



# The Florida Senate

*Interim Project Report 2006-149*

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Committee on Transportation and Economic Development  
Appropriations

Senator Mike Fasano, Chair

## STATE LAW ENFORCEMENT RADIO SYSTEM ENHANCEMENTS

### SUMMARY

The goal of the Statewide Law Enforcement Radio System (SLERS) is to provide an enterprise solution to facilitate communications among seventeen state law enforcement entities. The project is managed by the Florida Enterprise Information Technology Services (EITS), housed within the Department of Management Services (DMS). In 2000, the state signed a contract with M/A-COM to provide the services related to SLERS. Funding for the contract is from state appropriations based on a \$1 motor vehicle and vessel registration surcharge. The SLERS system is a cooperative effort between the state law enforcement agencies and is being developed in five phases throughout the state. The project is scheduled to be fully completed by December, 2005.

Although the SLERS system performed as designed during the 2004 hurricane season, the Joint Task Force on State Agency Law Enforcement Communications (JTF Board) conducted a review of the operations and identified a number of enhancements to strengthen the system for future events. The proposed enhancements outlined in this report, as submitted by the JTF board, are outside of the scope and the expected costs of the current contract with M/A-COM and suggest a need for the Legislature to address options for additional recurring funding mechanisms.

The recommendations in this report include options for providing additional funding for the enhancements beginning in fiscal year 2006-07 and options to develop a more coordinated approach in the state budgeting process for addressing requests for legislative appropriations for the system.

### BACKGROUND

In 1988, section 282.1095(1), Florida Statutes, was created, authorizing the State Technology Office (STO), now known as Florida Enterprise Information Technology Services (EITS) and housed within the Department of Management Services (DMS), to "acquire and implement a statewide radio communications system to serve law enforcement units of state agencies, and to serve local law enforcement agencies through mutual aid channels." The goal of the Statewide Law Enforcement Radio System (SLERS) project is to provide state law enforcement officers with a shared 800 MHz radio system. This shared system provides an enterprise solution to facilitate communications among seventeen state law enforcement entities. The system serves over 6,500 users with approximately 14,000 radios in patrol cars, boats, motorcycles, and aircraft.

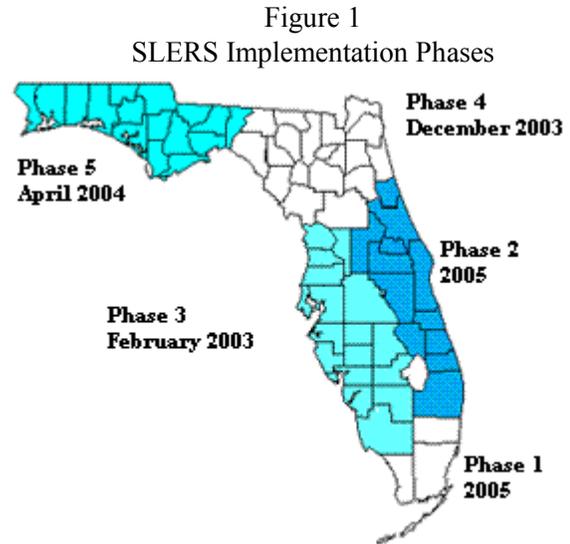
The EITS manages this enterprise project along with the advisory Joint Task Force (JTF) on State Agency Law Enforcement Communications (JTF Board). The eight statutory agencies appoint board members.<sup>1</sup> Four additional agencies are also authorized under the authority granted to the Joint Task Force to participate in SLERS.

Under the statute, the EITS is responsible for the design, engineering, acquisition and implementation of

<sup>1</sup> The statutory agencies are: Department of Business and Professional Regulation / Division of Alcoholic Beverages and Tobacco; Department of Highway Safety and Motor Vehicles / Division of Florida Highway Patrol; Department of Law Enforcement / Criminal Investigations and Forensic Science Services; Fish and Wildlife Conservation Commission ; Department of Environmental Protection / Division of Law Enforcement ; Department of Corrections; Department of Financial Services / Division of State Fire Marshal ; Department of Transportation / Motor Carrier Compliance Office.

