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## The **ARES** Letter

ARRL the national association for amateur radio\*

January 17, 2024 Editor: <u>Rick Palm, K1CE</u> <u>ARES Letter Archive</u> ARES Home ARRL Home Page



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## ARES<sup>®</sup> Briefs, Links

The Digital Library of Amateur Radio & Communications (DLARC) is now archiving issues of QST NFL, the newsletter of the Northern Florida ARRL Section. DLARC is a project of the Internet Archive, the not-for-profit online library. DLARC is growing to be a massive online library of the past and present of ham radio and related communications. It is funded by a grant from Amateur Radio Digital Communications, a private foundation that exists to support amateur radio and digital communication science and technology. - ARRL QST *NFL*, January 2024 issue, Marty Brown, N4GL, editor [After more than eight years as editor, Brown is retiring with the gratitude of Northern Florida ARES and other amateur interest communities across the section and state. Well done, thank you and good luck, Marty. - Ed.] Orlando HamCation® -- the ARRL Florida State Convention -- is next month, February 9 - 11, at the Central Florida Fairgrounds. There are a number of forums and meetings of interest to ARES and other emergency communicators: Disaster Response Communications and Auxcomm Florida; Training for Net Operations; SARNET; ARES Forum; New Directions in MARS; and What is SATERN. These forums are conducted by nationally-recognized leaders and practitioners. See you at HamCation!

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Letters: USGS Thanks Winlink Amateur Volunteers for *Shakeout* Service

"We at the USGS really appreciate the work of the Winlink amateur volunteers who contributed to the recent ShakeOut earthquake scenario exercise as well as contributing to the USGS Did You Feel It? (DYFI) system since 2020. Winlink volunteers have sent in more than 6,000 responses for exercises and actual events. We anticipate that your contributions will help us provide critical situational awareness in the minutes and hours after a significant earthquake. You have a rather unique capacity to communicate after a damaging earthquake. Hence, the connection between amateur radio operators and the USGS' post-earthquake information tools is a natural yet impressive handoff.

"I've been really impressed with the enthusiasm and professionalism of all the amateur radio operators we've worked with over the past few years who have been ready and willing to develop the interface to connect directly to USGS via the DYFI system and to the many operators who have sent in felt reports. Fantastic!

"Lastly, I also want to thank Vince Quitoriano (USGS contractor) for making all the connections between Winlink and USGS work so smoothly." -- David Wald, PhD, Supervisory Research Geophysicist, U.S. Geological Survey

DUAL BAND, WIDE BAND, HIGH GAIN, VHF/UHF MOBILE ANTENNA



National Hurricane Center's WX4NHC SKYWARN Recognition Day Operations Successful

On December 2, 2023, Amateur Radio station WX4NHC operators at the National Hurricane Center were on-the-air on HF (40 and 20 meters) for the SKYWARN Recognition Day (SRD) event from 9 AM to 6 PM EST. WX4NHC was also on the VoIP Hurricane Net on EchoLink WX\_TALK Conference (Node 7203)/IRLP 9219 from 4 PM until 6 PM EST. WX4NHC has participated in this annual event since its inception more than 20 years ago.

This event is sponsored by the National Weather Service (NWS) and is excellent practice for ham radio operators as well as NWS staff to become familiar with the unique radio communications available during times of severe weather. The event was open to all stations in the US and worldwide.

WX4NHC total SRD contacts: 144 NWS Stations contacted: 19 Farthest stations contacted: Brazil (PY3BI) Coldest Temperature reported: 15°F, AG9G, Wisconsin Hottest Temperature reported: 88°F, 6Y5WW, Jamaica





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WX4NHC station weather (in Miami, Florida): 77°F - 81°F and partly sunny

Radio amateurs who made contacts with the NHC station can receive a QSL card documenting the radio contact. (Please send SASE to WD4R (QRZ address is OK). - *Thanks, Julio Ripoll, WD4R, Assistant Manager, WX4NHC station at the National Hurricane Center* FEMA: Results of 2023 National Household Survey on Disaster Preparedness.

