

**REPORT OF THE
MAYOR'S
BLUE RIBBON PANEL
ON AIRPORT SECURITY**



A report to Los Angeles Mayor

Antonio R. Villaraigosa

concerning public safety at

Los Angeles International Airport

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Letter from the Chairs of the Blue Ribbon Panel

June 20, 2011

The Honorable Antonio R. Villaraigosa
Mayor, City of Los Angeles
200 N. Spring Street
Los Angeles, California 90012

Dear Mayor Villaraigosa:

The members of the Blue Ribbon Panel on Airport Security at Los Angeles International Airport (Blue Ribbon Panel) are pleased to submit this report following our review of public safety at Los Angeles International Airport (LAX). Law enforcement and homeland security experts, including those on the Blue Ribbon Panel, agree that LAX continues to be a high level terrorist target in the Los Angeles region. That realization was the impetus for this comprehensive review of counterterrorism capabilities, law enforcement operations, fire operations, emergency management, and information technology at LAX.

The review by the Blue Ribbon Panel identified several key issues that should be addressed to enhance public safety at LAX. The Blue Ribbon Panel sought to provide those departments responsible for various aspects of security with a blueprint for improved safety and security at LAX by making detailed recommendations. The Blue Ribbon Panel is confident that the City of Los Angeles is capable of realizing the necessary changes at LAX in a timely and efficient manner.

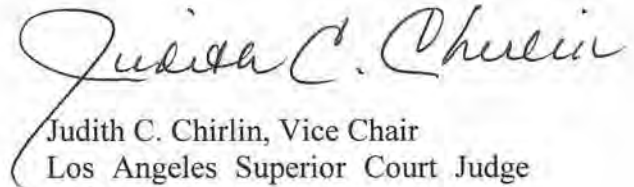
It has been an honor for each of us to serve as members of the Blue Ribbon Panel. We have spent approximately 2,000 hours evaluating security issues at LAX and preparing a report that reflects the consensus of the panel members. Our efforts included weekly meetings, hundreds of interviews, and review of numerous documents.

We believe the collective expertise and diversity of the Blue Ribbon Panel has resulted in a comprehensive and thorough report. We look forward to enhanced public safety at LAX and remain available to respond to any questions or requests for additional information.

Very truly yours,



Lourdes G. Baird, Chair
United States District Court Judge (ret)



Judith C. Chirlin, Vice Chair
Los Angeles Superior Court Judge
(ret)

MAYOR'S BLUE RIBBON PANEL

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The Federal Transportation Security Administration
The Los Angeles Emergency Management Department
The Los Angeles Police Department
The Los Angeles World Airports
The Los Angeles World Airports Police Department
The Port of Los Angeles

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INTRODUCTION

Los Angeles World Airports (LAWA) is the City of Los Angeles department that owns and operates three airports: Los Angeles International (LAX), LA/Ontario International (ONT) and Van Nuys (VNY). Each airport plays an integral role in helping to meet the regional demand for passenger, cargo and general aviation service in Southern California. The focus of this report is on LAX.

LAX is the world's busiest origin and destination (O&D) airport. O&D passengers are those beginning or ending their trips in Los Angeles rather than using the airport for connecting flights. LAX is the sixth busiest airport in the world in the number of passengers and ranks thirteenth in the world in air cargo tonnage handled. In 2010, LAX served 59 million passengers and handled 1,852,791 tons of freight and 74,034 tons of mail. LAX handled 70% of the passengers, 75% of the air cargo, and 95% of the international passengers and cargo traffic in the five-county Southern California region.¹ The airport spans 3,425 acres within the City of Los Angeles.

Originally known as Mines Field, LAX has been used as a general aviation field since 1928. During World War II, it was used for military flights. Commercial airline service started in December 1946. The present terminal complex was constructed in 1961. In the early 1980s, LAX added domestic and international terminals and a second-level roadway.

It is estimated that LAX has an annual economic impact of \$60 billion to the Southern California region. Approximately 59,000 jobs are located at or near LAX and an estimated 408,000 jobs are attributable to LAX, spread throughout the region.

¹ Los Angeles, San Bernardino, Riverside, Ventura and Santa Barbara counties.

The LAWA Police Department (LAWAPD) is a Division of LAWA, and is the fourth largest law enforcement agency in Los Angeles County. LAWAPD is structured under the Executive Director of LAWA and the Chief of Airport Police. Police Division management is provided by three Assistant Chiefs who oversee the Office of Support Services, the Office of Operations, and the Office of Homeland Security and Intelligence.²

² The background on LAWA and LAWAPD was provided by Los Angeles World Airports (<http://www.lawa.org>).

METHODOLOGY OF OUR REVIEW

On November 18, 2010, Mayor Antonio R. Villaraigosa announced the formation of the Blue Ribbon Panel on Airport Security. Mayor Villaraigosa tasked the Panel with conducting a comprehensive security review of LAX and providing recommendations to the Mayor and LAX for staying on the cutting edge of best practices in airport security. The Panel was asked to focus on counterterrorism/homeland security, law enforcement operations, fire operations, emergency management, and information technology.

In December 2010, after obtaining necessary security clearances for the Panel members, officials at LAWA provided the Panel with an orientation and overview of the airport. The orientation included presentations by LAWA executive management, LAWAPD, the LAWA information technology group, the LAWA emergency management and operations staff, and the Los Angeles Fire Department (LAFD). Following the orientation, members of the Panel were given a tour of LAX, which included public and secure areas.

The Panel was divided into five committees that comprised the areas the Mayor had requested be the focus of the review: homeland security/counterterrorism, law enforcement, fire operations, emergency management, and information technology. Chairs and Vice Chairs were selected for each committee, and some Panel members served on more than one committee in an effort to ensure communication between committees. The listing of the Chairs of the committees and the members of each committee is provided in Appendix A to this report. Each committee chair structured the committee work in the manner most appropriate for that committee. Each committee established its procedures and timelines, requested interviews, and requested documents.

Most committees met every week, either in person or telephonically. The Chairs of the Panel and the Chairs of the committees had standing weekly meetings via teleconference to update each other on the work of the committees.

The Panel heard presentations from various departments and agencies engaged in security at LAX, conducted interviews of individuals with current and historical knowledge of operations at LAX, reviewed documents related to security issues at LAX, and engaged in active debate and deliberation over the issues.

Over 200 interviews were conducted over the course of the Panel's work. The individuals interviewed by the Panel were advised at the outset of the Panel's confidentiality procedures. Issues were developed during the course of the interviews and checked against other interviews for opposing or concurring viewpoints. Issues were then verified in re-interviews to gain a complete picture of that particular issue and to ensure that all viewpoints and thoughts were presented.

In an effort to gain a more thorough understanding of the departments and agencies engaged in security at LAX and the level of interaction needed to secure the airport, the Panel scheduled a full day of presentations by the agencies with a presence at the airport. The Panel received briefings from: the Joint Regional Intelligence Center (JRIC), the Transportation Security Administration (TSA), the Federal Bureau of Investigation (FBI), Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), Ben Gurion International Airport officials, the Drug Enforcement Administration (DEA), the Center for Disease Control (CDC), the Los Angeles Police Department (LAPD), the Los Angeles County Sheriff's Department (LASD), the U.S. State Department, the U.S Secret Service, El Al Airlines, and the California Highway

Patrol (CHP).

In addition to the interviews, Panel members took part in guided private tours of LAX. The tours allowed Panel members to gain a better understanding of the physical layout of LAX, airport security operations, and to verify issues presented in interviews. The tours included a review of public and secure areas of the airport as well as security operations. During the course of the tours, Panel members had the opportunity to meet with and talk to many individuals who work at LAX, including private cargo area representatives, LAWAPD employees, and airport personnel. These informal interviews were conducted throughout our review.

In January 2011, we were joined in our effort by officials from Ben Gurion Airport, (redacted).

We reviewed numerous documents during the course of our evaluation. Each committee requested documents to assist in its evaluation of security. The documents reviewed included: aviation security documents, airport certification manuals, airport commission minutes, the Airport Emergency Operations Plan, the airport police procedure manual, mutual aid agreements, After Action Reports, the Aviation Security Advisory Committee meeting minutes, organizational charts, memoranda of understanding, preparedness materials, response plans, inspection records, training materials, security directives, and prior security studies. In all, approximately 100 categories of documents were requested and reviewed by the Panel.

The Panel issued interrogatories, or a set of questions, to the airport requesting detailed responses in the areas of emergency management and law enforcement operations. LAWA provided detailed answers to our written questions.

In March 2011, Panel members participated in the 10,000 Volts exercise,³ in which they were able to communicate anonymously with each other through computer technology, with the debate and conversations moderated with the assistance of an independent facilitator. This exercise allowed the Panel to define agreed or disagreed upon issues identified during the interviews.

The individual committees deliberated and formulated findings and recommendations. Issues and findings were identified based on the interviews and each Panel member's expertise. Some committees created matrices that identified possible issues and recommendations. These findings were debated within each committee until a consensus was reached. The committees underwent days of deliberation and debate while formulating their final recommendations.

Following the committee debates, each committee began drafting their findings and recommendations. The earlier matrices were used as blueprints in developing the final committee reports. Once the committees had completed their work, the full panel began meeting and deliberating. At that time, all of the findings and recommendations were debated at length by the full Panel.

During our deliberative process, the Panel recognized that there would be

³ 10,000 Volts is a technology-assisted debriefing session designed for analyzing critical incident decision-making. Information related to our study, obtained from interviews and documents reviewed, was captured using software that enabled Panel members to input their views anonymously into the database. Panel members were then able to view each other's thoughts and opinions on the computer screen, and respond to those opinions anonymously. The 10,000 Volts software ensured that all comments entered into the system were non-attributable. Dr. Jonathan Crego, the Director of the Centre for Critical Incident Research in London, England, was the facilitator who guided our online discussion. As a result of this exercise, the Panel was able to determine the collective thinking and analysis of the group prior to any detailed discussion and debate.

significant costs associated with implementing the recommendations. While many of the recommendations are cost neutral, many of the recommendations will be expensive to implement. As a result, members of LAWA's financial team met with members of the Panel to discuss LAWA's fiscal condition and financing options. LAWA's representatives advised the Panel that LAWA would be able to fund recommended security projects through one or more of its available financing options, including federal grants, landing fees, terminal charges, bond measures, and leases.

We recognize that there are costs and benefits to every financing proposal. We further recognize that this Panel consists of security experts and not financial experts. We have been assured, however, that LAWA has the resources and/or access to the financial resources to implement the proposals herein. We, therefore, leave it to LAWA management to determine the best financial mechanism to utilize to implement these recommendations.

Toward the end of our process, we invited representatives of LAWA to review a draft of this report and to provide us with their thoughts and criticisms. We gave thought and consideration to the feedback offered to us by LAWA's representatives.

Throughout this process the management and employees of LAWA and LAX were very generous with their time. At all times, they were responsive to our requests for information and were very forthcoming. We note that some of the individuals we interviewed contacted Panel members with follow-up information after their formal interview. It is clear that LAWA is committed to serving the public with integrity and providing the best aviation security system possible.

Throughout this process, we recognized the difficulties any organization faces

when undergoing a comprehensive public review such as the one being conducted by this Panel. Despite the challenges such a review presents, we were impressed by the candor with which LAWA employees approached this process as well as their overall dedication to security at LAX.

The Panel believes that there must be a procedure in place to monitor the implementation of the Panel's recommendations set forth in this report. To that end, following the submission of this report to the Mayor, the Chair and Vice-Chair of the Panel are prepared to meet with the Mayor's Office to select an Implementation Subcommittee of the Panel. That Subcommittee would meet with LAWA and LAWAPD quarterly to monitor the implementation of the Panel's recommendations and report back to the Mayor, the Board of Airport Commissioners, and the Panel on the status of the recommendations. In the alternative, the Mayor should direct the Board of Airport Commissioners to report quarterly regarding the status of the implementation of the recommendations.

COUNTERTERRORISM/HOMELAND SECURITY

Introduction

Although security at LAX has improved significantly since before the attacks of September 11, 2001, the airport remains a (redacted) target for terrorists, and counterterrorism must be the top priority for LAWA management and LAWAPD. (redacted).

Terrorism has long been a serious threat to the air transportation system of the United States and other nations. “Over 5,000 deaths have resulted from terrorist attacks on civil aviation since 1980; about 200 deaths occurred in attacks on airports themselves, as opposed to aircraft.”⁴ Historically, aviation facilities and aircraft have been a constant target of terrorist activities, and demonstrate the evolving methods used by terrorists. It is an unfortunate fact of modern life that airplanes and airports have been – and will continue to be – the focus of many terrorist plots because the successes are so spectacular from the perspective of a terrorist, and so heart-wrenching to the rest of humanity.

The adaptability of terrorists has been demonstrated time and again. History has shown that when terrorists attempt to strike the aviation industry, additional security measures are implemented. Terrorists who are focused on targeting aviation interests then adapt to circumvent the new security measures. For example:

- After the implementation of 100-percent baggage screening and passenger-bag reconciling following the destruction of Pan-Am 103 over Lockerbie, Scotland, by a bomb in the baggage hold, subsequent attacks by terrorists involved carrying

⁴ See the Memorial Institute for the Prevention of Terrorism (MIPT) Knowledge Base, online at <http://www.tkb.org>.

bomb components, pre-made improvised explosive devices (IEDs), or sharpened items into the passenger compartment.

- After X-ray screening of all carry-on luggage aimed to prevent the introduction of mechanical bomb components and solid or powdered explosives in hand luggage, the plotters behind the so-called “Bojinka” operation in 1995, where a trial run resulted in the explosion on board a Philippine Airlines flight from Cebu to Tokyo and in the 2006 “Liquid Bomb Plot” involving U.S. and Canadian passenger aircraft flying from London to North American destinations, liquid explosive components were either carried aboard in the former or planned to be used in the latter, disguised as contact lens solution in the first incident and sports drinks and juice bottles in the second, to be assembled and detonated in flight respectively over the Pacific and mid-Atlantic oceans.
- The restrictions on liquids or gels in carry-on luggage likely influenced the planners of the 2009 Christmas Day plot involving the “Underwear Bomber,” who carried on his body an IED that lacked metal components.

These examples demonstrate that security experts must constantly be thinking ahead of terrorists to implement counter-measures that will make it exceedingly difficult to carry out attacks. There is a need for constant vigilance on the part of those responsible for security at LAX, and security measures must continue to evolve to optimize security at LAX and meet emerging threats. Potential threats must be anticipated from ground attacks against passengers, employees, terminals, and aircraft while parked, taxiing, or coming in for a landing and from attacks against aircraft while in transit in the sky.

Findings

1. LAX is safer today than it was following 9/11

On June 8, 2010, the Los Angeles Airport Peace Officers Association (LAAPOA) and the Service Employees International Union (SEIU) 721, the unions that represent the airport's sworn police officers and non-sworn security officers, wrote a letter to the Chief of LAWAPD claiming that LAX is "more vulnerable to a terrorist attack than at any time since 9/11." While we have many recommendations to improve security at LAX, we disagree with the unions' claim.

The unions based their claim on (1) reductions in the deployment of sworn and non-sworn officers; (2) cuts to the budgets for training, and the replacement of vehicles and equipment; and (3) the failure to implement permanent checkpoints at each of the entrances to the airport coupled with a reduction in random checkpoints, but they ignored the additional security resources and the many security enhancements at LAX since 9/11.

Contrary to the unions' assertions, the presence of security personnel at LAX has grown dramatically since 9/11. The number of LAWAPD sworn law enforcement officers has increased from 263 in 2002 to 448 in 2011. LAPD also maintains a permanent deployment of personnel at LAX, and has additional resources (such as the bomb squad and SWAT unit) that are available to respond to incidents at the airport. LAWAPD and LAPD also have officers assigned to the joint explosive detection canine unit, which has more canine teams than any other airport in the nation.

On the federal side, the United States Transportation Security Administration (TSA) was created following the 9/11 terrorist attacks, and it has 2,400 personnel who administer an extensive passenger and cargo security program at LAX. The United

States Customs and Border Protection (CBP) has enhanced its law enforcement presence at LAX significantly since 9/11 and has over 800 armed CBP officers assigned to the airport. CBP maintains an armed presence at the Federal Inspection Services areas in each of the five international terminals to screen international passengers for immigration, customs, agricultural protection, and counterterrorism purposes. In addition, the Federal Bureau of Investigation (FBI), Immigration and Customs Enforcement (ICE), and the Drug Enforcement Administration (DEA) all have law enforcement personnel deployed at the airport.

Significant physical and technological enhancements have been implemented at LAX since 9/11. LAWA has invested almost \$387 million in security-related capital projects in the last five years, including a new security fence that has improved security on the perimeter of the airport and bollards and planter barriers at key locations within the Central Terminal Area (CTA) to block vehicles carrying explosives from being able to drive over curbs and penetrate terminal areas. Also, LAWA has worked with the TSA to implement a new badging process for all workers at LAX. Although, as discussed below, we believe additional enhancements are needed in these areas, these measures have improved security at the airport.

In 2007, LAWAPD and the University of Southern California Center for Risk and Economic Analysis of Terrorism Events (CREATE) collaborated on security enhancements for LAX. They created the “Assistant Randomized Motoring Over Routes” (ARMOR) Program, which is a resource allocation tool that uses algorithms to randomize the deployment of law enforcement personnel to public entrances into the airport based on weighted risk and threat information. ARMOR has been the basis for

similar systems designed to protect transportation infrastructure across the nation. Now in its fourth year at LAX, approximately 22,000 vehicles per month are pulled over for additional screening following an initial stop at the checkpoint. This year alone, the program has resulted in 15 felony arrests, including possession of a firearm and narcotics related offenses.

The Deny or Restrict Access Protocols Execution (DRAPE) program, which was created in 2008 on the recommendation of TSA, is intended to help secure LAX from an anticipated terrorist threat based upon intelligence received by law enforcement personnel. When activated, the plan restricts or denies access (redacted) and it can be accomplished with the LAWAPD and LAPD personnel currently on duty. Further, the airport can continue to operate when DRAPE is in effect, depending on the threat level.

The In-Line Baggage Handling & Screening System program, which is now operational in some terminals (redacted) and eventually will be in all of the remaining terminals, automates the security screening of checked baggage.⁵ The program includes construction and replacement of outbound baggage conveyor systems and installation/integration of new Explosive Detection System (EDS) machines provided by TSA. The project also includes construction of On-Screen Resolution Control Rooms, Baggage Inspection Rooms, Explosion Trace Detection (ETD) workstations, and Closed-Circuit Television (CCTV) systems. This development utilizes state-of-the-art inspection of passenger baggage and minimizes the number of passengers waiting in line for baggage screening. LAWA has secured almost \$500 million in federal funds to support this advancement.

⁵ (redacted)

While the unions correctly note that there has been a reduction in the LAWAPD Traffic Control Unit deployment since 2007, the deployment methodology changed from a three eight-hour shift format to a two ten-hour shift format allowing more coverage during peak hours. In addition, a bicycle detail was added to provide greater mobility to respond to traffic congestion and security incidents. Also, a shift of Airport Police Motor Officers has been added to provide additional visibility in the CTA.

Numerous studies have found that LAX is a leader in implementing innovative security measures. We find the additional resources and security measures to have enhanced security at LAX. While we believe that there is room for improvement, we do not agree that LAX is “more vulnerable to a terrorist attack than at any time since 9/11.”

2. LAX remains a (redacted) terrorist target

LAX has long been a terrorist target and has had more incidents than any other airport in the nation. In 1974, a terrorist (known as the “Alphabet Bomber”) detonated a bomb in the LAX international terminal, killing three and injuring eight. A bomb exploded in 1980 in the China Airlines luggage processing facility, causing extensive damage, but no injuries. In May 1982, three members of the Armenian Secret Army for the Liberation of Armenia were arrested after placing a bomb at the Air Canada cargo office.

In the 1999 “Millennium Plot,” Ahmed Ressam, an Al Qaeda terrorist trained in Afghanistan, was caught crossing into the United States with bomb-making equipment. He planned to detonate four timed luggage bombs inside and curbside at TBIT.

On July 4, 2002, Hesham Hadayet fired a handgun near the El Al counter, killing two and injuring six. In 2005, a radicalized Al Qaeda group in Folsom Prison, plotted to

attack the El Al ticket counter, in addition to the Israeli Consulate, two National Guard recruiting centers and several synagogues. The suspects were weeks away from executing the attacks when the plot was discovered.

Notwithstanding the improvements in airport security noted above, given its size, location, and number of passengers and stakeholder personnel, LAX remains a (redacted) target for terrorists seeking to disrupt air travel in the United States and terrorize the traveling public.

3. The prevention of a terrorist attack must be the highest priority at LAX

LAX is one of the largest airport complexes in the world. It is composed of many moving parts, each of which requires continuous, focused attention and support – the sum of which requires constant, effective oversight and coordination. As with any large organization, the interests of the multiple components compete for attention, prioritization and funding. The Panel believes that the threat of terrorism at LAX is the most significant and consequential risk faced by LAX, and that it requires the highest level of attention from the leadership of LAWA.

The prevention of a terrorist attack at LAX, therefore, must be the highest priority for LAWA and LAWAPD, and it must be understood and supported by every employee at every level of every agency, public and private, which operates within the LAX footprint. LAWA management is responsible for operations, capital improvements, and security at the airport, each of which is vitally important and extremely complex. Given the competing demands of running the airport and undertaking a massive construction project to expand the international terminal and renovate other terminals, there is a perception by some of the people we interviewed that security at the airport is a

secondary priority for LAWA management.

Although LAWA has a Deputy Executive Director for Operations and Emergency Management to oversee airport operations and a Deputy Executive Director to oversee the capital improvement at the airport, as discussed in our Chapter on Law Enforcement Operations, it does not have a Deputy Executive Director for Public Safety to oversee security and counterterrorism activities at the airport. The absence of a high-level executive with direct oversight responsibility for security contributes to the perception that security is not the highest priority for LAWA management.

A Deputy Executive Director for Public Safety would report directly to the Executive Director and be in charge of all security and public safety matters for LAWA. It is imperative, therefore, that the person who would fill this position be able to work effectively with the Executive Director and the rest of the LAWA management team, and keep the Executive Director fully informed of security developments and needs at the airport. This person must also be able to work effectively and cooperate with the LAPD and the other agencies responsible for security at the airport. The Deputy Executive Director for Public Safety would also be LAWA's liaison with the LAFD, which needs to have access to law enforcement intelligence in responding to emergencies at the airport.

We also believe that LAWA should consider creating a position of Director of Intelligence who would report to the Deputy Executive Director for Public Safety and would proactively gather and share counterterrorism intelligence. We note that the position could also report to the Chief of LAWAPD or the Assistant Chief for Homeland Security. We would expect that the creation of the position and the organizational structure would be decided by the Executive Director in consultation with the new

Deputy Executive Director for Public Safety and the Chief of LAWAPD.

The Director of Intelligence would have a staff focused exclusively on gathering and analyzing intelligence regarding terrorist threats, which would be shared with the law enforcement agencies at LAX. The position of the Assistant Chief of LAWAPD for Homeland Security should, however, remain under the Chief of LAWAPD because counterterrorism and homeland security are fundamentally law enforcement operations and there needs to be a unified command to address such threats.

LAWA management needs to actively encourage the development of proposals to enhance security at the airport. For example, we noted that LAWA did not request any funding from the Department of Homeland Security's Urban Areas Security Initiative (UASI) in 2010 for security enhancements at the airport. Although LAWA has implemented a Capital Improvement Project Committee of Deputy Executive Directors and the Chief of Police to vet capital improvement projects, including security projects, it does not have a Security Project Manager to identify, prioritize, fund and implement infrastructure and technology projects essential to addressing LAWA's counterterrorism mission.

A recurring theme in some of the interviews we conducted was that the Executive Director needs to do more to support LAWAPD security-related funding requests. In evaluating these requests, she tended to focus on the costs of and justification for security enhancements versus the threat of a terrorist incident at the airport, which seemed to downplay her support for the proposed security enhancements. The questions posed by the Executive Director appear to be appropriate and the inability to answer the questions effectively has hampered the progress of the security proposals. A Security Project

Manager should be in a better position to answer these questions effectively and facilitate implementation of funding requests for enhanced security measures. While we recognize that the cost of any security enhancements must be considered, the consequences of a major terrorist attack at the airport are incalculable.

The leadership of the LAWAPD acknowledges that the prevention of terrorism is its highest priority, but the mission statement and priorities of the LAWAPD do not clearly articulate that it is the most important priority. We believe that the mission of the LAWAPD has not shifted sufficiently to emphasize terrorism prevention and that a strategic plan aimed at re-focusing the mission, and aligning resources to this core mission is needed.

Moreover, LAWAPD's allocation and utilization of resources do not always appear to align with this priority mission of the prevention of terrorism. We found that LAWAPD lacks a clear plan for the allocation of its resources in furtherance of its priority mission, which makes its ability to coordinate with LAPD and other law enforcement agencies to prevent terrorist activities at LAX more challenging.

Although the LAWAPD has taken significant steps to improve its ability to prevent a terrorist attack, it remains focused on responding to terrorist acts rather than preventing them in the first place. (redacted) There is a significant difference between classic police work which responds to and investigates crimes, as opposed to a mission, such as that of LAWAPD, to assure security as to prevent terrorist attacks.

The staffing level of LAWAPD, both sworn and non-sworn, is robust – indeed, it is superior to those of comparably sized airports. (redacted)

Although LAWAPD does participate in anti-terrorism committees and task forces

with other law enforcement agencies at LAX, the Panel believes that it needs to be more proactive in collecting and collating intelligence from the other law enforcement agencies to ascertain the threat picture and develop appropriate strategies for dealing with the threat. We believe that the mission of the LAWAPD has not shifted sufficiently to emphasize terrorism prevention and that a strategic plan aimed at re-focusing the mission, and aligning resources to this core mission is needed.

4. The risks to non-secure public areas (redacted)

The risk of attack in the non-secure public areas of an airport outside the passenger screening checkpoints has not diminished with time, as recent incidents demonstrate:

- On June 30, 2007, a terrorist attack occurred at the Glasgow airport in Scotland. Two men drove an SUV loaded with propane canisters through the glass doors of the international terminal and set it ablaze. Security bollards prevented the truck from actually entering the terminal, but five bystanders were injured.
- On January 24, 2011, a suicide bombing involving an IED that was detonated in the non-sterile arrivals hall of the Domodedovo airport in Moscow killed over 30 people and injured over 150 more.
- On March 2, 2011, a terrorist shooting occurred at the Frankfurt airport in Germany. The shooter targeted a US Air Force bus parked outside the airport terminal and killed two servicemen and seriously wounded two others.

The RAND Corporation, which was commissioned by LAWA to conduct a series of studies on options for protecting the airport from terrorism, determined that many of the major terrorist scenarios at LAX involved attacks on the non-secure, public areas of the

airport.