the system and for ensuring the proper operation and maintenance of all system common equipment. The state's contractor for SLERS is M/A-COM, a subsidiary of Tyco Electronics. The contract for the Statewide Law Enforcement Radio System has a unique funding strategy. In 2000, the state negotiated a contract with M/A-COM.<sup>2</sup> M/A-COM was paid a \$40 million advance payment plus it receives the ongoing proceeds from a \$1.00 motor vehicle and vessel registration surcharge<sup>3</sup> (approximately \$18.2 million for Fiscal Year 2005-2006), less certain stipulated expenses incurred by the state. This revenue stream to M/A-COM is intended to provide funding for the system infrastructure (towers, antennas, system equipment, system maintenance, radio consoles for dispatch) and 800 MHz service.<sup>4</sup> Agencies are included in the 800 MHz system by statutory reference (s. 282.1095, F.S.) or by acceptance into the Governor's Enterprise-wide Sharing of Resources Model. Both categories of members receive equipment and services as provided by the M/A-COM contract.

The SLERS system is being developed in five phases. The project began with Phase 3 (Collier County northward to Citrus County) in February 2003. Then, Phase 4 for Northeast Florida (December 2003) and Phase 5 for Northwest Florida (April 2004) were completed. Currently work is underway in Phases 1 (South Florida) and Phase 2 (East Coast of Florida) throughout 2005 for conversion to M/A-COM equipment. (Phases 1 and 2 were originally built using Motorola equipment prior to the contract with M/A-COM). Figure 1 below shows the Florida counties included in each of the five phases.



The SLERS connects law enforcement personnel using one system on a single series of frequencies. Another related but separate project is the Interoperability Network and Mutual Aid Build-out Project (IO Network Project). The IO Network connects responders at all levels of government using different brands of radios on different frequencies, and is funded from state appropriations based on federal domestic security funds. The IO Network is managed by DMS/EITS and the Domestic Security Oversight Council under a contract signed with Motorola in October 2004. (Although the IO Network is separately contracted and managed from SLERS, SLERS must be completed before the IO Network project can be successful, since it depends on the use of SLERS.)

The Mutual Aid Build-out Project coordinates federal, state, regional, and local entities by providing radio service to first responders that are outside the range of their local systems or when they need to communicate with users not on their local systems. This project is funded from state appropriations based on federal domestic security funds, and is managed by DMS/EITS and the Domestic Security Oversight Council under a separate contract signed with M/A-COM in April, 2005.

While SLERS, the IO Network and the Mutual Aid Project are all intended to enhance statewide communications, the three initiatives have independent objectives. This interim project is focused only on the SLERS.

After the 2004 hurricanes, the JTF Board conducted a review of the SLERS operations and identified a

<sup>2</sup> The original contract was negotiated with Com-Net Ericsson Critical Radio Systems, Inc, which was subsequently purchased by M/A-COM.

<sup>3</sup> Section 320.0802, Florida Statutes.

<sup>4</sup> It is notable that since the inception of the contract with M/A-COM, a number of enhancements to the system that were not contractually required were reportedly provided nevertheless by M/A-COM, estimated by M/A-COM at \$19 million. M/A-COM representatives indicated that the fiscal requirements for further enhancements cannot be addressed with the current revenue from the \$1 surcharge.

number of enhancements to strengthen the system for future events. While the list of enhancements does not appear too difficult to address within the routine legislative appropriations process, two questions have been raised. The first question is whether there is a need for an additional recurring funding mechanism for SLERS enhancements beyond what is provided through the service contract with M/A-COM. Both the rapid advancements in technology and the operational gaps that are highlighted by extraordinary events could present on-going opportunities for improvements over the years. The second question is whether a more unified approach should be developed in the state budgeting process for addressing SLERS enhancements. Currently, each individual agency develops budget requests for the equipment and other costs they need beyond what is provided through the M/A-COM contract in order to use the SLERS. Many of the enhancements identified by the JTF Board affect all the agencies jointly, such that a combined request at the state enterprise level instead of agency by agency may provide a better venue for legislative review.

## METHODOLOGY

A review of prior relevant reports published by the Office of Program Policy and Government Accountability was conducted. Interviews were conducted with staff from the JTF Board and the Department of Management Services Division of Enterprise Information Technology Services responsible for management of the SLERS system. Detailed information on the SLERS enhancements recommended by the JTF Board was analyzed.

