

**RECOVERY ACT  
EDWARD BYRNE MEMORIAL  
JUSTICE ASSISTANCE GRANT (JAG) PROGRAM  
SPRINGFIELD POLICE DEPARTMENT  
2009 APPLICATION  
EQUIPMENT AND TECHNOLOGY UPGRADE**

**PROGRAM NARRATIVE**

**Overview**

The Springfield Police Department, as the organizational unit, on behalf of the City of Springfield, respectfully submits this program narrative in support of our 2009 JAG application. This application focuses on technology upgrades and field operation support. It is our intention to apply for the entire \$1,255,375 dollar allocation as indicated in your agency allocation page.

As funding becomes available throughout the year, we continuously review opportunities relative to technology acquisitions that will best support overall operations. We weight the potential of the acquisition on the following criteria:

1. Improve operational efficiency
2. Reduce crime, fear, and disorder
3. Increase officer safety and public trust
4. Improve and enhance technology infrastructure

Upon notification of this years JAG solicitation, we held a number of meetings to establish and prioritize a list of needs pertaining to information technology and operations within the Springfield Police Department. Department personnel, civilians and members of the public were present and privy to the discussions regarding current needs based on the criteria above.

In conducting an accurate assessment of the needs of the department, we have determined that the need is significant and exceeds available funding. Virtually every area of the department with respect to Information Technology, Communications, Uniform Patrol Division, Investigative Services and the Academy Division demonstrate a significant need for updated equipment and technology. Much of the equipment and technology that we rely on to provide basic police services is at or beyond its “useful service life”. Financially, the City of Springfield has struggled to fund basic public safety services for a number of years. Contractual obligations ensure funding for public safety personnel, while cuts are made in the area of equipment and support. This has happened for a number of years.

Maintenance or replacement of equipment and systems is on an emergency basis. Any equipment update generally comes in the form of a state or federal grant. We are at a point of “critical mass”. In order for the police department to sustain basic public safety functions, as well as provide enhanced public safety services, we have identified and prioritized the following equipment and technology in need of immediate upgrade and/or replacement.

## **INFORMATION TECHNOLOGY**

### **Virtualization - \$75,000**

Virtualization is a proven software technology that is rapidly transforming the Information Technology landscape and fundamentally changing the way that people compute. Virtualization essentially enables one computer do the job of multiple computers by sharing the resources of the single computer across multiple environments, freeing those services from physical and geographical limitations. This technology also provides a layer of disaster recovery. In the event of a server “crash”, virtualization will ensure the immediate transfer of the previously identified functions of the downed server to a pre-designated standby server.

The immediate transfer of function will minimize disruption and support the endeavor to maximize redundancy. Virtualization was originally developed to support critical systems within the healthcare field. It has evolved to the next generation and is now available to support critical systems in law enforcement.

The Springfield Police Department has suffered a number of server malfunctions that resulted in a significant loss of stored data. The savings realized in man-hours alone, to piece a “crashed” system and function back together, makes this technology very appealing. More importantly, virtualization will minimize, if not eliminate, downtime and loss of function when a failure does occur, ensuring the seamless support of Information Technology in our public safety function.

### **Microsoft Software Upgrade – \$55,391**

#### **Microsoft Office Windows 2007**

The Springfield Police Department utilizes the Microsoft Office 2003 software platform. This software package has reached the end of its “useful service life”. Many files that we now receive from outside sources are created and supported by the 2007 version of Microsoft Office. These files must be converted to the 2003 version of Microsoft for viewing. Upgrading to the Office 2007 platform will keep us in line with the industry standard and avoid compatibility issues communicating with other agencies.

We have identified (2) versions of the Microsoft Office 2007 software that will fulfill our computing requirements. Microsoft Office Window 2007 – (Standard) will amply meet the majority of need, therefore, we seek to purchase 150 licenses. There are several on-

going programs which rely on Microsoft "Access" which is only found in the "Professional" version of Microsoft Office. Therefore, we seek an additional 50 licenses for Microsoft Office (Professional) Windows 2007.

**Dell Work Stations - \$30,000**

The Springfield Police Department has 200 work stations department wide. In 2008, we embarked on a work station/equipment upgrade. We selected the Dell Optiplex 745 Desktop Computer to replace old workstations department wide. These units sell for approximately \$1,500 per computer. We seek to purchase 20 Dell workstations to replace outdated technology.

