

BROWARD COUNTY FLORIDA



EMERGENCY COMMUNICATIONS TRAINING

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This month's meeting will be presented by Kai Siwiak / KE4PY on

"Improvised Antennas and Operations for UHF, VHF and HF"

Please plan on being at this meeting for this informative presentation

July 2014

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Seated: Robin Terrill N3HHP, Standing (L to R): Robert Hone N4JQP, Carol Sjursen KJ4AWB, Jim Calcanes WB4JC, Mike Sanner KM2V, Steve Adams N4JRW

RACES Amateur Radio staff prepare for 2014 Hurricane Season

In preparation for the 2014 Hurricane Season, the RACES Amateur Radio staff participated in the annual amateur radio station test for the National Hurricane Center (WX4NHC) this past weekend. RACES members were able to make contact with other amateur radio operators at the National Hurricane Center on various frequencies and through various communications modes.

On-The-Air Station Test of the WX4NHC

Hi Robin,

Thank you for your help in testing between NHC and Broward EOC. Hopefully we won't need to use our station this Hurricane Season, but it is good to know that we can contact Broward EOC directly, just in case.
73, Julio - WD4R

WX4NHC TESTED AND READY FOR HURRICANE SEASON

Hello Fellow Hams, We had the best Annual Station Test that I can remember. Many thanks to all who helped spread the word. Below is a summary and attached are a few pictures. Hopefully we will not have to activate for a hurricane this season. But it is good to know that our equipment worked well in case the need arises. We are ready, not just for us in sunny South Florida, but for everyone along the US coast and the Caribbean. Thank you for your support. The National Hurricane Center's Amateur Radio Station WX4NHC conducted their annual On-The-Air Station Test on May 31st 2014. This is the 34th year of volunteer public service by the WX4NHC Group at NHC. WX4NHC conducts this event each year in preparation for Hurricane Season, which runs from June 1st to November 30th. The station was tested on many frequencies and modes, including; HF, VHF, UHF, HF WinLink, VHF/HF APRS, EchoLink/IRLP/All-Star, email and online form. We are happy to report that all of the radio equipment and antennas performed well producing

the most contacts made during this event in memory. Even though the HF propagation was poor and we were also conducting other equipment tests and operator training on new modes and tweaking our software. Of course it helped that one of our WX4NHC operators was Julio Henriquez AD4Z, internationally recognized DXer and Contester, who will be in the Ham Radio Olympics and also operate W1AW/4 for the ARRL Centennial.

The WX4NHC Test Event is also good practice for Amateur Radio Operators worldwide, but especially in hurricane prone areas, to test their station's ability to contact WX4NHC, should they need to during a hurricane. It was also a good opportunity for NWS Office Staff to become aware of the unique capabilities of Amateur Radio during severe weather and disaster communications; when conventional communication modes fail. For the first time, D-STAR/D-RATS reports were received at WX4NHC which was proposed to us during the National Hurricane Conference in Orlando Florida this year by John Davis WB4QDX, who then organized and coordinate this effort. Although we do not currently have a D-STAR Radio at WX4NHC, we did receive 51 Surface Weather Reports via the D-RATS form at WX4NHC. We are excited of the potential that D-STAR/D-RATS modes can produce hurricane surface reports in a similar format that is used at WX4NHC. These reports may someday fill in a very important gap in surface data during a hurricane that we could not receive on other modes. We thank John WB4QDX for his efforts and look forward to the participation from D-STAR/D-RATS during hurricanes. WX4NHC made a total of 308 contacts in 9 hours of operations.

The contacts ranged from local VHF/UHF stations in South Florida and Florida Keys to international stations as far away as Guam. Communications contacts and surface reports were received from 25 US States, and countries, such as; Bermuda, Canada, Cuba, Curacao, Guam, Costa Rica, Dominican Republic, Haiti, Honduras, Mexico, Puerto Rico and Venezuela. We also made contacts with the National Weather Center in Norman, Oklahoma, Broward County and Marion County Florida EOC's and the Guantanamo Military Base in Cuba. It is always a pleasure to talk to Jean-Robert HH2JR, president of Radio Club of Haiti, as well as Riley Hollingsworth K4ZDH (FCC Ret) which both have supported the efforts of WX4NHC for many years. We were especially delighted speak with Craig Fugate KK4INZ, Administrator of FEMA on EchoLink and expressed our thanks to him for his strong support of the Amateur Radio Volunteers. Craig and Ted Okada N4HNL (FEMA Chief Tech Officer) understand very well how Amateur Radio can help their communities during and after severe weather and other natural disasters.

We are also thankful for all of the Skywarn Volunteers nationwide for their continued efforts to help the NWS and NHC and their communities. You may never know, but your efforts may someday save someone's life. WX4NHC is thankful for the ARRL's help in publicizing this event as they have done for many years. We are especially grateful for the support from Mike Corey K11U, ARRL Emergency Preparations Manager. For more information, please visit: www.wx4nhc.org



