



The HWN Report

The Official Newsletter of the Hurricane Watch Net

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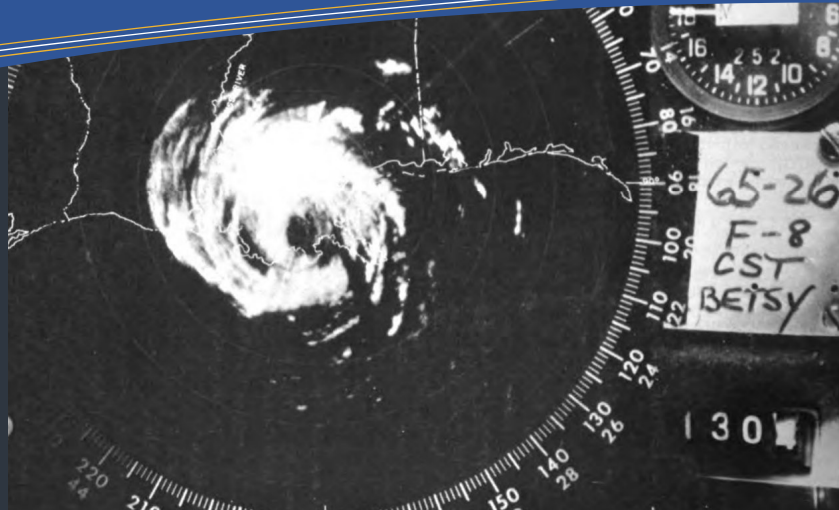
HWN 60th Anniversary and Celebration

Labor Day Weekend, 2025, will mark the 60th Anniversary of the Hurricane Watch Net.

In honor of our 60th Anniversary, we will host an "On-Air Celebration" on June 7th and 8th. We will operate on 14.325 MHz and 7.268 MHz. More information on the event will be posted on our website, hwn.org, our social media pages, and more. We hope you will join us.

COMING SOON

March 2025, we begin hosting a new video podcast to hosted on our YouTube Channel, www.youtube.com/HurricaneWatchNet. This program will focus on the tropics, the history of amateur radio's involvement with the National Weather Service and the National Hurricane Center, Hurricane Preparedness, and more.



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2025

HAPPY NEW YEAR

Wishing You and Your Family Peace, Joy, Wonderful Memories,
Good Health, and Prosperity in this New Year.

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History of the Hurricane Watch Net

By Bobby Graves – KB5HAV

Hurricanes, a force of nature that should never be ignored. Just like tornadoes, hurricanes are “*Weather Emergencies*”. There is a high risk of the loss of life and damage to property. Hurricanes are much larger than Tornadoes with diameters sometimes over 400 miles while Tornadoes are hundreds of feet to perhaps as large as three miles in diameter. While every Hurricane is unique, all pose serious risks to life and property which results in an immediate call for action. Tropical Storms should never be taken for granted. They can be deadly and damaging. In 2001, Tropical Storm Allison stalled over Houston, TX dumping more than 40 inches of rain on the city. 41 people died, and 30,000 became homeless after the storm flooded over 70,000 houses and destroyed 2,744 homes. Downtown Houston was inundated with flooding, causing severe damage to hospitals and businesses. All total, Allison caused \$5.5 billion (2001 USD) in damage. Was this NOT a “*Weather Emergency*”? How about one of our most recent Hurricanes, “*Helene*” in 2024? The wind damage was horrific. The storm surge damage was record-breaking and horrific. The inland flash flooding was not only historic but also horrific and mind-blowing. Entire cities were washed away.

Here we are, living in the year 2025. We have a ton of technology helping us with nearly every aspect of life. What will technology look like sixty years from now? In the year 2085, will 2025 weather forecasting technology look as though it is in its infancy? Looking at weather forecasting technology back in 1965, it was truly in its infancy! You see, we didn’t have Doppler Radar to scan the atmosphere for wind and moisture. That didn’t occur until the very early 90s. The radar we had at the time was originally designed in the 1940s to locate aircraft. It just did a better job of picking up and displaying weather. The image you see on the front page of this newsletter is about the best we could see of Hurricane Betsy back in 1965. We didn’t have stationary weather satellites. The first Geostationary Satellite known as “*GOES-1*” didn’t come along until 1975. At least we had the Hurricane Hunters. The 53rd Weather Reconnaissance Squadron, also known as the “*Hurricane Hunters*” located at Kessler Air Force Base in Biloxi, Mississippi, was the first squadron to operate the Lockheed WC-130 aircraft in 1965 during Hurricane Betsy. NOAA’s first flight into a Hurricane didn’t occur until August 1976 when a P3 Orion (NOAA 42) flew into Hurricane Bonnie.

Amateur Radio and the National Hurricane Center in Miami began developing a symbiotic relationship on Labor Day Weekend of 1965 during Hurricane Betsy. During this time, a very young Jerry Murphy, K8YUW, 28 years old at the time, was stationed at the U.S. Naval Mobile Construction Battalion Center in Davisville, Rhode Island. In his spare time, he handled countless phone patches and messages to and from military-deployed personnel as a member of the Intercontinental Amateur Radio Net (IARN) on 14.320 MHz. As Hurricane Betsy was moving through the Bahamas, Jerry, along with Marcy Rice, KZ5MM located in the Canal Zone (Panama), helped relay weather information between those in south Florida and the Bahamas. There was so much interest in what the storm was doing that it created a major disruption in normal IARN activities. Jerry suggested to the Net Manager to move those interested in the storm up 5 MHz to get them off the Net, and the Net Manager agreed. Marcy followed Jerry, and together they established the first “*Hurricane Watch Net*” on 14.325 MHz. They read the latest bulletins issued by the National Hurricane Center and forwarded surface reports to a local ham in Miami, name and callsign unfortunately unknown, who phoned those reports to the forecasters.

