

LOS ANGELES POLICE COMMISSION

INQUIRY REGARDING THE 27th STREET EXPLOSION



Conducted by the
OFFICE OF THE INSPECTOR GENERAL

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INQUIRY REGARDING THE 27th STREET EXPLOSION

I. INTRODUCTION

At the request of the Board of Police Commissioners (BOPC), the Office of the Inspector General (OIG) conducted an inquiry and review of the circumstances surrounding the catastrophic failure of the Los Angeles Police Department (LAPD or Department) Bomb Squad's Total Containment Vessel (TCV) that occurred during a detonation of homemade fireworks and Improvised Explosive Devices (IEDs) on June 30, 2021. The issues that are the focus of this inquiry were identified as a matter of interest by the BOPC and include the following:

1. A complete summary of events leading up to the detonation and catastrophic failure of the TCV.
2. An overview of the organizational structure of the Bomb Squad, and an assessment of policy and organizational matters that may need to be changed or updated as a result of the investigations into this incident.
3. A review of all relevant training for Bomb Squad personnel, and a determination of whether that training meets the standards for best practices.
4. A review of the series of decisions that led to the detonation, to include a review of how the amount of explosive materials was calculated, whether outside experts were consulted prior to the detonation, and whether there was consideration to transport the homemade explosives out of the area for detonation.
5. A review of the Standard Operating Procedures (SOPs) of the Bomb Squad, to include the practice of detonating explosives on scene as well as the practice of visual estimations of explosive weight versus actual weighing of the material.
6. A review of the maintenance procedures for the TCV.
7. An overview of Bomb Squad callouts for the prior 5 years, to include a review of all prior Bomb Squad responses in which the TCV was utilized.
8. The role of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) at this incident and any role the ATF plays in general at an LAPD Bomb Squad callout.
9. A review of the notification processes to local officials in these types of incidents.
10. A review of the evacuation procedures and the messaging to affected residents and citizens in the affected area.
11. An assessment of the post-incident support for the affected residents and businesses.
12. Current status of the Bomb Squad personnel involved in this incident.
13. An evaluation of the Department's current plans to address any occurrence of a similar incident.

To complete this report, the OIG requested and obtained investigative materials from the ATF, which had assumed responsibility as the primary investigative agency for the incident. The ATF issued a disclosure memo to the Department, preventing the disclosure or release of all investigative materials to any entity outside the LAPD; however, because the ATF issued their redacted final report prior to the completion of this report, portions of the investigative materials received from the ATF are included in this report. The OIG also obtained from the Department all relevant documentation concerning the LAPD Bomb Squad, including the Bomb Squad SOPs, a listing of all vehicles, equipment, and maintenance logs used by the bomb technicians, and all bomb technician training records for the prior 5 years. The OIG also conducted interviews with City staff, submitted questions directly to the ATF and the LAPD seeking

additional or clarifying information, and reviewed relevant public meetings conducted by the Department and the City Council.

II. SUMMARY OF INCIDENT

A. Pre-Detonation Activity¹

The incident occurred on June 30, 2021, on 27th Street, in Los Angeles, within LAPD's Newton Area. At 7:54 a.m., LAPD Communications entered a radio call for a report from an anonymous citizen that illegal fireworks were being sold in the alley next to a suspect's home at 716 E. 27th Street (LAPD Incident #PD21063000000980).

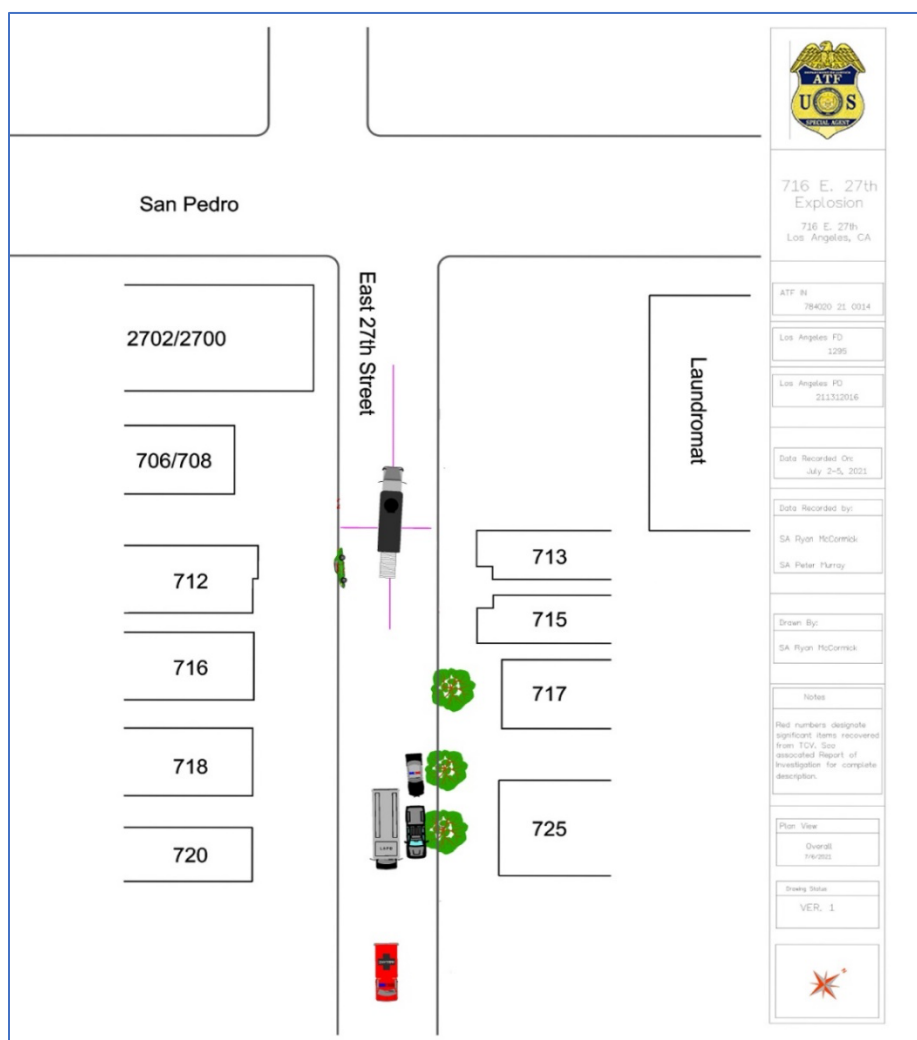


Diagram of the 27th Street Neighborhood Post-Incident

¹ This discussion provides an overview of the events leading up to the explosion. For details regarding the decisions and considerations leading up to the detonation, see “Decisions Leading to Detonation” in the Analysis Section.

Inquiry Regarding the 27th Street Explosion

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1.0

At approximately 8:45 a.m., patrol officers responded to the location and identified Arturo Ceja, 26 years old, as the person suspected of purchasing and maintaining the fireworks for sale. Ceja was a resident of the location, living with his mother. Officers obtained consent from Ceja's mother for a search of the location. They observed a large cache of packaged illegal consumer fireworks stored in large boxes in the backyard.



Photo of the Commercial Fireworks Found at 716 E. 27th Street

The Bomb Squad personnel assigned to this incident all began their daily assignments at other locations prior to being sent to this incident. Bomb Technician A was the primary technician sent to the 27th Street incident, arriving on scene between 9:00 and 9:15 a.m. He was joined by his second, Bomb Technician B, who arrived on scene at approximately 10:15 a.m.

Bomb Technicians C and D started their day at approximately 6:00 a.m. They were initially assigned to a fireworks buyback program in another area of Los Angeles where they were joined by their supervisor, Detective A. Bomb Technicians C and D worked the fireworks buyback detail from approximately 9:00 a.m. until 1:30 p.m., at which time they were assigned to the 27th Street incident. They arrived on scene at 27th Street between 2:30 and 3:00 p.m. At the request of Bomb Technician A, Detective A left the fireworks buyback program early in the morning and responded to the 27th Street call, arriving on scene between 9:45 and 10:00 a.m.

Bomb Technician E's duty day began at 5:00 a.m. at a detail at the Los Angeles Airport. Bomb Technician E was assigned to the 27th Street incident at approximately 1:30 p.m.

Logistics Officer B was assigned to respond to the location at the same time as Bomb Technician A. Once on scene, Logistics Officer B noted that there was significantly more commercial fireworks product than was initially suspected, so he contacted Senior Logistics Officer A to inform him that the TCV would be needed at the scene.

After the initial request for the Bomb Squad response, Bomb Technician A arrived on scene. Bomb Technician A reviewed the amount of material that needed to be transported from the scene, which is what prompted him to contact his supervisor, Detective A, and request his response. Later that morning, Detective A called local ATF Special Agent A, and asked him to respond as well.² He also requested Major Crimes Division personnel to respond to the scene to conduct a criminal investigation.

A Department photographer from Technical Investigations Division responded to the location at approximately noon to take photos of the scene and to document the evidence.

Over several hours throughout the day, approximately 32,000 pounds of illegal consumer fireworks were removed and transported from the scene by LAPD personnel working in a unified command with the Los Angeles Fire Department (LAFD). The fireworks were placed on pallets and were transferred into an LAFD container trailer before being transported to an interim storage facility. While this work was being conducted, fans were utilized in order to try to keep the explosives cool and prevent them from unintentionally detonating.

During the process of removing the consumer fireworks, the bomb technicians at the scene also located numerous illegal IEDs (homemade fireworks) that were believed to contain flash powder, which is an explosive material consisting of metallic and oxidizer fuel commonly found in fireworks.

The IEDs consisted of:

- 280 M80-size devices. According to statements made by Bomb Technician A, he estimated that there was approximately 0.5 ounces of flash powder in each device.
- 44 larger devices, each approximately the size of a soda can. According to statements made by Bomb Technician A, he estimated that there was approximately 1.5 ounces of flash powder in each device.

² ATF Special Agent A had no role or input in preparing the IEDs or the counter charge for detonation. His only role at the scene was to take custody of samples of the explosives for possible federal prosecution of the suspect.



Photo of Large IEDs as Found at Scene



Photo of Large IEDs after Unboxing

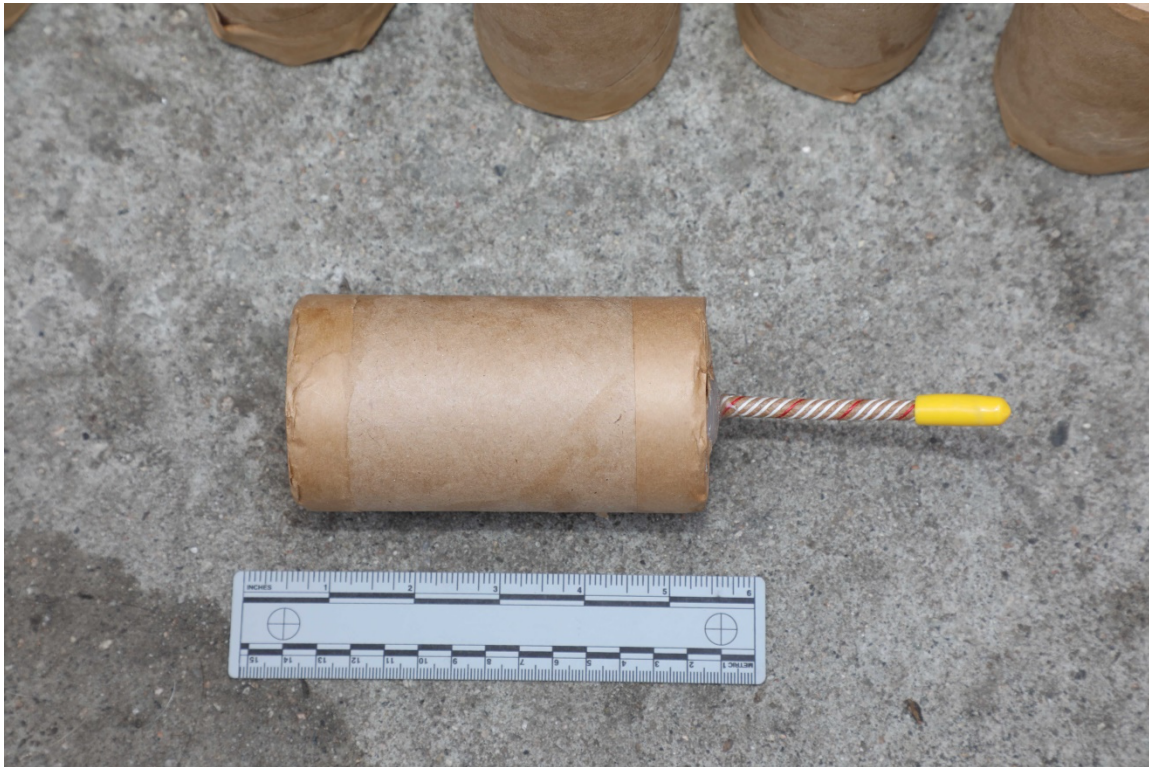


Photo of Large IED to Demonstrate Scale



Photo of Small IEDs as Found at Scene



Photo of Small IEDs as Found at Scene



Photo of Small IEDs to Demonstrate Scale

Once the IEDs were discovered, the decision was made to use the TCV to render them safe; however, the task of dealing with the IEDs was set aside until preparations for the transport of the illegal commercial fireworks were finalized later that afternoon.

