



## Public Safety Scores a Victory in New York!

On March 14, the Federal Communications Commission adopted a Waiver of Parts 2 and 90 of the Commission's Rules to permit New York Metropolitan area public safety agencies to use frequencies at 482-488 MHz. The measure was part of an agreement between the New York City public safety agencies and the Television Broadcasters All Industry Committee regarding channel 16 allows the use of channel 16 by public safety agencies in the New York City area for at least five years or until the FCC re-assigns the channel to the broadcasters for ATV use. The Order, which was released March 17, is as follows:

### Introduction

1. By this action, the Commission waives Parts 2 and 90 of its rules to permit the temporary assignment of frequencies in the 482-488 MHz band (Television Channel 16) to public safety agencies in the New York City metropolitan area. Public safety use of these frequencies will be permitted for a period of at least five years or until the Commission assigns Channel 16 in the New York City for advanced television service (ATV) and the television broadcast licensee begins to utilize Channel 16 for ATV operations. This band is currently allocated to the broadcasting service but is not allotted for use in New York City. We find that circumstances exist that warrant a waiver of our rules to permit use of this spectrum by public safety radio services in the New York City metropolitan area. Granting this conditional waiver will provide public safety agencies with immediate spectrum relief that is urgently needed in the congested New York City area.

### Background

2. On April 10, 1992, the New York City Public Safety Agencies, a group of twelve public safety agencies in the New York City metropolitan area, filed a joint Request for Waiver seeking to use television Channel 16 for public safety communications in the New York City metropolitan area. In their Waiver request, the Agencies submit that the sheer size and density of the New York metropolitan area's resident, working and visitor populations present unique challenges to public safety agencies. The state that, in this environment the sheer size and density of the New York metropolitan area's resident, working and visitor populations present unique challenges to public safety agencies. The state that, in this environment, public safety agencies must rely on modern radio communications systems to support their operations. They further indicate that increased demand for radio communications channels has far outstripped the capacity of the channels allocated for public safety communications purposes in the New York City area. The Agencies state that they must update, expand and modernize their radio communications systems to carry out their mandated responsibilities; but there are no frequencies available in the New York City metropolitan area than can meet their immediate needs. In addition, the Agencies note that not all New York City emergency response agencies can communicate with one another via radio at the scene of an emergency incident. Their goal is to implement a mutual aid network on the requested frequencies to permit effective coordination of their responses to emergency situations.

3. The Agencies submit that the requested frequencies can be used for public safety systems within the New York City metropolitan area without harmful interference to any full power broadcast television stations. They state that they would use Channel 16 in a manner such that their operations do not cause interference to TV service and to have their licenses conditioned on that basis. Further, the Agencies note that there is a potential low power television (LPTV) sta-

tion on adjacent Channel 17, and that they would coordinate with the licensee for that station to ensure that their proposed operations would not cause harmful interference to the LPTV station operation. As with respect to full power broadcast stations, the Agencies would accept a condition on use of Channel 16 on the basis that their operations not cause interference to LPTV operations.

4. Since the time of the filing of the Waiver Request, the Commission has taken action to implement advanced television technology (ATV) in the United States by proposing to assign to each existing station a second channel that would be utilized for ATV on a simulcast basis. On August 5, 1992, the Commission published a draft Table of Allotments for ATV that included an allotment for Channel 16 in New York City.

5. On April 14, 1994, the Agencies filed a Supplement to Request for Waiver (Supplement) that provides additional information to justify the Waiver Request and to assess the impact of the ATV proceeding on the Waiver Request. The Supplement discusses data collected from the Agencies intended to confirm that the channels currently allocated for public safety use are severely overloaded. These data indicate that loading on the channels used by the Agencies substantially exceeds the maximum levels set forth in our rules. As a result, the Agencies experience delays and backlogs in even the most critical radio transmissions.

6. In the Supplement, the Agencies contend that use of Channel 16 is the only realistic alternative for immediately resolving the public safety spectrum shortage in New York City. They state that investment in trunking technology for the existing spectrum would not be feasible because the one-time cost (estimated at over \$275 million) would be prohibitive and the Agencies consider other technologies, such as narrow-band equipment, to be so new as to be untested on the scale needed. They argue that allocation of a channel other than Channel 16 would not involve similar costs. The Agencies currently operate primarily in the 450-482 MHz band, which encompasses television Channels 14 (470-476 MHz) and 15 (476-482 MHz). If the Agencies are granted spectrum contiguous to the existing spectrum, they could utilize their existing radio equipment, with minor, inexpensive modifications, for operations on both the existing frequencies and the new spectrum. Allocation of a non-contiguous channel, however, would require replacement of the existing equipment with equipment designed to accommodate both the existing and new bands. The Agencies estimate that such replacement would cost upwards of \$200 million, which they allege would be prohibitively expensive.

