

The VIPER Semi-Annual Newsletter

(Jan. 2020 - Jun. 2020)

As part of our communications effort to keep everyone informed of our progress, we will be distributing a semi-annual newsletter via email and posting a copy of it on the VIPER website at <http://www.ncdps.gov/Our-Organization/Law-Enforcement/VIPER>. If you would like to contact us, you can email us at VIPER@NCSHP.ORG or call 1-888-92-VIPER.

What is the VIPER staff doing?

- Continuing with new site acquisition and builds.
- We will be transitioning the remaining 122 sites from QUANTAR to GTR by the end of this calendar year.

Critical Upcoming VIPER Upgrades

- **GTR Upgrade Completion:** The remaining 122 tower sites have been identified and funding awarded for the upgrade from Quantars to GTR base stations. The implementation schedule requires the conversion of six (6) sites per week. During the conversion, the converted sites will be taken down, thereby outages are to be expected during this upgrade. Notification of these outages/upgrades will come from our Network Operations Center (NOC) via email **prior** to the upgrade and any assistance during the upgrade should be directed to the NOC at 1 (888) 927-4737.

Quick Facts

- 241 total sites planned for statewide coverage; 231 sites constructed and on-the-air.
- \$2,837,764 anticipated for Construction in SFY2020-2021; normally \$7,000,000.
- \$7.5M O&M needed at completion of build-out; Current funding = \$7.0M recurring.
- Challenges
 1. No budget was passed in SFY19-20 with no budget starting SFY2020-2021.
 2. In moving forward with construction of new tower sites, the challenge will be to get fully executed leases prior to site construction, as well as identify feasible locations for the remaining sites.
 3. Lack of an exemption for State owned property has now become a significant challenge since local governments are now able to veto the state's use of its own land.

Tower Construction Updates

- Benson (Johnston Ct): Tower is being stacked.
- Triad Park (Guilford Ct): Waiting for microwave radios. COVID has slowed down production of this equipment and is a major hurdle for all the new sites right now.
- Hayesville (Clay Ct): Site plans have been approved by the County. Site has entered the environmental/NEPA phase.
- Anson 911 (Anson Ct): FAA has denied the request to put a tower at this location. We are working on appealing this decision but also working with the county to identify alternate locations.
- Ford Rd (Watauga Ct): The lease fell through on the Ford Rd site. Watauga County purchased land in the area of the Aho community as an alternate location. This alternate location is being explored by us.
- Charlotte (Mecklenburg Ct): Lease is pending Governor's signature.

Radio reprogramming

- Please ensure that you make every effort to update your current radio code plug to include the latest control channel list so that your equipment performs at the optimum level. When updating the control channel list, you must ensure that the Full Spectrum Scan option is also activated in your radio code plug. As of January 2020, we are still seeing radio code plugs where the number of control channels in the list is set to ONE! If you have any questions about the control channel update, please send an email to VIPER-activate@ncshp.org.
- A new VIPER Mandatory Statewide Template has been developed and is awaiting SIEC approval before being disseminated. This includes significant changes in the DPR plan, the total number of state event talk groups, the inclusion of LE Only talk groups as well as the removal of roamer and pool talk groups.

VIPER ID status

- VIPER POCs should maintain their inventory and are required to submit an annual “true-up” document to VIPER in January of each year. The “true-up” document for 2020 is due Friday, January 29th and should be sent to VIPER-activate@ncshp.org.

VIPER approved radios

- For 2020 we continue to approve multiple radio vendors and products for use on the VIPER system. Currently Motorola, EF Johnson, Kenwood, Harris, Tait and BK Relm all have approved products for use on the VIPER system. **New radios from vendors for consideration are due no later than 30 September of each year** so that testing and evaluations can be completed prior to the start of the new calendar year.
- **Please read the following notice carefully regarding radio additions to the VIPER System effective 1 January, 2020 and beyond.** Plan for Emergency Responders
- **Effective 1 January, 2020, VIPER will no longer allow current or new VIPER end user agencies to activate non TDMA capable radios on the system. This would include all models from the below list of manufacturer radios;**
 1. **Motorola – XTS1500, 2500 and 5000 portable radios**
 2. **Motorola – XTL1500, 2500 and 5000 mobile radios**
 3. **EF Johnson – 51SL/51ES portable radios**
 4. **EF Johnson – 53SL/53ES mobile radios**
- Effective 1 July, 2022 all radios being added to the VIPER system must be ready to receive TDMA programming. It is extremely important that our end users understand exactly what this means. Many manufacturers radios may be capable of TDMA operation but were not ordered with the “feature” enabled from the factory. These radios will need to be modified in the field to add the TDMA feature, so as to be **ready** for a transition to TDMA in the future.
- Effective 1 July, 2025 all radios currently **active** on the VIPER system, along with all future additions to the system shall be ready to receive TDMA programming. VIPER respects that these dates may represent challenges to our end users, especially in the area of funding since replacement radios or upgrades to existing radios will be necessary. However, it is also important to consider that the system continues to grow and in order to maintain VIPER’s current level of system availability, that a move to TDMA operation would be the most cost effective manner to address future growth and system health. VIPER would strongly recommend that as soon as feasibly possible, that end user agencies consider purchasing new radios **with the TDMA operation already included** in the radios features, so that it is not necessary to have to revisit radios to add the TDMA feature in advance of the above listed dates. VIPER has created a new email address specifically for TDMA related questions regarding this memorandum and any other VIPER TDMA related items. Please utilize vipер-tdma@ncshp.org for any TDMA related inquiries.

- Please also note that any radio previously removed from the approved radio list is also no longer permitted on the system. We have seen several requests to add Motorola XTS3000 radios to the system in the past few months and these radios are not only incapable of TDMA operation but also do not include the 700 MHz spectrum.

System Health

- The System Health is a section that we plan to provide with each newsletter to update our stakeholders, users and partners as to how the VIPER system is doing. These statistics are taken directly from the system.

1. System count

Users (actual radio IDs, consoles not incl.)	135,859
Trunked channels	1,731
Conventional channels	731
Talk groups	4,173
Comm centers tied directly to VIPER	44

2. Busies: The percent of busies compares the number of busies vs. the number of PTTs on the system. Acceptable industry standard is 3% busies for a system. Below is VIPER's system health as it relates to the percentage of busies that we get on the system.

	PTT average	% Busy
Daily average	288,000	0.02%
Monthly average	8,500,000	0.01%