Hurricane Betsy greatly affected the Northern Bahamas and the Florida Keys as a Category 3 Hurricane and later as a Category 4 Hurricane as it made final landfall at Grand Isle, Louisiana on September 10, 1965. Betsy was the first hurricane to make landfall in the United States resulting in over \$1 billion in damages. The storm became known as “*Billion Dollar Betsy*”.

In a letter dated March 1999 from Jerry Murphy, he recalls the following: “*We received the latest advisories and bulletins from various Florida hams, one of them worked for the city of Miami. Sometime later, maybe a year or two later, Ellie Horner, K4RHL subscribed to a teletype network and had an RTTY system installed in her home. That kept us better informed in future storms*”.



Jerry Murphy, K8YUW – Circa 2002
Founder – Hurricane Watch Net

In 1980, the National Hurricane Center witnessed the usefulness of amateur radio up close and personal. Dr. Neil Frank, Director of NHC at the time, asked if anyone at the amateur radio club on the campus of the University of Miami could setup an HF station to help out during Hurricane Allen. Julio Ripoll, WD4JNR (now WD4R), a student of architecture at the time, brought over a Yaesu FT101EX from his dormitory room in a cardboard box and a 20-meter dipole. He hung the dipole outside the window of the huge building where NHC was at the time. Throughout the passage of this dangerous hurricane, Dr. Frank and all of the hurricane forecasters quickly realized the value of amateur radio. NHC was able to receive surface reports much faster. Also, HWN was able to receive the latest advisories quicker. Remember, there was no internet back in 1980! After this event, Dr. Frank made sure there would be station on the premises of NHC from that moment forward. That’s when Julio went to work in getting an amateur radio station setup at the National Hurricane Center. A club callsign of “*W4EHW*” was obtained from the FCC for use when the station was activated. Later, in 2004, the club callsign was updated to *WX4NHC*, the callsign they use to this day.

From 1965 until 2013, the Hurricane Watch Net was considered a 20-meter only Net operating on 14.325 MHz. There were a few occasions in which HWN operated on other HF bands. In 2005, during Hurricane Wilma, we operated overnight on the 80-meter band. In 2011, HWN was forced by necessity to operate on 40- and 75-meters during Hurricane Irene as propagation on the 20-meter band was all but non-existent. In 2012, we tested operations on the 40-meter band for Hurricanes Isaac and Sandy. However, HWN’s policy remained to be a 20-meter-only organization.

Shortly before the official start of the 2013 Atlantic Basin Hurricane Season, the Hurricane Watch Net “*officially*” became an organization that operates continuously around the clock as needed utilizing 14.325 MHz by day and 7.268 MHz by night. When conditions warrant, both frequencies

are utilized simultaneously. However, due to the very poor to non-existent 20-meter propagation, we were forced to include daytime operations on 40 meters, 7.268 MHz, during the 2014 season until about 2022. Doing so most likely helped keep the Hurricane Watch Net alive and relevant. Had we not operated on the 40-meter band, there is a strong chance the Hurricane Watch Net would have gone the way of the dinosaur.

Here in the United States, we are extremely fortunate to have 24/7 News and Weather so the general public can be informed of hurricanes and their forecast track. This helps people make proper decisions on whether or not to evacuate to a safe place. However, in this day and age of high-speed internet, cable, and satellite TV, for many who live in the island nations of the Caribbean, Central America, and the northern coasts of South America, such services are either blocked or otherwise unavailable. Yes, you read that last sentence correctly. Sadly, some areas have been known to not let their citizens know about dangerous impending weather events. Case in point, during the 2016 Hurricane Season, when Hurricane Matthew (a strong Category 5 Hurricane) had stalled just south of Haiti, I contacted many Haitian hams via email to inform them the Hurricane Watch Net was preparing to activate for this storm. Within minutes of sending this email, one station in Haiti called me via international long-distance. He said, *"Thank you for loving on us. We never knew there was a storm much less a major hurricane. Thanks to you, we have activated our nationwide emergency network."* It is truly sad that a country like Haiti would censor such information to their people! For many throughout the Caribbean, Central America, and the northern coasts of South America, the people there, amateur radio operators and short-wave listeners, rely upon the services of Amateur Radio to receive "Life-Saving" information on Atlantic Basin Tropical Cyclones.

The Hurricane Watch Net generally activates whenever a hurricane is within 300 statute miles of expected landfall. Our area of coverage includes the Caribbean, Central America, Eastern Mexico, Eastern Canada, as well as all US Coastal States. Since 2014, we have announced that we operate on 14.325 MHz by day and 7.268 MHz by night. However, we found ourselves operating both frequencies simultaneously, which was the best thing to do in hindsight. Why do we state these frequencies without a plus or minus amount? Many non-hams listen in via shortwave radio and know this is where to find us when we are activated. Before any Net activation, if either frequency is in use, we always ask permission to use it. Additionally, it is our practice of being on the air ahead of the amateur radio station at the National Hurricane Center – WX4NHC – for the explicit purpose of establishing our Net operating frequency, issuing advisory data, and lining up reporting stations. It helps us tremendously to know the operator's locations, names, and weather-measuring capabilities in advance of the storm's arrival.

There are three primary purposes of the HWN:

- 1) Disseminate the latest advisories issued by the National Hurricane Center. We do so for marine interests, Caribbean Island

and Central American nations, and other interests where public media is not readily available. During hurricane events, these people receive their weather information from the United States, mostly by Amateur Radio!