Amateur Operators at the NHC were WD4R, K4AG, K9JCL, WB4L, WX2I and K4FLL

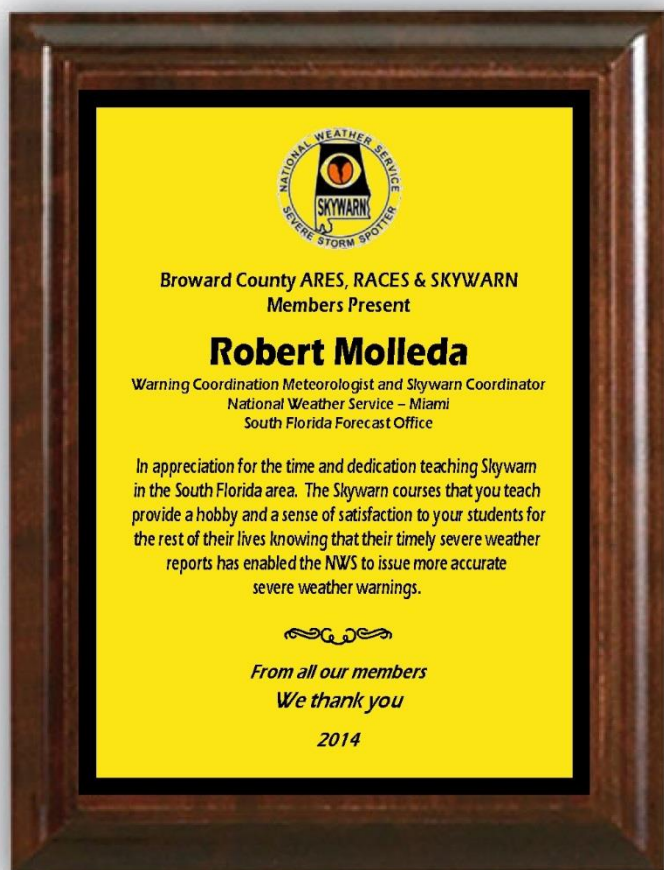
AT OUR JUNE ARES/RACES/SKYWARN MEETING AWARDS GIVEN



Robin N4HHP - Robert Molleda - Carol KJ4AWB



Carol KJ4AWB – Mike K2HXC



Amateur Radio Service Support to Public Safety Communication

To this point in our Tech Topics series, our discussions of public safety communications have focused primarily on interoperability and various methods and technologies for public safety organizations to communicate with one another. In times of emergency when normal public safety communications are not available, there are alternative systems that may be used for this purpose. Current FCC rules state that amateur stations and operators are allowed to assist and support public safety communications in times of emergency. This topic addresses the voluntary services provided by amateur operators, amateur service organizations and the relationships between amateur service organizations and public safety jurisdictions. Information about amateur services is also briefly described in the Public Safety and Homeland Security Bureau's Amateur Radio Services web page.²

Amateur radio (also known as 'ham radio') services are regulated under Part 97 of the FCC rules.³ Amateur radio operators are licensed users who operate radio communications as a hobby or a voluntary service running within amateur radio frequencies allocated by the FCC⁴. To acquire an amateur radio license, individuals are required to pass a licensing exam that proves the individual possesses the operational and technical qualifications required to properly perform the duties of an amateur service licensee [47 CFR 97.503]. Currently, individuals may qualify for three classes of operator license: Technician, General and Amateur Extra.

When normal communications systems are not available, amateur stations may make transmissions necessary to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property [47 CFR 97.403]. This provision of emergency communications is regulated by Part 97, Subpart E of the FCC's rules. One advantage for amateur radio operators in public emergency communications is the wide range of available frequencies [47CFR 97.407].⁵

One service within the amateur radio services that uses amateur stations during periods of emergencies is known as the Radio Amateur Civil Emergency Service, or RACES.⁶ To transmit in RACES, an amateur station must be certified and registered by a civil defense organization or an FCC-licensed RACES station. RACES is administered by the Federal Emergency Management Agency (FEMA) and acts as a communications group of the government. Registered members of RACES are authorized to respond when a civil defense organization requests amateur radio assistance. Typically these activities occur during periods of local, regional or national civil emergencies such as hurricanes, earthquakes, floods or wildfires. RACES stations may only communicate with specified stations [47CFR 97.407(c), (d)].

It is important to recognize that the amateur radio stations participating in RACES are certified by their local civil defense organizations for this specific purpose. The operators are a valuable resource that provides emergency communication capabilities to their community. Civil defense organizations establish their own training and certification standards. Some localities – “for example, Arlington County, Virginia⁷ - have more stringent training and certification standards than others. The key component of the RACES program is the direct and recognized affiliation between the amateur radio operators and local authorities since RACES may provide a critical alternative communications link for local officials. For example, RACES operators serve the county by passing critical emergency information from county officials with the County Emergency Response Team (CERT) to RACES operators at other locations. Although RACES stations operate in conjunction with a federal, state, tribal or local jurisdiction, there are other options for amateur radio

operators in emergency communications to include the Amateur Radio Emergency Service (ARES). Together with the National Traffic System (NTS), these services are broad programs of the American Radio Relay League (ARRL) which is a national association of radio amateur operators. ARES members are licensed amateur radio operators who volunteer to provide emergency communications services to public safety and public service organizations. Most individual ARES units are organized within a city, county or state and usually operate autonomously.

The ARRL describes the ARES programs as follows: "The Amateur Radio Emergency Service (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment 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 for membership in ARES. The only qualification, other than possession of an Amateur Radio license, is a sincere desire to serve. Because ARES is an amateur service, only amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership."

Frequently, individuals interested in providing emergency communications are registered in both ARES and RACES. Dual registration allows continuity of operations if normal amateur operations might otherwise be prohibited. RACES and ARES are collaborative services although they exist as separate volunteer entities. The ARRL encourages dual enrollment and cooperative efforts between both groups whenever possible. Both organizations remain a vital resource for the public safety community in times of crisis.

¹ This Tech Topic is coauthored with Mr. William T. Cross from the FCC's Wireless Telecommunications Bureau (WTB). Bill is responsible for all amateur radio related issues and can be reached at 202-418-0682 or email: william.cross@fcc.gov. We sincerely appreciate Bill's contributions to this Topic.

² See <http://www.fcc.gov/pshs/services/amateur.html>.

³ See http://www.access.gpo.gov/nara/cfr/waisidx_07/47cfr97_07.html.

⁴ See FCC Part 97, Subpart D, Section 97.301 of the Commission's rules, 47 C.F.R. Â§ 97.301.

⁵ See the ARRL band plan at <http://www.arrl.org/FandES/field/regulations/bands.html>.

⁶ See FCC Part 97, Subpart E, Section 97.407 and <http://www.usraces.org/>.

⁷ See the Arlington County RACES web site <http://www.w4ava.org>.

⁸ See <http://www.arrl.org/FandES/field/pscm/sec1-ch1.html>

Net Participation and Associated Emergency Operations

R. Bruce Winchell - N8UT Copyright 1997

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The purpose of this material is to provide some basic rules that apply to ALL "Declared" or "Directed" voice or "phone" nets. Some of these rules, (1, 2, & 3) will apply to any net; in any mode. Mixed in with the nuts and bolts of net activity, you will find some basic rules of conduct with which you must be familiar. They are every bit as important, if not more so, than your ability to run your radio. If your conduct is out of line, you can absolutely destroy hard-won relationships that have taken years to build with our served agencies.