## FINDINGS

### Current Status of SLERS

The following tasks were identified by the EITS as the major steps that are necessary to fully complete the SLERS project by December, 2005. These tasks are within the scope and the expected costs are within the range of the current contract with M/A-COM:

1. Upgrade M/A-COM system software and components throughout the state to Extended Addressing (EA), which will allow the system to handle the larger number of addresses needed to accommodate all users in the final networked system.
2. Prepare Phases 1 and 2 infrastructure for the changeover to the M/A-COM's system, and replace existing users' radios. This includes a standard set of

activities for design, acquisition and/or construction of tower sites, building the system infrastructure, building or modifying dispatch centers, testing the system, ordering, programming and installing radios for the users, and training the users.

Some other issues that are currently in progress as of August, 2005 include:

3. The transition of sites to extended addressing (EA) began August 7th and continued throughout the month. Subscriber units have been re-programmed for Phases 3, 4, and 5.
4. Subscriber units with the EA code are being installed for Phases 1 and 2.
5. Work continues in Phases 3, 4 and 5 on expansion of portable radio coverage for two Agricultural Inspection Stations in north Florida (Live Oak and Pensacola). Work has begun on a new site in northeast Polk County. Planning continues for new dispatch centers in Ft. Myers and Tampa.
6. Train-the-trainer classes began in July and continue into September. Certain state agency law enforcement personnel are trained in the use of equipment such as handhelds, portables and vehicle mounted radios in order to train others.
7. Enhanced Digital Access Communication System (EDACS) installation is underway at the Miami, Lake Worth and Orlando Regional Communications Centers and the University of Central Florida. In Lake Worth, planning continues for the expansion of the dispatch center.

The DMS project manager for SLERS has started to develop a staffing plan for ongoing SLERS contract management upon completion of infrastructure development. For Fiscal Year 2005-06, nine positions and \$1.2 million in spending authority from the Law Enforcement Radio System Trust Fund was appropriated to EITS in DMS for administering the contract with M/A-COM. Because the build-out of the system has taken longer than the original schedule, M/A-COM agreed to reimburse the administrative costs for the radio system project through December 31, 2005. On December 31, 2005, the radio system project should be completed and M/A-COM will be responsible for providing all SLERS services. From January 1 to June 30, 2006, any administrative costs conducted by EITS for SLERS will be paid from the

remaining cash balance in the Law Enforcement Radio Trust Fund, currently estimated to be \$1.5 million as of January 1, 2006. In order to ensure a smooth transition of project management from EITS to M/A-COM, the Legislature required DMS to provide a detailed plan for the ongoing management and administration of the radio system contract by September 30, 2005, in accordance with proviso following Specific Appropriation 2745 in the Fiscal Year 2005-06 Appropriations Bill (ch. 2005-70, L.O.F.).

### **Enhancements Identified by the JTF Board**

Following the 2004 hurricanes a review of the SLERS system was conducted by the various JTF agencies and a list of suggested SLERS enhancements and other proposed changes was developed. These enhancements and changes are not covered in the existing contract with M/A-COM and are unrelated to the Statewide Interoperability/Mutual Aid Network implementation. The JTF Board is in the process of compiling a prioritization of the list to submit after the Board's September meeting. Exhibit 1, which is included at the end of this report, shows the enhancements to SLERS as submitted by the JTF Board. Following is a narrative description of all of the enhancements listed in Exhibit 1.

#### **A. Enhancements for Everyday Service to State Users.**

1. Upgrade two (2) transmission/tower sites to improve coverage in Brooksville and North Port areas. Coverage testing is done for each region to confirm the contractual requirement for 98% mobile coverage. In the Brooksville (Hernando County) and North Port (Sarasota County) areas, the 98% standard was met for the overall region, but coverage remains inadequate in these particular locations. Additional sites will bring service to an acceptable level for the users, but are beyond the 98% contract requirement. There are existing sites in these areas that now serve as microwave relays. These sites can be upgraded to radio frequency (RF) sites to provide improved coverage. The costs of an upgrade average \$450,000 per site. The increase in maintenance for each site is approximately \$100,000 annually.