- 2) To obtain real-time ground-level weather conditions and initial damage assessments, from amateur radio operators in the affected area and relay that information to the forecasters at the National Hurricane Center by way of WX4NHC (the amateur radio station located at NHC).
- 3) To function as a backup communications link for the National Hurricane Center, National Weather Service Forecast Offices, the Canadian Hurricane Centre, Emergency Operations Centers, Emergency Management Agencies, Non-Governmental Organizations, and other vital interests. This can involve military relief operations in the protection of life and property before, during, and after a hurricane event.



To achieve mission goals, the HWN relies upon its Net Control Operators. Some are seasoned ex-military and/or MARS operators. Others have gained their experience through public service roles. Our Net Control Stations are strategically located throughout the US, Canada, Central America, and the Caribbean. To better assist those who speak Spanish only, HWN has several bilingual operators.

In the 60 years since Jerry Murphy's efforts in "Billion Dollar Betsy", there have been over 770 named storms in the Tropical Atlantic basin.

More than 170 storms have come ashore as a category one hurricane, or higher, and the Hurricane Watch Net was active for nearly every one. The Net has activated for many tropical storms as they were either forecast to become hurricanes before landfall or there was a request by forecasters at the National Hurricane Center to do so. In addition, we have been active for a few Eastern Pacific Hurricanes.

Since 1965, the Hurricane Watch Net has read, over the air, the latest advisories issued by the National Hurricane Center. Additionally, we have collected ground-truth weather data, storm surge reports, and damage reports and forwarded that information to the forecasters at the National Hurricane Center in Miami, Florida. In addition to stationary weather satellites, Doppler Radar, weather buoys, drones, and the data collected by the Hurricane Hunters of the US Air Force and NOAA, ground-truth weather reports have helped to advance the knowledge and understanding of tropical cyclones. This has resulted in more accurate weather advisories, which depending upon location and population, have proven invaluable in helping to "Save Lives".

In one of his letters, Murphy explained the nature of the services provided by the HWN: *"The guiding principles of the Hurricane Watch Net were to serve the Public Interest, Convenience or Necessity. Nothing more, nothing less."* So it is today, 60 years later.

Recap of the 2024 Hurricane Season

By Bobby Graves – KB5HAV

The 2024 Atlantic Basin Hurricane Season was expected to be well above average. Dr. Philip Klotzbach with Colorado State University issued his first forecast of the season in April calling for 23 named storms, 11 to become a Hurricane, and 5 of those to become a Major Hurricane (Cat 3 or stronger).

On July 9th, he upgraded his forecast to 25, 12, and 6. On May 23rd, NOAA issued their forecast calling for 17-25 named storms, 8-13 Hurricanes, and 4-7 Major Hurricanes. The season ended with a total of 18 named storms and one potential tropical cyclone. We had 11 Hurricanes, 4 of which were

Major Hurricanes. While the first part of the season seemed slow, from September forward, the tropics were busy. And, the season finished within the predicted number of named storms by NOAA.

The Hurricane Watch Net was activated for 8 Hurricanes: Beryl, Debby, Ernesto, Francine, Helene, Milton, Oscar, and Rafael. We had a total of 3 record setting storms: Beryl, Helene, and Milton. For the year, HWN amassed a total of 2,064 volunteer man-hours.

The following information is from NOAA

Hurricane Beryl was the earliest Atlantic basin Category-5 hurricane on record. It caused significant storm surge flooding across parts of Texas and Louisiana after making landfall near Matagorda, Texas, as a Category-1 storm.

Hurricane Helene made landfall as a Category-4 storm on the Florida Gulf Coast on September 26. The storm caused catastrophic flooding across the southern Appalachians, widespread wind damage from the Gulf Coast to the North Carolina mountains and storm surge flooding along portions of western Florida. Preliminary data indicate that Helene



April 14th – 17th, 2025
Hilton New Orleans Riverside
New Orleans, LA

For complete details, visit <https://hurricanemeeting.com>

was the deadliest hurricane to affect the continental U.S. since Katrina in 2005, with more than 150 direct fatalities, the majority of which occurred in North Carolina and South Carolina. Hurricane Helene marked the first time ever that NOAA's National Hurricane Center (NHC) forecasted a system to become a major hurricane before it became a tropical depression or tropical storm. NWS was forecasting extreme rainfall totals and rates over western North Carolina more than 48 hours in advance.

Hurricane Milton made landfall as a Category-3 near Siesta Key, Florida, on October 9 and resulted in a tornado outbreak that produced 46 tornadoes and caused torrential rainfall and localized flooding with total rainfall amounts of 10-15 inches (and higher). Milton produced a destructive storm surge between Siesta Key, Florida, and Ft. Myers Beach, Florida, including Charlotte Harbor. Milton's rate of rapid intensification was among the highest ever observed, with a 90-mile-per-hour increase in wind speed during the 24-hour period from early October 6 to early October 7. NHC's first forecast for Hurricane Milton indicated the potential of a major hurricane landfall along the coast of west-central Florida almost two days before it formed into one, and more than four days prior to landfall.

From the Manager



By Bobby Graves – KB5HAV

It is hard to believe the last issue of *"The HWN Report"* was published in 2017. That is simply too long, and for that, I do apologize! While I had the best of intentions to produce and publish a newsletter at least quarterly, life simply got in the way. Thankfully, life is settling down. In addition, with recently added managerial help within HWN, my creative juices are once again flowing and I am ready to press forward with content creation, both in print and video.

For printed content, *"The HWN Report"* is back. I will also be making major updates to training materials for the members of the Hurricane Watch Net. For video content, which I enjoy producing, I will be creating training videos for members of HWN. But what excites me most is the fact that I am moving forward with a longtime dream of mine. That is launching a new video podcast on our YouTube channel.

