SHOTSPOTTER GUNSHOT DETECTION SYSTEM ACTIVITY REPORT

JUNE 15, 2009

CHIEF RONALD L. DAVIS

In 2007, the City of East Palo Alto entered into an Agreement with ShotSpotter, Inc. to install a gunshot detection system in a designated .5 square mile area of the City. The ShotSpotter system uses technology that triangulates the distinctive sound of gunfire and identifies the location of that sound within 7 feet. This occurs within seconds of the event, well before community members often calls 911. The system was activated on December 31, 2007.

The Agreement was unique in that ShotSpotter provided the system at no cost to the City, who in turn, agreed to serve as a software validation site. ShotSpotter also agreed to install the system citywide at a reduced cost to the City. In 2008, the City received a grant from the United States Department of Justice to expand its coverage. The system was activated on December 31, 2008, making East Palo Alto the first city in the United States to achieve citywide coverage

The purpose of this report is to: 1) provide the community a brief overview of the activities surrounding the ShotSpotter system since its installation; 2) discuss its impact on violence reduction in the City, and 3) outline the Department's next steps to further reduce gun violence. The Department is collaborating with ShotSpotter to complete a more comprehensive study which will be distributed throughout the law enforcement industry.

Activity
Between December 31, 2007 (the initial activation date) and April 30, 2009, the ShotSpotter system has tracked **831** gunshot incidents. Below is the number of arrests and firearm recoveries that stemmed from the ShotSpotter system:
   ➢ 14 Arrests
   ➢ 13 Firearms

ShotSpotter has also aided investigators in determining the exact location of a shooting scene in the following cases:
   ➢ 1 – Homicide
   ➢ 4 – Attempted homicides
   ➢ 42 – Shooting incidents

In two separate shooting cases, the system revealed false statements provided by the victim. In one case, the victim responded to a hospital and stated he was shot in the city. The system disproved that statement and it was later determined that he accidentally shot himself during a robbery in a nearby city. In the other case, the victim stated he, too, was shot in the city. The system disproved that statement. It appears he was shot during a hate-crime in another city.

Patterns and Trends
Prior to the ShotSpotter installation citywide, the City received approximately 500 reported gunshots calls annually, for an average of 41 a month. Because of underreporting, it was our belief that the accurate number was more likely to be two to three times greater than the actual calls received. The system has proven that belief correct: in 2009, the monthly average is **112.**

| Month	2009
January	141
February	90
March	86
April	132
Year End Total	449
Average	**112**

Our ability to understand not only the cause and affects of gun violence, but the precursors to it, such as gunshot calls, drug activity, graffiti, and calls for service, enhances our ability to reduce and prevent future violence.

For example, our analysis shows that the majority of the ShotSpotter activations (actual gunshots in the City) occur on Saturday. Tuesday recorded the lowest number of activations. Below are the total numbers of activations per day of the week:

- 118 activations on Sunday
- 74 activations on Monday
- 67 activations on Tuesday
- 135 activations on Wednesday
- 152 activations on Thursday
- 131 activations on Friday
- 154 activations on Saturday

Frequency of ShotSpotter Activation
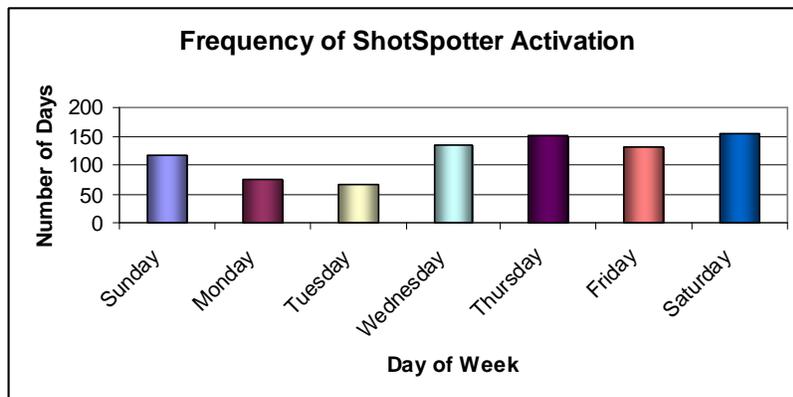
The most frequent hours of day vary depending on the day of the week. For example, on Saturdays (which recorded the highest number of activations) the highest number of activations occurred between midnight and 6:00a.m. On Friday, however, the highest number occurred between 6:00p.m and midnight.