The CTA is the area that contains the “horseshoe” shaped road around which the passenger terminals are located. The configuration and construction of LAX presents serious security challenges, which are not necessarily faced at other airports. (redacted)

The ARMOR program is currently used to establish random checkpoints at entryways into LAX. This program provides a measure of deterrence that is lacking in other airports, and it should be continued. (redacted)

Progress has been made in installing concrete flower pots/bollards to provide protection against a vehicle with explosives crashing into a terminal in the CTA. (redacted).

TSA does not use different levels of passenger screening based upon risk posed by the passenger. For example, TSA does not have a trusted traveler program to expedite screening for those who qualify. Nor does TSA apply any other risk assessment to the passenger screening process to reduce the time that passengers wait in line to go through the TSA screening.

As with any airport, areas accessible to the general public at LAX prior to TSA screening checkpoints remain vulnerable to attacks; any choke point where crowds assemble – (redacted) – presents a target of opportunity. With over 59 million passengers last year, LAX will remain a target for terrorist plotters in the future. (redacted)

5. The insider threat (redacted)

(redacted) The ‘insider threat’ is one of the most pressing concerns for LAX. Individuals with access to secure areas and knowledge of airport operations offer terrorists a conduit for exploiting vulnerabilities and circumventing airport countermeasures. One international foiled plot and two domestic foiled plots within the

past decade, highlight the potential threat from insiders:

- In 2005, a member of a prison-founded Islamist group was encouraged to keep his employment at a duty-free shop at LAX while the group discussed attacking the El Al ticket counter, among other targets.
- In 2006, an individual associated with the Liquid Bomb plotters was employed as a security guard at Heathrow. He had previously worked for a company that provided security for several airlines, and he allegedly provided information about airport and airline security procedures to the plotters.
- In 2007, the alleged ringleader of a plot to blow up the fuel farm and fuel pipelines at JFK planned to use the knowledge he gained as a cargo worker at the airport.
- In early 2011, a British Airways employee working at a call center in Newcastle, England was arrested and charged with planning both cyber and physical terrorist attacks. He was encouraged by Anwar al-Awlaki, a leading figure in Al Qaeda's franchise in Yemen (known as Al Qaeda in the Arabian Peninsula), to both develop means to attack British Airways and also to seek employment as cabin crew in order to facilitate an in-flight bomb attack.
- Recent intelligence collected after the death of Osama bin Laden indicated that he was focused on using insiders to attack the airline industry.

(redacted) Insider threats will continue to pose security challenges.

The potential for insiders who have access to sensitive areas of LAX to collaborate with terrorists exists. (redacted)

We were advised by LAWA that it is in the process of expanding and upgrading

its ACAM access control system. (redacted)

LAWAPD administers the access program at LAX pursuant to TSA regulations. Although the system for granting access to secured areas at LAX meets the TSA's requirements, it is not optimal. TSA's standards are the minimum requirements for all airports, and they are not sufficient for an airport as large as LAX in the middle of a large urban area.

Individuals who work in the Air Operations Area (AOA)⁶ are issued badges by LAWAPD after fingerprinting, the completion of a criminal background check, and having their names checked against the Terrorist Screening Center's Watchlist⁷ in compliance with TSA security directives. (redacted)⁸

Only three businesses at LAX are members of InfraGard, which is a partnership between the FBI and the private sector, whereby businesses, academic institutions, and state and local law enforcement agencies share information and intelligence.

Most LAX-based businesses do not receive any terrorism-related information or training on a regular and/or standardized basis from the Joint Regional Intelligence Center (JRIC).⁹ There is, however, annual training for vendors, tenants and airlines by

⁶ The AOA is any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. The AOA also includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft.

⁷ Prior to the creation of the Terrorist Screening Database, more commonly referred to as the Watchlist, information about known or suspected terrorists was dispersed throughout government agencies without a single agency responsible for consolidating the information and making it available. Under Homeland Security Directive 6, the Terrorist Screening Center now creates the comprehensive Watchlist.

⁸ (redacted)

⁹ The JRIC opened in July 2006 and was the first of its kind in the United States to house multiple agencies in one facility for terrorism prevention. It was spearheaded by the LAPD, the Los Angeles County Sheriff's Department, the California State Office of Homeland Security, and the FBI. The JRIC is a collaboration between federal, state, and local law enforcement and public

LAWAPD's Vulnerability Assessment and Analysis Unit (VAAU).

General Aviation (GA) is comprised of all aviation flight operations that are not military or commercially scheduled. LAX handles over 17,000 GA flights per year. At LAX, GA operations utilize two Fixed Based Operators (FBOs), Landmark Aviation and Atlantic Aviation, and are also affiliated with the Standard Aero Repair Station. These three locations are within the LAX secured area and are required to comply with the security regulations found in the TSA-approved LAX Airport Security Program (ASP). TSA inspectors regularly visit these locations in order to ascertain LAX ASP compliance. In an effort to provide regular outreach to the GA community, TSA inspectors attend quarterly meetings of the Aviation Technical Advisory Committee of the Association of Governments, most recently on June 16, 2011. (redacted)

6. The perimeter at LAX (redacted)

The perimeter of LAX consists primarily of fencing that surrounds the exterior boundaries of LAX. (redacted)

LAWA has invested \$28.1 million on a new perimeter security fence surrounding most of LAX. The fence is eight-feet tall with one-inch vinyl coated fencing and double stranded barbed wire on top of a five-foot concrete K-rail base. This fence is considered the "gold standard" in perimeter fencing because of its sturdy construction. (redacted)

This new fencing is a significant improvement over the prior fencing.
(redacted)¹⁰

safety agencies to integrate criminal and terrorism threat intelligence and provide for intake, analysis, fusion, synthesis, and dissemination of that information. The JRIC converts the information into operational intelligence to detect, deter, and defend against terrorist attacks and major crime threats within the seven counties of the FBI's Los Angeles Field Office area.

¹⁰ (redacted)

We recognize that the perimeter fence meets acceptable standards monitored by TSA. Given that LAX is a known terrorist target located in the heart of an urban area, surrounded by residential communities, with considerable traffic and commerce in the vicinity that is unrelated to airport operations, fencing that exceeds acceptable standards is needed. (redacted)

Various and alternative sensor technologies exist that are capable of protecting against perimeter intrusions and trigger alarms when they occur. (redacted) We believe that a technology-enhanced intrusion detection system is an important tool for securing a large geographic area such as LAX (redacted)

LAWA has also installed advanced vehicle access barriers and controlled access vehicle gates at each of the entrances to the airfield. Hydraulic barriers and “lion’s gates,” have also been installed at some locations. (redacted)

The south side of LAX, near Imperial Highway, is lined with cargo terminal buildings that are operated by private businesses. (redacted) The cargo carriers must comply with federal law in the operations of their facilities and are subject to periodic audits and security spot checks.

This Panel spent considerable time reviewing and observing the air cargo facilities. (redacted)

MANPADS (Manned Portable Air Defense System) are lightweight, shoulder fired heat-seeking missiles. Each US commercial airport receives a yearly MANPADS Vulnerability Assessment (MVA) and MANPADS Mitigation Plan (MMP). The MVA uses special software to identify air traffic patterns and, by using a predetermined list of factors, identifies the most advantageous launch locations. The MMP then describes the

best security activity to deter or prevent attacks. LAX complies with the annual MVA and MMP requirements.

(redacted) TSA works with local and federal law enforcement to conduct routine MANPADS threat mitigation operations in these locations, along with targeted operations during times of heightened awareness or under a specific threat.

7. Prior studies (redacted)

This panel is the latest in a list of evaluators who have reviewed security at LAX. The RAND Corporation was commissioned by LAWA to conduct a series of studies on options for protecting the airport from terrorism. RAND reported its findings in a 2004 study entitled *Near Term Option for Improving Security at Los Angeles International Airport* and a 2006 study entitled *Implementing Security Improvement Options at Los Angeles International Airport*. (redacted)

A number of the security enhancement recommendations offered by the RAND Corporation in 2004 and 2006, (redacted) have been implemented and others are in process, but a number of the recommendations have not been addressed.¹¹ We recognize that the airport has to wrestle with competing demands and priorities and that, as pointed out to us by LAWA management, there are engineering and practical difficulties in implementing some of the recommendations. Nevertheless, we are concerned that prior recommendations made by qualified experts have not been implemented. (redacted)^{12 13}

LAWA management has advised us that in some cases it decided not to implement the recommendation after concluding that the necessary technology was not

¹¹ (redacted)

¹² (redacted)

¹³ (redacted)

available, it was not practical to do so, or there were other more pressing priorities.

While we recognize that these are often matters of judgment and priorities, it is important that LAWA management continually review and document the feasibility of implementing the outstanding recommendations as expeditiously as possible.

8. There is insufficient and ineffective collaboration between agencies responsible for the prevention of terrorism at LAX

A large number of local, state, and federal law enforcement-related and public safety agencies work at LAX, including LAWAPD, LAPD, FBI, CBP, ICE, DEA, and TSA. Coordination and communication between each of these agencies are complex and time-consuming. As noted in many post 9/11 reports, terrorism prevention requires full, complete, and effective collection and sharing of information among all agencies charged with preventing terrorism attacks. It is well-recognized by all of the departments and agencies that the adverse consequences to ineffective communication are significant. Nevertheless, effective counterterrorism communication among law enforcement agencies remains elusive.

This challenge has long existed at LAX. (redacted) There needs to be better collaboration and information sharing among the agencies at LAX and, as discussed below, via a revitalized Airport Security Advisory Committee (ASAC).

The historical tension between the LAWAPD and LAPD noted in our chapter on Law Enforcement Operations impedes their willingness to share information and coordinate their counterterrorism efforts. The lack of close planning and coordination between LAWAPD and LAPD increases the risk that critical information may not be disseminated to each other in a timely fashion. (redacted)

Since 2004, LAPD's Operation Archangel has evaluated over 500 locations throughout the City of Los Angeles for threats, vulnerabilities and consequences to assist owners and operators in assessing the risks to critical transportation infrastructures.¹⁴ The focus is on collecting and communicating the information required by an incident commander, and the assessments are entered into a database and periodically reviewed. Analysts use the information to identify vulnerabilities and develop risk assessments, secure critical infrastructures, and enhance recovery preparedness measures. For several years, LAPD officers at Operation Archangel have attempted to forge a partnership with LAWAPD. LAWAPD has repeatedly declined these efforts, citing federal regulations governing the disclosure of Sensitive Security Information (SSI) obtained or developed in conducting security activities that TSA has determined would be detrimental to the security of transportation. LAWAPD was of the opinion that the security requirements for the electronic database do not reach the threshold level required to bring it into compliance with the SSI regulations.¹⁵

On August 6, 2010, LAPD's Archangel personnel met with personnel assigned to LAWAPD's Critical Infrastructure Protection Unit to again request their cooperation in an assessment of the airport. This request was denied by LAWAPD, citing their interpretation of the SSI.¹⁶

¹⁴ As a result of a partnership with the Department of Homeland Security, the program also trains local police and National Guard units to conduct vulnerability assessments of critical state and local infrastructure.

¹⁵ We note that the Phoenix Police Department, which is responsible for security at Phoenix's Sky Harbor International Airport, takes the position that it is not an SSI violation for the electronic entry of Sky Harbor data into the database.

¹⁶ TSA has now confirmed that security requirements for the Archangel database are actually higher than for SSI, which will allow for entry of LAX data into the database.

One example of cooperation among federal and local law enforcement agencies is TSA's Visible Intermodal Prevention and Response (VIPR) program. Based largely on national intelligence, TSA deploys VIPR teams to enhance security by working in mass transit, aviation, rail and other transportation modes alongside local law enforcement agencies during specific periods of time or events to supplement existing security resources, provide deterrent presence and detection capabilities, and introduce an element of unpredictability to disrupt potential terrorist planning activities. The exact makeup of teams is determined jointly with local authorities.¹⁷ Increased use of VIPR team assignments that are strategically targeted to address vulnerabilities at LAX and patterns identified from suspicious activity based upon national and local intelligence would enhance security at LAX.

9. The Airport Security Advisory Committee is not performing optimally

The mission of the Airport Security Advisory Committee (ASAC) is to assist the Airport Security Coordinator in support of the following objectives:

- Organize and manage safety and security planning;
- Develop a prevention and response model in compliance with the National Incident Management System (NIMS) and the National Response Plan (NRP);
- Develop a Joint Command Center (JCC) and Department Operations Center (DOC);

¹⁷ Following the 2004 Madrid train bombings, TSA stepped up its efforts to enhance security on rail and mass transit systems nationwide by creating and deploying Visible Intermodal Prevention and Response (VIPR) teams. Comprised of federal air marshals, surface transportation security inspectors, transportation security officers, behavior detection officers, explosives detection canine teams, and local authorities, VIPR teams augment security at key transportation facilities in urban areas around the country, including National Capital Region (Washington), New York, Newark, Philadelphia, Boston, Houston, Los Angeles, and San Francisco.

- Conduct periodic training exercises to assess AEOP protocol efficiencies;
- Include stakeholders in the security contingency planning process to develop an effective and cohesive unified command structure to manage critical incidents;
- Practice, test and modify the established unified command structure organization through recurrent training exercises; and
- Identify critical airport infrastructure and operations to assess risks, threats, vulnerabilities, consequences and mitigation.

Membership in the ASAC includes: TSA, FBI, LAWAPD, LAPD, LAFD, the Los Angeles County Sheriff's Department, California Highway Patrol, Office of the Governor, the City's Emergency Management Department, and CBP.

Although the ASAC is supposed to be a high-level, interagency planning body to enhance collaboration among public safety and security agencies, it only meets quarterly. When it does meet, not all of the highest level managers of the public safety agencies attend the meetings.

The ASAC is not engaged in assessments of evolving security threats or making recommendations to adjust and develop strategies to address those threats. Although the ASAC plans and coordinates the Aviation Security (AVSEC) interagency tabletop and field exercises, the last such exercise was in 2007. The ASAC does not evaluate intelligence and make recommendations to its members on measures to improve the security of LAX against potential terrorist attack. The ASAC also lacks sufficient input from airport stakeholders, who have a great deal of knowledge about potential security weaknesses at the airport.

We believe that the ASAC is an underdeveloped and under-utilized resource that could operate as a committee of high-level executives who are experts in security along the lines of the Area Maritime Security Committee, which coordinates the plans to address terrorist threats at the Ports of Los Angeles and Long Beach. The ASAC could have a significant role in improving communications, planning and collaboration between law enforcement agencies, and in designing training opportunities for all agencies. It must be an interagency coordination council that has the attention of the participating agencies.

10. The gathering and sharing of intelligence is not consistent at LAX

LAX has adopted the “iWatch” and the “See Something, Say Something” programs to keep private sector businesses and employees, and the traveling public, aware of the terrorism threat and to report suspicious behavior. The continued development of programs to enlist the assistance of the private sector is vital to enhancing security at the airport. (redacted)

Aviation-related intelligence is not institutionally passed to all public safety agencies at LAX on a consistent basis. Intelligence sharing between local law enforcement public safety agencies and the United States intelligence community must be improved. The development of relationships and connectivity to provide each agency with key intelligence information regarding evolving terrorist threats in the United States and abroad, the reports of suspicious activity from other airports, and airport industry best practices to achieve continuous situational awareness and organizational self-improvement is critical.

The JRIC has multi-agency personnel from FBI, LAPD, LAWAPD, TSA, and

CBP who focus on monitoring all aviation-related intelligence. The intelligence reviewed at JRIC originates from tips and leads submitted from LAWAPD officers and Suspicious Activity Reports (SARs), which are reports of suspicious activity from each agency's headquarters and the United States intelligence community or world events. There is no apparent procedure to ensure that all of the agencies with responsibility for security at the airport, even those that are not members of JRIC, receive notice of all aviation-related intelligence or that JRIC intelligence briefings related to the aviation industry are disseminated to at least one representative of all these agencies in a timely or consistent manner. Because only certain agencies have personnel assigned to the JRIC, those agencies may receive the aviation-related intelligence faster than others.

Additionally, other than the ASAC, there is no regularly scheduled meeting among all public safety and security agencies at LAX to discuss the aviation-related intelligence and terrorism-related trends that have occurred and any actions taken. Such meetings would allow the public safety agencies at LAX to identify intelligence gaps, and ensure each agency has the same situational awareness of the aviation threat picture. The results of this type of discussion in, for example, a subcommittee of the ASAC, would be of great value to the ASAC executives.

There is no single process for all LAX partners to identify and address risks – threats, vulnerabilities, and consequences to LAX – on a continuing basis and to maintain that information in a secure web-based portal database. This assessment would reveal common vulnerabilities of aviation infrastructure, identify site-specific vulnerabilities, identify terrorist activities that likely would be successful in exploiting those vulnerabilities, and provide options for deployment of personnel and preemptive and

protective actions to mitigate them. This would also be of assistance in ensuring that resources are appropriately allocated.

There is no clear mechanism to ensure that appropriate aviation/terrorism-related intelligence received by public safety and security agencies at LAX is shared with private sector businesses at LAX. LAWAPD conducts monthly meetings, and TSA conducts quarterly meetings, with private sector businesses who are present at LAX. However, there is no standard method to ensure that all private sector businesses receive pertinent information about terrorism threats at the airport, information that is held by all of the public safety agencies. InfraGard, which is based at the JRIC and signs up private sector entities and facilitates information sharing to its members, only has three members from private sector entities that operate at LAX.

11. Counterterrorism protocols are not understood or are under-utilized

a. Suspicious Activity Reports are inconsistently used

The SAR program was developed by the LAPD's Counterterrorism and Criminal Intelligence Bureau in 2007, and has been adopted nationally for reporting, categorizing and forwarding information while protecting privacy and civil liberties.¹⁸ Police officers are trained to recognize behaviors and activities with possible links to terrorism.¹⁹

¹⁸ The LAPD developed codes based on specific behaviors and activities known from past terrorist attacks as behaviors that terrorists may engage in as they prepare for a terrorist attack. By coding the behaviors and activities, law enforcement can measure, analyze and share information more effectively and enhance the ability to prevent catastrophic attacks.

¹⁹ A National SAR initiative was launched in 12 major agencies in locations such as: Los Angeles, Miami Dade, Boston, Chicago, Albany, NY, Virginia, Las Vegas, Houston, Phoenix, Seattle, Washington DC, and Maryland. The National SAR Initiative established a unified and integrated approach for all agencies, with consistent and clear intra-agency policies.

The public safety and security agencies at LAX handle SARs differently, and some agencies do not even generate SARs. The LAWAPD policy is to produce a SAR utilizing LAPD documentation. There is, however, a belief within LAWAPD that SARs submitted through LAPD do not reach the JRIC in a timely manner, and that the LAPD process and paperwork is too cumbersome. As a result, some LAWAPD officers utilize the JRIC Tip Sheet to submit SARs directly to JRIC. This is problematic because it bypasses LAPD's SAR unit, which is supposed to review SARs and establish metrics within the City of Los Angeles. Thus, LAPD does not always receive information about the LAX complex even though it is within the City of Los Angeles and is within LAPD's jurisdiction.

b. The Terrorism Liaison Officer program is under-utilized

Not all public safety agencies at LAX actively participate in the Terrorism Liaison Officer (TLO) Program,²⁰ which is a valuable tool that provides guidance and training on terrorism-related behavior and suspicious activity to public safety agencies. The TLO program also provides a level of standardization about what suspicious activities to observe and report, and how to report them. Participation in the TLO program would provide each public safety agency at LAX with a resource who has a level of expertise in terrorism-related matters. Also, this same resource would have the capability to receive aviation/terrorism-related intelligence from, and exchange it with, the JRIC and other

²⁰ A Terrorism Liaison Officer (TLO) is a peace officer, firefighter, state investigator, federal agent, military investigative personnel, or anyone working closely within the public safety/homeland security community, who has been certified on counterterrorism matters. The mission of a TLO is to serve as a conduit of information between members of the public safety community, public/private sector, citizenry and the US Government, in the fight against terrorism.

TLOs.

c. The Infrastructure Liaison Officer program is under-utilized

Not all private sector businesses at LAX actively participate in the Infrastructure Liaison Officer (ILO) Program, which provides guidance and training to the private sector about terrorism-related behavior and patterns, the latest suspicious activity trends, and how to observe and report suspicious activity at the airport. The ILO program also provides a level of standardization for what suspicious activities to observe and report, and how to report them. Participation in the ILO program by private sector businesses at LAX is, however, very limited.

12. Cargo security systems for passenger aircraft are robust

LAX is the thirteenth busiest cargo airport in the world. There are 92 airlines and 782 Indirect Air Carriers (freight forwarders) and Certified Cargo Screening Facilities²¹ that handle almost 1.9 million tons of cargo on both passenger and cargo aircraft each year at LAX. The number of third party air shippers is incalculable. More than 1,000 flights depart and arrive every day carrying cargo. (redacted)

TSA uses a layered approach to security in the aviation environment. One of the layers is the use of the TSA Security Regulations and Security Programs to mandate and monitor compliance of security procedures for screening passengers, baggage, airport employees and cargo at LAX. (redacted)

To facilitate the screening of cargo by private entities, the TSA instituted a “known shipper” program for passenger aircraft transporting cargo. “Known shippers” are originators of cargo who have been reviewed by TSA and who have demonstrated an

²¹ A Certified Cargo Screening Facility is any facility operated by a shipper or an Indirect Air Carrier that has been reviewed by TSA and authorized as a cargo screening location.

established business relationship with the air cargo transport industry. TSA conducts covert cargo testing at the private facilities as a means of monitoring capabilities, compliance with security regulations and directing corrective action when needed.

LAWA uses airport police officers, canine teams, and the Airport Police Vulnerability Assessment and Analysis Unit (VAAU) to assess vulnerabilities and provide security beyond the physical barriers in the public and secured areas of the airport. TSA and the VAAU conduct joint security sweeps, inspections and additional covert testing to mitigate threat and enhance the security posture in the cargo areas.

In August 2010, Congress mandated that 100% of all cargo traveling on passenger aircraft was to be screened for explosives, which has been met. The aircraft operators, Indirect Air Carriers, and Certified Cargo Screening Facilities are authorized by TSA to pre-screen cargo at on and off-airport facilities utilizing a variety of technologies, including explosive trace detection machines, advanced technology x-ray, explosive detection canines, physical search and large aperture x-ray units capable of screening pallets of cargo.

Notwithstanding these robust procedures, there are areas of concern. Most outbound air cargo packages are consolidated at off-airport facilities and arrive at airports on bulk pallets or in special containers known as unit load devices. (redacted)²²

The insider threat is a priority concern for the employees of the private sector entities with responsibility for screening cargo on passenger aircraft. Background checks are conducted upon initial employment for baggage and cargo handlers. (redacted)

Workers with access to cargo and any employee who has been issued an airport

²² *Screening and Securing Air Cargo: Background and Issues for Congress*, Congressional Research Service, December 2, 2010.

identification are also subjected to Security Threat Assessments (STA) which is a continuous biographical check against various government databases.

Following the discovery of explosives in printer cartridges originating in Yemen, there has been a renewed focus on screening cargo on all aircraft, not just on passenger aircraft. (redacted)

Recommendations

The Counterterrorism Mission

1. LAWA should establish a clear priority and focus on the threat of terrorism and the prevention of a terrorist attack through proactive counterterrorism strategies.
2. The mission statement of the LAWAPD should clearly articulate the prevention of terrorism as its highest priority.
3. LAWA should have an updated Strategic Plan for security, establish a Security Project Planning group, and appoint a Security Project Manager to identify, prioritize, fund and implement capital projects essential to addressing LAWA's counterterrorism mission.
4. LAWA should consider creating the position of Director of Intelligence.
5. LAWAPD should conduct a top-to-bottom review of its allocation and utilization of resources to ensure optimal focus on its priority mission of the prevention of terrorism.
6. (redacted)

Collaboration Between Agencies

7. The ASAC should include leaders from all public safety and security agencies at LAX and should meet regularly.
8. Private sector companies present at LAX should be part of the ASAC and their input regarding security matters impacting LAX should be solicited and considered.
9. The ASAC should be modeled after the Area Maritime Security Committee that operates at the Ports of Los Angeles and Long Beach.
10. The ASAC should form Research and Development, Intelligence, and Private Sector subcommittees.

11. The ASAC Research and Development subcommittee should evaluate emerging technologies that would benefit counterterrorism objectives at LAX and recommend them to the appropriate agencies.
12. The ASAC Intelligence subcommittee should form and facilitate an Information Sharing Group (ISG) and provide a link to the JRIC.
13. The ASAC Private Sector subcommittee should regularly involve the private sector stakeholders in a public/private partnership for counterterrorism security.

Physical Security Enhancements

14. (redacted)
15. (redacted)
16. (redacted)
17. (redacted)
18. (redacted)
19. LAWA should institute more frequent and robust auditing of the security procedures for air cargo screening. (redacted)
20. (redacted)
21. LAWA should ensure that lease agreements with cargo carriers include provisions that clearly define the responsible parties for the implementation of appropriate security measures and the payment of fines by the carriers for security violations.
22. (redacted)
23. (redacted)
24. (redacted)

Insiders at the Airport

25. The process of vetting applicants for access badges should be enhanced and the grounds for denying badges and/or access to sensitive areas of the airport should be expanded to include any prior convictions for crimes involving moral turpitude.

26. The questionnaire used in the vetting process should be revised to focus on counterterrorism.

27. (redacted)

28. (redacted)

29. (redacted)

30. (redacted)

31. (redacted)

32. (redacted)

33. (redacted)

34. (redacted)

35. (redacted)

36. (redacted)

37. TSA should ensure that its security-related auditing results are disseminated to field personnel for training and development and identification of patterns and trends.

Passenger Screening

38. TSA should incorporate risk management principles in its passenger screening and should implement a passenger screening process using risk-based factors to identify and classify passengers, based on security risk, prior to flight. The process would categorize each passenger for the minimum level of screening warranted by an established risk category.

39. TSA should establish a “Trusted Traveler” program to expedite passengers that have been vetted for potential security risk based upon a background check, counterterrorism interview, fingerprinting or other biometric identifiers and terrorism database checks.

40. (redacted)

Information Sharing

41. An Information Sharing Group (ISG), comprised of at least one representative from each public safety agency that operates at LAX, should be established to ensure all aviation industry-related intelligence is captured, analyzed and disseminated to all public safety agencies and, if the position is created, to the LAWA Director of Intelligence, and thereafter, to external private sector stakeholders at LAX.

42. The JRIC should ensure that all aviation industry-related intelligence can be captured, analyzed, and disseminated to the ISG in a timely manner.

43. The ISG should meet at least once a month to discuss the aviation-related intelligence and terrorism-related trends and focus on identifying intelligence gaps, and ensuring each agency has the same situational awareness.