7. The Agencies maintain that provision of Channel 16 for public safety would not curtail ATV implementation in New York because there are other channel options for

providing ATV. They argue further that Channel 16 should not be a candidate for consideration for an ATV allotment in New York City due to the possibility of creating interference to public safety operations on the adjacent Channel 15. The Agencies note that an ATV transmitter on Channel 16 would likely be located on either the Empire State Building or the World Trade Center in New York, where it would be co-located with public safety stations using Channel 15. They state that this would violate the FCC Separation restrictions for adjacent channel operations and create potential for adjacent channel interference.

8. On November 21, 1994, the Agencies amended their Waiver Request by submitting a Request for Conditional Waiver of Parts 2 and 90 of the Rules of the Federal Communications Commission (Conditional Waiver Request) in order to utilize Channel 16 for public safety communications on an interim basis. The Conditional Waiver Request includes an Agreement between Agencies and the Television Broadcasters All Industry Committee (Broadcasters), a group of broadcast licensees of television broadcast stations operating in the New York City metropolitan area. The Broadcasters submitted concurrently a Statement in Support of the Conditional Waiver Request.

9. The agreement between the Agencies and the Broadcasters would satisfy the immediate need of the Agencies for additional spectrum for public safety operations while preserving the possibility that Channel 16 will ultimately be utilized for ATV operations in New York City. Under the terms of the agreement, the Agencies would operate on Channel 16 on an interim basis until such time, but in no event for less than five years, when that channel is allotted in the New York City metropolitan area for ATV, and a television broadcast licensee is authorized and begins to utilize Channel 16 for ATV broadcast operations.

10. The Agencies and Broadcasters foresee a number of additional benefits that would accrue from a grant of the Conditional Waiver Request. Under the agreement: 1) they will work with major equipment manufacturers to promote the development of spectrum efficient land mobile technology; 2) the Broadcasters will exert their influence to facilitate testing by the "Advisory Committee on Advanced Television Services of the FCC" with respect to ATV-to-land mobile interference; 3) the Broadcasters and the Agencies will jointly explore creative solutions to reduce the extent of the Agencies' utilization of spectrum resources; and, 4) the Agencies will employ reasonable efforts to implement Mobile Data Voice communications. The Agencies will also commit, with the cooperation of the Broadcasters, to restrict their operations on Channel 16 so as to ensure that interference will not result to the operations of and existing NTSC [National Television Systems Committee] broadcast operations in the vicinity of

New York City. The agreement includes appropriate standards an operating parameters for the land mobile operations intended to ensure that the Agencies' operations on Channel 16 would not result in prohibited interference to the operations of existing television broadcast licensees. We note that the Agencies also expressed a willingness to establish a new coordination body, the New York City Public Safety Agency Coordinating Committee, to oversee frequency coordination in the Channel 16 band. This committee will serve in an advisory capacity to the APCO Regional Frequency Coordinator. Coordination between the Public Safety agencies and New York City broadcast interests will be conducted through a joint committee composed of representatives of the Agencies and the Broadcasters. We anticipate that affected LPTV operators will participate in this coordination. Finally, we note that the agreement contemplates periodic reports from the Joint Committee to the Commission. We anticipate that these reports will be made annually at a minimum.

11. The Conditional Waiver Request, including details of the supporting agreement was released for public comment on December 14, 1994. Comments were filed by the Association for Maximum Service Television, Inc. (MSTV); the Association of Public-Safety Communications Officials-International, Inc. (APCO); the Atlantic Chapter of APCO; the Association of Federal Communications Consulting Engineers (AFCCE); the New York State Law Enforcement Telecommunications Committee; the New York City Transit Authority; and Trimtab Productions, Inc. (Trimtab), the permittee of LPTV station W17BM in New York City. Reply comments were filed by National Innovation Programming Network, Inc., the tentative select for a LPTV station for Channel 19 in New York City, and the Agencies. No opposition to the Conditional Waiver Request was filed. However, some issues were raised by the parties and these are discussed in the following paragraphs.

### Discussion

12. Based on the record, we believe that the public safety agencies in the New York City metropolitan area have an urgent and immediate need for additional spectrum capacity for public safety communications. Further, we believe that use of Channel 16 will provide immediate and necessary relief to these public safety agencies and will also allow for development of interoperability of communications between the public safety agencies. Finally, we conclude that this spectrum relief for the New York City public safety agencies can be accomplished without adversely affecting existing TV operations or our plans for implementation of ATV. Therefore, we find that conditional grant of a waiver to the Agencies to use television Channel 16 is in the public interest. We are conditioning the grant of the waiver to reflect the concerns of broadcasters, as discussed below.

