

and complement other important new services now under consideration in the Commission's Personal Communications Service inquiry.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Eric DeSilva, hereby certify that on this 23rd day of January, 1991, I served a copy of the foregoing "Petition for Rulemaking" by messenger on the following parties:

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A

APPENDIX A

Excerpts¹ from Reply Comments Concerning
Use of 930-931 MHz for a CT-2 System

GEN Docket No. 90-314
January 15, 1991

A. CT-2 Comments Specifically Referencing the 930-931 MHz
Allocation:

1. Advanced Cordless Technologies, Inc., p 3.

The Commission itself, in its Notice suggested that the three one-MHz vacant allocations at 901, 930, and 940 MHz could be made available for CT-2 use. While we would not oppose such an allocation, we now believe based on recent developments elsewhere, that the Commission should grant the spectrum range of 944-948 MHz to CT-2. This would provide the 40 channels necessary for high density use (40 channels will, in theory, permit almost 20,000 simultaneous calls per square mile). Also, the 944-948 MHz allocation would overlap with the proposed Canadian allocation for CT-2. Such spectrum has now been set-aside in Canada, according to Parke Davis of the D.O.C. in Ottawa.

2. American Personal Communications, pp 1-2.

In its initial comments, APC submitted a comprehensive and concrete set of proposals for inaugurating PCS, urging the Commission promptly:

(1) To initiate a rulemaking to allocate the 901-902, 930-31, 940-41 and 1850-199 MHz bands to PCS. The vacant 900 MHz frequencies should be allocated to PCS outright, while the 1850-1990 MHz band should be allocated on a co-primary basis. By carefully engineering base stations or by using spread spectrum, PCS can, in most of all markets, operate in the latter band without the need to migrate existing users.

. . .

In these Reply Comments, APC will not discuss the above suggestions in detail but will emphasize three additional points . . .

¹ Footnote references have been deleted.

3. GEC Plessey Telecommunications Ltd., pp 45-46.

An allocation of less than four contiguous Megahertz of spectrum for CT-2 will not maximize the potential benefits of introducing CT-2 in the United States. While several commentators correctly note that it is technically possible for CT-2 to operate on three Megahertz of spectrum, an allocation of less than four contiguous Megahertz will reduce the operating capacity of CT-2 equipment to 27/40ths of its optimal capacity. Any additional reduction in the available spectrum allocated to CT-2, i.e., 1 or 2 Megahertz, will further reduce the operating capacity of CT-2 equipment and severely undermine its ability to provide wireline quality communications effectively in high density environments. In addition, an allocation of noncontiguous spectrum to CT-2 will slightly degrade the performance of the equipment making an allocation of contiguous spectrum more desirable.

GPT recognizes that the scarcity of spectrum in the United States makes the allocation of "unused" bands of spectrum in the 800-960 MHz band by the Commission in the Notice an attractive source of spectrum for CT-2. Several commentators have nonetheless filed comments opposing the allocation of these frequencies to CT-2. The position of these parties should be recognized as an attempt to promote their own interests in occupying these frequencies and not as a technical assessment of the capacity of CT-2 to operate on less than four Megahertz of spectrum or the consumer demand for CT-2.

GPT urges the Commission to respond to the consumer demand for advanced PCSs and the ability of CT-2 to meet that need by allocating four Megahertz of spectrum to CT-2, which, if no other source of contiguous spectrum is available, should include the "unused" frequencies identified by the Commission in the Notice. . .

4. MCI, p 21.

If the Commission determines that more than 1 MHz of spectrum should be allocated to CT-2, the virgin spectrum available in the 900 MHz band is the best alternative. Given the limitations of CT-2 and the uncertainty of implementing CT-2 over non-contiguous bandwidths, however, the public interest would be better served by reserving the unused 900 MHz spectrum.

5. Motorola, pp 132-133.

In its NOI, the Commission raised the option of allocating the "slivers" of spectrum at 901-902/940-941 MHz and 930-931 MHz for a CT-2 type service. These options were raised in the context of spectrum which would allow such a service to be implemented quickly. Motorola supports the rapid introduction of non-licensed CT-2 type local area service for the U.S. However, as noted in our comments to this proceedings, the 900 MHz slivers are inadequate for such a service. Of equal importance, they are needed for expansion of private land mobile and new technology paging services. Fortunately, the 902-928 MHz band offers a much more viable solution for a non-licensed local area service that can be implemented today.