44. At least one representative from the ISG should participate in and brief the ASAC on the results of the ISG meeting.

45. LAPD personnel assigned to Operation Archangel should conduct a comprehensive vulnerability assessment of the entire LAX footprint to identify common vulnerabilities of aviation infrastructure, site-specific vulnerabilities, and the type of terrorist activities that are likely to be successful in exploiting those vulnerabilities, and to provide options for preemptive and protective actions.

46. Information from the Operation Archangel assessment should be entered into an electronic database and shared with other law enforcement agencies on a “need to know” basis.
47. LAWA should seek authorization from TSA to share Sensitive Security Information (SSI) with other law enforcement agencies.
48. There should be a regularly scheduled meeting sponsored by the ASAC between the ISG and private sector businesses to share intelligence and to discuss the latest suspicious activity patterns.
49. The ASAC, in conjunction with the JRIC and ISG, should promote InfraGard membership to the private sector businesses at LAX.
50. A standardized protocol for all public safety agencies at LAX to report SARs through LAPD should be instituted. Training should be provided to all public safety agencies on what should be reported, and how and where to report it.
51. All SARs processed through and reviewed by LAPD should be forwarded to the JRIC in an expeditious and consistent manner, and disseminated to LAX public safety/security agencies.
52. There should be a regularly scheduled SAR debriefing of the ASAC by the joint TLO team and the ISG.
53. All public safety/security agencies at LAX should support the TLO Program by actively recruiting, selecting and sending appropriate personnel to TLO training.
54. LAWA should continue to support the “iWatch.org” and “See Something, Say Something” programs to keep the private sector businesses and private citizens at LAX on the alert for suspicious activity and how to report such observations.

55. TSA should increase the use of local VIPR teams to target vulnerabilities at LAX and increase visible security at LAX based upon local as well as national intelligence.

56. LAX tenants, stakeholders and public safety personnel should receive electronic messaging regarding LAX related emergency incidents in a timely manner.

Exercises

57. Tabletop exercises should be conducted at least quarterly and field training exercises at least annually, involving public safety agencies and private sector businesses at LAX as appropriate to the exercise. Tabletop exercises should include TopOff (Top Official) participation in the exercises.

58. Training exercises should be compliant with the National Incident Management System (NIMS) and test the LAX Emergency Response manuals and plans for the various potential terrorism-related incidents.

LAW ENFORCEMENT OPERATIONS

Introduction

Policing and protecting LAX involves many complexities and challenges. LAX is one of the busiest international airports in the world with numerous stakeholders who use and serve the airport, and it is currently in the middle of massive construction projects to expand the international terminal and renovate one of the domestic terminals. As noted, LAX is a (redacted) target for terrorists and encompasses over 3,425 acres with multiple access points and a vast perimeter. It has over 48,000 personnel who work at the airport, and over 59 million passengers traveled through LAX last year. In addition, there are numerous federal, state and local law enforcement agencies with both overlapping jurisdictions and distinct responsibilities for security at the airport. Effective and efficient public safety requires extensive real-time communications and coordination to ensure that these allied agencies work together effectively to police, protect, and secure the airport.

The federal, state, and local law enforcement personnel we interviewed are very knowledgeable about operations at LAX. They understand the unique and challenging policing and security issues at the airport, and they are dedicated to their collective mission of protecting the airport, the traveling public, and the various stakeholders who use and serve the airport. There is coordination and communication among the multiple law enforcement agencies with responsibility for policing the airport, although we believe that there is room for improvement.

We note at the outset that LAX is a very safe airport. Year-to-date through June 4, 2011, overall crime at the airport is down 27% from last year. Further, there are very

few aggravated assaults or robberies at the airport, and surprisingly few thefts from vehicles given the number of vehicles parked every day at the airport.

The issues we identified in the law enforcement operations and security at LAX arise from the multiple priorities that LAWA has in operating, building, and securing LAX, the hybrid nature of the local law enforcement responsibilities of the LAPD and LAWAPD, the existence of multiple federal, state, and local enforcement agencies with responsibility for policing and securing LAX, and the lack of a single facility to house police operations at LAX.

Based upon our review of LAX operations and our interviews with many federal and local law enforcement personnel, we believe that LAWAPD needs more effective leadership to meet the public safety and security challenges at the airport. We also found that there was room for improvement in the coordination and communications among the allied agencies at the airport, and in particular, between LAPD and LAWAPD. There are also a number of training, technology, and intelligence issues that need to be addressed.

Findings

1. LAWA needs a high-level senior executive with overall responsibility for public safety at LAX

LAWA is under the leadership of an Executive Director, who reports to the Board of Airport Commissioners appointed by the Mayor. Although part-time, volunteer commissioners, the Board of Airport Commissioners is comprised of leaders from the community with extensive and varied experiences. Ultimately, the Board of Airport Commissioners, through the Executive Director, is responsible for airport operations and security. The Board of Airport Commissioners is uniquely positioned to oversee the

implementation of the recommendations set forth in this report and to receive regular briefings from LAWA management on airport safety and security issues.

The Executive Director currently has, in essence, three full-time jobs. The Executive Director has overall responsibility for: (1) the operations of one of the world's busiest airports with a budget of more than \$650 million that serves more than 59 million passengers a year and has hundreds of stakeholders from the airlines to the vendors and service providers; (2) multiple capital improvement projects consisting of a major expansion of the international terminal and renovations of domestic terminals and baggage areas with a budget of more than \$540 million; and (3) providing airport police and emergency management services in coordination with other law enforcement agencies, the Los Angeles Fire Department, and the City of Los Angeles Emergency Management Department to protect the airport and ensure the safety of LAWA employees, the airport's stakeholders, and the over 59 million passengers who use LAX each year.

There is no doubt that LAX and the City of Los Angeles have a very capable Executive Director who has done an outstanding job in managing the operations and capital construction at LAX. A number of Panel members noted the skill and professionalism of the current Executive Director. Given the Executive Director's myriad of duties and responsibilities, we are concerned, however, about how much oversight she can provide to ensure that public safety remains a top priority at LAX. We observed that the Executive Director does not attend a variety of meetings that support public safety efforts at LAX, such as meetings of the City's Emergency Operations Board.

At present, the Executive Director has a Deputy Executive Director for Operations and Emergency Management to oversee airport operations and a Deputy Executive Director of the Facilities Management Group to oversee the capital improvement at the airport, but there is no Executive Director for Public Safety to oversee airport police services, to coordinate with LAPD and other law enforcement agencies, to oversee the acquisition of public safety equipment and security enhancements, and to focus exclusively on public safety at the airport. This position formerly existed, but was eliminated in connection with a reorganization of LAWA leadership in 2009, at which time the Chief of LAWAPD began to report directly to the Executive Director rather than to a Deputy Executive Director for Public Safety.

Although we understand that the decision to eliminate the position was carefully considered, we have two concerns with the reorganization that took place in 2009. First, it eliminated a high-level executive position with broad public safety responsibilities (akin to a Chief Executive Officer for Public Safety) and substituted a Chief of Police with narrower, but critically important, police operations responsibilities (akin to a Chief Operating Officer). Second, some of the individuals we interviewed do not believe that the Chief of LAWAPD has exercised strong enough leadership. These factors have contributed to a perception noted above that security at the airport is a lesser priority than airport operations and airport construction.

Public safety at the airport involves providing police services through LAWAPD, and coordinating services with the City of Los Angeles Emergency Management Department, LAPD, LAFD, the TSA, and the numerous other law enforcement agencies with responsibility for certain aspects of law enforcement and public safety at the

airport.²³ It also involves integrating those services with the LAWA operations and capital improvements. It is critically important that, as LAWA expands the international terminal, it includes state-of-the art security technology to maximize public safety at the airport. In addition, overseeing the LAWAPD operations is a full-time job for the LAWAPD Chief of Police. As discussed below, there are many challenges that confront LAWAPD, and which require the full-time attention of the Chief of Police. For all of these reasons, the Panel strongly believes that LAWA needs a Deputy Executive Director for Public Safety to oversee security at LAX.

2. LAWAPD needs stronger leadership and accountability

Based upon our own observations and interviews of others, the Panel believes that the Chief of LAWAPD has not asserted strong enough proactive leadership over the department. The Chief of Police has not taken enough responsibility for the disciplinary process;²⁴ and personnel accountability, follow-up audits, and inspections in LAWAPD are lacking.²⁵ He has also been ineffective in responding to concerns about security at the airport that have been raised by the media. In addition, as discussed below, there are continuing tensions between the LAWAPD and LAPD, and a strained relationship between the LAWAPD command staff and the airport police union has impacted the coordination of law enforcement activities at the airport.

²³ These agencies include the FBI, the CBP, ICE, the United States Secret Service, DEA, the Los Angeles County Sheriff's Department (LASD), and the CHP.

²⁴ In response to this finding, LAWAPD provided the Panel with statistics showing that since 2007 fourteen employees have been terminated from City employment. Of the fourteen employees, six were sworn and eight were civilian. Of the Six sworn, three appealed their termination and were reinstated. We are aware of these statistics when making our finding.

²⁵ LAWAPD reports that its audit team, which was trained by LAPD, was eliminated by the former Deputy Executive Director for Public Safety, and that it is in the process of reinstating that team later this year.

We recognize that the LAWAPD has recently undergone some significant personnel changes with two new Assistant Chiefs, and that some of these issues may be addressed going forward with this new leadership. Although some of the problems pre-date the current Chief's tenure, effective police operations at LAX requires stronger leadership and accountability.

One area of concern is that LAWAPD does not have one person on site at all times when the airport is in operation who, (redacted) has the "authority, responsibility, and skill to manage and command the entire security function during routine and emergency situations." TSA's Transportation Security Regulations require each airport operator to have an Airport Security Program (ASP) and to designate one or more Airport Security Coordinators to serve as the operator's primary contact for security-related activities and communications with TSA, to ensure compliance with the TSA regulations, and to take immediate corrective action when required by TSA.²⁶ During the regular business day, the Airport Security Coordinator for LAX is the Chief of LAWAPD, who is responsible for coordinating police operations among the allied law enforcement agencies. There is, however, no one else who serves as the Airport Security Coordinator in the absence of the Chief of LAWAPD. Although there is a LAWAPD watch commander on duty at all times when the airport is in operation, we do not believe that a watch commander with operational responsibilities can fulfill the role of the Airport Security Coordinator when the Chief of LAWAPD is not at the airport.

There is an absence of leadership and accountability at LAWAPD because the department has certain specialized functions (such as bicycle units, check points) that are

²⁶ The purpose of the ASP is to provide guidance for the safety and security of persons and property at the airport. The specific responsibilities of the Airport Security Coordinator are set forth in the Transportation Security Regulations and must be set forth in the ASP.

decentralized. Although the LAWAPD watch commanders are aware of all of the units deployed at the airport, these units do not report to watch commanders under a unified command structure. We have been advised by LAWAPD that since we began our review, LAWAPD has revised the standard protocol and a number of the units have been put under the control of the watch commander.

We also noted some criticism of LAWAPD enforcement efforts. Although LAWAPD reports that thefts are down 28% year-to-date, some airline representatives complained of pilferage problems in the baggage areas of their terminals. They attributed this to the lack of a law enforcement presence, and believe that a greater show of force is needed. (redacted)

During our review, we personally observed LAWAPD officers standing around and talking with each other for extended periods rather than moving through the terminal and displaying a strong law enforcement presence.

We note that LAWAPD has not used its most recent strategic plan from 2006 to provide vision, structure and focus for its security operations at the airport, but it is in the process of reviewing and updating the plan. Given LAWAPD's overlapping responsibilities with LAPD for providing police services, the need to coordinate with numerous other law enforcement agencies, and the critical need to address the ever present threat of terrorism, it is important for LAWAPD to have a focused mission and clear jurisdictional responsibility, which can be articulated in a well-developed strategic plan. Such an up-to-date plan would help LAWAPD to prioritize its mission and realign its resources consistent with those priorities and, in particular as noted above, the importance of preventing acts of terrorism at the airport.

We also learned of institutional problems that resulted in repeated failures to acquire recommended enhancements. Law enforcement personnel believed that the recommended security improvements were dropped due to lack of funding or because the improvements were not a priority for LAWA management. We learned from LAWA management, however, that security proposals for the enhancement of LAX were often not approved or adopted because the proposals, while well-intentioned, lacked analysis, support and justification explaining why the enhancements were needed or how they would be implemented. LAWA management advised us that projects were not rejected because of a lack of funding, rather, the projects were not implemented because they were not sufficiently justified and lacked an implementation strategy. It does not appear, however, that LAWA management actively encouraged its personnel to develop the required justifications and implementation strategy.

3. The airport police union is undermining police operations at LAX

We have concerns about the airport police union's approach to addressing issues that it may have regarding security at LAX. The airport police union has a role in representing the interests of its members on personnel and employment-related issues, which includes expressing the views of LAWAPD officers on issues relating to the safety and security of the airport. The union's representatives are knowledgeable about police operations and in a position to contribute to improving security at the airport and enhancing the effectiveness of LAWAPD. Nevertheless, we are concerned about how the airport police union has raised security issues.

Instead of taking operational concerns about LAX security first to the LAWAPD command staff and the Chief of Police and then, if necessary, to the LAWA Executive

Director and the Board of Airport Commissioners, the airport police union issued press releases publicly setting forth their concerns about airport security. For example, in a June 8, 2010 letter to the Chief of LAWAPD, the airport police union claimed – in our judgment, erroneously – that LAX was “more vulnerable to a terrorist attack than at any time since 9/11.” The letter was subsequently leaked to the media, which then reported the claim as fact.

The union has also issued other inaccurate press releases. Following the March 2, 2011 shooting of U.S. military personnel in Germany, the airport police union issued a press release erroneously claiming that the LAWAPD had “stepped up security” and thereby gave the misleading impression that there was a credible threat to Los Angeles. More recently, the airport police union issued a press release erroneously indicating that LAWAPD was on “heightened alert” following the death of Osama bin Laden.

We believe that the union’s actions undermined the authority of the LAWAPD Chief of Police and have the potential for undermining the public’s confidence in the security at LAX. We can see no justification for the union going public with its concerns under these circumstances. We believe that the Chief of LAWAPD needs to do what he can to proactively engage with the union representatives on a regular basis, even if the union is hostile towards his leadership. Overall, we note that LAWAPD officers and supervisors appear to work well together and with the LAWAPD leadership, and we saw no evidence that the Chief of LAWAPD and his command staff were unwilling to discuss operational issues with the union or take the union’s concerns seriously. To the extent that the union has legitimate security concerns, giving the LAWAPD command staff an

opportunity to address those concerns can only enhance security at the airport and public confidence in that security.

There are historical tensions between LAWAPD and LAPD, and the union's leadership has exacerbated those tensions, which is unnecessary, unprofessional and adversely impacts security efforts at LAX. The union leadership has made it clear that they believe that the presence of LAPD at the airport is unnecessary and that LAWAPD can handle all of the police operations at the airport without LAPD's assistance except, perhaps, in the case of a major emergency. The union leadership's attitude towards LAPD in some cases borders on hostility, and it has undermined the willingness of some LAWAPD officers to work closely with LAPD officers in joint operations. We were told of numerous examples of LAWAPD officers having concerns about being seen in the presence of or with LAPD officers. In one instance, a LAWAPD union representative assigned to the Joint Crime Task Force refused to shake hands with the LAPD officer assigned to head the Task Force.

We observed that for some LAWAPD officers there is a tension between their responsibilities for providing security at LAX, such as manning vehicle check points and passenger screening posts and patrolling terminals, and their desire to engage in more traditional police activities such as the investigation and suppression of criminal activity. Some officers (and in particular younger officers) find traditional police work more interesting than providing overall security at the airport. It appears that the airport police union exploits this desire by advocating the complete elimination of the LAPD's presence at the airport, even though this is very unlikely to occur. This can undermine the ability of the LAWAPD command staff to deploy resources according to the security needs of

the airport and to coordinate effectively with the LAPD to see that both agencies' deployments are optimal.

4. There is a need for better coordination of police services by LAWAPD and LAPD and other allied agencies

There is a hybrid structure for police services at LAX with LAWAPD and LAPD having some overlapping responsibilities,²⁷ some complementary responsibilities,²⁸ and some distinct responsibilities.²⁹ The agreed-upon responsibilities of these two police agencies are set forth in a Memorandum of Agreement (MOA) executed in 2006.

The Panel believes that in the ideal situation, there would be a single police department under a single Chief of Police responsible for policing the airport. There would be a unified chain of command, elimination of duplication, additional resources available to respond to emergencies at the airport, eventual elimination of the tension between LAWAPD and LAPD, more flexibility in the deployment of resources, and additional opportunities for LAWAPD officers. Although providing police services at the airport requires some specialized knowledge of airport operations, we believe that LAPD officers, working with LAWAPD officers, would expeditiously acquire the knowledge they would need to police the airport with the LAWAPD officers.

Further, we do not believe the concern that has been expressed by LAWA about diverting police resources away from LAX is valid. We recognize, as noted by LAWA management, that LAWA cannot divert revenue from airport operations for anything that

²⁷ For example, both LAWAPD and LAPD have canine units that patrol the airport.

²⁸ The LAWAPD Emergency Services Unit (ESU) is supposed to be able to respond initially to a hostage crisis, which becomes the responsibility of the LAPD SWAT team once that unit arrives on scene.

²⁹ The LAPD bomb squad responds to any bomb threat at the airport.

is not airport-related, and there could be some complex accounting and accountability issues if there is a single unified police department. Nevertheless, we are confident that the issues can be worked through and that a single police department under a single Chief of Police would recognize the importance of maintaining the necessary resources to ensure safety and security at LAX in light of the very real terrorist threat that exists. From an operational and security perspective, we are firmly of the view that the airport would be better off with a single merged police department similar, for example, to the policing of Heathrow by the London Metropolitan Police Service or Phoenix's Sky Harbor International Airport by the Phoenix Police Department.

We recognize that merging LAWAPD and LAPD would require a charter change and that the voters rejected such a merger in 2005. Accordingly, it may not be politically feasible to effect a merger of these two police departments any time soon.

We also do not believe that eliminating the LAPD police presence at LAX is in the best interests of airport safety and security. LAPD has the resources and specialized units such as SWAT and the bomb squad to respond to emergencies at the airport, it has the primary local law enforcement responsibility for identifying and responding to terrorist threats in the City of Los Angeles, and it has the detective resources to investigate crimes at the airport. We do not believe that LAWAPD can replicate the knowledge and experience that LAPD has to deal with domestic terrorist threats. Fortunately, there have been relatively few instances that required the response of a SWAT unit to the airport, but this means that LAWAPD officers do not have the same level of real world experience that LAPD specialized units have from handling numerous emergency situations in the City.

In addition, it is important to recognize that LAWAPD operates within the City of Los Angeles and that any criminal or terrorist incident that takes place inside LAX would likely have started outside LAX, and LAPD has the primary responsibility for responding to terrorism in the City. Cooperation and collaboration are critical to the success of any response to an incident that occurs at the airport. As set forth in the conclusions of the 9/11 Commission Report: “The attacks on 9/11 demonstrated that even the most robust emergency response capabilities can be overwhelmed if an attack is large enough. Teamwork, collaboration, and cooperation at an incident site are critical to a successful response. Regular joint training at all levels is, moreover, essential to ensuring close coordination during an actual incident.” And, as the Commission noted, collaboration is also essential to prevent a terrorist incident as well. Coordination and cooperation between LAPD and LAWAPD (and with the other emergency management and law enforcement agencies) needs to be a high priority for management of both departments.

Given the political and practical realities, it is imperative that LAWAPD and LAPD closely coordinate their law enforcement operations at the airport. We are confident that the two departments can work together effectively. New recruits train together at the LAPD Academy; the combined departments have more law enforcement personnel assigned to LAX than at any other airport in the country; they coordinate their daily canine deployments;³⁰ they have worked together effectively on the Joint Crime Suppression Task Force and on joint deployments during the recent holidays; and the

³⁰ When two officers and their canines are deployed together, one of the teams may be from LAPD and the other team may be from LAWAPD. The departments are in the process of updating their standard operating procedures to address the minimum deployment levels for the airport based upon viewing the LAPD and LAWAPD as one unit. In reviewing the canine teams, we did note that the canine facility at the airport is inadequate to accommodate the current number of canines deployed at the airport.

command staffs meet regularly and have acknowledged the importance of ensuring that the departments have an effective and cooperative working relationship. In addition, LAPD and LAWAPD officers take part in the FBI Joint Terrorism Taskforce (JTTF) and the DEA Drug Taskforce, and have officers stationed at the JRIC. These models can be replicated to further collaboration and improve coordination between the two departments.

Currently, however, there are a number of issues that limit the effectiveness of that coordination. Some in LAPD believe that its officers are better trained, experienced and capable, while some in LAWAPD believe that its officers are as well trained and capable, and have a better understanding of the unique requirements of policing and securing an airport. The tension is exacerbated by the lingering question of a merger and belief by some that LAPD is not needed at the airport, which impacts the willingness of the departments to work together closely.

The tensions between some officers in LAPD and some in LAWAPD lead to a lack of collaboration. For example, LAPD command staff does not always coordinate the deployment of supplemental resources with the LAWAPD command staff so that additional LAPD resources are sometimes deployed without the input, and indeed in some cases, without the knowledge of the LAWAPD command staff. During the 2010 holiday period, the highest travel period at LAX and when terrorist threats nationwide are typically at a heightened state, LAPD planned to deploy an additional cadre of officers to the airport but, according to LAWAPD, failed to coordinate this deployment with LAWAPD. LAWAPD initially halted the additional deployment until it could determine why additional resources were needed, but then accepted the additional resources and

jointly coordinated the deployment. LAPD viewed this as an initial refusal to accept the additional resources, and it did not understand why LAWAPD would refuse these resources. LAPD also had its own view as to how best to deploy the officers, and perceived the rejection of the additional resources as not in the interest of public safety. This incident served to reinforce each department's pre-existing view of the other department. It is worthy to note, however, once the two departments resolved their differences of opinion regarding the deployment, the additional deployment of LAPD resources alongside LAWAPD officers was well-executed and the rank-and-file officers executed their assigned responsibilities professionally and in the interest of public safety.

A further example of the tension between some officers in the departments was during the recent TSA/FBI Joint Vulnerability Assessment of LAX where a disagreement arose between LAWAPD and LAPD that resulted in the LAPD being excluded from the facility and not given access to SSI material. Given the joint responsibilities of both departments at LAX, we are concerned about the exclusion of LAPD when the vulnerability of the airport is being assessed regardless of the nature of the disagreement that arose.

It also appears that communications between LAWAPD Command Staff and the LAPD's LAX Field Services Division have broken down. Each complains about the other, and suggestions from one, even suggestions that are meritorious and aimed at improving safety and cooperation, are summarily rejected by the other and are not implemented due to distrust between the two departments.

We noted that LAPD supervisors and command staff believe that the LAWAPD commanders are reluctant to call on the resources of LAPD for fear that LAPD would

take control over the police operations, which is understandable since LAPD has greater and more varied resources (e.g., SWAT, the bomb squad) available, and has considerable experience with numerous and varied incidents around the City. They also believe that LAWAPD does not always timely notify LAPD about incidents at the airport, which can delay the LAPD's response to these incidents. LAWAPD officers, in turn, note that LAPD does not always timely notify LAWAPD when they respond to a call for service at the airport that is received directly by LAPD through the 911 systems. Although both departments monitor each other's radio frequencies, direct notifications are much more likely to result in closer collaboration and cooperation in addressing law enforcement and public security issues.³¹

There are also some specific deployment coordination issues. There is no joint public safety building at the airport to co-locate watch commanders and house most of the LAWAPD officers and the LAPD officers assigned to the airport. Command staff is physically separated from the rank and file. LAPD is located in a series of adjoining trailers next to Terminals 7 and 8, physically far removed from most of the LAWAPD officers. The geographic separation of the LAWAPD, LAPD, and other operational agencies is inefficient, and leads to a lack of coordination and perpetuates miscommunication.

Another problem is that the MOA between the departments is often interpreted differently by both departments, is not always followed in practice, and does not necessarily reflect the current allocation and utilization of police resources at LAX.

Each department interprets the MOA to its own perceived advantage, and in a manner

³¹ We note that the rank structure within LAWAPD is not aligned with the rank structure within LAPD, and that this may cause confusion with interagency communications.

that is frequently inconsistent to how the other department interprets the MOA. The result is that both departments are engaged in what could be considered “mission creep,” in that they have expanded their duties or seek to expand their duties into the area that is the responsibility of the other department.

Further, LAWAPD is not integrated into the weekly crime control meetings of the LAPD Pacific Area or the monthly LAPD COMPSTAT³² crime inspections of the Pacific Area by the LAPD command staff. We believe that LAWAPD should participate actively in West Bureau’s COMPSTAT review. This would result in closer coordination of deployment decisions at LAX, joint responsibility to address crime trends at LAX, and improve professionalism and respect between the two departments. LAWAPD and LAPD command staff should jointly participate in the questioning of officers assigned to crime suppression responsibilities at COMPSTAT meetings and encourage the development of greater “community policing” practices with the businesses and stakeholders at LAX.

LAPD does not regularly notify LAWAPD of changes in LAPD forms and LAWAPD is not on the distribution list for LAPD training bulletins. As a result, LAWAPD officers do not always know of updated LAPD policies and procedures.

We found that the communication and coordination between the local police agencies and the federal agencies such as the FBI, CBP and DEA with jurisdiction over the airport was generally effective, particularly given the number of different agencies involved. We noted, however, that agreements among the allied agencies are either out-of-date or non-existent. (redacted)

³² COMPSTAT is the computerized system utilized by LAPD to track crimes, arrests and convictions in the City of Los Angeles and to deploy its resources to best address crime problems in the city.

Multiple communication centers for the numerous public safety agencies also make coordination of operations difficult. Most of the public safety agencies operating at LAX have separate communication centers that monitor and track their own agency's operational activities. (redacted)³³

We noted that even though LAX is part of the City of Los Angeles, it is assigned to the Los Angeles County Disaster Management Area G, which encompasses some of the surrounding and nearby cities, rather than Area H, which encompasses the City of Los Angeles. This may have contributed to instances in which LAWAPD assisted police departments in the surrounding communities in law enforcement operations, which may have led to the perception by some in the media that LAX was left less secure because LAWAPD officers were deployed outside of the airport. While we do not believe this perception reflected reality, we nevertheless believe that LAX should be part of the area that encompasses the City of Los Angeles.