A "declared" net: is defined as any net that begins with a statement from an operator that a net is being started for a particular purpose, and that someone is assuming duties as Net Control Station, (NCS.) Declared nets can take many different formats and styles

OPEN NET FORMAT: This type of declared net can be nearly invisible. A group has declared a net to be active, but not much is happening. The repeater or frequency is being used normally. The net is transparent and running in the background. A typical use for this type net is during the early stages of weather watches. Operators are occasionally reporting some weather condition to an informal NCS. Other than that, the rag chewing is proceeding normally.

DIRECTED NET FORMAT: There are two basic types of directed nets: Formal and Informal. Informal Directed Nets are your normal Tuesday night club net, Elmer's Net, CW practice net, ARES teaching net, Public Service Events, etc. Formal Directed Nets include activation of ARES/RACES personnel for Fire Nets, Skywarn, earthquake, or other Emergency Activation. In either case, the NCS declares the net to be active and actively controls the frequency. A specific topic, conditions, and/or set of instructions for check-in may be given. Normal usage of the frequency is stopped. Net Control Stations can quickly become overwhelmed by rapidly accumulating administrative and logistical requirements. As the scope of an operation grows, the Main (Command) NCS may activate one or more supporting sub-nets to handle these duties. This reduces the traffic flow to, and maintains the efficiency of, the main net. These sub-nets operate independent of the main net and have their own NCS. They report and respond to the main net. Some typical names for these sub-nets are Resource (personnel, standby, relief, scheduling), Logistics (supply, transportation), Health & Welfare, Search & Rescue, Damage Assessment, ARESMAT, and Security.

GENERAL RULES OF OPERATION:

The Net Control Station has ABSOLUTE CONTROL of the frequency until the net is closed. All communications must pass through the authority of the NCS for the duration of the net. If you wish to speak with another station involved in the net, ask NCS for permission to "go direct." Make sure it is important and relevant to the net activity.

WHERE'S YOUR AMATEUR RADIO MANUAL?

Oh no, Net Control wants me to come up on some frequency that I don't have programmed in my rig. How do I do that? How do I enter the repeater off-set and CTCSS (PL) tone? Where's the manual? Do I still have it? What am I going to do?

Has this happened to you? It probably has if you've helped out with one of the many public service events here in Broward County throughout the year. I doubt it if you are going to program the "Talk-in" frequency for every event that you participate in into one of your *valuable* 800 or more memories of your mobile rig or handy talkie. Plus, even if you did, would you remember that you programmed that frequency into memory 550 last year? I wouldn't. Unless you can memorize all the procedures for all of your rigs, you need your manuals. So again, where are your manuals? Obviously, the manual for your mobile rig **better** be with your mobile rig, with your vehicle. That's a no-brainer. But what about handy talkie?

How many of you have your HT manuals in your radio shack? Come on, raise your hand. If you do keep your manuals in the shack, do you always remember to bring the correct manual with you when you grab an HT? Raise your hand if you've forgotten to bring the manual at least once. Raise both hands if you brought the wrong manual at least once! Yeah, both of my hands were up in the air too.

All right, I'll give you a hint on where to store you HT manuals. What's with you or near you most of the time? Give up? Your vehicle! Whether you are helping out with communications to support an ARES/RACES event, or providing communications for the Fort Lauderdale Winterfest Boat Parade, in all likelihood, you brought your vehicle with you. What do you have in all those door and map pockets? (Please don't tell me, I have a weak stomach). Besides maps, those pockets are an excellent place to store your ARRL Repeater Directory and manuals for your mobile rig and all of your HTs.

Don't complain that you now have to walk all the way out to the driveway or garage to grab the manual when you want to program your HT the night before the bike ride. At least you know where the manuals are. Besides, most of us could use the exercise! And the next time you take on an assignment and need to transmit on the repeater output and listen on the repeater input, you'll have your manual a few feet away from you, not in your radio shack a few miles away from you!

Every night at 6:00 PM, the SEFTN which meets on the 146.610 MHz, -600, PL 110.9 Hz, the GoldCoast Amateur Radio Club repeater. This Net is a great way to get training in sending and receiving traffic.

Spotter Safety: Your Number One Priority

Accurate and timely spotter reports are critical to your local community and to the National Weather Service. However, your first priority as a storm spotter is to STAY SAFE! Severe storms present a number of hazards, any of which could lead to injury or death if you're not extremely careful.

Depending on whether you are spotting from your vehicle or from a fixed location (like a home or business), there are hazards you need to be aware of and plan for when you're observing storms.

Mobile Spotter Safety Concerns

Mobile spotters are those who observe storms from their vehicle or from a position other than their home or business. In many communities, spotters have assigned observation locations - when spotters are activated, they go to their designated spot, and observe and report weather conditions. Some mobile spotters stay mobile during the storm and attempt to move along with the storm to maintain a view of the "action area" and report any changes as the storm progresses.

NOTE: The National Weather Service does not condone, endorse or recommend storm chasing. It is a dangerous practice and *should not be attempted*.

As a mobile spotter, there are important safety considerations you should think about. The following is a partial list of the hazards you may face as a mobile spotter:

Being on the Road

Even on a sunny day with no storms, driving a vehicle on a public roadway can be dangerous. When you add storms - with heavy rain, gusty winds, hail, blowing dust, etc. - the danger increases dramatically. To stay safe as a mobile spotter, keep these things in mind:

- Always spot with a partner - This allows the driver to focus on the road while the passenger watches the sky. This also provides an extra set of eyes to keep an eye on rapidly changing situations.
- Watch for water on the road - Hydroplaning is a serious threat for drivers, and it doesn't take much rain to cause roads to become slick and hazardous.
- Obey traffic laws - Speeding, parking too close to the edge of the road and making sudden turns and stops on unfamiliar roads all spell trouble.
- Watch out for the "other guy" - Severe storms in the Plains often draw a crowd of onlookers, from casual observers to organized groups of storm chasers. Be extra careful when stopping to view a storm, making sure to pull completely off roadways and keeping an eye out for traffic, even in places where you would never expect to see traffic.

- Make sure your vehicle is ready for action - A well-maintained vehicle with a full tank of gas is crucial for a mobile spotter's safety and success.

Lightning

All thunderstorms produce lightning, and people are killed and injured each year by lightning. Storm spotters may put themselves at risk from lightning by being in the open, being on a hill or high spot (for better visibility), parking or standing next to metal fences or underneath power lines, standing close to camera tripods or using radio equipment attached to antennae.