Let's face it, a lot has happened since the last newsletter in 2017. We worked 45 Hurricanes. We have had some very historic Hurricanes. For instance, Harvey, Irma, and Maria in 2017, Michael in 2018, Dorian in 2019, Laura in 2020, Ida in 2021, Ian in 2022, Idalia in 2023, and Helene and Milton in 2024, just to name a few. And since 2017, we've amassed over 11,000 man-hours of volunteer work.

In December 2021, our Assistant Manager, Mike Webb, KCØYHM, stepped down due to his new position within the Civil Air Patrol. Mike served as Assistant Manager from 2014 to 2021. No one has served this position with HWN longer other than Col. Don Kay, KØIND, US Air Force – Retired (SK), 1965 to 1988.

In the summer of 2021, Stan Broadway, N8BHL, became our 2nd Assistant Manager and was promoted to Assistant with Mike Webb stepping down.

In 2023, with the help of Dick Seeley, N8NIF, we now have a company to

produce nice polo style shirts with our logo embroidered on them. In addition, you can get ball caps and wind breakers with our logo embroidered on them. Other items available with our logo printed on them. Visit our website, www.hwn.org, and click on link "Store" on the top right navigation bar for a complete listing.

In August 2024, Dick Seeley, N8NIF, and Wendell Neal, K5WAN were appointed as Associate Managers. The expansion of our management team paid dividends when I was forced to miss our activation for Hurricane Milton as I was having some serious health issues.

Moving forward in 2025, the 60th Anniversary of the Hurricane Watch Net, we have several things in store. Beginning in May, we will unveil a revamped website layout with a 60th Anniversary Logo.

A dream of mine since 2016 is to create and publish a video podcast. However, each time I have attempted to get started on this venture, something has found a way to stop me. The delay has taught me patience and allowed me time to investigate further all that is needed to put together such a program, one that I hope will be professional-looking yet, more importantly, interesting and informative. I'm already lining up guests, each of whom is excited about this idea as well. This program will focus on the tropics, the history of amateur radio's involvement with the National Weather Service and the National Hurricane Center, Hurricane Preparedness, and more. This podcast is scheduled to launch in March 2025 on our YouTube Channel, <https://www.youtube.com/HurricaneWatchNet>

Back in 2015, HWN held a "50th Anniversary On-Air Celebration". This event was well received by everyone. 2025 is our 60th Anniversary and we plan host a "60th Anniversary On-Air Celebration" on June 7th and 8th. We will operate on 14.325 MHz and 7.268 MHz. More information on the event will be posted on our website, www.hwn.org, our social media pages, and more. We hope you will join us.

So, it is 2025 and the 60th Anniversary of the Hurricane Watch Net. While we hate to see hurricanes make landfall, we will continue to do our best in helping everyone remain informed and do our best to help "Save Lives"!

In Memoriam – John Ellis, NP2B



John Ellis – NP2B

It is with great sadness that I announce the passing of John Ellis, NP2B, He passed away on Tuesday, December 3, 2024.

John was a long time member of the Maritime Mobile Service Network and the Hurricane Watch Net. I'm not sure how long John had been with MMSN, but I first met him around August 1999. He was on the air it seemed every afternoon, not including his regular time slot.

John and his wife, Jeanette - KB4XO (ex-NP2C), lived on the island of St. Croix

from 1988 to 2012. While living in St. Croix, John served as ARRL Section Manager for many years. He also had a huge station and many loved to operate from there. Back around 2003, he hosted one of the US Air Force Hurricane Hunter Pilots, Captain Dave Tenneson – NL7MT while they were there on St. Croix giving a tour of the C-130 Hurricane Hunter aircraft.

In early 2001, John joined the Hurricane Watch Net. In 2021, I had the honor of making John an Honorary Member of HWN for his 20 years of continuous service.

In 2012, John and his wife moved to The Villages, Florida to retire. Since this is an HOA city, John found a way to still operate on MMSN and HWN using either Flag Pole antennas or dual mag-mount antennas. Not the best, but he was on the air doing his best and doing what he loved.

Over the years, John wrote several “classic radio” articles for QST. In the September 2017 issue, he wrote an article on the construction of a “Flagpole antenna”. As John noted, *“There is nothing special about the flagpole antenna I described except for the use of the acetel rod as the center insulator and for enhanced base support. That rod is tough, and you could damage a perfectly good truck by trying to break it!”*

I will always remember John for having a friendly and caring voice. He loved ham radio and he loved working with MMSN and HWN.

In Memoriam – Terry Redding, W6LMJ



Terry Redding – W6LMJ

It is with a heavy heart that I announce the passing of Terry Redding, W6LMJ. Just before Christmas, I heard from one of Terry's daughters that he suffered a bad stroke a few months earlier. Sadly, he passed away Saturday morning, January 4, 2025. His daughter said he passed holding the hand of his bride as they listened to their favorite song.

According to information Terry posted on his QRZ page, he was born in 1948 in Torrance, California. He became interested in amateur radio as a result of helping his father recover electronic components from old television sets. From those, he built crystal radio sets, strung antennas, and built solid-state beat frequency oscillators. He was later introduced to amateur radio by a good friend while taking electronic classes at Torrance High School.

As Terry stated on his QRZ page, he “attended El Camino College pursuing an EE degree, and worked for the Electron Dynamics Division, Hughes Aircraft Company. The plant moved from the Los Angeles airport site to Torrance, which involved me working 12 hours a day, seven days a week for about six months, during which I lost my college deferment and became eligible for the draft.”

Terry was drafted into the US Army in 1968. He was selected for Field Artillery Officer Candidate School and was commissioned a 2nd Lieutenant in 1969. Terry later served in Vietnam. He retired as a Major. Over the years, he was stationed in Augsburg and Aushaffunsburg, Germany, Fort Sill, OK, Fort Ord, CA, and the Panama Canal Zone. He co-authored the *Field Acquisition Training Manual* with General Tommy Franks and, through ham radio as part of his doctoral degree, met and interviewed the man who became aware of the pending attack on Pearl Harbor.

