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**FEDERAL COMMUNICATIONS COMMISSION**  
WASHINGTON, D.C. 20554

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JUL 20 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Reorganization and Revision of	)	WT Docket No. 94-148
Parts 1, 2, 21, and 94 of	)	
the Rules to Establish a New	)	
Part 101 Governing Terrestrial	)	
Microwave Fixed Radio Services	)	
	)	
Amendment of Part 21 of the	)	CC Docket No. 93-2
Commission's Rules for the Domestic	)	
Public Fixed Radio Services	)	
	)	
McCaw Cellular Communications, Inc.	)	RM-7861
Petition for Rule Making	)	
	)	
Amendment of Part 101 of the Commission's	)	WT Docket No. 00-19
Rules to Streamline Processing of Microwave	)	
Applications in the Wireless Telecommunications	)	
Services	)	
	)	
Telecommunications Industry Association	)	RM-9418
Petition for Rule Making	)	

To: The Commission

**COMMENTS OF THE COUNTY OF LOS ANGELES**

The County of Los Angeles ("the County") hereby submits the following comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM"), FCC 00-33 (released February 14, 2000), in the above-captioned proceeding concerning microwave radio communications.

**I. Background**

The County holds over 90 licenses for microwave stations, which form the backbone of its extensive public safety communications networks. Microwave facilities

provide highly reliable, secure links between sheriff's department, fire department, and other emergency command centers, and tie together the many mobile radio transmitter sites necessary for ubiquitous public safety radio coverage throughout the County's expansive and geographically varied jurisdiction. Many of these links, especially in the 6 GHz band, are new digital facilities installed to replace 2 GHz facilities that the County was forced to vacate as a result of the reallocation of that band.

The County anticipates that it and other public safety agencies in Southern California and across the nation will require substantial amounts of new microwave facilities in the future. In particular, expanded use of wide area, multi-agency, mobile radio communications systems will require many new base stations to provide necessary coverage over relevant jurisdictional areas. Microwave is the only reliable method of linking those base stations in most cases.<sup>1</sup> New communications technologies requiring broadband capability will also lead to expanded public safety needs. In 1996, the Public Safety Wireless Advisory Committee (PSWAC) conducted a comprehensive study of public safety spectrum requirements through the year 2010. Included therein was an analysis of public safety fixed service spectrum requirements, using Los Angeles as the "worst case" scenario. A copy of the relevant portions of the PSWAC Spectrum Requirements Subcommittee Final Report is attached hereto.

The County has also been at the forefront of using microwave spectrum for new public safety applications. In particular, the County is outfitting its Sheriff's helicopters

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<sup>1</sup> Wired connections are rarely viable due to the difficulty in obtaining rights-of-way between transmitter sites, the extraordinary cost (especially for fiber optics), and the lack of reliability relative to microwave. This is especially the case in areas such as Los Angeles which are prone to earthquakes and other natural disasters. Commercial wireline services are also impractical, especially for providing infrastructure for simulcast mobile radio networks which require dedicated communications links.

with live video equipment and has established necessary infrastructure to transmit live full motion video from the air to command and control centers on the ground. This capability will provide commanders with a real time “birds-eye view” of vehicle pursuits, drug sweeps, civil disturbances, hostage and barricade situations, crowd disbursement, man-made and natural disasters, and other emergency situations. Currently, the County operates this system in the 2450-2583 MHz “shared” band. As described below, that has been an unsatisfactory arrangement which restricts the Department’s use of its airborne video capability.

These comments will address first the Commission’s proposals concerning potential auction of microwave spectrum and, second, issues related to shared bands such as 2450-2483 MHz.

**I. AUCTIONS WILL BLOCK PUBLIC SAFETY USE OF MICROWAVE SPECTRUM.**

The Commission has sought comments on several options that would involve the use of auctions to assign licenses in current and future microwave spectrum.<sup>2</sup> The County is opposed to these options, as the result of each would be to block its ability to secure microwave radio spectrum in the future. For example, the Commission queries as to whether it should use auctions to assign blocks of microwave spectrum by geographic areas. Even assuming that incumbent microwave users are protected in such a scheme, geographic licensing through auctions will effectively prevent any future public safety licensing in the band. The only way to obtain future use of microwave spectrum would be either by participating in an auction, or by purchasing frequency rights from the

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<sup>2</sup> NPRM at ¶¶ 75-81.

auction winners. Neither are viable options for most state and local government public safety agencies. Nor should those be the only options available.

