



# Voice Interoperability Plan for Emergency Responders



# VIPER System Overview

- Statewide 800 MHz trunked radio system available for *all emergency responders (local, State, Federal)*
- Goal: 95% in-street portable coverage based on a 3 watt portable radio
- Network infrastructure consisting of towers linked via microwave
- Implementation (build-out), Operations and Maintenance provided by NC Highway Patrol
- End-user requirement to join the network – purchase their own radios

# Network Status

- 241 total sites planned for statewide coverage
- 202 sites constructed and on-the-air
- 16 sites are fully funded and under construction
- 27 sites require funding (pending legislative funds beginning 2014-2015)
  
- VIPER is 84% complete (number of sites) with 202 sites on-the-air
- 65,388 users are currently on the VIPER Network
  - 260 Emergency Responding agencies (including federal, state and local agencies) makeup the 65,388 radio users
  - 3174 end user radios waiting to join system once P25 migration is complete. Target date to complete P25 upgrade is no later than 30 June 2014. New radio additions to commence 1 July 2014.

# P25 Upgrade and Tower Construction Items

- Programming and Radio Reconfiguration
- Tower Upgrades in advance of P25 system migration
- Project timeline and target for completion

# Programming and Radio Reconfiguration for P25

- Programming has been completed in the western part of the state to add P-25 templates to the radio code plugs and is continuing in the eastern part of the state to add P25 templates to radio code plugs. Target date for radio reprogramming completion remains 31 December 2013. We still have eleven (11) counties that have not upgraded their portable and mobile radio equipment to be P25 ready. Once reprogramming has been completed, all radios will have been reconfigured, ready for the P25 site migration.

# Tower Upgrades in Advance of P25 System Migration

- To date the upgrades at Newton, Asheboro DOT and Staley are complete and significant work is underway at Salisbury, Mocksville, Buck Mountain, and Turner Mountain. Fifty two (52) sites required modifications to the tower structure to be able to accommodate additional microwave dishes. The additional microwave dishes are needed to support the increased network requirements for P25. Of the 52 sites identified that require an upgrade 18 are in process and we continue to receive upgrade packages from our professional engineering contractor each week. These packages are then ready for bid submittal.

# Project Timeline and Target for Completion

- The P25 migration is dependent on the completion of the reprogramming and reconfiguration of all of the radios on the system today, along with the upgrade of the 52 towers and the installation of the new microwave equipment. Once those tasks are complete, the conversion of the current system to P25 will commence. The system will be converted to P25 no later than 30 June 2014.
- New tower sites continue to be added as those sites currently funded come on line. With the current level of funding identified within the VIPER budget, we will be able to ideally construct seven (7) additional new towers each fiscal year beginning with the 2014-2015 budget.



# Questions?

**For all questions relating to VIPER, please  
contact the North Carolina State Highway  
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**[www.nccrimecontrol.org/citizens/VIPER](http://www.nccrimecontrol.org/citizens/VIPER)**

**24 Hour Network Operations Center**

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