STATEWIDE AGENCIES RADIO SYSTEM (STARS)

PROGRAM

A Report to the Governor, House Appropriations Committee, And Senate Finance Committee

October 2007

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Superintendent

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October 1, 2007

TO: The Honorable Timothy M. Kaine, Governor of Virginia

The Honorable John H. Chichester
Chairman of the Senate Finance Committee

The Honorable Vincent F. Callahan, Jr.
Chairman of the House Appropriations Committee

Pursuant to Item 413 (D) of Chapter 3 of the 2006 Virginia Acts of Assembly (Special Session I), I am respectfully submitting herewith a Report on the Statewide Agencies Radio System (STARS) Program.

Respectfully,

W. S. Flaherty

Superintendent

WSF/CAV

Enclosure

Scope of the Statewide Agencies Radio System (STARS) Contract

Colonel W. Steven Flaherty, State Police Superintendent and Mr. Mark Moon, Vice President and General Manager of Motorola signed a $329 million contract between Motorola and the Commonwealth of Virginia for the design, construction, and implementation of the Statewide Agencies Radio System (STARS) on July 13, 2004. A ceremonial contract signing was held on July 16, 2004, in conjunction with a press conference.

In summary, the major implementation milestones completed are: Division 1 infrastructure System Acceptance completed on December 21, 2006, and Division 5 went live on June 12, 2007. The Zone 2 Master Site in Salem is under construction and expected to have substantial completion on October 4, 2007.

STARS provides multi-channel trunked digital voice and data wireless communications that are specifically designed for public safety requirements, based on APCO Project 25 technology. The existing State Police microwave radio network's technology and capacity is being upgraded and disaster recovery alternate paths are being added. The STARS contract provides for essential public safety grade communications that can operate seamlessly throughout the Commonwealth for the 21 state agencies and facilitate interoperability with local governments and federal agencies.

The STARS design is a culmination of partnering with the Commonwealth, the project's engineering consultant Hayes, Seay, Mattern & Mattern, Inc., (HSMM) / CTA Communications, and Motorola. Meeting needs, utilizing existing resources, and minimizing risk were heavily weighted design parameters in developing the STARS contract. Capitalizing on existing infrastructure and resources, whenever possible, benefited the Commonwealth in the ability to implement STARS in a cost effective manner. Finally, design risk is minimized through the use of Motorola, a proven system integrator and communications manufacturer, along with the use of a redundant, fault-tolerant, hierarchal design that allows for re-routing in case of a single point of failure. The wireless communications system for the Commonwealth of Virginia contains today's latest technology and will continue to provide updated technology at no additional cost throughout the STARS implementation. STARS allows the Commonwealth to retain a high level of service and security, plus flexibility to add more users when additional radio frequencies are available. In all applicable design components, STARS has addressed safeguards to system security, including controlled system access, and Advanced Encryption Standard (AES) encryption for law enforcement users. The system infrastructure will serve the Commonwealth for many years to come.

Projected Total Cost of System

Special Funds

Pursuant to the Code of Virginia, §2.2-2264, the General Assembly authorized the Virginia Public Building Authority to issue revenue bonds not to exceed $159,300,000 for the constructing, improving, furnishing, maintaining, acquiring and renovating buildings, facilities, improvements and land for the STARS project. Chapter 245 approved by the General Assembly session March 30, 2006, authorized additional funding via bonds issued by the Virginia Public Building Authority in the amount not to exceed $201,900,000 to complete STARS.