Congress has expressly excluded public safety services from spectrum auctions, just as the FCC has long excluded public safety from any regulatory or application fees. Those exclusions are based on the basic principle that state and local government entities should not be forced to pay for radio spectrum necessary for the protection of the safety of life, health, and property. Yet, that is exactly what would happen if Commission used auctions and geographic licensing for microwave spectrum.

Another option for which the Commission seeks comments concerns the relocation of incumbents to clear microwave spectrum for auction. Aside from the cost and disruption to incumbents, there simply is not sufficient alternative spectrum for the displaced systems. The County recently went through the relocation process in the 2 GHz band, and found it very difficult to find replacement frequencies in the spectrum-congested Los Angeles area. The County was also constrained in its frequency selection, as higher frequency microwave bands require much shorter path lengths, and the addition of “repeater” sites. Many of the County’s microwave paths link remote mountaintop sites, for which there may be *no* intermediate location on which to place a new microwave repeaters. Furthermore, zoning problems in urbanized areas have made new site development extraordinarily difficult, if not impossible. Therefore, relocating incumbents is simply not an option in many cases, and must not be relied upon by the Commission in its ill-advised efforts to auction microwave spectrum.

The Commission also seeks comments regarding sharing and segmentation of microwave bands. The County’s fear is that such a process will inevitably reduce the

spectrum for fixed point-to-point operations, and disrupt many existing systems. Finally, the Commission inquires as to whether it should simply use auctions in the rare instances in which there might be mutually exclusive applications for microwave facilities. While far less problematic than the other options posed by the Commission, that could still create difficulties where one or both of the applicants are public safety entities. In short, the Commission should simply accept the fact that auctions are not always the best method of issuing licenses.

If, however, the Commission insists on finding a way to force auctions upon microwave bands, it must accommodate both current and future public safety requirements. In most cases, that will require setting aside spectrum for public safety licensees. As the Commission notes, in addition to “Public Safety Pool eligibles (which would include the County), there are also a class of microwave users that are not eligible in the Public Safety Pool, but are nonetheless exempt from auctions pursuant to Section 309(j)(2)(A) of that Balanced Budget Act of 1997. Many of those are commercial enterprises that require radio communications to fulfill certain safety-related functions. While important, those services should not impede spectrum availability for Public Safety Pool eligibles. Thus, the County would recommend that any “Public Safety Radio Service” set-aside for auction exempt entities including a subset of spectrum reserved only for such entities that are also Public Safety Pool eligibles.

## **II. SHARED BANDS RARELY MEET PUBLIC SAFETY USER NEEDS.**

The Commission also seeks comments regarding “shared bands,” especially the 2450-2483.5 MHz band.<sup>3</sup> This band is allocated by the Commission for fixed or mobile operation under Part 90, Part 101, and Part 74 of its rules, and is also used by a substantial number of unlicensed Industrial, Scientific, and Medical (ISM) devices pursuant to Part 18 of the Commission’s rules. Licensed users of the band in the Los Angeles metropolitan area include television stations, who operate broadcast auxiliary facilities (both “terrestrial” and airborne video) pursuant to Part 74, and public safety agencies who are increasingly using the band for their own live airborne video transmissions pursuant to Part 90.

The County, along with the City of Los Angeles, the City of Long Beach, and the City of Burbank, filed a Request for Declaratory Ruling on September 1, 1999, to seek clarification of the relative rights and privileges of broadcasters and public safety agencies in their use of the 2450-2483 MHz band. A copy of the Request is attached hereto for the convenience of the Commission. As explained therein, the heavy use of the band in Southern California, combined with broadcaster control of the frequency coordination process, has restricted the ability of public safety agencies to fully implement their video operations in the 245-2483 MHz band. Thus, the County urges the

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<sup>3</sup> NPRM at ¶ 40 and ¶ 81.

Commission to address the issues raised in the Request, which has now been pending at the Commission for nearly a year.<sup>4</sup>

Regardless of any clarification of the rules governing the 2450-2483 MHz band, that band demonstrates the difficulty of forcing public safety agencies to share frequencies with non-public safety users, especially for temporary or mobile operations that require constant coordination to avoid interference. Airborne video is the perfect example of where public safety must have dedicated radio spectrum allocations. Otherwise, non-public safety users will rely on their superior resources and numbers to dominate the band to the exclusion of more critical public safety operations. Therefore, the County takes this opportunity to once again urge the Commission to identify and allocate dedicated spectrum for public safety airborne video operations.