Bomb Technicians A and B conducted X-rays on samples of the IEDs and used a robotic remote cutter to cut open the samples in order to determine the amount of explosive material inside the devices. Bomb Technicians A and B visually estimated the Net Explosive Weight (NEW) without taking actual weight measurements. (Net Explosive Weight is a method of determining the explosive weight relative to TNT; it is described further in “Decisions Leading to Detonation” in the Analysis Section of this report.)

Bomb Technician E was tasked with creating a counter charge to detonate the IEDs inside the TCV. Bomb Technician E based the design of the counter charge on the visual estimations made by Bomb Technicians A and B. The IEDs and the counter charge were then placed into the TCV for detonation.

On several occasions prior to the TCV detonation, Bomb Technician C expressed concern about the excessive quantity of the disposal product. (Disposal product refers to the explosive devices placed in the TCV for the purpose of transportation or detonation.) Concerning the IEDs, he told ATF interviewers, “...so I looked at them, and uh, and at that moment, based on my experience and everything, I said, uh, this is too much to do one shot, we’re gonna break it up right?” He indicated that he was told the quantity was not excessive. When he expressed his concern to Bomb Technician E, he was asked if his concerns were related to the actual quantity and weight of the devices, or the NEW. Bomb Technician C replied, “I’m concerned about both. This is too much material to dispo [dispose of] in one TCV shot.” Bomb Technician C told ATF interviewers that Detective A and Bomb Technicians A, B, D, and E were present at that time he made his concerns known. Bomb Technician C stated, “They basically told me that they had already done the calculations, that they were well under the net explosive weight that the TCV could handle.” Bomb Technician C said that during the construction of the counter charge, he again raised a concern to Bomb Technician E, stating, “I have a bad feeling... this is not good... this is too big.” According to Bomb Technician C, Bomb Technician E replied that he (Bomb Technician C) needed to relax and that it would be okay. As the materials were being prepared for X-ray, Bomb Technician C said that he saw the box of disposal product on the table. He stated that he placed his fingers underneath the corner of the box and raised it to feel the weight, and he believed that it was too heavy. He told ATF interviewers, “I lifted it a little bit, and I said [Detective A], this is way too much material... it’s too heavy... it’s way too much material.” He said that Detective A again told him to relax.

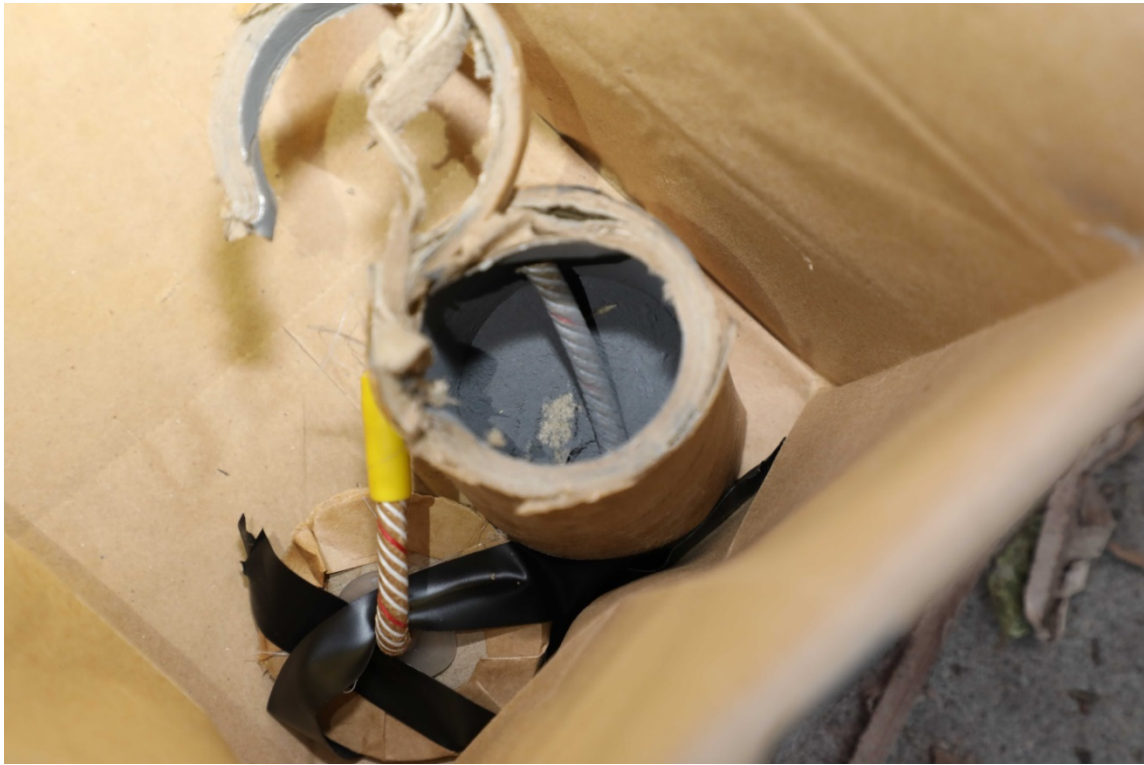


Photo of Large IED after X-ray and Opening by Remote Cutter



Photo of Small IED after X-ray and Opening by Remote Cutter

The OIG did not identify any evidence indicating that any of the Bomb Squad personnel specifically discussed the possibility or option of transporting the IEDs out of the area for detonation. There was considerable discussion in the ATF interviews concerning the routine use of the TCV for explosive detonation on site. Detective A told the ATF interviewers that because of the lack of a designated disposal range, the unit has adopted a policy and procedure that they dispose of items they deem hazardous on site in the TCV. Detective A also told ATF interviewers that he witnessed powder leakage in the box containing the soda can-sized IEDs. He stated that it was also seen by several of the bomb technicians and that they all believed it to be flash powder. Because many of the IEDs were leaking material (silver powder), the Bomb Squad personnel collectively determined that it was appropriate to conduct a TCV shot on site to dispose of the IEDs. In conjunction with the Newton Area Incident Commander (IC), the decision was made to render the IEDs safe by using the TCV to detonate the IEDs while on site.

A multi-phase evacuation plan was formulated, which included the following steps:

1. The residents from the target location at 716 E. 27th Street were evacuated. Officers also contacted school administrators from the 28th Street Elementary School and advised them to keep students and faculty away from the field and alley south of 716 East 27th Street. The alley and 27th Street were closed to all vehicular traffic, and the pedestrian traffic was controlled by patrol officers on scene.
2. The two houses directly adjacent (east and west) to the target location were designated for evacuation. However, residents at these two homes declined to leave.
3. Three additional residences on the south side of the street, east of the target location (and close to the secondary Bomb Squad vehicle, where the counter charge was being built) were also evacuated.
4. Additional residences on the north side of the street were provided with evacuation notices. The OIG was unable to confirm the specific addresses of those residences.
5. At approximately 3:00 p.m., Newton Patrol Officers went door to door to advise residents that they would need to evacuate their homes for approximately 1 hour. They would receive an additional evacuation order later that evening, prior to the detonation. Several of the residents did not want to leave their homes. They were advised to shelter in place and to stay away from the front of their homes and any windows. Prior to detonation, all pedestrian traffic around the location was stopped.

The actual detonation time was 7:37 p.m., and the result of the detonation was a failure in which the TCV was unable to contain the explosion.



Image from a Surveillance Camera at 712 East 27th Street at Approximately 7:27 p.m.



Image from a Surveillance Camera at 712 East 27th Street at Approximately 7:36 p.m.



Image from a Surveillance Camera at 712 East 27th Street at Approximately 7:36 p.m.



Image from a Surveillance Camera at 712 East 27th Street at Approximately 7:37 p.m.

B. Post-Detonation Activity

According to the LAPD After Action Report, as a result of the catastrophic failure of the TCV, 8 LAPD Officers, 1 LAPD Photographer, 1 ATF Agent, and 6 civilians were injured and transported from the scene to hospitals by the Los Angeles Fire Department. Numerous businesses, residences, and vehicles were significantly damaged or destroyed.

The metal containment door of the TCV, weighing approximately 525 pounds, traveled approximately 1300 feet before landing on and damaging the roof of a residence at 912 E. Adams Street and then falling to the ground. LAPD and LAFD personnel went door to door to find anyone injured and to render medical aid.

The LAFD was already at scene, per standard protocol. A command post was established, and the ATF was formally requested by the Chief of Police to initiate an investigation into the TCV failure. The local ATF Special Agent in Charge responded to the scene that evening.

The ATF sent its National Response Team (NRT) to conduct the primary investigation. That team arrived at the scene on July 2, 2021 at 8:00 a.m. The ATF NRT on-scene investigation lasted one week, during which time NRT personnel conducted a damage assessment, collected evidence, and conducted interviews of LAPD personnel and other witnesses.

A 24-hour command post was established to assist all affected persons in getting back to their residence or business as quickly as possible.

On July 8, 2021 after its initial investigation, the ATF provided a briefing on the incident to the Department. The briefing was conducted by ATF Special Agents David Oliver and Brian Parker. The ATF lab was conducting metallurgical analysis of the TCV and forensic analysis of the explosive material, and it said that it would subsequently issue a Cause and Origin Report. The report was to be sent to the National Center for Explosive Training and Research (NCETR) for review; it was ultimately released by the Department to the public on September 13, 2021.

The ATF considered several hypotheses for the cause of the TCV failure and, after a complete review of all investigative materials, came to the following conclusions:

- Based on the systematic explosion scene examination and analysis of witness statements and electronic data, it was the combined opinion of the investigators that the explosion occurred within the LAPD TCV.
- During the disposal operation conducted on 6/30/21, more than 39.85 pounds TNT equivalent of explosive material were placed in the TCV. NABCO, the manufacturer of the TCV, states that the TCV is designed/rated for a single detonation of no more than 26 pounds of C-4 explosive (33.28 pounds TNT equivalent). A “single detonation” in this context means that the TCV can be used one time at this level, but that it may need repairs after such a detonation.
- This inadvertent overloading of the TCV with more explosives than it was designed to hold was the cause of the failure of the TCV that occurred on 6/30/21.
- The failure of the TCV allowed gas pressure inside the vessel to be released rapidly instead of in a controlled manner as designed. This rapid release of pressure caused significant damage to the TCV and the surrounding area.

