3. Multi-Frequency Transmitters

Section 22.507 of the proposal would require a separate transmitter for every single channel at each location within a given system. The Federal Communications Commission suggests that this requirement is intended to eliminate the practice among licensees where a single multi-frequency transmitter is being used to operate two or more channels which are otherwise authorized. The Commission believes that such a practice allows inefficient use of the spectrum and warehousing of a valuable natural resource which could be better deployed to other market participants.

Metrocall agrees that the Federal Communications Commission has legitimate concerns for the use of multi-frequency base station transmitters. However, the Commission should not constrain the competitive flexibility needed by radio common carriers to meet their subscriber needs, which in many cases are most economically and efficiently dispatched through the use of a multi-frequency transmitter. There are in fact superior and more effective ways to guard against spectrum warehousing than by providing economic penalty by disallowing multi-frequency transmitters.

With almost thirty years of experience, Metrocall can attest to the economic efficiency and spectral use efficiency of multi-frequency transmitters. In some cases, carriers use such transmitters to provide both local and regional or nationwide paging from a single location. Such a

transmitter can be controlled in a manner that the percentage of time devoted to the local frequency and that devoted to the regional or nationwide channel, are adjusted to meet the relative and often changing loading needs. As the loading increases, the original transmitter can be dedicated to one of the frequencies and a second transmitter added for the other.

These arrangements are used to enhance a variety of services now being introduced into the marketplace, including advanced messaging and mobile data services. A multi-frequency transmitter allows the carrier to initiate service to meet relatively light initial demands for specialized services, while continuing to serve a demanding marketplace for common variety digital display type paging. Two transmitters in this scenario would be constructed only when justified by any increase in demand for the new service. To require the carrier to operate two transmitters at the outset, is a significant economic dislocation which requires the carrier to assign resources to maintaining a transmitter when such resources could better be deployed in the development of the new mobile technology or marketplace.

In yet another example, multi-frequency transmitters are used to facilitate the sharing of common carrier frequencies under time sharing agreements. In this scenario, the transmitter may be used to increase system efficiencies and thereby reduce the cost to subscribers by allowing

a carrier waiting for its time slot in a shared frequency to use the transmitter of a different frequency. In like manner, these multi-frequency transmitters allow for an increase in geographic coverage by sharing frequencies with adjacent systems, thereby enhancing service to the public over a wider area.

A proposed single transmitter - single frequency rule seriously undermines carrier's efforts to achieve economic operating efficiency and to deliver meaningful mobile communication alternatives at competitive pricing to a demanding marketplace.

The current proposal aggravates instead of leveling the competitive disparities between private and common carriers. Currently, there is no such prohibition in the Part 90 rules against 900 MHz and other private carriers, which compete directly with radio common carriers for the same customers in the same markets, from employing multi-frequency base station transmitters for private carrier operations. Thus, to the extent private carriers use multi-frequency base station transmitters for the same purposes as do radio common carriers, the prohibition would place radio common carriers at a distinct and significant economic disadvantage in the marketplace relative to private carriers.

The Commission must not promote such competitive inequalities, especially when the line between private carrier and radio common carriers has been effectively eliminated. Such an action is a disservice to the

people using mobile communications, and in total affect a slowing of new service introduction to the marketplace by forcing carriers to divert developmental resources into the needless area of buying additional transmitters to serve a given market area, especially when they could be equally served by the use of a single transmitter using multi-channels.

Perhaps more importantly, Metrocall respectfully points out to the Commission that prohibiting multi-frequency transmitters does not serve as a deterrent to frequency warehousing. Any carrier who wishes to warehouse a frequency can easily supply a single low cost low power transmitter to maintain traffic on the channel and keep other carriers from filing for that channel. Thus, a prohibition of multi-frequency transmitters would not be a good public policy, particularly in the face of countervailing legitimate uses.

In summary, Metrocall of Delaware agrees that frequency warehousing reduces spectrum efficiencies, but also believes that the proposed approach to preventing warehousing is economically inefficient, does not serve the mobile communications industry, and does not serve the growing marketplace for mobile communication services. It effectively obstructs the legitimate efforts of carriers to offer additional and varied services at cost effective prices to the marketplace. We believe that the Commission should not adopt a proposal which at the outset is known to discourage flexible use of the spectrum and to enhance the reliability,

quality and diversity of public mobile services. This is especially true, in light of alternatives to preventing warehousing.

We urge the Commission to study alternative methods, including forfeitures, and license revocation as alternatives to insuring carriers do not warehouse frequencies to the detriment of the national good.

4. **Station Identification**

Metrocall urges the Commission to revise proposed Section 22.313 to provide for station identification every sixty minutes rather than every thirty minutes, provided there is no traffic waiting to be sent. Licensees currently provide services to the public at speeds up to 2,400 bits per second and thus can send 360 numeric pages of ten digits each in the time it takes to transmit one station identification. If for discussion purposes, we assume a twenty percent busy hour rate, this translates into enough capacity to serve about 1,500 subscribers. Therefore, licensees should be permitted to defer the identification until such time as there is no traffic waiting. Further, licensees should also avoid having to transmit identification every thirty minutes, which in a full busy hour would result in a loss of more than 300 subscriber messages.

Metrocall joins Telocator in urging the Commission to encourage transmission of the station identification every thirty minutes, but require it only every sixty minutes provided there is no public communication ongoing.