Terry was well-known wherever he lived. He loved his family, astronomy, and amateur radio.

I first met Terry shortly after I joined the Hurricane Watch Net back in early 2000. Terry was one of the longest-serving active members of HWN...40 years. He also served as a board member of Hurricane Watch Net, Inc. for 9 years.

Terry joined the Hurricane Watch Net in 1984 while stationed in Panama, using the call sign HP1XTR. His first storm to participate in was Hurricane Diana, which made landfall just north of the North Carolina/South Carolina border. In 1987, he returned to the US, living in Lawton, OK, and held the call sign of WB5LMJ. In 1995, he relocated to West Palm Beach, FL, and was active using the call sign W6LMJ. While living in West Palm Beach, Terry and his family, unfortunately, experienced numerous tropical storms and hurricanes. However, during those hurricanes, he found himself in the position of being a reporting station.

In late 2016, I had the honor of making Terry an “Honorary Member” of the Hurricane Watch Net for his 32 years of dedicated service. But this honor did not slow Terry down. He would find a way to make himself available to assist in whatever capacity needed every year, as he had always done.

Terry's on-air help, and more importantly, his friendship, will be greatly missed.

Terry leaves behind Barbara, W5HKY, his wife of almost 55 years; and his children Terry Redding, Jr., KB5EHV, (Kelly); Sandra King (Harvey); Cynthia Smith, KB5FIQ, (Joseph); Mary Elizabeth Fabian-Redding, KC5UFZ; Sarah Lynn Redding, KC5YYT; and Michael, N4WTW, & Kirsten, KD4GUN, Glowaski; along with 17 grandchildren and 2 great-grandchildren.

NOAA Weather Ready Ambassador

By Bobby Graves – KB5HAV

Most of you by now have noticed the NOAA Weather Ready Ambassador Logo on our Website.



On June 19th, 2014, HWN was welcomed to the NOAA Weather-Ready Nation Ambassador™ initiative and accepted as an “NOAA Weather-Ready Nation Ambassador”. The Weather-Ready Nation Ambassador initiative is an effort to formally recognize NOAA partners who are improving the nation’s readiness against extreme weather, water, and climate events. As a Weather-Ready Nation Ambassador, the “Hurricane Watch Net” is committed to working with NOAA and other Ambassadors to strengthen national resilience against extreme weather.

As stated on the NOAA WRN Ambassadors webpage, Ambassadors serve as change agents and leaders in their community. They inspire others to

be better informed and prepared, thus helping to minimize, mitigate, or avoid the impacts of natural disasters. WRN Ambassadors can encourage these changes in their community in a number of ways, including:

- Setting an example by becoming “weather-ready” yourself (e.g., making employee preparedness a priority and having a disaster plan);
- Promoting Weather-Ready Nation key messages in your outreach activities;
- Providing incentives to your constituents and stakeholders to become more resilient;
- Advancing outreach to vulnerable communities; and
- Sharing success stories with NOAA.

How to Become a Weather-Ready Nation Ambassador

Any organization across all levels of government, businesses large and small, non-profit and non-governmental organizations, and academia can become a WRN Ambassador. The WRN Ambassador program is intended for organizations and designed to help serve the public by strengthening our national resilience against extreme weather events.

For more information, visit

<https://www.weather.gov/wrn/ambassadors>

Meet Stan Broadway, N8BHL – HWN Assistant Manager

By Stan Broadway – N8BHL



I became a novice operator in 1964 but after that one year, school, girls and music were in my sights, radio was not. I pursued a career in broadcast journalism and around 1979 the engineer of our radio station fixed a speaker so I could hear the Columbus weather net. I was

hooked. I took the Tech and General tests, with an eye only toward local weather spotting. Shortly after, the engineer brought in a Hammarlund receiver so I could hear a hurricane battering the coast- and the Hurricane Watch Net became the reason I jumped onto the HF bands. I was very active until life changes saw me taking on an apartment with no space or time for anything but mobile HF on occasion.

Fifteen year later as we settled into a house on five acres in the country, I brought up the idea of resurrecting the FT-102 radio and HyGain Quad that was left over from my earlier activity. My wife is ~very~ understanding. In a short time, I had spent multiple times my budget and created a nice functional station.

I became involved with the Hurricane Net in 2009 as an operator, fulfilling a goal I’d set years ago. I now serve Assistant Manager for HWN. I am also

active with ARES, serving as the Section Emergency Coordinator (SEC) for the Ohio Section between 2014 and 2023.

I have been through different “day jobs”: broadcasting, then computers, then emergency dispatching for a Fire/EMS center on the east side of Columbus, Ohio. From the late 60’s on, I have been in some kind of public service- police briefly then volunteer firefighter/EMT and dispatcher. I retired a couple years ago from all fire work. Though I retired several years ago from dispatching, I am still an active firefighter on our local volunteer department.

My history also includes music, playing cello from an early age and picking up guitar and banjo during the ‘folk music’ heyday. I also play drums, and concentrate on bass for our church worship band. My wife Sandi is the church woodwind section – flute, oboe and wind-synth. We’ve raised four kids, and now are enjoying five grandchildren.

Several of my coworkers served in Katrina. I gained a firsthand perspective from them and put that ground oriented view together with an appreciation for the atmospheric aspect of these large storms. Nearly every activation I catch myself asking, “Why are we still doing this?” when technology would seem to bypass our actions. But then we receive reports from islands without power and without the ‘normal’ means of communicating; I realize we are a very important part of protecting those lives! I remember that those long hours with no reports are dues that we pay in order to be there for that one report, a report that we can act on and provide help even to save lives. In the meantime I am humbled to serve with this team of operators who are simply the best!

