



# APCO REPORTS



March 1996

## PSWAC Progress Presses Forward

**T**he Public Safety Wireless Advisory Committee (PSWAC) convened a series of subcommittee meetings last month in Berkeley California. A noticeable absence of D.C. FCC officials in the meeting was due in part to the Federal Government shut down that was occurring during that time. There were, however, several representatives from local FCC field offices in attendance as well as a significant number of state and local government

officials and vendors on hand to carry out the scheduled meetings.

### *PSWAC Subcommittees* **Technology**

Five entities presented before the subcommittee on various forms of current technologies employed within the public safety field. Those presentation included: Chief Gary Cates, Berkeley Fire Department — impacts of technology in the fire services; Lieutenant Hank Borders, City of Berkeley Police Department — implementation of full motion video for surveillance; Mr. Donald E. Root Jr., California Governor's Office of Emergency Services — technology in incident management; Professor Kamilo Feher, U.C. Davis and President of Consulting and Licensing Group, Digom, Inc. — advances in wireless technology; and Mr. Allen Davidson, Motorola, Inc. — review of Motorola's proposal for an engineering methodology for projecting spectrum demands.

In addition to the presentations on current and emerging technology, there was a discussion on the

use of APCO 25 standards in the technology arena. APCO 25 will be the catalyst for interoperability in any future technology developments and will greatly enhance the ability for interagency communication. Mr. Richard DeMello, Chairman of the Technology Subcommittee, indicated during the meeting that APCO 25 would, indeed, be considered in the process for the final recommendation to the PSWAC Steering Committee.

### **Transition**

Issues for transition continued to be developed in the working group forum and reports were rendered from several of the group chairs. The substance of these working groups will begin to become available as the progress of the other subcommittees continues. The working group on Licensing Considerations as well as Funding Options for transition will have draft white paper reports for the next meeting series. Mr. Ronnie Rand, Chairman of the Transition Subcommittee, said; "these white paper submissions will remain

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Association of Public-Safety Communications Officials - International, Inc.

World Headquarters 2040 S. Ridgewood Avenue South Daytona, FL 32119-8437 USA

+1.904.322.2500

USA Toll Free 1.800.949.2726

Fax +1.904.322.2501

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open ended enough to accommodate the recommendations from the other subcommittees. It is difficult for these working groups to speculate on the outcome of the other subcommittees while trying to stay focused on their particular working group." Most members of these subcommittees participate in all of them.

### **Interoperability**

The Interoperability subcommittee began their meeting with the introduction of the strawperson report outline for that subcommittee. This outline was discussed among the subcommittee members and will be finalized by the next scheduled meeting (a copy will appear in APCO Reports). There was considerable discussion within the working groups concerning what functions are available in today's market as opposed to what is possible for public safety communications consumption. Most

notably, the notion that future technology could require greater levels of interoperability than we currently need. This subject will be addressed in the subcommittees final draft.

There was also consideration given to the political parameters that are associated with interoperability. Stan Harter, California Governor's Office of Emergency Medical Services, said; "acceptance of interoperability can change rapidly with changes in personnel in position of power, or events which show the results of having/not having interoperability."

Two new working groups were formed in the Interoperability subcommittee, one will address regulatory issues and mandates, and the other will address commercial service access.

### **Spectrum Requirements Subcommittee**

Mr. John Powell, University of California - Berkeley, chaired the subcommittee meeting and began by identifying four written reports that were submitted to the Chair. The reports were: Licensing information supplied by Ericsson, a draft strawperson Spectrum Requirements Final Report outline, a draft report addressing future spectrum needs, and a paper supplied by Ali Shahnam, APCO International, outlining the number of call signs nationwide, by band, for radio service in the FCC controlled public safety spectrum. The content of those documents were discussed at length during the meeting and will appear in the next issue of APCO Reports (as they are made available).