Time Frame Per Day of the Week
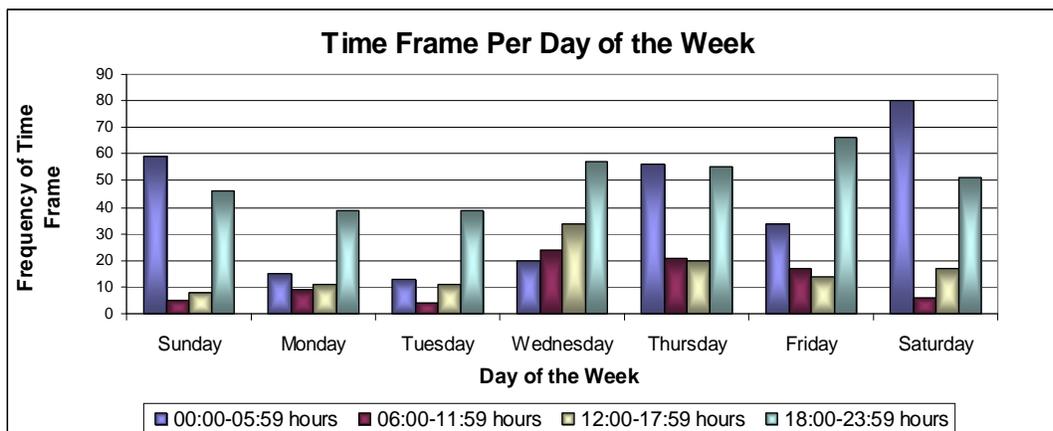
Top Five Locations
Based on our analysis, the Department is able to identify the specific locations that received the highest number of activations.

Although the system provides exact addresses, the Department will not release addresses at this time until it has had the opportunity to work with the owners and/or residents to identify whether they are victims of this activity or responsible (directly or indirectly) for it.

Below is a chart that outlines the top five streets in 2008 and 2009 combined.

Property Address Parcel and Owner Name	Number of ShotSpotter Activations
1600 Block of Bay Road	18
1800 Block of Bay Road	16
2100 Block of Pulgas Avenue	11
1600 Block of Bay Road	9
2000 Block of Bay Road	9

Below is a chart that outlines the top five streets in 2008 and 2009, respectively.

Top Five Locations in 2008	Number of Activations	Top Five Locations in 2009	Number of Activations
1600 Block of BAY RD	9	1800 Block of BAY RD	14
1000 Block of WEEKS ST	5	2200 Block of MENALTO AV	11
1600 Block of BAY RD	5	1600 Block of BAY RD	9
2400 Block of RALMAR AV	5	2000 Block of BAY RD	9
2400 Block of FORDHAM	5	2100 Block of PULGAS AV.	9