Remember that lightning typically provides no warning - the first strike that you see may be the last. Follow these basic lightning safety guidelines:

- Avoid being the tallest object, and stay away from other tall objects (like trees, power pole/lines).
- Don't stand close to fences or power poles/lines. Even though you may not be in an area of frequent lightning, lightning can travel a considerable distance along these pathways.
- As mentioned before, you should not wait for some type of warning (hair standing on end, sounds on AM or other radio equipment, etc.) before taking shelter from lightning - the first strike from a storm could be the one that gets you. Treat lightning with respect and stay in a protected area when lightning is in the area.
- CPR training is an excellent idea for all mobile storm spotters. Remember that a person struck by lightning carries no residual charge and CPR could save a life.

The Storm

If a mobile storm spotter is well trained, experienced and knowledgeable about severe storm structure and behavior, they can usually avoid becoming a victim of the storm itself. However, the environment in and near a severe storm can change dramatically in a short period of time, and these changes can catch you by surprise. These basic tips can help you stay safe:

- Avoid the most intense areas of storms - This seems obvious, but each year spotters, for one reason or another, make decisions that place them in the core of a dangerous storm. Storm chasers call this "core-punching" and it's a very dangerous practice for a number of reasons. First, you may drive into very large hail, which can damage your vehicle and injure you. Second, you could drive right into the path of a tornado with very little time to react. And finally, the core of the storm is a dangerous place with low visibilities, heavy rain, and violent winds.
- Keep your head on a swivel - When observing a storm, it is easy to lose focus and become fixated on some feature you're watching. You should maintain awareness of what's going on all around you and always be mindful of a surprise event. This points out the importance of spotting with a partner, who can be an extra set of eyes and ears to help you stay safe.
- ALWAYS have an escape route in mind - Mobile spotters should always plan an emergency escape route that will take them out of harm's way should the storm change direction or otherwise threaten them. Determining that escape route requires a great deal of knowledge about the storm's movement and behavior. A detailed set of current maps of your spotting area is a critical part of a mobile spotter's toolbox, but be mindful of the fact that roads sometimes change before maps do, and they may not reflect reality in every case.

- Never drive into areas where water covers the road - This is especially true when you cannot be certain how deep the water is. Many people die each year by driving into flooded areas and drowning in their vehicles. Find another safer route.
- Keep your engine running - Especially when operating close to a severe storm. You do not want to find out about a vehicle problem as a violent storm bears down on you.
- Be extra cautious at night - Obviously, it is more dangerous to deal with something you cannot clearly see. Storms at night present special problems for spotters and you should be extremely cautious when observing storms after dark.

Fixed Spotter Safety Concerns

When it comes to being safe, storm spotters who observe storms from a fixed location have some advantages, but also some disadvantages as compared to mobile spotters. Fixed spotters may have access to shelter and will not be exposed to the elements and all the hazards that mobile spotters face. However, there are instances when mobile spotters might be able to get out of the path of a dangerous storm, while fixed spotters cannot.

Fixed spotters should be mindful of all the hazards a severe storm can bring, including lightning, large damaging hail, violent straight-line winds, torrential rains and tornadoes. And just like everyone, fixed spotters should have a severe weather safety plan for wherever they may be. Remember these basic safety guidelines:

- Tornado safety - Get underground or into a safe room or basement if possible. If none of these are available, get on the lowest floor of a sturdy building, putting as many walls between you and the outside as possible. Avoid windows, doors and outside walls. Cover your head and body to protect yourself from deadly flying debris. Mobile homes and vehicles should be abandoned for more substantial shelter.
- Lightning safety - Stay away from doors and windows. Avoid using electrical appliances and stay away from plumbing fixtures, as these can be pathways for lightning to enter a building. Stay off the telephone, especially corded phones, as much as possible.
- Hail and wind safety - Severe thunderstorms can produce destructive hail and damaging winds, even without a tornado. Follow the tornado safety rules, especially when a storm contains very large hail and/or violent winds.

SKYWARN

The most important goal of the National Weather Service (NWS) is to protect lives and property through timely watches and warnings. SKYWARN is an essential component for achieving this goal. SKYWARN is a National Weather Service program comprised of trained and certified volunteer severe weather Spotters. SKYWARN Volunteers across the nation support their local community and government by providing local NWS offices with timely and accurate severe weather reports.

Since its beginning in the 1970s, thousands of SKYWARN volunteers have helped the NWS issue more accurate and timely severe weather warnings by spotting and reporting severe weather. The role of the Spotter is to serve as eyes and ears for the NWS during severe weather situations. It is imperative for SKYWARN volunteers to learn what types of weather the NWS wants to have reported by its Spotters. Spotters come in ALL shapes, sizes, colors, and include all backgrounds, nationalities, religions, races, creeds and professions. It's a program open to all citizens.

It's fortunate that many SKYWARN volunteers are licensed amateur (HAM) radio operators. HAM radio operators are well equipped to relay their reports of severe weather. However, the SKYWARN program also includes law enforcement agencies, emergency management personnel, public utilities workers, and others who are just simply interested in weather.

Although the NWS office in Miami Florida relies heavily on technology, i.e., radar images, satellite pictures, and weather models, to forecast outbreaks of severe weather, these tools have limitations. The NWS cannot precisely see "ground zero" on radar and won't see what "really" may be happening beneath the clouds and images on their radar screens. This is precisely why a strong, active, responsive, and responsible Spotter network is critically important. Having SKYWARN Storm Spotter network in place empowers the NWS to secure "Ground Truth" about what they may be seeing on their radar, and, as a result, issue ever more timely warnings for areas in the paths of severe weather.

SKYWARN Spotters are essential to the warning process. Even with all the new technology, an accurate report from a trained SKYWARN Spotter often provides a most critical piece of information needed by the NWS forecaster, and could very well be the factor in determining NWS issuance of a timely warning.

These reports, integrated with NWS technology, are used to inform, indeed, warn communities and Mariners of proper actions to take as severe weather threatens, thus saving lives. The purpose of SKYWARN is to help save lives and property through observation and reports of severe weather conditions from trained volunteers. The National Weather Service depends on our storm Spotters year round for timely reports during severe weather outbreaks. Many different forms of weather occur that could be deadly. That is why no season is safe.

The areas that the NWS in MiamiDade County covers includes Monroe, Dade, Broward, Palm Beach, Collier, Hendry and Lee Counties. If you will like to attend a Skywarn class please go to the NWS Website <http://www.srh.noaa.gov/mfl/?n=skywarn> to see when a class will be given in your area.