**Symantec Ghost Server - \$15,000**

Ghost Server technology will take a "snap-shot" of a computer's hard drive operating software. This "snap-shot" of the CPU will be stored in a virtualization repository housed in a single server (Ghost Server). In the event of a hard drive "crash", the snap-shot information stored in the Ghost Server can be transferred to the downed computer. The computer can be functional in a short period of time compared to several hours of re-installing software. This transfer of information will minimize the down time of a computer that resulted in a significant loss of stored data, and lost man-hours to piece the system and function back together.

**Uninterrupted Power Supply (UPS) – \$15,000**

The Springfield Police Department's Information Technology Division has a number of new servers that we are unable to bring on-line due to a lack of a dedicated uninterrupted power supply. We have a growing need to add additional servers, and this UPS technology will allow IT to utilize new servers that but cannot be placed into service because the current UPS does not have sufficient capacity to support the new equipment. We have several APC brand UPS systems in place and we seek to add an additional APC brand UPS system.

**IMC Enhancements/Upgrade \$75,000**

Information Management Corporation (IMC) is the current vendor who supplies the hardware and software that provides the E911 / Computer Aided Dispatch (CAD) system for the City of Springfield. This software package is brand new and was purchased through (2) Byrne Memorial Grants awarded in the Fall of 2007. The CAD technology is a complete upgrade of our old system. As such, there has been a significant amount of time that has transpired from the date of purchase to the anticipated date of installation, as the final details in programming and application are ironed out. The actual CAD package is a "stock" program that was partially customized to meet the needs of the Springfield Police Department. We have identified a number of application "limitations" that could be rectified with program/software updates/rewrites. We anticipate a "go-live" date within the next 30 days.

We received an estimate of \$75,000 dollars to add programming which will expand the potential of the new computer aided dispatch/records management system. Additional features include the ability to generate criminal complaint requests remotely from the cruiser laptop computers. A second added feature includes the ability to manage and share critical report data including gang information. Any software enhancements will include the increased ability to share information departmentally as well as inter-agency.

## COMMUNICATIONS DIVISION

Radio communication for the Springfield Police Department is supported by a Motorola analog radio system that was installed in the mid -1980's. As the overall radio system is 25+ years old, we have struggled with major repair issues as the hardware fails. In 2008, our primary communications channel (1) completely failed. This channel was completely rebuilt/replaced at the cost of approximately \$170,000. Knowing that additional failures were likely, Motorola officials surveyed the viability of the remaining channels and equipment. The result was exactly what we expected. Our aging communications system will need a complete rebuild/upgrade as soon as financially feasible.

Motorola states that there have been significant upgrades in technology. Due to the age of our communication system, there is an inability to procure "spare parts" to keep our dated system operational. The lack of spare parts dictated a complete replacement of equipment, including hardware and software. In the interim, we relied on our secondary channel, (#3) to serve as a primary during the channel (#1) upgrade. At this time, we learned that the equipment that supports channel (#3) was also in poor condition and in need of immediate replacement.

We also learned that our Narcotics channel (#6) is in similar condition. This channel is the primary channel for all narcotics policing activities. Due to the highly sensitive nature of narcotics work and, the inherent danger of narcotic intervention, this channel is "scrambled" for officer safety issues. This encryption is an added cost.

It is no surprise that channel #3 and #6 are in need of replacement as they, like channel #1, were also installed in the mid-1980's. Therefore, in consideration of the communications survey conducted by Motorola, we propose the following upgrades to ensure the existence and reliability of a public safety communications system.

**Radio Communication Channel (#3) Replacement (Motorola Analog Conventional Voting System - \$170,623.40)**

**Radio Communication Channel (#6) Replacement (Motorola P25 Encrypted Voting System - \$226,295.00)**

**Motorola Portable 2-Way Radios - \$137,289.30**

We propose to purchase XTS 1500 Digital Portable Radios – (101 units). This purchase would initiate the necessary upgrade of portable, hand-held, 2-way radios. This upgrade would replace approximately 25% of ten year old Motorola analog portable radios with

new Motorola analog/digital capable radios for each officer as a part of their required equipment. Due to the vast expense, we will gradually update hand-held radios with new technology as financing dictates.