2. Purchase twelve (12) additional base stations to add voice channels in high traffic areas to reduce loading. Additional channels are needed to handle growth in call volume in seven areas, beyond the original number of channels in the contract. The areas and number of sites are: Starke (3), Jessamine (3), Lecanto (1), Dundee (1), Lake Placid (1), Palmetto (1), and South

Hillsborough (2). Costs to install are \$32,500 each with maintenance at \$1,350 annually per channel.

3. Create two (2) additional transmission/tower sites to improve coverage in Green Swamp and Apalachicola National Forest. Coverage testing is done for each region to confirm the contractual requirement for 98% mobile coverage. In the Green Swamp (Sumter County) and Apalachicola National Forest (Liberty County) areas, the 98% standard was met for the overall region, but coverage remains inadequate in these particular locations. Additional sites will bring service to an acceptable level for the users, but are beyond the 98% contract requirement. The costs are an average of \$1,230,000 per site to construct and equip a site. Maintenance for each site is approximately \$233,000 annually.

#### **B. Enhancements for Special Circumstances (State and Local Users).**

4. Add a network connection for the existing Mobile Radio Site (MRS). The present Mobile Radio Site has proven essential in disaster response and recovery and also in providing additional system capacity for events such as the meeting of the Organization of American States. The site presently is a standalone five-channel system. Experience has shown the need to add the ability to link the standalone site to the statewide network. The costs of adding network equipment is \$75,000 with maintenance at \$15,000 annually.

5. Purchase and deploy one (1) additional Mobile Radio Site (MRS). Mobile Radio Sites (MRS) are used to provide additional radio capacity for a localized area. The MRS is a trailer with a five-channel radio system, generator and associated antennas. This site can be used to accommodate users converging on an area, such as the G8 conference or hurricane relief. The cost for a MRS is \$300,000 to construct and equip. Maintenance is \$81,756 per year (increasing 3% annually).

6. Purchase a fifty (50) radio cache for Mobile Radio Site or other uses. These portable radios will accompany the Mobile Radio Site and be distributed to local public safety staff who need radio service in planned events or disasters. Each radio costs \$3,700 and is capable of working on the SLERS system in encrypted mode. Maintenance is priced at \$125 per unit annually (increasing 3% annually).

7. Install one (1) console at the State Emergency Operations Center, Emergency Support Function-16 (EOC ESF-16). This console would be installed in ESF-16, the law enforcement room, at the State EOC for communications when the EOC is activated. Initial cost is \$30,000 with maintenance at \$3,195 annually.

#### C. Enhancements to Benefit M/A-COM's System Administration.

8. Register for priority restoration of circuits by phone companies. To ensure priority restoration of any down circuits, the circuits must be registered with the phone companies. This premium service costs \$100 to register each of the 332 lines. There is a monthly charge of \$3 per line (\$11,950 per year).

9. Create a backup Network Operations Center in Tallahassee. M/A-COM's main Network Operations Center (NOC) is in Orlando with a smaller backup center in Oviedo. If a disaster struck the Orlando area, both centers could be affected. Another NOC in Tallahassee would provide geographic separation and reduce the chance of losing this essential capability. The costs for rent and furniture, computers for monitoring the system, network lines and staffing is \$794,440 to establish a NOC and \$441,000 annually for maintenance and operations (increasing 3% a year).

10. Transfer to M/A-COM responsibility for seven (7) generators now managed by JTF agencies. The generators at the seven Regional Communications Centers for Joint Dispatch are managed by the Florida Highway Patrol (FHP), Florida Department of Law Enforcement (FDLE) and the Florida Department of Transportation (DOT). M/A-COM is managing the generators at the 200+ SLERS tower sites. Economies of scale and greater consistency in service are possible at the dispatch centers if M/A-COM assumes this workload. This costs \$3,000 a year per generator.

#### D. Other Expenditures.

The JTF has also included in the list of recommendations the transfer of funding responsibility from the various agencies to M/A-COM for the following issues:

11. Pay maintenance costs for subscriber units. Currently each Joint Task Force agency pays for the maintenance on its users' radios. The average cost is \$125 a year per radio (increasing 3% annually).

12. Pay for maintenance costs for logging recorders and 20 consoles at Regional Communications Centers. FHP is presently responsible for the maintenance for the logging recorders and twenty consoles at the Regional Communications Centers. These Centers serve all agencies. Costs are \$110,177 annually for the eight logging recorders and \$63,900 annually for 20 consoles (increasing 3% annually).

