



MEMORANDUM

TO: LeRonne Armstrong,
Chief of Police

FROM: Trevelyan Jones, Captain,
Ceasefire Section

SUBJECT: Gunshot Location Detection
System (ShotSpotter) – 2020
Annual Report

DATE: March 19, 2021

Background

Oakland Municipal Code (OMC) 9.64.040: Surveillance Technology “Oversight following City Council approval” requires that for each approved surveillance technology item, city staff must present a written annual surveillance report for Privacy Advisory Commission (PAC). After review by the Privacy Advisory Commission, city staff shall submit the annual surveillance report to the City Council. The PAC shall recommend to the City Council that:

- The benefits to the community of the surveillance technology outweigh the costs and that civil liberties and civil rights are safeguarded.
- That use of the surveillance technology cease; or
- Propose modifications to the corresponding surveillance use policy that will resolve the concerns.

The PAC recommended adoption of OPD Department General Order (DGO) I-20: “Gunshot Location Detection System” at their October 3, 2019 meeting; the report was presented to the City Council on November 19, 2019 and adopted by the City Council via Resolution No. 87937 C.M.S. DGO I-20 requires that OPD provide an annual report to the Chief of Police, the Privacy Advisory Commission (PAC), and the City Council. The information provided below is compliant with OMC 9.64 and the annual report policy requirements.

2020 Data Details

- A. A description of how the surveillance technology was used, including the type and quantity of data gathered or analyzed by the technology:

ShotSpotter technology was used in the following ways/with the following outcomes in 2020:

- *The number of times ShotSpotter technology was requested: ShotSpotter alerted OPD to 6,053 unique gunshot incidents from January 1 – December 31, 2020. Of those alerts, 5,507 (91%) were not called in by the community and OPD would not have known about them nor have been able to respond in a timely fashion. This information is based on an analysis of calls with 15 minutes and 300 feet of a ShotSpotter alert.*
- *123 shooting victims related to ShotSpotter alert notification, 22 of which were homicides and 101 were injured.*
- *1,526 crime incident reports (26% of total activations)*

- 1,395 (91%) were for firearm-related crimes (**Table 1** below categories these crime incidents), **Table 2** further below illustrates gun recoveries resulting from ShotSpotter activations.
 - 131 (9%) were for non-firearm-related crimes.
 - 1,170 (77%) of these incidents resulted in OPD Crime Lab requests for further firearm forensic analysis.
- *These incidents are connected with the following further support from ShotSpotter:*
 - *Five detailed forensic reports*
 - *Expert witness and court preparation for eight cases*

B. Whether and how often data acquired through the use of the surveillance technology was shared with outside entities, the name of any recipient entity, the type(s) of data disclosed, under what legal standard(s) the information was disclosed, and the justification for the disclosure(s):

1. *OPD and the Oakland Housing Authority Police Department entered into a Memorandum of Understanding (MOU) in 2012, following City Council approval, to fund the initial ShotSpotter program in areas of the City and near OHA buildings known for higher levels of gun shots. This MOU allows OPD to share access to the ShotSpotter cloud-based portal with OHA PD personnel.*
2. *Personnel from the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) who participate in the Council-approved OPD-ATF Taskforce also have access to the ShotSpotter System.*
3. *Staff from the Oakland Unified School District (OUSD) Police Department (disbanded by vote of the OUSD School Board in 2020) were formerly provided access to OPD's ShotSpotter System.*

C. Where applicable, a breakdown of what physical objects the surveillance technology hardware was installed upon; using general descriptive terms so as not to reveal the specific location of such hardware; for surveillance technology software, a breakdown of what data sources the surveillance technology was applied to:

OPD has contracted with ShotSpotter to install GLD sensors in different areas (phases) in several parts of the city. The total coverage area for the current ShotSpotter system comprises 15.38 square miles or approximately 25 percent of the city. OPD has chosen to install the sensors in areas most prone to gunshots based upon historical data. Many areas in East and West Oakland now benefit from the GLD system.

Most sensors are placed approximately 30 feet above ground level to maximize sound triangulation to fixed structures (e.g., buildings); at this altitude, the sensors can only record limited street-level human voice sounds. Furthermore, ShotSpotter only retains the audio for one second prior to a gun shot, and one second after.