Since 2013, FEMA has conducted the National Household Survey on Disaster Preparedness. This survey of people from across the United States gauges the nation's disaster preparedness actions, attitudes, and motivations. The 2023 survey conducted from February 1 through March 14, 2023 included over 7,600 responses. Results from the 2023 survey indicate that slightly more than half (51%) of Americans believe they are prepared for a disaster and 57% took three or more actions to prepare for a disaster within the last year. The most common actions people took to prepare for a disaster were assembling or updating disaster supplies (48%) and making a plan (37%); the least common actions were planning with neighbors (12%) and getting involved in their community (14%). To review the survey results, <u>download the</u> <u>summary presentation</u>.

## Key Findings and Opportunities from the 2023 Survey

- There were big shifts in the way people prepared for disasters in 2023 compared to the year before. There was a large increase in the percentage of people who assembled or updated supplies (from 33% in 2022 to 48% in 2023), but there was a large decrease in the percentage of people who signed up for alerts and warnings (from 46% in 2022 to 36% in 2023). Emergency managers should remind people that there is more to preparedness than just assembling supplies. When meeting with your community, help people sign up for alerts and warnings right in the moment. Walk them through the process of signing up to receive local alerts while you have their direct attention, so they don't have to remember to do it themselves later on.
- Only 50% of people believed that that taking steps to prepare for a disaster would help them in getting through a disaster and were confident in their ability to take those steps to prepare. To increase preparedness efficacy, trusted local and community messengers should provide outcome testimonials to demonstrate the value of preparing for a disaster, especially for groups with lower rates of preparedness efficacy.
- There was a strong association between having awareness of how to prepare for disasters and taking action to prepare.89% of people had read, seen or heard information in the last year about how to get better prepared for a disaster. People who had received information about how to prepare were five times as likely to take at least three preparedness actions compared to people who had not received preparedness information. Emergency managers should focus their preparedness outreach efforts on communities with lower

awareness of preparedness information because the payoff could be big. Provide tips and strategies for preparing based on a community's specific needs, challenges, and environment. Leverage FEMA's preparedness resources from <u>Ready.gov</u>.

- There was a disconnect between the 60+ community's perceived preparedness and their preparedness actions. People who were 60 years old and older were about as likely as people between the ages of 18 and 59 to feel prepared for a disaster (52% and 51% respectively). However, people ages 60 and older were less likely to have taken many preparedness actions compared to people between the ages of 18 and 59. To increase the preparedness of the 60+ community, emergency managers should develop preparedness programming and materials that take into consideration the unique challenges facing older adults and empower them to prepare.
- Cost barriers may prevent people who are socioeconomically disadvantaged from taking important preparedness actions. They were less likely than those who are not socioeconomically disadvantaged to have taken highercost preparedness actions but were about as likely to have taken low- or no-cost preparedness actions. Emergency managers should leverage community resources to help those who are socioeconomically disadvantaged overcome the cost barriers to close the gap in taking higher-cost preparedness actions.
- People living in areas at higher risk of flood and wildfire impacts had lower levels of risk perception for those hazards. Only 43% of people reported that riverine flooding was 'likely' or 'very likely' to impact them, despite living in areas that are at higher risk of experiencing the impacts of riverine flooding. For higher risk wildfire areas, only 49% perceived their risk of being impacted by wildfires. However, hurricane risk perception (96%) was much higher for people at higher risk of experiencing hurricane impacts. Emergency managers should apply the tools and messaging techniques that effectively communicate risk for hurricanes to build a similar culture of risk perception for floods and wildfires in communities at greatest risk.



Ham Radio Comms Trailer Decisions

After studying the idea of a radio/video uplink trailer for some time in early 2020, Doug Reed, N0NAS and I discussed at great length the use case for such a rig. It would be for events where we needed an indoor, all weather operating space for a day or longer. In COVID, a large, multi-operator space (i.e., motorhome) was problematic. On impulse I found a good deal in mid 2020 on a 15' Palomino hybrid camper. The u-shaped dinette area was ideal for one or two operators. I drilled a one inch hole under the dinette seat and put in a hinged cover. The cables went in and out easily via the access door under the dinette seats. It had a kitchen area, sink and a built in 12V and 120V power system. It worked well at Field Day 2021.

