

LOS ANGELES POLICE COMMISSION

**REPORT ON
DEPARTMENT RADIO
INTEROPERABILITY**



Conducted by the

OFFICE OF THE INSPECTOR GENERAL

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OFFICE OF THE INSPECTOR GENERAL REPORT ON DEPARTMENT RADIO INTEROPERABILITY

I. INTRODUCTION

California established the Law Enforcement Mutual Aid System in 1961¹ as an extension of the “neighbor helping neighbor” concept.² The concept provides that within a law enforcement agency’s operational area, neighboring agencies will assist each other in times of natural disaster or unusual events. However, each agency generally transmits on its own radio frequencies.³ Therefore, each agency is generally unable to conduct radio communication with another law enforcement agency operating on a different frequency.

Radio interoperability refers to the ability of an emergency responder to communicate with another responder via radio. Radio communication problems were key factors identified in the 9/11 Report.⁴ The 9/11 Report recognized the need for “communications connectivity between and among . . . local first responders.”⁵ New York City’s own report identified that the Fire and Police Departments were unable to communicate with one another via radio, which led to personnel deployment and command post issues.⁶

Cell phone use has proliferated in the last two decades and now supplements every emergency responder’s communication system. However, cellular communication relies upon private companies to provide the service network. There is no guarantee that in an emergency a first responder will have the use of cellular communication systems. Therefore, radio communication remains law enforcement’s primary communication method in times of major incidents.

II. LAPD INTEROPERABILITY

The Office of the Inspector General (OIG) conducted a study of the Los Angeles Police Department’s (Department or LAPD) ability to communicate with other regional first responders. On a daily basis, Department officers have little need for radio interoperability with outside agencies. However, in emergency conditions such as a natural disaster or terrorist attack, the ability to communicate with outside agencies is crucial. The Department’s radio system has interoperability access to all LAPD Areas and 40 local law enforcement agencies, including the Los Angeles County Sheriff’s Department (LASD), Los Angeles Port Police, the California

¹ California Office of Emergency Services, *Mutual Aid System*, <http://www.caloes.ca.gov/cal-oes-divisions/law-enforcement/mutual-aid-system>.

² California Office of Emergency Services, *Law Enforcement Guide to Emergency Operations, Red Book*, 2014, page 3, <http://www.caloes.ca.gov/LawEnforcementSite/Documents/2Red%20Book.pdf#search=red%2520book>.

³ A radio frequency may be referred to in jargon as a “channel.”

⁴ The 9/11 Commission Report, *Final Report of the National Commission on Terrorist Attacks Upon the United States*, 2004, page 397. The report focused on New York Fire Department communication issues but mentioned that the New York Police and Fire Departments operated on separate radio frequencies and had no ability to radio relay information between the two agencies.

⁵ *Ibid.*

⁶ New York Fire Department, *McKinsey Report on Fire Operations Response to September 11*, September 11, 2002, pages 32 & 38.

Highway Patrol, the Orange County Sheriff's Department, and the University of Southern California.⁷ The 40 agencies are programmed into both Department handheld and mobile radios. In addition to the Department's own radio system, there are other locally available mutual aid radio systems, which are described below.

A. California Law Enforcement Mutual Aid Radio System (CLEMARS)

Although Department officers infrequently travel outside the local area, they have only limited communication ability if they do. In February 2013, the Department deployed uniformed officers to locations outside of Los Angeles to provide protection for employees threatened by Christopher Dorner. One pair of officers deployed to Riverside County (Corona), 60 miles away from downtown Los Angeles, where they had no radio interoperability with any other agency. When a citizen hailed the officers and directed them to Dorner, the officers were unable to request assistance when Dorner opened fire on them, wounding one officer. The officers had to borrow the cell phone of a passerby to summon assistance.

CLEMARS is a statewide interoperability radio system divided into seven law enforcement mutual aid operating regions.⁸ The system provides radio communication for neighboring agencies who share no frequencies and for agencies operating outside of their normal area. CLEMARS is accessible to all law enforcement agencies within California, provided radio repeaters are active for that particular agency.⁹

In February 2013, the Department did not have the ability to access CLEMARS repeaters outside the Los Angeles city limits. In the wake of the Corona shooting, the Department's communications system received upgrades in mid-2013.¹⁰ The upgrades provided Department employees with access to five CLEMARS frequencies in the surrounding counties, as well as a single dedicated frequency within Los Angeles County.¹¹

⁷ For a list of all 40 agencies, see Appendix A. The Department cannot communicate directly on any fire department frequencies. However, each LAFD fire truck, Emergency Medical Services Captain, Battalion Chief, and Rescue Ambulance has an LAPD Radio and can communicate on all LAPD dispatch, fallback, and tactical channels. The LAPD does not have interoperability with University of California at Los Angeles.

⁸ California Emergency Management Agency, *California Interoperability Fields Operations Guide*, June 2010, pages 1-2, <https://www.sjgov.org/oes/PDF/Cal-IFOGv.1.0.pdf>. Los Angeles is located in California Mutual Aid Region 1.