### **Patrol Vehicle Laptop Computers - \$82,505.20**

We propose to purchase (20) Panasonic “Tough Book” laptop computers to be installed in marked and unmarked police vehicles. We have 260 police vehicles that comprise the department’s motor vehicle fleet. Of that, 130 vehicles have laptop computers permanently installed to support filed operations. The additional 20 laptops will increase the number of fleet vehicles that have full dispatch/records management computing capabilities.

### **Handheld Computers - \$30,397.30**

#### **Panasonic U1 INTL Atom Z520 – Tough Book handheld computers (10 units)**

Panasonic Toughbook U1 computers are handheld computers that literally fit in the palm of your hand. Currently, we have one demonstration unit which has made its way through the various divisions as a test unit. The **Narcotics Bureau** finds this model to be particularly beneficial when deployed in field operations in support of narcotics “raids”. Most often when executing a search warrant, there are often multiple individuals present when the warrant is executed. Everyone present must be thoroughly identified and processed. The handheld computer enables a Narcotics officer to quickly, efficiently and effectively identify an individual. This technology provides the hardware and software necessary to access our department’s mainframe computer in support of field operations. Local, state and federal queries may be conducted which provide unlimited access to criminal offender data, including identity and/or criminal history/records and warrant status. No longer is it necessary to transport every person present during a “raid” to the police department for purposes of identification. This technology significantly reduces the amount of time and resources currently expended on this process. The Narcotics Bureau seeks to add (3) Panasonic Handheld “Toughbook” Computers to its complement of technology.

The Springfield Police Department motorcycle unit supports motor vehicle traffic enforcement within the **Traffic Division** of the police department. Currently, any field inquiries which arise as a result of traffic enforcement are conducted via a Personal Data Assistant (PDA). Like the Narcotics Bureau, virtually every person that is stopped in the course of a motorcycle patrol must be positively identified. As the motorcycles cannot support a full-sized laptop computer, similar to that in a full size patrol vehicle, the handheld computer amply addresses this problem. We propose to purchase (7) Panasonic “Tough Book”, handheld computers to support field operations for the Motorcycle Division within the Traffic Bureau. This technology will provide the same data management capabilities available in the full size counterpart installed in the patrol vehicles. This technology will significantly increase officer safety with the access to more complete criminal history systems as well as increase the efficiency of a motor vehicle stop.

**Ordinance Enforcement/Community Policing Unit**  
**Samsung SAGA PDA - \$1,799.91 – (9 units)**  
**TruSpeed Enforcement Lidar System - \$1,895/unit – (2)**  
**Lazar Labs Model 200 Tint Meter - \$159 – (7)**

The Springfield Police Department **Ordinance Unit**, established approximately 18 months ago, is tasked with enhancing and increasing the quality of life within the 9 neighborhoods of Springfield. This unit enforces any and all city ordinances as well as motor vehicle law as it pertains to chronic complaints for speeding, school zones, thickly settled neighborhoods and recurring problems in the Downtown Business District. This type of law enforcement requires specific technology and tools to complete their mission. Therefore, we request (2) TruSpeed Enforcement, handheld Lidar speed detection systems - \$1,895/unit and a total of (7) Lazer Labs Model 200 window tint meters 2 \$250/unit.

The Ordinance Unit has also identified the need for **(9) Samsung SAGA PDA/Smartphone/Mobile Phones** which will deploy operationally in support of ordinance enforcement. Currently, officers are extremely limited in their ability to access critical information including land/property owner of record, city assessors' records, criminal history systems, SPD Records Division, as well as a number of other city websites that contain important information regarding ordinances and violations thereof. Having the ability to access City of Springfield internet websites via a **Samsung SAGA PDA**, will enable the responding officer to fully respond and address ordinance violations that will certainly increase the quality of life that is the barometer of a neighborhood's strength or weakness.

**Master Hard Drive Duplicator**  
**VOOM SuperDuper Hard Drive Duplicator - \$6,000**

This technology will enable IT staff to create and then duplicate (clone) a master program to manage and download into the field computers. Essentially, any original and/or upgrades of operating systems may be duplicated repeatedly on all laptops department wide. This technology ensures standardization of the installation of operating systems on multiple computers.