D. Where applicable, a breakdown of where the surveillance technology was deployed geographically, by each police area in the relevant year:

Attachment A to this report provides the geographic areas of the City of Oakland that comprise the three ShotSpotter “phases” or areas covered under the current OPD-

*ShotSpotter contract. These areas intersect with all five official OPD Police Areas with a focus on areas where gunfire has historically occurred with greater regularity. **Attachment B** to this report is a weekly public ShotSpotter Activation Report for the week of March 8-14, 2021; this later report highlights areas of Oakland where ShotSpotter alerts have most recently occurred.*

- E. A summary of community complaints or concerns about the surveillance technology, and an analysis of the technology's adopted use policy and whether it is adequate in protecting civil rights and civil liberties:

Oakland Councilmembers have shared with OPD that members of the public are requesting greater ShotSpotter coverage into areas beyond the 15.36 square miles of current coverage (see #J below). OPD is not aware of complaints critical of the ShotSpotter system during 2020.

- F. The results of any internal audits, any information about violations or potential violations of the Surveillance Use Policy, and any actions taken in response unless the release of such information is prohibited by law, including but not limited to confidential personnel file information:

Regular review of the system from OPD and ShotSpotter personnel did not result in any findings. The ShotSpotter coordinator maintains records of any time outside agencies request OPD ShotSpotter data.

- G. Information about any data breaches or other unauthorized access to the data collected by the surveillance technology, including information about the scope of the breach and the actions taken in response:

Neither OPD, ShotSpotter, nor the city's IT Department are aware of any data breaches of ShotSpotter data or technology in 2020.

- H. Information, including crime statistics, that helps the community assess whether the surveillance technology has been effective at achieving its identified purposes:

Table 1: ShotSpotter Activations Resulting in Incident Report for Firearm Crimes by Category

Cases by Firearm-Related Crime Type	No.
Homicide	15
Assault with a Firearm	129
Shoot at an Occupied Home/Vehicle	85
Shoot at an Unoccupied Home/Vehicle	17
Negligent Discharge of a Firearm	977
Weapons Violations (including exhibit/draw)	166
Robbery with a Firearm	6
Total Cases	1,395

Table 2: Firearm Recoveries in 2020 Connected to ShotSpotter Activations illustrate Guns Recovered

Firearm-Related Crime Type	No.
Homicide	1
Assault with a Firearm	21
Shoot at an Occupied Home/Vehicle	3
Negligent Discharge of a Firearm	9
Weapons Violations (including exhibit/draw)	24
Battery	2
Total Cases	60

- 69 weapons seized (more than one firearm may be from the same incident).
- 525 incidents when advanced situational awareness was provided to responding patrol officers on their way to crime scenes in high danger situations that required specific approach tactics such as multiple shooters, high capacity or automatic weapons being used, and drive-by shootings.

I. Statistics and information about public records act requests regarding the relevant subject surveillance technology, including response rates:

There were six (6) new ShotSpotter requests opened in 2020. Two are closed. Four are still open. There are ten total ShotSpotter Requests open as of the production of this 2020 data report.

J. Total annual costs for the surveillance technology, including personnel and other ongoing costs, and what source of funding will fund the technology in the coming year:

Total paid in 2020 was \$592,010 for 15.36 square miles of coverage. These fees encompass all services ShotSpotter currently provides to Oakland. There are no additional charges for meetings, reports, analysis and training. These funds come from OPD's General Purpose Fund.

K. Any requested modifications to the Surveillance Use Policy and a detailed basis for the request:

OPD is considering changes to DGO I:20; OPD will make a separate recommendation with specific policy change recommendations to the PAC.

OPD is committed to providing the best services to our community while being transparent and instilling procedural justice through daily police activity. This report is compliance with these OPD commitments as well as the reporting requirements of OMC 9.64. OPD hopes that this report helps to strengthen our trust within the Oakland community.

For any questions with this report, please contact Trevelyan Jones, Captain, OPD, Ceasefire Section, at tjones@oaklandca.gov

Respectfully submitted,

Trevelyan Jones

Trevelyan Jones, Captain, OPD, Ceasefire Section

Reviewed by,
Drennon Lindsey,
Deputy Chief, Bureau of Investigations

Paul Figueroa, Captain
OPD, Criminal Investigations Division

Prepared by:
Bruce Stoffmacher, Privacy and Legislation Manager
OPD, Bureau of Services