The breakdown of projected total costs for the system is as follows:

Contract Cost for Core System, Paid by Bond Funds

Land mobile radio equipment and upgrades	$ 148,977,412
Microwave network equipment and upgrades	$ 33,082,094
Mobile data (in-car computers)	$ 33,908,049
Transmitter sites and towers	$ 83,163,356
Network Operations Center Zone 2 Control Center equipment	$ 16,056,940
Communications centers renovation and equipment	$ 10,440,190
Test equipment and spare parts	$ 3,823,658
Performance bond	$ 222,000
Total Motorola Contract Cost	**$ 329,673,699**
Revised Motorola Contract Cost to include 19 Contract Modifications as of April 20, 2007	**$ 337,672,894**

Tasks Removed from the Contract that the Commonwealth will Complete at a Reduction in Costs, to be Paid by Bond Funds

Procure and install control station poles	$ 240,000
Computer-aided dispatch interface software changes	$ 300,000
Procurement of software for mobile data, asset management and help desk	$ 4,310,000
Tower site acquisitions, grounding, environmental and emissions compliance and removal of unused towers	$ 3,383,000
Renovations to warehouse to house the Network Operations Center and construction of the Zone 2 Control	$ 2,700,000
Renovation of the STARS office as a training center, travel and equipment for training	$ 2,650,000
Independent verification and validation testing	$ 300,000
Legal and licensing fees	$ 450,000
Payment to Motorola for guaranteed clear and usable frequencies	$ 5,250,000
Total Commonwealth Tasks Cost	**$ 19,583,000**

The STARS Program contract was signed on July 13, 2004. At that time, the cost to complete the project was $349,256,699. Currently, the STARS Program has $159,300,000 from bond funds allocated. The amount authorized during the 2006 legislative session for the final funding of the STARS Program is not to exceed $201,900,000.

This brings the revised total cost to complete STARS to $361,200,000.

General Funds – Operational Expenses

The general fund appropriation for both FY2007 and FY2008 is $2,510,000 to be used for implementing STARS. The projected annual operating expenditures during the implementation phase for the general funds consist, in part of the following:

Category	Amount
Personnel - STARS Staff	$ 800,000
Contractual Services (includes CTA, HSMM and attorneys)	$ 1,185,000
Supplies and Materials	$ 5,000
Insurances	$ 20,000
Equipment	$ 500,000
	$ 2,510,000

Approved STARS Positions

Network console operators (six) were hired and are maintaining 24/7 coverage in the Network Operations Center. The network operators monitor performance diagnostics and network alarms. They also operate a systems repair help desk and are capable of dispatching, if required, for unusual events. One position is currently vacant and has been advertised and applications received. Applicant screening has been completed and interviews are being scheduled.

Additional Projected STARS Reoccurring Operating Costs in Future Fiscal Years

The following positions will be requested in future fiscal years as they become necessary:

Configuration manager will manage the hardware, firmware, and software configurations in the STARS equipment and implement updates and revisions. The configuration manager will coordinate any change to as-built documentation. The configuration manager and the asset manager will work together to determine whether failures are a result of incompatibilities within the system.

Asset / inventory control manager will maintain a database of all STARS assets and provide the required reports. This person will ensure that spares are properly staged at the seven field division headquarters and at administrative headquarters. In addition, spares will be made available from these locations to the 23 partnering contractor service shops located throughout the state. The manager will track the maintenance history of each subassembly throughout the entire system.

Total anticipated annual costs, including salary and fringe benefits, for the above two positions: $116,000

Completed Network and Equipment Maintenance

When completed and no longer under warranty, STARS network infrastructure maintenance will be handled by current State Police Communications Division personnel. The warranty period is one year for equipment and the infrastructure and three years for the mobile radios, portable radios, and mobile data in-car computers. The State Police Communications Division will provide equipment maintenance for agencies they presently serve. Agencies not currently serviced by the Communications Division will need to handle equipment maintenance through a service agreement with Motorola or pay as needed when equipment is repaired.

Communications Technologies and System Capabilities

Systems Integration

The Motorola STARS project team implementation is based on a designed and detailed integration plan. The Motorola program director has brought together the people and resources for the STARS project, and manages them toward meeting every project milestone. This intensive planning, based on dozens of successful large-scale integrations, reduces risk to the Commonwealth. Important details, such as the execution of the Customer Design Review, development of the talkgroup plan, the development of a migration plan for each agency and end user, including the appropriate timing of end user training, are all crucial in the preparation of a successful integration strategy for STARS. A thorough project schedule is critical for planning, resources, costing, and risk mitigation. During the implementation phase of each division, detailed plans and pre-builds of the system are completed at the Motorola staging facility and/or the Customer Center for System Integration. This staging includes all third-party equipment also. The system is then tested, measured, and optimized to ensure it meets the design considerations. Commonwealth employees will be an essential part of the testing and implementation processes.

