

Sussex County Delaware Amateur Radio Emergency Service



Countywide Hospital Drill

After Action Report Improvement Plan

January 13, 2024

Executive Summary:

On January 13, 2024 Sussex County ARES executed a quarterly drill to test and exercise the amateur radio stations located at four healthcare facilities in Sussex County, Delaware. These stations were located at BBMC Lewes, BBMC South Coastal, BBMC Rehoboth Surgical, and TidalHealth Nanticoke. In addition to the healthcare facilities the Sussex County Emergency Operations Center and individual radio operators' home stations also participated.

The main objective of the drill was to test message handling by the 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 one of 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 inject.

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 of the messages were of priority in nature requiring sending a quick message via voice with the follow up digital message. Resource requests were made requesting police assistance, supplies, personnel, fuel and equipment. As with all drills, stations were tasked to photograph their stations (Beebe Facilities only) during setup and use, evacuation wall map, coax connections, provide notes on setup, issues found with the station, etc. to provide data for each facility Operations Manual. 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.

Participants per facilities:

Net Control Station located in Milton: 1
ARES Emergency Coordinator: Jim Baker, N3XKJ

TidalHealth Nanticoke Hospital: 4
Team Lead: Pat Ryan, KW3Z
Team Members: Dan, N3WYN
 Dave, KB3JBQ
 Rod, N3KNT

BBMC - Lewes: 2
Team Members: Bob, K3GHY
 Bill, N3EDO

BBMC - Rehoboth Surgical: 4
Team Lead: Steven Keller, KC3DSO
Team Members: Keith, N3SVB
 Jim, KC3NJM (observer)
 Bob, KA3DYX (observer)
 Marty, unlicensed, BBMC Safety Officer (not counted as participant)

BBMC South Coastal: 3
Team Lead: Butch Wlaschin, WA0CIE
 Wayne, N3UFG
 Anne, KC3YAS

Sussex County Emergency Operations Center – Georgetown: 3
Team Lead: Bill Saunders, N3ID, AUXL
Team Members: Barbara, KC3LGE
 Paul, KC3OIN

Individual Radio Operators: 5

Stuart, KC3MAL - Lewes
Willie, KC3RPU - Georgetown
John, W3JWE – Selbyville
Wendy, W3NRN - Wilmington
Denny, KB3MJ – Rehoboth Beach

Total Participants: 22



Dave, KB3JBQ and Dan, N3WYN at the TidalHealth Nanticoke station.



Voice & scribe station at TidalHealth Nanticoke

Objectives:

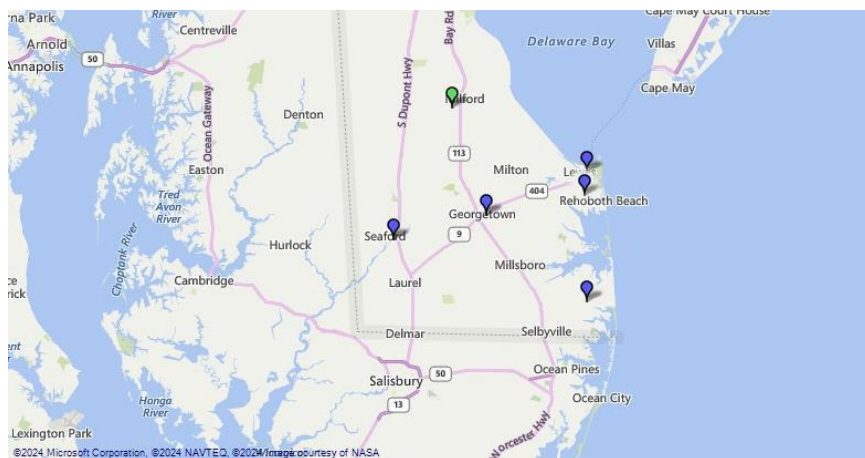
- Setup and test equipment in assigned facilities – verify function
- Communicate via primary voice repeater
- Communicate with Net Control Station (NCS) using proper net procedures
- Introduce a new RMS Express GPS Mapping “Check In” Template
- Introduce a MSEL for NCS to provide timed injects to participating stations
- Receive injects via SMTP email and execute the inject in a timely accurate fashion
- Complete and send the proper RMS Express template and provide prompt reply to received messages
- Stations to practice sending ‘true’ message acknowledgments instead of the RMS Express “ACK” feature
- Use RMS Express to send and receive data via Telnet and gateway operation
- Maintain detailed notes of station operation to update the current Operations Manual
- Record all contact data via a spreadsheet for future connectivity operations map
- Provide points for an improvement plan derived from station operation

All of the above objectives were met successfully by most stations and exposed objectives requiring attention. All stations were able to contact other stations via main ARES repeater located in Millsboro, 147.090.

Stations used a combination of Telnet (existing network for Internet operations) and packet gateways within the county. The below digital packet gateways were used:

N3KNT-10, 145.050 – Seaford at TidalHealth Nanticoke Hospital
N3KNT-11, 145.050 – Lewes at BBMC Lewes Main Campus
WS3ARA-10, 145.050 – SARA at Millsboro radio repeater site

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 for use by stations that do not have Internet access.



Map created using the RMS Express WinLink Check In Template with GPS mapping enabled.
Map shows KC3DSDO at his home in Milford due to using WinLink Express from home to create the map.

Results:

- Activated stations worked with minor issues which were quickly addressed
- Almost all received messages were sent correctly to recipient stations.
- GPS mapping templates can provided location data for all stations checking in
- Voice communications via the main repeater was kept at a minimum indicating digital communications were well used.

Major Strengths:

- Net Control station properly performed standard Net procedures
- Operators successfully sent several RMS Express Templates completing them properly
- Injects via a MSEL allowed for accurate and properly timed messages
- All radio traffic was professionally handled with stations using proper radio procedures
- Setup of all Beebe Stations were done properly with no noted issues
- The operators' knowledge of RF gear is apparent as troubleshooting was quickly done.
- Net Control Station (NCS) not being on site was a big plus

Primary Areas of Improvement:

- Additional training is needed on ICS Templates (ICS-214 & ICS-309)
- Encourage the weekly use of RMS Express outside of drills and exercises
- Continue training in a 'true' ack for received messages
- Creation of a Standard Operating Procedure in cooperation with the hospital Emergency Management Staff will provide a flow chart guide for the handling of digital traffic. This will provide a list of tasks to be performed and tested.
- Adding High Speed Vara FM in both Peer to Peer and WinLink (using a Gateway) would significantly reduce transmit times for digital messages and would provide an additional path for traffic reducing packet collisions and time
- Continued training on the radio equipment installed at each station. Two stations have been done to date with two remaining.

Participant AAR's:

Participants were asked to submit 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. All objectives were met to a high degree. Some of the injects were not entered into the system due to receiving stations forgetting to check their SMTP emails. Clearly the experience of the radio operators has improved as a clear increase in properly handled messages took place. The main advantages of using digital messaging; reliability, efficiency, flexibility and global reach were shown.

This report is submitted by

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