**Radio Repair Division Equipment – \$74,770.63**

The Springfield Police Department maintains approximately 600 base, fixed, mobile, handheld and various portable radio units. These technicians also service the fixed mounted patrol laptops located in every marked patrol vehicle. As such, we have an in-house Radio Repair Division, staffed by 2 Motorola certified technicians. As technology advances rapidly and the department acquires this technology incrementally, we are slowly losing the ability to service the technologically advanced radio systems. Therefore, we have identified 3 specific service equipment items which will support the repair of the new, technologically advanced equipment.

- Aeroflex 3920 Radio Test Set – digital radio test set 1MHz-1GHz w/Standard

Analog Duplex Operation (\$46,185)

- Aeroflex 3500A Wireless Portable Radio Communications Test Set - 1GHz (\$22,188)
- Miscellaneous Radio Repair Hand Tools – including a Metric Field Service tool kit, a Field Service Zipper kit, Telecom Tool kit, Gerber Multi-Plier w/tool kit, Cellular Site Installers tool kit, Frequency Counter, 32 Piece Security Bit Set, Deluxe Tool kit w/CAS, Metal Hand Nibbler w/spare blades, Electronic Digital Caliper, and a Streamlight Flashlight. (\$6,397.63)

### **NECS Inventory Control Module (ICM) - \$15,000**

This technology request has been included under the communications portion of this application as the ICM utilizes Radio Frequency Identification (RFID) technology to identify and control high value, high security equipment. Essentially, this technology involves a RFID “chip” which is affixed to a piece of equipment. This chip provides the mechanism for inventory control, for items such as patrol assault rifles, ammunition, Automated Electronic Defibrillators (AED), medical bags, etc. When equipment is needed and/or assigned to a particular officer, this chip is scanned which now connects the equipment to a named individual. This technology will eliminate the anonymity involving lost or damaged equipment. New England Communications Systems is the local vendor who provided a price quote for this technology.

### **SPRINGFIELD POLICE DEPARTMENT POLICE ACADEMY IES (Interactive Training Systems) - \$57,000**

This technology represents the cutting edge of judgment based simulated training. IES Milo Range PRO Complete is an interactive training simulator which utilizes real weapon (inert) systems in training scenarios that allows the officer to train and hone the critical decision making process which is vital for officer safety, liability and public safety. The IES training program places the trainee in real-life scenarios where officers confront a variety of situations, individuals, suspects and victims. Issues involving “Use of Force” are the number one reason that officers are killed in the line of duty as well as the primary complaint filed by the general public regarding perceived or actual use of excessive force.

The complete system includes “live fire” training modules as well as “high risk” motor vehicle stops. This package includes hardware and software to outfit AR-15 patrol/assault rifles and Smith & Wesson Model 99 recoil kits. These recoil kits allows SPD officers to actually train with the exact same equipment they rely on in regular patrol duties. In 2008, Springfield officers respond to an average of 915 calls for shots fired, 239 assaults involving a firearm, 187 robberies involving a firearm and approximately 20 homicides per year, of which the majority involve a weapon. Now, more than ever, officers draw their firearm with increasing frequency as the volume and threat levels increase. This technology will sharpen the decision making process which will save lives.

### **Patrol Weaponry - \$18,500**

This line item involves the purchase of (16) Colt M4 5.56 rifles w/14.5" barrel. **(\$1,000/rifle)** These rifles are now standard issue for certified officers assigned to the uniform patrol division. The weapons will be assembled and stored in a "patrol/duty bag". The patrol bag will include a total of (3) thirty round capacity magazines (**military specification - 50 magazines @ \$50 each**) and extra ammunition.

## **SPRINGFIELD POLICE DEPARTMENT – SPECIALIZED UNITS**

### **INVESTIGATIVE SERVICES**

#### **Photographic Equipment – \$17,688**

This technology will equip and/or replace existing camera systems utilized by the Detective and Narcotics Bureau, Special Victims and Ordinance Units and the Forensic Photograph Lab Division. The Forensic Photograph Lab Division is responsible for photo-documenting serious crime scenes including homicides, serious assaults involving guns/knives, victims of serious assaults, including domestic violence and sexual assaults, etc. Photographs involving the aforementioned are regularly introduced into evidence in support of case prosecution.