**All content of the above was derived by a combination of editor attendance at meetings and citations taken directly from the minutes provided by FCC and NTIA.**

## **APCO Files Reply Comments to PR Docket 92-235 (Refarming)**

### **APCO Opposes Radio Service Consolidation**

**A**PCO International currently performs quality frequency coordination services for all public safety entities. APCO's local advisors are made up of individuals who actually work in state and local government agencies and are familiar with the requirements for absolute quality in frequency coordination. It may be easy for a non-public safety coordinator to rely on a system of mileage or height separation with

minimal interference expected within the business world. Not so for the public safety community. Interference can mean the difference between delivering life saving assistance to a critically injured person or defusing a hostage situation during a bank robbery. To the corporate community, interference can mean a simple order at a burger store can be delivered wrong. In light of recent comments filed in support of open coordination or radio service consolidation, APCO filed the following reply comments in this matter.

APCO International responded to comments filed by interested par-

ties in the above proceeding. In its comments APCO said:

Several of the comments offered proposed plans for consolidation of the current radio services. APCO and other public safety organizations have indicated their strong opposition to radio service consolidation as an unnecessary and ill-advised approach to managing public safety spectrum. Should the Commission go forward with service consolidation, it must establish a public safety pool that includes all of the current Part 90, Subpart B, Public Safety Radio services.

APCO opposes the plan submit-

ted by UTC, which would separate the Local Government, Forestry-Conservation, and Highway Maintenance services from the Police, Fire, and EMS. Such a plan would wreak havoc among state and local government public safety agencies, and impose an arbitrary and accurate boundary between radio services that protect

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the safety of life and property.

UTC's proposal appears to be based on a misconception of how public safety radio channels are used. For example, the Local Government Radio Service supports far more than public works and administrative activities. Many, if not most, of the channels licensed in the Local Government Radio Service are used by police and fire departments. In some cases, Police and/or Fire Radio Service channels are unavailable; in other cases a variety of agencies in a small community share channels, making the Local Government designation the most rational choice. Many other critical public safety services also occupy these channels, including emergency management, hazardous materials response teams, corrections, and other public safety operations.

Another often misunderstood service is the Forestry Conservation Radio Service. The Principal users of these channels are agencies and personnel charged

with fighting forest fires, conducting rescue operations, responding to natural disasters, performing basic law enforcement functions, and providing for the critical services that protect the safety of life and property on public lands. These are often state-wide channels that cover remote areas. Many Forestry-Conservation chan-

nels are also made available through intercategory sharing for urban police and fire departments.

The Highway Maintenance Radio Service also plays an important role in protecting the safety of life and property. The channels in this service are used for emergency road repairs, snow removal, traffic control, hazardous spill cleanup and maintain free movement on our nation's highways. Coordination between police, fire, EMS, and highway maintenance operations is often necessary for responding to vehicle accidents and other occurrences.

All three of these current Public Safety Radio Services, therefore, share a common thread with the Police, Fire, and Emergency Medical Radio Services. All support vital public safety services. On a more fundamental level, all are governmental activities that operate for and on behalf of citizens of each jurisdiction. Thus, if there is to be consolidation, all governmental services should be grouped together.

Keeping the current Subpart B, government services together will also facilitate spectrum efficient trunked operations, which are like-

ly to expand in the "post Refarming" environment. As has occurred in the 800 MHz band, states, counties, and cities will license a set of channels for trunked systems that serve all of their governmental operations. This will be far more difficult if governmental services are separated into different pools.

Under the UTC plan, many basic governmental service would suddenly be in the same radio service pool as corporate entities such as railroads, petroleum companies, and utilities. While those entities have important functions that sometimes involve safety issues, they are still businesses responsible to their shareholders. A city, county, or state, on the other hand, is responsible to the public.

Governmental entities have different obligations, different financial constraints, and fundamentally different functions from business entities. Perhaps, as UTC suggests, "public service" entities such as utilities, railroads, and pipeline companies should be in their own radio service. Government entities, however, more properly belong in a separate Public Safety radio service.

Finally, frequency coordination of governmental agencies should be handled only by frequency coordinators that are representative of such governmental entities. Public safety coordinators such as APCO necessarily operate under stricter guidelines than other coordinators to avoid interference to vital governmental services that protect the safety of life and property.

## Statement of Michael Amarosa, Deputy Commissioner, New York City Police Department, before the Federal Communications Commission

**O**n March 5th, Deputy Commissioner Michael Amarosa appeared on behalf of APCO before FCC Commissioners during their En Banc hearing on spectrum policy. Amarosa was one of several panelist from various sectors of land mobile radio fields who fielded questions from the Commissioners. The following comments were submitted to the Commission by Amarosa.

