



North Carolina Department of Public Safety

State Highway Patrol

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Freddy L. Johnson, Jr.
Commander

MEMORANDUM

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

From: Eddie M. Buffaloe, Jr., Secretary, DPS *Eddie M. Buffaloe Jr.*
Freddy L. Johnson, Jr., Commander, State Highway Patrol *Col. F.L. Johnson Jr.*

Subject: VIPER Quarterly Report

Date: November 15, 2023

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 - Network Status - 241 total sites planned for statewide coverage of which 240 sites are constructed and on-the-air representing 99% completion. VIPER is nearing the completion of the 241st tower site and will then have reached the total number of sites identified in the 2004 Legislative Report. The system currently supports 177,051 emergency users. This quarter gain represented slightly more than 4,917 additional user radios. This continues to clearly demonstrate the growing use of the VIPER network and should serve to solidify the need for the system growth and to be supported both financially and through the additional support positions requested, both of which have been included in the last several DPS/SHP budget requests without further action. An additional statistic that we are also beginning to track is how many county console sites are directly connected to the VIPER network. The number currently stands at 52. We have five further counties with orders for consoles, which will bring the total in CY23 to 57 console sites. Integration of the direct connection consoles greatly enhances the ability for local PSAPs to be able to reroute VIPER radio calls in the event of the loss of a 911 PSAP during emergencies or other unusual occurrences.

New Tower Construction Progress - One site is currently under construction. Hawshaw Mountain (Avery County), has the tower steel ready to deliver however the ability to move forward with the foundation work is pending a site issue with the finalization of a building permit from Avery County. The County has notified VIPER that they no longer have the funding to make certain site improvements that were previously agreed upon and currently VIPER has no additional funding available to cover the County funding shortfall. VIPER is now predicting that the site may not be on the air until the end of June 2024. VIPER continues to work with Avery County to derive a workable solution.

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Other Significant Projects/Funding Needs:

- **VIPER Site Coverage Analysis:** With the upcoming completion of all the 241 Legislatively funded sites submitted as part of the 2004 VIPER study delivered to the Legislature, VIPER staff have begun to identify areas of the state where the minimum 95% portable radio in the street coverage has not been met. The 2004 plan provided a “best estimate” of the needed number of sites and now with the 241 sites fully located and under construction, it is now possible, aided by more modern and comprehensive coverage mapping programs, for VIPER to be able to identify these areas lacking sufficient coverage and to prepare a remediation strategy to bring back to the Legislature for consideration. VIPER has determined that an additional thirty-one (31) sites are needed in Western North Carolina and will present that in a written document to the Legislature for consideration in CY24 for a recommendation on potential future funding. VIPER hopes to host a meeting in late February 2024 to which all the affected counties, along with key Congressional and Legislative leaders, the US Forest Service, the National Park Service, the Blue Ridge Parkway, the North Carolina Department of Agriculture and Consumer Services, and other allied agencies, will be invited to attend to discuss site locations and restrictions, funding opportunities and the challenges associated with a project of this magnitude. The cost of new tower related construction costs continues to skyrocket, and VIPER believes that the sooner that the state were able to lock in a funding source and a commitment from the Legislature to support the additional infrastructure, that this will lessen the financial blow resulting from any delays to the potential project.
- **Personnel:** VIPER has requested additional support personnel in the past two budget cycles. As we reached the number of legislatively funded sites, we are in desperate need of the additional support positions that were identified in the Legislative plan. VIPER needs an additional twenty-eight (28) positions across multiple job classifications, to support the growing number of users. VIPER also requires salary adjustment funds to remain competitive in both retention and recruitment. VIPER currently has multiple vacancies in our field staff and recently lost several key employees to local government agencies where the compensation for similar positions was almost double of what the state pays its employees. VIPER, like all the North Carolina State Highway Patrol’s civilian employees, is prohibited by Legislative action from receiving any portion of Labor Market Adjustment funds as defined within SL2022-74; HB103 Section 39.2.(a); 39.2.(b) which directs that the Labor Market Adjustment Reserve section does not apply to the State Highway Patrol or the State Bureau of Investigation. VIPER has also submitted a salary adjustment fund request specific to its FTE’s and remains hopeful that this will be funded by the Legislature during any upcoming budget negotiations.
- **Microwave Upgrade Project:** VIPER continues to attempt to move forward with the most significant portion of the previously legislatively funded Microwave Upgrade project, which involves the replacement of the legacy microwave radios that have reached their end of manufacturer support life and do not support the transition to Ethernet network topology. The procurement of the replacement microwave radios has been greatly hindered by numerous factors; to include the overall procurement process, legal disagreements on who is ultimately charged with the approval of technology projects tasked to the Patrol, and a complete change to the North Carolina Accounting System and the E-Procurement process. Recent Legislative law changes have helped to clarify where the responsibilities for IT projects related to the Patrol indeed lie, however the procurement continues to be delayed, to the point that under the current funding mechanism