5. The parameters of the LAWAPD Emergency Services Unit's mission are not clearly delineated

The LAWAPD Emergency Services Unit (ESU) provides an on-site capability to contain and stabilize an emergency crisis situation pending the arrival of the LAPD SWAT or FBI SWAT team. We believe that having such an on-site capability at the airport is essential since there will almost always be a time lag before a SWAT unit can arrive on the scene. The parameters of ESU's mission and responsibilities are not always followed, and we believe that, absent clarification, there will be a tendency of ESU to respond to a tactical situation as if it were a SWAT team even though it lacks the training

³³ (redacted)

and experience of the LAPD SWAT team. This may be due, in part, to the irregular joint training between ESU, the LAPD and FBI SWAT units and the lack of ESU training standards and recordation requirements.

We note that the ESU possesses certain weapons and munitions that, at the time of our review, LAWAPD did not have a policy governing the deployment of these weapons or any memoranda of understandings with LAPD-SWAT or FBI-SWAT that clarifies its mission.³⁴

The other concerns that we noted with the ESU are that it did not have an officer-in-charge with the equivalent rank and responsibility of LAPD-SWAT and FBI-SWAT commanders due to the recent retirement of the Lieutenant in charge of the unit.

(redacted) The primary reason for a separate ESU is to have the on-site capability to respond to an emergency whenever the airport is in operation.

We also noted that the ESU facility/armory at the airport is inadequate to store and house its personnel, logistics and munitions. (redacted)

6. There are a number of training and intelligence issues that need to be addressed at LAX

We noted that the federal and local law enforcement agencies responsible for policing and security at LAX have not closely coordinated their training and intelligence gathering activities. There are no protocols for the allied agencies to evaluate actual incidents and training exercises to ensure that the lessons learned are followed, and emergency response oriented table-top and full-scale exercises among the allied agencies are conducted infrequently.

³⁴ (redacted)

An example of a missed opportunity is in Multi-Assault Counterterrorism Action Capability training (referred to as “MACTAC” training). Rather than fully joining LAPD in the training exercises, LAWAPD sends its training officers to the training program and they, in turn, train other LAWAPD officers in the MACTAC techniques. According to LAWAPD, this is because the MACTAC training is less useful to LAWAPD officers who are often already in the buildings.³⁵ MACTAC training, however, provides training for all active shooter scenarios similar to a Mumbai-style attack.³⁶ Such training is invaluable. Further, this arrangement does not allow rank-and-file members of both agencies to train together and further enhance collaboration and capabilities. We believe that true joint training exercises should be undertaken and that the LAPD trainers should emphasize the portion of the MACTAC training that is most relevant to LAWAPD officers in joint training sessions, which is a unique opportunity for all personnel to enhance collaboration between the two departments. LAPD should also afford LAWAPD officers the opportunity to be MACTAC trainers and train LAPD officers alongside of LAWAPD officers. LAWAPD has also expressed a desire for LAPD to conduct more NIMS/ICS and field force training.

We also learned that LAPD has approached LAWAPD with some joint training opportunities that have not been accepted by LAWAPD leadership or not supported by the airport police union. Specifically, we learned, in addition to MACTAC, joint training was offered by the LAPD SWAT team and ICS Series training. LAWAPD declined the offer of joint training because they conduct such training internally, and in one occasion

³⁵ (redacted)

³⁶ The Mumbai attacks included an assault at a train station.

the union precluded LAWAPD officers from attending a joint training session. We find this to be troubling.

LAWAPD does not have a Force Option Simulator for in-service training. A Force Option Simulator confronts officers with various simulated real world scenarios (such as an active shooter in a terminal) and allows officers to train to make the best choices when force may be required consistent with LAWAPD use-of-force policies. This is a critical training tool for all law enforcement personnel.

7. LAX needs to have state-of-the-art communications technology

We noted above that there is a perception by some that LAWA has not fully embraced the available security technology and that technological enhancements have not been a priority for LAWA. This includes technology that will facilitate communications among the law enforcement agencies.

We learned that a regional project funded through the Department of Homeland Security's Urban Areas Security Initiative (UASI) grant called the Regional Video Command Center is beset with problems and delays at LAX. The project is aimed at integrating the numerous stand-alone camera networks at the Ports of Los Angeles and Long Beach, at LAPD, and at LAX. (redacted) We are concerned that it has proven easier for this regional video project to coordinate efforts with other departments and even other cities, than it has been to coordinate with LAX. Our inquiries determined that airport personnel either minimized the usefulness of this project or claimed that SSI security concerns prevented them from sharing information with other law enforcement personnel even though all law enforcement departments have people with appropriate security clearances. LAWA should be seeking collaboration and cooperation with all law

enforcement departments capable of enhancing its overall security, and not rejecting these security mechanisms or making them difficult to implement.

There are no plans to allow remote access to the new closed-circuit television (CCTV) feeds that will be available in the Airport Response and Coordination Center (ARCC) to the City's Emergency Operations Center or LAPD's Real-Time Analysis and Critical Response (RACR) Division. A new CCTV system will significantly enhance security at the airport, but it will be even more effective if connection is shared with the LAPD and the EOC.

We are also concerned about several other communications issues: the radio communications and interoperability between LAPD and LAWAPD is not state-of-the art. (redacted)

Recommendations

LAWA Executive Leadership

1. LAWA should establish a Deputy Executive Director for Public Safety who would report directly to the LAWA Executive Director and oversee airport law enforcement operations and liaison with LAFD. The Chief of LAWAPD would report directly to the Deputy Executive Director for Public Safety.
2. The Executive Director and Deputy Director for Public Safety should regularly report to the Board of Airport Commissioners on the implementation of the recommendations set forth in this report as well as on-going police operations and security issues at the airport.
3. A report from the Deputy Director for Public Safety should be a regular agenda item for the meeting of the Board of Airport Commissioners.
4. The Board of Airport Commissioners should also establish a subcommittee of two members who can meet regularly with the Executive Director and Deputy Executive Director for Public Safety to discuss police operations and security issues.
5. The Deputy Executive Director for Public Safety should have the primary responsibility at LAWA for coordinating with other law enforcement agencies.
6. The LAWA Executive Director and Deputy Executive Director for Public Safety should both participate on the City of Los Angeles' Emergency Operations Board.
7. The Deputy Executive Director for Public Safety and Chief of the LAPD should ensure that the law enforcement professionals assigned to lead each agency at LAX are fully committed to building an effective and collaborative law enforcement relationship.

LAWAPD

8. The Chief of LAWAPD should have the primary responsibility for overseeing LAWAPD operations and the disciplinary process, and should develop a stringent command accountability system throughout LAWAPD, including scheduled audits and inspections.
9. LAWAPD should continue to utilize command and executive leadership development programs that focus on team building, personnel management, internal discipline and accountability such as those offered at West Point, the LAFD Leadership Academy and the FBI National Academy.
10. Specialized units in LAWAPD should report directly to the watch commander.
11. The LAWAPD and LAPD command staffs should have regularly scheduled and frequent meetings to improve communications and cooperation and to build and strengthen relationships.
12. The Chief of LAWAPD should proactively engage with the leadership of the airport police union and establish a formal process to meet and confer with the airport police union representatives on a regularly scheduled basis.
13. LAWAPD should develop an up-to-date strategic plan for its unique mission, define its mission more clearly, and establish its priorities.
14. LAWAPD should conduct a thorough review and analysis of allocation and utilization of resources to ensure the optimal staffing and deployment to prevent a terrorist attack at LAX and, in the event of a terrorism incident, to be in the best position to respond.

15. LAWAPD should create a Security Project Manager position that reports to the Deputy Executive Director for Public Safety to fully formulate and vet security project proposals, and act as an interface with IT on IT-related security projects.
16. LAWAPD should have a Command Duty Officer present at LAX when the Airport Security Coordinator is not present at the airport or immediately available to manage emergency situations. The Command Duty Officer must be trained as an alternate Airport Security Coordinator.
17. LAWAPD command staff and supervisors need to ensure that officers maintain mission focus and a high degree of professionalism and a command presence in the patrolling of public areas in the terminals and baggage facilities in secured areas of LAX.
18. LAWAPD should establish a centralized location at LAX to co-locate the watch commanders for LAPD, LAWAPD, and TSA and centralize law enforcement operations at the airport to enhance communications, coordinate deployments, and increase situational awareness.
19. LAWAPD should ensure that there are rotational opportunities for LAWAPD officers to work specialized functions at LAX to increase officer morale and enhance the effectiveness of LAWAPD officers.
20. (redacted)

Coordination Among Law Enforcement Agencies

21. The CBP and LAWAPD should review their protocols regarding requests for LAWAPD officers to assist CBP within airport areas under CBP's jurisdiction.
22. LAPD command staff should consult with the LAWAPD command staff before providing supplemental deployments at the airport.

23. LAWAPD and LAPD should update the 2006 Memorandum of Agreement to reflect the current deployments and allocation of responsibilities.
24. LAPD should invite LAWAPD officers to attend the monthly COMPSTAT inspections of the LAPD's Pacific area and LAWAPD should participate.
25. LAWAPD and LAPD officers should participate in joint patrols (redacted) and there should be handoffs between shifts of LAPD and LAWAPD motor patrols at the airport.
26. LAWAPD and LAPD should continue to work together on crime suppression task forces and joint operations to develop closer working relations and provide LAWAPD opportunities to gain additional experiences in addition to airport security duties.
27. LAPD should place LAWAPD on the LAPD distribution list for LAPD training bulletins.
28. LAWAPD officers should receive training on using new LAPD forms that are created or revised.
29. The Airport Security Advisory Committee should establish protocols to ensure that actual incidents and training exercises are evaluated by the allied law enforcement agencies and that lessons learned are properly documented and communicated among the agencies.
30. The Airport Security Advisory Committee should establish a working group to oversee the planning and coordination of scheduled and unannounced training exercises, including joint Incident Command Post exercises with LAX Emergency Management, Los Angeles City Emergency Management, LAWAPD, LAPD, FBI and TSA.

31. The Airport Security Advisory Committee should establish a public-private partnership with airport stakeholders to enhance security at the airport.
32. The allied law enforcement agencies should review and update or establish appropriate memorandum of understanding or agreements addressing jurisdictional issues and responsibilities.
33. The K-9 facilities at the airport should be upgraded.
34. LAX should be reassigned to Los Angeles County Disaster Management Area H, which encompasses the City of Los Angeles, from Area G.

SWAT and ESU Operations

34. LAPD-SWAT, FBI-SWAT and the LAWAPD Emergency Services Unit (ESU) should enter into a Memorandum of Understanding that will clarify ESU's mission and responsibilities.
36. LAWAPD should designate a qualified Lieutenant to be the officer-in-charge of ESU.
37. (redacted)
38. LAWAPD ESU officers need to train regularly with LAPD SWAT and/or FBI SWAT.
39. LAPD SWAT and FBI SWAT should assist the ESU to establish training standards and recordation requirements, and to determine what equipment ESU needs to carry out its mission.
40. LAWAPD should upgrade the ESU facilities for its personnel, logistics equipment, and munitions.
41. (redacted)

42. (redacted)

43. (redacted)

Communications and Training

44. Interoperability communications between LAWAPD and LAPD should be upgraded. (redacted)

45. A plan should be developed to streamline Dispatch Centers to ensure law enforcement response times are minimized and agency coordination is enhanced.

46. LAWA should purchase a state-of-the-art Force Option Simulator for LAWAPD in-service training.

47. LAWA, LAWAPD, and LAPD should undergo joint training with TSA on SSI material and the sharing of information that is, or potentially could be considered, SSI material, and any necessary MOUs needed to improve the sharing of this information with law enforcement counterparts must be implemented.

EMERGENCY MANAGEMENT

Introduction

The purpose of emergency management is to coordinate the cooperation and communication among organizations involved in the planning, preparation, mitigation, response, and recovery for a large and/or complex emergency or disaster. When more than one agency is involved, emergency management will provide the framework for cooperation and coordination. In addition, effective emergency management promotes continuity through training, exercise and education.

The foundational element of this framework is the National Incident Management System/Incident Command Systems (NIMS/ICS), which establishes standardized incident management processes, protocols, and procedures that all responders – Federal, state, tribal, and local – will use to coordinate and conduct response actions. With responders using the same standardized procedures, they then share a common focus and emphasis on incident management when a homeland security incident occurs – whether terrorism or natural disaster. In addition, national preparedness and readiness in responding to and recovering from an incident is enhanced through this system since all of the nation's emergency teams and authorities are using a common language and set of procedures.³⁷

Airports face many large and/or complex emergencies and natural, accidental and intentional incidents that may trigger the need for emergency management. The incident may affect the airport directly – such as with an airplane crash, a power outage, or

³⁷ Prior to the national system, in 1996 the State of California established its official incident management system called the Standardized Emergency Management System (SEMS). If an organization complies with SEMS, it also is in compliance with NIMS/ICS, and vice versa.

earthquake – or it may affect the airport indirectly by affecting the region – such as with a riot or pandemic. Additionally, geographically distant incidents can create the need for an emergency management response at LAX. Recent examples are the 2010 volcanic eruption in Iceland and the 2011 Japanese earthquake and subsequent tsunami, which resulted in flight disruptions and the potential for large numbers of passengers to be stranded at LAX.

LAX can handle most incidents, but other incidents may require assistance from the City and from the broader region. If size, scope and complexity require broader assistance, the City’s Emergency Management Department will provide the conduit to City, county, state and national partners. For this reason, emergency managers at the airport and at the City must work, plan, train, drill and exercise together.

There are numerous opportunities to improve emergency management operations at LAWA. We have identified five specific areas for improvement: (1) emergency management should become a higher priority at LAX; (2) LAWA should ensure conformity to the emergency management requirements set by the City for all departments; (3) LAWA’s emergency management plans should be reviewed for compliance with federal, state and local policies; (4) emergency management training and exercises for LAWA should be integrated into and coordinated with citywide efforts; and (5) LAWA emergency management and the City’s Emergency Management Department should communicate with each other more effectively.

Findings

1. Emergency management is not a high enough priority for LAWA

Historically, the emergency management function at LAX has not had a prominent role in LAWA's management structure, and frequently it has been intermixed with airport operations or law enforcement operations. Following 9/11, LAWAPD developed a more dominant role and, for a time, took over emergency management functions within its police operations. In early 2008, LAWAPD transferred the emergency management function to LAWA Operations. Today, the emergency management function is under airport operations and the supervision of the Deputy Executive Director for Operations and Emergency Management, who was hired by LAWA approximately 16 months ago.

Emergency management has not been given sufficient priority in either the LAX management structure or as an independent public safety discipline. This conclusion was reinforced repeatedly during our interviews with LAWA staff. Throughout the interviews, we heard about the historical lack of emphasis placed on emergency management at LAWA. This has had a long-term impact on the emergency management team, who view themselves as marginal in emergency situations.

We found a lack of a clear mission for LAWA emergency managers. Some staff reported that the mission was to maintain LAWA operations with a focus on customer service and safety, and the mitigation of operational disruptions. Other staff members reported that they do not know the mission of emergency management. We found that LAWA emergency management staff members are frequently unsupported in their efforts by LAWA management. For example, we learned of nebulous and changing priorities

that result in projects being started, but never completed, and projects placed “on and off the table.” There is a universal perception that upper management is so focused with the daily operations of LAX that they do not take the time to prepare for an emergency beyond an aircraft incident. LAWA staff lacks confidence that senior management has a clear understanding of contemporary emergency management concepts, including NIMS.

Elevating emergency management in LAWA’s organizational structure is important to develop and maintain a sustainable emergency management program at the airport, to ensure adequate preparation for all emergencies, and to reflect that LAWA considers emergency management a high priority. In the course of our review, we analyzed the structure of airports recognized to have the most successful emergency management programs with the highest levels of preparedness. These airports have the Emergency Manager position equivalent to the position of an airport police chief or fire chief. At these airports, the fire chief, police chief and emergency manager report to a position like the Deputy Executive Director for Public Safety recommended in this report. We view this as the optimal structure for LAX. Nevertheless, we recognize that other large airports have successfully organized the emergency management function within an operations division, and that the success of that structure is based on making emergency management a high priority to these airports.

We are persuaded that LAWA leadership should be given an opportunity to enhance the role of emergency management within the operations division, and demonstrate that emergency management can function effectively and collaboratively without being transferred within the LAWA organization yet again. This can only be effective, however, if the person responsible for emergency management is a high level

senior executive who holds the position of Chief of Emergency Management that is equivalent to the position of the LAWA police chief, is held accountable for achieving defined improvements in emergency management for LAWA, and is periodically reviewed for effectiveness and improvements to the program.

While we agree that the Chief of Emergency Management should report to the Deputy Executive Director for Operations and Emergency Management, we believe that review of the effectiveness of this placement within the operations division must be conducted periodically to ensure improvements. At the end of an 18-month period (July 1, 2011 to December 31, 2012), it should be determined whether sufficient improvements have taken place to warrant having the Chief of Emergency Management continue to report to the Deputy Executive Director for Operations and Emergency Management and to maintain Emergency Management in airport operations. At the end of the 18-month period, the following thresholds, at minimum, must be achieved:

- A revision of the Mission Statement and tasking of the Airport Security Advisory Committee (ASAC) to include the responsibility to evaluate emergency management progress each month towards set milestones.
- Participation of senior airport management from all departments and the airport's emergency management staff in the Enhanced Incident Management/Unified Command (MGT314) course at College Station, TX.
- Audits of the training records and the qualifications of all LAX personnel directly or indirectly involved in emergency management within the first two months of the eighteen-month period and again in the last two months of the period.

- The use of an outside emergency management training consultant to provide all emergency management training until LAX has at least two fully documented and qualified NIMS/ICS trainers.
- Rename the Incident Management Center (IMC), the LAX Department Operations Center (DOC) (which is consistent with NIMS³⁸ and State of California protocols,³⁹ and is the current practice of City departments).
- Continue the development and implementation of the Airport Response and Coordination Center (ARCC) infrastructure, organization, processes and procedures to be compliant with all City policies, ordinances, and Executive Directives.
- An outside audit of the operational readiness of the ARCC/IMC through not less than three (3) functional exercises (not more than one of which will be a tabletop/discussion exercise); connectivity processes and procedures with other City Department Operation Centers and the City Emergency Operation Center shall be included in the exercise goals and objectives.
- Participation by the Chief of Emergency Management in City Emergency Management Committee (EMC) meetings and attendance at Emergency Operations Board meetings.
- Approval of the new Airport Emergency Plan (AEP) by the Federal Aviation Administration (FAA).

³⁸ NIMS /ICS has 14 management principles as its foundation, among these is common terminology that is designed to allow diverse incident management and support organizations to work together across a wide variety of incident management functions and hazard scenarios.

³⁹ State of California Emergency Plan, July 2009.

- Incorporation of all airport emergency management plans into the AEP.
- Elimination of all separate emergency management contingency plans for plans that can be addressed in the AEP.
- A review of all emergency plans by an outside emergency management consultant for compliance with federal, state, and local regulations and policies.

At the end of the 18-month period, the ASAC should report to the Board of Airport Commissioners whether these thresholds have been sufficiently achieved, whether Emergency Management has been raised to a sufficient priority within LAWA, whether Emergency Management is more effective at coordinating and communicating within the City and with other jurisdictions, and whether Emergency Management should remain within airport operations. If these thresholds have not been met, Emergency Management should be transferred to Public Safety and the Chief of Emergency Management should report directly to the Deputy Executive Director for Public Safety.

2. Effective Emergency Management requires a collaborative effort

Many employees at LAWA spoke of a culture in which they are encouraged to handle issues only within LAWA, and to not collaborate with other departments and agencies. There is a sense that the airport should handle most situations on its own. This culture impedes effective emergency management and is contrary to accepted principles of emergency management. As recently stated by the Federal Emergency Management Agency (FEMA):

We must fundamentally change how we go about disaster preparedness, response, recovery and mitigation, involving the communities we serve directly in these efforts. We must look beyond the traditional, government-centric approach to emergency

management and embrace a philosophy and operational posture that leverages, and serves, the Whole Community.⁴⁰

The “Whole Community” approach to emergency management includes partnering with federal, state, local, tribal and territorial governments; non-governmental organizations like faith-based and non-profit groups; private sector industry; and most importantly, individuals, families, and communities, who continue to be our greatest assets and the key to our success. “In order to fulfill our mission, we must recognize that these parties are all important participants in the emergency management community, and make sure that all these participants work together as one team.”⁴¹

The unity of effort message is not new. The 9/11 Commission emphasized that “no agency can solve the problems on its own – to build the network requires an effort that transcends old divides, solving common legal and policy issues in ways that can help officials know what they can and cannot do . . . America needs unity of effort.”⁴²

The FAA has reinforced this concept in instructions in its advisory notices to airports:

Because airports play a prominent role in any community, and because community resources are essential in the response to any major disaster, the airport operator must involve local government, emergency management, and emergency service officials in the emergency planning hazards analysis process. Being involved with these agencies will enhance emergency plans, show what plans are already in place, and nurture a strong working relationship with the local community. It will also help airport operators identify potential hazards which are not necessarily located on airport property or otherwise fall outside the jurisdiction

⁴⁰ FEMA Strategic Plan, Fiscal Years 2011-14, February 2011.

⁴¹ Testimony of Craig Fugate, FEMA Administrator before the United States Senate, Homeland Security and Governmental Affairs Committee, March 17, 2011.

⁴² Summary of Final Report of 9/11 Commission, New York Times, July 22, 2004.

of the airport operator, but which are close enough to potentially impact the airport should a problem develop.⁴³

3. Communications between LAWA Emergency Management and City's Emergency Management Department and other City agencies need improvement

LAWA's relationship with the City's Emergency Management Department needs improvement, and each department should undertake efforts to fully appreciate the other department's needs and capabilities. Although LAWA is a City Department, LAWA employees do not have sufficient knowledge about the capabilities and capacity of the City's Emergency Management Department to assist LAX, or that it provides assistance to other City Departments when incidents around the City develop.

The City's Emergency Management Department has the primary responsibility for coordinating and communicating among City Departments and their duty officers, and coordinating with county, federal or state agencies when incidents occur. The Emergency Management Department works daily with nearly every other City Department on incidents that range from pre-planned events such as the LA Marathon, the Oscars, and NBA All-Star Game, to emergency situations such as fires, floods, mudslides, to catastrophic events such as the crash of a Metrolink train in 2008.

LAWA employees are unaware that the City's Emergency Management Department may be the best contact in case of an emergency situation at LAX. As a result, LAWA underutilizes the services and capabilities of the City's Emergency Management Department to resolve problems that develop at LAX. The Department frequently learns about incidents at LAX fortuitously and in a haphazard manner.

⁴³ FAA Advisory Circular 150/5200-31C, June 19, 2009.

LAWA does not effectively use the City's Emergency Management Department's multi-agency operational conference calls to monitor situations that occur throughout the City of Los Angeles nor does LAWA participate consistently in these calls. Through these calls, the City monitors, acquires, analyzes, develops, and disseminates information and situational awareness of incidents, events, and activities such as major planned events, weather events, and other occurrences that require effective multi-agency coordination or incidents that have the potential to cause activation of the City's Emergency Operations Center.⁴⁴ During these incidents, events, or activities, the information is shared and response and recovery efforts are coordinated among City Departments through this citywide conference call.

Further, LAWA does not utilize the resident Public Health Planner within the Emergency Management Department, and instead goes to the Los Angeles County Public Health Department.⁴⁵ Regardless of the reason, all City Departments should integrate and synchronize their public health plans and issues through the City's Public Health Planner within the City's Emergency Management Department.

LAWA has not actively participated in the City's Emergency Operations Board (EOB).⁴⁶ The EOB supervises emergency operations during all periods of emergency

⁴⁴ The center is activated in situations involving hazardous materials, infrastructure damage or interruption, major transportation accidents, or other incidents that impact multiple City departments.

⁴⁵ Ironically, the Los Angeles County Public Health Department funds the dedicated Public Health Planner in the City's Emergency Management Department.

⁴⁶ The EOB consists of the general managers of the Police, Fire, Airports, Building and Safety, the City Administrative Officer, Emergency Management, General Services, Harbor, Information Technology Agency, Personnel, Recreation and Parks, Transportation, and Water and Power Departments, a Public Works Commissioner and the Chief Legislative Analyst. The Chief of Police is the permanent Chair of the EOB. The City is currently considering changing the structure of the EOB, to include Assistant General Manager representatives.

preparation, response and recovery within the City of Los Angeles. The Los Angeles Administrative Code creates the EOB and empowers it to make and enforce all necessary rules and regulations necessary for governing emergencies. Following emergency events, the EOB prepares and distributes action/corrective action reports. LAWA frequently sends lower level operations or emergency management staff, but they are not permitted to vote and typically do not provide input on the issues being debated. The City is not served well by the failure of LAWA to fully participate in its EOB, and LAWA is not served well by not engaging with the City in its emergency operations planning and processes.

The Emergency Management Committee (EMC), consisting of EOB member departments and other governmental and private agencies, is the working group of the EOB. The EMC develops interdepartmental plans and training programs to promote the City's disaster response and recovery efforts. LAWA does not effectively participate in the EMC. LAWA believes that it constructively participates in the EMC because it sends representatives to meetings, but its representatives are not sufficiently high-ranking to ensure that information is relayed throughout LAWA, and they are not able to commit the airport to participate in procedures and drills.

As a result, the City's Emergency Management Department does not have sufficient awareness of the airport's unique operational needs and the regulatory requirements under which it operates. This lack of understanding and awareness further impedes LAWA's emergency management capabilities. Notwithstanding that LAX has many regulatory and operational requirements imposed by federal law and LAWA is a

proprietary department⁴⁷ of the City, LAWA still needs to conform to the emergency management responsibilities placed on all City operating agencies.

4. Neighboring jurisdictions are not fully incorporated into LAWA's emergency plans

The emergency management structure within the County of Los Angeles, including response patterns and mutual aid relationships, is based on designated Disaster Management Areas. Mutual aid agreements between different Areas are possible, but must be coordinated through the County. The entire City of Los Angeles is contained in Disaster Management Area H, and LAX geographically lies within Area H.⁴⁸ LAX is, however, designated by LAWA as being in Disaster Management Area G, which includes the City of El Segundo and other South Bay cities. This change was initiated by LAWA, was not documented, and was not agreed to by the Disaster Management Area H Coordinator.⁴⁹ LAX employees who work on emergency management issues are unclear about LAX's relationship to Disaster Management Areas G and H, and having a City department designated in a different Disaster Area than the City itself is extremely problematic.

In any emergency, resources outside of the City of Los Angeles may be needed and having robust mutual aid agreements with other jurisdictions is important,

⁴⁷ Proprietary departments are semi-autonomous departments with exclusive control over their own budgets and physical assets. They remain, however, departments within the City of Los Angeles.

⁴⁸ The role of a Disaster Management Area is to coordinate with Area cities in planning for preparedness, mitigation and recovery from emergencies/disasters; and advocate for Area cities and liaison with the Los Angeles County Operational Area Emergency Operations Center as needed, assist other Areas as requested, and staff City Liaison posts as needed.

