City of Phoenix

Police Department

False Alarm Reduction Plan
Phoenix Police Department  
Herman Goldstein Award Submission

SUMMARY

Phoenix is a fast growing city with new hamlets springing up almost over night. These communities are populated with largely single family homes due to the booming economy and affordable housing. Many of these developers offer pre-wiring for home security systems included in the cost of the homes. As a result, the number of home security systems active in the City has risen dramatically in the past decade. The increase in alarm systems brings with it a new challenge and problem for the police - false alarm activations. The burglary or panic alarms create a call for service with the highest priority of a crime in progress. Therefore, officers are immediately dispatched on these alarms only to arrive and find an erroneous activation by a homeowner or employee.

In the Ahwatukee/Foothills community, which is located in the southeastern most edge of Phoenix, there were three thousand five hundred and eighty one alarm calls in 1999. Due to the risk of a crime in progress, two officers were usually dispatched to each location. This equates to a total of seven thousand one hundred and sixty two units responding to these calls. At an average manpower cost of eighty-five dollars per call, this amounted to $303,790.00 spent during 1999 on just these types of calls for service. The real problem is that 99.8% of these calls were false alarms and preventable!

In January 2000, the supervisors and officers who service this area implemented a false alarm reduction program whose primary objective was to reduce these false alarms through the following methods.
• Public education of the problem and residents being encouraged to take responsibility for their own alarms.

• Free equipment inspections for residents and businesses in the community.

• Free seminars and demonstrations of most common equipment failures to business employees and residents attending Blockwatch meetings.

• Ensuring each alarm system is licensed with the City to allow for accurate maintenance and tracking for follow-ups.

• Monitoring of alarm installation companies for accountability on proper installation and quality maintenance of equipment.

• Personal contacts by the officers made with residents who have more than two false alarms in one year to offer an inspection to locate the cause of the false alarm and offer solutions.

The effects of the program are encouraging after the first quarter assessment. In the first month following the completion of one hundred and seventy four inspections and the public education campaign, these systems went from 9.2 false alarm dispatches per system to .32 false alarm dispatches per system. In comparison, the overall citywide false alarm dispatch per system rate is .74.

THE FALSE ALARM PROGRAM

Phoenix is the sixth largest city in the United States with a population of over 1.25 million residents. There are numerous communities within the city itself which take on an identity of their own based largely in part on their geographical location and economic and social structure of the residents.
The AhwatukeeFoothills community is one which has become active in issues and involved in a partnership with the Police Department in community based policing efforts. The community consists of a population estimated in 1999 at ninety-five thousand residents with the average cost of a home being one hundred seventy-five thousand dollars. It is estimated that seventy-five percent of these homes possess a home security system of some sort.

The community is unique - it is geographically bounded on the south by the Gila River Indian community and on the north by a mountain range which contains a city park titled South Mountain Park. The eastern boundary is the largest interstate, which connects Phoenix and Tucson. The AhwatukeeFoothills area is over thirty-nine square miles of mostly single family residences and approximately twenty large apartment complexes. Most of the commercial business is located on the interstate corridor spanning a half-mile west of the freeway. Every business is equipped with an alarm system.

This area is serviced with two or three officers per ten-hour shift with other officers available from the north side of South Mountain as a back-up. These officers experience a twenty-minute response time in emergencies. The AhwatukeeFoothills officers' response times to emergency calls for service were 28% longer than the rest of the Precinct.

In April 1999, the Phoenix Police Department embraced a new program in which a Lieutenant is assigned to each squad area as an Area Manager. The Area Manager is responsible for the evaluation and management of Department resources. In August 1999, the Area Manager, Lt. Germaine T. Barnes, was reviewing the information reference the calls for service and response times to attempt to identify what problems the
assigned resources were being dispatched to. It quickly became apparent that thirty-eight percent of the resources were being expended on alarm calls.

In 1999, a total of twenty-three thousand eight hundred and fifty-four calls for service were answered in this squad area comprising the Ahwatukee/Foothills hamlet. Three thousand five hundred and eighty one of those calls were alarm calls, one of the calls for service which require the highest priority response. Due to the nature of the calls two officers were dispatched, resulting in seven thousand one hundred and sixty-two units responding to these calls. It was found through disposition records that over 99.8% of those alarm calls were false. Most of the false alarms were due to either human error or equipment failure. At an average cost of $85 per call, this amounts to $303,790 spent during the past year responding to false alarms in just this one area.
ANALYSIS

The Area Manager and supervisors working in the Ahwatukee/Foothills area met to examine this problem closely and determine which partners should be a part of the problem analysis and problem solving efforts. They determined that the residents, business community and the alarm unit of the Police Department were important to the review of this issue as well as the alarm companies installing these alarms. The residents were represented by two groups, the Ahwatukee Crime Task force and the Phoenix Neighborhood Patrol Group. The Ahwatukee Chamber of Commerce represented the business community with one of it's members who is a security expert, and also installs alarms. Ms. Patty Rea of the Alarm Unit of the Phoenix Police Department led her group in the analysis of this problem.