Much of the work entails coordinating local vendors to secure antenna sites, and erect towers and buildings. Site development continues for Divisions 2, 3, 4, 6 and 7. Divisions 1 and 5 are installed and live on STARS. The implementation process is broken down into individual tasks in a full project plan, which covers:

- Engineering and design
- Procurement
- Facility construction and upgrades
- Systems installation
- Optimization and testing by system and subsystem
- Agency migration and cutover
- Closeout and acceptance
- Frequency planning

- Talk group (fleet map) development

Once the system is working as designed in each division, the Department of State Police (VSP) will provide the expertise to manage, monitor, and service the system.

Motorola is performing the work and tasks required to design, manufacture, install, optimize, test, and integrate STARS; in addition to providing the documentation and training to support the operation of STARS to the Commonwealth. Motorola and the Commonwealth have provided a dedicated project leader to act as the single point of contact for all administrative, technical, and scheduling issues related to the project. The Motorola program manager, Mr. Mike Archbold, has the overall responsibility for providing the Motorola deliverables required for the implementation of STARS and management of the STARS project schedule. The Commonwealth's program director, Captain Michael E. Bolton, has the overall responsibility for ensuring that all Commonwealth responsibilities and tasks are completed per the contract schedule.

Communications within the Tunnels

Motorola has installed VHF and 800 MHz wireless communication coverage in six tunnels in the Commonwealth of Virginia (Big Walker Mountain, Hampton Roads, Elizabeth River Downtown, Elizabeth River Midtown, Monitor/Merrimac, and East River Mountain.) The design allows for effective mobile radio, portable radio, and computer data communications within the tunnels. In addition to being designed for STARS, the tunnel design accommodates the existing VSP communication channels that increase the effectiveness of the overall Commonwealth migration plan to STARS.

The Chesapeake Bay Bridge Tunnel (CBBT) was added to STARS by the Management Group with expenditures approved by the 2006 General Assembly. Installation has begun with completion expected August 2007 and a system "Go Live" scheduled for September 2007.

Transportable Communication Site

The transportable site is contained within a trailer that is easily moved to provide additional radio capacity, interoperability, and support for disaster-recovery operations for STARS. This site is designed to be moved and placed into service where needed by the Commonwealth during events such as floods, hurricanes, or during a major event where additional radio system capacity and interoperability are required. This transportable site provides on-site ASTRO 25 digital trunked communication in 800 MHz frequency band, as well interconnection with other agencies, regardless of their operating frequencies, via an ACU-1000 network interface. The entire site can typically be deployed within one hour of the arrival of the trailer at the site. The transportable site was utilized in Northern Virginia, during the Queen's visit in Richmond and also the Queen's and President Bush's visit to Jamestown in May 2007. The site was also used in Lynchburg during the funeral of Jerry Falwell in May 2007.

Voice and Data Coverage

STARS integrates voice and data over the same frequencies. As STARS is a public safety grade system designed to support life and death situations, the system is configured such that voice traffic is given the priority over data messages. The performance guarantees and test procedures will ensure the Commonwealth will experience clear communications as defined by the vigorous testing standards established in the contract.

Microwave Network

The microwave network provides the Commonwealth with the digital transport required for interconnecting land mobile radio, mobile data, telephone, and alarm and control networks. In addition, it will be used to replace leased data lines currently connecting State Police sites. It will also be highly reliable and capable of supporting government relocation, if required. For instance, the current State Police microwave network (that STARS is upgrading) was quickly reconfigured by the State Police Communications Division at the Columbia Pike Area Office to serve as a command center in response to the 9/11 terrorist attack on the Pentagon. In addition, there were no statewide outages in the State Police microwave network because of Hurricane Isabel.