Robin Terrill / N4HHP
Broward County SKYWARN Coordinator

SKYWARN TRAINING

Weather for Kids Part 1 <http://www.youtube.com/watch?v=v1-Khi9i3UU>

Weather for Kids Part 2 <http://www.youtube.com/watch?v=lbRIn1GI0dA>

Repeater Conduct

Source <http://www.k9wzrepeater.org/conduct.html>

December 13, 2001

Why do we need rules at all for repeater conduct or etiquette? We tend to assume that everyone knows the generally accepted rules. But, that could be careless of us and unfair to those who want or need to have a clearer definition of our expectations and requirements. It can also create discord when repeater users offend others by unknowingly breaking some unwritten rule. Activities that may be an irritation or even a flagrant violation to one person might not be an issue at all to another. It's probably best for us to be clear about the rules we really think are important.

We understand that everyone slips once in a very great while, no matter how hard they try. But, we expect all users of the repeaters to do their very best to follow these few simple and obvious rules of repeater conduct.

1. Always identify according to the regulations

Correct operating procedure is a distinct characteristic of Amateur Radio. It's important that you convey to the public and to new hams the image that Amateur Radio operators really know what they are doing. A friendly style is great, but takes pains to operate professionally. Don't become sloppy. Amateur Radio regulations are largely self-enforced and we all need to work together towards these goals.

2. Avoid lengthy conversations

Please limit conversations to 15 or 20 minutes. Then take a good long break or move to another frequency. Other hams probably want to use the repeater but might not be interested in the subject your group is discussing. None of us should monopolize the repeater, even unintentionally. It's not enough to pause now and then and invite others to join in. They may just not be interested in the topic. Be polite, and don't be a "repeater hog".

3. Do not engage soap boxing

Soap boxing, which goes hand-in-hand with overly long conversations, is when people carry on a conversation on the repeater that is a thinly disguised broadcast. The subject is generally to "put down" an institution, group, or an individual for as wide as possible an audience. This is very objectionable to other repeater users and listeners. Using the club's repeaters as a platform for soap boxing is unacceptable. Conversations on the repeaters should be friendly ones. Do not make them negative commentaries on institutions, groups, or people. Don't use the repeaters to "put people down." Amateur Radio is not a broadcast medium – 97.113(5)(b). Are we talking about censorship? No, not exactly. A person may have the right to stand on the street and say bad things about someone. They don't have the same right when they are a guest in that person's house. When using repeaters, you are a guest operator. No one has any right to use the repeaters in ways that the club feels are objectionable.

4. Do not routinely circumvent the time-out timer

The repeater's time-out timer serves two purposes. The first purpose is to satisfy regulation 97.213(b) requiring us to limit repeater transmissions to a maximum of three minutes under automatic control. Two minutes for drive time during the morning and evening commute. Like many repeater owners, we also use the time-out timer as a way to encourage users to limit the length of individual transmissions. This gives everyone a chance to speak. Under normal conditions, it is rude to get around the time-out timer by momentarily dropping carrier to reset the timer or saying "Stand by, let me reset" and continuing. Always remember there may be an emergency, someone may need the repeater. Please listen for the beep, wait a few seconds then continue! We have actually heard repeater conversations in which the average individual transmission was six to seven minutes. Even with only two stations talking, that would require each station to identify both at the beginning and the end of every transmission just to meet the 10-minute rule! Resetting the time-out timer should only be done as absolutely required and infrequently. Learn to speak concisely and limit the length of your individual transmissions.

5. CB Lingo, "Q" codes and excessive phonetics

Amateur Radio operators find the sound of CB lingo worse than fingernails on a blackboard. The main thing to remember is to just talk normal. Talk just like you would to someone in person. There's nothing different about talking over the radio. Using slang jargon just labels a person as an ex-CBer. Using any of the "Q"

codes is just about as bad, but is generally overlooked. You are talking on an FM repeater not a station in Europe on 80 Meter sideband. Just talk normal.

6. Always yield the frequency to a breaking station

This applies to calling or breaking stations you never know if they have an emergency or not...no more "station recognized". Always yield the frequency to an ARES/SKYWARN net, whether it is a practice net or not.

7. Selling other items OTHER than ham related equipment

Obviously selling any ham equipment is allowed as long as it's not done on a regular basis as a business. Although having run swap nets for years, some of the regulars were in the business of buying and selling. It was overlooked. But lately people in general conversations are advertising their vehicles, toys, and other non-ham related equipment and discussing prices. This is absolutely unacceptable on the repeater and will not be tolerated.

8. Our repeaters are "G-Rated" 24 hours a day

You never know who may be listening. Even late at night, there are generally people listening to the repeater, including non-hams. This is important to understand for several reasons. Our repeaters serve many purposes. One of the most important is the exposure it gives the hobby to the community. Any scanner can be used to listen to our repeaters. That's good – It's actually the most visible aspect of our club. It's one of our most effective forms of publicity.

We want non-hams to know that Amateur Radio is an interesting hobby and a good group of people to get to know - something clean and educational -something they would want their kids to get involved in. Kids may or may not listen late at night, but their parents do. Think about CB. The government tolerates the language on CB partly because they only use a few kilohertz of spectrum. It's not a huge waste. Amateur Radio, on the other hand, uses a lot of valuable spectrum. There needs to be a noticeable difference between Amateur Radio and CB. Don't let our activities on the air become a weapon in the hands of people who want to discredit us. Let's all do our part to give Amateur Radio a positive image.

We want any ham that listens to us to think of us as good operators, not idiots. Any time we talk on the repeater, we are ambassadors for the hobby. Have you ever noticed how you like to listen to some repeaters, but sometimes you find a repeater that makes you roll your eyes and twist the knob? We lose good people because of what they hear on our repeaters.

Our rule is simple: absolutely no obscene, indecent or profane language at any time. What gives the repeater owner the right to tell someone how to operate? All repeaters have rules. These rules often go beyond Part 97. And, users who refuse to comply with the repeater's rules can be told to stop using the repeaters. This is entirely at the judgment of the repeater trustees. Rule 97.205(e) says, "...Limiting the use of a repeater to only certain user stations is permissible." There are no qualifications – ifs, ands, or buts – to this rule. This isn't just the right to close a repeater. In fact, the ARRL says, "...a repeater does not have to be listed as being "closed" in The ARRL Repeater Directory in order to have a limited access." (Source: The ARRL's FCC Rule Book) The terms "open" and "closed" don't appear in the regulations at all! Listing a repeater as "open" means you don't have to be a member in order to use it.