Has Amateur Radio Become Too Dependent Upon the Internet?

By Bobby Graves – KB5HAV

A few years ago, I wrote an article on a similar topic. However, I believe it is worth reviewing and discussing once again.

The “Internet” has been around for more than 35 years with its popularity taking off in the mid-90s with the help of companies such as AOL, EarthLink, GeoCities, and more. Today, we literally have access to the internet 24/7 anywhere on earth and on many devices. Nowadays, it is almost impossible to find someone who does not have a smartphone. With such offerings from Apple, Samsung, Nokia, Motorola, and more, people can access online apps such as Facebook, Instagram, Pinterest, Google, online mapping, and more.

Starting in the late 90s, amateur radio began slowly integrating the use of the internet into our great hobby. And yes, it has enhanced operations significantly! Prior to the internet, many ham operators utilized a local Packet Bulletin Board (BBS) to send messages to other hams locally or around the world. This was accessible via VHF/UHF as well as HF. Hams would use HF RTTY, AMTOR, PACTOR I, WeFAX, and other digital modes to send and receive weather data, forecasts, and even download satellite weather imagery.

So, here we are, living in the year 2025. Nearly everyone, worldwide, has become dependent upon use of the internet. We buy and sell goods online. We pay our bills online. We can even watch TV and Movies online. And the list goes on and on. For ham operators, we use the internet for Packet BBS Forwarding; APRS; Echolink; Winlink; DSTAR; System Fusion; DMR; and much more. And let us not forget online callsign databases such as the FCC, QRZ.com, and HamCall.net. Many HF Nets use the internet for logging check-ins and online “Chat Rooms” for coordinating operations behind the scenes.

The “Internet” is a great tool for everyone, there is no debate about this. However, for ham radio operators, especially those who work with emergency services such as ARES, RACES, MARS, SKYWARN, and yes, even the Hurricane Watch Net, what will we do should there be an “Internet Blackout”?

In the past few days, national and international news media outlets have been reporting on the cutting of underwater internet cables in the Baltic Sea. Is this breakage happening on purpose?

We all know that severe weather such as tornadoes and hurricanes can cause wide-area power outages. Wildfires can do the same. But, what about our sun?

In March 1989, our sun unleashed some powerful Earth-directed solar flares causing strong geomagnetic storms. One such storm caused a nine-hour outage of Hydro-Québec’s electricity transmission system. The high induced currents caused by the storm led to the overheating, and in some cases, melting, many transformers. Substantial communications blackouts also occurred. Of course, the “Internet” wasn’t in use as it is today, but it is believed these strong geomagnetic storms could have easily disrupted the internet for days, perhaps even months.

Regardless, we as “Emergency Service Ham Radio Operators” need to have a backup plan. Most know what to do in case of a power outage. But, part of anyone’s backup plans should, in my opinion, include knowing what to do in case of an Internet Blackout and be prepared!

So, how can we, members of the HWN and other amateur radio organizations whose mission is emergency communications, send and receive email should there be an internet outage? After a lot of research and testing various methods, I believe Winlink to be the best solution!

Many have heard the name Winlink while others may be hearing it for the first time. Some may have heard Winlink requires the operator to own a high-priced Pactor III or Pactor IV modem built by SCS. While this modem does everything it’s designed to do, most hams cannot justify the \$1.5k to \$2k USD for one of these units.

Winlink operates much as an E-mail program and has many standardized forms such as used by the Red Cross and ICS forms used by FEMA and local EMAs. Messages sent by Winlink can be received by served agencies via internet e-mail, or in emergency situations, via RF from volunteer amateur radio emergency operators, MARS, or SHARES.

So, how can I operate Winlink without having to pay the price of a good HF rig? Simple, if you are able to work PSK-31 or FT-8, you already have what is needed to operate Winlink. Basically, all you need is a sound-card and a keying circuit. Better yet, an external sound-card unit such as the “Signal Link USB”. The software, Winlink Express, is free & available from winlink.org. Since you already know how to send and receive email, you already know how to use about 90% of Winlink Express. This program allows you to use Packet TNCs for VHF/UHF Packet, Pactor TNCs for modes I – IV, TELNET (for Internet Operations), VARA HF and VARA FM for use with sound card modems, and others.

If you do not have a Packet or Pactor TNC for HF, you will need an add-on program for Winlink Express called “VARA”. There is a one-time fee associated with using VARA HF or VARA FM. VARA replaces WINMOR that was used for many years with Winlink on HF. The free version of VARA HF allows data transfers up to ~180 bps whereas the paid version (about \$70 USD) can allow transfers up to a maximum theoretical speed of ~8490 bps.

Winlink Express is designed for Windows-based operating systems only. At this time, the Winlink Development Team (WDT) hasn’t developed a version for Linux or iOS. Unlike many programs these days, the Winlink organization has a team of developers (WDT) who work to make this program very simple and effective. And, just like your regular email client, you can send and receive attachments. There is a size limit for attachments.

Another solution, in addition to Winlink is that of FLDIGI. Like Winlink, FLDIGI can be operated on VHF/UHF, and HF frequencies. It can be used to pass simple message traffic and, when needed, standardized forms. The differences between Winlink and FLDIGI are:

- FLDIGI is used in real-time communications between operators
- Winlink is a store and forward messaging system
- Winlink messages can be sent to standard internet e-mail users

I realize many hams want stuff that will work on anything. Not everyone likes Windows, I get it. Keep in mind, however, Winlink is NOT for amateur radio use ONLY. It is used widely around the world by mariners, MARS, SHARES, hospitals, and numerous government and non-government agencies.

FLDIGI is available for use on Linux, Mac, and Windows. It is free and Open-Source.

