

Virginia State Police



STARS

- ▶ In order for the STARS Network to be sustainable and to prevent the Commonwealth from having to procure a new system, replacing end-of-life technology is essential.
- ▶ VSP has the responsibility for equipping new vehicles, aircraft, and boats belonging to all 22 STARS agencies. Also, removing equipment from decommissioned or crashed vehicles, and the refurbishment and re-installation of the reconditioned hardware into other vehicles.
- ▶ VSP maintains over 70,000 STARS assets.

STARS

3

- ▶ On July 13, 2004, the STARS contract with Motorola was signed.
- ▶ On July 1, 2011, the VSP Communications Division assumed the engineering, installation, maintenance, and operations of the STARS system on the behalf of the Commonwealth.
- ▶ Since 2004, the infrastructure, hardware and software have aged and began to deteriorate.
- ▶ Maintenance demands of the network cause VSP's workload to increased exponentially.

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- Prior to July 2012, most of the STARS agencies had their STARS radios installed and decommissioned by Motorola Service shops.
 - Prior to 2012, VSP averaged 25 or less vehicles per year.
 - In 2014, VSP processed 262 vehicle requests
 - In 2015, VSP processed 311 vehicle requests
 - As of July 2016, VSP has received and processed 296 vehicles
 - The workload has increased, however staffing has remained the same

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- The vehicle maintenance garage has also encountered sharp increases
 - In 2014, 620 vehicles were serviced
 - In 2015, 770 vehicles were serviced
 - In 2016, it is projected that 900 vehicles will be serviced
 - Staffing Levels have remained the same
- Over the last 2 years, 88 compressor change outs were completed for the STARS HVAC systems.
 - Cost per-unit is \$2,000.00
 - A contractor charges approximately \$3,500.00
 - VSP saved the Commonwealth \$132,000 without a dedicated HVAC Position

STARS

6

- ▶ In today's threat environment, the need to enhance interoperability with local and federal partners demands VSP to support these endeavors.
- ▶ As technology continues to advance, the cost to maintain and support STARS continues to increase.
- ▶ In order to sustain the network over the next 7 years, the cost is forecasted at nearly \$130 million dollars.
- ▶ This includes items such as:
 - ▶ Equipment, Servers, Required upgrades, Software, Annual Sustainment, and People

STARS

7

- Due to the number of future projects, upgrades, maintenance, support, and new technology, it is anticipated that staffing levels will also need to be increased.
- In order to sustain the STARS network, a systematic approach to replace aging systems and equipment must be set in motion in order to project future fiscal impacts and staffing requirements.

STARS

8

VSP maintains and supports the STARS Network on a 24/7 basis by utilizing dedicated VSP employees

- Engineers
- Asset/Inventory
- Radio Shop
- Network Operations Center
- Field Radio Shops
- Field Installation Shops
- Tower Crews
- Vehicle Installation and decommission garages



SUSTAINING STARS

FY 2018

-48VDC Power Plants	\$1.7 M
Quantar Replacement	\$5.7 M
Telscan Replacement	\$250 K
STARS MDT Replacement	\$2.7 M
Computer Aided Dispatch Server Replacement	\$1.4 M
TDMA for SPHQ	\$324 K
MDT Advanced Authentication	\$350 K
FY 2018 Total - \$12.4 M	

SUSTAINING STARS

Procurements to Begin in FY 2019/2020

SIRS Replacement	\$2.9 M
XTL5000 Consolettes Replacement	\$3 M
Control Stations Replacement	\$3.8 M
Mobile Radios Replacement	\$38 M
XTS5000 Portable Radio Replacement	\$33 M
DVR Replacement	\$25 M
Maser Site Disaster Recovery	\$3.3 M
STARS MDT Hard Drive Encryption	\$700 K
Total \$110 M	

SUSTAINING STARS

Procurement Timing Not Yet Determined	
Over-the-Air-Programming (OTAP)	\$1.1 million
Over-the-Air Rekeying (OTEK)	\$208,000
Annual Sustainment	
Annual MDT Replacements	\$541,000 Annually
Microwave Radio Antenna Cover Replacement	\$60,000 Annually
Zhone Multiplexer CPU Replacement	\$735,000 Total Replace as needed
HVAC Replacement	\$60,000 Annually
Motorola Lifecycle FY 2018	\$1,248,356
Motorola Lifecycle FY 2019	\$1,269,916
Motorola Lifecycle FY 2020	\$1,283,277

SUSTAINING STARS

FTE Requirements	
Garage Technicians (4)	\$132,000
HVAC Technician (1)	\$44,000
Interoperable Technician (2)	\$84,000
Master Electrician (1)	\$60,000