13. MSTV is concerned that grant of a waiver for use of Channel 16 for land mobile public safety operations could interfere with the implementation of ATV. It argues that any permanent re-allocation of broadcasting spectrum to the land mobile public safety services prior to resolution of the regulatory and technical issues associated with the implementation of ATV will frustrate the full implementation of ATV. However, MSTV does not object to the conditional grant of waiver for public safety use of Channel 16; but it requests that reporting requirements regarding loading and use of this band be imposed on the public safety users and that the waiver be granted for one year terms so that an annual determination can be made regarding renewal of the waiver authority. In reply, the Agencies point out that the requested waiver would be conditioned upon there being no broadcaster authorized and ready to commence ATV operations on Channel 16 in New York and that the agreement between the Agencies and the Broadcasters provides for periodic updates from the Agencies to the Commission.

14. We believe that the conditional waiver envisioned in the agreement between the Agencies and the Broadcasters sufficiently ensures that if Channel 16 is required for ATV implementation, it will be available on a timely basis. Further, the periodic submission to Commission of reports on the progress made with respect to the technical issues, as discussed in the agreement, should insure that the public safety agencies are moving toward the implementation of spectrum efficient technology. Therefore, we agree with the Agencies that annual renewal action would be unnecessary and a waste of resources in light of the reporting requirement. Requiring one-year renewals also does not provide the Agencies sufficient assurance of continued operation over the five years to justify the expenditures that they will make.

15. Trimtab argues that the Agencies have underestimated the extent of potential interference from its Channel 17 low power television station and that such operation will limit use of Channel 16 for land mobile public safety purposes. Further, it argues that the Agencies must protect Trimtab's low power television operation on Channel 17 from interference from public safety operations. In reply, the Agencies contend that the adjacent channel interference issue raised by Trimtab is not unusual and can be resolved through standard engineering practices, including the use of radio frequencies (RF) filtering.

16. We agree with the Agencies that the potential for adjacent channel interference to public safety operations on Channel 16 from LPTV operations on Channel 17 can be eliminated through engineering approaches and that Channel 16 can be utilized by public safety entities de-

spite the close proximity of the LPTV operations. With respect to potential interference to the LPTV operations from the public safety operations, we also agree with the Agencies' conclusion that, due to the relatively low power and transient nature of the public safety mobile equipment, the likelihood of interference will be small; and any such interference likely would be insignificant and transient in nature. In any case, the Agencies indicated in their initial Waiver Request that they will correct any instance of interference to low power television operations. Based on the record and on the commitment from the public safety agencies, we conclude that this should be sufficient assurance that television operations will be adequately protected. We therefore will specify in the grant of the Waiver Request that LPTV station W17BM has no responsibility to protect land mobile operations on adjacent TV Channel 16 other than spurious emissions that exceed those permitted by our rules. We will also specify that land mobile licensees must correct, at their expense, interference caused by their operations to the reception of W17BM within its protected signal contour.

17. APCO supports the Conditional Waiver Request, but recommends that we require that narrow-band equipment, utilizing 12.5 KHz channels, be used when implementing public safety communication links in the band.

18. We encourage the public safety agencies to utilize narrow-band equipment or other spectrum efficient technology as soon as feasible in this spectrum. However, to maintain flexibility for the public safety community, we will not require here that any specific equipment or technology be used. This will allow the Agencies to fully utilize this band in whatever manner they choose in order to provide for important public safety communications. However, over the five year period of the conditional waiver, we do expect substantial progress on the part of the Agencies to develop spectrum efficient systems in this spectrum as well as the existing public safety bands, as discussed above.

19. In a related matter, on April 21, 1994 the New York City Transit Police (NYCTP), one of agencies participating in the Waiver Request, submitted its own Request for Waiver to use fifteen land mobile channels out of television Channel 19 for its public safety operations. NYCTP stated that it was submitting this request because it has a stringent implementation schedule associated with funding for a multi-million dollar radio communication capital program. Since Channel 19 had not been proposed for allotment for ATV by the Commission, it was perceived by NYCTP to be readily available for land mobile purposes, and funds available to NYCTP would permit it to build a new radio system utilizing Channel 19 frequencies. However, NYCTP has indicated that if the Commission were to act in an expeditious manner on the Agencies' request to use Channel 16, its own request for Channel 19 would

become unnecessary. We believe that having all the parties operate on Channel 16 will be spectrum efficient and increase interoperability among the public safety agencies in the New York City metropolitan area. Therefore, we are dismissing the NYCTP request to use Channel 19.

### Ordering Clauses

20. It is hereby ORDERED THAT, the Joint Request for Waiver filed by the New York Public Safety Agencies is GRANTED to the extent discussed herein, for a period of at least five years or until any television broadcast licensee in the New York City metropolitan area initiates the use of Channel 16 for ATV broadcast operations, whichever is longer, Sections 2.106 and 90.311 of the Commission's Rules are waived so that New York City metropolitan area public safety agencies may use 482-488 MHz, for land mobile public safety services under the conditions specified in the Appendix. It is hereby further ORDERED THAT the Request for Waiver filed by the New York City Transit Police Department to use television Channel 19 is DISMISSED.