You can find out more about Winlink and Winlink Express at www.winlink.org. You can find out more about FLDIGI at <https://sourceforge.net/projects/fldigi>.



If you need an external sound card for use with Winlink or FLDIGI, I can highly recommend the “SignalLink™ USB”. This is a very nice, compact, and very well-built device. You can find them at HRO (www.hamradio.com) for \$134.95. From time to time, they have this device on sale.

National Hurricane Conference

By Bobby Graves – KB5HAV

The National Hurricane Conference is the nation's forum for education and professional training in hurricane preparedness. Since the early 1980s, the Conference has grown in popularity. On even-numbered years, it is held in Orlando while on odd-numbered years it is held in New Orleans. Other venues over the years have included Baltimore MD, Washington DC, Atlanta GA, and Austin TX. And one thing is for certain, there is something for everyone at the National Hurricane Conference!

Every Hurricane Season is different. Every Hurricane is different. After every landfalling hurricane, there is a lesson to be learned. Hurricane Preparedness is necessary for everyone, whether you live on the coast or inland. Remember Hurricane Helene 2024?

As stated on their website, *"The primary goal of the National Hurricane Conference is to improve hurricane preparedness, response, recovery and mitigation in order to save lives and property in the United States and the tropical islands of the Caribbean and Pacific. In addition, the conference serves as a national forum for federal, state and local officials to exchange ideas and recommend new policies to improve Emergency Management."*

To accomplish these goals, the annual conference emphasizes:

- Lessons Learned from Hurricane Strikes
- State of the art programs worthy of emulation
- New ideas being tested or considered
- Information about new or ongoing assistance programs
- The ABC's of hurricane preparedness, response, recovery and mitigation — in recognition of the fact that there is a continual turnover of emergency management leadership and staff"

The National Hurricane Conference is huge. It is typically a 4-day event with sometimes ten or more forums and workshops occurring at the same time. This can make it tough for some when there are two or more programs you would like to see but they are taking place simultaneously. Perhaps this can be a good reason to attend the following year so that one can attend the programs they missed the previous year!

Over the years, the attendance at the National Hurricane Conference has grown to around 2500 people. Most are those who are new in emergency service yet many are repeat attendees. There are people from across the US, Canada, Central America, and the Caribbean Islands.

Of the many forums and workshops available at the National Hurricane Conference, some include but not limited to:

- Hurricane History Workshops
- Mitigation Workshops
- Evacuation Planning/Response Training Workshops
- Recover Workshops
- Fire-Rescue/Law Enforcement/Military Workshops
- Tropical Islands/Latin America Workshops
- Emergency Management Training – ABCs of EOCs
- Various FEMA Programs
- Amateur Radio Workshop – Tropical Systems and Disaster Communications

Since becoming the Net Manager for the Hurricane Watch Net in April 2013, I have been fortunate to attend the National Hurricane Conference each year beginning in 2014 with a couple of exceptions. 2020 was canceled due to the pandemic and 2023 I had to miss due to untimely but needed doctor visits. However, I find my visits to the National Hurricane Conference to be time and money well spent.

On my way to the 2014 Conference, I had the sincere pleasure of visiting the National Hurricane Center in Miami, FL. While there, I had the pleasure of meeting Julio Ripoll, WD4R, John McHugh – K4AG, and many of the operators at WX4NHC whom I have known since 2000. I also had the pleasure of meeting Rob Macedo – KD1CY, Director of Operations for the VoIP Hurricane Net. Since this time, our friendships have grown and our organizations work closely together.



Photo taken at the 2014 National Hurricane Conference in Orlando, FL

The following day was major highlight for me as I was the Net Manager to represent the Hurricane Watch Net since 2002. This also another milestone as HWN prepared for our 50th straight season of operation.

During this Amateur Radio Workshop, I learned the Canadian Weather Service has a Hurricane Centre (yes, I spelled Centre correctly as this is how they spell it in Canada). Bob Robichaud, VE1MBR, gave a great presentation on the Canadian Hurricane Centre. While the National Hurricane Center in Miami, Florida is responsible for the forecasting of tropical weather in the Atlantic Basin, Canada does issue specialized information for Quebec, New Brunswick, Nova Scotia, Newfoundland, and Labrador including the Canadian Maritimes.

After the meetings and programs, Bob Robichaud and I formally met and talked about many things. After he learned more about what we do and the services we have to offer, and me learning more about the needs of the Canadian Hurricane Centre, we officially formed a "Formal, Direct working Relationship".

Our Special Guest Speaker for the Amateur Radio Workshop was Dr. Rick Knabb, Director of the National Hurricane Center at that time. It was a pleasure meeting and spending some time with him. Later, he spoke of the importance of Amateur Radio, not only in forecasting for active storms but for helping to get the "Historical Record" accurate.



Photo taken at the 2014 National Hurricane Conference in Orlando, FL
Dr. Rick Knabb (Director – National Hurricane Center)

Over the years, I have been fortunate to meet many people from other organizations with the same goal in mind – “Helping Save Lives”.

In 2018, I met Dr. Ed Rappaport, Acting Director of the National Hurricane Center for 2017. During his presentation at the National Hurricane Conference, he made sure to thank all amateur radio operators for their help in providing weather data and for disseminating advisories. Dr. Rappaport then introduced Ken Graham as the new Director for the National Hurricane Center. He is a licensed as WX4KEG and has a great appreciation for amateur radio and the people who devote their time and effort towards emergency communication. He reminded everyone that when all other means of communication when down, it was amateur radio that let the world know the National Weather Service Office in Slidell, LA was still there during Hurricane Katrina. He also said, *“Ham Radio is sometimes the only way to communicate after a disaster”*.