⁴⁹ The Area H Coordinator position is a rotating position within the City's Emergency Management Department.

particularly in Southern California. LAX has uneven, inconsistent, and uncoordinated mutual aid agreements,⁵⁰ and there are no mutual aid agreements in place with jurisdictions that are the closest to LAX, including El Segundo, Inglewood, or Los Angeles Air Force Base (which is located in El Segundo).⁵¹

The FAA's mutual aid process and documentation requirements in its Advisory Circular 150/5200-31C⁵² have not been fulfilled, except for water emergencies and rescue.

Further, evacuations that could send people beyond airport property have not been coordinated with the City of Los Angeles, the county, or surrounding jurisdictions. The January 14, 2011 Power Outage could have resulted in the evacuation of a large number of people into Century Boulevard and the Westchester area without adequate warning to LAPD and the City's Emergency Management Department to prepare for the traffic issues or for the care and sheltering of these individuals. In the event of the evacuation of the airport, Area H resources will be brought to LAX, which may require coordination with jurisdictions in Area G. Agreements are needed to clearly define the relationships and responsibilities of each jurisdiction, as well as to identify all available sheltering and reunification centers.

5. Emergency management training at LAWA is inadequate

Consistent training on emergency management principles is fundamental to understand the complexity of emergency management and to remain on the cutting edge

⁵⁰ LAX was a founding member of the Western Airports Disaster Operations Group (WESTDOG) that coordinates voluntary mutual aid among airports.

⁵¹ The Panel repeatedly requested these mutual aid agreements. Most LAWA employees said they did not exist. Some thought they might exist but were unable to produce a copy.

⁵² Section 2-1 of FAA Advisory Circular 150/5200-31C requires planning for and formal memoranda of understandings with all mutual aid partners with whom the airport interacts in emergencies.

of best practices employed throughout the nation. Learning from other jurisdictions that have experienced disasters or who have learned new techniques through trial and error is one of the best methods for ensuring preparedness. Exercises and drills are equally fundamental to developing staff members who will know how to respond in any emergency. Emergency management training at LAX is inadequate and insufficiently documented.

LAWA emergency management training operates in silos and there are indications that training is not coordinated throughout the various organizational units that comprise LAWA. There appears to be an acceptance of LAWA employees training other LAWA employees in contemporary emergency management. This training is insufficient since it appears that LAX emergency management trainers are not fully knowledgeable about current emergency management principles and best practices. LAWA would benefit from the best practices and lessons learned from outside agencies and departments that frequently implement and exercise NIMS/ICS.

LAWA does not use actual events and incidents, such as VIP arrivals and power outages, to exercise NIMS/ICS protocols to the extent it should. Although the magnitude of the event might not require the full capabilities of the IMC, activation or partial activation would allow training in functions and evaluation of procedures, as well as developing familiarity with processes and participants.⁵³

LAWA's senior management should undergo NIMS/ICS training. For the airport to benefit from NIMS/ICS, LAWA's senior management needs a working knowledge and appreciation of NIMS/ICS, which is currently lacking.

⁵³ (redacted) Recent events such as the power outage of traffic lights in and around LAX, that occurred just prior to issuance of this report, are all good opportunities to practice, drill and prepare.

Further, the City's Emergency Management Department does not consistently participate in or observe drills or other exercises at LAX. Such participation or observation would help the City's Emergency Management Department understand the special challenges and characteristics of operating an airport, and its unique emergency management needs. If there was a closer working relationship between LAWA and the City's Emergency Management Department, the City's training and drill/exercise designers along with the City's county, state, and national partners could assist in the development of more realistic and more productive drills and exercises that would greatly benefit LAX.

An important element of conducting emergency management training and exercises is the drafting of After Action Reports that describe what is effective and what needs improvement. LAX does not readily share its After Action Reports for incidents, drills, and exercises, and there is some indication that After Action Reports are not generally prepared at LAX. LAX partners, including LAFD, LAPD, and the City's Emergency Management Department, report being contacted by LAWA for information to be included in an After Action Report and then never receiving a copy of the report. After Action Reports are the heart of the continuous cycle to improve preparedness, mitigation, response, and recovery. Failure to distribute them to partners impedes the effectiveness of the training that is taking place, and limits the ability to improve practices.

6. LAX emergency management plans are deficient

There are two fundamental plans that are critical to the operation of any airport, the Airport Emergency Plan (AEP) and the Airport Security Program (ASP). The two

plans should complement each other. While the ASP focuses on access control and protection of the airport for security purposes, the AEP focuses on dealing with emergencies. These two critical plans must be effectively developed and implemented to ensure public safety at any airport. Any other plans that are developed, if they are necessary, should flow from or be a part of these two plans.

For emergency services purposes, the AEP is the cornerstone of effective planning. FAA Advisory Circular 150/5200-31C provides guidance to the airport operator in the development and implementation of an AEP.⁵⁴ The AEP addresses the essential emergency-related and deliberate actions that must be planned to ensure the safety of and emergency services for the airport and the community in which it is located. The AEP details the roles and responsibilities that first responders, airport managers, commercial carriers, and airport tenants are to undertake in any emergency. An effective plan outlines the different types of emergency scenarios that could take place at an airport, such as a plane crash or a fuel farm fire, and specifies the roles everyone must play in that emergency. This detailed planning ensures that in a time of emergency, the response can be quick, efficient and effective. While not every contingency can be anticipated and prepared for, a strong emergency preparedness program can assist in limiting the negative impact of an unanticipated event.⁵⁵

⁵⁴ The Advisory Circular addresses the following: the format and organization of information in the AEP; provisions for the systematic approach of determining all hazards that warrant emergency preparedness; involvement of local communities, State organizations, and Federal agencies in emergency management and preparedness so that their expertise and resources are incorporated to the mutual benefit of all parties.

⁵⁵ These regulations include: FEMA's Stafford Disaster Relief and Emergency Assistance Act, Homeland Security Presidential Directive 5, FAA AC 150/5200-31C, California's Governor's Executive Order S-02-05, State of California Emergency Plan 2009, 19 California Code of Regulations § 2400, California Emergency Services Act Article 9.5 § 8607, Los Angeles County

The AEP that LAWA is developing for LAX is a significant improvement over prior LAX plans. The final plan is not due to be completed until June 30, 2011,⁵⁶ and is expected to bring LAX into compliance with NIMS.

Airports are required to develop their emergency plans with their community partners. With a few exceptions, such as the Coast Guard, LAWA does not take a Whole of Community approach and does not involve the broader community enough in the development of its plans. Whole of Community means that when a disaster or catastrophe strikes, everyone in the community has a role, and everyone must take responsibility for some part of the response and recovery. The plans should reflect everyone's role in an emergency.

We learned that LAX also has an Airport Emergency Operation Plan (which it refers to as the AEOP) that is unique to LAX, and is separate and apart from the required AEP. This legacy AEOP plan was apparently created many years ago by LAWAPD and overlaps with other plans, including the AEP and the ASP. This separate plan confuses the roles and responsibilities of first responders, and may create conflicts with the AEP. Since this panel began its review, LAWA has undertaken discussions to eliminate the AEOP. While the AEP may consist of subparts that can stand on their own, they should all be part of a single overall airport emergency plan and integrated into it. There should not be competing plans, let alone plans that contradict or confuse responsibilities.

Code 2.68, Los Angeles County NIMS Resolution, and Los Angeles City Council Resolutions 05-1806 and 07-0491.

⁵⁶ The initial deadline for full compliance with NIMS/ICS was moved from June 19, 2010 to December 31, 2010, and finally to the current date of June 30, 2011. The multiple extensions reflect the difficulties faced by LAX and its FAA compliance inspectors, as well as struggles faced by airports nationally to comply with the FAA requirements.

LAX also has other plans that, at the time of our review, had not yet been integrated into the AEP. These plans are deficient in addressing the issues they purport to cover, are out of compliance with regulations, and have sat on shelves for years without being exercised. In many cases, the information in these independent plans is outdated, as we identified contact numbers that have not been updated for years. These multiple stand-alone plans should be converted to be part of the AEP.

Specifically, we noted the following:

- LAWA’s disaster damage assessment and capability assessment plans are insufficient, especially for earthquakes. LAWA does not have a rapid engineering assessment plan and designated personnel to evaluate the status of the airfield and fuel system after a major disaster.
- LAWA does not have a repatriation plan that coordinates the efforts of airport operations and emergency management with other stakeholders such as airlines, TSA, CDC, and CBP.⁵⁷
- The LAX Terminal Evacuation and Repopulation Plan has some significant deficiencies: exit markings are deficient, and additional facilities beyond parking lots are needed for evacuations.
- The shelter-in-place plan does not explain how travelers and tenants will be notified and directed to shelter-in-place.

⁵⁷ The return of U.S. citizens and families from overseas is a recurring event nowadays. For example, many airports had numerous American families arriving from Egypt during the recent unrest there. Such repatriated people can create temporary needs for shelter and other assistance at the international airport that is the initial port-of-entry for returning citizens.

- LAWA does not have an effective post-disaster support and counseling program for employees.⁵⁸
- LAWA was not involved in the FEMA/Cal EMA coordinated planning process that created the Southern California Catastrophic Earthquake Plan, although peers such as the Port of LA, Port of Long Beach, and John Wayne Airport were full partners in the process.
- Requirements of Functional Needs Support Sheltering are not met in the pertinent parts of airport plans.
- (redacted)⁵⁹
- Evacuation, sheltering, and repopulation plans are not fully compliant with FEMA guidance for disabled persons.

As a result of our review of these multiple plans, it became clear that emergency management personnel at LAX are not well-versed in NIMS/ICS. This finding was further reinforced during the course of every interview we conducted of LAX personnel who, with one exception, lacked this understanding. They misused standard terminology, misstated functional relationships within NIMS/ICS sections, and failed to show awareness of the basic principles of NIMS/ICS. Training in this area is critical to successful development of logical and thorough plans.

7. The Airport Response and Coordination Center and Incident Management Center are not yet functioning optimally

⁵⁸ Airports located in areas that have been devastated by disasters, such as in Christchurch, New Zealand and New Orleans, Louisiana, have learned that disasters cause severe immediate and long-term stress on emergency responders, other employees at the airport, and their families. Preparation for this form of support is necessary before such disaster strikes, particularly in an area prone to earthquakes such as the greater Los Angeles region.

⁵⁹ (redacted)

Since this Panel began its work, LAX opened its new, \$13.9 million, 9,000 square foot, state-of-the-art Airport Response and Coordination Center (ARCC) that serves as a daily operations center. It is also available to serve as an Incident Management Center (IMC) in the event of an emergency to give first responders situational awareness on terminal conditions, passenger flow, airside status, and issues that might impact flight or airport operations. The facility is designed to comply with NIMS to eliminate redundancy and confusion during an emergency response.

The ARCC provides day-to-day, round-the-clock coordination support to manage the airport's operations and seamlessly integrate tenant and government agency operations. It is regularly staffed with personnel from LAWA's Airside (airfield) and Landside (terminal) operations divisions, LAWAPD, LAWA Construction & Maintenance, and TSA. During a critical incident, the ARCC is designed to continue to manage other airport activities that are still operating during the incident.

The IMC component of the ARCC is supposed to be activated in the event of a significant incident or emergency at LAX such as a terrorist attack or an airplane crash. Additional personnel will be called in to specifically respond to the critical event – from initial onset, to securing the incident, through recovery of impacted operations – until the incident is fully closed and the airport resumes normal operations. The IMC is supposed to function as the nerve center for dealing with the incident, receiving information from the Incident Command Post at the scene of the incident and other parts of the field, and allocating critical resources in a timely and efficient manner.

The development of the ARCC and the IMC is a powerful addition to homeland security and emergency management capabilities at LAX. Although this new facility

remains a work in progress, it represents a significant development for LAX that had no facility four years ago, and only an interim facility two to three years ago. Yet, the problem remains that the ARCC/IMC does not currently have adequate procedures or operational architecture in place for their effective use in emergencies. (redacted) LAWA management acknowledges that it still has a way to go before the ARCC/IMC will be fully functioning as the nerve center envisioned by LAWA.

The ARCC/IMC does not yet have an adequate system for managing and using data from camera systems in real time, which will be of critical importance in an emergency. Currently, not all technology and video components at the airport are integrated into the ARCC. For example, the ARCC has access to all (redacted) closed circuit television (CCTV) cameras at the airport, but recordings are saved via the LAWA Video Network (VNET) room in the Telecommunications Building. (redacted) The ARCC also does not have adequate systems for managing and utilizing data from CCTV cameras in real time. The LAX camera system is not fully connected to an alert and monitoring system to get maximum value for the management of emergencies on the airport, and an automated image screening is not used. (redacted)

We note that plans are underway to enhance the ARCC's capabilities. When the CCTV project is complete, the ARCC will have (redacted) cameras, with the ability to control, monitor, record, and store. The CCTV system will be fully upgraded to digital recording capability by the end of 2011, and the new cameras and ARCC control will be complete in 2012. The VNET room in the Telecommunications Building will cease operation and full function will be handled via the ARCC.

Although the physical construction of the ARCC was completed in eight months, it was developed without a detailed operational plan on how to use the ARCC/IMC and when to transfer incident coordination activities from the ARCC to the IMC.⁶⁰ The ARCC was developed without the bridge to link the ARCC to IMC, and to transfer information flow from operations to emergency response.

It is not clear how all the affected law enforcement and emergency management agencies will actually use the IMC in the event of a critical incident. Since the ARCC opened, there were incidents in which the IMC was activated, but some airport departments or agencies were not included in the IMC operations. (redacted)

In any emergency, developing the appropriate mechanisms and protocols for sharing information with the public is extremely important.⁶¹ It is important to integrate public information officers, from LAX and the City of Los Angeles (to include elected officials, and other City departments that may be involved) into any emergency. The ARCC/IMC currently lacks such a system. Therefore, a Joint Information Center (JIC) component needs to be added to the ARCC/IMC.

LAWA has significantly improved its internal communications for emergencies. The Everbridge notification system has been used by LAWA for over a year. Everbridge is a technological improvement that allows email notices to be sent out to relevant parties when incidents occur in and around the airport to instantly notify people of the incident and its impact. The current notices sent are more sophisticated and precise than previous situational communications from LAWA. LAWA employees and partners report being

⁶⁰ (redacted)

⁶¹ LAWA along with other City departments is working to get the Public Information Emergency Response system to facilitate coordination of public information officer functions among departments and agencies.

better informed about operational or emergency situations. However, improvements can still be made. Some members of the LAX community have not yet been added to the notification system. Developing a comprehensive list of individuals who should be receiving these notices is important for the effective use of this technology. After Action Reviews of incidents that use Everbridge are not being used to refine and enhance the criteria for alerts and their target recipients.

Recommendations

Prioritizing Emergency Management

1. The LAWA Executive Director should establish a Chief of Emergency Management for LAX. This position should be equivalent in status to the airport police chief, and should be a senior management position exempt from the civil service structure.
2. The Chief of Emergency Management should report to the Deputy Executive Director for Operations and Emergency Management for a period of eighteen (18) months (July 1, 2011 to December 31, 2012). At the end of the 18-month period, the ASAC should make a report to the Board of Airport Commissioners as to whether these thresholds listed in this report have been sufficiently achieved, whether Emergency Management has been raised to a sufficient priority within LAWA, whether Emergency Management is more effective at coordinating and communicating within the City and with other jurisdictions, and whether emergency management should remain within airport operations. If the thresholds have not been met, emergency management should be transferred and report directly to the Deputy Executive Director of Public Safety.
3. The Chief of Emergency Management, in conjunction with the City's Emergency Management Department, should develop a mission statement and strategic plan for LAWA's Emergency Management Division.
4. LAWA should establish a system for assigning priorities to LAX emergency management projects and tracking their progress to completion or abandonment. Consideration should be given to using an outside consultant in this process.

5. The Chief of Emergency Management should ensure that LAWA adopts contemporary emergency management practices.
6. Emergency management at LAX must be transformed into a strategic function that will improve response, speed recovery, and limit business interruption in the event of an emergency.
7. A performance measurement system should be created to assess emergency management/business continuity and risk management activities.
8. An evaluation of the civil service ranks of emergency management staff should be conducted by the City's Personnel Department to determine how the civil service rankings can better reflect the priority of emergency management and the tasks that must be accomplished.

Communications and Inter-Agency Coordination

9. LAWA senior management should build robust and dedicated relationships with all City partner departments and neighboring jurisdictions.
10. The LAWA Executive Director and the Chief of Emergency Management should attend City Emergency Operations Board (EOB) meetings.
11. The Chief of Emergency Management should attend Emergency Management Committee (EMC) meetings.
12. LAWA and the City's Emergency Management Department should coordinate communications policy, joint training, and exercises.
13. LAWA's Emergency Management training and exercise programs should expand to include non-airport stakeholders and all relevant City departments.

14. LAWA should participate in the City's multi-agency operational conference calls to monitor emerging situations that could lead to, or are in response to, emergencies.
15. All contact between LAX and LA County Public Health for emergency preparedness and response should be coordinated through the Public Health Planner in the City's Emergency Management Department.
16. In an effort to collaborate better with neighboring agencies, departments, and jurisdictions, LAWA and EMD should work with the Western Airports Disaster Operations Group, to create a more effective disaster response at LAX and other regional airports.
17. The City of Los Angeles, the County of Los Angeles, and LAWA should clarify that LAX is entirely in Disaster Management Area H. LAWA personnel should be trained on the importance of the Disaster Management Area system.
18. LAWA and the City's Emergency Management Department should establish reciprocal awareness training and educational program for all LAWA supervisors and senior management, and for all City Emergency Management Department supervisors and senior management.
19. LAWA should enter into mutual aid agreements and/or review and update all existing mutual aid agreements with neighboring jurisdictions, including the City of El Segundo, the City of Inglewood, and the Los Angeles Air Force Base. The City Emergency Management Department should be included in the process and should help LAWA facilitate these agreements.
20. LAWA should form public/private partnerships for evacuation, sheltering, and other mutually pertinent issues and services.

21. LAWA should review and improve its methods of sustaining current contact information on LAWA employees, tenants, resident agencies, other City departments, and other stakeholders.
22. LAWA should work with the City's Emergency Management Department to test, drill, and exercise internal and external communications for emergencies. The tests should include communications going out from LAWA and information going to LAWA.
23. LAWA should work with the City's Emergency Management Department and LAFD to investigate the usefulness and desirability of creating, training, and using an aviation Community Emergency Response Team (CERT) at LAX.

Upgrading Emergency Management Plans

24. LAWA should incorporate National Incident Management System/Incident Command System (NIMS/ICS) and Standardized Emergency Management System (SEMS) into all emergency plans.
25. LAWA should ensure that the Airport Emergency Plan (AEP) fully complies with FAA requirements. This should include, but not be limited to, mutual aid requirements in FAA AC 150/5200-31C. AEP sections should be written in language suitable for use by operational watch officers as the initial responders and coordinators of emergencies, and should be self-sufficient and suitable for stand-alone use by supervisors, watch officers, or other responders.
26. LAWA should not have separate contingency plans for situations required by the FAA to be addressed in the AEP and should eliminate the AEOP.
27. LAWA should inventory all spaces and equipment in terms of relative usefulness for responses in the AEP.

28. LAWA should review and correct plans to use standardized terminology and organization charts, along with the corresponding position descriptions.
29. LAWA should integrate the Whole Community approach in its emergency plans, trainings, drills, and exercises.
30. LAWA should ensure that After Action Reports are shared with all preparedness and response partners to include, but not be limited to, the City's Emergency Management Department, LAPD, and LAFD.
31. LAWA should coordinate and synchronize LAX Evacuation Plans with the City's Emergency Management Department, LAFD, and LAPD. These plans should be made known to all City departments, in order to better integrate City assistance in the event of a large-scale evacuation at LAX.
32. LAWA should install an effective method of marking evacuation areas. LAWA should train airport staff and tenants about the evacuation routes and sheltering locations.
33. LAWA should develop a repatriation plan with designated spaces and services, with the planning to be done in conjunction with the airlines, TSA, CDC, CBP, and the City's Emergency Management Department.
34. LAWA should notify the City's Emergency Management Department whenever sheltering is activated by LAX, and keep it regularly notified of the numbers sheltered and the capacity remaining at LAX.
35. LAWA should extend the employee assistance program to include special provisions for post-disaster counseling and assistance.

Emergency Management Training

36. LAWA should develop its emergency management training program to include: using trainers from outside LAWA to present emergency management training to LAWA employees and management; training LAWA executive management and key personnel in NIMS/ICS (to include NIMS/ICS 100, 200, 300, 400, and 700-level courses); developing and attending inter-departmental emergency management training programs with the City's Emergency Management Department and other key City departments; and limiting internal LAWA-only emergency management training at LAX.

37. LAWA management and emergency management personnel should attend the National Emergency Response and Rescue Training Center (NERRTC) in College Station, Texas.

38. LAWA should improve the career path and skills development of all emergency management employees by using training and education tools of the City's Emergency Management Department, other City departments, the Federal Emergency Management Agency (FEMA), Airports Council International (ACI-NA), and American Association of Airport Executives (AAAE).

39. LAWA should actively involve itself in city, county, and regional exercises and include the potential impact on LAX in the training scenarios.

40. The City's Emergency Management Department, and its EOC should be a part of LAWA's emergency management drills, regional disaster/catastrophe drills, and other exercises. Where possible, the drills and exercises should be written with a scenario requiring EOC activation.

41. LAWA and the City's Emergency Management Department should jointly assist in the scenario design phase, execution phase, hot wash, and After Action Review of exercises, which should include IMC/EOC joint scenarios. Exercises should be added to the City's Emergency Management Department's City-wide master calendar.

Developing the ARCC

42. LAWA should develop and implement a 24/7 multi-agency "Watchstander Process" in the ARCC, whereby the duty officers from the many agencies represented at LAX, including LAWAPD, LAPD, TSA, CDC, and LAWA Operations, perform their duties at the ARCC in an effort to maintain situational awareness, information management, and a common operating picture of what is taking place at the airport.

43. LAWA should devise or obtain protocols and procedures for the effective use of the ARCC/IMC, including standards for its activation, notifications, and communication with other departments. LAWA should further convert narrative-based plans into playbooks that focus on Purpose, Triggers and Actions. These should be checklist-based and could be digitally accessed by operational watch officers in the ARCC/IMC.

44. LAWA should rename the IMC to the LAX Departmental Operations Center (DOC) to be consistent with the protocols used by other City departments.

45. LAWA should work with City departments and consultants to optimize internal usefulness of the ARCC/IMC in emergencies.

46. LAWA should consolidate all closed circuit television (CCTV) video feeds to the ARCC/IMC, including independent CCTV systems. (redacted) An alert system with automated image screening should be added.

47. LAWA should establish a Joint Information Center adjacent to the ARCC/IMC.

48. The City should develop a system to facilitate coordination among Public Information Officers, to include LAWA, LAFD, LAPD and the City's Emergency Management Department.
49. (redacted)
50. LAX should increase radio connectivity and technological interoperability.
51. LAWA should continue to refine the distribution of its Everbridge notifications and should ensure that the types of incidents match the information needs of recipients on notification lists.
52. Key personnel from all public safety/security agencies at LAX should be linked into the Everbridge communication/notification system.

FIRE PROTECTION AND PREVENTION SERVICES

Introduction

The Los Angeles Fire Department (LAFD) began protecting LAX in 1941.

Throughout its history of service at LAX, the LAFD has responded to significant aircraft-related incidents from collisions and emergency landings to shootings and bomb threats.

These incidents have included:

- On March 1, 1978, Continental Flight 603, during an aborted takeoff, veered off the runway after two tires failed and the landing gear collapsed. The plane's fuel tank ruptured and the spilled fuel ignited enveloping the plane in flames. Four passengers lost their lives while 74 passengers and 11 firefighters were injured.
- On February 1, 1991, US Air Flight 1493, upon landing, collided with SkyWest Flight 5569 that was departing on the same runway. The collision killed all 12 occupants of the SkyWest plane and 22 people aboard the USAir 737.
- On July 4, 2002, Hesham Hadayet fired a hand gun near the El Al counter, killing two and injuring six.
- On September 21, 2005, JetBlue Flight 292 discovered a problem with its landing gear as it took off from Bob Hope Airport in Burbank. Though the front landing gear was rotated ninety degrees, the plane was able to land safely at LAX by balancing on its rear landing gears for as long as possible. There were no injuries.
- In 2006, a fire occurred in the fuel tank farm when a welder accidentally ignited an empty fuel storage tank. There were no injuries.
- In 2007, a sprinkler failure and broken pipe caused flooding and resulted in the evacuation of Terminal 1.

- In 2008 there were a number of bomb threats at LAX, one of which resulted in the evacuation of TBIT and Terminal 3.

Providing fire protection services at a large airport such as LAX involves a complex analysis of anticipated emergencies, both on and off the airfield. Managing and containing the consequences of a catastrophic event like an airline crash, which is a remote, but real possibility for any airport, must be an integral part of effective fire service planning at LAX. At the same time, due to the large number of passengers and employees at LAX everyday, most calls for fire service involve a request for paramedic and emergency medical services. Adding to the complexity of the deployment of resources is the capital improvement and construction that is currently underway at LAX. Finally, the analysis must recognize that LAX is located in the middle of a large urban area, and is surrounded by residential communities, which also require fire protection services.

Overall, we believe that both LAWA and the LAFD are deeply committed to fire protection and prevention services at LAX. Significant developments and improvements have been made at LAX, including the building of a new state-of-the-art fire station on the airfield and the addition of a fire inspector. The problems we noted with respect to fire services involve old equipment, the procurement process, and the need for a back-up capability, additional technology resources, additional training, and additional fire inspectors.

Findings

1. Significant Fire Department resources are dedicated to LAX

The geography of LAX presents a challenge to those in the fire service that seek to protect it. There are two pairs of runways north and south of the terminal complex that are one mile apart. There are nine separate terminal buildings and many more buildings that span the 3,425 acres of LAX.

The LAFD currently has four fire stations located on or immediately adjacent to LAX that are responsible for responding to emergencies at LAX. The fire stations, and the general capabilities of each, are:

- Fire Station 80: Fire Station 80 is located on the airfield and houses specialized airport firefighting equipment. Fire Station 80 houses four specialized fire trucks in addition to one reserve truck and is constantly staffed⁶² with fourteen specially trained fire fighters (twelve assigned to Aircraft Rescue and Firefighting (ARFF) apparatus and two to the emergency response platform). Fire Station 80 is a new state-of-the-art facility that opened on November 22, 2010. Fire Station 80 only responds to incidents at LAX (and not within the neighboring community), unless there is an aircraft incident off the airport property.
- Fire Station 51: Fire Station 51 is located in the Southern portion of the airport (near terminal 8) and houses a fire engine (a paramedic assessment engine) with one paramedic rescue ambulance and is constantly staffed with six personnel.