- The explosion was classified as ACCIDENTAL.³ The OIG contacted the ATF to obtain its definition of an ACCIDENTAL classification but did not receive a response.

LAPD Major Crimes Division arrested suspect Arturo Ceja. The Los Angeles County District Attorney (DA) filed felony charges against him including Possession of Destructive Devices, Possession of Explosives in Excess of 5,000 pounds, and Child Endangerment. Additional charges were filed against Ceja by the ATF, including Transport of Hazardous Materials without a License. On August 31, 2021 Ceja pled guilty to federal charges of transporting illegal fireworks.⁴

On September 13, 2021 LAPD Chief of Police Michel Moore and ATF Assistant Special Agent In Charge Michael Hoffman briefed community members about the findings of the Department's 27th and San Pedro Incident After Action Report (After Action Report) as well as the ATF's Origin and Cause Determination Report (ATF Report). An estimated 140 individuals attended the briefing, and the reports were subsequently released to the public.

III. ANALYSIS

A. Bomb Squad Background & Overview

i. Organizational Structure

The Counter Terrorism and Special Operations Bureau (CTSOB) is led by a Commanding Officer and an Assistant Commanding Officer. CTSOB divisions include: Air Support, Major Crimes, Metropolitan, Security Services, and Emergency Services. The Emergency Services Division is led by a Captain and is made up of three sections, which include the Hazardous Devices/Materials Section, Emergency Management Section, and the Bomb Detection K9 Unit. The Hazardous Devices/Materials Section (HDMS) is further divided into the Explosives Unit (Bomb Squad) and Hazardous Materials Unit.⁵ HDMS is overseen by a Bomb Squad Commander/OIC at the Lieutenant II+2 rank.

ii. Mission

The Bomb Squad's mission is: "To respond to, investigate and render safe incidents involving the illegal use or suspected use of explosive materials." According to the Bomb Squad's Infoweb page, "Bomb Technicians are assigned to high profile events throughout the City, providing a visible deterrent while actively sweeping affected areas for the presence of explosive devices." The Bomb Squad works closely with personnel across the Emergency Services Division, including the Bomb Detection K9 Section and the Hazardous Materials Unit.

³ ATF NRT Origin and Cause Determination, Investigation Number 784020-21-0014, Report Number 56, Page 50.

⁴ "South LA Man Pleads Guilty in Fireworks Explosion Case." Published by City New Services on August 31, 2021, NBC News, <https://www.msn.com/en-us/news/us/south-la-man-pleads-guilty-in-fireworks-explosion-case/ar-AANUvD9?ocid=uxbndlbing>

⁵ The Hazardous Materials Unit, commonly referred to as Hazmat, specializes in weapons of mass destruction and identifying unknown materials. Hazardous Materials Unit team members receive training related to biological pathogens, radiological materials, and chemical-weapon agents.

Additionally, the Bomb Squad provides a team to LAX and assists the Special Weapons and Tactics Team.

iii. Response Protocols

Bomb Squad Supervisors are notified through the Department Operations Center of all calls for service related to explosives, etc.⁶ Supervisors assess each situation and make decisions accordingly about what personnel and equipment to send to the scene of the call. Bomb Squad callouts may differ in size depending on the nature of the call, but they generally include at least one supervisor and two bomb technicians. The Bomb Squad estimates that 22 percent of explosives-related calls for service involve devices that need to be subjected to the render safe procedure (RSP).⁷ The RSP involves the application of special explosive ordnance disposal procedures, methods, and tools to effect the interruption of functions or separation of essential components of unexploded ordnance (including improvised explosive devices) necessary for the prevention of an unacceptable detonation.

⁶ LAPD Manual 4/212.47, Response to Bomb Threats.

⁷ Bomb Squad FAQs. "How many calls per year does the Bomb Squad handle?"
https://www.lapdonline.org/contact_us/content_basic_view/6527

iv. Vehicles & Equipment

The Bomb Squad operates and maintains multiple vehicles to respond to incidents. The Bomb Assessment Truck (BAT), Shop #21150, is a vehicle that can function as a Command Center at scenes and includes an on-board generator, explosives magazines to support render safe procedures and explosive breaching, and significant storage for tools and materials to support downrange operations. Reference materials related to the handling, transportation, and rendering safe of explosive materials is kept on hand in the BAT and in the utility trucks assigned to the bomb technicians. The BAT is deployed by Logistics personnel.



Bomb Assessment Truck (BAT)

The Andros F6B is a robot equipped with cameras and customizable arms that is stored in the BAT. Numerous attachments are available for use with the Andros F6B, including a HazProbe drilling system and a 12-gauge street sweeper shotgun. The robot provides remote X-ray capability as well as a radio range of over a mile that provides the Bomb Squad with remote capabilities for interrogation, manipulation, and render safe procedures.



Andros F6B Robot

The Bomb Assessment Tactical Counter Assault Tool (BATCAT), Shop #80942, is an industrial forklift with up to 12,000 pounds of lifting capacity that can be operated either manually by a driver in the vehicle or remotely. The BATCAT is used to move vehicles containing IEDs, for barricaded suspect intervention, and for elevated platform deployment of personnel.



Bomb Assessment Tactical Counter Assault Tool (BATCAT)

Ordinarily the Bomb Squad has access to two Total Containment Vessels (TCVs). TCVs are spherical containers made of steel with an access door, and they are used to render safe dangerous materials, contain blast effects, and transport explosives. The Department's Primary TCV, which was utilized for this incident, was Shop 80000. This TCV is affixed to a 34-foot Peterbilt truck frame and was severely damaged during the detonation.

The TCV is maintained by the logistics officers assigned to the Bomb Squad. The manufacturer, NABCO, does not provide a maintenance certification process for this unit. Rather, its maintenance procedures were developed in-house by the Department's logistics officers using the guidelines set forth in the operations manual provided by NABCO. There is also no manufacturer recommended life span for the TCV. The OIG was provided with documentation of the maintenance logs for the TCV including the Post Blast Fiducial Measurements log. Based on the documentation provided, the OIG found that the TCV was properly maintained.



Primary Total Containment Vessel (TCV)

The Bomb Squad also currently has a Chemical Biological Total Containment Vessel (CB-TCV) that is designated for chemical/biological threats, Shop #59018. The CB-TCV differs from the Primary TCV in that it is trailer-mounted rather than truck-mounted and can be sealed air tight for chemical or biological threats. Both TCVs are designed by the same manufacturer (NABCO) and can withstand repeated detonations of up to 15 pounds of C-4 explosives. The CB-TCV can be reconfigured with minimal time to be utilized for standard detonations other than chemical and biological.



Chemical Biological Total Containment Vessel (CB-TCV)

The Bomb Squad also manages a fleet of 25 Bomb Squad Technician Trucks, equipped with x-ray developing equipment, which are individually assigned to bomb technicians. They are similar to a pick-up truck, but the back consists of a large utility box instead of a standard truck bed. The utility box is equipped with several compartments as well as doors that can be lowered to be used as work spaces.



Bomb Squad Technician Truck

The Bomb Squad has a Response Truck, Shop #80234, which is similar to the Bomb Squad Technician Trucks but can also transport the Andros F6B and act as a supplement to the BAT.



Response Truck

v. Qualifications, Selection, and Training

According to the Bomb Squad SOPs, in order to qualify to be a bomb technician, applicants must have a minimum of 5 years of experience with LAPD, be a Police Officer III (POIII) or higher in rank, have an overall Standard Based Assessment rating of at least satisfactory on their last two assessments, possess no administrative or duty restrictions/conditions, and have a willingness to complete an FBI-provided 6-week bomb technician training (or have prior completion). To be admitted to the FBI training, applicants must be able to wear 70 pounds or more of protective equipment while conducting various exercises.⁸ Applicants must also be able to pass a physical examination that assesses vision, hearing, and body fat, among other items.⁹

According to the FBI's National Guidelines for Bomb Squads, as of the year 2020, the basic Bomb Technician Training and Certification Standards instruct that a technician must:

- Be an HDS (Hazardous Devices School) Bomb Technician Certification Course graduate
- Complete Hazardous Materials Technician training
- Be certified in the use of Self-Contained Breathing Apparatus (SCBA)
- Complete training in detection and monitoring instrumentation
- Complete training in encapsulating and non-encapsulating chemical Personal Protective Equipment (PPE)
- Complete Incident Command System (ICS) and National Incident Management System (NIMS) courses ICS-100, ICS-200, IS-700, and IS-800
- Complete a minimum of 288 hours per year of practical exercise/training at the unit level for sustainment of basic skills (as outlined in Section 4.6); the Guidelines recommend that such training be performed 24-hours per month¹⁰
- Complete a minimum of 40 hours of additional external explosive related training, seminars, exercises, symposia, or conferences annually
- Comply with Hazmat Technician training requirements set forth in 29 CFR 1910.120(q)(6)(iii)

At the time of this report there were 23 active members of the Bomb Squad. This includes 13 officers at the rank of POIII+3, 4 at the rank of Detective I+3, 2 at the rank of Detective II+3, and 4 at the rank of Sergeant I+3.¹¹ The average number of years of service of Bomb Squad technicians is 27.2. Among the 13 current POIIIs, the average length of time spent with the LAPD before being promoted to their current rank was 8.8 years. Bomb technicians at the rank

⁸ Federal Bureau of Investigation, Critical Incident Response Group, National Guidelines for Bomb Squads, Revised June 2021, Page 11.

⁹ Federal Bureau of Investigation, Critical Incident Response Group, National Guidelines for Bomb Squads, Revised June 2021, Page 11.

¹⁰ Prior to 2020, the training standards were: Complete a minimum of 192 hours per year of practical exercise/training at the unit level with the recommendation that such training be performed 16-hours per month.

¹¹ All members of the Bomb Squad receive a "+3" designation, which denotes the issuance of bonus pay due to their roles as specialists.

of Detective II+3 and Sergeant I+3 serve as Squad Supervisors. Individuals at the rank of Detective I+3 serve as Assistant Squad Leaders.

In the past, the Bomb Squad has also included a Sergeant II+3 who functions as the Officer in Charge (OIC). The last person who held this position retired in late April 2021, and the position was vacant at the time of this incident. In August 2021, a new Sergeant was selected as the Acting Bomb Squad OIC, and this Sergeant is expected to become the appointed OIC very soon (as of this writing).

The selection process for the Bomb Squad includes, at minimum, an oral interview, a bomb suit practical exam, and an FBI background investigation. The National Guidelines encourage selection committees to assess candidates based on the following criteria and personal assets: practical, technically oriented, sociable, curious, self-confident, fairly unconventional/creative thinking, and technically rational.

As noted above, the FBI-established training goal is a minimum of 288 hours per year of practical exercise/training at the unit level for sustainment of basic skills, with a recommendation that this include 24 hours of such training per month. This training represents the national standard for best practices.

A review of the previous 5 years of training for the entire Bomb Squad revealed the following with regard to the number of training hours completed:

- **2016:** A total of approximately 9930 training hours with an average of 367 hours per employee.
- **2017:** A total of approximately 9028 training hours with an average of 392 hours per employee. Bomb Technician E did not meet the annual minimum, with only 162.5 training hours recorded.
- **2018:** A total of approximately 9520 training hours with an average of 352 hours per employee.
- **2019:** A total of approximately 8268 training hours with an average of 306 hours per employee. Bomb Technician E did not meet the annual minimum, with only 86.5 training hours recorded.
- **2020:** A total of approximately 6873 training hours with an average of 288 hours per employee. Bomb Technician E did not meet the annual minimum, with only 212 training hours recorded. Detective A did not meet the annual minimum, with only 260 training hours recorded. Bomb Technician B did not meet the annual minimum, with only 98 training hours recorded; however, he had only 4 months of active duty during this training period and met the standards for the monthly average. The OIG notes that, due to the unprecedented Covid-19 pandemic, training hours were in held abeyance from March 2020 through the time of this report.