APCO, the New York City Police Department, and public agencies from around the nation are deeply concerned with the severe shortage of radio spectrum available for their critical operations. The FCC, in conjunction with NTIA, has established the Public Safety Wireless Advisory Committee (PSWAC) to address this issue. My chief, William Braton, is member of the PSWAC Steering Committee, and I have been closely involved in all aspects of the PSWAC activities.

Public safety demand for spectrum has been well-documented by APCO, NTIA, and others, and is being further refined by PSWAC. Spectrum is needed to relieve current congestion in and near metropolitan areas, and to allow law enforcement and other public safety agencies to take advantage of important new communications capabilities. We need spectrum so that we can transmit not just voice, but also high-speed data including fingerprints, mugshots, video, and other information that would greatly enhance our ability to protect the safety of life and property.

We need special spectrum allocations as very few public safety communications requirements can be met by commercial providers. We need to control our own communications systems to ensure that police officers, fire fighters, EMS teams and others will have instant access to reliable communications systems anywhere in their area of jurisdiction. No commercial provider will offer the level of reliability, priority access, security and coverage that public safety agencies demand. Officers in our department, for example, need to know that their portable radios will work in alleys, behind tall buildings, under bridges, and other areas that commercial providers may have little

incentive to cover. A public safety agency also needs the capacity to handle peak activity during major emergencies.

The Commission's method of allocating scarce radio spectrum, therefore, is a major concern to the public safety community. In particular, the movement toward auctions creates serious problems. Nobody suggests that public safety agencies participate in auctions and be forced to bid against commercial entities for valuable spectrum. The usual refrain that we hear is "public safety is exempt from auctions." That, however, is not enough.

The current auction fever places so much emphasis on selling spectrum that too little thought is given to the need to set aside spectrum for those services, such as public safety, which need spectrum, but cannot and should not participate in auctions. For example, there

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has been much debate recently regarding the possible revenues for the sale of television spectrum that is returned to the Commission after the conversion to ATV. Yet, that spectrum would be well-suited for public safety land mobile operations, which already operate on adjacent radio frequencies. Consideration should be given to reserving some portion of that television spectrum for public safety. Similarly, some of the Federal Government spectrum being released for non-Federal activity should also be allocated for public safety, and not put on the auction block.

The use of auctions to allocate spectrum, and not just to assign licenses, also poses major problems for the public safety community. So far, auctions have

only been used to select among mutually-exclusive applicants in a block of radio spectrum that the Commission has allocated for a particular service (e.g. PCS). However, the Commission is moving towards broader auctions where little if any restrictions are placed on the use of spectrum to be auctioned, on the theory that such auctions will lead to more efficient spectrum allocation. Perhaps that is true. But efficiency comes at a price. The "highest and best use" of that spectrum from a public policy perspective may be for an inherently "uneconomic" activity such as providing police protection to the

public. Again, this suggests the need for continued "block allocations" of radio spectrum for public safety activities.

Mr. Chairman, the public safety community will do what it can with its limited resources to further define its future spectrum requirements. The Commission must also do its part, however, and take appropriate steps to ensure that "auction fever" does not prevent spectrum from being made available for the individuals and agencies who place their own lives at risk every day to protect our safety.

## APCO Automated Frequency Coordination Inc. Begins Electronic Data Interconnect Transactions With FCC

The FCC recently announced that APCO had begun total electronic data transfers for Form 600 Applications. The EDI project, a two year process, came to a conclusion for APCO International's Information Systems department sending and receiving application information electronically. This will eliminate the need to send hard copy applications for FCC processing thus streamlining the

licensing process for public safety applicants. APCO is the first frequency coordinator to use EDI and other coordinators are expected to follow soon. APCO Executive Director Ronnie Rand said; "the public safety community now has the advantage of timely receipt of applications by the FCC, avoiding the long delays of date and time stamping and mailing of paper copies to and from Gettysburg

[FCC's license processing site]."

"We invite other frequency coordinators to consider taking advantage of our existing technology [totally coded in house at APCO Headquarters] as they transition to EDI." APCO will be offering its program to other coordinators in order to move towards total automation in the coordination process.

# APCO International



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ROBERT J HAJEK  
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APCO Reports  
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