Disadvantages were: It was big. Lots of drag/wind area. High fuel consumption. My 300 HP tow vehicle was at times unhappy. It was wide: 8 feet. And tall: ten fet. And all the systems needed to be winterized. I worried about the sun-worn rubber roof. It took up lots of driveway space. These are three-season campers, really. The fold out tent beds are useless in winter. You cannot sleep and operate in the same trailer. An ideal camper for ham radio - the Casita- 15' + fiberglass and similar brands - seems good but rare and pricey. Prices on new enclosed cargo trailers are crazy. I wanted a 5'x7' with extra height to be driveway friendly. New these are \$4000. Doug was arguing for 6'x10' or so. A local club got a 28' - no. Locally I found a 5'x7' at auction but is was very rusty. It did have a side door; 6" of extra ceiling height; and about 5 feet inside height, which seemed good.

I put in a forward laminated counter in the pointed nose. And one in the rear. These are easily made from 1×3 pine lumber, 2×2 pine legs and laminated 3' wide lumber yard shelving. We added an RV style translucent roof vent and 20' Harbor Freight aluminum flagpole. It now has a Group 31 marine deep cycle battery (~100AH) and 20 amp marine shore power supply and



Radio trailer

inlet. And a 100W solar panel and the smallest "SUV" awning we could find. And some 12V LED lighting and a microwave oven. It worked well at *Hams in the Park* 12/21 and numerous events since. It was towed out on the ski course by a tracked ATV for the Loppet Winter Festival.

For event/recovery deployment, it will travel with a pair of the 30' diesel tower trailers. This brings three towers, fully redundant 6KW 120/240 power and 120 hours of onboard diesel. - *Erik Westgard, NY9D, St. Paul, Minnesota* [Westgard is a regular contributor to the *ARRL ARES Letter*].

Florida Pair Travel to Serve New York City Marathon

1. Gordon "Gordie" Beattie, Jr., W2TTT, and Nancy Beattie, N2FWI, ARES members of rural northern Florida, traveled to New York City to help with race coordination for the New York City Marathon on Sunday, November 5th. This is a marguee training opportunity wrapped up in a live event where 55,000 elite runners traverse the City of New York. Nancy and Gordon are part of an Amateur Radio team that comes from ten states to volunteer for this event.

Years ago the first Amateur Radio Communications Director, Steve Mendelsohn, WA2DHF/W2ML (SK) started to exchange talent with other Marathon teams from around the country as a way to develop improved best practices for communications support. While most of the volunteer hams are local to metro New York/New Jersey, there are many who fly or drive in days before the event to participate. They also participate and lead various key planning roles remotely in the months leading up to the Marathon. It is an amazingly complex event with a diverse social landscape, great people and awesome experiences for anyone interested in contributing and honing their skills. A few have participated since the 1970s, but most since the 1990s or early 2000s.

Each year there are new volunteers, so the team has depth, and is infused with new ideas that keep it at the top of the game. The primary mission for the hundreds of volunteer Amateur Radio operators along the twenty-six mile course is the timely delivery of vital information to the Race Control Center in Central Park via the attached Amateur Radio Communications Center. They also provide backup should other systems go down. The NYPD has required the integration of Amateur Radio volunteers for over forty years and with the New York City Roadrunners engages the Amateur Radio community for this and other events throughout the year as part of a layered strategy for "observe and report" and backup communications functions. The nets covering the course are hierarchical and layered for reliability and capacity. There are separate DMR Talk Groups and sometimes repeaters for the Start, Finish, VIP, Medical, Lower and Middle Course and Central Park areas and functions as well as FM analog repeaters for backup snd overflow. Additionally, each Mile Captain has a Simplex Net that is usually FM but may also be DMR. Traffic is tactical in format and includes everything from position reports to logistics requests, spot reports of runners with unauthorized equipment or other gear, medical issues, runner drop outs, course disruptions due to fire or EMS activity in a community, protests and the presence of suspicious items or people near the course - the essence of the "See Something, Say Something" protocol.

