



Amateur Radio Emergency Service Sussex County Delaware



1st QTR Hospital Drill

After Action Report Improvement Plan

January 11, 2025

Executive Summary:

On January 11, 2025 Sussex County ARES held a county wide hospital drill to test and exercise the amateur radio stations located throughout Sussex County. Two Beebe hospitals were activated; BBMC Rehoboth & BBMC South Coastal, TidalHealth Nanticoke and the Sussex County EOC were activated. BBMC Lewes as not activated due to weather. Two operators operated from their home stations.

The main objective of the drill was to test message handling, both voice and data, between stations. Each station was sent multiple timed injects via a Master Scenario Event List (MSEL) via SMTP email to one member of each station team. These injects were emailed by the Net Control Stations (NCS) using the Internet to simulate each station receiving a message from the served agency. All healthcare facilities and the EOC received injects.

These injects required the receiving station to send the message via the WinLink Global Email over Radio System for delivery. Some messages were sent to one station with others being sent to multiple stations. Some injects were left up to the individual radio operators to decide how to deliver a message while others directed station operators to deliver a message via digital gateways using the internet or via Peer to Peer (P2P) mode which run directly from facility to facility. Resource requests were made requesting supplies, personnel, hospital status reports and equipment. Each station had three documents to complete and submit at the end of the drill. These documents were the ICS-214 Activity Log, ICS-309 Communications Log (completed via RMS Express) and a brief After Action Report. These documents provide not only information needed for drill After Action Report/Improvement Plan but also for the served agencies records.

Steven, KC3DSO, Beebe Hospital Radio Coordinator, created and sent out the Sussex County ARES Hospital Drill plan on Saturday, 010425 to all participating operators. On 010825 a Zoom meeting was held to answer any questions about the drill plan and to review several basic WinLink System operations planned for the drill. Representatives from all stations were in attendance. Minor corrections, including a section on possible impact a pending snow storm may have, were added to the drill plan which was redistributed on Friday, 011025.

Participants per facilities/location:

BBMC - Rehoboth Surgical – Rehoboth Beach: 2

Team Lead: Steven Keller, KC3DSO

Team Members: Bob Taney, KA3DYX

This station operated as BBMC Rehoboth, Net Control and Exercise Controller for injects.

BBMC South Coastal: 2

Team Lead: Anne Kurtz, KC3YAS

Bill Bouchard, N3EDO

BBMC Lewes: 0

Team Lead: Station not staffed due to weather event.

TidalHealth Nanticoke Hospital: 5

Team Lead: Pat Ryan, KW3Z

Team Members: Dave Stumbo, KB3JBQ

Dave Rossetti, KB3ZMO

Bob Trepp, WB3AJF

Barbara Gilbert, W3BJB

Sussex County Emergency Operations Center, WS3EOC – Georgetown: 3

Team Lead: Bill Saunders, N3ID, Deputy ACL

Team Members: Barbara Dean, KC3LGE

Jessica Labosky, KC3ZIY

Home Stations:

Bob Lippman, K2GHY, Lewes – 1

Sean Story, KC3RLN, Laurel - 1

Total Participants: 14

Objectives:

- Test voice and data communications throughout the county
- Use WinLink Templates to exchange data messages throughout the county
- Setup and test equipment in assigned facilities – verify function
- Communicate via primary voice repeaters within the county between served agencies
- Communicate with Net Control Station (NCS) using proper net procedures
- Introduce a new RMS Express Templates (HICS-251 Hospital Status Report, etc.)
- Demonstrate familiarity of the WinLink System in using both Peer-to-Peer (P2P) and gateway operations to deliver messages.
- Execute received injects promptly, effectively and accurately. Ensure messages go “full circle.”
- Complete and send the proper RMS Express templates and provide prompt reply to received messages
- Record all activity using ICS-214 Activity Report, create an ICS-309 Communications Log via the WinLink Express software and provide a written After-Action Report
- Provide points for an improvement plan derived from station operation

Operations Notes:

Most of the above objectives were met successfully by most stations and exposed objectives requiring attention. All stations within Sussex County were able to contact other stations via main ARES repeater located in Millsboro, 147.090 and using the WinLink System. Direct digital communications via the WinLink Peer to Peer (P2P, no internet) mode worked properly throughout the county.