Hotspots
The analysis also revealed the areas of the city with high levels of activations, also known as "hotspots". The map below identifies the "hotspot" areas for 2009.
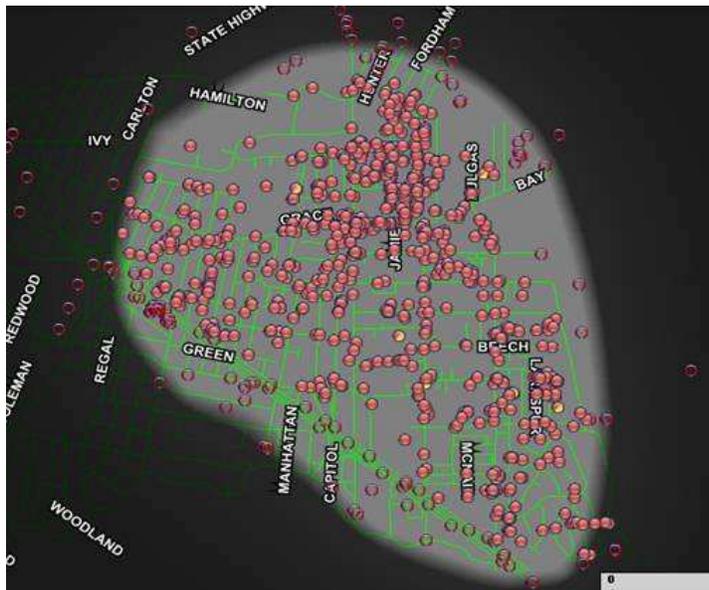
This analysis provided in this report (including the hotspot map) provides the Department the ability to strategically deploy its resources and work with the community to develop and implement effective measures to reduce gun violence.

Next Steps
Although the information contained within in this report is preliminary (a more in-depth report is forthcoming), it does enhance the Department's ability to strategically deploy resources to further reduce gunshot incidents. Based on this analysis, the Department will:

1. Deploy special enforcement units on the days of the week with the highest activations. The hours of these deployments will vary throughout the week based on the hours of the day with the most activations. The units will focus their efforts at the locations and hotspots with the most activations in both 2008 and 2009.

2. Conduct a CPTED (Crime Prevention Through Environment Design) review of each of the top five locations.

3. Conduct a comprehensive analysis of each of the locations, including gunshot activations, crime, calls-for-service, graffiti, gang activity, drugs, blight, and disorder.

4. Contact the owners and/or residents of each of the top 5 properties to develop a plan of action to reduce gun violence at these locations.

5. Partner with the community and faith-based organizations in the identified hotspot areas to identify prevention and intervention services available.

6. Partner with the California Department of Justice (DOJ) to conduct compliance-reviews of persons, who by law, are prohibited from carrying firearms.

7. Partner with the Bureau of Alcohol, Tobacco and Firearms (ATF) to target those who illegally sell firearms to our community – that includes those who reside in and outside of our community.

8. Establish an illegal possession of firearm reward program.

9. Conduct a "Gun-Buy Back" program.

Conclusion
Since the ShotSpotter system was implemented citywide, overall gun violence is down 18%. Although such a reduction cannot be contributed solely to ShotSpotter, it does appear the system has contributed to our efforts. Notwithstanding this success, the report clearly highlights an unacceptable level of gun related incidents and violence, and underscores the need for the police and community to continue to work together to aggressively fight crime and violence.

On behalf of the Police Department I'd like to thank you for support of the Department and your involvement in making our city safer.

Respectfully,

Ronald L. Davis
Chief of Police

MISSION

IT IS THE MISSION OF THE EAST PALO ALTO POLICE DEPARTMENT TO WORK IN PARTNERSHIP WITH THE COMMUNITY TO REDUCE CRIME AND VIOLENCE AND PROVIDE QUALITY LAW ENFORCEMENT SERVICES.

VISION

THE EAST PALO ALTO POLICE DEPARTMENT WILL BE NATIONALLY ACCREDITED AND RECOGNIZED AS AN INDUSTRY LEADER THAT IS COMMITTED AND RESPONSIVE TO THE NEEDS OF OUR COMMUNITY.

VALUES

- ➢ **S**ERVICE
- ➢ **T**EAMWORK
- ➢ **R**ESPECT
- ➢ **I**NTEGRITY
- ➢ **V**ISION
- ➢ **E**XCELLENCE

*"**STRIVE** FOR PERFECTION IN ORDER TO ACHIEVE EXCELLENCE"*