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<sup>4</sup> The Commission is also considering the County's long-pending application (File No. 0217 EXPL 1999) for experimental authorization to explore whether the 2402-2450 MHz band can be used for airborne video operations in the Los Angeles area.

## CONCLUSION

For the reasons discussed above, the County urges the Commission to recognize that auctions are not appropriate for microwave spectrum, and to address the County's pending request for clarification of rules governing the sharing of the 2450-2483 MHz band.

Respectfully submitted,

COUNTY OF LOS ANGELES

By:



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July 20, 2000

## APPENDIX I

### PUBLIC SAFETY FIXED SERVICE SPECTRUM REQUIREMENTS

To determine the amount of additional spectrum required by public safety for fixed services through the year 2010, an analysis was completed using the Los Angeles area. The State of California, the County of Los Angeles, and the City of Los Angeles each submitted microwave growth requirement through the year 2010. The results are representative of metropolitan areas as the requirements were based upon population, terrain, density, and extensive need for wireless carrier systems. The following discussion relates to identified needs in the Los Angeles area only.

Projections from the agencies listed above are based on past growth and projected future growth. This analysis includes considerations for new technology. New applications will certainly add to growth projections in the near future. Because there is no specific way to quantify the effect of new applications, spectrum for non-identified purposes is not included.

Based on growth projections, the State of California identifies a need for 68 new digital microwave links. Also, 31 links for the County of Los Angeles, 27 links for Los Angeles City, and 20 links to serve the more than 100 incorporated cities within a 30-mile radius of the Los Angeles Civic Center were identified. In a heavily populated area such as Los Angeles, there is a large capacity (i.e., channel) requirement.

Listed below are the link and band requirements. These requirements were used to calculate the microwave spectrum requirements.

<u>AGENCY</u>	<u>CAPACITY</u>
California State	20 DS3
Los Angeles County	31 DS3
Los Angeles City	26 DS3
	11 OC3
100+ Los Angeles Cities	56 DS1
	21 DS2
	6 DS3
	3 OC3

### PATH LENGTH

<u>CALIFORNIA STATE</u>	<u>20 DS3</u>						
11% =	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-right: 20px;">2 links</td> <td style="padding-right: 20px;">&lt; 16 KM</td> <td style="padding-right: 20px;"><math>\leq 18 \text{ GHz} \geq 6 \text{ GHz}</math></td> </tr> <tr> <td>18 links</td> <td>&gt; 16 KM</td> <td><math>\leq 6 \text{ GHz}</math></td> </tr> </table>	2 links	< 16 KM	$\leq 18 \text{ GHz} \geq 6 \text{ GHz}$	18 links	> 16 KM	$\leq 6 \text{ GHz}$
2 links	< 16 KM	$\leq 18 \text{ GHz} \geq 6 \text{ GHz}$					
18 links	> 16 KM	$\leq 6 \text{ GHz}$					

**LA COUNTY**

**31 DS3**

6 links	< 16 KM	≤ 18 GHz
25 links	> 16 KM	≤ 6 GHz

**100 LA CITIES**

56 DS1	< 16 KM	≤ 18 GHz
21 DS2	<u>11</u>	< 18 GHz
6 DS3	<u>11</u>	≤ 19 GHz
3 OC3s	<u>11</u>	< 11 GHz

**LA CITY**

**26 DS3**

60%	16 links	≤ 16 KM	≤ 6 GHz
40%	10 links	≤ 16 KM	≤ 18 GHz
	(11 OC3)		
	6 links	≥ 16 KM	≤ 6 GHz
	5 links	≤ 16 KM	< 20 DS3

**BANDS**

	2-8 GHz	10-18 GHz
(a) LA CITY	16 DS3 6 OC3	10 DS3 5 OC3
(b) LA CITIES		3 OC3} 6 DS3} 21 DS2} 20 DS3 56 DS1}
(c) CAL STATE	18 DS3	2 DS3
(d) LA COUNTY	25 DS3	6 DS3

A 30-mile radius from the Los Angeles Civic Center was used in calculating the reuse factor. This area was selected as it is the most congested within the greater Los Angeles area, and will continue to have the highest channel loading requirements. Using the FCC's third party database, an inventory of all 6500 MHz to 6900 MHz microwave systems within a 30-mile radius of the Civic Center was completed. This analysis was made to determine what a realistic reuse factor is, based upon real data.

$$\text{Spectrum} = \frac{\text{Links} * \text{BW} * 2}{\text{Reuse Factor}}$$

Using data from the existing 6 GHz (heavily congested) data base for Los Angeles, the reuse factor is 11.8(x12) for this calculation.