The chart below shows the tenure (as of June 30, 2021) of the Bomb Squad personnel who were present at this incident:

Name	Years in Department	Years at Rank/ Paygrade	Years in Bomb Squad Assignment
Bomb Technician A	22.3	3.3	2.9
Bomb Technician B	32.1	26.2	8.6
Bomb Technician C	33.5	23	18
Bomb Technician D	23.1	13.8	2.9
Bomb Technician E	24.9	18.3	12
Supervising Detective A	22.8	2.7	2.7
Average (All Bomb Squad)	27.2	15.3	11.6
Average (BTs at 27th Street)	26.4	14.5	7.9

According to Detective A, he previously served a 5 year tour of duty as a bomb technician before transferring out of the unit. He subsequently returned several years later as a supervisor.

vi. Historical Review of Bomb Squad Calls

The OIG reviewed the history of Bomb Squad calls for the five calendar years prior to this incident, as well as through July 28 of 2021. There were no significant incidents of injury or damage to persons or property during that time period. The annual number of calls for that time period are as follows:

- **2016:** 602 total calls, with 4 TCV detonations
- **2017:** 517 total calls, with 4 TCV detonations
- **2018:** 516 total calls, with 3 TCV detonations
- **2019:** 492 total calls, with 2 TCV detonations
- **2020:** 260 total calls, with 4 TCV detonations
- **2021 (as of July 28):** 273 total calls, with 3 TCV detonations

The OIG noted that there was a significant reduction in the number of calls for the year 2020. Further review of this data suggested that the reduction was due to the Covid-19 pandemic.

The OIG also reviewed the history of the usage of the TCV since that piece of equipment was placed into service.

Inquiry Regarding the 27th Street Explosion

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1.0

The chart below provides the only information maintained by the Bomb Squad related to each use of the TCV. Each incident represents a single detonation in the TCV.

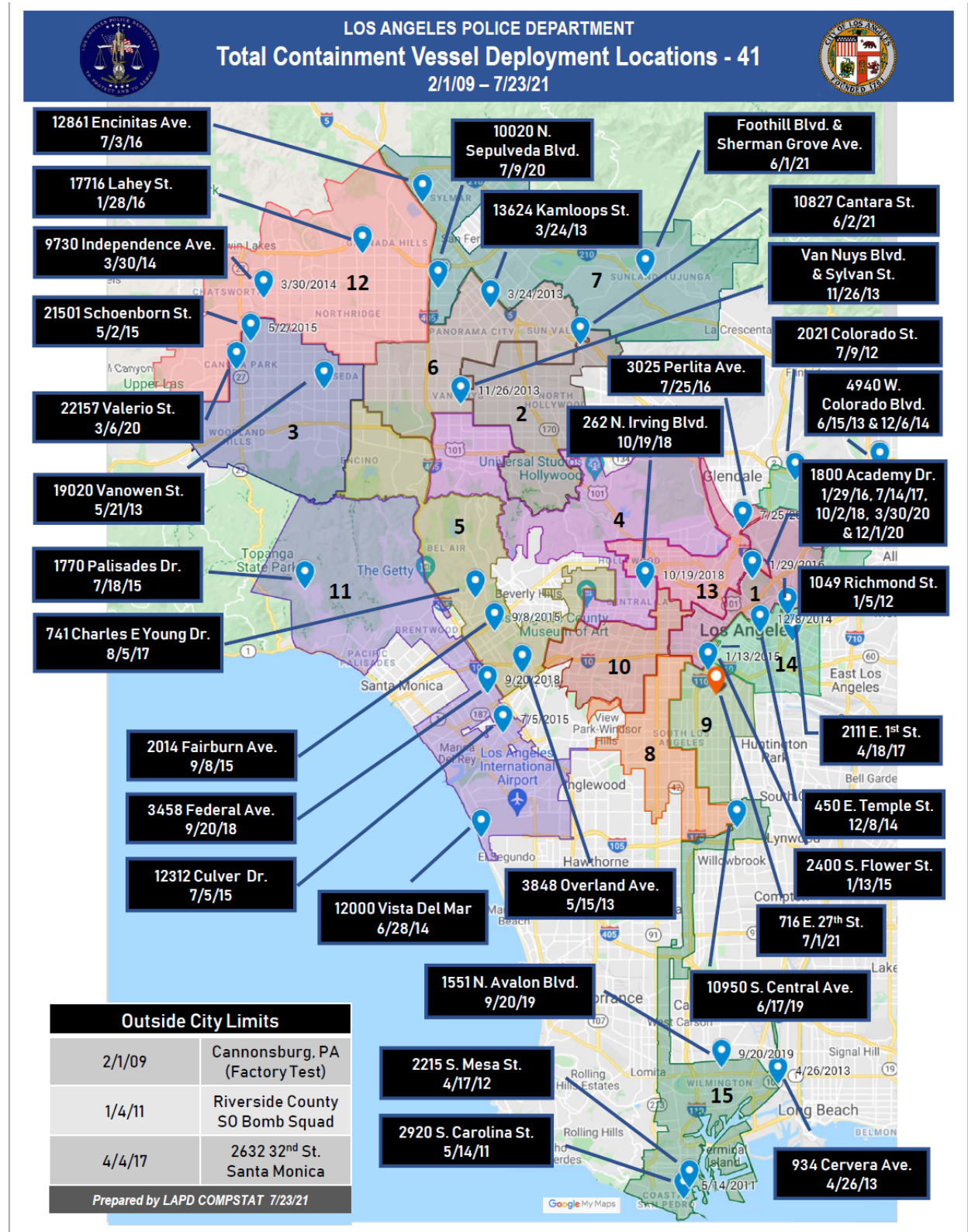
Date	Bureau	Area	RD	Location	Contents	Scale Weight of Counter-Charge	Zoning Type
2/1/2009	OS	OS	OS	Cannonsburg, PA	Factory Test Shot	15.0	Out of City
1/4/2011	OS	OS	OS	Riverside County SO	TATP dispo in TCV	5.0	Out of City
5/14/2011	SB	HARB	0587	2920 S Carolina St	TATP dispo in TCV	2.4	Residential
1/5/2012	CB	HOBK	0441	1049 Richmond St	Dispo of railroad torpedos	3.3	Industrial
4/17/2012	SB	HARB	0567	2215 Mesa St	Fireworks Dispo	2.2	Residential
7/9/2012	CB	NOE	1105	2021Colorado Blvd	Fireworks Dispo	3.7	Commercial
3/24/2013	VB	DEV	1967	13624 Kamloops	Dispo degraded blasting caps	3.2	Residential
4/26/2013	SB	HARB	0529	934 Cervera Ave	Fireworks and misc powders	3.9	Industrial
5/15/2013	WB	PAC	1406	3848 Overland Ave	HME dispo	5.4	Commercial
5/21/2013	VB	WVAL	1023	19020 Vanowen St	Military ordinance	4.1	Residential
6/15/2013	CB	NOE	1113	4940 w Colorado Bl	Misc chemicals TCV shot	6.2	Industrial
11/26/2013	VB	VNY	0933	Van Nuys / Sylvan	HME dispo	8.3	Commercial
3/30/2014	VB	DEV	1762	97301ndependence Ave	Picric acid TCV shot	9.5	Industrial
6/28/2014	WB	PAC	1493	Hyperion Plant	Picric acid TCV shot	0.6	Residential
12/6/2014	CB	NOE	1113	4940 W Colorado Bl	Picric acid TCV shot	UNK	Industrial
12/8/2014	CB	CENT	0129	LAFD Fire Station 4	Cleaning shot, sand	1.5	Industrial
1/13/2015	CB	NEWT	1321	2400 S Flower St	Recovered Explosive	3.2	Mixed Use
5/2/2015	VB	TOP	2105	21501Schoenborn St	Dispo of military flares	2.4	Mixed Use
7/5/2015	WB	PAC	1457	12312 Culver Dr	Recovered Explosive, HME	3.2	Residential
7/18/2015	WB	WLA	0801	1770 Palisades Dr	Susp Item, HME	5.3	Residential
9/8/2015	WB	WLA	0836	2014 Fairburn Ave	Military Ordnance	5.7	Residential
1/28/2016	VB	DEV	1729	17716 Lahey St	Recovered Explosive, HME	3.8	Residential
1/29/2016	CB	NOE	1186	1880 Academy Dr	Explosives dispo	Caps	Industrial
7/3/2016	VB	MISN	1921	12861Encinitas Ave	Susp Item, Fireworks	3.9	Commercial
7/25/2016	CB	NOE	1133	3025 Perlita Ave	Recovered Explosive, IEDs	2.8	Residential
4/4/2017	WB	PAC	OS	2632 32nd St, SM	Verified IEDs	4.2	Out of City
4/18/2017	CB	HOBK	0464	2111E 1st St	Fireworks	2.5	Commercial
7/14/2017	CB	NOE	1186	1880 Academy Dr	Recovered Explosive	4.7	Industrial
8/5/2017	WB	WLA	0818	741 Charles E Young Dr	Picric acid TCV shot	2.7	Industrial
9/20/2018	WB	PAC	1435	3458 Federal Ave	Misc powders and chemicals	0.2	Residential
10/2/2018	CB	NOE	1186	1880 Academy Dr	Recovered Explosive	UNK	Commercial
10/19/2018	WB	OLYM	2011	262 N Irving Blvd	Misc powders and chemicals	2.8	Residential
6/17/2019	SB	SOE	1836	10950 S Central Ave	Susp Item	UNK	Commercial
9/20/2019	SB	HARB	0515	1551N Avalon Blvd	Fireworks	2.3	Commercial
3/6/2020	VB	TOP	2134	22157 Valerio St	Fireworks	0.9	Residential
3/30/2020	CB	NOE	1186	1880 Academy Dr	Recovered Explosive	3.8	Commercial
7/9/2020	VB	MISN	1952	10020 N Sepulveda Blvd	Fireworks	1.7	Commercial
12/1/2020	CB	NOE	1186	1880 Academy Dr	Dynamite dispo	UNK	Commercial
6/1/2021	VB	FTHL	1656	Sherman Grove/ Foothill Bl	Verified IEDs, Susp Item	0.9	Mixed Use
6/2/2021	VB	FTHL	1689	10827 Cantara St	Fireworks, IED	3.1	Residential

The OIG noted that although the weight of the counter charge used in each TCV detonation was recorded in the chart data, the weight of the disposal product was not recorded or maintained. The OIG determined that it was common to not physically weigh a disposal product prior to its detonation.

A review of the 40 prior uses of the TCV for the purpose of a detonation revealed that these uses were spread throughout the City and in varied areas of zoning, as indicated:

- 1 test detonation, performed by NABCO at the factory (not an LAPD use)
- 2 detonations Out of City (Riverside County, Santa Monica)
- 9 detonations in Industrial Areas
- 14 detonations in Residential Neighborhoods
- 11 detonations in Commercial Areas
- 3 detonations in Mixed Use Areas (Residential/Commercial)

The following map provides a graphical representation of the location of each TCV detonation.



B. Decisions Leading to Detonation

i. LAPD Determination of the Combined Net Explosive Weight (NEW)

Upon learning about the illegal fireworks, the Bomb Squad supervisor, Detective A, dispatched Bomb Technicians A and B to the scene to review the situation and provide him with an update. Bomb Technicians A and B were considered the primary and secondary technicians, respectively, because they were the first ones to arrive at the scene. Senior Logistics Officer A learned of the illegal fireworks and sent his partner, Logistics Officer B, to the scene. When Detective A learned about the substantial volume of fireworks at the scene, he also responded and started reviewing the fireworks in the backyard. While surveying the area, responding officers found homemade IEDs the size of soda cans situated among the commercial fireworks. Additional smaller IEDs were found in a trash bag when the team started moving the commercial fireworks. The soda can-sized devices and the smaller devices in the trash bag were moved to a shaded area in the backyard of the residence away from the commercial fireworks. In total, approximately 44 of the soda can-sized devices and 280 of the smaller devices were recovered. At approximately 11:00 a.m., the discovery of the IEDs prompted Logistics Officer B to call Logistics Officer A and inform him that the TCV would be needed.

