City of Phoenix
POLICE DEPARTMENT

Winner of the Carl Bertelsmann Prize for BEST RUN CITY IN THE WORLD

95-60

July 17, 1995

Mr. John Lusardi
Police Executive Research Forum
1120 Connecticut Ave., NW, Suite 930
Washington, DC 20037

Dear Mr. Lusardi:

The Phoenix Police Department is pleased to submit Ms. Patricia M. Rohrbacher, Police Alarm Coordinator, for the Herman Goldstein Excellence in Problem-Solving Award.

Ms. Rohrbacher has made significant contributions in working with the public and the alarm industry. Her many accomplishments have included involvement in the revision of the City of Phoenix Alarm Ordinance, development of the False Alarm Prevention Program which has generated national interest, creation of False Alarm Notification cards to be hung on doors when an officer responds to false alarms and providing information to any of the approximately 48,000 alarm subscribers who may need assistance on a daily basis.

Should you have any questions regarding this submission, please contact Ms. Patti Norton, Police Fiscal Administrator, Fiscal Management Bureau, at (602) 262-6058.

Sincerely,

DENNIS A. GARRETT
Police Chief

Enclosure

c: Planning and Research Bureau
Fiscal Management Bureau

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Police Alarm Coordinator
City of Phoenix
Police Department - Alarm Unit
February 1986 to Present

- Oversees the enforcement of the City of Phoenix False Alarm ordinance which affects 50,000 alarm subscribers and 389 alarm companies and results in $1.3 million in revenue.
- Responsible for supervision of seven employees within the Alarm Unit.
- Designed and implemented False Alarm Tracking System with Computer Aided Dispatch / Mobile Data Terminal compatibility; which handles all alarm call information, false alarm reports, extracted correspondence, invoicing and accounting for all alarm calls annually.
- Serves as liaison between the Police Department and National / Arizona Burglar and Fire Alarm Association; currently chairing the AFBAA Public Safety Committee, Association of Police Communications Officers, and Public Safety Answering Point Committee of Maricopa County.
- Created and implemented False Alarm Prevention Program and False Alarm Notification Card.
- Makes presentations to Phoenix City Council Public Safety Committee and Phoenix City Council.
- . Writes new ordinance language for staff review.
- Provides technical alarm system assistance to the Police Department, reviews equipment products and alarm company procedures and advises regarding ordinance requirements or prohibitions.
- Drafts reports, makes recommendations and interpretations relating to alarm system and the Alarm System Ordinance.
- Represents the Department for court depositions, trials and meetings relating to the Alarm System Ordinance and departmental procedures.

FALSE ALARM REDUCTION PLAN

Submission to
Police Executive Research Forum
July 18,1995

CITY OF PHOENIX
POLICE DEPARTMENT
620 WEST WASHINGTON STREET ROOM 142
PHOENIX, ARIZONA 85003

How many times has a police officer responded to an alarm call and found the alarm system activated because of a mylar balloon, a pet, or because someone did not close a door securely? Police departments across the country routinely waste thousands of hours on false alarms. This is costly for the departments and taxpayers and can lead to complacency on the part of police officers responding to repeated false alarms. The problem facing the City of Phoenix was how to create and manage a plan to reduce the volume of repetitive false alarms.

The City of Phoenix has enforced a city code on alarm systems since 1977. The code has always allowed a particular number of false alarms without an assessment, and once the alarm system generated excessive false alarms, alarm subscribers and their alarm company were assessed jointly and severally for those excessive false alarms. Enforcement of the code was handled by a unit within the Police Department called the Alarm Unit. In fiscal year 1989/1990, the Alarm Unit experienced a significant increase in the number of alarm systems installed, with an expected increase in the number of false alarms to which police officers were responding. At this time all enforcement procedures were done manually; letters and invoices were typed on typewriters. False Alarm Reports were compared to an address history and counted manually in order to determine what enforcement, if any, was needed. This process was in use from 1977 to 1990 and became unmanageable when false alarm activations went from 19,723 in 1985 to 80,271 in 1989.

Drastic changes were needed to accomplish the goal of the city code, which was to reduce the number of false alarms and ensure that police personnel were not unduly diverted from responding to actual criminal activity as a result of responding to false alarms. False alarms are a problem for the police, the subscriber, the alarm company and the general public because they drain personnel resources and tax dollars. Due to the manual process, the Alarm Unit could not determine the average number of false alarm activations per system or target problem subscribers to help eliminate false alarms.

A plan was devised to meet the goal of reducing false alarms. This plan entailed the automation of all functions involving alarm calls, provided information pertinent to all

involved parties, implemented programs for public education and awareness on costs and prevention of false alarms, and eliminated many common alarm activation problems through education of subscribers and alarm companies. Ms. Patricia Rohrbacher, police alarm coordinator, was instrumental in developing this plan.