But, you still must follow the rules of the repeater. The FCC supports a trustee's right to control the use of their repeaters. The letter reproduced below is an example. On Dec. 13, 2001, FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth wrote to a Mr. Banks because he had not stopped using a repeater when asked. (Reading between the lines it seems that Mr. Banks must have argued that the

repeater was "open".) Mr. Hollingsworth explained that a repeater doesn't need to be "closed" for a trustee to require compliance among the users. Banks had to comply or expect FCC enforcement action. Please take time read this letter. Mr. Hollingsworth can be reached at 717-338-2502 if you wish to discuss this. "A repeater is not a public utility - you don't have a "right" to use it! When you are using someone else's repeater you are, in effect, a visitor in the owner's station. So, you should conduct yourself accordingly. If you use that station in a manner that the owner finds objectionable, that person has every right to revoke your privilege of using it!" Beyond the FCC minimum requirements, it's up to each repeater owner to set their own operating rules. A repeater user needs to try to fit in. If the rules for the repeaters are uncomfortable for you and do not suit your personal needs or style we encourage you to try other repeaters or even try talking on simplex.

9. Do not cause intentional interference, to the repeater, or conversations on the repeater

What gives the K9WZ repeater the right to tell someone how to operate?

All repeaters have rules. These rules often go beyond Part 97. And, users who refuse to comply with the repeater's rules can be told to stop using the repeaters. This is entirely at the judgment of the repeater trustees. Rule 97.205(e) says, "...Limiting the use of a repeater to only certain user stations is permissible." There are no qualifications – ifs, ands, or buts – to this rule. This isn't just the right to close a repeater. In fact, the ARRL says, "...a repeater does not have to be listed as being "closed" in *The ARRL Repeater Directory* in order to have a limited access." (Source: *The ARRL's FCC Rule Book*) The terms "open" and "closed" don't appear in the regulations at all! Listing a repeater as "open" means you don't have to be a member in order to use it. But, you still must follow the rules of the repeater.

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Please note that this article was written on December 13th 2001 and is still current in the FCC Rules and Regulations for Amateur Radio.

Nothing could be fairer. The ARRL says it clearest of all: **"A repeater is *not* a public utility - you don't have a "right" to use it! When you are using someone else's repeater you are, in effect, a visitor in the owner's station. So, you should conduct yourself accordingly. If you use that station in a manner that the owner finds objectionable, that person has every right to revoke your privilege of using it!"** (Source: *The ARRL's FCC Rule Book*)

Again, to use the K9WZ repeater you must follow our rules. There are repeaters with more lenient rules than ours are and some which are much more restrictive. Beyond the FCC minimum requirements, it's up to each repeater owner to set their own operating rules. A repeater user needs to try to fit in. If the rules for K9WZ's repeater are uncomfortable for you and do not suit your personal needs or style we encourage you to try other repeaters or even try talking on simplex.

Adapted with permission, in part, from an copyrighted article of the Interstate Repeater Society <http://www.irs.nhradio.org/rules.html>

In its 2014 Atlantic hurricane season outlook. NOAA's Climate Prediction Center is forecasting a near-normal or below-normal season.

http://www.noaanews.noaa.gov/stories2014/20140522_hurricaneoutlook_atlantic.html

Emergency Communications for CERT, REACT, ARES/RACES, Red Cross, Disaster Services



Los Angeles County Fire Capt. Dave Norman served for 18 days at the World Trade Center site after 9/11.

This short video teaches how to effectively communicate in a disaster situation. It uses clear and common descriptions to explain how to easily communicate within your team, or with other agencies, such as CERT, REACT, ARES, RACES, Red Cross, Police, Fire, Emergency Medical Services, First Responders, school districts, community groups, FEMA, and other public safety agencies. It has been used for training many disaster response groups nationwide, especially for groups that need basic level training on two way radio Communication.

<http://www.youtube.com/watch?v=paHbjNnDLEE>

FEMA Administrator on Amateur Radio use in an emergency

Published on Jul 7, 2012

At an FCC conference in May 2011, FEMA Administrator Craig Fugate mentioned that "When Everything Else Fails. Amateur Radio often times is our last line of defense." He said that we often rely on cell phones and public safety communication for their resilience, but we must remember that they fail--"They do, they have, they will!" Mr. Fugate went on to recommend that "A strong amateur radio community," "be plugged into" emergency communications plans. He emphasized that amateur radio should be included in emergency planning, because "When you need amateur radio, you really need them." In closing he included amateur radio communications as part of a broad mission which has one objective--to meet the needs of survivors of a disaster. <http://www.youtube.com/watch?v=VUbmXOooEYI>

Why is the sky blue ?



Do your kids ever ask you why the sky is blue? There's a scientific answer! After you watch this video, you'll be able to explain one of the mysteries of the universe and look like a genius!

See more at: http://videos.komando.com/watch/3031/kims-picks-why-is-the-sky-blue?utm_medium=nl&utm_source=tvkim&utm_content=2013-04-03-article-screen-shot-b#sthash.POOCf2qD.dpuf

From the Kim Komando Show.

Broward flood zone maps now available online

By Donna Gehrke-White Sun Sentinel

11:58 a.m. EDT, April 28, 2014

Broward County property owners can finally check online to see whether their properties lie in a flood zone. Owners can go to broward.org, type in their address and find what their flood zone designation used to be and what it is now. Many owners will be delighted: About 60 percent of the county's land parcels will be out of a zone requiring flood insurance, said Leonard "Lenny" Vialpando, assistant director for the county's Permitting,

Licensing and Consumer Protection Division. They will have much lower premiums if they elect to get flood insurance, he said.

But owners will have to wait until Aug. 18 to take advantage of the new rules: That's when they will effect, according to the [Federal Emergency Management Agency](#). So if home or business' insurance premiums come up before renewal before then, owners will have to use the old rates. The changes will also affect new development: Updated base flood elevations must be used for new construction and for substantial improvements to existing construction.