⁹ A "repeater" is a device, usually mounted on a tall tower, that receives a radio transmission, then amplifies and re-sends the transmission, thus increasing the range of broadcast.

¹⁰ The upgrades allowed Communications Division to program the existing CLEMARS regional repeater frequencies into the vehicle and handheld radios, in addition to other interoperable radio channels.

¹¹ CALAWA4 (Channel #73) is the pre-programmed Los Angeles area CLEMARS frequency for the handheld radios. User reprogramming is required to access additional CLEMARS frequencies.

B. Los Angeles Regional Tactical Communications System (LARTCS)

LARTCS is a multi-band mutual aid radio system operated by the LASD. The five LARTCS channels are available for all emergency responders, including the Department, to “communicate and coordinate resources for short or long term emergencies and events.”¹² Examples of LARTCS use are disaster response coordination, pursuits, incidents outside of local radio coverage area, and preplanned inter-agency operations.

Metropolitan and Valley Communications Dispatch Centers have radio access to LARTCS channels in addition to the LASD access channel. LARTCS channels are used periodically in instances such as a vehicle pursuit continuing outside of Communications Division’s normal operating range.¹³ LARTCS provides coverage throughout Los Angeles County in addition to portions of Ventura, Kern, Orange, and San Bernardino Counties.

C. Small Cities Mutual Aid (SCMA)

SCMA channels provide radio communication with the Department, LASD, and small cities within Los Angeles County.¹⁴ Like LARTCS, the four SCMA channels are available for all Los Angeles County emergency responders.¹⁵ Department handheld radios are capable of transmitting on the SCMA frequencies, but neither Metropolitan nor Valley Communications Dispatch Centers possess the ability to monitor SCMA frequencies. Communications Division could not provide any information on the SCMA usage.¹⁶

D. Los Angeles Regional Interoperability Communication System (LA-RICS)

The LA-RICS, which originated in 2009, is in development and not yet functional. The goal of the program is to create both a radio and cell phone interagency communications system for Los Angeles County. The LA-RICS cellular network is designed to move first responders from privately owned cellular systems to a system dedicated only to emergency responders. In addition to voice communications, critical information regarding hazardous locations or impassable freeways could be blast sent to officers in the field.¹⁷

¹² Los Angeles Police Department, *Communications Interoperability Field Guide*, December 2014, page 3.

¹³ Communications Division’s radio system range extends outside the county borders to the east, west, and south, but only slightly past the City borders to the north.

¹⁴ Neither LAPD nor LASD Communications Division could provide a list of the SCMA-enabled cities.

¹⁵ Field Guide, *supra* note 12.

¹⁶ Discussion with Senior PSR.

¹⁷ A “blast” is a single text message sent to large number of people simultaneously.

LA-RICS is viewed by many as a controversial plan. Citizens groups and emergency responder unions are opposed to its completion until further environmental and medical studies are completed regarding the towers required for the system. On November 18, 2015, the Los Angeles City Council voted unanimously to change the City's LA-RICS membership status. This change will enable the Department and the Los Angeles Fire Department to create a joint radio/cellular system while retaining the use of LA-RICS during emergency situations.

III. DEPARTMENT INTEROPERABILITY TRAINING AND PROTOCOLS

On its local access network, the Department provides guides for both the portable radios and the communications system.¹⁸ However, the OIG was unable to locate any Department training that actively informs officers about the existence of the mutual aid systems, even though access to the systems is readily available on handheld and mobile radios. The OIG contacted both Recruit Training Section and the In-Service Training Unit, and both advised that they provide no training on radio interoperability.¹⁹

IV. RECOMMENDATION

Based on its review of the Department's radio interoperability capabilities for first responders, the OIG recommends that:

1. the Department develop training to inform officers of the existence, access, and use of mutual aid radio systems; and,
2. the Department explore creating radio interoperability with the University of California at Los Angeles.

¹⁸ Field Guide, *supra* note 12.

¹⁹ Information provided by Training Division, Training Coordination Unit In-Service and Training Division, Academics Unit.

APPENDIX A

Los Angeles Police Department Radio Interoperability with Emergency Response Agencies

- 1) Los Angeles International Airport Access (2 channels)
- 2) Van Nuys Airport Access (2 channels)
- 3) Alhambra Police Department
- 4) Arcadia Police Department
- 5) Baldwin Hills Police Department
- 6) Bell Gardens Police Department
- 7) Beverly Hills Police Department (2 channels)
- 8) Burbank Police Department
- 9) California Highway Patrol Los Angeles Dispatch Center
- 10) California Highway Patrol Orange County Dispatch Center
- 11) Claremont Police Department
- 12) California State University Northridge Police Department
- 13) Culver City Police Department
- 14) El Monte Police Department
- 15) El Segundo Police Department
- 16) Gardena Police Department
- 17) Glendale Police Department
- 18) Hawthorne Police Department
- 19) Hermosa Beach Police Department
- 20) Inglewood Police Department (2 channels)
- 21) Los Angeles County Sheriff's Department (39 channels)
- 22) Los Angeles Unified School District Police Department (3 channels)
- 23) Long Beach Police Department (5 channels)
- 24) Manhattan Beach / Hermosa Beach Police Department
- 25) Montebello Police Department
- 26) Orange County Sheriff's Access Channel
- 27) Palos Verdes Estates Police Department
- 28) Pasadena Police Department
- 29) South Pasadena Police Department
- 30) Los Angeles Port Police Department (4 channels)
- 31) Redondo Beach Police Department
- 32) San Fernando Police Department (2 channels)
- 33) San Gabriel Police Department
- 34) Santa Monica Police Department
- 35) Simi Valley Police Department (3 channels)
- 36) South Bay Tactical Police & Fire Departments (7 channels)
- 37) Torrance Police Department (2 channels)
- 38) University of Southern California Police Department (2 channels)
- 39) West Covina Police Department
- 40) Whittier Police Department