First, the three disparate MHz at 900 MHz mentioned as candidate spectrum are inadequate for a viable U.S. CT-2 type of service. As a benchmark, Canada which has total population of approximately one tenth that of the U.S. and core city population densities significantly less than those in the U.S. has planned to allocate 944-948 MHz initially for CT-2 with possible expansion up to 952 MHz, or a total of 8 MHz of spectrum.

Second, these three MHz should be maintained as originally envisioned for expansion of existing private land mobile systems currently operating at 896-901/935-940 MHz and to provide for advanced technology paging at 930-931 MHz. All 896-901/935-940 MHz private land mobile channels have been licensed in Chicago, Dallas, Houston, Los Angeles, New York, and San Francisco in the Industrial pool and in Chicago, Dallas, Los Angeles, New York, Philadelphia, San Francisco, and Washington in the Business pool. In these cities new licensees needing an exclusive channel cannot be accommodated. SMR systems in these major metros are beginning to show signs of sharply increasing loading. Further, the vast increase in the use of laptop and handheld computers has generated a market for one-way electronic messaging which will require additional paging spectrum in the 930 MHz band.

5. Northern Telecom, pp 7-8.

Northern Telecom's initial suggestion that the 930-931 MHz and 940-941 MHz could be well utilized for this application was echoed by several other commenters, although Northern Telecom would not object if other suitable frequencies were specified. The PCI sharing

techniques described in Northern Telecom's initial comments in this proceeding are not dependent on the particular frequencies. This minimal primary allocation of spectrum needs to be combined with the next point, a co-primary spectrum allocation, to form a strong deployment strategy to meet current and near term demands for personal communication.

B. Comments in Opposition to Allocation of 900 MHz Frequencies:

1. American Petroleum Institute, Inc., pp 28-29.

API reiterates its opposition to any allocation of the frequency bands 901-902/940-941 MHz for CT-2 services. This spectrum must be employed to meet the bona fide needs of private land mobile radio users for additional spectrum, consistent with the proposal advanced by the Land Mobile Communications Council. As API noted in its Comments, the two megahertz of spectrum at issue represent the only plausible source of channels that can be allocated to provide an adequate communication capability for responding to petroleum and natural gas emergencies and other similar catastrophes.

2. American SMR Network Association, Inc., p 4.

The Association's Comments clearly explained why the three vacant 1 MHz allocations within the 900 MHz band were ill-suited for a PCS, or even a CT-2, allocation. ASNA noted that the very limited spectrum available in that band, the lack of international interest in PCS service at 900 MHz, the suitability of the frequencies to satisfy more immediately verifiable demands such as the expansion of fully loaded trunked systems all argued against the use of the spectrum for PCS operations.

3. Fleet Call, Inc., p 7.

In its comments, Fleet Call opposed allocating any of the unused 900 MHz land mobile reserve bands for CT-2 services. The American SMR Network Association, Inc. (ASNA) also opposed any allocation of these three one MHz bands for PCS or CT-2. These bands were allocated to the land mobile services to meet future capacity constraints.

There are already shortages of trunked SMR spectrum in the major markets preventing licensees from fully meeting the demand for private dispatch services. The reserve bands can be most effectively employed to relieve congestion on fully loaded trunked systems. Commenters addressing this issue agreed with this conclusion. On the contrary, only a few commenters thought the limited unused 900 MHz bands would be useful for even initial PCS-type service. As Fleet Call stated previously, the demonstrated need for trunked system expansion outweighs the as yet uncertain demand for PCS-type services using this limited spectrum. None of the commenters refuted this conclusion.

4. National Association of Business and Educational Radio, Inc., p 10.

Finally, it is clear from the Comments in this proceeding that any allocation for PCS must include a significant amount of spectrum. The spectrum at 901-902/940-941 MHz is insufficient to satisfy any PCS need. NABER agrees with Motorola that the Commission must discontinue holding this spectrum hostage while it waits interminably for auction authority and NABER calls on the Commission to make the spectrum available for its originally designated use, private land mobile radio.