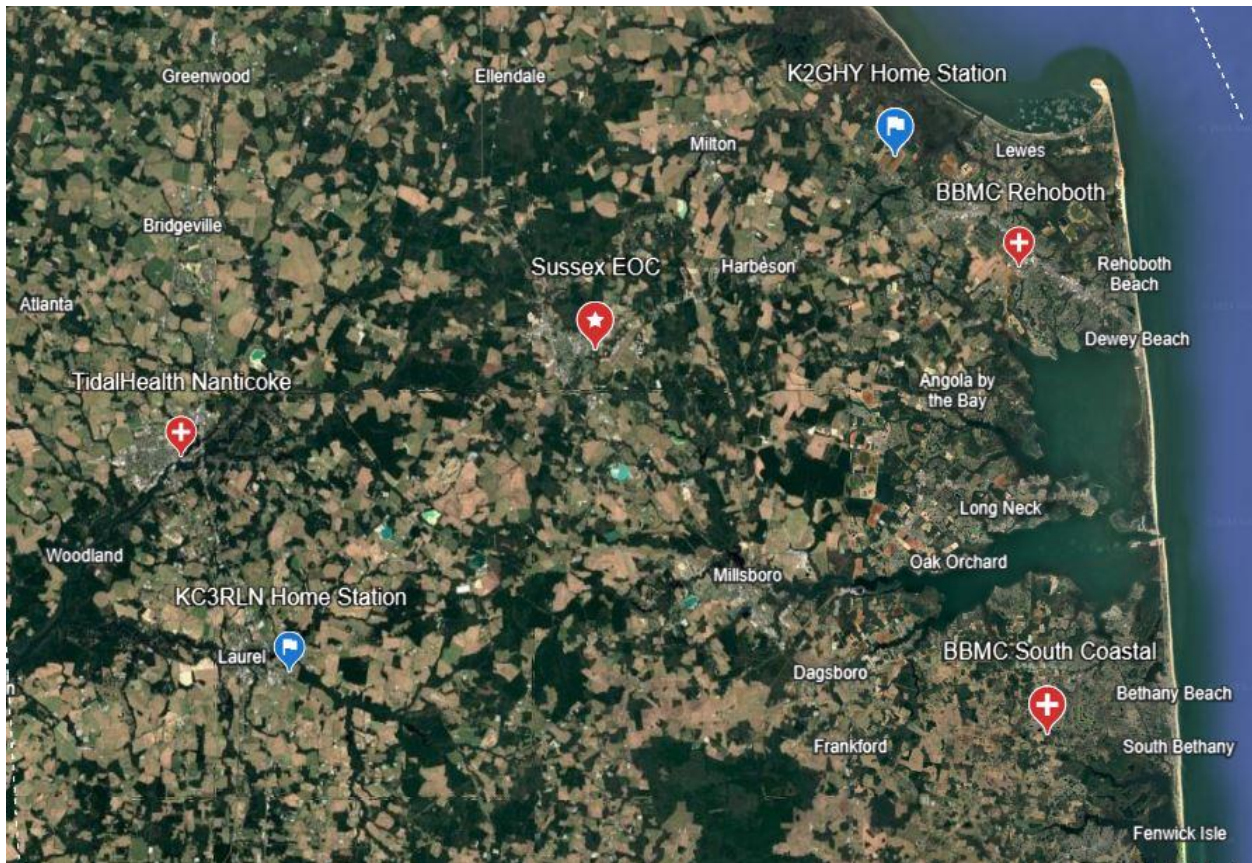
Stations used a combination of Telnet (existing network for Internet operations), accessing digital packet gateways via RF (radio) and direct station to station (Peer to Peer mode) without the use of gateways and the internet within the county. Two gateways, N3KNT-10 located at TidalHealth Hospital Seaford and N3KNT-11 located at BBMC Lewes were inoperable and the WS3ARA-10 gateway in Millsboro continues operating at diminished state. Additionally, the UHF gateway and the VHF digipeater, both located in Georgetown, were removed by the sysop a couple of months ago and will not be placed back in service.

