



North Carolina Department of Public Safety

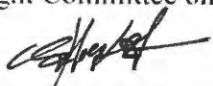
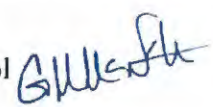
State Highway Patrol

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 
Glenn M. McNeill, Jr., Commander, State Highway Patrol 

Subject: VIPER Quarterly Report

Date: May 15, 2020

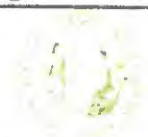
Pursuant to Session Law 2016-94, Section 17B.1, The Department of Public Safety shall report annually no later than March 1 and quarterly thereafter to the chairs of the Joint Legislative Oversight Committee on Justice and Public Safety on the progress of the State's VIPER system.

Network Status – The system currently supports 134,025 emergency users. This past quarter gain in consumers represented slightly less than 2,000 additional user radios. The VIPER Network has 241 sites planned for statewide coverage of which 229 sites are constructed and on-the-air representing 95% completion. Of the twelve (12) remaining sites, eight (8) locations are identified and are either waiting on the resolution of leases, engineering services or completion of construction. The remaining four (4) sites are being identified and will require funding to move forward in the process to complete the statewide coverage.

SUA Status – The Legislature provided a one-time appropriation of \$1.5M for the Service Upgrade Assurance (SUA) program which allowed VIPER to enter into a nine year agreement with Motorola to provide a 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, which began 1 July 2019, with the approval of an FY19-20 mini-budget. VIPER is currently operating at Release 7.17. The \$1.5M payment scheduled for July 2020, will allow VIPER to upgrade to Release 7.19 provided funding is available to replace all the remaining Quantar Base Stations. All local government partners with console equipment connected to the VIPER network rely on the Quantar replacement funding as well, VIPER upgrades must be made before they can execute their SUA upgrades.

New Tower Construction Progress – Currently VIPER has eight (8) sites in the construction process. The four (4) that are funded and being completed are: Triad Park (Guilford County) and Scotland Neck (Halifax County) are both waiting on tower work to be completed, Pittsboro (Chatham County) is waiting on radios to be installed and then the site will be ready to go on air and Benson (Johnston County) will break ground in three weeks.

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The remaining four: Wells Fargo (Mecklenburg) was an identified need for the 2020 RNC in Charlotte and is currently in the leasing process with completion slated by August 2020. Anson (Anson County), Hayesville (Clay County), and Ford Road (Watauga County) are in various stages of engineering or leasing process. These sites were only partially funded due to the budget shortfall in FY 19/20 and will not be competed unless fully funded in the FY 20/21 budget.

A new site slated for Newton Grove (Sampson County), replaces the current Newton Grove site where the tower lease will expire and cannot be renegotiated. The existing Newton Grove site sustained significant damage during recent hurricanes and the relocation is part of a FEMA recommended mitigation strategy with a move to higher ground. VIPER has also rebuilt three (3) sites in Chinquapin (Duplin County), Jacksonville (Onslow County) and Laurinburg (Scotland County) that sustained significant damage during Hurricane Florence. Funding for the Laurinburg replacement still needs to be secured due to FEMA's requirement to decommission and remove the old tower site.

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 product support of current Quantar base stations ended 31 December 2018. The anticipated cost for replacement of the Quantar Base Stations at the 187 affected sites is \$28,500,530. This, like the SUA upgrade represents the most critical of VIPER's current needs. Through SB99, we were provided \$8.7M for the GTR base station upgrade during FY18/19. All GTR replacement equipment funded from our FY18/19 appropriation has been installed. VIPER will still require an additional \$19,800,530 to complete the upgrade of the remaining Quantar stations statewide. Due to the Quantar EOL, it remains a critical need for VIPER to receive funding to complete the equipment changeover to the GTR Platform. The FY19/20 Legislative budget included \$9,000,000 towards the replacement of Quantar base stations along with an additional \$9,000,000 for FY20/21. Due to VIPER's limited supply of parts to support the Quantar stations remaining in service, our ability to maintain the sites with Quantar stations will end in December 2020. Beyond 2020, without replacement stations, VIPER anticipates degraded site capacities and the potential loss of coverage. The above mentioned SUA upgrade activities, both at the state and local levels, are on hold until there is funding for the replacement GTR base stations.
- **Microwave Upgrade:** 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 MDR-8000 microwave radios past the end of CY2021. This will require funding to replace the current microwave radios beginning in FY2021 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. We hope to receive the funding to begin this project in FY2021. The MDR-8000 microwave has provided sterling service to VIPER and UNC-TV, dating back as far as the mid-1990's but can no longer support current and future needs.