

**PASQUOTANK COUNTY, NORTH CAROLINA  
JANUARY 6, 2016**

The Pasquotank County Board of Commissioners met today in a special joint meeting with the Camden County Board of Commissioners and the City Council of Elizabeth City on Wednesday, January 6, 2016 in the Small Business Center at College of the Albemarle.

**MEMBERS PRESENT:** Joseph S. Winslow, Jr., Chairman  
Cecil Perry, Vice-Chairman  
Dr. William Sterritt  
Frankie Meads  
Bettie Parker

**MEMBERS ABSENT:** Jeff Dixon  
Lloyd E. Griffin, III

**OTHERS PRESENT:** Rodney Bunch, County Manager  
R. Michael Cox, County Attorney  
Lynn Scott, Clerk to the Board  
Sheri Small, Finance Officer  
Randy Cartwright, Sheriff  
Travis Jackson, Captain  
Ronnie Barefoot, Technical Operations Manager  
Jerry Newell, EMS Director  
Christy Saunders, Emergency Management Coordinator

Also present were members of the Camden County Board of Commissioners, the Camden County Manager, Finance Officer and Clerk, members of the Elizabeth City Council, City Manager, and Assistant to the Manger/Special Projects, as well as members of local sheriff/police, fire, rescue and emergency management. Following a welcome from Sheriff Cartwright, the meeting was called to order at 7:00 PM by Chairman Joseph Winslow.

**1. PRESENTATION BY MIKE MILAS, MISSION CRITICAL PARTNERS ON ASSESSMENT OF LOCAL 911 RADIO COMMUNICATIONS:**

Sheriff Cartwright recognized Mr. Mike Milas, Project Manager of Mission Critical Partners to make a presentation on the findings and recommendations of their recently completed radio systems needs assessment. Mr. Milas thanked local sheriff/police, fire, rescue, and emergency management personnel for participating in the assessment. He introduced Philip Penny, Client Manager for Mission Critical Partners and thanked him for his part in the assessment.

Mr. Milas explained that the current system design uses nine independent radio sites across the region and uses conventional analog technology. He said fire and emergency medical services operates on VHF frequencies, law enforcement operates on UHF frequencies, and some agencies use the North Carolina Voice Interoperability Plan for Emergency Responders (VIPER) system, which is an 800 MHz multi-site trunked P25 system. He noted that the Camden County Sheriff's Office has already transitioned over to the NC VIPER plan. Currently, there are approximately 600 radios and 500 pagers on the system across the two counties.

Mr. Milas said they went and spoke to the public safety users in groups and individually and gathered a lot of information and identified current system deficiencies. He said interoperability is very limited within the two counties and with external agencies. The system design is insufficient to provide reliable public safety grade communications due to lack of coverage, inconsistent performance, and insufficient redundancy. He stated that channel capacity is limited because frequencies are limited. He also noted that modern radio features such as emergency buttons and encryption are not available. He went on to say that the current system cannot be upgraded.

Mr. Milas explained that reliable communications is an essential tool for public safety. He said the current radio and paging systems have numerous performance and safety deficiencies that could negatively impact the ability of public safety first responders to communicate. He said

improvements will only come through an investment in a new system and radios. Dispatch, law enforcement, fire and EMS staff have all expressed safety concerns regarding lack of interoperability, coverage, and reliable performance today.

Mr. Milas said their assessment considered the following options:

<b>Cost Element</b>	<b>Description</b>	<b>Price</b>
System Option 1	Transitioning to the State 800 MHz P25 trunked VIPER system	\$ 3,134,414
System Option 2	New 700 MHz P25 trunked system	\$11,103,041
System Option 3	UHF conventional simulcast system	\$ 5,790,120
Paging System Enhancements	Recommended enhancements to the VHF paging system	\$ 305,868

He said the paging system is a one-way radio system utilized by the volunteer fire departments and EMS. He stated that the current paging system is unreliable in the north and south ends of the county and they suggest this system be fixed regardless of which option we choose. He noted that 2/3 of the cost of going to VIPER is for replacing radios.

Mr. Milas said key solution criteria are enhancing coverage and reliability to 95%, enhancing interoperability, increase system channel capacity, provide modern radio safety features to system users, and mitigate single points of failure and equipment end-of-life concerns. Important considerations are to leverage past investments where possible by using existing sites and system, consider shared system efficiencies, and minimize new site development needs.

Mr. Milas offered the following recommendations: 1) Transitioning remaining public safety agencies that have not already done so to the VIPER system, which this is the most cost-effective and expedient manner of resolving the existing communication system's performance deficiencies; 2) Enhancing the region's VHF paging system by implementing a simulcast design and digital pagers; 3) Selected site improvements (Grounding and Alarming); and 4) Moving forward with additional planning and procurement activities to support the above project elements (undertake detailed VIPER System coverage testing).

Mr. Milas said he believes the VIPER System is the best option for many reasons. It will resolve all identified performance deficiencies with the current system. Implementation will be expedient, as most of the necessary infrastructure is currently in place. It is the most cost effective because it provides the ability to procure most equipment and radios from the competitively bid state pricing structure, avoids the cost of developing a separate specification and RFP for a new independent system, some P25 800 MHz trunked VIPER system radios already have been purchased by local agencies, and it would avoid significant new infrastructure costs. Interoperability would be enhanced by moving to a system platform that many surrounding counties utilize or plan to utilize in the future. Lastly, it would provide statewide coverage for local users, as authorized by VIPER use guidelines.

In conclusion, Mr. Milas stated that the next suggested steps are to perform detailed VIPER coverage verification testing. He said they will validate and quantify feedback from current VIPER users and past informal testing. Realistic coverage performance expectations will need to be established. Key critical buildings will need to be identified that might need in-building coverage enhancements so that an appropriate contingency could be established. He said the testing will provide information which would inform the need for an additional VIPER site. He noted that they will need to have discussions with VIPER staff to discuss the concept, develop shared understanding of additional channel requirements at VIPER sites, understand the process to add a site, if desired, and understand back-haul requirements to VIPER switch in Farmville, N.C.

Mr. Milas said when dealing with the paging system, the next steps would be to discuss suggested solutions with the paging system users and determine best implementation strategy, develop specifications and request for proposals, procurement, and implementation.

Mr. Milas stated that the system is not going to get fixed easily and we really cannot do small things and make any significant difference. Unfortunately, it is going to require a big investment. He said in his view we are lucky that we have the VIPER option if it can be worked

out, because we can leverage an investment that the state has already made, which is worth \$5-10 million. He said he would want to make sure that it will work out for us and test it. He said they have not performed the next level of detailed math yet, as far as shared costs by agencies. He explained that with the VIPER system we would have a system that we know would be maintained by the State in the future.

Discussion and questions followed.

The Board thanked Mr. Milas for his time in presenting the information. He encouraged the Board's to take the next step if they think the VIPER system sounds like it might be a good alternative so that they will have better numbers to work with during their budget cycles. He noted that this is best done if everybody can move over to it at the same time. It is possible to phase it, but there would still be problems for those who did not switch.

There being no further business;

Motion was made by William Sterritt, seconded by Cecil Perry to adjourn the meeting. The motion carried and the meeting was adjourned at 8:22 PM.

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CHAIRMAN

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CLERK