The network consists of digital microwave equipment of various frequencies and capacities. This microwave network, consisting of synchronous optical networks loops, allows rerouting of microwave traffic if required during a failure or emergency. The microwave spurs are protected by hot standby equipment.

Each State Police division headquarters and most area offices will be equipped with a microwave phone network that will allow on-site personnel to place and receive telephone calls over the microwave network. This circuit is connected to the Commonwealth's private phone system and the public service phone system.

Mobile Data Applications

The Premier mobile data computers installed in patrol cars will provide the following to the Commonwealth:

- Law enforcement mobile data such as wanted checks and DMV records checks
- Intra-agency and inter-agency text messaging
- Interface with the VSP computer-aided dispatch
- Global Positioning System support for Automated Vehicle Location

STARS is including an Automated Vehicle Location subsystem to identify the location of law enforcement patrol cars that are equipped with computers. Location data will be sent to a display at the closest State Police division headquarters during vehicle stops or from a dispatcher initiated request. This feature is directly intended to support the commitment to maximizing officer safety.

Since signing the contract, the mobile data requirements for the Department of State Police and the STARS law enforcement agencies have changed. The Integrated Voice and Data (IV&D) Network provides a limited data capability that will not support sending DMV photographs, Amber Alert photographs, nor will it support an over the air Records Management System (RMS). STARS mobile data users will now have the option to use a Verizon Air Card to provide the required capacity to support sending photographs and RMS files over the air. The Verizon cards will provide the primary mobile data transport with the IV&D mobile data as secondary where Verizon coverage is unavailable, as may be the case during a significant disastrous event.

Alarm and Control

The STARS Network Fault Management subsystem manages transmitter site/equipment alarms and controls various site functions. The Network Fault Management subsystem collects data automatically, processes that data, and then displays it at the Network Operations Center. This management tool provides a single interface for monitoring equipment and systems alarms over Internet protocol. The data is used to operate the network, analyze the flow of site alarm and system control data, offer system solutions and handle pre-defined alarm situations automatically. The system provides reports to the engineers and the operators that will help in administering the network. The Network Operations Center at State Police Headquarters houses personnel on a 24/7 basis to identify, remotely correct alarm conditions or dispatch technicians.

Transmitter Sites

The 121 transmitter sites in STARS consist of 45 land mobile radio (LMR) towers sites and 76 microwave tower sites. Our current totals have been modified to include two additional LMR sites (Burgess and Eastville) for a total of 47 and we have deleted seven (7) area offices located in Division 1 leaving a total of 69 microwave sites. These sites support the land mobile radio voice, microwave radio, and the mobile data subsystems. Each site's communications equipment is housed in a protective building, and is monitored for technical functions and protected with emergency power systems and sophisticated grounding systems to protect from lightning damage.

Each site will be implemented using the most efficient and cost effective process, a methodical approach will be followed which takes into consideration many facets such as: microwave radio path surveys, necessary FAA submittals and approvals, architectural and engineering work, and site specific improvements. The major components necessary for the completion of a communication site include: site preparation, radio towers, radio buildings, heating, ventilation, air-conditioning, backup power systems, as well as fencing.

Master Sites and Dispatch Center Renovations

Motorola will provide the Commonwealth with design-build construction services to upgrade three of the seven State Police communications centers. They will be constructed as additions to existing State Police division headquarters buildings.

Divisions 1 and 5 Communications Centers have been renovated and expanded; both now have eight new dispatcher consoles.

During contract negotiations, it was determined the Commonwealth will be able to manage and procure construction services for the STARS Network Operations Center and the Zone 2 Master Site facilities resulting in considerable cost savings. Motorola will install the equipment in both facilities. To meet the aggressive schedule, an existing State Police warehouse was refurbished for the Network Operations Center. The Network Operations Center became operational on February 13, 2006. A new building at Division 6 (Salem), currently under construction, will support State Police dispatching and the Zone 2 Master Site equipment. The Zone 2 Master Site has a substantial completion date of October 4, 2007.