Fringe ~ 33% = \$105,600. Total: \$425,600

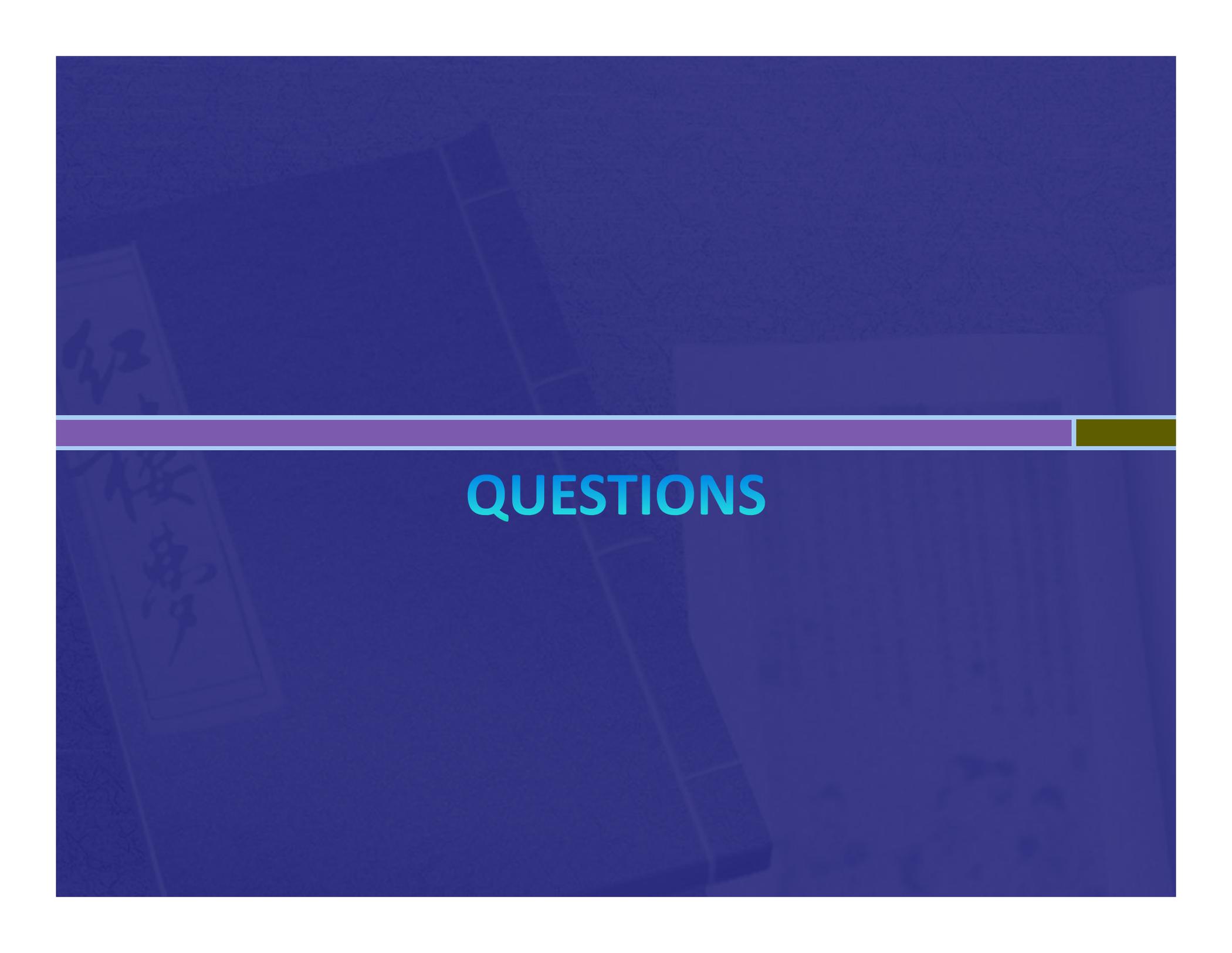
Cost Summary

- ▶ FY2018: \$12,424,000
- ▶ Beginning FY2019: \$109,700,000
- ▶ Time TBD: \$1,308,000
- ▶ Annual Sustainment: \$661,000
- ▶ Other Costs: \$4,536,549
- ▶ FTEs: \$425,600

- ▶ Total Projection: \$129,055,149

Conclusion

- ▶ We have carefully assessed the life-cycle of existing equipment and developed a phased approach to replacing equipment with minimal impact to service
- ▶ VSP is tasked to administer the STARS Program to the Commonwealth and we have done so with great success
- ▶ This responsible approach ensures the continued success of the program



QUESTIONS