

## Statement of Work – Eastern Shore of Virginia 9-1-1 Commission

### EMS Operations Channel Expansion – Northern Accomack County – RFP #911-18-001

#### Overview

This project will add an additional transmitter to the existing simulcast/repeater channel, EMS Operations, at the Chincoteague communications tower behind the Chincoteague Public Works building (located in Accomack County). Currently the channel is a four-site simulcasted/repeated channel (with the sites being at Eastville, Belle Haven, Accomac (Sheriff's Office), and Mappsville). This additional site, in Chincoteague, is designed to improve talk-out coverage (from dispatch and other field units on this repeated channel) in areas of northern Accomack County and is being funded by a combination of state grant funds and local funds.

#### Details – Expected Products

- Addition of new transmitter for EMS Operations Channel
- Use of combiner at site for antenna system connectivity
- Addition of needed simulcast control equipment at site
- Interface with existing channel bank equipment at site and at 9-1-1 Center
- Needed configuration (for simulcast channel optimization)
- Addition of multi-coupler at site (for receivers)
- Other projects expectations related to project (grounding, engineering, licensing, cabinet expenses, other)

The network utilized for the interconnect between the EMS Operations Channel (commonly referred to as Channel 2 or Simulcast 2) sites and the ESVA 9-1-1 Center uses fiber provided by the Eastern Shore of Virginia Broadband Authority (ESVBA). Located at each site is channel bank equipment (Harris/Interplex) with needed VF-40 and VF-25 cards as the interface between the radio equipment and fiber network. There is existing channel bank equipment located at the Chincoteague site and ESVA 9-1-1 dispatch site expected to be used for this project, any additional needed hardware and services are expected to be included in the proposal for this project.

The transceiver used for this channel at the other sites is a Kenwood NXR-700 VHF repeater. This radio is no longer available for purchase. The ESVA 9-1-1 Commission has a Kenwood NXR-700 (only the repeater deck) designated for this project. Although this repeater is available for this project, ancillary equipment related to the repeater are needed – RF amplifier, power supply (high power), tone termination panel, and any other equipment determined to be needed for this project.

It is expected the ability to add an additional VHF antenna system on the Chincoteague Tower (at the public works facility) is not available; the proposal should include using a combiner for the needed antenna system connectivity. The antenna system (expected to

be used for this project) is currently used for transmit and receive operations for a separate fire operations channel (repeated), commonly referred to as Chincoteague Fire/Channel 15; not part of the EMS Operations Channel infrastructure. This antenna system is expected to be used for this additional transmitter (for the EMS Operations Channel), in conjunction with the combiner to be included in submitted proposals. The antenna is located at approximately 230', utilizes 7/8 cable, and is a DB224 antenna (inverted). Project completion will utilize this antenna system and combiner for transmit for the fire operations channel and the new EMS Operations Channel transmitter (both at the Chincoteague site).

A new multi-coupler (submitted as part of this proposal), will be used for the receive from the fire operations channel transceiver, the EMS Operations Channel transceiver, and two additional receivers on site. At least a six-port multi-coupler should be submitted in the proposal to allow for any future expansion needs.

The EMS Operations Channel already has a separate receiver at the Chincoteague site that is voted at the ESVA 9-1-1 Center (along with other sites); this is not expected to change although the radio used to provide the audio could change (based on proposal submitted).

### Other

While it is understood the addition of a combiner for the fire operations channel may change its overall power output, this channel shall maintain functional for operations in the northern Accomack County area. While it is understood relocating the receive (for the fire operations channel) from the current antenna system to a separate antenna system (on a multi-coupler) may impact the overall coverage, this channel shall remain functional for operations in the northern Accomack area.

The equipment at this site has a local generator (and some UPS support) designed to allow functionality during the loss of commercial power.

The EMS Operations Channel utilizes the following antenna systems and transmit output power – Eastville site – corner reflective antenna approximately 220', 250W --- Belle Have site – DB-224 antenna approximately 250', 150W ---- Accomac site (Sheriff's Office) - corner reflective antenna approximately 220', 150W --- Mappsville site – corner reflective antenna at approximately 220', 250W.

### Expected Equipment/Materials Needed

This list is not designed to be all inclusive; expect the proposal to include any other equipment needed for the project.

- Equipment/materials needed for the Kenwood NXR-700 repeater deck
- Transmit combiner
- Receive multi-coupler (at least six ports)
- Outdoor cabinet for equipment/repeater

- Any needed grounding materials/components
- Equipment/materials needed for the simulcast control equipment

### Expected Services Needed

This list is not designed to be all inclusive; expect the proposal to include any other services needed for the project.

- Needed configuration/interface (including any needed engineering) to the existing simulcast network (for the EMS Operations Channel); including changes needed to existing other sites (Mappsville, Accomack (Sheriff's Office), Belle Haven, and Eastville and over optimization to assure needed functionality of the channel.
- The needed FCC licensing (to allow transmit on the EMS Operations Channel from the Chincoteague site).

### Frequency Information

EMS Operations Channel – WQED312

Transmit Frequency – 153.800 MHz

Receive Frequency – 155.355 MHz

PL – 123.0

At the optional pre-proposal meeting for this project (Tuesday April 24<sup>th</sup>, 2018, 10AM at the ESVA 9-1-1 Center), additional information will be available to those attending (to provide clarity on this request for proposals and this statement of work) as well as an opportunity to ask questions. The information provided in this optional pre-proposal meeting (including questions asked) will be made available to vendors/firms requesting such (after the meeting).

Questions – Direct to Jeffrey Flournoy, ESVA 9-1-1 Center Director – 757-787-0909 –  
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