A history of repeat false alarm dispatch calls was obtained through the False Alarm Tracking System (FATS). This system is used by the Alarm Unit to enforce the City Code on alarm systems and issue assessments for excessive false alarms responded to by police officers. By using FATS, staff in the Alarm Unit was able to print reports that listed the alarm user, address, false alarm history and location information. This information was then analyzed to identify the habitual locations and type of location, business or residential. The analysis revealed that of the five hundred and thirty locations which had false alarms in 1999 three hundred and twelve of those locations had three or more incidents of false alarms over the past year. Two hundred and eighteen locations had two or less activations in 1999. Approximately thirty-five percent of the locations were businesses and the remainder are residences.
False alarm dispatches have been a problem since 1977 in the City of Phoenix. The original city code regulating alarm systems, alarm companies, and false alarms was implemented in 1977, and has been revised as technology and response costs increase. The city code was revised in 1997 to a cost recovery fee, rather than a punitive, incremental fine structure. As a result, some alarm users paid the $74 assessment fee and did not understand the additional reasons for trying to eliminate additional false alarm dispatches.

Prior to the implementation of this program, the officers would complete a "false alarm card" after a dispatch to a false alarm incident. The owner, if properly licensed with the City, is allowed two false alarms per year without a fee and any subsequent alarms are assessed a response fee of $74 per incident. If the alarm owner is not registered properly each incident is automatically assessed the fee. The annual licensing fee costs $15 and the application provides updated responsible party information which can significantly reduce the amount of time officers spend at a location or having to return to the same location more than once in a shift for a recurring alarm. There were no other specific efforts to ensure these alarm owners were registered prior to this program.

The alarm calls for service were analyzed for trends by the supervisors and officers and surveys were completed with all the listed groups to determine their knowledge of the stated problem with false alarms as well as underlying causes. The survey results were extremely diverse. The officers and supervisors were aware of numerous alarm calls and had identified the two main causes, however, they were astounded by the percentage of repeat locations and the large percentage of the police resources being utilized. The citizen and business groups were truly shocked at the amount of resources required to
address these calls. The trends identified were different for the businesses than the residents. The peak calls at businesses were at opening and closing hours respectively. The residences indicated a more skewed time line throughout the day with a clear peak in the late afternoon when residents were returning home from work.

The disposition records were analyzed for these calls and indicated that equipment malfunction and human error were responsible for over 94% of these false alarms.

This information was presented to the business community through several newspaper articles, and community meetings. The public response in support of this program was overwhelming. Both the business community and the residents agreed immediate action was necessary.

RESPONSE

After carefully reviewing the data gathered regarding the false alarms, it was decided that the main objective of this program was to reduce the number of repetitive false alarms. A secondary goal was identified to educate the public about the problem and their alarms so they may take responsibility for their own systems and users to ensure future compliance.

It was determined that beginning in November 1999, the program would first target the analysis and brainstorming phases and start establishing partnerships within the community to address this problem and asking for their input on responses. In January 2000, the program would actually begin with a public awareness and education campaign, training of the officers to perform site inspections, establishing specific performance goals for the employees involved in the program, and commence the public presentations
by the Community Action officer and Alarm Unit personnel. The goal was to complete
100% of the site inspections for repeat locations of three or more alarms by March 30,
2000. The assessment phase was set to begin in April 2000, with the main emphasis
commencing with June 2000 through December 2000.

The supervisors and officers involved in this program first considered possible
responses to the alarm problem. The responses were discussed with the alarm unit staff
and citizen and business groups. This brainstorming produced numerous responses, the
majority of which were adopted. One consideration, which was not chosen, included
significantly raising the fee cost. This was deemed ineffective because the area is affluent
and many of the repeat offenders had paid numerous fines totaling over five-hundred
dollars already with no apparent impact. This also would most likely serve to anger
residents and harm the positive relationship between them and the Police Department.
One other response considered which was not initially chosen but later was modified and
adopted, is to enact a City Code requiring each alarm subscriber to submit to an
inspection and training on alarm use prior to activation or face a significant fine upon a
false alarm. This seemed too harsh and too much of a forced compliance approach. This
endeavor was modified to include a voluntary compliance approach by working with the
three largest realty companies selling homes in the area. We developed a system in which
they provide each new home buyer a flyer, which explains the problem with false alarms
and asks them to contact our community action officer to schedule a free site inspection.
This flyer also provides information about their neighborhood Blockwatch. At the
monthly Blockwatch meetings, the community action officer and representatives of the
Alarm Unit present a public awareness campaign and teach the home owners how to
inspect their own equipment. There are plans to expand this partnership to include the new home development companies.