Nancy is a net control for one of the many nets including the very early DMR VIP Net starting a little before 5 AM and then she shifts over to one of the FM nets until about 8 PM. She, along with others, have a long day. Gordon manages the AREDN Mesh-based network and cameras. All the cameras are supported by a Windows-based Blue Iris video server sitting in New Jersey supported by two separate broadband providers. From there, remote viewers can access all the cameras in the network. The video feeds come from key points of interest and are fed into the Race Control Center and to hams who are assigned to NYPD's Operations Center in downtown Manhattan at One Police Plaza. An additional local instance of Blue Iris is also monitored by Gordon and others in the Amateur Radio Communications Center In Central Park. Because cellular network overloading along the race course can cause video stream dropouts, an ARES® team from Connecticut deployed a Starlink Terminal to backhaul their AREDN Mesh-based video traffic from the 59th Street Bridge area into the Internet.

Using APRS, Gordon tracks and displays the whereabouts of the Race Precursor, Lead Female and Male Runner, press vehicles and the Runner Drop-Out buses. These are all equipped with APRS trackers built by Dave Henninger, N3UXK. Additional trackers built by individuals are also on the course and help to refine our overall operational picture from Central Park. Further, some of our ham volunteers run the APRS.FI application on their phones or other devices. We have specified a message format for both RF and cellular trackers and use the logs to determine coverage gaps in both the APRS and cellular networks. Our beacon message format indicates Amateur Radio RF or which cellular carrier is in use which enhances our post-event analytics. -- J. Gordon "Gordie" Beattie, Jr., W2TTT, QST NFL, January 2024 issue



K1CE For a Final: Subscribe to The NTS Newsletter The ARRL National Traffic System has a long, proud history (75 years) of serving the public by originating, relaying and delivering formal written messages via a formal network of trained operators across the country. Recently, energetic working groups of experts have been updating and invigorating the League's traffic handling program - the NTS 2.0 project -- which dovetails with the equally historic and important Amateur Radio Emergency Service® with an emphasis on moving routine, priority and emergency messages to their destination recipients. NTS 2.0 will not supplant the existing National Traffic System. Rather, it seeks to improve and expand upon the ways in which we deliver and originate radiogram messages. It also seeks to restate its purpose to the general public and served agencies. NTS 2.0 will devise tools and methods to allow our network to expand its current capabilities to provide wide-area message communications services for ARES, SKYWARN, RACES, and other served agencies. For example, in an article in the new *The ARRL NTS Letter*, Jonathon Taylor, K1RFD, writes about a project called The Radiogram Portal, a website that introduces Radiograms to the public and provides an easy way for members of the public to submit messages to be entered, relayed, and delivered by the NTS traffic handlers. This introduces a means of communicating in a disaster situation for the public, and generates messages to exercise the system and improve the skill sets of its operators for competent service. More information

can be found in the current issue of *The ARRL NTS Letter*, which contains a wealth of news and information on the National Traffic System.

You can found archived editions of the new newsletter <u>here</u>. *The NTS Letter* is published monthly and is free of charge to ARRL members. Subscribe: <u>arrl.org/opt-in-out</u> Veteran traffic handler <u>Marcia Forde</u>, <u>KW1U</u>, Section Traffic Manager of Eastern Massachusetts, Western Massachusetts, and Rhode Island - is the editor. Sign up, and get the newsletter.

**Orlando HamCation**® (the second largest ham radio convention in the world) - I hope to meet and greet many ARES Letter readers at this spectular event! See you there! - *Rick, K1CE* 

## ARES<sup>®</sup> Resources

- Download the ARES Manual [PDF]
- <u>ARES Field Resources Manual [PDF]</u>
- ARES Standardized Training Plan Task Book [Fillable PDF]
- ARES Standardized Training Plan Task Book [Word]
- ARES Plan
- ARES Group Registration
- Emergency Communications Training

The Amateur Radio Emergency Service<sup>®</sup> (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

How to Get Involved in ARES: Fill out the <u>ARES Registration form</u> and submit it to your local Emergency Coordinator.

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