After a three-year project, the Federal Emergency Management Agency updated its flood plain maps with the latest information on the county's land elevation. About quarter of the county's parcels -- about 122,000 -- will stay in the flood area, mostly those near the coast. Another 31,000 will be added because FEMA determined they faced more of a threat than thought, the county estimated.

However, some property owners appealed; the county did not know exactly how many won. FEMA notified the owners in letters and didn't tell the county unless the land was in unincorporated areas. FEMA officials said they did not keep track of the number of appeals.

The federal agency also took into account new developments that raised elevation to protect against floods. Engineering technology has improved since the 1990s, allowing FEMA to better determine flood paths and calculate land elevation.

Much of the county west of the [Florida Turnpike](#) was removed from zones that require flood insurance for a federally back mortgage.

Virtually, all properties in [Miramar](#) and [Pembroke Pines](#) are now out of zones that require the flood insurance because city officials required developers to elevate land with fill dirt and install drainage improvements. Weston also is a big winner.

Now in Pembroke Pines, for example, only about a dozen parcels will remain in the flood zone, including [West Broward High](#), the Academic Village, a small area of Century Village, parts of Cobblestone Plaza and Shops at Pembroke Gardens, according to an analysis by Acting City Engineer Karl Kennedy.

Some lenders may still require flood insurance even if a property is outside the flood zone.

Indeed, many recommend people get flood insurance even if they are not in flood insurance zone.

About a fifth of all flood claims come from people who were not required to have flood insurance, said Lynne McChristian, the Florida representative of the nonprofit Insurance Information Institute.

dgehrke@tribune.com or Twitter @donnagehrke

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ARTICLES NEEDED!!!

If you have anything pertaining to ARES/RACES/SKYWARN that you would like to contribute to, and share with others, I would be happy to include your offering in any future edition. I am looking for articles that include hints and kinks, training articles, public service, operating tips, ham radio humor, etc.

All articles are to be camera ready. All articles must be in by the second Tuesday of every month. Copyright rules and permission apply to all submissions. Please send your submission to: **Robin / N4HHP Editor** n4hnp@comcast.net

The Radio Amateur is:

By Paul M. Segal, W9EEA (1928)

Sent in by Jan / K9JCL

The Radio Amateur is:

CONSIDERATE..... Never knowingly operating in such a way as to lessen the pleasure of others.

LOYAL..... Offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE..... With knowledge, abreast of science, a well built and efficient station, and operation beyond reproach.

FRIENDLY..... With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED..... Radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC..... With station and skill, always ready for service to country and community.

What is ARES and RACES?

ARES



The Amateur Radio Emergency Service (ARES) was created in 1935 by the American Radio Relay League (ARRL) to provide any type of radio communications support to public service agencies such as the Red Cross and the National Weather Service (NWS). Events, such as runs, bike rides and the Annual Fort Lauderdale Boat Parade and many other events serve to sharpen communication skills that are needed for emergency communications.



RACES



RACES was established by the FCC in 1952. The Radio Amateur Civil Emergency Service (RACES) provides communications to government agencies in times of need. RACES is administered by the Federal Emergency Management Agency (FEMA). RACES operators meet and train regularly with government officials so that they can be an effective part of an emergency response.



Both ARES and RACES in Broward County Florida are similar in their purpose which is providing communication. Both organizations wear different hats at times but provide communication when the need arises.

Ask where you can help when all other forms of communications are overloaded or nonexistent during manmade or natural disasters. Volunteer today.

Why HAM Radio?

Ham radio operators have experimented with and advanced the radio art since the beginning of radio. The Federal Communications Commission (FCC) established Part 97 of their rules "to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

- (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians and electronics experts. Ham radio operators have their own equipment and frequencies that can supplement those of public service agencies in time of need.

Who Can Participate?

Any FCC licensed amateur radio operator may participate in ARES/RACES that has the desire to provide voluntary communications in the time or man-made or natural disasters when normal communications is overloaded or non-existent. If you would like to be part of this, please fill out the ARE/RACES Application found on the rear of this Newsletter and email it to Carol Sjursen, KJ4AWB at CSjursen@bellsouth.net. Both the Broward County Amateur Radio Emergency Service (ARES) emergency Coordinator (EC) and the Broward County Radio Amateur Civil Emergency Service Officer, (RO) urge you and everyone to attend our monthly meetings held at the Broward Health Hospital. You will find directions on the last page of this Newsletter.



For more information contact:

Broward County ARES EC: Carol Sjursen KJ4AWB CSjursen@bellsouth.net

Broward County RACES officer: Robin Terrill N4HHP n4hhp@comcast.net



DO YOU KNOW WHAT TIME IT IS?

Time Conversion



**COORDINATED UNIVERSAL TIME (UTC) (GREEN #'s) = ZULU TIME = GMT TIME
CONVERSION CHART TO LOCAL TIME (RED #'s)**

Find the green UTC/GMT time, locate your time zone column, then read your local time in the left column.

LOCAL	EDST	EST	CDST	CST	MDST	MST	PDST	PST
MIDNIGHT	0400	0500	0500	0600	0600	0700	0700	0800
1 AM	0500	0600	0600	0700	0700	0800	0800	0900
2 AM	0600	0700	0700	0800	0800	0900	0900	1000
3 AM	0700	0800	0800	0900	0900	1000	1000	1100
4 AM	0800	0900	0900	1000	1000	1100	1100	1200
5 AM	0900	1000	1000	1100	1100	1200	1200	1300
6 AM	1000	1100	1100	1200	1200	1300	1300	1400
7 AM	1100	1200	1200	1300	1300	1400	1400	1500
8 AM	1200	1300	1300	1400	1400	1500	1500	1600
9 AM	1300	1400	1400	1500	1500	1600	1600	1700
10 AM	1400	1500	1500	1600	1600	1700	1700	1800
11 AM	1500	1600	1600	1700	1700	1800	1800	1900
NOON	1600	1700	1700	1800	1800	1900	1900	2000
1 PM	1700	1800	1800	1900	1900	2000	2000	2100
2 PM	1800	1900	1900	2000	2000	2100	2100	2200
3 PM	1900	2000	2000	2100	2100	2200	2200	2300
4 PM	2000	2100	2100	2200	2200	2300	2300	2400
5 PM	2100	2200	2200	2300	2300	2400	2400	0100
6 PM	2200	2300	2300	2400	2400	0100	0100	0200
7 PM	2300	2400	2400	0100	0100	0200	0200	0300
8 PM	2400	0100	0100	0200	0200	0300	0300	0400
9 PM	0100	0200	0200	0300	0300	0400	0400	0500
10 PM	0200	0300	0300	0400	0400	0500	0500	0600
11 PM	0300	0400	0400	0500	0500	0600	0600	0700
LOCAL	EDST	EST	CDST	CST	MDST	MST	PDST	PST