Dr. Ed Rappaport
Acting Director of NHC for 2017



Ken Graham – WX4KEG
Director of NHC

Each year, it is a sincere pleasure getting to spend quality time with the speakers and special guests at the National Hurricane Conference. For the Amateur Radio Workshop (Forum), this has allowed me the opportunity to build a strong working relationship with many organizations. Of course,

most of us remain in contact throughout the year, even more so whenever there is an active Hurricane that looks to threaten land and people. Moreover, we work extremely close with one another during any landfalling hurricane.

At the 2024 National Hurricane Conference, I had the pleasure of meeting and spending a few moments with our Special Guest Speaker, John Cangialosi – Senior Hurricane Specialist, National Hurricane Center. As with any meteorologist I know, and especially those at the National Hurricane Center, John expressed his full respect for the amateur radio community and all that we bring to the table.



John Cangialosi
Senior Hurricane Specialist - NHC

Each year, I do my best to record, edit, and post the National Hurricane Conference Amateur Radio Workshop on our YouTube Channel, <https://www.youtube.com/HurricaneWatchNet>. The current catalog includes the 2016, 2019, and 2024 Conferences. The 2017 catalog was lost by accident. The 2018 videos had major issues – terrible lighting and audio was distorted. Nevertheless, I have learned a lot about audio and video recording over the years. The most recent event, the 2024 Hurricane Conference is perhaps the best of my recordings.

2025 Atlantic Basin Hurricane Season Forecast

By Bobby Graves – KB5HAV

The 2024 Atlantic Basin Hurricane Season is history...Thank Goodness! 2024 was forecasted to be an above-average season. Thankfully, it was not as busy as predicted, however, just one landfalling Hurricane is one too many!

For 2024, the Hurricane Watch Net was activated for Hurricanes Beryl, Debby, Ernesto, Francine, Helene, Milton, Oscar, and Rafael. The areas of landfall cover the southern Windward Islands, Cuba, Belize, Mexico, Jamaica, Texas, Louisiana, and Florida. However, the hardest area hit was well inland in the North Carolina Blue Ridge Mountains. Chimney Rock, Asheville, Swannanoa, Black Mountain, and more were extremely hard hit with flash flooding and mudslides. Some areas were wiped off the map. Even more sad was the number of lives lost.

Even though we are experiencing winter here in the northern atmosphere, now is a great time begin preparations for the 2025 Atlantic Hurricane Season. How bad will 2025 be? Well, it is still too early to know, however, “Tropical Storm Risk”, a group of meteorologists in London, England issued their first forecast for 2025 on December 10, 2024. According to information on their website, www.tropicalstormrisk.com, they anticipate a season with activity close to the 1991-2020 climatology. Their forecast spans the period from 1st June to 30th November 2025 and employs data through to the end of November 2024. TSR uses the forecast August-September sea surface temperatures in the Atlantic Main Development Region (10°20'N, 60°-20°W) and the forecast July-September Caribbean trade wind anomaly over the region 7.5°17.5°N, 100°-30°W as predictors. The former is forecast to be warmer than average leading to an enhancement of Atlantic hurricane activity, and the latter is predicted to be slightly weaker than normal due to predicted near neutral ENSO conditions and above average sea surface temperatures in the Caribbean Sea.

This forecast has high uncertainty due to the current very warm sea surface temperature anomalies across much of the Atlantic Ocean and whether these warm anomalies will persist through spring and summer 2024. We express the forecast uncertainty in terms of probability of exceedance for Accumulated Cyclone Energy (ACE) and for hurricane numbers.

TSR is currently forecasting 15 names storms, 7 of those becoming Hurricanes, and 3 of those to become a Major Hurricane (Cat 3 or stronger). They will issue an update to their forecast on April 7, 2025.

Dr. Philip Klotsbach, of Colorado State University, will be issuing his first forecast of the 2025 Atlantic Hurricane Season on April 3, 2025.

It does not matter if we have 1 or 20 Hurricanes in a season. Many, thankfully, remain out at sea and never make landfall. However, it takes only ONE Landfalling Hurricane to make for a Very Bad Season. Anyone remember Hurricane Andrew in 1992?

Whether you live on the coast or well inland, should a tropical system visit you, you need to be prepared. Now is the time to review your insurance policy. If you live in a Flood Zone, get Flood Insurance...don't wait. Work with local officials on strengthening your home. Start stocking up on supplies. Prepare an “Family Emergency Plan” and a “Basic Emergency Supply Kit”. On our website, www.hwn.org, we have both of these in a downloadable PDF file. Lastly, if you live in an “Evacuation Zone”, learn and know your evacuation routes. Also, learn where your nearest storm shelter is. Call and find out about their setup, requirements, and more. The time to prepare is now! Let's all do what we can to help “Save Lives”!

Do You Have Ideas or Articles for this Newsletter?

If you have ideas or articles you would like to see in this newsletter, as well as have any questions or comments, they are most welcomed and can be sent to editor@hwn.org

When submitting an article, please adhere to the following guidelines:

- Articles should be of general interest to readers if possible.
- Articles should be in MS Word format (.doc) or plain text files. (.txt)
- Vulgar or offensive language should be avoided.
- No copyrighted materials.

HWN, Inc. reserves the right to edit submissions for content or length. HWN, Inc. reserves the right to refuse submissions for any reason.

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To do, please visit our website at www.hwn.org

Upcoming Events



February 7th – 9th, 2025

For complete details, visit <https://www.hamcation.com>



April 14th – 17th, 2025
Hilton New Orleans Riverside
New Orleans, LA

For complete details, visit <https://hurricanemeeting.com>



HWN 60TH ANNIVERSARY ON-AIR CELEBRATION

June 7th and 8th, 2025

For complete details, visit www.hwn.org

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