Detective A prioritized the removal of the commercial fireworks early in the day. To aid in this removal, Logistics Officer A coordinated box trucks to arrive at the scene. Logistics Officer A drove the BAT truck and Logistics Officer B drove the TCV to the scene with the anticipation that the TCV would be used for the detonation of the IEDs later on in the day. Shortly thereafter, Logistics Officer B departed the scene to attend a previously scheduled training. Over the next several hours, an estimated 32,000 pounds of commercial fireworks were recovered and loaded onto pallets. Those pallets were in turn loaded into the box trucks and removed from the scene without incident.

As the commercial fireworks removal neared completion, Detective A returned his focus to the improvised explosive devices. Between 2:00 p.m. and 3:00 p.m., Bomb Technicians D, C, and E arrived at the scene. Detective A showed all bomb technicians on scene the explosive devices. According to Detective A, he said, "Here's what we are dealing with. I need you guys to come up with a plan. Let me know what your plan is." In an interview with ATF Agents following the incident, Detective A explained, "I try not to oversee and stand in on the discussion. One, is I'm their supervisor, but more importantly, I don't want them to...ask questions and think...I may let him [Detective A] know that I don't know what I am talking about. I don't want to ask a dumb question." Detective A also articulated that the group dynamic is such that bomb technicians may feel hesitant to speak up in front of a supervisor. Therefore, he moved away from the group while they developed a plan. The bomb technicians consulted and agreed that the IEDs should be rendered safe in a TCV detonation. That plan was present to Detective A, who concurred.

As previously stated, the OIG found no evidence to show that transportation of the IEDs away from the scene for detonation was considered by the Bomb Squad personnel. Although the TCV is designed for transportation of explosives, the Bomb Squad personnel stated that they opted not to transport the IEDs away from the scene of the detonation because of leaking material. Furthermore, it was the common practice of the LAPD Bomb Squad to perform the render-safe detonation process on-scene. This had been the established procedure for the entirety of the time the TCV was in use. There was no policy or procedural rule in place that either required or

prohibited transportation of the explosives to a designated safe area, nor was there any that required or prohibited detonation of the explosives on-scene.

Bomb Technicians A and B performed an X-ray and a remote cut of the explosive devices in the rear alley behind the target residence. Bomb Technician C retrieved the remote cutter from the BAT truck and brought it to the rear of the residence. The X-ray was performed first, and it revealed that there was space between the fill lines and the tops of the devices; as such, the technicians felt comfortable cutting the devices. The cutter was used on two devices, one of each type. These unexploded devices were then preserved as evidence.

Next, the disposal product weight was estimated.¹² When he was interviewed, Bomb Technician A told ATF agents that, based on holding and viewing the explosive devices, he estimated there were 1.5 ounces of flash powder in the 44 soda can-sized items and .5 ounces in the 280 smaller devices. He made the mental calculation that the devices amounted to 10 pounds of NEW. Bomb Technician A stated that he purposely overestimated these weights to ensure that the material would not exceed the TCV's weight capacity. Bomb Technician A stated that he held each of the devices and felt as though the 44 larger ones had a weight that was consistent with that of the comparable device that was X-rayed and cut, and that the 280 smaller devices also had a weight that was consistent with that of the comparable device that was X-rayed and cut. Detective A reportedly inquired about the weight of the disposal product and ascertained that it was approximately 8-10 pounds of NEW. The soda can-sized devices were cardboard tubes 5 inches in height and 2.5 inches in diameter with a fuse. The smaller devices were 4 inches in height and 1 inch in diameter with a fuse.

Meanwhile, Bomb Technicians C and E prepared a counter charge to be placed in the TCV using a Home Depot cardboard box, a C2 deta sheet, and a detonation cord. The use of a counter charge is a widely accepted bomb disposal technique that consists of using explosive material to detonate other explosive material. Because Bomb Technician C had been assisting in the removal of the commercial fireworks, he arrived to assist Bomb Technician E after he (Bomb Technician E) had already made significant progress building the counter charge. During each of their interviews with the ATF, Bomb Technician C and Detective A independently stated that, in the course of these preparations, Bomb Technician C expressed concerns about the amount of material being loaded into the TCV. Bomb Technician E replied, "Are you concerned about the quantity [of devices]...or the Net Explosive Weight?" Detective A indicated that Bomb Technician C was not specific with his concerns. Bomb Technician C told the ATF interviewers that he responded to Bomb Technician E's question, stating, "This is a lot of material. This is a lot both [in terms of] Net Explosive Weight and physical weight. It's a lot of material. There's a lot of devices." Detective A stated that he told Bomb Technicians C and E to "hash it out" and then he stepped away. Bomb Technician E told ATF interviewers that the weight of the detonation cord and C2 sheet amounted to 6.5 pounds of NEW. The counter charge estimate was reportedly shared with Bomb Technician A and Detective A.

¹² The disposal product weight is a measurement of the disposal product excluding any packaging that holds, surrounds, or encases the explosive material. Therefore, the disposal product weight in this instance was the weight of the flash powder in the 280 small devices as well as in the 44 soda can-sized devices.

Bomb Technicians at the scene operated under the belief that the maximum TCV capability was 40 pounds of NEW. Detective A totaled the counter charge estimated from Bomb Technician E and the disposal product weight estimated from Bomb Technician A, which amounted to about 16.5 pounds of NEW. Detective A determined the total NEW of the material was well below the TCV's weight capacity, and the bomb technicians proceeded with the operation.

Before the materials were placed into the TCV, Logistics Officer A used a scale to weigh the counter charge. This was a common practice utilized by the logistics officers because the information could be recorded on a post-blast log that tracks the amount of material taken from the Bomb Squad's explosives magazines. According to Logistics Officer A, the C2 sheet alone was approximately 9.4 pounds, including 9.0 pounds of explosive material and .4 pounds of cardboard tube around which the sheet was rolled. The 9.0 pounds translated to 11.5 pounds of NEW, nearly 77% more than the weight estimated by Bomb Technician E. Logistics Officer A indicated to ATF agents that he did not weigh the disposal product, nor did he know its total NEW. The use of the scale to weigh the counter charge explosive is the only known instance of a scale being used on-scene during this incident. Furthermore, Logistics Officer A's act of weighing the counter charge does not appear to have had an impact on Detective A's estimate, given that Detective A reportedly relied on Bomb Technician E's estimate to determine the total NEW.

Next, the combined explosive materials (IEDs and counter charge) were placed into the TCV. First, Bomb Technicians A and B took the disposal product, which was in a box with the small devices on the bottom and the larger devices on top, and wheeled it out from the rear of the residence to the TCV near the front of the residence using a cart. Bomb Technician B later told ATF interviewers that he used a cart rather than carrying the box because, "I was tired. I probably had my hands on all 32,000 pounds of the fireworks that were in the backyard before they [the truck transporting the commercial fireworks] left 'cause I was loading that stuff from the time that we got there until the time that we did the x-rays, did the remote cut, and did the TCV shot. So I said ya know what? Let's just put this box on the cart and wheel it out there. I'd carried enough boxes that day."

Once wheeled out, the box was placed into the counter charge box by opening a flap on the front of the counter charge box and sliding the disposal product box into it, similar to placing a food item into an oven. The flap on the counter charge box was then taped closed. The combined counter charge box was placed on top of an empty box (in order to elevate the explosives toward the center of the vessel) by Bomb Technician E and was wired for detonation.

After loading the TCV, Bomb Technician B pressed a button to remotely close the TCV door. However, the TCV door did not close. Logistics Officer A then approached the TCV and re-started a generator that supplying it with power; Logistics Officer A had previously turned off the generator due to the lengthy nature of the Bomb Squad response that day. Bomb Technician B pressed the button again, and the TCV door closed in the proper manner. Logistics Officer A was asked by ATF interviewers if the issue with the door was a malfunction. He replied that there was no malfunction and that once he started the generator, turned on the system hydraulics, and turned on the logic for the TCV ball, everything functioned normally and the TCV door closed.

Bomb Technician C was standing near the TCV while it was being loaded. He noticed the proximity of the media and onlookers to the TCV and asked that the detonation be paused. Bomb Technician C emphasized that, “This is about safety... We are not here for [the media to get] a good shot. This is about safety.” Detective A agreed and the operation was paused. The size of the perimeter was increased by approximately one additional block on each side of the TCV in order to create more distance between civilians and the TCV. This resulted in a slight delay of the detonation.

After addressing this issue, the Bomb Squad proceeded with the detonation. With the bomb technicians standing nearby, Detective A yelled, “Fire in the hole!” three times while holding the firing box, and then he pressed the detonation button.

ii. ATF Determination of Total Net Explosive Weight (NEW)

Explosives professionals commonly use Net Explosive Weight as a method of determining the explosive weight of material relative to TNT (Net Explosive Weight is, therefore, commonly referred to as “TNT equivalent”). TNT is used as the basis of reference because bomb technicians are trained extensively using TNT and are thus familiar with this substance. Therefore, converting weight to Net Explosive Weight enables bomb technicians to understand the amount of potential energy contained in suspected explosive material. This is helpful for understanding how the material should be stored or detonated, such as in a TCV. It also enables bomb technicians to easily determine the combined weight of multiple substances or devices.

To calculate Net Explosive Weight, the actual weight of a material is multiplied by a Relative Effectiveness Factor (RE Factor). For example, if a bomb technician weighed 1 pound of TNT, that would be multiplied by an RE Factor of 1 because the bomb technician is already working in units of TNT. If, however, a bomb technician weighed 1 pound of flash powder, that would be multiplied by an RE factor of 0.8, resulting in a NEW of 0.8 pounds, because flash powder is considered weaker than TNT. Alternatively, to determine the NEW of 1 pound of C-4, which is a high-grade plastic military material, the 1 pound figure would be multiplied by an RE of 1.28,¹³ resulting in a NEW of 1.28 pounds. To determine the combined NEW of any of these items, a bomb technician would simply sum the NEW figures.

In the ATF Origin and Cause Determination Report, the ATF weighed the sample devices that had been preserved on a scale and found that the soda can-sized devices weighed 4.94 ounces while the smaller devices weighed 1.3 ounces. The LAPD bomb technicians on scene, who did not use a scale, believed the soda can-sized devices were 1.5 ounces and the smaller devices were 0.5 ounces (based on holding the material). The ATF determined that 40 of the large devices was the proper number to use to estimate the NEW of those devices. The ATF also determined that 280 of the small devices was the proper number to use to estimate the NEW for those devices.

¹³ The OIG’s research found two different RE Factors commonly used to determine the TNT equivalency of C-4 material: 1.28 and 1.37. NABCO, the manufacturer of the TCV, uses 1.28 for their equivalency calculation. The ATF also uses 1.28 in their Origin and Cause Determination Report. An RE Factor of 1.28 is therefore used in reference to C-4 material in this report, consistent with NABCO and the ATF.

In addition to the two types of sample devices that were weighed, the ATF Report identified an unknown number of “triangle shaped tri fold flash powder crackers, red colored flash powder devices, large M style devices labeled ‘Pyro Addicts’, and what appeared to be a 3 inch aerial shell wrapped in foil with a visible fuse in the disposal shot”. The ATF reported that although these items were included in the disposal material that was detonated, they were not included in the NEW calculations because the amount of explosive filler contained in each type of item was unknown.

