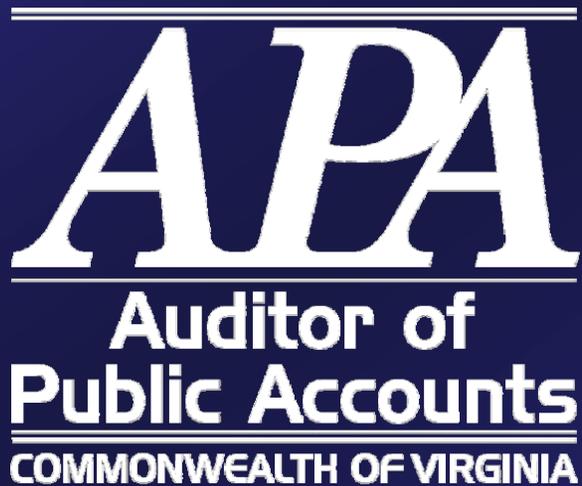


Interim Review of STARS
Project Management
June 16, 2009



Andy Powell, Audit Director
Acquisition and Contract
Management

STARS Background

- Statewide Agencies Radio System
- Replace outdated radio equipment and software in all State Police vehicles and construct new radio towers and communication centers

STARS Stakeholders

Chesapeake Bay Bridge Tunnel

Department of Alcoholic Beverage Control

Division of Capitol Police

Department of Charitable Gaming

Department of Conservation and Recreation

Department of Corrections

Department of Emergency Management

Department of Environmental Quality

Department of Fire Programs

Department of Forestry

Department of Game and Inland Fisheries

Department of Health

Department of Juvenile Justice

Department of Military Affairs

Department of Mines, Minerals, and Energy

Department of Motor Vehicles

Department of Transportation

Virginia Information Technologies Agency

Virginia Marine Resources Commission

Virginia Port Authority

Motorola Contract

- Motorola's Original Proposal was for \$370.8 million
- Negotiated concessions included:
 - Renovation of warehouse at Headquarters to serve as Network Operations Center
 - Construction of new building at Division Six Headquarters
 - Purchase of Microsoft software for laptop computers
- \$329.9 million Contract with Motorola Signed June 23, 2004
- Contract currently valued at \$339.7 million

STARS Operating Funding

	<u>2009*</u>	<u>2008</u>	<u>2007</u>
Operating Sources:			
General Fund STARS Appropriation	<u>2,510,000</u>	<u>2,510,000</u>	<u>2,510,000</u>
Total sources	<u>2,510,000</u>	<u>2,510,000</u>	<u>2,510,000</u>
Capital Uses:			
Hayes, Seay, Mattern, & Mattern	87,593	896,639	956,120
State Police payroll and internal services	435,211	823,567	841,564
Motorola services	-	15,828	-
Other Miscellaneous Vendors	<u>325,567</u>	<u>519,406</u>	<u>348,867</u>
Total uses	<u>848,371</u>	<u>2,255,440</u>	<u>2,146,551</u>
Net of sources over uses	<u>\$ 1,661,629</u>	<u>\$ 254,560</u>	<u>\$ 363,449</u>

* Through December 31, 2008

STARS Capital Funding

Through December 2008

VPBA revenue bonds issued	\$245,900,000
Unissued bonding authority	<u>115,300,000</u>
Total bond authorization*	361,200,000
Motorola payments through April 2009	222,032,937
Other contractor payments through April 2009	<u>12,291,518</u>
Total capital expenses	<u>234,324,455</u>
Net Remaining Capital Funding	<u>\$126,875,545</u>

*VPBA revenue bonds are funded by a 2% increase in vehicle rental taxes.

2007 and 2008 Reviews

- We have conducted two interim reviews of project management to date
- The first (2007) focused on governance and overall management of the project
- The second (2008) focused more on day-to-day operations and review of the financial implications after implementing our 2007 recommendations

2007 Findings

- The project management team did not estimate costs to complete the project and therefore could not determine the project was on-budget.
- The team accepted unreasonable assumptions in Motorola's project schedule which may have distorted the projected completion date of the project.
- The team did not schedule inspection resources beyond one week allowing for delays in the inspection of deliverables.
- The team did not follow a formal means of communication which proves to be critical on a project of this size.

2007 Recommendations

- Monitor budget against actual costs incurred and estimated.
- Use reasonable, conservative assumptions in the project schedule to produce a realistic estimate for completion.
- Develop a long range assignment schedule for internal resources in order to plan for the inspection and testing of deliverables by Motorola.
- Revise and follow the project communication plan.

Status of 2007 Recommendations

- Contracted for Project Manager
- State Police has also implemented the recommendations made in our 2007 report.

Objectives of 2008 Review

To determine the following:

- STARS Management has taken appropriate corrective action based upon our 2007 interim review of the project.
- STARS management adequately monitors the project progress to ensure Motorola's compliance with the contract specifications.
- Payments made to the project consultant are reasonable and substantially supported.
- STARS management is adequately planning for the future costs and schedule of the project.
- STARS management is spending its funding in a controlled and responsible manner with regards to the remaining funding for the project.