Attachment A - Shot Spotter Coverage Areas

Phase I with red borders (Activated in 2006): 6.2 square miles

East Oakland: East of High Street to 106th Avenue

West Oakland: East of Highway 980 to Frontage Road

Phase II with blue borders (Activated in 2013): 6.4 square miles

East Oakland: West of High Street to Park Boulevard

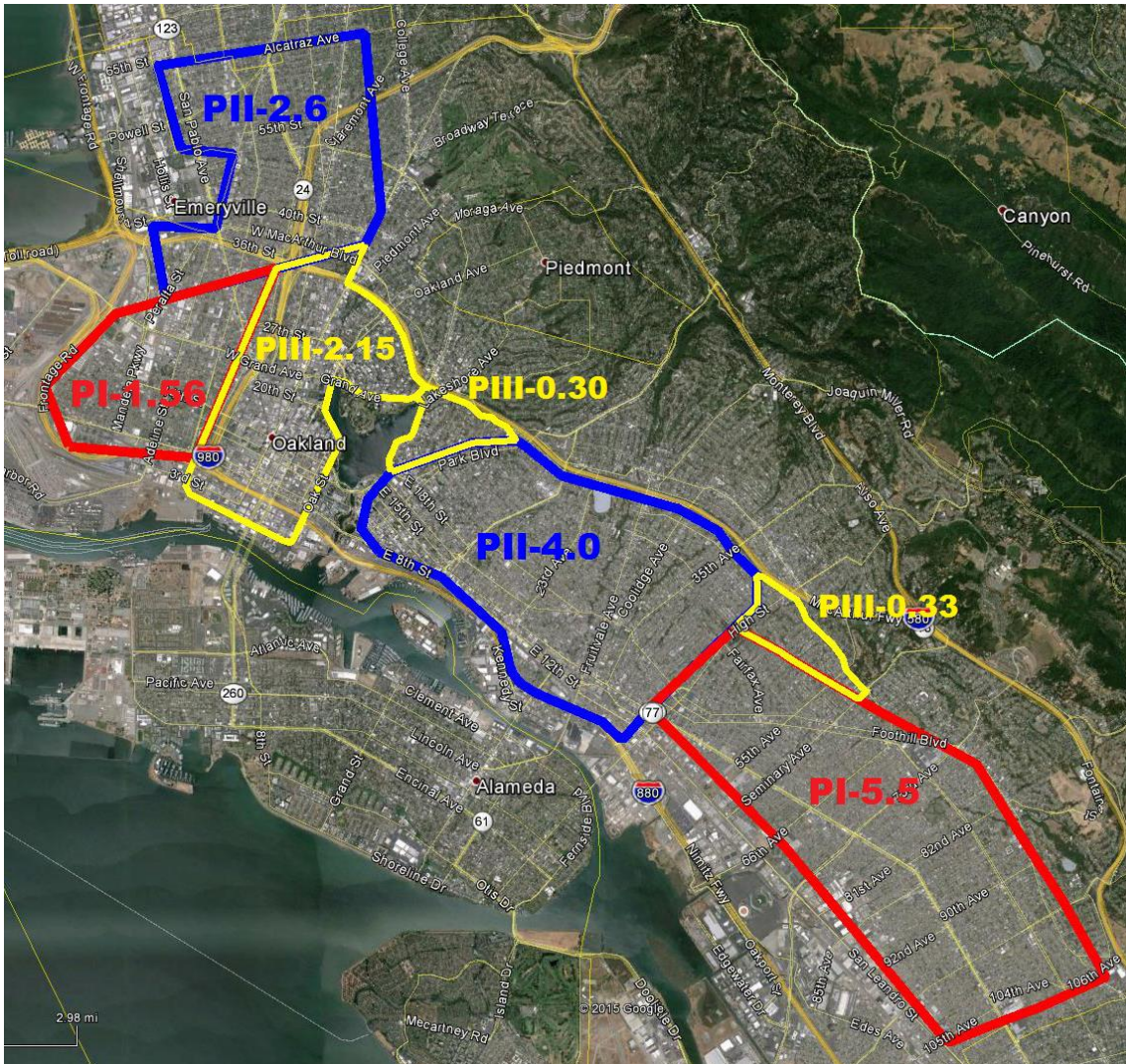
North Oakland: North of Highway 580 to Alcatraz Avenue