In his interview with the ATF regarding the counter charge included in the material to be detonated, Logistics Officer A stated that bomb technicians pulled 9.4 pounds of C2 on a roll, and 0.7 pounds of 50 grain det cord. After the ATF recovered and weighed the cardboard tube that was used to store and transport the sheet explosive, it was determined that the roll weighed .35 pounds, resulting in an accurate weight of 9.05 pounds of C2 sheet. During the interview with Bomb Technician E, investigators were told that approximately 30’ of 50 grain det cord had been used. The ATF determined that 30’ of 50 grain det cord contains approximately 1500 grains, which is the equivalent of .214 pounds of PETN. PETN is a highly explosive organic compound belonging to the same chemical family as nitroglycerin and nitrocellulose.

According to the ATF, the following calculations were used in their report:

Disposal Product Calculations

- The 40 large devices contained 197.6 ounces of flash powder = 12.35 pounds of flash powder; using an RE factor of 0.8 (the lowest RE for flash powder) gives a NEW of 9.88 pounds TNT equivalent.
- The 280 small devices contained 364 ounces of flash powder = 22.75 pounds of flash powder; using an RE factor of 0.8 gives a NEW of 18.2 pounds TNT equivalent.
- The total estimated NEW for the disposal product was 28.08 pounds TNT equivalent.

Counter Charge Calculations

- 9.05 pounds of C2 sheet, using an RE factor of 1.27, gives a NEW of 11.494 pounds TNT equivalent.
- .214 pounds of det cord, using an RE factor of 1.27, gives a NEW of 0.272 pounds TNT equivalent.
- The total estimated NEW for the counter charge was 11.77 pounds TNT equivalent.

Disposal Product and Counter Charge Combined Calculations

- The total estimated NEW for the disposal shot, which includes the disposal product and the counter charge, was 39.85 pounds TNT equivalent.¹⁴

¹⁴ ATF NRT Origin and Cause Determination, Investigation Number 784020-21-0014, Report Number 56, Page 28.

iii. Rated Capacity of TCV

Bomb technicians indicated a belief that the TCV's weight capacity was 40 pounds of NEW. However, the OIG's review of the relevant material indicated that this belief was incorrect.

The introduction of the NABCO Operators/Maintenance Manual for Model #64-SCS dated October 2008 (Manual) states, "The TCV was designed to contain the blast effect of up to 15 pounds (6.8 kg) of C-4 or equivalent explosive and to contain the fragments of metallic-cased devices (i.e., pipe bombs)." The manual also warns, "If more than 15 pounds (6.8 kg) of C-4 is detonated in the TCV, fragmentation may occur." Furthermore, "...extreme care must be exercised to avoid exceeding the 15-pound (6.8 kg) limit." Using a 1.28 RE factor, this amounts to 19.2 pounds of NEW. Therefore, bomb technicians seeking to use the TCV within its rated capacity and operating based on guidance from the Manual would not exceed 19.2 pounds of NEW in the TCV. Under a pre-incident procedures section, the Manual also states that the "TCV was designed to transport IEDs from populated areas."

There are some apparent shortcomings in the TCV Operators/Maintenance Manual. The pre-incident section also states that "the vessel will contain the explosive effects of up to 3 pounds (6.82 kg) of C-4 or equivalent explosive". The 3 pound figure appears to be a typo, given that that 15 pounds is referenced in several other places and that 6.82 kg converts to 15 pounds. Additionally, the concept of Net Explosive Weight is absent from the Manual, leaving bomb technicians to calculate the conversion for themselves. For instance, the manual could have stated plainly that 15 pounds of C-4 is the equivalent of 19.2 pounds of NEW.

In May 2010, NABCO released a Test Report. The Test Report states that in July 2006, NABCO facilitated the testing of various detonations, including three with 15 pounds of C-4, which verified that the TCV could handle repeated detonations of that much explosive material without compromising the vessel. NABCO conducted another test using 18.75 pounds of C-4 to demonstrate whether the TCV could withstand 125% of the 15-pounds-of-C-4 design charge weight. The test detonating 18.75 pounds of C-4 (24 pounds of NEW, assuming a 1.28 RE factor) was successful, and the Test Report concluded that the TCV "can easily sustain 125 percent of the repeated design charge weight."

The Test Report also states that the TCV can handle a one-time detonation of 25 pounds of C-4 equivalent, although the report lacks detail to support this. Specifically, the Test Report states, "The single detonation rating for the 64-SCS unit is greater than 25 pounds of C-4," which amounts to 32 pounds of NEW assuming a 1.28 RE. However, there is no information in the report citing any test detonation of this much explosive material. Given that the report describes test detonations of 15 pounds of C-4 and 18.75 pounds of C-4 but does not mention one at the 25 pound level, it is unclear if such a test has ever been performed. One possibility is that NABCO was able to infer a maximum capacity for detonation based on analysis from the other test detonations. For example, NABCO may have reviewed the physical effects on the TCV from the detonation of 18.75 pounds of C-4 and extrapolated that the detonation of 25 pounds is

permissible. Regardless of the reasoning behind it, however, information supporting the assertion of a single detonation rating greater than 25 pounds of C-4 is absent.¹⁵

The ATF Cause and Origins Report identified a potential source of the 40-pound limit misbelief. According to a specifications sheet from the TCV, the NABCO Model 64-SCS-GT was tested using 40 pounds of C-4, which converts to 51.2 pounds of NEW. The TCV was purposely being “tested to failure” in order to “validate safety factors.” In other words, the TCV was intentionally tested with an amount of explosive material well above that which NABCO believed it could withstand. The specifications sheet does not detail the outcome of that test. The same specifications sheet does indicate that the “repeatable blast containment capacity” of the TCV is 15 pounds of C-4, or 19.2 pounds of NEW, which is consistent with other NABCO documents. Additionally, it states that a single detonation of up to 26 pounds of C-4, or 33.28 pounds of NEW, is permissible.¹⁶ In sum, despite a reference to a test “to failure” using 40 pounds of C-4 explosive material, a close reading of the specifications sheet reveals no guidance supporting the belief that the TCV’s weight capacity was 40 pounds of NEW.¹⁷

C. Role of the ATF¹⁸

On June 30, 2021, ATF Special Agent A responded to the scene after receiving a request from Detective A.¹⁹ ATF Special Agent A arrived at the scene at approximately 12:00 p.m. and surveyed the area. At that time, the Bomb Squad was dedicating most of its efforts to removing the commercial fireworks they had located. ATF Special Agent A left the scene at one point and then returned after 3:00 p.m. to observe the process of X-raying and cutting the IEDs. ATF Special Agent A’s only role prior to the detonation was to collect the samples of the IEDs and gather any evidence relevant to the federal criminal investigation of the suspect, Arturo Ceja. The ATF played no role in preparing or loading the TCV. However, ATF Special Agent A remained at the scene through the period of detonation.

After the detonation and failure of the TCV, the role of the ATF was to be the primary investigative agency for the incident. Over the next 8 days, the ATF’s response to the scene of the incident included 17 agents from the National Response Team (NRT) and 21 from the Los Angeles Field Division in Glendale. The NRT is a rapid response team sent out to major fires,

¹⁵ Test Report, 15-pound C-4 (6.8-kg- C-4) Testing for the NABCO 64 Self Closing System (64-SCS) and Gas-Tight System (64-SCS-GT), May 2010, NABCO, Incorporated, Pittsburgh, PA.

¹⁶ The ATF Report explains that the 26 pound rating associated with a single detonation in the TCV is based on a computer simulation rather than on a physical test.

¹⁷ ATF NRT Origin and Cause Determination, Investigation Number 784020-21-0014, Report Number 56, Page 25.

¹⁸ See “Post Detonation Activity” for additional information on the ATF’s role in investigating the scene of this incident immediately following the explosion as well as for details of the hypotheses tested during their investigation.

¹⁹ As a part of its standard operating procedure, the LAPD forwards e-mail alerts related to various incidents to the ATF Los Angeles Field Division office. If there is a nexus with the ATF’s work, agents make a decision in concert with LAPD personnel about whether to respond to the scene of such incidents.

explosions, or bombings to assist local authorities with the investigative process.²⁰ At a July 19, 2021 briefing regarding this incident, which included Chief Moore, ATF Supervising Special Agent Michael Hoffman explained, “At the request of the LAPD, ATF’s National Response Team responded to Los Angeles on July 1st. It was their job to determine why the explosion, as opposed to the safe detonation, of those explosives occurred.”

The ATF conducted a comprehensive investigation, including but not limited to: reviewing samples of the explosive material as well as of the TCV itself, photographing evidence, mapping the area, and conducting interviews of Bomb Squad technicians and other involved parties. The ATF’s findings were presented in a report that was released to community members in the 27th Street area, and then to the public, on September 13, 2021. The release was made in conjunction with the Department’s own After Action Report. The ATF also shared documents associated with their investigation with the Department’s CTSOB.

On July 3, 2021, ATF agents re-arrested Arturo Ceja (who had previously been arrested by the LAPD) pursuant to a federal arrest warrant at a residence in Los Angeles. On August 31, 2021, Ceja pled guilty to federal charges of transporting illegal fireworks.²¹

D. Evacuations

According to Chief Moore at a press conference on July 9, 2021 regarding the explosion investigation, evacuations of individuals near the scene of the incident were conducted by Newton Patrol Officers and happened in three stages. First, the residence at 716 East 27th Street, which is the site where the fireworks and IEDs were located, as well as the homes immediately east and west of that location (712 East 27th Street and 718 East 27th Street) were evacuated. While the 716 East 27th Street property was completely cleared of civilians, the evacuations of the residences on either side of that property were optional, as the involved officers did not require those residents to evacuate, and the residents opted not to do so.

Subsequently, while preparations were being made to detonate the illegal explosives, 3 additional residences on the south side of the street, east of 716 East 27th Street, were evacuated according to Chief Moore.

Last, additional residences on the north side of 27th Street were evacuated as well. Furthermore, media members were directed to move back from the site of the detonation. Businesses to the west were told to move away from east-facing windows. Pedestrians were moved to west side of San Pedro street. This final evacuation order occurred in response to the concerns expressed by Bomb Technician C prior to the detonation, which were described at the end of the *LAPD Determination of the Total Net Explosive Weight (NEW)* section of this report.

²⁰ National Response Teams. Bureau of Alcohol, Tobacco, Firearms, and Explosives. <https://www.atf.gov/about-atf/national-response-teams>

²¹ “South LA Man Pleads Guilty in Fireworks Explosion Case.” Published by City New Services on August 31, 2021, NBC News, <https://www.msn.com/en-us/news/us/south-la-man-pleads-guilty-in-fireworks-explosion-case/ar-AAUvD9?ocid=uxbndlbing>

As its After Action Report points out, the Department did not gather information on the exact times when the various evacuation orders occurred, the total number of residents that evacuated, the number of residents that opted to stay after receiving an evacuation notice, or a full list of properties identified for evacuation.²² Departmental guidance recommends obtaining such documentation. For instance, the Emergency Operations Guide Volume II states that during an evacuation, the Area Watch Commander is responsible for ensuring that officers “make a record of each contact or; no answer.”²³ Also, as the Department’s After Action Report pointed out, an applicable Emergency Preparedness Bulletin states, “If time permits, officers should make a record of each contact or no-answer on a Field Interview Report (FI)... Ask neighbors about any people with disabilities and others with access and functional needs, including children and older adults, who may not have responded to a door knock in order to ascertain if there are people who require assistance to evacuate.”²⁴ While the requirement to document evacuations is present in some Departmental guidance, the OIG reviewed the Department Manual specifically and found that such a requirement is not addressed therein.