This Fire Station provides the primary medical response to the CTA and gate

⁶² Constant Staffing is a term used within the fire service as the method of staffing fire department services 24 hours a day 7 days a week. “Constant Staffing” maintains the staffing levels of all fire units at required levels for safe and efficient operations, so that an adequate response to an emergency can be made regardless of the time of the day or night that the emergency takes place.

areas at LAX. This Fire Station also provides aircraft interior attack support to Fire Station 80 when needed.

- Fire Station 5: Fire Station 5 is located north of the airport, in the Westchester community, and is a multi-company⁶³ fire station, which houses an engine company and a ladder company with ten personnel. This station also houses equipment for a standby Urban Search & Rescue Team (USAR)⁶⁴ and its members are trained to respond as a USAR Unit.
- Fire Station 95: Fire Station 95 is located east of the airport on Century Boulevard and is a multi-company fire station, which houses an engine company and a ladder company with ten personnel. This station also houses equipment for the standby Hazardous Material (HazMat) company⁶⁵ and its members are trained to respond as a HazMat Unit.

Therefore, in the immediate vicinity of LAX, there is a specially trained airport response team, a USAR-trained team, a HazMat-trained team, fire fighters and paramedics. These fire companies are all part of the initial response to airport incidents and receive special

⁶³ The term “company” in a fire station typically refers to a fire truck and the fire fighters assigned to that truck.

⁶⁴ “Urban Search & Rescue” or USAR is considered a “multi-hazard” discipline, as it may be needed for a variety of emergencies or disasters, including earthquakes, hurricanes, typhoons, storms and tornadoes, floods, dam failures, technological accidents, terrorist activities, and hazardous materials releases. The events may be slow in developing, as in the case of hurricanes, or sudden, as in the case of earthquakes. Specialized training is required to be qualified to work on a USAR team. USAR trained fire fighters can work in four areas of specialization: search, to find victims trapped after a disaster; rescue, which includes safely digging victims out of tons of collapsed concrete and metal; technical, made up of structural specialists who make rescues safe for the rescuers; and medical, which cares for the victims before and after a rescue.

⁶⁵ “HazMat” teams respond in the event of a chemical or dangerous toxin or a bomb threat emergency. The LAFD will dispatch a HazMat specialized apparatus, with fire fighters who are specially trained for handling these dangerous materials.

clearances and training to operate on the airfield. We find this to be an appropriate allocation of fire resources in and around LAX.

As noted above, Fire Station 80, which opened in November 2010, is located on the LAX airfield and houses all of the specialized airport fire fighting response equipment. Fire Station 80 has state-of-the-art features that meet the needs of the fire fighters and fire trucks located at LAX. This fire station is a tremendous addition to public safety at LAX. LAWA and the City of Los Angeles are to be commended for having the foresight and perspective in building this facility.

2. Additional upgrades should be made to continually improve response times and capabilities

Due to the mass casualty potential of an aviation emergency, the speed with which emergency response equipment and personnel arrive at the scene of the emergency is of paramount importance. The timely arrival of firefighters and their initial efforts to secure the aircraft against all hazards, particularly fire, increases the survivability of all individuals on the aircraft.

The FAA requires that at least one Aircraft Rescue and Firefighting (ARFF)⁶⁶ truck be able to reach the midpoint of the farthest runway in less than three minutes of notification of an incident. All other deployed trucks are required to reach the midpoint within four minutes.⁶⁷ Firefighters who are assigned to be an airport responder are

⁶⁶ Specialized firefighting apparatus that contains water, foam, and dry chemical to extinguish fuel fires.

⁶⁷ The FAA similarly has minimum requirements regarding the discharge flow rates, foam capacity, and personnel training with which LAFD must comply.

expected, from the time of notification, to don personal protective equipment (PPE),⁶⁸ mount vehicles and exit the station within thirty seconds.

Fire Station 80 is situated at the far west end of LAX's four runways. This specific location provides the airport firefighting companies with the ability to reach all required locations of the runways within the FAA standard. Despite the tight timetables set by the FAA, LAFD firefighters are well-trained professionals who meet and exceed the national standards.

In addition to the FAA standards, the National Fire Protection Association (NFPA) sets its own guidelines for appropriate firefighting response. While not a regulatory agency, the NFPA is an internationally recognized industry consensus standards-making organization. The organization provides guidance for aircraft rescue and firefighting services at airports,⁶⁹ and recommends a response time of two minutes to any part of an active runway and two-and-one-half minutes to other aircraft movement areas where aircraft accidents are most likely to occur. While the NFPA guidance is not mandatory, this guidance reflects what is regarded as best practices, and suggests that LAFD and LAWA should be seeking ways to lower its response time to all parts of the airport. (redacted)

3. The fire trucks at LAX need to be replaced

Due to the unique circumstances surrounding airport emergencies, specialized fire trucks and specially trained fire fighters are required at airports. ARFF is the firefighting

⁶⁸ Due to the intense radiant heat generated by burning fuels, firefighters wear protective ensembles that are coated with a silvered material to reflect heat away from their bodies, called a fire proximity suit. They also must wear self-contained breathing apparatus to provide a source of clean air, enabling them to work in the presence of smoke or other super-heated gases, such as when making entry into the burning cabin of an aircraft.

⁶⁹ Their guidance is provided in NFPA 403.

specialization that is dedicated to the response, hazard mitigation, evacuation and rescue of passengers and crew on an aircraft.

While there can be many different features to a fire truck designed for service at an airport, the ARFF truck design generally features high speed capabilities, significant water-carrying capabilities, off-road performance, and the capability to carry foam or other chemical agents that, when mixed with water, can contain a fuel fire. The ARFF truck is a unique type of fire truck that can handle an accident anywhere on or off airport property and can quickly extinguish a fuel or aviation fire. Unlike the traditional red LAFD fire truck, the ARFF trucks at LAX are florescent yellow and easily identifiable anywhere on the airfield.

LAX currently has four ARFF trucks⁷⁰ that are used on a daily basis, and one reserve ARFF⁷¹ truck that is only used when one of the other trucks is out of service. All five of the ARFF trucks are located at Fire Station 80, and have the capacity to hold 13,500 gallons of water for foam production. This total capacity is more than double the FAA's minimum capacity requirement of 6,000 gallons for large airports such as LAX.⁷² This 6,000 gallon capacity is recognized by the FAA as sufficient to effectively control and extinguish a fire involving the largest passenger aircraft servicing the airport.

⁷⁰ A fire apparatus, fire engine, fire truck, or fire appliance is a vehicle designed to assist in fighting fires by transporting firefighters to the scene and providing them with access to the fire, along with water or other equipment. In some areas, the terms *fire engine* and *fire truck* represent different types of firefighting apparatus.

⁷¹ A reserve fire truck is one that is used when the other fire trucks are out of service, such as when they are in need of repair.

⁷² LAX is an Index E airport. An Index E airport is the designation provided by the FAA for the largest airports. An airport is labeled as Index E if a plane measuring 200 feet or more in length takes off from the airport five or more times in one day.

The planned utilization of these trucks in the event of an emergency appears appropriate and consistent with aviation fire fighting protocols employed throughout the nation. In the event that there are two significant simultaneous incidents at LAX involving aircraft, LAFD's current plan is to split the four ARFF fire trucks into two teams in order to respond to both incidents. Our analysis determined that if there are two simultaneous significant ARFF emergencies, or if there was one involving two wide-body aircraft, the current planned response and capacity of the ARFF vehicles meets FAA requirements.

While the ARFF trucks at LAX have sufficient capacity, they are at the end or near the end of their normal life cycle. All of the ARFF trucks are on a FAA mandated 12-year normal replacement schedule. Currently, two of the four ARFF trucks have exceeded their 12-year life cycle and are overdue for replacement. The two remaining ARFF trucks will be beyond their 12-year life cycle, and due for replacement, in approximately one year. (redacted)

The procurement issues have caused a significant delay in the replacement of the ARFF trucks. Regardless of the cause of the problem, it must be addressed immediately to ensure that LAFD has the equipment it needs to deal with an emergency at the airport. Obtaining these specialized fire trucks under normal conditions is time consuming. The current industry standard for the manufacture, delivery and acceptance of ARFF trucks is approximately one year from time of order. This does not include the time needed for contract development, or any review or approval process that is frequently required. Given the current issues with the failed attempt to purchase ARFF trucks, the age of the current fleet, and the long time frame needed even in the best of circumstances for

delivery of new ARFF trucks,⁷³ if the replacement process is not started immediately then all vehicles will exceed their normal life cycle and will be over-due for replacement before LAFD acquires any new vehicles.

4. There is insufficient anticipation of equipment needs and inadequate use of technology to enhance fire protection services at LAX

Recent advancements in airplane design and technological advancements all present challenges and opportunities to maintain strong firefighting capabilities at LAX. Keeping ahead of these advancements is a challenge, but is necessary to significantly enhance fire protection services at LAX.

The Airbus A-380 is a relatively new double-deck, wide-body, four-engine airplane. It is the largest passenger airliner in the world and can accommodate over 500 passengers. The A-380's upper deck extends along the entire length of the fuselage, and its wingspan is approximately 260 feet. Due to its size, many airports around the world had to make structural modifications to accommodate it, including repositioning taxiways and making runway changes.

(redacted) As noted previously, seconds count when responding to aircraft incidents and having the appropriate equipment to respond saves precious time.

(redacted)^{74 75}

⁷³ We note that the FAA has recently updated and put online the format for standard ARFF vehicle procurement, which should make the procurement of ARFF vehicles easier to accomplish. The objective of this FAA effort is to standardize vehicle options based on airport index, and more easily identify purchases that qualify for FAA administered Airport Improvement Program (AIP) funds. A natural consequence of this change is a streamlined specification development process and a reduced manufacturing and delivery timeline.

⁷⁴ (redacted)

⁷⁵ (redacted)

In addition, we determined that greater integration of technology into the fire service at the airport could greatly enhance LAFD's capabilities at LAX. We found numerous examples demonstrating that the use of technology would not only increase efficiencies in the fire protection service, but would contribute significantly to overall safety of the firefighters and traveling public.

One of the more significant technological improvements needed is a system to track fire resources, particularly on the airfield. Currently, the movement of fire trucks housed at LAX are tracked through radio contact with the air traffic control tower and ground radar. A significant safety issue exists because the tower does not know the exact location of fire trucks at all times, particularly while traveling on the airfield. We became aware of one instance, in December 2010, when an aircraft took off while a fire truck was crossing the far end of the runway. Although the fire truck was ultimately determined to be in a safe area, the tower was not aware of the fire company's location at the time. This incident illustrates the danger to both fire fighters and the traveling public when the tower is unaware of the location of first responders.

LAX is equipped with a Airport Surface Detection Equipment (ASDE-X). This system could be expanded to include all emergency response vehicles operating on the airfield. This system will allow for real-time tracking of vehicles in the airport safety areas and will also improve communications.

We also noted that as a result of many years of remodeling, several different vintage fire and smoke alarm systems exist at LAX. Although these systems are operational and functional, they are not compatible with each other and cannot be

centrally controlled or monitored. Modernizing these systems will permit more robust monitoring and prompt detection of smoke and fire incidents when they develop.

Finally, incorporating greater technological capabilities could greatly assist Fire Inspectors in improving their efficiencies and permit them to cover greater territory during their shifts. There is currently one Fire Inspector⁷⁶ dedicated to the entire LAX property and two assigned to the construction areas. Inspectors have the responsibility of inspection, system testing, and oversight of the terminals, administrative buildings, cargo and aircraft hangars, and fuel tank farms. The current inspection process involves pen-to-paper checklists and manual writing or typing on inspection paperwork. This paperwork process is consistent with the method that is used throughout the LAFD.

Our review determined that this process of completing the inspection paperwork is tedious and time consuming. We believe numerous efficiencies can be obtained by automating the current inspection paperwork process and will allow the fire inspectors assigned to LAX to operate more efficiently and effectively in covering the large geographic area that encompasses LAX.

5. The working relationship between LAWA and LAFD is positive, but communications are not effective due to the scheduling rotations of fire fighters

We find that LAWA and LAFD have a positive and respectful working relationship. We found, however, that the lines of communication are inconsistent and inefficient. These communications issues have resulted in some operational impacts that are also outlined in this report.

LAWA has encountered difficult communication issues when dealing with LAFD, as a result of the three separate shifts of fire fighters assigned to Fire Station 80

⁷⁶ Fire Inspectors are also referred to as Fire/Life Safety or Fire Prevention Inspectors.

and a lack of consistent information sharing between the three shifts. Due to these duty shifts employed by LAFD throughout its department, which involves different people working on different days, consistent communications between the two departments has proven very difficult. Messages are lost and information is not properly shared among LAFD personnel working on differing shifts.

We note that there are a number of major domestic airports that utilize an Operations Officer to facilitate active communication. Under this model, a Fire Department Operations Officer is considered part of the senior staff of both the airport and the fire department, and serves as the single point of contact liaison between the two. The position is responsible for coordinating all airport fire department activities, and coordinating oversight of inter-agency communication and intelligence sharing, training, vehicle and equipment specifications. We find that such a position reporting to a Deputy Director for Public Safety is vital to facilitating communication between LAFD and LAWA. It is important that this position be of sufficient rank within LAFD, and at least an Assistant Chief, to speak and act with adequate authority.

6. Staffing reductions in fire stations surrounding LAX limit the resources available at the airport for emergencies

Fire Station 80, which is the ARFF station located on the LAX airfield, can only respond to incidents at LAX and cannot respond to incidents in the neighboring communities surrounding LAX. This policy ensures that Fire Station 80 is available at all times to respond to airport emergencies. The three fire stations located outside the airport, but in the immediate vicinity, respond to calls for service in the surrounding communities as well as at LAX. When responding to calls for service within these

residential communities, these fire department resources are necessarily unavailable for an airport response.

We note that beginning in mid-2009, the LAFD implemented a Modified Coverage Plan (MCP) that periodically reduced resources available in certain fire stations due to budget reductions. The result has been a Citywide reduction in the overall number of firefighters on duty in multi-company fire stations, whereby one of the two companies is shut down for a twenty-four hour period approximately once a month. Of the fire stations regularly servicing LAX, only Fire Station 5 has been included in these periodic reductions.

Our analysis determined that during times when Fire Stations 5, 51, and 95 were responding to community (non-airport) calls for service, combined with the periodic closure of the companies in Fire Station 5, there was a reduced number of specially trained airport firefighters available to respond. We did not, however, identify any incident at the airport that was adversely affected as a result of this reduced staffing.

While we note that the LAFD budget for the new fiscal year (beginning on July 1, 2011) eliminates the reduced staffing to Fire Station 5, we believe it important to note the impact on service should the periodic closures continue or if closures are again contemplated in the future. We believe consistently available resources are critical for the appropriate emergency response at LAX.

7. There is a need for more consistent training opportunities, a dedicated training staff, and training reports

Airport firefighters assigned to Fire Station 80 have advanced training in the application of firefighting foams, dry chemicals, and other agents used to extinguish

burning aviation fuel in and around an aircraft in order to maintain a path for evacuating passengers to exit the fire hazard area. Further, they receive specialized training for fires that are encountered in the cabin area.

We found that training for all personnel assigned to Fire Station 80, who are the ARFF responders, complies with the FAA mandated requirements and is well documented. We further noted that multi-agency emergency training exercises involving the fire department take place on a periodic basis. These exercises include different scenarios and have been described as beneficial by fire personnel.

The firefighters at nearby Fire Stations 5, 51, and 95 are also trained in airport operations, although to a lesser extent than the specially-trained ARFF firefighters at Fire Station 80. The training is conducted to familiarize firefighters assigned to fire stations adjacent to LAX with airport operations and to prepare them for support roles in the event of a major airport incident. Our analysis determined that these training exercises, while meeting the minimum training requirements, occur on an inconsistent basis.⁷⁷

In the event of a plane crash or other major aircraft related incident, additional fire stations respond (i.e., Fire Stations 63, 62 and 66). They are not consistently involved in training at LAX although they have received basic training. Also, if any of these fire companies are involved in other incidents, fire companies from other areas of the City could respond even though they have no airport related training.

We found that there is a high turnover of fire department personnel at Fire Stations 5, 51 and 95. The unique environment presented at LAX would benefit greatly

⁷⁷ We note that LAFD is ending its Modified Coverage Plan (the “MCP”) in which it reduced the number of firefighters on duty in certain fire stations on select days. As a result, the training may become more consistent.

from a more stabilized work force. Many of the individuals and agencies that would be involved in airport evacuation are either unaware of the evacuation plan, and/or have not participated in an evacuation exercise. This lack of knowledge is a result of high turnover and inconsistent training on evacuation procedures. This situation can be remedied through consistent training of newly assigned and veteran fire personnel. Consistent training will ensure that they all have the appropriate background and skills to respond to airport emergencies.

In contrast to the turnover in the adjacent fire stations, the firefighting staff assigned to Fire Station 80 is relatively stable, although retirements result in periodic turnover. The training of the ARFF firefighters assigned to this station is conducted by a fire department commander and members of his crew. These trainers are not available on a day-to-day basis (depending on deployment schedules, the trainers could be assigned in other areas of the City and not be available at LAX), and a number of trainers are scheduled to retire in the next two years. The turnover of ARFF trainers may create substandard and/or inconsistent training of incoming airport firefighters unless this experience vacuum is properly addressed.

As part of our review, we conducted an informal survey of 16 of the 23 Index E⁷⁸ airports in the United States, to determine how they conduct ARFF training programs. Of the 15 airports that responded, 14 have one or more fire officers dedicated to coordinating ARFF training and management. Most positions range in rank from Captain through Assistant Chief. We believe that such a dedicated training officer would be beneficial to the fire service at LAX, particularly given the presence of such a position at

⁷⁸ An Index E airport is the designation provided by the FAA for the largest airports. An airport is labeled as Index E if a plane measuring 200 feet or more in length takes off from the airport five or more times in one day.

other large airports. This will result in consistent, high-level training to LAFD's ARFF personnel.

Efforts to document the lessons obtained from training exercises are almost non-existent. After large-scale training exercises, After Action Reports that itemize lessons learned and suggested improvements can be beneficial to all. While meetings and discussions on the training do take place following the exercises, there is no formalized system to document training so that all airport personnel have a clear understanding of successes achieved and training deficiencies that remain. Planned and unplanned incidents are also excellent learning and training opportunities. After Action Reports should also be issued following these incidents.

8. More fire inspectors are needed at LAX

Currently, there is one fire inspector permanently assigned to the entire LAX complex. Two additional "new construction inspectors" are assigned to assist and oversee the modernization project of the international terminal. The second construction inspector is a relatively recent addition to the LAX fire inspection service. In August 2010, the LAFD Fire Chief and the LAWA Executive Director agreed to dedicate an additional fire inspector to LAX to ensure compliance with fire safety regulations, both for existing facilities and during the period of capital improvements (this is one of the two construction inspectors). We believe, however, that the permanent fire inspection service at LAX remains understaffed.

The LAX complex encompasses many acres that include nine passenger terminals, fifteen cargo terminals, numerous administrative buildings and hangars, and a large fuel tank farm. The size and complexity of the LAX facilities presents fire and life

safety challenges that are more than can be reasonably handled by one full-time inspector. We find this to be the case regardless of whether construction is taking place or not. The size and scope of the facility, along with the varied facilities located on its grounds require a more robust dedication of fire inspection services. This is particularly true since we learned of sporadic fire evacuation drills performed in office buildings, and the lack of floor wardens in some offices.⁷⁹ A more robust fire inspection service will ensure better compliance in this area.

In addition, fire inspectors must have access to all facilities at all times. At LAX, the assigned fire/life safety inspector is charged with inspecting all areas of the airport complex. There is constant construction and modernization taking place at the airport and this modernization effort is likely to continue into the foreseeable future. We learned that the one full time fire inspector is not able to gain access to many of the newly secured areas that result from the new construction. The inspector described an incident in which he was called to inspect an area on the edge of airport property and once he completed his inspection was not able to get back into the airport because he did not have adequate access badging or keys. At other times he has been called to locations that he cannot get access to as a result of the new construction and the new security measures that were subsequently implemented. This needs to be remedied immediately. The fire inspector must have unlimited access to all areas of the airport at all times.

⁷⁹ LAVA was cited for this in April 2010.

Recommendations

Facilities

1. (redacted)
2. (redacted)

Equipment and Technology

3. LAWA and LAFD must ensure that all fire apparatus purchases are done in accordance with the fire department's standard apparatus procurement process.
4. LAWA and LAFD should immediately develop specifications for acceptable replacement ARFF vehicles, and purchase those vehicles as soon as possible.
5. LAWA and LAFD should make immediate revisions to the apparatus replacement schedule to address current delays and contractual issues and to sustain an adequate response capability.
6. LAWA should expand its current Airport Surface Detection Equipment (ASDE-X) to include a level-three Driver's Enhanced Visual System for all emergency response vehicles operating on the airfield in order to allow for real-time tracking of vehicles in the airport safety areas and to also improve communications.
7. LAWA and LAFD should automate its fire inspection report system for improved efficiency.
8. LAWA should develop a replacement plan to bring all the fire/smoke alarms up to current standards so as to facilitate a centrally monitored and controlled environment.
9. (redacted)
10. LAWA and LAFD should conduct a study of its long-term equipment needs, and develop a plan for the timely procurement of those items.

Staffing

11. LAFD should increase the number of firefighters trained to respond to airport incidents.
12. LAFD should increase the number of ARFF trained firefighters, particularly those assigned to the fire stations adjacent to LAX.
13. LAFD should develop a flex staffing plan utilizing ARFF trained firefighters from adjacent non-ARFF fire stations to increase the ARFF response in the event of multiple ARFF responses and to increase the overall ARFF capacity.
14. LAFD should exclude Fire Station 5 from any periodic resource reduction schedule.
15. A LAFD Assistant Chief position should be established to serve as the Operations Officer liaison for all fire department related issues with LAWA and to be the primary point of contact between LAFD and LAWA. We recommend that this person report to the Deputy Executive Director for Public Safety.

Training

16. LAFD should require that all fire and rescue companies that may respond to a significant incident at the airport are included in ARFF/airport training as appropriate.
17. LAWA and LAFD should make multi-agency emergency training a priority and ensure that consistent multi-agency training and drills are conducted.
18. LAFD should make airport training for the companies adjacent to the airport a training priority and ensure that the training take place on a quarterly basis and be in accordance with FAA requirements for ARFF response and support.

19. LAWA should conduct evacuation training for all agencies that are involved in the event of an evacuation of the airport and these training should be conducted at least once a year, in accordance with Los Angeles City Code requirements.

20. LAFD should establish a permanent full-time ARFF training staff to provide consistent and competent ARFF training.

21. LAWA and LAFD should issue an After Action Report after incidents and/or training sessions that identify what was effective and what needs improvements for the future.

Fire Inspectors

22. LAWA and LAFD should add at least one additional fire inspector assigned to LAX to adequately serve the needs of the facility.

23. LAWA should develop a system to inform and provide access to newly constructed/modernized secure areas to the fire inspector in a timely manner.

24. Fire inspectors should have access to all facilities in LAX at all times.

INFORMATION TECHNOLOGY

Introduction

Information technology plays a crucial role in airport security. The Information Management and Technology Group (the IT group)⁸⁰ provides and/or procures all information technology services on behalf of LAWA. The scope of work the IT group handles for airport security is significant, and includes many issues that have been discussed previously in this report including: the systems employed at the ARCC; camera operations; and dispatch and communications centers.

As LAWA readily acknowledges, the mission of the IT group is enormous. This is particularly true because LAX, like many airports in the United States, did not make information technology issues a high priority until recently. The IT group has a large mission with too few resources to effectively address all of its many competing priorities. It is too small to address the basic technology needs of LAX, let alone the security needs at LAWA. As a result, the IT employees perform duties that are beyond their job titles and classifications, and they have insufficient time to train and learn about best practices employed at other airports.

While there are many technology challenges at LAWA, we recognize that the IT group consists of an enormously talented group of individuals who are extremely knowledgeable and dedicated to their mission. The IT group has strong and effective leaders, who are thoughtful in planning for the information technology needs at the airport. While they have many challenges ahead, we believe they are on the correct path

⁸⁰ LAWA refers to the IT group as the Information Management Technology Group or IMTG.

forward and will be able to achieve their ambitious agenda, provided that they are given the resources necessary to achieve their goals.

Findings

1. Tremendous progress has been made in recent years at LAX in developing a robust IT infrastructure

The management of information technology at LAX has changed dramatically in the past four years. Prior to 2008, LAWA and the IT group spent four years developing an IT Security Master Plan. By 2008, the plan had not been completed, and there had been no procurement activity to implement any aspect of the unfinished plan. At that point, there was a list of over 200 general IT issues, initiatives and ill-defined projects that had been identified, few of which were getting any attention.

In mid-2007, the former Chief Information Officer left LAWA and the development of the IT Security Master Plan halted. Until that time, the IT group had engaged primarily in reactive technology management, rather than addressing the broader IT needs of LAX, and it was not ready to manage and implement an estimated \$121 million plan that was needed to modernize technology at LAX.

In early 2008, the IT group reorganized, obtained new management, and focused its mission on four primary objectives: (1) strategic IT planning, architecture and governance; (2) proactive customer support and technology management; (3) focused project management techniques and organization; and (4) the inter-related goals of cyber-security, disaster recovery and technology business continuity.⁸¹

⁸¹ At that time, the IT group also created the following new formal organizational units using existing staff resources: IT Enterprise Architecture (now called IT Planning and Architecture); IT Project Management Office; and IT Cyber-Security Office.

Additionally, the IT group created its first IT Strategic Plan to analyze stakeholder needs throughout the LAWA community. An IT Governance Committee was established, chaired by LAWA's Chief Operating Officer, with all LAWA deputy directors as voting members. The goal of this Committee was to review proposed IT initiatives to ensure that they were appropriately developed, met LAWA standards, were cost effective, and advanced the business model forward.

The new IT management team re-focused the IT group on four primary areas:

- Access Control and Credentialing
- Video Surveillance (CCTV) and video analytics
- Voice Communications (Voice over IP and digital mobile radio)
- Police Tools (Mobile Data Computers, Automated License Plate Recognition (ALPR), Computer Aided Dispatch, Emergency 911 Systems.
(redacted)

To support new technology acquisitions, LAWA undertook a massive IT infrastructure improvement effort, consisting of upgraded data centers, new conduit and fiber throughout the CTA, new/expanded minimum point of entry rooms (MPOE) in each terminal and new/expanded/upgraded telecommunication closets which meet the Ethernet spacing requirements in all terminals. These tasks were not easy to accomplish because LAX is an older airport and all of LAWA's terminals precede the "Ethernet Age," which meant that IT related space needed to be built into existing space. Extensive planning with the LAWA facilities and concession groups eventually produced sufficient space to proceed with the IT Infrastructure projects. As a result, every IT security project planned

in the IT group was re-activated and has moved forward. Most will be completed either this or next year.