13. Pay cost of DMS staff for contract management and special projects management. This cost will be detailed in the separate report to the Governor and Legislature that is due on September 30, 2005.

14. Pay for subscriber unit replacements. Mobile radios have an average estimated useful life of eight years and portable radios have an estimated useful life of six years. Replacement of Phase 3 mobiles should begin in 2009 and Phase 4 mobiles in 2010. Portables purchased prior to 2005 were replaced by a new model in 2005, so no planned replacement is included in the five-year projections. The average cost per unit is \$4,135.

15. Pay for officer user training. M/A-COM can provide a web-based training package, tailored to SLERS practices, to provide refresher training to users at any location in the state as long as they can get Internet access. The cost is \$113,500 annually.

16. Purchase a Communications Service Director (CSD) console for DMS. The CSD console will provide DMS with the ability to monitor system performance. Pricing is not available at this time.

#### Funding Sources for the Enhancements

The JTF enhancement proposal as it is presented is ordered by enhancements that would benefit state and local users, and the M/A-COM system administration. As mentioned above, the list includes other expenditures that are currently handled within current user agencies' operating budgets. For the purposes of this project, greater priority is placed on the actual enhancements to the system and not the expenditures related to the current operations of the user agencies which are listed under "other expenditures".

Proceeds from the \$1.00 motor vehicle and vessel registration surcharge (approximately \$19.1 million for Fiscal Year 2006-2007) are currently dedicated through FY 2020-2021 to the contract with M/A-COM. All of the future year revenue increases from the current \$1.00 surcharge are contractually obligated to M/A-

COM as part of the payment for the up-front investment by M/A-COM in the SLERS. Hence, the growth in surcharge revenue is not available for enhancements, having been contractually “spent” up-front to build the system, with M/A-COM assuming the risk that the funds will be sufficient over time.

As shown in Exhibit 1, approximately \$700,000 in additional recurring funding and \$5.2 million in additional nonrecurring funding would be necessary to fund the proposed enhancements beginning in FY 2006-2007. By FY 2010-2011, the recurring component would grow to approximately \$1.4 million.

If all of the “other expenditure” issues were transferred to the M/A-COM contract, additional recurring funds totaling \$1.5 million would need to be transferred from the various agencies’ recurring base budgets to the M/A-COM contract. In addition, if M/A-COM were to become contractually responsible to purchase replacement radios for the subscriber agencies on a periodic basis, instead of each agency requesting funds in their individual legislative budget requests, \$5.9 million more would be needed beginning in FY 2009-2010. What Exhibit 1 does not show is the total replacement costs for all 13,850 state agency radios in the SLERS. According to staff with the DMS, the average cost to replace a radio unit (combining both portables and mobiles) is \$4,135. As stated earlier, mobile radios have an average useful life of eight years and portable radios have an average useful life of six years. About half of the radios in use now are mobiles, and half are portables. Using a weighted formula for replacing mobile radios every eight years and portable radios every six years, approximately \$8.4 million of recurring funds would be needed each year if an ongoing replacement program were funded.<sup>5</sup>

Following are options to provide additional funding for the enhancements beginning in fiscal year 2006-07. All of the options are variations of two broad options: either provide General Revenue in the General Appropriations Act each year to fund the enhancements, or increase the statutory \$1.00 surcharge to cover the enhancements.

<sup>5</sup> Calculated as follows: Mobiles = 6,925 radios x \$4,135 per radio divided by eight years = \$3.58 million per year. Portables = 6,925 radios x \$4,135 per radio divided by six years = \$4.77 million per year. Combined, \$3.58 million plus \$4.77 million = \$8.35 million per year needed to fund an ongoing replacement program.

**Option 1** – Provide \$6.6 million in General Revenue (GR) to supplement the \$1.00 surcharge revenues in the trust fund in order to fund the SLERS enhancements: a \$1.4 million recurring appropriation would be provided to STO for expansion of the M/A-COM contract for SLERS (\$700,000 in FY 2006-2007 and the remainder phased in over the following 4 years); \$5.2 million nonrecurring GR to fund the initial costs of nonrecurring enhancements would also be provided. This option would fund only the actual enhancements, and not the radio replacements in the subscriber agencies. The replacement costs would have to be appropriated within the respective agencies’ budgets. One advantage of this option is that the funding for enhancements could be increased as often as needed in the legislative appropriations process without the need for new substantive legislation, allowing more flexibility as the state’s needs change.