E. Community Impact

The 27th Street Incident resulted in the displacement of 75 individuals and the red-tagging of three houses. It also damaged 37 vehicles and dozens of homes, and it adversely impacted 13 businesses. The services provided to the impacted individuals both in the immediate aftermath as well and during the longer-term management of the response are outlined below.

i. Housing for Families

In the initial aftermath of the explosion, two shelters were established via the coordination of various City departments, the American Red Cross, and the Homeless Outreach Program Integrated Care System (HOPICS). The shelters opened in the recreation center at Fred Roberts Park and Trinity Park, which are approximately 2.5 and 0.4 miles from the site of the incident, respectively. The shelters provided cots, blankets, towels, food, and other services to those impacted by the explosion.²⁵ Several families, including those that first went to the shelters, were provided short-term housing vouchers for a two-week period from the Los Angeles Homeless Services Authority (LAHSA). When those vouchers were set to expire, responsibility shifted to the Community Investment for Families Department. The Community Investment for Families Department worked with the City Housing Department, the Chief Legislative Analyst (CLA), the Chief Administrative Officer (CAO), the City Attorney, and others to enter into an agreement with a hotel in Downtown LA with apartment-style units for impacted families to inhabit over an extended period of time.²⁶

²² 27th and San Pedro Incident After Action Report, June 30, 2021, Page 24.

²³ Emergency Operations Guide Volume II, 2009, Page 29.

²⁴ Emergency Preparedness Bulletin Volume 10, Number 7: Considerations During an Emergency for People with Disabilities, August 28, 2014, Page 2.

²⁵ Sheltering, 27th Street Incident, <https://www.lacity.org/27thstreet>

²⁶ Regular City Council Meeting, July 21, 2021, <https://www.youtube.com/watch?v=U1mjLw1eHt0>

The process of returning residents to their homes remains underway, and Newton Area maintains a continuous patrol presence outside the unoccupied homes to protect against looting as well as to assist residents, such as those who need to visit their homes to retrieve belongings. As of August 30, 2021, 60 people were in 29 long-term units while waiting to return to their homes.²⁷

ii. Local Assistance Center

The City Emergency Management Department established an Local Assistance Center, which was open from July 4, 2021 to July 16, 2021 and included 30 agencies such as the City Attorney, the Los Angeles County Department of Mental Health, and the American Red Cross.^{28,29} The “27th Street Incident” page on LACity.org states that the Local Assistance Center is “a coordinated effort to ease the burden on impacted families, by meeting the community where they are and removing possible barriers in navigating and accessing supportive resources.”³⁰ According to Emergency Management Coordinator Gary Singer, 300 individuals visited the Local Assistance Center, and there were a total of 900 visits at informational tables.³¹ In mid-July, the Local Assistance Center was moved to the 28th Street YMCA and remains open during select hours in order to assist impacted individuals.

iii. Claims Processing

Residents adversely impacted by the 27th Street Incident may submit to the City a claim for damages to their person or property. The Local Assistance Center included resources for filing a claim for damages against the City with the City Attorney’s office. According to a representative from the City Attorney’s Office, 27th Street Incident claims have been prioritized and are typically paid (in coordination with the City Controller’s Office) within approximately one week after a determination is made that the City is liable.³² Based on information obtained from the City Attorney’s Claims Unit & Risk Management Division, as of February 8, 2022, 403 claims for damages had been filed with the City Attorney; 79 of those claims were approved for payment with 61 of them having been paid. 287 claims remain in progress as the City Attorney awaits more information. The other 37 out of the 403 total claims were canceled, denied, or closed. As of early February 2022, the total payout for all claims related to the incident amounted to \$144,164.

²⁷ “Curren Price wants \$5M for residents impacted by LAPD fireworks blast”, Published by City News Service on September 1, 2021, Spectrum News, <https://spectrumnews1.com/ca/la-west/politics/2021/09/01/curren-price-wants--5m-for-residents-impacted-by-lapd-fireworks-blast>

²⁸ Local Assistance Center, 27th Street Incident, <https://www.lacity.org/27thstreet>

²⁹ <https://emergency.lacity.org/blog/27th-street-incident-community-resource-center>

³⁰ 27th Street Incident Community Resource Center, Emergency Management Department, <https://www.lacity.org/27thstreet>

³¹ Regular City Council Meeting, July 21, 2021, <https://www.youtube.com/watch?v=U1mjLw1eHt0>

³² Regular City Council Meeting, July 21, 2021, <https://www.youtube.com/watch?v=U1mjLw1eHt0>

iv. Long-Term Management of Response

During the August 31, 2021 meeting of the Board of Police Commissioners, Chief Moore gave a brief update on the 27th Street Incident as part of his regular Chief's report. He stated that the City's Emergency Management Department (EMD) had been tasked with the long-term management of the City, County, and non-profit agencies involved in the response to the incident. Subsequently, during the September 21, 2021 meeting of the Board of Police Commissioners, the General Manager of the EMD gave a presentation on the focus of the long-term response, which consists of economic recovery, health and social services, home repair assistance, and community planning and capacity building. Additionally, the group of agencies involved with the long-term response operates as a joint information system to help ensure all impacted community member concerns stemming from the 27th Street Incident are addressed. Weekly reports are prepared by the group characterizing the situation status as "improving", "stable", or "worsening".

v. Response Funding

In the immediate aftermath of the 27th Street Incident, Los Angeles City Councilmember Curren D. Price, Jr. of Council District 9 (in which the incident occurred) established a \$1 million Emergency Relief Fund. This fund paid for repairs to the homes of more than 50 families, emergency housing for 25 families, as well as \$2,000 debit cards and \$10,000 grants for those families that were most severely impacted.³³

On September 1, 2021, Councilmember Price introduced a motion to secure an additional \$5 million in funding to be used for a "Recovery Plan for the 27th Street neighborhood (from 24th Street to 30th Street and from Trinity Street to Griffith Avenues), that will help the area recover from this horrific explosion, including the establishment of a Neighborhood Recovery Center, and services such as infrastructure improvements, business grants, mental health services, job and workforce development, access to children's services, transportation assistance, and prioritization for the City's Guaranteed Basic Income program."³⁴ The motion, which was passed by the City Council on September 21, 2021, directed the CLA to report back with a framework for the Recovery Plan within 30 days, and for the CAO and CLA to identify the sources of the \$5 million proposed by the motion, potentially including the Police Department's budget.³⁵ The CLA's report was provided to the City Council on February 3, 2022, and it recommends that the \$5 million in funding consist of roughly \$3.84 million from the City's

³³ Motion by 9th District Councilmember Curren Price, Recovery Plan, September 1, 2021, https://d3n8a8pro7vhmx.cloudfront.net/thenewninth/pages/24/attachments/original/1630542228/Stamped_27th_Street_Motion_.pdf?1630542228

³⁴ Motion by 9th District Councilmember Curren Price, Recovery Plan, September 1, 2021, https://d3n8a8pro7vhmx.cloudfront.net/thenewninth/pages/24/attachments/original/1630542228/Stamped_27th_Street_Motion_.pdf?1630542228

³⁵ Motion by 9th District Councilmember Curren Price, Recovery Plan, September 1, 2021, https://d3n8a8pro7vhmx.cloudfront.net/thenewninth/pages/24/attachments/original/1630542228/Stamped_27th_Street_Motion_.pdf?1630542228

Reserve for Extraordinary Liability Fund and \$1.16 million in LAPD funds.³⁶ The LAPD identified funds available through a review of departmental expense accounts.³⁷ The CLA further recommends that the \$5 million be distributed in the following manner: \$1.06 million for the Community Investment for Families Department to continue to house displaced individuals; \$1.18 million for the repair of damaged properties; \$2.12 million for the operation and management of the Recovery Center; and \$650,000 to repay Council District 9's Environmental Equity and Justice Fund for a loan that it previously provided to the Community Investment for Families Fund to house displaced individuals. Adoption of the CLA's recommendations remains subject to Mayoral and City Council approval.³⁸

vi. Notification of Incident to Impacted City Officials

This incident occurred in City Council District 9 (CD 9), which is represented by Councilmember Price. The OIG evaluated the communication that was provided by the Department to Councilmember Price's office in the lead up to the detonation of explosive material within the boundaries of CD 9. As is the case with other Council Districts, Councilmember Price's office receives various alerts from the Department Operations Center (DOC) as part of the ordinary course of business. At 10:24 a.m. on the day of this incident, a DOC Alert was sent to his office saying, "The Bomb Squad is responding to the 716 E 27th St to retrieve 500 boxes of fireworks. There are no known threats associated with this incident."

At the July 28, 2021 meeting of the Los Angeles City Council, Councilmember Price asked Chief Moore why his office was not provided a notification prior to the detonation of the explosive material in the TCV. Chief Moore replied that the Councilmember should have been provided a notification of evacuations as well as a planned detonation by the local command, but that the Department "fell short."³⁹

While officers on the scene of the incident arguably should have used their discretion to notify the DOC of the forthcoming detonation, which in turn would have triggered a notification to Council District 9 as well as other relevant entities, existing policy is vague with regard to this procedure. The Department Manual lists instances when notifications should be sent to the DOC, including categorical use of force incidents, fatal traffic collisions, and major demonstrations or mass arrests, among others.⁴⁰ The Manual also specifies "bomb squad callouts" and "other incident[s] that an officer in charge or watch commander feels should be brought to the attention of the Department."⁴¹ Given that a Bomb Squad callout notification had

³⁶ 27th Street Neighborhood Recovery Plan, Report of the Chief Legislative Analyst, February 3, 2022, https://clkrep.lacity.org/online/docs/2021/21-0775-S1_rpt_cla_02-03-22.pdf

³⁷ Funding Related to the LAPD-Controlled Detonation of Illegal Fireworks on East 27th Street, Report of the Chief Administrative Officer, September 3, 2021, https://clkrep.lacity.org/online/docs/2021/21-0775_rpt_cao.pdf

³⁸ 27th Street Neighborhood Recovery Plan, Report of the Chief Legislative Analyst, February 3, 2022, https://clkrep.lacity.org/online/docs/2021/21-0775-S1_rpt_cla_02-03-22.pdf

³⁹ Regular City Council Meeting, July 21, 2021, <https://www.youtube.com/watch?v=U1mjLw1eHt0>

⁴⁰ LAPD Manual 4/214.50, Department Operations Center Notifications.

⁴¹ LAPD Manual 4/214.50, Department Operations Center Notifications.

been made earlier in the day, and given that the planned detonation was expected to occur without incident, personnel on the scene may have considered an additional notification specifically regarding the forthcoming detonation to be unnecessary. In any case, whatever the reasoning, no such additional DOC notification was made.

IV. CONCLUSIONS

Prior to the completion of this report, the OIG reviewed the ATF's comprehensive investigation of the incident as well as the Department's After Action Report on the incident. This provided the OIG with an opportunity to cross-reference any conclusions independently developed in its inquiry and review with the conclusions reached by the ATF and the Department. The OIG found that, overall, all three inquiries reached essentially the same conclusions.

A. Cause of Catastrophic Failure

The ATF Report established that the cause of the TCV failure was the overloading of the TCV with the combination of disposal explosives and a counter charge. The OIG findings further identified the series of decisions, team dynamics, training concerns, and standard operating procedures that contributed to the miscalculation of NEW in this incident. Upon reviewing all of the statements provided to the ATF by the Bomb Squad personnel involved in this incident, it was clear that the practice of visually estimating the weight of the disposal product was the only method used by the LAPD Bomb Squad during TCV detonations, both prior to and including this one. The reason given for this practice was repeated in several of the interviews of involved personnel and was simply that the quantity of disposal product for all prior TCV detonations was minimal and never appeared to approach what they believed was the maximum quantity or rated capacity of the TCV. It was also clear from the interviews that none of the Bomb Squad personnel had an accurate understanding of the rated capacity of the TCV and that the limited information they had acquired was informally gathered in conversation with other staff, as opposed to through any formal TCV training process.

The OIG determined that the current Bomb Squad SOPs do not address specific requirements for physically weighing explosive materials. They also do not address any requirements or circumstances related to transporting disposal product to a designated safe area for detonation, nor do they address when it might be appropriate or necessary because of safety considerations to detonate disposal product on scene.