Voice and Data Subscribers

Motorola is providing the Commonwealth with vehicular radios, portable radios, mobile digital vehicular repeaters, and mobile computer terminals for users to operate on STARS. Different models are being supplied that will enable the Commonwealth agencies to employ the radio types appropriate for their particular operational needs.

Status of Site Acquisitions

There are 22 transmitter sites being implemented for Division 1, with 21 complete. Division 5 has six of the seven sites completed. In Division 2, two of five are complete. Division 3 has three of nine complete and Division 7 has one of five. There are currently 14 sites scheduled for Division 4 and 12 for Division 6. Transmitter site surveys are being completed and are ongoing in all divisions.

Project Management Plan

Executive Order 28 (2002)

On June 26, 2002, Executive Order 28 (2002) was signed officially continuing the Statewide Agencies Radio System (STARS) Project. It also provided direction as to how the project would proceed, including participating agencies, and formulated the basis of this Project Management Plan.

Executive Order 101 (2005)

On November 1, 2005, Executive Order 101 (2005) was signed and continues the STARS Project through October 31, 2008.

The STARS membership is composed of the following 21 state agencies. Representatives from each agency make up the User Agencies Requirements Committee (UARC).

Alcoholic Beverage Control
Capitol Police

Charitable Gaming
Chesapeake Bay Bridge and Tunnel Police
Conservation and Recreation
Corrections
Emergency Management
Environmental Quality
Fire Programs
Forestry
Game and Inland Fisheries
Health
Juvenile Justice
Military Affairs
Mines, Minerals, and Energy
Motor Vehicles
State Police
Transportation
Virginia Information Technologies Agency
Virginia Marine Resources Commission
Virginia Port Authority

STARS Program Oversight and Workgroups

The STARS Management Group is a board established by Executive Order 28 (2002) and composed of the Secretaries of Administration, Agriculture and Forestry, Commerce and Trade, Finance, Health and Human Resources, Natural Resources, Public Safety, Technology, and Transportation. The Secretary of Public Safety will serve as the chairman. The STARS Management Group will provide direction and overall governance for the development, implementation, and ongoing operation of STARS. In addition, they will review all procurements and contracts, coordinate radio frequency licenses granted by the federal government to agencies of the Commonwealth, and promote interagency cooperation and coordination in the use of communications resources.

The User Agencies Requirements Committee (UARC) consists of two representatives (primary and alternate) from each member agency and institution. The Chairman of the UARC is selected by the STARS Management Group. The current Chairman is Mr. Jackie T. Davis with the Department of Mines, Minerals and Energy. The UARC meets as necessary, but at least quarterly. The specific duties of UARC are to advise on the needs of member agencies for the planning, design, establishment, and operation of STARS, provide advice on proposals for other federal, state, or local agencies to join STARS and on any proposals for third party use of any STARS infrastructure or component, and assist the STARS Management Team with the development of a comprehensive management plan and procedures for the operation of STARS.

The UARC will form various interoperability working groups to advise the STARS Program Management Team how to configure/program the networks. They will plan talkgroups to communicate during various intra-agency events and potential emergency situations. Interagency planning is part of the Systems Integrator contract.

The Virginia Information Technologies Agency (VITA) will be consulted by the Secretary of Public Safety, or his designee, prior to implementing any significant data transport related network upgrade or modification. STARS continues to provide monthly updates on the VITA ProSight IT Investment Portfolio Tool. The STARS Project Manager, Mr. Thomas Struzzieri, has completed the IT project manager training established by the Chief Information Officer of the Commonwealth.

The Intra/Inter-agency Workgroup meets every other Monday and is chaired by the STARS program director. The group is comprised of State Police administrative and support divisions, the STARS Program Management Team, and representatives as needed from other agencies based upon their involvement as forecasted by project schedule. Accomplishments and tasks that need to be started and completed are discussed.