**Option 2** – Increase the current statutory fee by 10% to \$1.10 specifically to fund the enhancements to SLERS.

This increase would generate additional annual trust fund revenue of approximately \$1.9 million, of which \$700,000 would be used for recurring costs and \$1.2 million would be used for non-recurring enhancement costs in FY 2006-2007. In future years the full recurring revenue increase would be used for the ongoing enhancements’ operational costs. In addition, a nonrecurring GR appropriation for the nonrecurring need of \$4.0 million would be provided as the remainder of the \$5.2 million non-recurring cost of the enhancements in FY 2006-2007. This option would also fund only the actual enhancements, and not the radio replacements in the subscriber agencies.

**Option 3** – Same as Option 2, except the statutory fee would be increased by another \$0.45 effective in FY 2009-2010 to provide an annual revenue increase of \$8.6 million to be used for radio replacement costs for state agencies. While this amount of revenue is more than would be needed beginning in FY 2009-2010, the surplus fund balances built up from the revenue stream could be reserved for future year cost increases due to pricing or due to the normal staffing growth in the user agencies. Whether the EITS is made responsible for administering the replacement program or M/A-COM is made contractually responsible is a separate policy decision. While providing a recurring source to ensure funding for radio replacements may be desirable from an agency standpoint, from a legislative standpoint it removes the burden from the agencies to manage their assets and to justify the need for radio replacements in the context of all their other priorities. Some agencies

may have different needs for radio replacement due to harsher working conditions that may shorten the life of the radios. Further, an analogy may be made between this issue and other services provided to agencies by DMS wherein DMS is responsible for the provision and maintenance of communications networks but each agency is responsible for acquiring and maintaining the equipment and peripheral devices needed to use the DMS networks.

The enhancement proposals outlined by the JTF Board address one-time enhancements meant to round out the system. However, since future opportunities to take advantage of emerging technologies, or further needs that may be identified by major disasters cannot be predicted, the need for any additional recurring funding cannot be determined.

#### **Coordination of Funding in Legislative Appropriations**

Agencies involved in SLERS are cross-jurisdictional from a legislative appropriations committee stand point. Therefore a coordinated approach to budget issues in the Legislative Budget Requests (LBR) and in budget amendments would allow for a more thorough legislative review. In recent years since the September 11, 2001 terrorist attack on the Twin Towers in New York City, budget requests for homeland security issues were made by each individual agency, but were coordinated and evaluated as a set of issues by special legislative committees, then appropriated centrally in the Administered Funds section of the General Appropriations Act. Since there are presently no legislative committees with jurisdiction over all agencies that use SLERS, budget coordination could be achieved by designating one state agency as the coordinating agency responsible for recommending funding for SLERS enhancements that impact more than one agency. The coordinating agency would submit budget requests in its LBR instead of individual agencies submitting requests.

#### **RECOMMENDATIONS**

The Legislature should select a recurring funding option for SLERS enhancements, but only to the extent needed to fund those enhancements the legislature deems are warranted. Since the future need for enhancements to SLERS caused by technology changes, major disasters, etc., are not known at this time, the recurring funding provided should not exceed what is needed to fund the enhancements recommended by the JTF Board and approved by the Legislature.

Since the agencies involved in SLERS are cross-jurisdictional from an appropriations stand point, it is recommended that DMS be designated as the coordinating agency to evaluate and submit to the Legislature SLERS funding requests for system-wide enhancements to provide better coordination and oversight of the system. Except for purchase and maintenance of SLERS subscribers' radios, funding for SLERS enhancements should be appropriated to DMS with the discretion given to DMS for using the funds either to expand the M/A-COM contract and/or to procure needed services from other sources.

Each SLERS subscriber agency should continue to be responsible for radio maintenance and for managing their radio replacement program and making requests as needed for legislative appropriations. The Legislature should consider whether such funding requests should be addressed using General Revenue, or by using additional revenue from an increase in the surcharge with the incremental revenue accounted for separately by DMS and reserved for radio replacements as appropriated for each agency by the Legislature in the DMS budget.