B. Training

The OIG's review determined that, overall, the training received by members of the Bomb Squad meets or exceeds the standards set for personnel assigned to that unit, and also that the training provided is on par with national best standards. The available evidence shows that Bomb Squad personnel are very experienced with many types of explosives that may be encountered during their call-outs, including the flash powder-based explosives found in this incident. However, the OIG's review also revealed that Bomb Technician E, who was primarily responsible for the construction of the counter charge in this instance, did not meet the minimum training standards for any of the five years prior to this incident.

The review of training hours also revealed that, during the year 2016, just under 10,000 training hours were completed by Bomb Squad personnel. This number fell to 9,000 hours of training in

2017 and 2018. The total continued to drop to just over 8,000 hours of training in 2019, and it fell even further to 6,873 hours of training in 2020. The number of training hours for 2021 was 3,042 with six months of the year completed, which indicates the potential of a continued downward trend in the number of training hours completed by Bomb Squad personnel this year. The OIG believes that this reduction in overall training hours from year to year since 2016 is an issue that should be addressed by the Department.

C. Current Status of Involved Personnel

As reported by Chief Moore, the Bomb Squad personnel involved in this incident have remained on paid administrative leave or station duty status since the incident occurred. It is anticipated that these employees will remain in this status until the completion of the personnel complaint investigations initiated as a result of this incident.

D. Current Procedure for Similar Incidents

The Commander of the Bomb Squad has advised the OIG that, pending the implementation of the recommendations discussed below, incidents occurring within LAPD jurisdiction that require the use of a TCV will result in the provision of mutual aid as per the Department's agreements with both the Los Angeles County Sheriff's Department and the Ventura County Sheriff's Department. No on-scene TCV detonations will occur within LAPD jurisdiction pending the implementation of recommendations for improvement to the Bomb Squad.

E. Supervision Deficiencies

The OIG found that there was a lack of active supervision of the Bomb Squad personnel at the scene of the incident. Detective A took a hands-off approach to his duties in an attempt to make his subordinates feel more comfortable. In his interview with the ATF, Detective A said that he wanted to allow his subordinates to develop an action plan, without his input. Detective A said that he told his team, "Here's what we're dealing with. I need you guys to come up with a plan. Let me know what your plan is." He then walked away. He told the ATF, "My role is... I try not to oversee or stand in on the discussion. One is, I'm their supervisor, but more importantly I don't want them to think, I don't want them to ask questions and think, like, oh hey, you know, I may let him know that I don't know what I'm talking about, I don't want to ask a dumb question..." Detective A continued, "You know, I understand how they feel, as a police officer, to maybe not want to speak up in front of their supervisor, so I just said, hey listen, this is what we're gonna deal with, you guys let me know what the plan is going to be. And I stepped away and just continued to oversee the fireworks removal..."

After the bomb technicians came up with the plan to conduct a single TCV shot to dispose of the IEDs, Detective A heard Bomb Technician C express his concern about the forthcoming detonation. Detective A asked what the concern was, and he said Bomb Technician C replied, "This is gonna be a hot shot." Detective A said he heard Bomb Technician E ask whether the concern was the quantity of devices or the Net Explosive Weight, and that he did not hear Bomb Technician C offer any response. Detective A told the ATF interviewers, "I said okay, I go, well hey, I go, well hash it out, I go, why don't you guys hash it out, have that conversation, I'm gonna step away, I said because I want to make sure that you can hear it. You guys can have the conversation and then not - - what I've always done and my role has always been, we're gonna come together and say I put it on you guys to come up with a plan, it's my responsibility to make

sure that plan falls within the parameters. I don't necessarily want to be involved in the planning process, I want to be involved in the outcome process. So I said, I'm gonna step away. You guys decide what you guys want to do."

Detective A said that he later returned to the bomb technicians to learn the outcome of their concerns, but that no one had brought any concerns to his attention that would have derailed or changed the plan from the one they had previously developed. At one point in the interview with the ATF, Detective A talked about Bomb Technician C, stating "[Bomb Technician C] was the most senior explosive expert on scene that day and with his knowledge, you know a lot of times I would go to him and say, hey you know, can you just make sure that, you know, they know what they're doing, and if they have any questions, you know, just be there for them." It appeared to the OIG that although Detective A recognized Bomb Technician C's expertise, he did not take action based on the concerns that Bomb Technician C had raised.

Detective A also said that the reason the bomb technicians decided to X-ray and remotely cut open two of the explosive devices as samples was not to measure or determine the type and amount of explosive inside, but to collect evidence for a potential criminal prosecution. He said that the unit had recently been involved in a disagreement with an employee of the District Attorney's office over the prosecution of another suspect charged with fireworks violations. The issue in that instance was whether the Bomb Squad had collected sufficient evidence to support a criminal prosecution. Because of this recent issue, they decided to X-ray and cut open two samples in order to support a prosecution in this case.

Detective A went on to say that it was never the practice of the Bomb Squad to physically weigh a suspected explosive before conducting a TCV detonation. He told the ATF interviewers, "It's always been estimates, based on X-ray and weight. We've always just taken a, hey, you know, you pick it up, we're gonna move it, right, we're handling it, um okay, let's estimate this, and then we look at the powder line fill, and then we're also relating that back to what's our knowledge of commercially manufactured items."

Detective A indicated that the unit does not complete written calculations of NEW for disposal products or for counter charges. He stated, "We historically we have never calculated TCV shots, unless it is we are dealing with breaching charges and people. So ever since I was there, I mean no one's ever, I've never seen anyone do a calculation on a TCV shot." When asked if anyone had performed calculations for the counter charge in this incident, Detective A replied, "No. No one had written anything down to the point where - - nor was I aware of anyone doing a calculation on an app, No." He continued, "... in hindsight, you look back and go, yeah you know, we're good at it, we know how to do it, but we've always just said, hey man, we know the limit we're reaching up to, so we know RE factors, we know weights, so if we look at it we're like estimating so much det cord, caps, and the RE factor of our detasheet, so like okay, eight pounds. Now if any other bomb technician on that scene had told me, you know I think it's this, I probably would have been more inquisitive."

With regard to making the final decision to conduct a single TCV shot in this instance, Detective A stated, "It was a deviation from the standard that we've done, not a deviation from our procedures. Our procedures don't say you can't introduce 241 items into the TCV. Everything I've ever been taught, everything we've ever discussed has always been what's the net explosive weight and what's the range the TCV can take. I'm not gonna go with, you know, the visual

optic of, man, that thing looks like a lot, alright. Okay, but the feedback and the discussion amongst everyone was, this is a math problem, and if everyone's comfortable doing the math and the math you come up with is that you are within 18-24 pounds, we're well within that range. I am comfortable because the TCV on a daily operating basis should be able to take that, and that was in my mind as I'm overseeing this operation."

Again with regard to the concerns that were raised by Bomb Technician C, Detective A said, "[Bomb Technician C] had made that comment earlier, just when [Bomb Technician E] was present, but there was no one ever again brought any opportunity or brought any concern forward to me about whether or not we should proceed down a different path regarding the plan." He continued, "As a supervisor and been a bomb tech, I was on that scene for 9, 10 plus hours before the explosion. There was not one moment where anyone pulled me aside and said [Detective A], I'm not comfortable with this individually, nor did collectively they come forward and say, hey [Detective A], I'm not comfortable with this. I was operating with what these, us as experts were safe and felt comfortable doing."

The available evidence indicated to the OIG that a lack of active supervision and a failure to utilize best practices at the scene of Bomb Squad calls had become somewhat of an accepted practice. It is the opinion of the OIG that Detective A failed to recognize numerous indicators that this incident required a higher level of supervision than that which was provided.

V. RECOMMENDATIONS

A. Department Recommendations

Prior to the completion of this report, the Department released its After Action Report on the 27th Street explosion. That report included a comprehensive list of actions that have already been taken, or are in process, to address the concerns identified by the Department as a result of the incident. The OIG concurs with all of these actions, which are listed here as found in the Department's Report:

- 1a.** Revised the notification process to the Officer in Charge as well as the Emergency Services Division, Commanding Officer.
- 1b.** Revised the notification process up the chain of command to include Office of Operations notifications to the relevant Council District.
- 2a.** The Officer in Charge and the Commanding Officer, Emergency Services Division, are now required to respond to incidents based on criteria of the call and/or the resolution proposed to render the device/item safe to provide command oversight.
- 3a.** Re-write of the SOP to include clarity and specificity on the usage of the TCV for transportation, including its operating limits and inspections.
- 3b.** Implementation of a system that requires Bomb Technicians to document and verify all calculations with a Supervisor's review and approval for all Render Safe Procedures (ICS 208HDM).
- 3c.** Formal request to the TCV manufacturer to provide a revised manual to remove inconsistencies and provide clear capacity guidelines.
- 4a.** Scheduled training with the TCV manufacturer to provide training to all Bomb Squad members in its use within the manufacture's guidelines.
- 4b.** Scheduled training with the TCV manufacturer for training on the inspections and maintenance of the TCV.

- 4c.** Create a TCV Cadre to include a Bomb Squad Supervisor, Bomb Squad Technicians, and a Logistics Officer to provide continuous training to members of the Bomb Squad as well as to continuously research best practices for TCV use.
- 4d.** Formal request that ATF NCETR (National Center for Explosives Training and Research) develop a curriculum on high density urban disposal options, to include the use of a TCV.
- 5a.** Certify the trailer mounted TCV to safely transport explosives to a safe location/range for disposal.
- 6a.** Re-introduce a working group to research potential sites for an Explosive Disposal Range for acquisition and development.
- 6b.** Develop a working group to pre-designate sites in the city/region that will allow the Bomb Squad the option to transport items that are unsafe to store to a safe location where they can be rendered safe.

B. OIG Recommendations

In addition to the above-noted actions, the OIG makes the following recommendations based on its own analysis of the incident:

- 1.** The Department should conduct a review of the Bomb Squad training policies and schedule to ensure that all personnel are meeting the minimum annual training requirements and to determine the reason for the significant decline in overall training hours over the last 5 years.
- 2.** The Department should require appropriate measuring scales to be included as mandatory equipment in each Bomb Technician utility truck as well as on the BAT.
- 3.** The Department should update its policy to mandate comprehensive documentation of evacuations as well as to clarify procedures for notifying pertinent government agencies and offices about evacuations in a particular area of the City. The Department Manual currently contains minimal detail related to evacuation procedures or direction about when personnel should send notifications regarding evacuations to the DOC.
- 4.** The Department should assess the potential role of fatigue in the Bomb Squad's decision-making process during the 27th Street Incident and implement adjustments to employees' work schedules to minimize fatigue, if deemed appropriate. All of the bomb technicians assigned to this incident had been working since the early morning, prior to responding to the 27th Street scene. They were then tasked with moving large quantities of commercial fireworks before completing the TCV detonation of the IEDs. Bomb Squad personnel's physical handling and visual estimate of the disposal product weight, which was significantly miscalculated, was ultimately relied on in arriving at an erroneous final combined NEW. Furthermore, one Bomb Squad employee explicitly discussed feelings of fatigue while handling the disposal product due to exertion from carrying commercial fireworks earlier in the day. The capability for alert and rested thinking, particularly in dealing with such complex and consequential matters, may have proved invaluable in this situation.
- 5.** The Department should undertake a proactive and concerted effort to instill a culture in the Bomb Squad that:
 - a) Ensures bomb technicians are given a forum to fully share dissenting opinions on tactics while in the field;

- b) Encourages supervisors to take an active role in planning and decision making, and calls on them to thoroughly consider and analyze the opinions of their subordinates; and
- c) Emphasizes and reinforces precision and technical expertise on the part of all Bomb Squad personnel.

It is further recommended that any material changes to the operation of the Department's Bomb Squad (such as those listed above) that are being considered for implementation should be presented to the Board of Police Commissioners for review and approval.