APPENDIX B

House Resolution 3630 – Middle Class Tax Relief and Job Creation Act of 2012

Title VI: Public Safety Communications and Electromagnetic Spectrum Auctions - (Sec. 6003) Directs the Federal Communications Commission (FCC) to implement and enforce this title as if it were part of the Communications Act of 1934.

(Sec. 6004) Prohibits a person from participating in certain electromagnetic spectrum auctions or receiving public safety funds made available by this Act if the federal government, for national security reasons, has barred such person from bidding on contracts, participating in auctions, or receiving grants.

Subtitle A: Reallocation of Public Safety Spectrum - (Sec. 6101) Directs the FCC to reallocate the 700 MHz D block spectrum for use by public safety entities in accordance with this Act.

Amends the Communications Act of 1934 to increase public safety services allocation and reduce commercial use allocation by 10 megahertz within a specified range.

(Sec. 6102) Authorizes the FCC to allow flexible use of the narrowband spectrum, including for public safety broadband communications.

(Sec. 6103) Requires the FCC, within nine years after enactment of this title, to reallocate the T-Band spectrum (470-512 MHz) currently used by public safety eligibles and begin using competitive bidding auctions to grant new licenses for such spectrum.

Makes the proceeds from such auctions available to the Assistant Secretary of Commerce for Communications and Information (referred to as the Assistant Secretary and is the head of the National Telecommunications and Information Administration [NTIA]) to make grants for the relocation of public safety entities from the T-Band spectrum. Requires that such relocation be completed within two years after the competitive bidding is completed.

Subtitle B: Governance of Public Safety Spectrum - (Sec. 6201) Directs the FCC to reallocate and grant a license to the First Responder Network Authority (FirstNet) for use of the 700 MHz D block and existing public safety broadband spectrum for an initial 10-year term (subject to renewal, upon application, for additional terms of up to 10 years each).

(Sec. 6202) Directs FirstNet to ensure the establishment of a nationwide, interoperable public safety broadband network.

Requires that the network be based on a single, national network architecture that evolves with technological advancements and consists initially of: (1) a core network of national and regional data centers based on commercial standards providing connectivity between the radio access network and the public Internet or switched network; and (2) a radio access network of cell site equipment based on commercial standards enabling wireless communications with devices using the public safety broadband spectrum while taking into account the plans developed in the state, local, and tribal planning and implementation grant program established in this title.

(Sec. 6203) Establishes within the FCC the Technical Advisory Board for First Responder Interoperability (Interoperability Board). Requires the FCC Chairman to appoint 14 voting members including specified representatives from national, regional, and rural wireless providers; equipment manufacturers; public safety entities; and state and local governments. Permits the Assistant Secretary to appoint one nonvoting member.

Directs the Interoperability Board to develop recommended minimum technical requirements to ensure a nationwide level of interoperability for the network based on Long Term Evolution (LTE) commercial standards. Requires the FCC to approve the recommendations, with any necessary revisions, and transmit the recommendations to FirstNet.

Terminates the Interoperability Board 15 days after the FCC transmits such recommendations to FirstNet.

(Sec. 6206) Requires that FirstNet hold the single public safety wireless license and take all actions necessary to ensure the building, deployment, and operation of the network, including by: (1) ensuring nationwide standards for network use and access; (2) issuing open, transparent, and competitive requests for proposals to private sector entities for building, operating, and maintaining the network; (3) encouraging that such requests leverage existing commercial wireless infrastructure; and (4) managing and overseeing implementation and execution of contracts with nonfederal entities.

Directs FirstNet to: (1) ensure the safety, security, and resiliency of the network, including requirements for protecting and monitoring the network to protect against cyberattack; (2) require that network equipment be built to open, non-proprietary, commercially available standards, as well as be capable of being used by any public safety entity and by multiple vendors across all 700 MHz band public safety broadband networks, and, in addition, be backward-compatible with existing commercial networks; (3) promote integration with public safety answering points; and (4) address special considerations for regional areas with unique homeland security or national security needs.

Requires FirstNet to enter roaming agreements with commercial network providers to allow the network to roam onto commercial networks and receive priority access for public safety communications during emergencies.