One project that had not been previously identified in the IT Security Master Plan, but which was undertaken following the reorganization of the IT group, was the establishment of the ARCC. The ARCC was planned, designed and implemented by the IT group along with LAWA Operations and LAWA Facilities Management in about one year. Many challenges were faced in developing the ARCC, which seeks to create a modern technological system within an airport that had not yet had all of its IT systems updated. Many of the legacy systems that feed data into the ARCC are older systems that are not easily integrated. For example, the ARCC was designed to process digital camera feeds, but LAWA's current CCTV system is analog. A digital encoder was necessary to convert analog images to digital for ARCC surveillance purposes. For this reason, the ARCC cannot reach its full operational capacity until the underlying systems are replaced. According to those interviewed at LAWA, this limitation was discussed and understood prior to the ARCC development and LAWA management strongly felt that the synergy and benefits generated by having formerly geographically dispersed operating units in one location could not wait, despite the technological limitations.

The IT group is engaged in all LAWA capital construction projects and has an embedded team on the current project to expand the international terminal.

A major organizational initiative for the IT group was the consolidation of all LAWA IT staff into one physical space. Prior to the IT group's move into one building in 2010, the IT staff was dispersed in seven separate LAWA buildings. This move was a significant accomplishment because collaboration and interaction are very difficult to

achieve when employees are dispersed in many separate buildings and valuable resources are spent simply traveling to meetings.

All of the above accomplishments by the LAWA IT group represent a significant step forward in addressing LAX's technological needs. While we observe that there is much more to do in the area of IT development, the significant accomplishments of the last few years did not go unnoticed by this Panel.

2. The IT group has an ambitious technology agenda

The IT group has a strategic plan for fiscal year 2010-11 that has the following ten technology objectives for LAWA: (1) the ARCC project; (2) an annual review of all public safety systems; (3) design, procure and implement a new trunked digital radio system; (4) develop a roadmap for collection and implementation of spatial data to use in conjunction with geographic information system location databases; (5) develop a business continuity plan; (6) design, procure and implement a video management system and complete the CCTV upgrade; (7) enhance LAWA's access control systems to improve public safety; (8) (redacted); (9) increase use of Automatic License Plate Recognition; and (10) standardize public safety systems.⁸² The strategic plan, which the IT group updates and publishes every year, is a well-conceived blueprint aimed at focusing limited resources in areas of greatest need.

Within the strategic plan, the IT group has developed an ambitious agenda of short and mid-term technology goals for public safety. These include: (1) build-out

⁸² Information Management and Technology, Strategic Plan 2010-2011, Los Angeles World Airports, September 2010.

sufficient Main Distribution Frame⁸³ rooms in each terminal; (2) build-out a dedicated public safety data center in the Post Way building; (3) install redundant fiber so that internet access is not lost if one access line is severed; (4) expand LAWA's Multiprotocol Label Switching (MPLS)⁸⁴ network into the CTA so that it is available for use by all public safety systems; (5) assess potential for installing a fiber loop on the airport's perimeter; (6) complete the installation of a trunked digital radio system for public safety and operations; (7) replace four unconnected analog CCTV systems with a digital IP addressable CCTV system; (8) replace employee badging hardware; and (9) replace the credentialing system.

All of these programs are critically important to improving security at LAX. Each one will require, however, considerable effort and resources to accomplish successfully.

3. There are not enough employees working on LAWA's information technology program

The IT group consists of only four employees, a supervisor and three subordinates. The present Chief Information Officer is the only director of technology at a Category X airport with IT security credentials.⁸⁵ As a result, a very strong emphasis has been placed on increasing LAWA's cyber-security posture. A strong IT team was

⁸³ A Main Distribution Frame (MDF) room functions as the interconnection point between the building's internal systems and the communications services entering from the outside.

⁸⁴ The MPLS is a mechanism in high-performance telecommunications networks which directs and carries data from one network node to the next with the help of labels.

⁸⁵ We have found no other Category X airport Chief Information Officer with similar credentials. His credentials include the Certified Information Systems Security Professional (CISSP) and the Global Security Leadership Certification (GSLC).

hired in 2009, and began an initial assessment of LAWA cyber vulnerabilities. It was quickly determined that major improvements were required and, therefore, LAWA procured a wide-ranging array of security monitoring tools. A security operation center was established and LAWA contracted to obtain an external twenty-four hours a day, seven days a week monitoring system.⁸⁶ Business continuity planning was initiated for critical LAWA systems, and software was purchased to allow LAWA to establish, permanently update, and maintain a business continuity plan for all LAWA critical systems.

LAWA is now taking steps to share its work in cyber-security with other airports through the Airports Council International. Recently, LAWA requested and received a full cyber security audit (the first airport in the nation to do so) from the Department of Homeland Security Cyber Security Office and Carnegie-Mellon's Cyber Security Team. LAWA is also making plans to transmit security alerts with other airports, rather than each airport having to establish its own contracts with United States Computer Emergency Readiness Team (US-Cert) for security updates.⁸⁷

Notwithstanding the IT group's small staff, it has done a very good job of implementing security procedures to prevent the hacking of LAWA IT systems from external sources. Attempts to hack into the LAWA IT system occur on a daily and constant basis. While 95% of the hacking efforts are random and not very effective, the

⁸⁶ This monitoring system is called the Multi-State Information and Advisory Center or the "MS-ISAC." The MS-ISAC is the focal point for cyber threat prevention, protection, response and recovery for the nation's state, local, territorial and tribal governments. The MS-ISAC 24x7 cyber security operations center provides real-time network monitoring, early cyber threat warnings and advisories, vulnerability identification and mitigation and incident response.

⁸⁷ US-Cert sends out alerts when cyber threats occur, technical bulletins on vulnerabilities, and security tips.

remaining 5% are very sophisticated and require monitoring. This requires the IT group to investigate most of the hacking incidents and conduct computer forensics on these attempts. (redacted) Additional resources would allow the IT group to address potential threats throughout the LAX complex and the potential insider threat to the IT infrastructure.

Although the job titles of the employees in the IT group are Programmer and Assistant Programmers, all of them are working outside of their job classifications in order to accomplish the IT goals and objectives that have been identified for LAWA.⁸⁸ While the IT group works daily on security and computer forensics duties, these duties are not included in the programmer job description/classification. The employees in the IT group have become highly skilled in security and computer forensics. By not placing the IT group employees into the proper job classification, those employees could find employment elsewhere where their duties are properly recognized and compensated. Compounding the resource problem is that it can take up to two years to train and develop an employee in the IT group to ensure that the person becomes highly effective and skilled.

LAX has (redacted) WiFi access points throughout the airport that employees can use to gain access into the LAWA IT system remotely. (redacted) In fact, the IT group has detected attempts by non-LAWA employees to hack into the wireless access point signal from outside the LAX complex. The IT group has been conducting wireless auditing of the access points for the last two years and it is scheduled to be complete by

⁸⁸ The IT group is also responsible for overseeing the IT infrastructure for Ontario Airport and Van Nuys Airport which requires an expenditure of resources outside of the needs of LAX.

August 1, 2011.⁸⁹ Additional resources are necessary to address these wireless audits and to maintain the security of the wireless access points throughout the LAX complex.

The IT group also needs to address insider threat issues emanating from employees that make the IT system vulnerable. This includes everything from the improper use of thumb drives or USBs to intentional actions that allow unauthorized access to outsiders. One major concern is the potential release of information (redacted) to individuals outside of LAWA by a current or past employee.

4. Training related to the security of information technology is inconsistent and not mandated within LAWA

The IT group has begun a training program for all LAWA employees on information security. The program consists of eight modules and lasts two to three hours. Despite the fact that developing a universal information technology training program is a challenge at LAWA, because some employees have access to different information systems, the IT group's effort to standardize protocol and practices for technological security is important.

The training is not mandatory for every employee at LAWA. Currently, only employees from LAWAPD and the ARCC are required to take the training program to protect LAWA's Information Technology.

5. The IT group's liaison efforts with information security officials at other airports need to be more robust

⁸⁹ Access points are the antennas that are used for wireless service, that are frequently located in ceilings. A major threat to any organization is the rogue wireless access point installed by someone other than the network administrator or security personnel. An organization's cyber security can be compromised by a rogue access point.

Due to a lack of resources, the IT group is not able to engage and learn from their counterparts in the IT security arena at other airports in the region to the extent they could. Such relationships would assist in learning about issues and patterns developing in the IT infrastructure for airports, and for discussing and exchanging lessons learned and best practices at other airports.

Recommendations

1. LAWA should authorize the creation of at least three additional positions for the IT group, and ensure that these positions are advertised and staffed in a reasonable amount of time.
2. LAWA should work with the City Personnel Department to provide the LAWA IT employees with the proper job classifications that accurately describe the duties actually performed by the employees.
3. LAWA should implement and mandate a standardized IT security training program for all LAWA employees.
4. The LAWA IT group should liaise with Information Security officials at other airports within the region.
5. The Executive Director and the Chief Information Officer should regularly report to the Board of Airport Commissioners on the implementation of IT enhancements and information security at LAX.

APPENDIX A

MAYOR'S BLUE RIBBON PANEL COMMITTEES

CHAIRS

Hon. Lourdes G. Baird, Chair
Hon. Judith C. Chirlin, Vice Chair

COMMITTEES

Counterterrorism/Homeland Security

Steven L. Gomez (Chair)
Randy Parsons (Vice Chair)
Robert C. Bonner
Eileen M. Decker
Michael P. Downing
Bruce Hoffman
Ronald L. Iden
Ethel McGuire
Erroll Southers
Theodore Stein

Fire Protection and Prevention Services

Douglas Barry (Chair)
James Lonergan (Vice Chair)
James G. Featherstone
John Linstrom
Fernando Torres-Gil

Law Enforcement Operations

Ronald Boyd (Chair)
Michael R. Hillmann (Vice Chair)
Michael P. Downing
Richard E. Drooyan
Ronald Iden
Ethel McGuire
Greig Smith

Emergency Management

James E. Featherstone (Chair)
James Fielding Smith (Vice Chair)
Douglas Barry
Michael R. Hillmann
John Brian Linstrom
Fernando Torres-Gil

Information Technology

Alan I. Rothenberg (Chair)
Richard E. Drooyan
Milind Tambe
James A. Wall

APPENDIX B

BIOGRAPHIES OF BLUE RIBBON PANEL MEMBERS

Lourdes G. Baird

Judge Baird became one of the highest-ranking Hispanic women in the U.S. Justice Department when she was appointed United States Attorney for the Central District of California in 1990. She supervised cases in what was the largest jurisdiction in the United States at the time, comprised of seven counties with more than 12 million citizens. During her time in office, Baird worked on the Justice Department's civil trial against the Los Angeles police officers who assaulted Rodney King. In 1992 she was appointed a federal judge in the Central District of California, where she served until her retirement on April 15, 2005. She is now a private mediator and arbitrator with JAMS and currently serves on Senator Feinstein's federal judicial appointment selection committee.

Douglas Barry

Chief Barry most recently served as the Chief of the Los Angeles Fire Department. He retired in 2009 after 34 years of service in LAFD. Prior to becoming the LAFD Fire Chief, he served as Assistant Fire Marshal in Los Angeles, managing the day-to-day operations of the Fire Prevention Bureau. Some of his duties included managing inspections of high-rise and commercial buildings and brush and hazardous materials processors. In 2004, Chief Barry served as Assistant Chief of Los Angeles Fire Department Division 2, covering all of South Los Angeles, including the Los Angeles International Airport and the Port of Los Angeles. Chief Barry has also served on several occasions as commander of LAFD Battalions and LAFD's Operations Office, and Chief of Staff for former Fire Chief William Bamattre.

Robert C. Bonner

Mr. Bonner has extensive government service. He was confirmed as the Commissioner of the U.S. Customs Service one week after the attacks on 9/11. Shortly thereafter, as part of the homeland security reorganization, he was appointed the first Commissioner of U.S. Customs and Border Protection, the unified border agency to manage and secure our nation's border. As Commissioner, Mr. Bonner launched revolutionary initiatives, including the National Targeting Center, the 24-Hour Rule, the Container Security Initiative, the Customs-Trade Partnership Against Terrorism and U.S. Visit, using the broad border authority to protect the country against the threat of global terrorism by preventing terrorists and terrorist weapons from getting in the U.S. He served as Commissioner until 2006. Prior to becoming Commissioner, Bonner's government service includes being the head of the Drug Enforcement Administration (DEA), a federal district judge in Los Angeles, and the United States Attorney for the Central District of California. A former partner of Gibson, Dunn & Crutcher, Bonner is currently counsel to the firm and the senior partner of the Sentinel HS Group, a homeland security consulting firm based in Washington, D.C. He is a member of the board of trustees of Caltech and chairs Caltech's Audit and Compliance Committee. He is also Chair of the Homeland Security Advisory Council for Region One and a member of Homeland Security Secretary Janet Napolitano's Southwest Border Task Force. He formerly chaired the California Commission on Judicial Performance.

Ronald J. Boyd

Chief Boyd is Chief of the Los Angeles Port Police Department. He directs 223 sworn and civilian employees of one of the few police forces in the Nation dedicated to conducting maritime law enforcement operations in a Port complex that spans 43 miles of waterfront. During his career he has served at Los Angeles International Airport in command of patrol, detective and specialized assignments, and tactical and investigative functions. Chief Boyd was tasked with developing public safety plans at LAX in response to the Ahmed Rassam bombing plot, the post 9/11 terrorist attack, and the July 4th attack in LAX's Bradley International Terminal. Currently, Chief Boyd serves as President of the International Association of Airport and Seaport Police, on the Executive Committee of the Central California Area Maritime Security Committee, a Gubernatorial appointee to California's Emergency Response Training Advisory Committee (ERTAC), the Board of Directors of the Ray Charles Foundation, a voting member on the Urban Area Security Initiative Approval Authority (UASI) and on the Conference Committee of the International Association of Chiefs of Police.

Judith C. Chirlin

Judge Chirlin was appointed to the Los Angeles Superior Court in 1985. Over the years, she has been involved in numerous efforts to improve the legal system and the administration of justice in California, throughout the nation and around the world. In 1984 she designed "So You Want to be a Judge" seminars for women's, minority and other bar associations throughout the state. Judge Chirlin is a past Chair of the Board of the American Judicature Society, a national organization dedicated to improving the justice system. She has held numerous positions in the Women Lawyers Association of Los Angeles, California Women Lawyers, National Association of Women Judges and the International Association of Women Judges. She also served as Vice Chair of the California Gender Bias Task Force. In 2003 she was the American Bar Association's representative on a delegation of the International Legal Assistance Consortium (ILAC) that traveled to Baghdad to assess the Iraqi legal system and make recommendations regarding what ILAC's member organizations could do to help the Iraqi justice system.

Eileen M. Decker

Ms. Decker is the Deputy Mayor for Homeland Security & Public Safety for Los Angeles Mayor Antonio R. Villaraigosa. In this role she oversees all aspects of the Mayor's public safety policy initiatives, emergency preparedness and counterterrorism policy, serves as the principal liaison to federal, state and local law enforcement, and administers over \$400 million in federal and state criminal justice and homeland security grants awarded to the City of Los Angeles, including the Department of Homeland Security's Urban Area Security Initiative grant. She serves on the Executive Committee for the Homeland Security Advisory Council for Region One. Prior to her appointment as Deputy Mayor, Ms. Decker spent nearly 15 years with the United States Attorney's Office for the Central District of California, most recently as Chief of the National Security Section. As the first Chief of this section, she developed the national security program at the United States Attorney's Office and oversaw counterterrorism, counterintelligence, and export enforcement cases in the district. Ms. Decker has served on the Los Angeles County Bar Association's Board of Trustees, and is on the Board of the Women Lawyers Association of Los Angeles.

Michael P. Downing

Deputy Chief Downing attended the University of Southern California where he received a Bachelor of Science Degree in Business Administration in 1982, completed POST Command College in 1997, and the FBI Leadership in Counter-Terrorism (LinCT's) in 2007. He was appointed to LAPD in 1982 and progressed through the ranks, promoting to Deputy Chief in April of 2007. Chief Downing is the Commanding Officer, Counter-Terrorism and Special Operations Bureau, where he oversees the Major Crimes Division, Emergency Services Division, Metropolitan Division, Air Support Division, and Emergency Operations Division. These divisions include the Anti-Terrorism Intelligence Section, Criminal Investigative Section, Organized Crime, Surveillance Section, Hazardous Devices Section, Operation Archangel, LAX Bomb K-9 Section, Special Weapons and Tactics (SWAT), Mounted Unit, Underwater Dive Team, and Emergency Preparedness and Response. He completed a two-month secondment to the New Scotland Yard's Metropolitan Police Counter Terrorism Command SO-15 and has testified before Congress relative to radicalization, intelligence, homeland security and information sharing.

Richard E. Drooyan

Mr. Drooyan was appointed to the Los Angeles Board of Police Commissioners in 2010 by Mayor Antonio Villaraigosa. He has been a partner in the law firm of Munger, Tolles since 1999 and Olsen, where he handles civil litigation and white-collar criminal defense cases. He was the General Counsel of the Rampart Independent Review Panel in 2000 and formerly the Chief of the Criminal Division and Chief Assistant in the United States Attorney's Office in Los Angeles. Commissioner Drooyan has served on the Los Angeles County Bar Association's Board of Trustees and the LACBA committees on professionalism and sentencing and as President of the Los Angeles Chapter of the Federal Bar Association. In 1991, Commissioner Drooyan served as a Deputy General Counsel for the Independent Commission on the Los Angeles Police Department (the "Christopher Commission") and currently serves as the Chairman of the Board of the Children's Law Center of Los Angeles and a member of the Board of Western Center on Law and Poverty.

James G. Featherstone

Mr. Featherstone was appointed General Manager of the City of Los Angeles Emergency Management Department in October of 2007. He is a native of Washington D.C. and veteran of the United States Navy. Mr. Featherstone began his service to the City of Los Angeles in 1986 with the Los Angeles Fire Department (LAFD). In that role, he responded to a variety of emergencies throughout the City of Los Angeles, that included the 1992 Civil Disturbance, the 1993 Firestorm, the 1994 Northridge Earthquake, and numerous local daily major emergencies and regional incidents. In the spring of 2000, he was detailed to a multi-agency team to develop the Fire Department's Operational and Tactical plans for the 2000 Democratic National Convention (DNC). In this role, he collaborated with a variety of federal, state and local public safety agencies. Mr. Featherstone is an alumnus of the National Fire Academy and the Executive Leaders Program at the Naval Postgraduate School's Center for Homeland Defense and Security. He has also served as an Adjunct Instructor at the National Emergency Response and Rescue Training Center at Texas A&M University. Mr. Featherstone is a member of the National Incident Management Working Group, and the current Chair of the National Advisory Council for the Federal Emergency Management Agency.

Steven L. Gomez

Agent Gomez is the Special Agent in Charge of the Counterterrorism Division for the Federal Bureau of Investigation in Los Angeles. Mr. Gomez has served in this position for the past three years. Prior to this assignment, from 2007 to 2008, Mr. Gomez served as a Section Chief in the FBI's Directorate of Intelligence. From 2005 to 2007, Mr. Gomez was the Assistant Special Agent in Charge for all National Security matters in St. Louis, Missouri. Mr. Gomez entered on duty as a special agent with the FBI in November 1990 and specialized in conducting drug, gang, and violent crime investigations in Los Angeles. From 1998 to 2000, Mr. Gomez served as a supervisor at FBI Headquarters in Washington D.C. In October 2000, Mr. Gomez transferred back to the Los Angeles Division as a squad supervisor and managed the Los Angeles Gang Task Force, the Public Corruption/Civil Rights Squad, and the Al Qaeda Counterterrorism Squad. Mr. Gomez was an LAPD officer from 1989 to 1990, and was an IRS agent in Los Angeles from 1987 to 1989.

Michael R. Hillmann

Chief Hillmann is a 44 year law enforcement veteran. He retired from the Los Angeles Police Department in 2008 as a Deputy Chief of Police, following 42 years of service. Upon retirement from LAPD, he was selected as Assistant Sheriff for the Orange County Sheriff-Coroner Department where he served until 2010. His commands have included special operations, SWAT, crowd management, airborne law enforcement, public transportation, maritime security, counter-terrorism, investigations, mutual aid and emergency management. Deputy Chief Hillmann has directed and/or coordinated law enforcement response to hundreds of public assemblages throughout his career. He developed LAPD's Crisis Negotiation Team concept. He is a published author of several tactical articles addressing SWAT, Crisis Negotiation, airborne law enforcement operations and crowd management. As a member of LAPD he consulted with Minneapolis and Denver Police Departments regarding crowd management and incident command in 2008. In 2002, Deputy Chief Hillmann assisted in crowd management training for the 2002 Salt Lake City Winter Olympic Games. In 2003 and 2007, Deputy Chief Hillmann was appointed a subject matter expert for the California Peace Officers Standards and Training (POST) regarding creation of Crowd Management Guidelines. He is a court-qualified, subject matter expert regarding use of force, tactics, SWAT, civil disorder and crowd control. He earned a Bachelor of Arts Degree in Public Service from the University of Redlands, California.

Bruce Hoffman

Professor Hoffman has been studying terrorism and insurgency for more than thirty years. He is currently Director of the Center for Peace and Security Studies, Director of the Security Studies Program, and a tenured professor at Georgetown University's Edmund A. Walsh School of Foreign Service, Washington, DC. Professor Hoffman previously held the Corporate Chair in Counterterrorism and Counterinsurgency at the RAND Corporation and was also Director of RAND's Washington, D.C. Office. Professor Hoffman was Scholar-in-Residence for Counterterrorism at the Central Intelligence Agency between 2004 and 2006. Hoffman was the founding Director of the Centre for the Study of Terrorism and Political Violence at the University of St. Andrews in Scotland. He also serves as Editor-in-Chief of Studies in Conflict and Terrorism, the leading scholarly journal in the field. Professor Hoffman is the author of the acclaimed 1998 book, Inside Terrorism, published in 2006 by Columbia University Press in the U.S. and S. Fischer Verlag in Germany.

Ronald L. Iden

Mr. Iden was named Senior Vice President and Chief Security Officer of The Walt Disney Company in August 2004. Mr. Iden is responsible for developing and coordinating Disney's security efforts worldwide. Mr. Iden joined Disney from the California Office of Homeland Security, where he was appointed by and served under Governor Arnold Schwarzenegger as the Director of the California Office of Homeland Security. Mr. Iden enjoyed a 25-year career with the FBI. From 2001 to 2004, he led the Los Angeles FBI office as its Assistant Director in Charge. From 1998 to 2001, he was assigned as the Special Agent in Charge of the Los Angeles FBI's investigations of terrorism, foreign counterintelligence, financial crimes and civil rights matters. From 1997 to 1998, Mr. Iden served as the Deputy Assistant Director of the FBI's Information Resources Division. In that capacity, he was responsible for the FBI's worldwide automation and information management requirements. From 1992 to 1996, Mr. Iden served as the Assistant Special Agent in Charge of the Los Angeles FBI's investigations of violent crimes, including violent street gangs, kidnappings, extortions and bank robberies.

John Brian Linstrom

Mr. Linstrom is the President and Executive Director of The Linco Group, LLC, Emergency Management and Mass Fatality Consulting, which develops response and recovery plans, technical analysis, training programs and delivery for fire protection, public safety and public health response to mass fatalities and terrorism. Mr. Linstrom served as the Unit Commander for Region 9 Disaster Mortuary Operational Response Team, Department of Health and Human Services, Department of Homeland Security, and Federal Emergency Management Agency (FEMA). He was also Senior Homeland Security Exercise Manager at EG&G Technical Services of Homeland Security Services.

James P. Lonergan

Mr. Lonergan is an independent contractor serving as Subject Matter Expert, consultant and trainer for various fire protection and safety organizations. He has served as the Fire Chief for the Massachusetts Port Authority, and as Fire Chief at the Trenton-Mercer County, and Morristown Municipal airports in New Jersey. While serving as a Battalion Chief with the Philadelphia Fire Department, he commanded the Aviation and Marine Division, as well as other various command assignments.

Ethel McGuire

Chief McGuire was appointed Los Angeles Airport Police Assistant Chief for Homeland Security and Intelligence in 2010. Prior to this appointment, she served as a Special Agent with the Federal Bureau of Investigation. Prior to her retirement from the FBI, Chief McGuire was appointed as a Senior Executive of the Critical Incidents and Response Group where she served as the Section Chief of the Strategic Information and Operations Center located at FBI headquarters in Washington, D.C. In this capacity, she played key roles in developing a crisis coordination and administration unit that manages all major case/crisis response plans for the entire FBI and headquarters divisions. She also managed crisis response, preparedness and staffing for all major events during her tenure, including the 2008 Summer Olympics in Beijing, China; the Republican and Democratic conventions; and events of the 2009 Presidential Inauguration. Prior to her assignment in D.C., Chief McGuire served as an Assistant Special

Agent in Charge of the Joint Terrorism Task Force in the Counterterrorism Branch of the FBI Field Office in Los Angeles.

Randy Parsons

Director Parsons is the Federal Security Director (FSD) at Los Angeles International Airport. He joined the U.S. Department of Homeland Security/Transportation Security Administration in March 2009 as the FSD at Phoenix Sky Harbor International Airport. Mr. Parsons retired from the FBI in 2005 after twenty years of service. His last assignment was as the Special Agent in Charge of the Counterterrorism Program in the Los Angeles office. He led four Joint Terrorism Task Forces and directed the operational readiness of personnel and systems for crisis response. Mr. Parsons practiced law prior to entering the FBI and is a former university professor and police officer. Mr. Parsons founded Global Strategic Solutions, LLC, providing consultation for strategic policy, planning and development within a variety of risk environments to governmental and private sector clientele.

Alan I. Rothenberg

Mr. Rothenberg is the founder and Chairman of 1st Century Bank, N.A., headquartered in Century City, Los Angeles and Chairman of Premier Partnerships, a sports and entertainment consulting, marketing and sales company. From 1990 until his retirement in 2000, Mr. Rothenberg was a partner at the law firm of Latham & Watkins, LLP. From 1968 to 1990, Mr. Rothenberg was a founder and managing partner of Manatt, Phelps, Rothenberg and Phillips, a Los Angeles law firm. He currently serves as a commercial arbitrator and mediator, primarily in complex business matters. From 1990 through 1998, he served as president of the United States Soccer Federation; and from 1990 through 1999, he served as chairman of the 1994 World Cup and the 1999 FIFA Women's World Cup and Founder of Major League Soccer. Mr. Rothenberg was the President of the Board of Airport Commission for the City of Los Angeles from 2005-2010. He has served on the boards of directors of: Zenith National Insurance, (NYSE) and Arden Realty (NYSE). He is a member of the following boards; California Pizza Kitchen (NASDAQ); the United States Soccer Foundation (Chairman); Constitutional Rights Foundation (past Chairman); L.A. Inc. (past Chairman); LA Sports Council (Chairman); and, the Los Angeles Chamber of Commerce (Vice-Chairman). He has been honored by numerous national and local organizations, including the American Jewish Committee, Boy Scouts, Constitutional Rights Foundations, FIFA, Foundation of the State Bar of California, Century City Chamber of Commerce, and UCLA. Mr. Rothenberg received his Bachelor's degree from the University of Michigan and his Juris Doctor degree, with distinction, from the University of Michigan Law School.