We have identified the Cannon G-10 Digital Camera, with a SD-2GB HC Memory Card and G-10 Camera Case has been identified as the system best suited to support the Forensic Photo Lab Division. (\$528/Unit)

For general crime scene processing, the Cannon SX200 IS Digital Camera, SD-2GB HC Memory Card and DF-406 A2000 Belt Camera Case (\$375/Unit) is the technology best suited to support the day to day investigative photographic needs of the identified bureaus. These cameras will record and uplink photographs to incident and arrest reports generated by the reporting officer. Deploying a number of these cameras will significantly decrease the amount of time first responding officers hold a crime scene. Traditionally, officers at a crime scene would summon personnel from the Forensic Division to respond to the scene to take photographs. Deploying a number of less expensive digital cameras to a number of detectives and investigative officers will virtually eliminate the waiting and save significant man-hours.

#### **LAS GPS Vehicle Tracking Systems - \$2,500**

This technology (LAS 3100) (\$250/Unit) provides an affordable GPS based vehicle tracking system that will allow investigators to review detailed information about a target vehicle's travel activities without having to be there. This technology uses GPS and digitized street mapping which provides travel activities with regard to date, time, speed and location. This technology will support and benefit the Detective Bureau Stolen Car Unit as well as the Narcotics Division. By placing this technology on a target's vehicle, valuable information will be legally obtained in support and furtherance of on-going investigations.

**Search/Rescue Dive Team Unit - \$6,461.60**

This technology will replace/upgrade essential equipment items that are in disrepair or have reached the end of useful service life. These items include surface breathing valves, dive rescue harnesses with locking carabiners, snap shackles, Sherwood blizzard 1<sup>st</sup> and 2<sup>nd</sup> stages, 13 cubic foot pony bottle & mounting system, Princeton Tec Shockwave LED lights, and Sartek Industries RSV-1 Redundant Supply Valves.

**Canine Division - \$26,000 – (4 canines @ \$6,500/canine)**

The Springfield Police Department Canine Unit established the departments first Canine Unit circa 1935. Since that time, with the exception of a few unfunded years, the Canine Unit continues to serve the department and the Citizens of Springfield on a daily basis. Currently, the unit includes (7) working canine officers which are assigned to various patrol duties. Two weeks ago, canine officer “Bojar” (7 year old German Shepard) lost his battle with cancer and was humanitarily euthanized.

A review of the unit revealed that within the next 4 years, three additional canine officers will reach the “end of useful service life” status. Industry experts concur that working patrol canines usually retire around the age of 8 years.

We contacted our canine supplier, North American Police Canine Services, located in Middletown, Connecticut regarding our anticipated needs. We received a price estimate of \$6,500 per dog for a German Shepard/Malinois mix-breed canine. Two surrounding cities currently have the same type/mix canine currently in the State Police Canine Training class and both canines are reported to be exemplary.

**Traffic Bureau/Motorcycle Unit – (\$112,250.16)**

The Springfield Police Department has had some form of motorcycle division for over 80 years. Currently, there are 7 Harley Davidson FLHP-Road King motorcycles assigned to the Traffic Bureau. Three of these motorcycles were replaced in 1997 and the remainder in 2000. The average mileage per motorcycle is 50,000 miles. All 7 units have been impeccably maintained and continue to provide daily service. However, the level of maintenance to keep these units safe is on the increase. Additionally, there have been significant technological advances in the last ten years, most notably anti-lock brakes and the lengthening of the motorcycle frame.

It suffices to say that our current fleet of motorcycles are rapidly approaching the end of their useful service life. We contacted our local Harley Davidson dealer who provided a quote of \$18,708.36 per unit that includes a fully “dressed” 2009 Harley Davidson Motorcycle complete with an emergency package. We seek to trade in our current units, and purchase a total of (8) new units. Six of these units would be paid for under this grant opportunity and the remaining (2) units would be purchased with the high trade in value of our current units. This would bring our compliment to (8) new motorcycles all of which have the highly desirable anti-lock braking system. Therefore, for purposes of clarity, we look to purchase (6) new motorcycle units under this grant opportunity.

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