The first step in the plan was to develop a False Alarm Tracking System (FATS) to be used in conjunction with the Computer Aided Dispatch (CAD) and Mobile Data Terminal (MDT) Systems. This tracking system would need to display and/or generate required information to all parties for any inquiries and provide information for public education and awareness programs. FATS was designed in 1990 using 25 databases and 45 programs at a software development cost of $17,500. The design of the tracking system started with the origination point of the alarm call when the alarm company called the Police Department for police response to an alarm activation. The tracking system was built to follow all of the Police Department procedures and guidelines, city code enforcement procedures, accounting practices, and legal ramifications. Ms. Rohrbacher met with alarm company representatives, police personnel, and various City departments including the City Attorney, Treasury Collections, and Auditing to determine that all aspects of information requested from the Police Department on any particular alarm user/subscriber or alarm report would be obtainable from the tracking system.

The CAD information call screen had been used by 9-1-1 operators to enter the original call information. This resulted in incorrect information due to typing errors or misunderstanding of verbal information given by the alarm company to 9-1-1 operators. In order to eliminate errors and streamline the efficiency of the 9-1-1 and alarm company operators, a permit number system was designed. This permit number is assigned for a particular subscriber at a specific address. The revision of the city code included provisions for the requirement of the permit application that was to be placed on file with the Police Department for any alarm system operating within the city of Phoenix.

The permit eliminated problems verifying the person responsible for the alarm system due to rental homes, winter visitors, apartment complexes, etc., because the permit

application was designed to obtain answers to various questions, such as ownership of the alarm system and ownership of the residence or business in which the alarm system was installed. The permit application allows the subscriber to list an alternate mailing address, the correct name of the alarm business, monitoring company, and information regarding the alarm system. The information from the permit is entered into the subscriber database, alarm system database, and responsible party database. Once the permit number is issued and the alarm company monitoring station calls 9-1-1 to report an alarm activation, the alarm company operator gives the 9-1-1 operator the permit number. This process eliminates typing repetitive information into CAD, eliminates typing errors resulting in incorrect addresses, and saves telephone time for the 9-1-1 operator and the monitoring station operator. The information is then relayed to the MDT in the responding officer's patrol unit. This display allows the officer to view additional information pertaining to the alarm call and advises the officer of hazardous situations such as guard dogs, hazardous chemicals, and gate combinations. The display also gives officers the responsible party contact information.

The next step was to automate Alarm Unit procedures and the officer's written False Alarm Report. Since the databases were designed to use a permit number designated to a particular subscriber for an alarm system or systems at one particular address, all functions would be tied to that basic number. If a subscriber did not have a permit on file with the Police Department and the system generated false alarms, they would be assigned a subscriber number in FATS. Once a permit was received for that subscriber, the subscriber number in FATS would become the permit number. FATS would allow for one or multiple systems for that particular permit/subscriber number, because the city code would allow each system to generate three false alarms before the excessive false alarm assessments would be issued. At this step, CAD information was downloaded into FATS on a 24-hour basis and upon receipt of the responding officer's false alarm report, the report information was entered into FATS. Once the report was complete, the information was

moved to the reports database, which was tied to the permit number and the pertinent system file.

The second step of the plan was to automate the responding officer's False Alarm Report. This process was accomplished by creating a False Alarm Report screen which would be displayed in the police unit's MDT upon the false alarm disposition of the alarm call. The false alarm disposition would be given by the officer after arriving at the scene of the alarm call, checking the premises, and determining the cause of the alarm. If the officer determined that the alarm activation was due to anything other than criminal activity, a False Alarm Report screen would be displayed on the MDT. The officer would complete the information in the screen and would transmit the report to Alarm Unit. This automated process eliminated six person-hours a day for data entry of the alarm reports by the Alarm Unit personnel and ensured that if the alarm call was given a false alarm disposition that a report from the responding officer was received. Ms. Rohrbacher met extensively with Police computer personnel and the outside consultant to design the screens, processing procedures, and program requirements for the CAD/MDT/FATS automation.

Once the CAD information and MDT report is received, via the download process, FATS calculates the oldest alarm activation within a 365-day consecutive cycle for that particular system and counts the number of false alarms. FATS then generates the required false alarm correspondence required by city code. The city code requires a False Alarm Warning upon the second false alarm, an Initial Notice of Assessment upon the fourth and each subsequent false alarm, a possible Police Review determination of appeal if the subscriber or alarm company appeals the initial notice, and a Hearing Notice and Determination of Hearing if the subscribers and/or their alarm company request a hearing to determine the liability issues of the pending false alarm assessment. FATS then generates invoices for false alarm assessments after the appeal length has expired and depending upon which appeals were or were not received. FATS tracks the dollar amount

of the assessments issued and follows an accounting program to show payments received and balance due information.