The below digital packet gateways were used by operators countywide:

WS3ARA-10, 145.050 – Millsboro (packet gateway & repeater site)
KC3DSO-10, 145.050 – Milford (packet gateway)

Standard operating procedures encourage the use of the Internet during an incident if available to send messages via the WinLink System. This allows for fast delivery and frees up the radio (RF spectrum) for use by stations that do not have Internet access and P2P operations.

Participating Station Map: The below map was created using WinLink Express' GIS Mapping Feature. The locations were created via the WinLink Express Check in Form which records the GIS location of the station sending the template. The Check In Form, like other WinLink Express form use the Grid Square (GS) location data entered by the user when setting up WinLink Express. WinLink Express uses the 'center' of the Grid Square as the operators position so locations are not exact. WinLink Express has the capability to use a GPS receiver to provide a very accurate position for the station.



Map created using the RMS Express WinLink Check In Template with GPS mapping enabled. Two home stations are noted in blue. One station failed to send the requested WinLink Check In Form and was added to the map.

Results:

- Activated stations were setup properly and run as expected.
- Almost all received messages were sent correctly to recipient stations.
- GPS mapping templates can provide location data for all stations checking in (above map)
- Voice communications via the main repeater in Millsboro ran as expected. P2P coordination was also done on the Millsboro repeater.
- Most data messages were sent without delay. P2P worked but some stations had configuration issues.
- Three gateways were inoperative which slowed some digital traffic.
- DEMA had communications issues; both digital and voice, which were solved late in the drill and were able to complete some tasks.

Major Strengths:

- Participating stations handled the usage of Hospital Incident Command System (HICS) templates built into The WinLink System properly.
- Net Control stations properly performed standard Net procedures
- Operators successfully sent RMS Express Templates completing them properly
- Most injects were handled properly – see note below under Primary Areas of Improvement.
- All radio traffic was professionally handled with stations using proper radio procedures
- Setup of all Beebe Stations were done properly with minor noted issues
- The operators' knowledge of RF gear is apparent as troubleshooting was timely done.

Primary Areas of Improvement:

- Station at BBMC Rehoboth was operating as BBMC Rehoboth, Net Control, Exercise Controller running Injects for the drill. These tasks would be better handled by at least one additional station.
- Additional training is needed on ICS Templates (ICS-214 & ICS-309)
- Stations need to better follow the drill plan as several aspects were not followed
- Stations need additional training on the usage of Voice & Data Tactical Callsigns
- Acknowledgements and replies need to be addressed. Stations need to use 'true' intentionally message acknowledgements.
- Additional training is needed on Peer to Peer (P2P) operations
- Creation of a Standard Operating Procedure in cooperation with the hospital Emergency Management Staff (Sussex County facilities) will provide a flow chart guide for the handling of digital traffic. This will provide a list of tasks to be performed and tested.

Participant AAR's:

On January 15, 2025 an After Action Zoom meeting was held. Each stations radio operators provided information on their participation, issues and suggestions for improvement. Participants were also asked to submit a written After Action Reports along with the noted ICS forms. These documents provided valuable input from an operator's perspective. The data provided in these AAR's are reflected in this report.

Conclusion:

This exercise was an overall success. Most objectives were met within the initial time frame of the drill. Several areas are marked for improvement but it's clear Zoom meetings before and after each drill assists operators. Future drills will incorporate team rotations, multishift/multiday operations, and drills with no plan being issued prior to the drill.

This report is submitted by

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