### NON-FEDERAL PUBLIC SAFETY SPECTRUM REQUIREMENTS

2-8 GHz

$$65 \text{ DS3 Spectrum} = \frac{65 * 20}{12} = 108.3 \text{ MHz}$$

A higher reuse factor for bands ranging from 10-18 GHz was chosen because the higher frequencies had shorter propagation (even though the lower portion of this range, 11-12 GHz, travels over 30 miles). A factor of 20 was considered reasonable.

$$10-18 \text{ GHz} \quad \text{Spectrum} = \frac{53 * 20}{20} = 53 \text{ MHz}$$

This analysis indicates a total of 161.3 MHz (108.3 MHz + 53 MHz) is required through the year 2010. This recommendation should accommodate other metropolitan areas; less populated areas should require somewhat less additional microwave spectrum.

### EXISTING MICROWAVE ALLOCATION SHARED/PUBLIC SAFETY

<u>BAND (MHz)</u>	<u>SHARED BANDWIDTH AVAILABLE</u>	<u>PUBLIC SAFETY LICENSES</u>	<u>PUBLIC SAFETY BANDWIDTH</u>
900	13 MHz	$\frac{3}{31} = 10\%$	1.3 MHz
2130-2150	20 MHz	$\frac{19}{57} = 33\%$	6.6 MHz
2180-2200	20 MHz	$\frac{18}{55} = 33\%$	6.6 MHz
3720-4100	380 MHz	$\frac{0}{7} = 0\%$	0
5927-6425	498 MHz	$\frac{18}{233} = 8\%$	40 MHz
6525-6875	350 MHz	$\frac{245}{408} = 60\%$	210 MHz
10550-10680	130 MHz	$\frac{45}{167} = 27\%$	35 MHz
10700-11700	1000 MHz	$\frac{23}{179} = 13\%$	130 MHz
17705-18120	450 MHz	$\frac{68}{130} = 52\%$	234 MHz

<u>BAND (MHz)</u>	<u>SHARED BANDWIDTH AVAILABLE</u>	<u>PUBLIC SAFETY LICENSES</u>	<u>PUBLIC SAFETY BANDWIDTH</u>
18762.5-18817.5	55 MHz	<u>26</u> = 50% 52	26 MHz
19102.5-19157.5	55 MHz	<u>20</u> = 48% 41	26 MHz

**Total Existing Public Safety Microwave Spectrum = 715 MHz**

To demonstrate that public safety users are aware of the need to conserve spectrum wherever possible, we compared the ratios of the existing microwave spectrum used by public safety to the spectrum now allocated for voice and data to the new requirements ratio of the same, i.e., present microwave spectrum used by public safety (715 MHz) divided by the present voice/data allocation (23 MHz) = 31.08. Future microwave spectrum required (161 MHz) divided by the future voice/data/video spectrum requirements (95 MHz) = 1.7.

The comparison of these ratios demonstrates the amount of microwave spectrum required for public safety through 2010 is ver conservative; 18 times less than that used by today.

All presently allocated links to which public safety has access are heavily used in the 30-mile radius of the Los Angeles area that was used for this case study. There is a growing demand for the microwave spectrum that is still available in the defined area, including numerous new users such as local and long distance PCS providers, telephone carriers, and cellular providers. It is becoming virtually impossible to license new microwave spectrum.

Another reason for the scarcity of microwave spectrum is that public safety has lost the use of the 1850-1990 MHz band to PCS and the 12.2-12.7 GHz band to Direct Broadcast Satellite systems, a loss of 190 MHz of spectrum. There is also a threat of losing an additional 40 MHz in the 2130-2150 MHz and 2180-2200 MHz bands. The common carrier bands that were made available to public safety to help with the spectrum losses to PCS are extremely congested and will soon be fully utilized as the users in the 1850-1990 MHz are forced to relocate.

This study and the requirements for the microwave spectrum for state and local public safety considered the use of fiber optics and commercial wire lines. These services are being used now and will continue to be used wherever it is practical and not cost-prohibitive. Use of fiber optic links to most mountain top locations where base stations and repeaters are located is cost-prohibitive, has serious right-of-way problems, and is susceptible to earthquakes to fires and flooding (especially in California). High reliability of links is essential to public safety; outages usually affect many circuits and cannot be tolerated.