General Conclusions

- Generally met the objectives of the review.
- Findings Include:
 - Insufficient review of Consultant invoices before payment
 - A thinning margin, based on estimated future costs, of project funding available.
 - No plan to fund the continued maintenance and operation of the completed system

Project Delays

- Laptop Failures and Vehicle Installations
 - Laptops supplied by Motorola are failing at rates of 30%
 - State Police management is in discussions with Motorola Senior Management attempting to resolve
- Site Lock-Down
 - At the time of our review 11 tower sites have not been locked down
 - Locked-down means all permitting and leases necessary to begin construction have been obtained

2007 Estimated Cost of Delay

Total bonding authority	\$361,200,000
Less: total current Motorola commitment	(338,637,453)
Less: total capital payments to other vendors (through Sept 2007)	(9,644,216)
<i>Less: minimum day-for-day estimated delay cost (165 days)</i>	<i>(2,777,775)</i>
Remaining capital funding assuming no further change-orders	<u>\$10,140,556</u>

2008 Estimated Cost of Delay

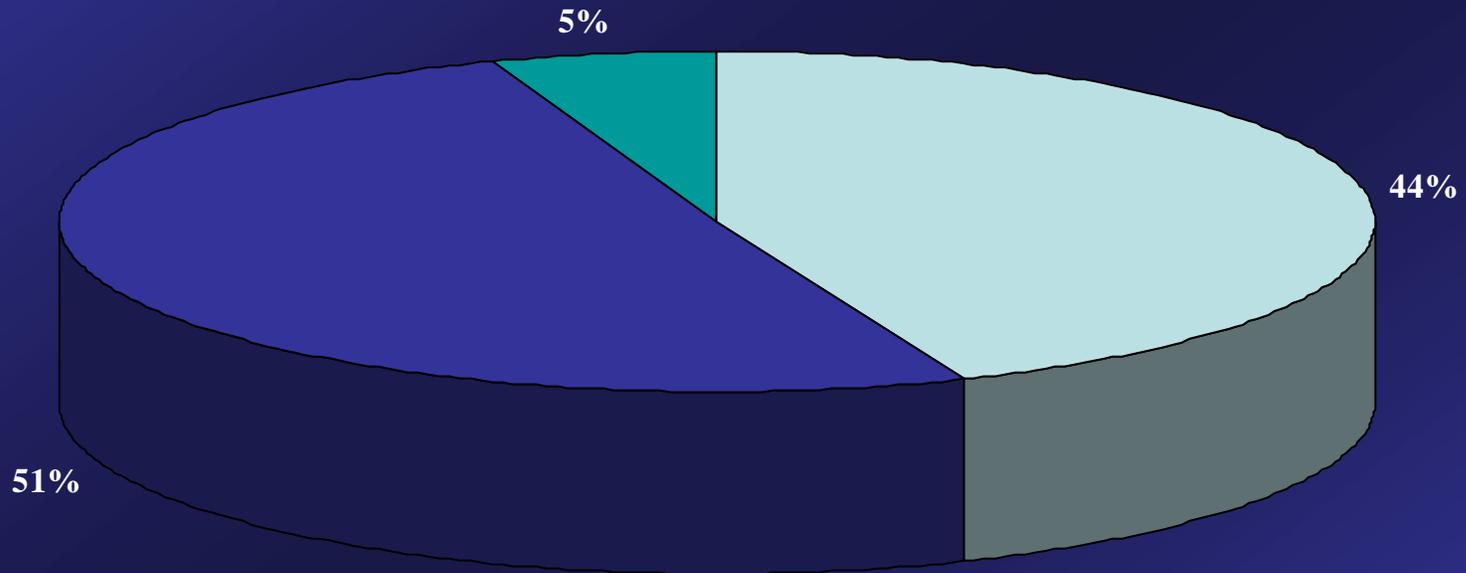
Total bonding authority	\$361,200,000
Less: total current Motorola commitment	(339,726,282)
<i>Less: VSP estimated additional cost to complete project</i>	<i>(15,411,993)</i>
<i>Less: minimum day-for-day estimated delay cost (140 days)</i>	<i>(2,356,900)</i>
Remaining capital funding assuming no further change-orders	<u>\$3,704,825</u>
Less: total capital payments to other vendors (through Dec 2008)	<u>(12,291,518)</u>
Revised remaining capital funding assuming no further change-orders	<u>\$ (8,586,693)</u>

Each day of slip costs \$16,835.

2008 Estimated Cost of Delay

	Actual December 2008	Estimated During Audit
Total bonding authority	\$361,200,000	\$361,200,000
Less: total current Motorola commitment	(339,726,282)	(339,726,282)
Less: total capital payments to other vendors (through Dec 2008)	(12,291,518)	(12,291,518)
Remaining capital funding assuming no further change-orders	\$9,182,200	\$9,182,200
<i>Less: VSP estimated additional cost to complete project</i>		(15,411,993)
<i>Less: minimum day-for-day estimated delay cost (140 days)</i>		(2,356,900)
Remaining capital funding based on estimated incremental costs		\$ (8,586,693)

Infrastructure Construction As of February 2009



- Sites Remaining with Major Construction - 40
- Sites 100% Complete - 43
- Sites Substantially Complete - 4

Maintaining STARS

- Maintaining a digital radio system is different than maintaining an analog system.
 - Equipment repair and replacement is only part of maintaining a digital system
 - The system is reliant on software and networking to operate
- There are fixed lease costs for properties on which towers are constructed
- These costs may not be able to be absorbed by existing Department resources

Maintenance Estimates

Motorola Service Estimate	\$14-15.4 M
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Consultant Maintenance & Operations Estimate	\$13.9M
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Neither estimate include the future leasing costs of property for the system.

Summary

- State Police has implemented the corrective action recommended in our 2007 report.
- State Police should review consultant invoices more closely to ensure accuracy of billings.
- State Police should monitor project spending and projections closely and begin formulating alternatives in the event additional funding may be required to complete the project.
- State Police should identify its complete maintenance requirements and inform all project stakeholders in the event they cannot support continued maintenance.

Questions?

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