Phase III with yellow borders (Activated in 2016): 2.78 square miles

Downtown Oakland: Jack London Square to about West MacArthur Boulevard

Cleveland Height area: East of Lake Merritt to Highway 580 & Park Boulevard

Maxwell Park: East of High Street to Highway 580 & Mills College

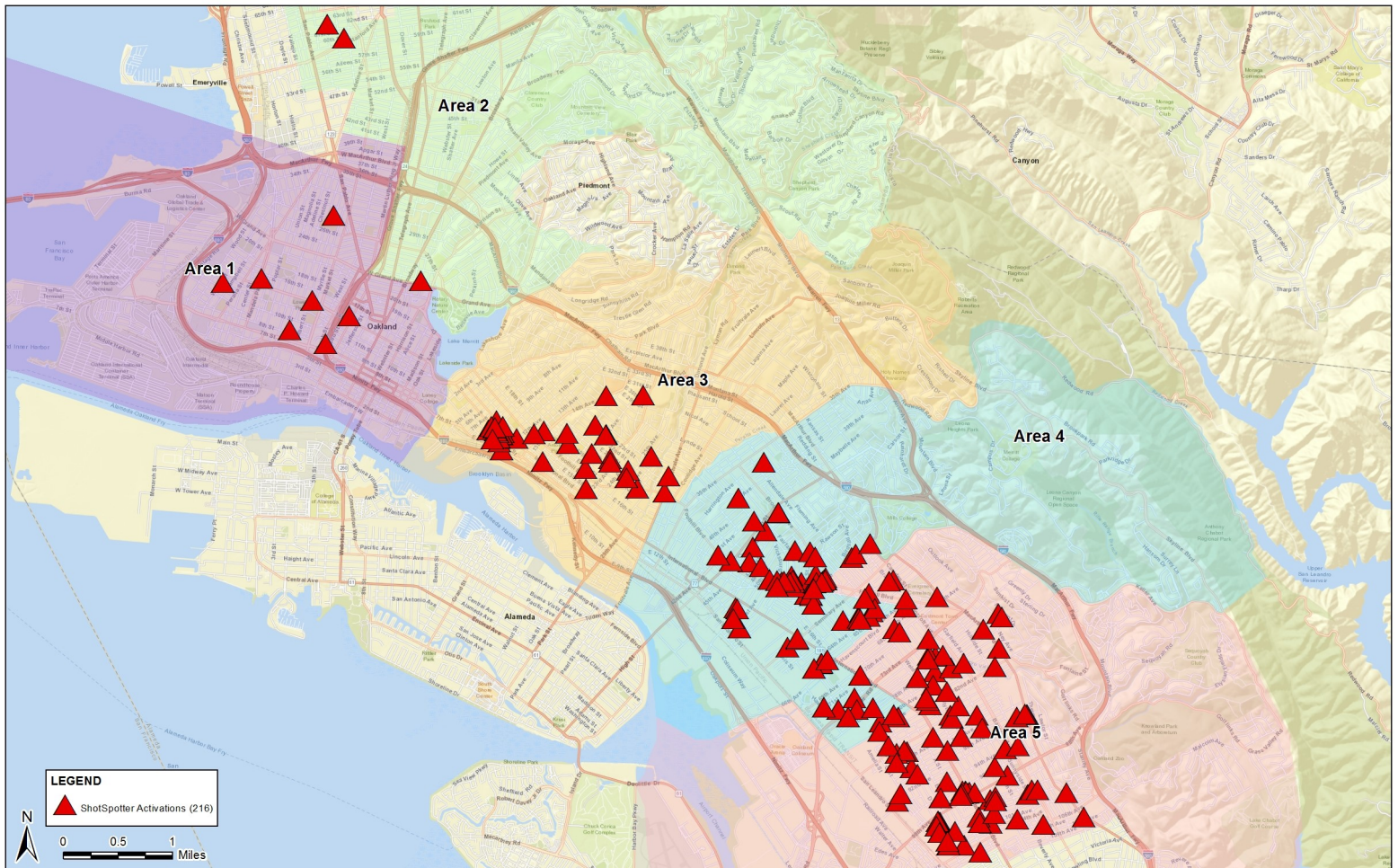




Weekly ShotSpotter Activations Report — Citywide

08 Mar., – 14 Mar., 2021

ShotSpotter Activations	Weekly Total	YTD 2020	YTD 2021	YTD % Change 2020 vs. 2021
Citywide	216	763	1,967	158%
Area 1	7	67	179	167%
Area 2	3	29	62	114%
Area 3	38	158	364	130%
Area 4	77	197	502	155%
Area 5	91	312	860	176%



All data sourced via ShotSpotter Insight.

Produced by the Oakland Police Dept. Crime Analysis Unit.