With the automation process, Ms. Rohrbacher was able to determine that the average number of false alarm activations per system was more than two per year. The additional reporting processes allow for the monitoring of systems and their false alarm activation rates in a variety of ways. Reports can be compiled by alarm company name, monitoring company name, ranges using dates of false alarm activations, or by using a query program designed to pull statistical information from any fields within the 25 databases. Different statistical reports have been compiled, using data within FATS, to report various reasons for alarm activations, weather conditions at the time of the alarms, alarm companies with unusually high false alarm rates, etc. By viewing these statistics, it was determined that during Arizona "monsoon" season, from July through September, the Phoenix Police Department responds to more alarm activations than at any other time throughout the year because of power outages and low backup battery problems.

The reports also showed that more than 60 percent of false alarms occurred due to human error, incorrect closing and opening procedures, incorrect codes, doors and windows left unsecured, pets, and poor maintenance procedures. In addition, correspondence mailed to the alarm subscribers from the Police Department Alarm Unit usually generated telephone calls from the alarm subscribers. These telephone inquiries involved questions and statements as to how they could prevent false alarms from occurring and questions on how to avoid penalties of the city code. After studying questions and statements from alarm subscribers, either made by telephone or in written correspondence, the same factors often appeared. Statements such as "no one ever explained this to me" or "I wish I had known this" were frequently heard by Alarm Unit personnel. Alarm subscribers were not aware of basic functions of their alarm system, monitoring, or alarm cancellation procedures, and the responsibilities and assessments outlined in the city code. All of this information was used to develop the outlines for the public education awareness programs.

In 1994 Ms. Rohrbacher designed a brochure in conjunction with the Arizona Burglar & Fire Alarm Association. This brochure is mailed with all false alarm correspondence from the Alarm Unit to alarm subscribers and explains monetary costs of false alarms and why they should be prevented. The brochure also provides tips on preventing false alarms based on the most common reasons for false alarms. There is also information in the brochure about the city code, permit requirements, and assessments which may be imposed against a subscriber and their alarm company for excessive false alarms.

As an initial notice of information for the alarm subscriber, a False Alarm Notification Card was created by Ms. Rohrbacher. When an officer responds to an alarm call and determines that the alarm activation was false, a notification card is left at the premises. The card notifies the subscriber that police responded at a certain date and time and what the officer determined too be the cause of the alarm activation. The notification card lists several suggestions for alarm subscribers to avoid false alarm activations, responsibilities outlined in the city code, and whether the subscriber has the required alarm permit.

Ms. Rohrbacher then created a False Alarm Prevention Program designed to educate the alarm subscriber about costs of false alarms, ways to prevent false alarms, and the responsibilities and assessments of the city code. The program outline was created with the assistance of members from the Arizona Burglar & Fire Alarm Association. The program covers basic functions of alarm system components and easy maintenance procedures that the alarm subscriber may utilize to prevent false alarms due to equipment malfunctions.

The outline also covers alarm user training, monitoring station calling procedures, and alarm subscriber responsibilities. The program explains the city code, why false alarms should be reduced, the cost of false alarm response, and various ways alarm subscribers can prevent false alarms. The alarm subscriber receives a certificate to waive one $55 false alarm assessment for attending the two-hour program.

Since its implementation more than 400 alarm subscribers have attended the program, with 94 percent of these subscribers having no additional false alarm problems. Many of the subscribers were experiencing communication problems with their alarm company or monitoring company, and the program gave the users/subscribers answers and solutions to their individual problems. The program provides users/subscribers with an opportunity to learn how to use the system and ways to avoid false alarms by some simple maintenance solutions. The program encourages users to find out what caused an alarm activation and to try to remedy the situation immediately and be responsible for their system. It makes the users more aware of their system and how the components of the system generate an alarm activation.

In addition to fostering a more positive relationship between the Phoenix Police Department, alarm subscribers, and alarm companies, the components of the plan have reduced false alarms drastically. The alarm activation rate per system has decreased from more than two alarms per year to .77 alarms per year (see attached graph). Without this decrease, the Phoenix Police Department would have received an estimated 105,000 alarm activations. At an average of one hour per call, this equals personnel costs of nearly $6 million. The reduction plan has reduced the number of false alarms for fiscal year 1994/95 to 45,115 resulting in a savings of more than $3 million.

In addition, revenues collected from the enforcement of the city code have increased from 5225,000 per year to more than $1.3 million. Revenue generated from the city code more than covers the operational costs of the Alarm Unit. The implementation of the completed plan developed and coordinated by Ms. Rohrbacher has accomplished many goals (1) the entire process of the alarm call process is automated, (2) the system provides needed information to any and all parties involved, (3) FATS provides statistical information to aid in alarm subscriber public education and awareness programs, and (4) false alarm activity has been reduced dramatically throughout the city of Phoenix.

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PHOENIX POLICE DEPARTMENT
ALARM UNIT

SUBSCRIBER/FALSE ALARM COMPARISON CHART
1993 - 1995