The STARS/Motorola/CTA Project Workgroup is comprised of the STARS Program Management Team, the systems integrator, and the engineering consultant. The managers meet on a monthly basis in accordance with the contract and topic-oriented work groups as needed (typically multiple groups weekly.) The meetings have an agenda and minutes are recorded. The purpose of the meetings is to review the schedule, identify problems, provide solutions to problems, establish action items, and schedule any needed teleconferences. Advisors from the various agencies will be included when their input is required.

STARS Program Management Team Responsibilities

The program director (Captain Michael E. Bolton) is responsible for the overall direction of the STARS Program and management of daily operations. Captain John E. Furlough, communications officer for the Communications Division, is responsible for providing engineering guidance and inspections from his staff for STARS. The STARS program director holds meetings with representatives from the Intra/Inter-agency Work Group. Monthly meetings are held with the STARS/Motorola/CTA Project Group to outline progress and tasks. The program director will ensure the integrator provides proper documentation and that all work is inspected and approved within the terms of the contract.

The program director maintains a liaison with the Secretary of Public Safety, the User Agencies Requirements Committee (UARC) and the STARS Management Group to ensure they are kept abreast of progress and developments. Monthly status reports required by policy and law are being provided. The program director will provide reports and testimony to the General Assembly as required.

The program director is responsible for ensuring the Virginia Information Technologies Agency (VITA) is consulted and the Secretary of Public Safety is informed prior to implementing any significant data transport related network upgrade or modification.

The project manager (Mr. Thomas A. Struzzieri) is the technical lead and supervises the STARS engineering staff. In addition, the project manager works closely with the systems integrator and consultants to provide solutions to technical problems. He

evaluates any new or improved technology that may be recommended by the systems integrator, consultants, and advisors. The project manager will organize and utilize the User Agencies Requirements Committee to ensure individual agency requirements have been met.

Procurement and contract officer (Ms. Patricia T. Trent) develops and issues solicitations, negotiates and administers the contract, prepares sole source justifications, monitors contractor performance, initiates contract resolutions and issues change orders. In addition, she maintains the overall Bond Program Budget. She is also the mediator between the agencies and contractors to resolve any contract issues, responses needed, or scheduling delays.

Computer systems engineer (Mr. Clark W. LaFlare) assists in the planning and technical aspects of the design, implementation, and maintenance of STARS. He serves as the data processing technical point of contact with the systems integrator, and consultants. He coordinates performance functions related to software, servers and the department's computer-aided dispatch network.

Telecommunications engineers (two) (Mr. Michael D. Deane and Mr. Noel Armstrong) assist with the engineering, design, installation and documentation for upgrade of the existing land mobile radio system, the microwave system, radio towers, subscriber equipment, fleet mapping, and talkgroup development to meet the requirements of the STARS system. They work closely with the systems integrator, consultants and member agencies to ensure all upgrades are made in a timely manner and meet the requirements of STARS.

Program administrator (Ms. Teresa M. Hudgins) is responsible for maintaining the master program schedule, individual project schedules, work breakdown structures, and performing overall program risk management. Additionally, the program administrator is responsible for updating program risk assessments on a monthly basis, maintaining the General Fund Program budget, and managing expenditure accounts during the implementation period.

Program support technician senior (Ms. Cynthia L. Sandy) is the liaison for STARS with all the member agencies.

Project Timelines for Implementation

Pending Division 1 Categories	Projected Completion	Actual Completion
4. Integrated Voice and Data Freq. Plan Development	11-29-04	Ongoing
15. Microwave Optimization and Testing	10-06-05	*Delayed
18. Division 1 – System Operational	08-01-06*	03-27-07
22. Construction at Edgehill	05-07	

*These dates have been revised. Two new sites have been added for Division 1. The Microwave Optimization and Testing has been completed for all sites except Edgehill.

