



North Carolina Department of Public Safety

State Highway Patrol

Roy Cooper, Governor
Erik A. Hooks, Secretary

Glenn M. McNeill, Jr.
Commander

MEMORANDUM

To: Chairs of Joint Legislative Oversight Committee on Justice and Public Safety

From: Erik A. Hooks, Secretary, DPS *EAH*
Glenn M. McNeill, Jr., Commander, State Highway Patrol *[Signature]*

Subject: VIPER Quarterly Report

Date: August 14, 2019

Pursuant to Session Law 2016-94, Section 17B.1, The Department of Public Safety shall report annually no later than March 1 and quarterly thereafter to the chairs of the Joint Legislative Oversight Committee on Justice and Public Safety on the progress of the State's VIPER system.

Network Status - 241 total sites planned for statewide coverage of which 226 sites are constructed and on-the-air representing 94% completion. A total of six sites are complete or underway but are waiting on the resolution of leases; or tower upgrade projects at adjacent sites where microwave connectivity is originating are not yet complete. Four sites have been identified for construction in the FY19/20 budget year. Six sites will require funding after the upcoming fiscal year. 124,000 users are currently on the VIPER Network consisting of more than 176 Federal, State and County emergency responding agencies. This quarter gain represented slightly less than 3,000 additional user radios.

SUA Status - VIPER completed the upgrade to Release 7.17 in the first quarter of 2019, utilizing the one-time funding of \$5M provided by the Legislature for use in fiscal year 2018/2019 to bring the network up to the current release. The Legislature provided a one-time appropriation of \$1.5M for the SUA long-term contract and VIPER has entered into a nine year agreement with Motorola Solutions to provide the long-term SUA contract with subsequent system upgrades scheduled every three (3) years. This contract has a defined, recurring funding appropriation of \$1.5M from the Legislature pending approval of the FY19/20 budget.

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New Tower Construction Progress –Four (4) new sites have already been identified for new construction. These four sites are located in Johnston, Watauga, Anson, and Clay Counties.

Other Significant Projects:

- **GTR upgrade:** The end of life (EOL) has been reached for the current Quantar Base Stations and additional funds are needed to purchase replacement GTR Base Stations. The anticipated cost for replacement of the Quantar Base Stations at the 187 affected sites is \$28,500,530. Through SB99, we were provided \$8.7M for the GTR base station upgrade for the FY18/19. All GTR replacement equipment funded from our FY18/19 appropriation has been installed and is operational. VIPER will still require an additional \$19,800,530 to complete the upgrade of the remaining Quantar stations statewide. It is important to note that the End of Life (EOL) for the Quantar base stations was 31 December, 2018 so it remains a critical need for VIPER to receive funding to complete the equipment changeover to the GTR Platform. The FY19/20 Legislative budget does include \$9,000,000 towards the replacement of Quantar base stations, pending approval of the FY19/20 budget.
- **MOSCAD:** VIPER is nearing the completion of the upgrade to the MOSCAD site monitoring equipment which allows our Network Operation Center (NOC) to view the status of components that make up the VIPER system, such as generators, tower lighting, and HVAC systems, such that the system is operating properly for our Emergency Responder end users.
- **Microwave Upgrade:** Finally, VIPER operates a statewide microwave network in conjunction with the University of North Carolina. This network utilizes T1 technology (circuit based) which has been the national standard for connectivity for over 50 years. With the transition over the Ethernet and the ability to manage bandwidth needs more efficiently, the Manufacturer (Alcatel) will no longer support our current MDR-8000 microwave radios past the end of CY2021. This will require the state to seek funding to replace the current microwave radios beginning in FY2021 and extending through FY2024. The anticipated funding requirement for the replacement of the microwave radios is \$18,000,000 and would be split equally across the four fiscal years at \$4,500,000 per year.