As an example of fiber optics use, Los Angeles County is presently utilizing 48 DS3 and 12 OC3 fiber links. By the year 2010, they are planning to use 500 DS3 and 150 OC3 links. Agencies such as the City of Los Angeles, the State of California, and other cities presently use fiber and have similar plans for the future.

Assuming the use of commercial wirelines, fiber optics, and new technology, a very aggressive reduction of microwave usage by the year 2010 is projected. The following time frame for required 161 MHz of additional microwave spectrum is provided:

<u>TIME</u>	<u>ADDITIONAL SPECTRUM REQUIREMENTS</u>
Present through 1999	75 MHz
2000 - 2005	50 MHz
2006 - 2010	36 Mhz

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

In the Matter of )  
 )  
REQUEST FOR DECLARATORY RULING )  
 )  
Regarding Use of 2450-2483 MHz for )  
Airborne Video Public Safety Communications )

**RECEIVED**  
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**REQUEST FOR DECLARATORY RULING**

The County of Los Angeles, the City of Los Angeles, the City of Long Beach, and the City of Burbank, California, pursuant to Section 1.2 of the Commission's rules, 47 C.F.R. §1.2, hereby requests that the Commission issue a Declaratory Ruling regarding the use of the 2450-2483 MHz band for public safety operations.

**I. Background**

The 2450-2483 MHz band is allocated by the Commission for fixed or mobile operation under Part 90, Part 101, and Part 74 of its rules, and is also used by a substantial number of unlicensed Industrial, Scientific, and Medical (ISM) devices pursuant to Part 18 of the Commission's rules. Licensed users of the band in the Los Angeles metropolitan area include television stations, who operate broadcast auxiliary facilities (both "terrestrial" and airborne video) pursuant to Part 74, and public safety agencies who are increasingly using the band for their own live airborne video transmissions pursuant to Part 90. The purpose of this Request for Declaratory Ruling is

to seek clarification of the relative rights and privileges of broadcasters and public safety agencies in their use of the 2450-2483 MHz band.

Law enforcement agencies, fire departments, disaster relief agencies, and other public safety services have a growing operational need for airborne video communications systems. Such operations allow live video to be transmitted from helicopters and other aircraft to command and control centers on the ground, greatly facilitating emergency response activities. Providing such a “birds eye view” can be invaluable in coordinating responses to crimes in progress, directing police officers in pursuit situations, battling building and forest fires, controlling civil disturbances, responding to hostage and barricade situations, evaluating and reacting to man-made and natural disasters, facilitating crowd control, addressing terrorist threats, and other emergency response situations. This capability is particularly important in expansive, densely populated areas in Southern California. Aircraft are able to travel quickly to emergency scenes and then transmit live video to command centers, allowing for rapid and accurate emergency response.

Several Los Angeles area public safety agencies are at the forefront of this communications technology. The Los Angeles Police Department currently operates four helicopters equipped with live video cameras and plans to expand video capability to sixteen additional aircraft. Los Angeles County intends to equip three Sheriff's Department and one Fire Department helicopter with video later this year, and the City of Long Beach has two video equipped helicopters. The City of Burbank, the California Highway Patrol, and other public safety agencies serving the Los Angeles area have similar plans for airborne video capability in the very near future.

The City of Los Angeles, the County of Los Angeles, and the City of Long Beach currently hold licenses in the 2450-2483 MHz band, one of the few frequency bands available for this type of airborne video communication. One of the advantages of operating in this general part of the radio spectrum is the availability of video transmitting equipment manufactured and marketed for similar broadcast auxiliary use in the 2 GHz band. For example, the 2450-2483 MHz band is already heavily used by television stations for both terrestrial and airborne electronic newsgathering (ENG) facilities. Nearly every television station in Los Angeles now has a helicopter equipped with live video capability for traffic reports and covering news events, especially police chases and fires. Indeed, this high profile broadcast use of airborne video has led many public safety agencies to question why they lack similar internal communications capability.

The principal problem is that broadcast operations consume most of the frequencies in the 2450-2483 MHz band, at least in the Los Angeles area. This makes it extremely difficult for public safety agencies to gain access to the band for critical emergency operations. While there have been opportunities for public safety agencies to use the band on a limited, pre-planned basis for special events (*e.g.*, parades, sporting events, concerts, *etc.*), the cumbersome frequency coordination process imposed by the broadcasters makes it virtually impossible for public safety to obtain immediate use of the band in unanticipated emergency situations. Ironically, the broadcaster control of the band often results in television viewers having better access to live pictures of emergency scenes than the public safety agencies charged with responding to those emergencies.