### Appendix

In order to prevent interference between the proposed land mobile operations on Channel 16 in New York City and the existing television operations of WNEP-TV in Scranton, PA on Channel 16 and WPHL-TV in Philadelphia, PA on Channel 17, the proposed land mobile operation will be restricted as follows:

Base station operation is permitted in the five boroughs of New York City and Nassau, Westchester and Suffolk Counties in New York, and Bergen County, New Jersey. Mobile operation is permitted in these counties and boroughs as well as outside these areas provided the distance from the Empire State Building (40-44-54 N, 73-59-10 W) does not exceed 48 kilometers (30 miles).

#### Co-Channel Television Protection

For base stations to located in the five boroughs that comprise the City of New York and other jurisdictions east of the Hudson River and Kill Van Kull, the maximum effective radiated power (ERP) will be limited to 225 watts at an antenna height of 152.5 meters (500 ft) above average terrain. Adjustment of the permitted power will be allowed provided it is in accordance with the "169 kilometer Distance Separation" entries specified in Table B or jurisdictions east of the Hudson River and Kill Van Kull, the maximum effective radiated power (ERP) will be limited to 225 watts at an antenna height of 152.5 meters (500 ft) above average terrain. Adjustment of the permitted power will be allowed provided it is in accordance with the "169 kilometer Distance Separation" entries specified in Table B or prescribed by Figure B of Section 90.309(a)(5) of the FCC

**Rules.**

For base stations to be located west of the Hudson River, the maximum ERP will be limited to the entries specified in Table B or prescribed in Figure B of Section 90.309(a)(5) of the FCC Rules for the actual separation distance between the land mobile base station and the transmitter site of WNEP-TV, Scranton (141-10-58 N, 75-52-21 W).

Mobile stations associated with such base stations will be restricted to 100 watts ERP in the area of operation extending eastward from the Hudson River and 10 watts ERP in the area of operation extending westward from the Hudson River. These restrictions offer 40 dB of protection to the Grade B coverage contour of WNEP-TV, Scranton.

Adjacent Channel Television Protection

The above parameters and conditions are considered to be sufficient to protect first-adjacent channel television station WPHL-TV, Philadelphia (40-02-30 N, 75-14-24 W). Operation of mobile units within a radius of 48 kilometers (30 miles) from the Empire State Building would be no closer than 8 kilometers (5 miles) from the WPHL Grade B coverage contour. This will offer a 0 dB protection to WPHL-TV.

Low Power Television Protection

LPTV station W17BM has no responsibility to protect land mobile operations on adjacent TV Channel 16 other than from spurious emissions. Land mobile licensees must correct, at their expense, interference caused by their operations to the reception of W17BM within its protected signal contour as defined in Section 74.707 of the FCC Rules.

Periodic Reports

The Joint Committee of broadcasters and public safety agencies -- as contemplated in the agreement -- will file annual reports with the Commission regarding the status of implementation and progress toward the development of new spectrum efficient systems.□

**APCO Files in Federal Court Over Commission Reversal for Relinquishment and Relocation Requirements For PS Microwave Operations**

In 1992, the Commission adopted rules requiring existing licensees of fixed point-to-point microwave facilities in certain radio frequency bands [2 GHz] to relinquish their licenses and relocate to other bands in order to accommodate providers of new telecommunications services [PCS]. However, because of their special status, microwave facilities licensed to state and local government agencies were expressly exempted. In the MO&O, as affirmed by the Second MO&O, the Commission without notice reversed that ex-

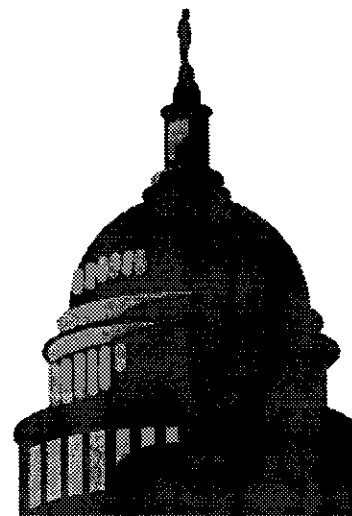
emption and subjected all state and local agencies, even those using their microwave facilities for vital police, fire, emergency medical and other public safety communications, to mandatory relinquishment and relocation requirements.

APCO alleges that the Commission's change in policy was arbitrary, capricious, unsupported by the record and contrary to law. The Commission failed to follow Congressional directives that public safety needs must be given priority in radio spectrum allocation decisions, failed to reconcile its action with prior decisions in related proceedings, and violated basic principles of administrative law.□

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