

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Response Efforts Undertaken During the) PS Docket No. 17-344
2017 Hurricane Season)

COMMENTS OF APCO

The Association of Public-Safety Communications Officials-International, Inc. (APCO)¹ hereby submits the following comments in response to the *Public Notice* in the above-captioned proceeding.² APCO’s comments are informed by the experiences of responders on the ground in Texas and Puerto Rico, and by institutional knowledge of emergency communications during disasters.

First and foremost, APCO offers its sincere compliments and appreciation to the public safety communications professionals, first responders, industry partners, and Commission staff who were on the ground, working to save lives and mitigate the impacts of the hurricanes. The local 9-1-1 professionals and responders, in particular, deserve recognition for performing life-saving work and developing creative solutions, prioritizing the mission over attention to how the disasters were impacting them personally. Additionally, many infrastructure and service providers set business interests aside in favor of the public good.

¹ Founded in 1935, APCO is the nation’s oldest and largest organization of public safety communications professionals. APCO is a non-profit association with over 30,000 members, primarily consisting of state and local government employees who manage and operate public safety communications systems – including Public Safety Answering Points (PSAPs), dispatch centers, emergency operations centers, radio networks, and information technology – for law enforcement, fire, emergency medical, and other public safety agencies.

² Public Safety and Homeland Security Bureau Seeks Comment on Response Efforts Undertaken During 2017 Hurricane Season, PS Docket No. 17-344, *Public Notice*, DA 17-1180 (Public Safety and Homeland Security Bur. rel. Dec. 7, 2017).

The remainder of APCO's feedback has been organized based on observations of what worked well and recommendations for improvement.

I. What Worked Well

a. Following Best Practices

Effective pre-planning by officials and local responders, which should be common practice for emergency communications agencies, made a significant difference in managing the hurricanes' impacts. For example, agencies in Texas and Florida were able to restore 9-1-1 service after PSAPs were destroyed or lost power by rolling calls to secondary and even tertiary sites, and in at least one instance bringing in a mobile PSAP.

Compliance with industry best practices on redundancy and resiliency improved the likelihood that communications networks would remain online, both for telecommunications and radio services. Cross-industry participation involving multiple providers is essential for effective redundancy and resiliency planning. Agencies and service providers fared better where they had ensured proper tower loading and maintenance and followed best practices for the location of equipment at the site, back-up requirements (battery, generator, or both), re-fueling considerations, etc. Where best practices were not followed, design and redundancy issues prolonged the outages.

b. Commission Staff and Other Federal Support

The Commission should be applauded for deploying Roll Call resources to all of the storms.³ The Commission personnel were exceedingly versatile and knowledgeable, and went

³ Per the Commission's website, "Roll Call is a joint effort by the Federal Communications Commission (FCC) and Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA). In the wake of a national-level disaster, the effectiveness of first responders and critical infrastructure managers can be hindered by disrupted or destroyed communications systems. Restoring or replacing these systems is a high priority for Federal responders. At FEMA's request, FCC agents deploy to the disaster area and use Roll Call equipment to examine the radio spectrum and identify disaster-related communications outages. Outages are identified by studying the radio frequency spectrum "Pre-disaster" and "Post-disaster" and comparing those results to each other and to licensee

above and beyond their initial tasking to help. Of course, Roll Call is most effective when a baseline is taken before networks are impacted. Where this had occurred, the data were very useful for identifying outages, but Roll Call was less useful in areas that lacked a baseline measurement to compare against.

Thanks to Commission staff and others from federal agencies, responses to requests for assistance and information (RFAs and RFIs) and requests for special temporary authority (STAs) went relatively well. Information sharing between and among industry and government partners always made for a better response.

c. Amateur Radio Operators

Amateur radio operators were essential for managing communications issues during these disasters. The Amateur Radio Emergency Service (ARES) and the Department of Homeland Security's National Cybersecurity and Communications Integration Center's National Coordinating Center for Communications SHARED RESOURCES High Frequency Radio Program (SHARES) provided invaluable assistance. Through these programs, volunteers provided thousands of hours of labor, installing and wiring hundreds of components and numerous systems, and then operating lifesaving networks. The amateur radio community should be commended for the significant assistance they provided to citizens and federal, state, and local responders.

II. Recommendations for Improvement

a. Federal Agency Coordination and Information Sharing

Where possible, increased coordination among federal agencies, especially concerning messaging to state, local, and territorial authorities and responders, would help avoid confusion

databases to determine which public safety or critical infrastructure systems are unexpectedly off the air.”
<https://www.fcc.gov/general/roll-call>.

and duplicative efforts. The federal agencies involved with a response should explore additional ways to coordinate their efforts, including with regard to information sharing. For example, establishing a single, cooperative information portal could be more effective for distributing certain information than multiple agencies having their own avenues.

b. The Disaster Information Reporting System (DIRS) and Wireless Resiliency Framework

DIRS serves as a helpful resource for providing situational awareness of outages. The Commission could build upon the information at its disposal by augmenting DIRS data with local, ground-based reports. For example, a cell site might have no backhaul, no capacity, and no ability to provide actual service, but not be reported in DIRS as out of service. This can lead to a fundamental disconnect between outage reports and reality.

Generally speaking, public safety needs to know where and when a site is not operational, the nature of the outage (physical tower down, power out, antenna out of service, etc.) and expected repair time. PSAPs should have this information in a format that can be used to easily assess the outage's impact. This could be achieved by providing coordinate boundaries for the outage area, GIS files, or text information from internal carrier reporting systems that can be input into the PSAP's map and/or CAD systems to provide a visual representation of the affected area.

Improving public safety awareness regarding service and restoration status through a carrier-PSAP contact database was a key commitment of the Wireless Resiliency Framework. Carriers and PSAPs could both benefit from such a resource, particularly for response to major outages during disasters. APCO looks forward to the carriers establishing the database and stands ready to assist the carriers with populating it. APCO also remains supportive of

expanding the Framework to include non-nationwide carriers and ensuring commitments such as the contact database and voluntary roaming among carriers have the greatest impact possible to improve public safety.

c. Transferring 9-1-1 Calls and Related Incident Information

Some PSAPs experienced issues with transferring 9-1-1 calls and related incident information, in the event that the PSAP was unable to receive the call due to outages or high call volume. Understanding the technical and policy impediments to these interoperability features is essential. Any limitations of existing systems should be remedied as PSAPs across the nation transition to Next Generation 9-1-1.

CONCLUSION

APCO appreciates the Public Safety and Homeland Security Bureau's consideration of the response efforts undertaken during the 2017 hurricane season and looks forward to further collaboration to improve our nation's ability to manage disasters.

Respectfully submitted,

APCO INTERNATIONAL

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