Division 5 Categories (7 Sites)	Projected Completion	Actual Completion
1. Implementation of Division 5	2-6-06	2-6-06
2. System Design and Review	02-06	03-06
3. Equipment Staging	6-13-06	06-06
4. Division 5 HQ Communications Center Construction	12-19-06	11-06
5. Construction of 6 Transmitter Sites Completed	10-20-06	2-28-07
6. Construction of 1 Transmitter Site (Accomac) Completed	06-07	
6. Division 5 Systems Optimization	08-07	
7. Coverage Testing for 23 Counties	02-07	3-22-07
Coverage Testing Remaining County (Accomack)	06-07	
8. Documentation and Acceptance	09-07	
9. System Acceptance of Division 5 (50%)	1-4-08	6-28-07

Motorola submitted their July 2007 STARS Master Schedule on July 31, 2007.

Subscriber Migration is reflected at 64% and is scheduled to be completed by May 15, 2008.

Control Station implementations (approximately 500 each) have been added to the Master Schedule, as requested by the Commonwealth; however, specific anticipated finish dates need to be discussed for inclusion.

Delaying factors have been noted by Motorola, such as site investigation, owner approvals and regulatory permitting. Transmitter sites are the critical issues with reference to the Master Schedule. Motorola was notified in the monthly schedule review meeting that the Commonwealth wishes to re-baseline the Master Schedule as some factors/tasks were not appropriately addressed in the original schedule. It was stated that all tasks are to be identified with valid dates prior to the Commonwealth determining validity of re-baselining the Master Schedule / Contract Complete Date via a No Cost Contract Modification.

Integrated Voice and Data Frequency Plan Development

The contract originally required a statewide frequency plan. Due to the accelerated schedule to implement Division 1 by December 2005, the focus of the frequency plan was changed to finish the Division 1 plan and then concentrate on the statewide plan. The Division 1 plan was completed on June 13, 2005. The first draft of the statewide plan has been submitted and reviewed. The second draft of the statewide plan was received on September 22, 2005. The third draft of the statewide plan was received on October 5, 2006. Several additional revisions have been received for Divisions 2, 3, 5 and 7 as statewide implementation is being performed.

All member agencies will have their STARS equipment installed along with the State Police field divisions in which they have operations. The additional State Police field divisions will be operational on STARS by:

Division	Beneficial Use
Tidewater (Division 5)	06/12/2007
Culpeper (Division 2)	06-08
Northern Virginia (Division 7)	02-10 *
Salem (Division 6)	05-09
Appomattox (Division 3)	07-09
Wytheville (Division 4)	12-09

These date changes are based on the June 2007 Motorola Project schedule.

*Division 7 has been moved to the end of the implementation schedule because of the Commonwealth's co-location in the Fairfax County – Commonwealth of Virginia Public Safety and Transportation Operation Center (PSTOC). The PSTOC is currently under construction with completion expected Spring/Summer 2008.

Other Information

COMLINC

Motorola's Motobridge interoperability solution, renamed COMLINC (Commonwealth Link to Interoperable Communications) within Virginia, allows dispatchers at the counties and cities to establish up to eight patches. One of the eight paths will come back to the STARS network. The local dispatchers may use the other seven patches to connect agencies within their jurisdictions or to other localities. For example, a sheriff's department can patch to the fire department regardless of the frequencies used by each agency. Patches can also be made to phone networks and used to establish dispatcher conferences. By using COMLINC, the requirement to call by phone to establish a patch no longer exists; each dispatcher initiates the patch themselves at their console. COMLINC also provides instant recall of recorded audio. It enables the use of advanced calling features such as Emergency ID, and allows monitoring of the interoperability network activity and associated operations. For agencies requiring end-to-end encryption, COMLINC provides AES encryption over the network. COMLINC was implemented in 16 localities in Division 1, and at VSP Divisions 1 and 5, along with the STARS Network Operations Center (NOC). The current COMLINC participants are the counties of: Caroline, Charles City, Chesterfield, Essex, Goochland, Hanover, Henrico, King George, Lancaster, New Kent, Northumberland, Powhatan, Richmond, Westmoreland, Amelia, Nottoway, and the Virginia Department of Transportation (VDOT). COMLINC will be expanded statewide if additional funding can be obtained.