

New Jersey 2023 Simulated Emergency Test – Joint NNJ & SNJ Operation

Overview

The New Jersey 2023 Simulated Emergency Test successfully applied and accessed proposed emergency communications procedures for the American Red Cross of New Jersey and ARRL Sections agreement signed on August 25, 2023. The purpose of the memorandum of understanding was for collaborative disaster planning and response supporting communities within the State during and after disasters.

Amateur Radio Emergency Services communications teams from Northern New Jersey (NNJ) Section which is part of Hudson Division and Southern New Jersey (SNJ) Section which is part of Atlantic Division joined forces for the first time in this Simulated Emergency Test. The exercise involved 61 amateur radio operators from both Sections setting up and providing successful emergency communications for 9 Shelters, 4 American Red Cross (ARC) District Offices, N2ARC Princeton headquarters, and 2 county emergency operations centers, plus liaison and backup net control stations.

Proposed Procedures

The proposed operating procedures used both VHF voice and digital modes. Voice communications were used for announcements, instructions, and clarifications. WINLINK were used to process ARC forms and Welfare messages. Tactical Callsigns within WINLINK tested the ability to establish an event electronic file of all messages, routing ARC forms for shelter supplies and staff requests to appropriate locations, routing Welfare messages to either ARC office or National Traffic System point of connection as requested.

The proposed plan recommends ARC staff within Shelters and District offices would prepare ARC WINLINK format forms to ensure accuracy and faster processing. ARC staff would provide forms electronically, most likely on USB storage devices, to radio operators with instructions on where to send the forms. Radio operators would attach the ARC forms to WINLINK message and send it location requested.

The rationale for ARC agency staff to prepare forms are:

- Agency representatives are most knowledgeable of needs and availability supplies.
- Agency controls accuracy of forms data and routing requests.
- More privacy of content than over voice radio transmissions.
- Faster delivery than with voice transmissions and radio operators retyping forms.

Simulated Emergency Test Exercise

Objectives for 2023 Simulated Emergency Test were:

- To set up emergency radio communications, process tactical and formal messages, for multiple American Red Cross shelters using digital mode for formal/written messages and voice for instructions, announcements, and clarifications.
- To maintain ICS-214 Activity Logs for all activities, and ICS-309 Message Logs for all messages handled, significant events, and operations.
- To respond to “Inject Incidents” throughout the simulated exercise related to changing conditions.
- To communicate damage assessment data to simulated served agencies, such as National Weather Service and County EOC, as necessary.

The SET scenario assumed a severe tropical storm with embedded high winds is approaching from the southeast at the same time as an astronomically high tide is forecasted along the Atlantic Coast. Resulting in evacuation of barrier islands and coastal areas, flash flooding

inland, and establishment of ARC shelters throughout the State. It was assumed that ARC shelters, district offices, and administrative sites in the State had no commercial communications.

Amateur Radio Emergency Services communication teams' setup emergency voice and Winlink communications at 9 Shelters in different counties, 4 ARC District site that supply shelter in various areas, operated N2ARC at Princeton where the net control coordinated the event and maintain communications with county emergency operations centers.

In order, to facilitate State-wide communications two regional primary VHF nets were established in NNJ and SNJ Section with backup alternative frequencies that N2ARC net control station could access. These nets interconnected ARC District offices to N2ARC. Shelters within the Districts' area interconnect though local voice VHF frequencies. WINLINK was chosen as digital mode for handing formal traffic because of its flexibility, embedded ARC forms & logs, and common applications with other agencies use in disaster events.

Due to deployment of may ARC-NJ staffers, it was decided for the exercise to prepare four types of ARC forms in WINLINK format depicting those required during actual event. Each Shelter was provided 13 ARC prepared forms. ARC forms consisted of daily shelter reports, requestions for supplies, requests for staffing, and evacuee Welfare messages. The planning team inserted a larger file with supply request among the forms designed to challenge operators. Additional check-in, check-out, and ICS-213 summary messages were requested.

The exercise compressed three days of typical message handling during a rainy morning. N2ARC directed the overall operation through northern and southern nets in accordance with the event script that was only provided to NCS operator. The script requested WINLINK check-in, ARC forms in a specific order, added "Incident Injects" related to the storm, and was able to monitor WINLINK message traffic to Districts through the event electronic log tactical callsign.

All shelters successfully passed prepared ARC forms attached to WINLINK messages to their assigned District sites and other ARC locations using tactical callsigns. Some packet stations had challenges with large file supply requests while VARA users did not. The operation passes 324 ARC forms and used 556 tactical messages during the 3.5 hours. ARC staff planner monitored the entire operations of N2ARC with detailed narration of all events provided by local ARES team members.

Conclusion

The NJ 2023 Simulated Emergency Test demonstrated; 1) proposed process successfully provided necessary emergency communication for ARC Shelters and District sites, 2) ARC forms prepared by experienced representatives to control accuracy, and 3) collaboration and teamwork of two Sections from different Divisions.

Next Steps

Next phase would place ARC Staff within Shelters and District sites creating and responding to ARC forms to be sent to other locations. This most likely will have to be accomplished on a smaller scale within the serviced area of one District at a time, due to ARC staffing.

Lessons learned and suggested improvements identified by amateur radio emergency services communications teams are already being investigated by both Sections.

Continued

Amateur Radio Emergency Services Teams participating included:

Northern New Jersey Section – Hudson Division of ARRL

- Bergen County – Shelter.
- Monmouth County – Shelter & Tinton Falls District sites.
- Morris County – Shelter & Backup Net Control.
- Section Emergency Coordinator – Fairfield District.

Southern New Jersey Section – Atlantic Division of ARRL

- Burlington County – Shelter & EOC.
- Camden County – EOC & supported Pennsauken District.
- Cape May County – Shelter.
- Cumberland County – Shelter.
- Gloucester County – Shelter & District sites.
- Ocean County – Shelter.
- Salem County
 - – Backup Net Control,
- Section Manager – Liaison.
- Section Emergency Coordinator – Overall Monitoring.

Special Thanks for use of Facilities:

Northern New Jersey Section – Hudson Division of ARRL

- Morris County Shelter in St. Claires Hospital
- Fairfield ARC District Office
- Tinton Falls ARC District Office
- Repeaters Owners & Trustees:
 - 146.895 Morris County
 - 145.370 Morris County
 - 147.045 Monmouth County
 - 145.485 Monmouth County
 - 145.450 Bergen County
 - 145.470 Bergen County
 - 442.000 Passaic County

Southern New Jersey Section – Atlantic Division of ARRL

- Pennsauken ARC District Office
- Princeton ARC District Office & N2ARC Station
- Repeaters Owners & Trustees:
 - 147.345 Camden County
 - 145.430 Camden County
 - 147.180 Gloucester County
 - 147.105 Mercer County
 - 224.320 Mercer County
 - 449.825 Ocean County
 - 145.170 Ocean County