deadlines for the overall project, there is a strong possibility that the funding may run out prior to the project completion. The Patrol continues to work with the respective Agency level partners to move this forward. VIPER cannot move forward with the project until the procurement can receive all the required approvals related to this procurement, to include the approval to award bids from JPS as required by law.

- **Operations and Maintenance:** VIPER continues to request additional operations and maintenance recurring funds as part of its annual budget request. These funds support multiple areas (non-personnel) to include; equipment repair, lease costs, electricity, insurance, fuel costs, vehicle maintenance and replacement cycles, structural related costs, cyclic replacement costs, and many more. The Legislative plan delivered in 2004 defined an increasing recurring cost that was tied to the continual increase in costs as additional sites became operational along with shifting recurring capital (construction) costs into O&M once sites were built. With the goal of 241 sites virtually achieved, VIPER needs a significant increase in these O&M line items. Without an increase, VIPER will be unable to maintain system readiness or make timely repairs when outages occur which leaves all levels of public safety agencies (State, Local and Federal) that rely on VIPER without adequate communications and places their personnel at an increased risk as they serve the public. VIPER predicts that in the current FY24 budget cycle, that it will be over \$3M in the negative on its Operations and Maintenance and based upon already identified needs for the FY25 budget, that this number will exceed an \$8M deficit. Costs for many materials continue to rise and due to the insufficient funding to support the overall VIPER project, VIPER has had to defer many replacement items to future year budgets which results in the realization of higher costs when the actual work is performed, or replacement items are purchased.
- **TDMA Upgrade:** Since July of 2019, VIPER put in place a graduated set of requirements that required end user agencies to remove certain older radios from service and to procure newer radios with the capability to operate in accordance with the P25 Phase 2 (TDMA) national standard for public safety radio systems as defined by APCO (the Association of Public Safety Communications Officials). This TDMA requirement will ultimately allow the VIPER network to expand its capacity through software and firmware upgrades needed to support additional radios, without having to replace the existing hardware. For VIPER to implement the system-wide upgrades however, all end user radios on the network must be capable of operating in the upgraded TDMA environment. The deadline given to the end users for full compliance with TDMA is 1 July 2025 and the majority of the end users are complying with the requirements and the defined date. VIPER has already begun to implement the TDMA features on the system in preparation for July of 2025, however the only funding mechanism available to the Patrol for these upgrades has been Federal Grant funds which are currently limited to a portion of the State's Homeland Security Emergency Management Program Grant (EMPG) funding. VIPER will require significant funding from the Legislature to complete the TDMA upgrade to the network infrastructure. One significant advantage with funding the upgrade is that the timeline to implement the upgrade is relatively short compared to projects such as tower construction projects that often take multiple years to complete. VIPER is confident that a full statewide TDMA upgrade could be completed in as little as twelve months, factoring in both procurement and implementation. This project duration could potentially be considered for funding from any remaining Federal Funds that North Carolina received during COVID that remain unobligated due to the limited remaining time needed to complete new projects.