In addition, the local community newspaper and the Ahwatukee Chamber of Commerce Newsletter printed articles educating their readership about this problem and asking for their support and cooperation in reducing these false alarms. Many of the residents and businesses voluntarily requested site inspections and training for their employees on proper use of alarms and frequent causes for false activations. Many of the businesses invited all managers and employees of their regional offices to the training. Several neighborhood groups such as the Desert Foothills Condominium complex requested and received the presentation. This complex has over one hundred and twenty units, all of which have alarms.

There is a squad of officers and a Sergeant assigned to each area for specific problem solving efforts. This squad is titled, Neighborhood Enforcement Team and they have received over twenty hours of Problem Oriented Policing training from Dr. Stuart Watson of Mississippi State University. This group of officers, along with several patrol officers, received comprehensive training on alarm site inspections from Ms. Patty Rea, of the Department's Alarm Unit. These inspections are designed to be informational to the subscriber as well as to ensure the alarm equipment is properly installed and functioning appropriately. The officer who performs the inspections completes a checklist which is then forwarded to the Alarm Unit for tracking purposes to ensure licensing and responsible party information remain current. The subscriber also receives a copy so that all necessary changes or repairs are listed. Finally, the subscriber is also made aware of
the installers and alarm companies obligations to properly maintain this equipment and possibly share any costs involved.

Initially, there was some resistance encountered by some of the most habitual repeat offenders. However, after the officers utilized exceptional communication skills to persuade the residents to allow them to assist in lowering their fees, most of the residents cooperated fully. In addition, another problem was discovered with the tracking system of site inspections. The supervisors had not created a master file or database on site inspection locations, therefore, there was some duplication of effort. This was discovered within the first few weeks of the program and quickly resolved by creating a master file of inspections completed.

ASSESSMENT

There were several criteria identified for use in assessment of this program. The first is the overall calls for service and also specifically, alarm calls. The comparison will be conducted by viewing the same months from 1999 to 2000. April and May of 2000 will be reviewed and compared to 1999. These numbers will be utilized to closely scrutinize the program, and make any necessary adjustments or changes needed. A second assessment will encompass June through December 2000, again comparing calls for service with the focus on a reduction in alarm calls after the site inspections and education are completed. Thus far the results show a positive reduction in alarm calls. Comparing April 1999, to April 2000, there were 330 and 246 calls, respectively. This is a 25% reduction in alarm calls.

The second criteria used for the evaluation of the program consists of the comparison of the number of false alarm dispatches before the site visits and the number after the visit
is completed. Third, a review of the officers' response times to all calls for service comparing the same months in 1999 to 2000. The belief is held that without having to respond to the exorbitant amount of false alarm calls, a reduction will occur in the time it takes to respond to other priority calls. This is based upon the assumption that the officers will be available more often to immediately respond to emergency traffic. Given the reduction of calls for service, the assessment has shown a 10% reduction in response time. Prior to the implementation of this program, response time for priority calls averaged 6.3 minutes. By implementing the False Alarm Program and educating the public on the importance of reducing false alarms, the assessment showed that response times to priority calls were reduced to an average of 5.7 minutes, which brings the Ahwatukee/Foothills squad area closer to the Phoenix Police Department's goal for response times to priority calls.

Finally, starting in December 2000, an assessment survey will be conducted on businesses and residents were a Site Inspection was completed. The goal of this survey is to determine if the alarm subscriber feels that they have a more effective alarm system. By having an increased knowledge of the alarm system and how it operates, including the responsibilities of the subscriber and the alarm company, the subscriber should have an increased confidence in the effectiveness of the alarm system. This benefit will also show a savings to the customer, remembering that after the second false alarm, a $74.00 fine will be assessed by the City of Phoenix.

Although the assessment phase is still early, the initial results show a very positive trend. Comparing January through April 1999, there were 934 alarm calls. Comparing the same months of the year 2000, there were 886 alarm calls. By comparing the same
months and years for the 170 sites inspected with three or more false alarms, there were 1,570 false alarm calls, or an average of 9.2 false alarm calls per site. After the inspection for the same 170 sites inspected, there were 55 false alarm calls, or an average of .32 per site inspected showing a 96% reduction in false alarm calls. Since the False Alarm Inspection Program was implemented, residents and businesses have shown an increasing support for the program. Requests for alarm inspections at homes and businesses have increased, with some requests from businesses for their employee's benefit.

Again the assessment phase is still early, but it appears that this program is successful based upon the positive reduction in repeat false alarm activations, the reduction in response time to priority calls for service, and ultimately in the public's support for this program through their realization of the need to reduce false alarm activations.

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