5. Additional Channel Policies

Metrocall of Delaware supports the Commission's proposed deletion of the traffic loading requirements now included in the rules. Proposed Sections 22.539 and 22.569 should be revised, however, to provide that an applicant may file for an additional channel once a construction permit is granted. This need is especially important in situations where carriers are experiencing great operating pressure due to consumer demand and growth. Further, there is need to be able to apply quickly above Line A, because of the problem associated with obtaining approvals in a short time.

B. Below 900 MHz Issues

1. Interference Showing

Metrocall joins Telocator in urging that the Commission clarify what constitutes a showing that proposed facilities meet FCC interference requirements. Further, we request that the Commission define how service and interference area boundaries are to be determined. We ask that the Commission consider the role of the basic eight cardinal radials, the role of special radials, and the role of additional offset radials. Last, the Commission should indicate whether an interference contour will be based only on basic eight cardinal radials or whether on an interpolation procedure should be specified.

2. Major/Minor Actions

Metrocall joins the rest of the industry in urging the Commission to incorporate into the regulations the general principle that a Form 489 Notification is required for a minor change if it gives rise to a change in the data base. Licensees should be able to file a Form 489 Notification as an option and thereby gain interference protection from the subject facility. Section 22.99 should include a definition of the term "protected station" to make clear that a protected station is a facility entitled to protection from interference in accordance with the FCC rules.

Additionally, proposed Section 22.163 should recognize minor modifications that require notification to the Commission. Such modifications may include, but are not limited to, minor changes to control facilities, a decrease in the outer composite service or interference contour as might come about through the loss of an outer site.

C. 931 MHz Issues

1. Separation Tables

Metrocall, as well as other carriers, have noted problems with respect to the Commission's proposed separation tables. Particularly, by limiting the initial service area to twenty miles, the Commission's proposal effectively precludes a new station at 2,000 or greater HAAT, since such a facility would create a service contour at a radius greater than twenty miles.

Additionally, the proposed rules do not, as Telocator and other industry members have requested in its 1990 submission to the Commission on Part 22 changes, provide a means for establishing a 931 MHz "fill-in" station less than twenty miles from the outer composite service contour. Metrocall agrees with the Telocator offered extension of the FCC's table that would allow such facilities, while still maintaining the degree of protection inherent in the current mileage separation.

2. **Major/Minor Modifications - 931 MHz Band**

As previously discussed, the Commission should modify its section regarding major/minor modifications to incorporate requirements regarding Form 489 Notification.

3. **Special Concerns**

Metrocall joins Telocator in asking the Commission to adopt a rule prohibiting initial applications (and applications for a stand-alone site) at 931 MHz, unless it would result in at least a twenty mile service contour and a fifteen mile interference contour. Similarly, no perimeter site that is entitled to protection from interference should be permitted with less than a twenty mile service contour and a fifty mile interference contour. These proposed changes would inhibit the filing of applications designed to block the spread of service by wide area systems.

4. Assignment Policy

Metrocall of Delaware joins Telocator in its support of the codification of the Commission's channel assignment policies in proposed Section 22.533. We believe that it is in the best interest of the industry at large to accept the Commission's recommendation as written.

III. CONTROL FREQUENCY ISSUES

A. Major/Minor Modifications

Metrocall urges that the Federal Communications Commission consider the following modifications to control facilities as minor:

- Modifications to 72-76 MHz control stations, provided their is no increase in the height of the center of radiation of the antenna above average terrain, no increase in effective radiated power, and no change in location of the transmitting antenna of more than one mile. The licensee making such changes shall be responsible for remedying at its own expense interference that results from such changes.
- Modifications to 150 and 454 MHz stations used for control, provided the RSAC and IC (as if used for a base station) are not enlarged.
- Modifications to 928, 932 and 959 MHz control stations, provided there is no decrease in required co-channel separation as required under Part 22 of the Commission's rules for such stations.

The Commission should be notified of minor changes to control stations using Form 489 so that the data base may be corrected.

B. Use of Mobile Frequencies

Metrocall of Delaware requests that Section 22.575 be amended to provide that a mobile channel may be used by the licensee of the base station channel, to control <u>any</u> base station licensed to it as long as interference does not result to any other licensee authorized to use the mobile channel. Metrocall concurs with the Telocator position that in determining whether cognizable interference is occurring. The Commission should require that 1) the victim receiver be located within the reliable service contour of the base station with which it is operated, and that 2) the victim receiver to be protected not be higher than the authorized base station. Such control stations should be authorized on a secondary basis with respect to licensees using the channel for mobile services.

IV. AIR-GROUND ISSUES

Metrocall of Delaware has no comments regarding air-ground issues, other than those provided as part of the Telocator industry submission.

CONCLUSION

At this time, the Federal Communications Commission has the opportunity to set a new standard for operating efficiency and economic performance in the mobile communications industry. The preceding comments have been provided in our fervent hope that the Commission may achieve its stated objectives of the Part 22 Revisions. By implementing these changes, the Federal Communications Commission will foster new development of greater spectrum efficiency and will participate in the continued growth and prosperity of mobile communications in the United States.

Metrocall sincerely appreciates the time, effort and commitment of the Commission staff to make meaningful improvements in the Mobile Services Bureau, and remains ready to be of further assistance at any time to the Commission.

Respectfully submitted.

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