essential to providing continuous service.

While refusing to extend protections to the existing public service/safety operations of utilities and pipelines in their plan, the authors of the blueprint correctly recommend that new emergency response channels be allocated for use by these entities. UTC supports the allocation of spectrum to meet emergency response and mutual aid requirements; however, the

[11] *Technical Blueprint* at pp. 8-9.

[12] *NPRM*, WT Docket No. 96-86, at para. 25.

eight paired channels proposed in the blueprint are woefully inadequate. There are over 3,000 utilities operating in the US, many of which share some portions of their operating service territories with other utilities (for example, one area may be serviced by different electric, gas and water utilities). During a major natural disaster such as a hurricane, it is not unusual to have more than 40 neighboring utilities participate in effecting repairs and restoring service. Even if these eight channels were limited to use by utilities and pipelines, which they are not, the channels could not meet these organizations' emergency response or mutual aid needs.

In short, the blueprint sacrifices public safety simply to achieve maximum consolidation of radio services and a larger potential market for its proponent's frequency coordination business.

B. Public Safety Must Be Paramount in Any Consolidation Plan

UTC strongly believes that its three-pool plan is the best solution for consolidating the PLMR radio services. However, if the Commission determines that a two-pool plan is desirable for reasons of administrative ease or convenience, UTC recommends that that services be consolidated into two pools as follows:

NEW CATEGORY	OLD RADIO SERVICES	CHARACTERISTICS
Public Safety	Police (§ 90.19)*	*Services of private and public public organizations which respond to emergencies threatening the safety of life, or property, support emergency response activities or protect the nation's infrastructure* *Denotes services whose channels are afforded special protection
	Fire (§ 90.21)*	
	Emergency Medical (§ 90.27)*	
	Special Emergency (§§ 90.33-55)*	
	Local Government (§ 90.17)	
	Highway Maintenance (§ 90.23)	
	Forestry-Conservation (§ 90.25)	
	Power (§ 90.63)	
	Petroleum (§ 90.65)	
	Railroad (§ 90.91)	
Business/Commercial	Forest Products (§ 90.67)	*Services which are not typically required to respond to emergencies and which are not necessary to protect the nation's infrastructure*
	Film and Video Production (§ 90.69)	
	Relay Press (§ 90.71)	
	Special Industrial (§ 90.73)	
	Business (§ 90.75)	
	Manufacturers (§ 90.79)	
	Telephone Maintenance (§ 90.81)	
	Motor Carrier (§ 90.89)	
	Taxicab (§ 90.93)	
	Automobile Emergency (§ 90.95)	

Under UTC's alternative two-pool plan, "Emergency Response" and "Public Service" systems, which share many similar characteristics, would be consolidated into a "Public Safety" pool. Other licensees would be consolidated in the Business/Commercial pool. This

plan would retain some of the benefits of UTC's three-pool plan by grouping together services based on their functions and would protect services "for which the failure of their PLMR system would create an imminent danger to public safety."[13]

Channel reallocation. Within the expanded Public Safety pool, additional protection would be available for traditional public safety systems, such as those supporting police, fire and ambulance services. Channels currently set-aside for these services could be protected (such as by footnotes in the allocation table), and new narrowband channels associated with these channels could be allocated only to traditional public safety services. Other services in this category, including railroads and utilities, could also seek limited protection for channels currently set-aside for specific safety-related uses. UTC would welcome the opportunity to work with the others in this band to identify these channels.

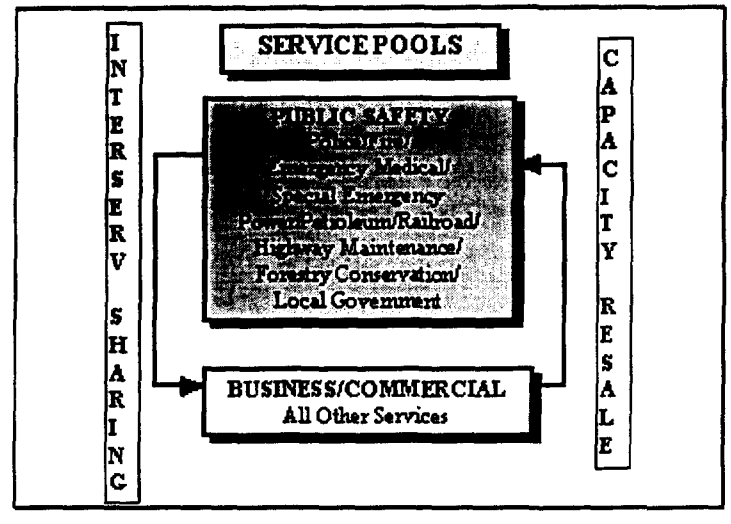

Figure 2— UTC's Alternative Two-Pool Plan

Interservice Sharing. Interservice sharing should be permitted only by Public Safety entities. This will protect Public Safety channels from poaching by Business/Commercial licensees.

Resale of Capacity. As with UTC's three-pool plan, the two-pool plan should permit the leasing of "reserve" capacity only from the lower, less critical category to the higher category. Business/Commercial systems could, therefore, lease "reserve" capacity to any licensee in their own category or in the more critical categories. However, Public Safety systems could only lease capacity to other licensees in their category.

Frequency Coordination. As with UTC's original proposal, UTC would recommend that the FCC adopt sufficiently narrow standards for frequency coordination, and limit coordination of channels in a pool to only those coordinators that have been certified to coordinate eligibles in that pool.

Conclusion

As the Commission moves forward to consolidate the private land mobile radio pools, UTC urges it to consider the unique public service and emergency response functions of existing radio services. To promote efficient spectrum use and protect public safety, the Commission should establish three radio pools: Emergency Response, Public Service and Business/Commercial.

[13] *NPRM, supra* note 4.