Greig Smith

Councilman Smith was elected to Los Angeles City Council in 2003 and was re-elected in 2007 to represent the Northwest San Fernando Valley communities of District 12. He serves as Chairman of the Los Angeles City Council's Public Safety Committee, and Vice Chair of the Budget and Finance Committee. On the Los Angeles City Council, he developed a number of initiatives including the RENEW LA Plan to reduce the amount of waste going to landfills by maximizing recycling, reducing waste, and building a series of conversion technology plants that extract clean energy and sellable materials from trash. He also led efforts to reform the Department of Water and Power, through establishing a DWP Inspector General, and requiring a

third-party financial review on any new rate hikes proposed. He has been an LAPD Reserve Officer for more than 15 years. In 2007, the Valley Industry and Commerce Association gave Councilman Smith its first ever Legislator of the Year Award in recognition of his work to improve business in Los Angeles. In 2009, he opened the Greig Smith LAPD Devonshire Youth Center in Northridge, home of Police Activity League Supporters (PALS) after-school programs for at-risk youth. He serves on the boards of numerous community-based organizations, including the North Valley YMCA, New Horizons, and co-founded SOLID (Supporters of Law Enforcement In Devonshire) and the San Fernando Valley Jaycees.

James Fielding Smith

Mr. Smith is an active researcher and consultant in the fields of airport disaster preparedness and airport-community relationships for emergency management. He is the principal investigator for Airport Cooperative Research Program (ACRP) project entitled “Airport-to-Airport Mutual Aid” as a consultant to IEM Inc. Mr. Smith is president of Smith-Woolwine Associates and professor of Emergency and Disaster Management at the American Military University in Charles Town, West Virginia. Mr. Smith has authored numerous publications on airport disaster preparedness and disaster management. He is a member of the American Association of Airport Executives (AAAE), American Society of Civil Engineers (ASCE), and International Association of Emergency Managers.

Erroll G. Southers

Mr. Southers is a former FBI Special Agent, President Barack Obama’s first nominee for Assistant Secretary of the TSA and Governor Arnold Schwarzenegger’s Deputy Director for Critical Infrastructure of the California Office of Homeland Security. He is the Associate Director of the DHS National Homeland Security Center for Risk and Economic Analysis of Terrorism Events (CREATE) at the University of Southern California, where he developed the Executive Program in Counter-Terrorism and serves as an adjunct professor of Homeland Security and Public Policy. He is a Senior Fellow of the UCLA School of Public Affairs and Visiting Fellow of the International Institute of Counter-Terrorism in Herzliya, Israel. Mr. Southers is also the Managing Director of the Counter-Terrorism and Infrastructure Protection Division of the international security consulting firm TAL Global Corporation. He was the Assistant Chief of Homeland Security and Intelligence at the Los Angeles World Airports Police Department and began his law enforcement career with the Santa Monica Police Department.

Theodore Stein, Jr.

Mr. Stein served twice as a Member and as President of the Board of Airport Commissioners (BOAC). During his tenure, Mayor Riordan tasked the BOAC to finalize the conversion of LAX from a residual to a compensatory airport thereby increasing the amount of money from landing fees and other forms of revenue at LAX. The BOAC was successful in achieving this goal. Under Mayor Hahn, Mr. Stein oversaw high profile concerns including operations, finances, security, and other related issues including the Airport’s response to the events of 9/11. Previously Mr. Stein was a Deputy District Attorney in the County of Los Angeles.

Milind Tambe

Professor Tambe is a Professor of Computer Science and Industrial and Systems Engineering at the University of Southern California. He is a fellow of the Association for Advancement of Artificial Intelligence and recipient of the Association for Computing Machinery “Autonomous Agents Research Award”. Professor Tambe and his research group’s papers have provided algorithms deployed for real-world use by several agencies including the LAX police, the Federal Air Marshals service and the Transportation Security Administration. In 2010 Professor Tambe was awarded the 2010 Homeland Security Award by Christopher Columbus Fellowship Foundation for Border and Transportation Security for creating a strategy that makes security patrols, searches and checkpoints less predictable. The system has been deployed at Los Angeles International Airport since August 2007, by the Federal Air Marshals Service since October 2009, and is currently under evaluation by the Transportation Security Administration and the US Coast Guard.

Fernando Torres-Gil

Dean Torres-Gil is Associate Dean of Academic Affairs at the UCLA School of Public Affairs. He holds appointments as Professor of Social Welfare and Public Policy in the School and is the Director of the Center for Policy Research on Aging. Professor Torres-Gil was appointed by President Clinton as the first Assistant Secretary for Aging in the U.S. Department of Health and Human Services. He has served as Staff Director of the House of Representatives Select Committee on Aging and Vice President of the Los Angeles City Planning Commission. He was appointed to the Board of Airport Commissioners and he was previously appointed by former Governor Gray Davis to the Governor’s Blue Ribbon Task Force on Veteran’s Homes and by Governor Arnold Schwarzenegger as a delegate to the 2005 White House Conference on Aging.

James A. Wall

Dr. Wall currently serves as the Director of Computing and Information Technology for the Texas Center for Applied Technology and holds an appointment as an Associate Research Professor in the Industrial and Systems Engineering Department at Texas A&M University. He is a retired Army officer with twenty-two years of active service with his last assignment as a Senior Computer Scientist with the U.S. Army Research Laboratory at Aberdeen Proving Grounds, MD. He has extensive experience in command and control systems, distributed simulation environments, and virtual reality applications. Dr. Wall is currently the principal investigator for several simulation programs related to incident management and emergency response. His team developed the Emergency Management Exercise System (EM*ES) which has been used to train more than 6500 responders from around the nation and the Bio-surveillance Common Operating Picture which won the DHS Science and Technology Impact Award in 2010 using their information dashboard framework technology. Dr. Wall holds a Master of Science in Systems Technology (Command, Control, and Communications) from the Naval Postgraduate School (1986) and a Ph.D. in Computer Science from Texas A&M University (1993). He was designated as a Regent's Fellow by The Texas A&M University System Board in December 2009.

RESEARCH ASSISTANTS

The Blue Ribbon Panel is extremely grateful to the following individuals who dedicated numerous hours to the completion of our work. Each individual was extremely dedicated and worked tirelessly to assist us in completing our evaluation.

Natalya Garber

Ms. Garber recently received her Master Degree in Public Policy from the University of Southern California's School of Policy, Planning and Development. In addition, she has received a Certificate in Homeland Security and Public Policy. She received her B.A. in Sociology from the University of California, Los Angeles, where she also minored in Russian Studies.

Elba Garcia

Ms. Garcia is a Master in Public Policy graduate from the University of Southern California. While at USC, she explored her interests in federal and local government through internships at the U.S. Government Accountability Office and the Office of Mayor Antonio R. Villaraigosa. Before attending graduate school, she managed international education for democracy programs at the Center for Civic Education. Mr. Garcia received her B.A. in Anthropological Sciences from Stanford University in 2005, and was awarded honors for her research on bilingual-intercultural education in Guatemala.

Nancy Leu

Ms. Leu recently earned her Master Degree in Public Policy from the University of Southern California's School of Policy, Planning and Development. She previously worked for the J. Paul Getty Trust, the Massachusetts Institute of Technology and the Massachusetts Coalition Against Sexual Assault and Domestic Violence. As part of a capstone project, she co-authored a study about foster care youth for the Public Policy Institute of California. She received her B.A. in Women's Studies from the University of Maryland, College Park.

Anna Phillips

Ms. Phillips is earning her B.A. in international relations and minor in Russian Studies at the University of Southern California.

Julie Quinn

Ms. Quinn co-founded QuinnWilliams LLC, a research and analysis firm specializing in security issues. She received her BA in Political Science from Stanford University and her Master of Public Policy from the UCLA School of Public Affairs. She was recently published in *Intelligence and National Security*.

Katherine Williams

Ms. Williams co-founded QuinnWilliams LLC, a research and analysis firm specializing in security issues. She has experience as a political communications and fundraising consultant in Los Angeles. Ms. Williams also worked for the Governance Studies program at the Brookings Institution in Washington, DC. She received her B.A. in Political Science from Wake Forest University and her Masters in Public Policy from UCLA School of Public Affairs.

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The Los Angeles Emergency Management Department
The Los Angeles Police Department
The Los Angeles World Airports
The Los Angeles World Airports Police Department
The Port of Los Angeles

In addition, we benefited greatly from the contributions of the following individuals, programs, and departments:

10,000 Volts Exercise

The Blue Ribbon Panel was able to participate in a “10,000 Volts” exercise that assisted us in forming our recommendations. 10,000 Volts is a technology-assisted debriefing session designed for analyzing critical incident decision-making. Debriefing data from an incident or, in this case information related to our study, is captured using software that enables all those present to record their thinking anonymously onto a laptop. Participants’ input is then displayed on screen for all to see. During the exercise, as many as 20 networked laptops were available for use by participants. The 10,000 Volts software ensures that all comments entered into the system are non-attributable. A facilitator guides the online discussion, who assured participants that they can record and write what they felt about the incident anonymously. As a result of this exercise, the Panel was able to determine the collective thinking and analysis of the group prior to any detailed discussion and debate. The Panel learned of common thinking and findings that assisted it in its work and analysis.

Jonathan Crego

The 10,000 Volts Exercise was conducted by Jonathan Crego, Practitioner Director of the Centre for Critical Incident Research in London, England. The Centre promotes the systematic evaluation of critical decisions and conducts research on investigative decision making and developing opportunities to assist in training programs. Mr. Crego is currently the Strategic Director of Immersive Learning for the MPS Leadership Academy and the National Immersive Learning Programme. He is also the creator of 10,000 Volts and HYDRA. Professor Crego has conducted numerous debriefings following critical incidents, including the London Bombings, Hackney Siege, 2004 Boxing Day tsunami, Athens Hijack and Soham murders.

The Emergency Management Department, City of Los Angeles

The Blue Ribbon Panel wishes to extend its gratitude and thanks to the Emergency Management Department for the City of Los Angeles and its staff for allowing the Panel to meet and work in the conference rooms located at the Emergency Operations Center.

APPENDIX C

GLOSSARY OF TERMS

10,000 Volts: A technology-assisted debriefing session designed for analyzing critical incident decision-making. Information related to our study, obtained from interviews and documents reviewed, was captured using software that enabled Panel members to input their views anonymously into the database. Panel members were then able to view each other's thoughts and opinions on the computer screen, and respond to those opinions anonymously. The 10,000 Volts software ensured that all comments entered into the system were non-attributable. Dr. Jonathan Crego, the Director of the Centre for Critical Incident Research in London, England, was the facilitator who guided our online discussion. As a result of this exercise, the Panel was able to determine the collective thinking and analysis of the group prior to any detailed discussion and debate. The Panel learned of common thinking and findings that assisted it in its work and analysis.

AAAE: American Association of Airport Executives. Founded in 1928, AAAE is the world's largest professional organization for airport executives, representing thousands of airport management personnel at public-use commercial and general aviation airports. AAAE's members represent some 850 airports and hundreds of companies and organizations that support airports. AAAE serves its membership through results-oriented representation in Washington, D.C. and delivers a wide range of industry services and professional development opportunities including training, meetings and conferences, and a highly respected accreditation program.

AAR: After Action Reports. Post-incident reports that cite corrective actions and lessons learned.

ACI-NA: Airports Council International-North America, an advocacy organization that represents local, regional, and state governing bodies that own and operate commercial airports in the U.S. and Canada.

AEOP: Airport Emergency Operations Plan, a continually updated plan to provide a comprehensive framework by which law enforcement and other public safety agencies are trained, respond to, and operate at LAX during emergencies and unusual occurrences. The AEOP addresses both "on-airport" and "off-airport" resources to allow for the expansion of public safety operations to provide for increased protection and response that are required during unusual occurrences and emergencies. It also addresses emergency management, security, safety and anti-terrorism/critical infrastructure protection concerns.

AEP: Airport Emergency Plan. Governed by the FAA, the AEP details the roles and responsibilities that first responders, airport managers, commercial carriers, and airport tenants are to undertake in any emergency.

ALPR: Automatic License Plate Recognition, a technology that reads license plates and checks them against a database for rapid verification.

AOA: Air Operation Area, any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. The AOA also includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft.

ARCC: Airport Response and Coordination Center. The ARCC provides day-to-day, round-the-clock coordination support to manage the airport's operations and seamlessly integrate tenant and government agency operations. It is regularly staffed with personnel from LAWA's Airside (airfield) and Landside (terminal) operations divisions, LAWAPD, LAWA Construction & Maintenance, and TSA. During a critical incident, the ARCC is designed to continue to manage other airport activities that are still operating during the incident.

ARMOR: Assistant Randomized Motoring Over Routes, a resource allocation tool that uses algorithms to randomize the deployment of law enforcement personnel to public entrances into the airport based on weighted risk and threat information.

ASAC: Airport Security Advisory Committee's mission is to assist the Airport Security Coordinator in support of the following objectives:

- Organize and manage safety and security planning;
- Develop a prevention and response model in compliance with the National Incident Management System (NIMS) and the National Response Plan (NRP);
- Develop a Joint Command Center (JCC) and Department Operations Center (DOC);
- Conduct periodic training exercises;
- Include stakeholders in the security contingency planning process to develop an effective and cohesive unified command structure to manage critical incidents;
- Practice, test and modify the established unified command structure organization through recurrent training exercises; and
- Identify critical airport infrastructure and operations to assess risks, threats, vulnerabilities, consequences and mitigation.

ASP: Airport Security Program. Governed by the TSA, the ASP focuses on access control and protection of the airport for security purposes.

Blue Ribbon Panel/the Panel: Blue Ribbon Panel on Airport Security at Los Angeles International Airport.

BOAC: Board of Airport Commissioners. A seven-member Board of Airport Commissioners governs Los Angeles World Airports. By the Charter of the City of Los Angeles, the Board is responsible for the formulation of airport policy. The Board is composed of public-spirited business and civic leaders who are appointed by the Mayor, approved by the City Council and serve staggered five-year terms.

Cal EMA: California Emergency Management Agency.

CBP: Customs and Border Protection.

CCTV: Closed-Circuit Television.

CDC: Center for Disease Control.

CERT: Community Emergency Response Teams. The CERT concept was developed and implemented by the Los Angeles City Fire Department (LAFD) in 1985. The Whittier Narrows earthquake in 1987 underscored the area-wide threat of a major disaster in California. Further, it confirmed the need for training civilians to meet their immediate needs. As a result, the LAFD created the Disaster Preparedness Division with the purpose of training citizens and private and government employees.

CHP: California Highway Patrol.

CISSP: Certified Information Systems Security Professional.

CREATE: Center for Risk and Economic Analysis of Terrorism Events, an interdisciplinary national research center based at the University of Southern California in the School of Policy, Planning, and Development and the Viterbi School of Engineering and funded by the U.S. Department of Homeland Security. The Center is focused on risk and economic analysis of the U.S. and comprises a team of experts from across the country, including partnerships with numerous universities and research institutions.

CRI: Cities Readiness Initiative. CDC's Cities Readiness Initiative is a federally funded program designed to enhance preparedness in the nation's largest cities and metropolitan statistical areas where more than 50% of the U.S. population resides. Through CRI, state and large metropolitan public health departments have developed plans to respond to a large-scale bioterrorist event by dispensing antibiotics to the entire population of an identified MSA within 48 hours.

CTA: Central Terminal Area, the area of LAX that contains the "horseshoe" shaped road around which the passenger terminals are located.

DEA: Drug Enforcement Administration.

DOC: Department Operations Center.

DRAPE: Deny or Restrict Access Protocols Execution, a program to secure the Central Terminal Area (CTA) from an anticipated terrorist threat based upon intelligence received by law enforcement personnel.

EDS: Explosive Detection System, a component of the In-Line Baggage Handling & Screening System program.

EMD: Emergency Management Department. EMD is responsible for the coordination of the City of Los Angeles emergency planning, training, response, and recovery efforts of major disasters such as fires, floods, earthquakes, acts of terrorism; and for major planned events in the City that require involvement by multiple City departments. EMD is considered the “hub of wheel” because it manages the City’s response and recovery from an emergency, crisis, disaster or significant event. Additionally, the department works with numerous municipalities, state and federal agencies, and the private sector. It is involved in numerous outreach, education and community preparedness activities. EMD was established by ordinance in 2000.

El Al: El Al Israel Airlines.

EMAC: Emergency Management Assistance Compact, the Congressionally-recognized compact among the states to provide mutual aid in emergencies.

EMC: Emergency Management Committee. The City of Los Angeles EMC develops interdepartmental plans and training programs to promote the City's disaster response and recovery efforts.

EOB: Emergency Operations Board, the EOB consists of the general managers of the Police, Fire, Airports, Building and Safety, the City Administrative Officer, Emergency Management, General Services, Harbor, Information Technology Agency, Personnel, Recreation and Parks, Transportation, and Water and Power Departments, a Public Works Commissioner and the Chief Legislative Analyst. The Chief of Police is the permanent Chair of the EOB.

EOC: Emergency Operations Center.

ESU: LAWAPD Emergency Services Unit.

ETS: Explosion Trace Detection, a component of the In-Line Baggage Handling & Screening System program.

FAA: Federal Aviation Administration.

FBI: Federal Bureau of Investigation.

FEMA: Federal Emergency Management Agency.

Friendly Skies Program: The Friendly Skies Program is run jointly by the FBI and the LAWAPD in which every badged airport employee’s name, social security number, date of birth, etc. is checked against a database for criminal and terrorist activity. Friendly Skies began in 2004 at LAX, and has been recognized by TSA as a best practice and has been implemented at airports across the United States.

GSLC: Global Security Leadership Certification.

HazMat: Hazardous Material teams respond in the event of a chemical or dangerous toxin or a bomb threat emergency. The LAFD will dispatch a HazMat specialized apparatus, with fire fighters who are specially trained for handling these dangerous materials.

Heathrow: London Heathrow Airport.

ICE: Immigration & Customs Enforcement.

ICS: Incident Command System. ICS is a standardized, on-scene, all-hazards incident management approach that allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure; enables a coordinated response among various jurisdictions and functional agencies, both public and private; and establishes common processes for planning and managing resources.

IED: Improvised Explosive Device.

ILO: Infrastructure Liaison Officer, the program provides guidance and training to the private sector about terrorism related behavior and patterns, the latest suspicious activity trends, and how to observe and report suspicious activity at the airport. The ILO program also provides a level of standardization in what suspicious activities to observe and report, and how to report them.

IMC: Incident Management Center. The IMC is activated in the event of a significant incident or emergency at LAX such as a terrorist attack or an airplane crash. Additional personnel will be called in to specifically respond to the critical event – from initial onset, to securing the incident, through recovery of impacted operations – until the incident is fully closed and the airport resumes normal operations. The IMC is the nerve center for dealing with the incident, receiving information from the Incident Command Post at the scene of the incident and other parts of the field, and allocating critical resources in a timely and efficient manner.

ISG: Information Sharing Group.

iWatch: A LAPD community awareness program created to educate the public about behaviors and activities that may have a connection to terrorism.

JCC: Joint Command Center.

JIC: Joint Information Center.

JFK: John F. Kennedy International Airport.

JRIC: Joint Regional Intelligence Center, opened in July 2006 and was the first of its kind in the U.S. to house multiple agencies in one facility for terrorism prevention. It was spearheaded by the LAPD, the Sheriff's Department, the State Office of Homeland Security, and the FBI. The JRIC is a collaboration between federal, state, and local law enforcement and public safety agencies to integrate criminal and terrorism threat intelligence and provide for intake, analysis, fusion, synthesis, and dissemination of that information. The JRIC converts the information into

operational intelligence to detect, deter, and defend against terrorist attacks and major crime threats within the seven counties of the FBI's Los Angeles Field Office area.

JTTF: Joint Terrorism Task Force, small cells of highly trained, locally based, investigators, analysts, linguists, SWAT experts, and other specialists from dozens of U.S. law enforcement and intelligence agencies. It is a multi-agency effort led by the FBI designed to combine the resources of federal, state, and local law enforcement.

K-Rail: Modular concrete barrier used to separate traffic lanes; also called Jersey barriers.

LAAPOA: Los Angeles Airport Peace Officers Association, the union that represents the police officers of LAWAPD.

LAFD: Los Angeles Fire Department.

LAPD: Los Angeles Police Department.

LAPD COMPSTAT: The computerized system utilized by LAPD to track crimes, arrests and convictions in the City of Los Angeles and to deploy its resources to best address crime problems in the City.

LAPD-FSD: Los Angeles Police Department Field Services Division, a LAPD substation at Los Angeles International Airport (LAX).

LASD: Los Angeles County Sheriff's Department.

LAWA: Los Angeles World Airports, the City of Los Angeles department that owns and operates a system of three airports: Los Angeles International (LAX), LA/Ontario International (ONT) and Van Nuys (VNY).

LAWAPD: Los Angeles World Airports Police Department, a Division of LAWA, and is the fourth largest law enforcement agency in Los Angeles County.

LAX: Los Angeles International Airport.

LAX DOC: Los Angeles International Airport Department Operations Center, currently referred to as the Incident Management Center (IMC).

MACTAC: Multi-Assault Counterterrorism Action. MACTAC training provides an immediate tactical response to multiple organized and sophisticated critical incidents. This training expands traditional response to single events through the creation of dynamic squads with specific cross-training to effect "assault, support, rescue, and force protection missions." The concept of MACTAC provides the means to allow officers to spontaneously and effectively control various threats as quickly as possible by using small unit infantry tactics to immediately apply pressure on assailants versus waiting and holding a perimeter.

MCP: Modified Coverage Plan, a LAFD deployment plan that periodically reduced resources available in certain fire stations due to budget reductions. The result has been a citywide reduction in the overall number of firefighters on duty in multi-company fire stations, whereby one of the two companies is shut down for a twenty-four hour period approximately once a month.

MOA: Memorandum of Understanding.

MPLS: Multi-Protocol Label Switching.

MPOE: Minimum Point of Entry rooms.

NERRTC: National Emergency Response and Rescue Training Center.

NFPA: National Fire Protection Association.

NIMS: National Incident Management System/Incident Command Systems. NIMS provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

NORTHCOM: Northern Command, the Department of Defense command that, among other things, coordinates all military assistance to civil authorities.

NRP: National Response Plan.

ONT: Los Angeles/Ontario International Airport.

O&D: Origin and Destination.

Pan Am: Pan American World Airways.

PIER: Public Information Emergency Response, a system to facilitate coordination of Public Information Officer functions among departments and agencies.

PPE: Personal Protective Equipment.

RACR: Real-Time Analysis and Critical Response. LAPD's Regional Crime Center which, while still providing notifications on significant, impactful events, additionally offers situational awareness, an emergency operations component, and investigative support for field units.

RON: Remote Overnight parking.

SAR: Suspicious Activity Reports, developed by the LAPD's Counterterrorism and Criminal Intelligence Bureau in 2007, and has been adopted nationally for reporting, categorizing and forwarding information while protecting privacy and civil liberties. The Bureau developed codes based on specific behaviors and activities known from past terrorist attacks as behaviors that terrorists may engage in as they prepare for a terrorist attack. By coding the behaviors and activities, law enforcement can measure, analyze and share information more effectively and enhance the ability to prevent catastrophic attacks. Police officers are trained to recognize behaviors and activities with possible links to terrorism.

SEIU 721: Service Employees International Union 721, the union that represents the security officers of LAWAPD.

SEMS: Standardized Emergency Management System, a state-wide California system that police officers, firefighters, and other disaster responders use in disaster events. The primary goal of SEMS is to aid in communication and response by providing a common management system and language.

SMGCS: Surface Movement Guidance and Control System.

SSI: Sensitive Security Information.

SUV: Sport Utility Vehicle

SWAT: Special Weapons and Tactics.

TBIT: Tom Bradley International Terminal, LAX's international terminal.

TLO: Terrorism Liaison Officer, a peace officer, firefighter, state investigator, federal agent, military investigative personnel, or anyone working closely within the public safety/homeland security community, who has been certified on counterterrorism matters. The mission of a TLO is to serve as a conduit of information between members of the public safety community, public/private sector, citizenry and the US Government, in the fight against terrorism.

TSA: Transportation Security Administration.

TSA FSD: Transportation Security Administration Federal Security Director.

UASI: Urban Areas Security Initiative grant, a Department of Homeland Security grant that provides funding to address the unique planning, organization, equipment, training, and exercise needs of high-threat, high-density urban areas, and assists them in building an enhanced and sustainable capacity to prevent, protect against, respond to, and recover from acts of terrorism.

USAR: Urban Search & Rescue Team, considered a "multi-hazard" discipline, as it may be needed for a variety of emergencies or disasters, including earthquakes, hurricanes, typhoons, storms and tornadoes, floods, dam failures, technological accidents, terrorist activities, and hazardous materials releases. The events may be slow in developing, as in the case of

hurricanes, or sudden, as in the case of earthquakes. Specialized training is required to be qualified to work on a USAR team. USAR trained fire fighters can work in four areas of specialization: search, to find victims trapped after a disaster; rescue, which includes safely digging victims out of tons of collapsed concrete and metal; technical, made up of structural specialists who make rescues safe for the rescuers; and medical, which cares for the victims before and after a rescue.

VAAU: LAWAPD Vulnerability Assessment and Analysis Unit.

VIPR: Visible Intermodal Prevention and Response. Following the 2004 Madrid train bombings, TSA enhanced security on rail and mass transit systems nationwide by creating and deploying Visible Intermodal Prevention and Response (VIPR) teams. Comprised of federal air marshals, surface transportation security inspectors, transportation security officers, behavior detection officers, explosives detection canine teams, and local authorities, VIPR teams augment security at key transportation facilities in urban areas around the country, including National Capital Region (Washington), New York, Newark, Philadelphia, Boston, Houston, Los Angeles, and San Francisco.

VNY: Van Nuys Airport.

VNET: Video Network room, where current CCTV camera feeds are monitored. This facility and its function will be moved to the Airport Response and Coordination Center.

WESTDOG: Western Airports Disaster Operations Group.

NOTE: This public report contains redactions of Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of these redactions may be disclosed to persons without a “need to know,” as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action.