## II. Rule Clarification is Necessary

Both broadcasters and public safety agencies operate in the 2450-2483 MHz band under very similar rule provisions. Section 90.20(c) makes the band available for “base or mobile” public safety operations, subject to the following condition in Section 90.20(d)(73)(emphasis added):

Available only on a *shared basis with stations in other services*, and subject to no protection from interference due to the operation of industrial, scientific, or medical (ISM) devices.

Similarly, Part 74 of the Commission’s rules allows for television broadcast auxiliary services on the band subject to the following:

Frequencies shown above between 2450 and 2500 MHz in Band A are allocated to accommodate the incidental radiations of industrial, scientific, and medical (ISM) equipment, and stations operating therein must accept any interference that may be caused by the operation of such equipment. *Frequencies between 2450 and 2500 MHz are also shared with other communication services and exclusive channel assignments will not be made*, nor is the channeling shown above necessarily that which will be employed by such other services.

47 C.F.R. §74.602(a)(1)(emphasis added). Thus, both broadcasters and public safety agencies are required to operate on a shared, nonexclusive basis.

Pursuant to Section 74.604, broadcasters in the Los Angeles area have established voluntary frequency coordination procedures for their use of 2450-2483 MHz and other broadcast auxiliary bands. There is no requirement for Part 90 licensees to abide by or participate in such frequency coordination.

Nevertheless, Los Angeles area public safety licensees have cooperated with the broadcast coordination committee, recognizing the danger of destructive interference in the absence of such coordination. Unfortunately, the coordination

process is controlled by and is heavily weighted in favor of broadcasters. The result is that public safety licensees are often treated as “secondary” users and are rarely able to secure anything more than occasional pre-arranged use of the band for planned special events. Frequencies are not usually available for “on demand” emergency situations for which airborne video capability could be used to save lives and property.

Therefore, the Commission needs to clarify the relative rights and privileges of broadcast and public safety licensees in the 2450-2483 MHz band. Such a clarification will facilitate more equitable and less contentious coordination between licensees. In particular, the Commission should issue a Declaratory Ruling to clarify its current rules regarding use of the 2450-2483 MHz band as follows:

- Broadcasters and Public Safety licensees have *co-equal* status in the band.
- Frequency coordination of the band must include representatives of both broadcast and public safety licensees. Coordination decisions must reflect the co-equal status of licensees.
- Public safety agency use must be given priority in emergency situations that pose imminent threats to the safety of life, health, and property.

In addition, the Commission needs to clarify that Section 90.423 of its rules, which provides that Part 90 operations on board aircraft are “secondary to landbased systems,” does not apply to public safety directional communications

in the 2450-2483 MHz band *vis a vis* Part 74 broadcast “landbased” auxiliary operations in that band (*e.g.*, ENG vehicles). This rule has been cited by some broadcasters in their efforts to stop public safety operations in the 2450-2483 MHz band. However the rule was clearly intended to address omnidirectional mobile radio transmissions below 1 GHz, where high altitude operations on board aircraft could cause significant wide area interference to other Part 90 co-channel or adjacent channel “landbased” operations. The same problem does not apply to directional 2 GHz transmissions from aircraft, which are no more likely to cause interference than are “landbased” transmissions. Indeed, for that reason a similar rule does not govern Part 74 use of the 2 GHz bands.

### CONCLUSION

Therefore, for the reasons discussed above, the Commission must clarify its rules to facilitate public safety operations in the 2450-2483 MHz band. In addition, the Commission must explore other spectrum allocations to accommodate the growing demand for public safety airborne operation. The need for spectrum is immediate, and growing as more and more public safety agencies around the nation install live video equipment in their existing helicopters and other aircraft. Even with the declaratory ruling requested herein, sharing the 2450-2483 MHz with broadcast services is not an adequate solution in most

metropolitan areas. There must be dedicated spectrum for this form of public safety operation.

Respectfully submitted,

COUNTY OF LOS ANGELES

CITY OF LOS ANGELES

CITY OF LONG BEACH

CITY OF BURBANK

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Counsel for the County of Los Angeles

September 1, 1999

## CERTIFICATE OF SERVICE

I, Jane Nauman, hereby certify that copies of the foregoing Request for Declaratory Ruling were served this 1<sup>st</sup> day of September 1999, by first class mail, postage pre-paid, to the following individuals at the addresses listed below:

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