LEGEND:

- EDST = EASTERN DAYLIGHT SAVING TIME
- EST = EASTERN STANDARD TIME
- CDST = CENTRAL DAYLIGHT SAVING TIME
- CST = CENTRAL STANDARD TIME
- MDST = MOUNTAIN DAYLIGHT SAVING TIME
- MST = MOUNTAIN STANDARD TIME
- PDST = PACIFIC DAYLIGHT SAVINGS TIME
- PST = PACIFIC STANDARD TIME

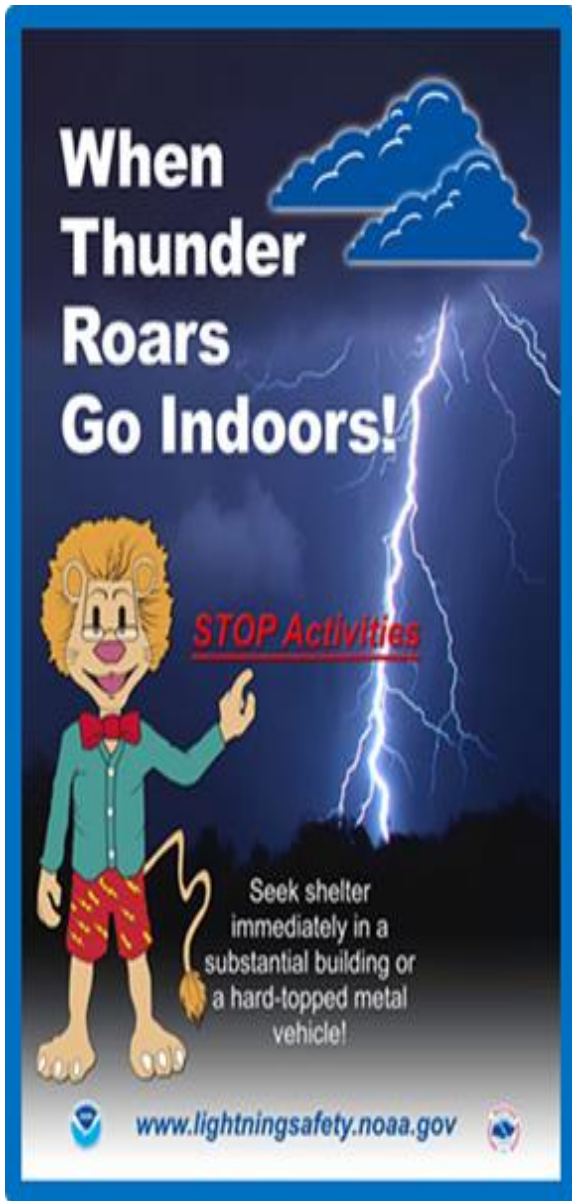
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If you

When

Stay of

If



Lightning: What You Need to Know
Lightning Awareness Week

Sent in by AI / kd4knv

NO PLACE outside is safe when thunderstorms are in the area!!

If you hear thunder, lightning is close enough to strike you.

If you hear thunder, *immediately* move to safe shelter: A substantial building with electricity or plumbing or an enclosed, metal topped vehicle with windows up.

Stay in a safe shelter at least 30 minutes after you hear the last sound thunder.

Indoor Lightning Safety

Stay off corded phones, computers and other electrical equipment that put you in direct contact with electricity.

Avoid plumbing, including sinks, baths and faucets.

Stay away from windows and doors, and stay off porches.

Do not lie on concrete floors, and do not lean against concrete walls.

Last Resort Outdoor Risk Reduction Tips

You are caught outside *with no safe shelter anywhere nearby* the following actions *may* reduce your risk: Immediately get off elevated areas such as hills, mountain ridges or peaks and Never lie flat on the ground.

Never shelter under an isolated tree. Never use a cliff or rocky overhang for shelter. Immediately get out and away from ponds, lakes and other bodies of water Stay away from objects that conduct electricity (barbed wire fences, power lines, windmills, etc.)



Real-Time Lightning Map :: LightningMaps.org

Sent in by AI KD4VNU

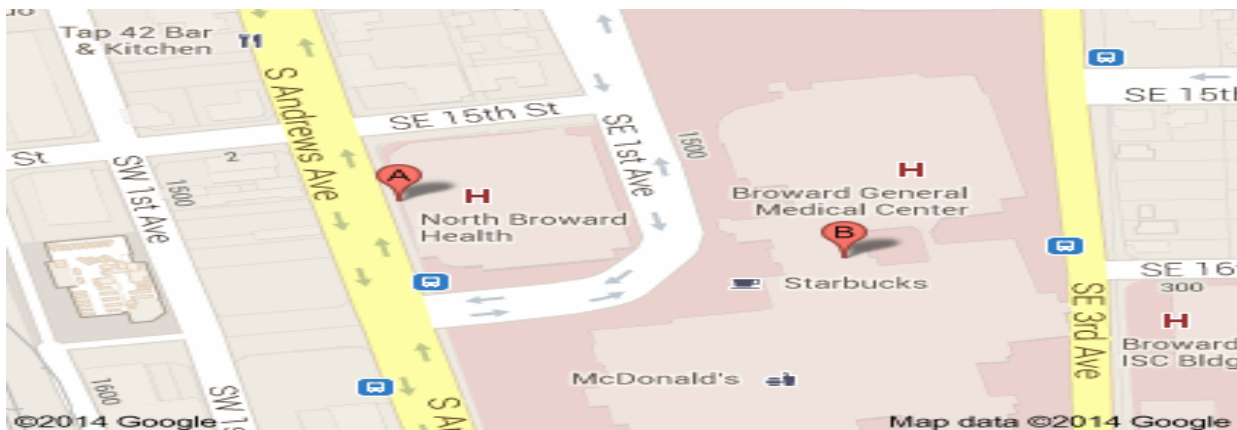
LightningMaps.org A community project with free lightning maps and applications Maps and statistics Real Time (Beta!) Europe Oceania North America Information. Extras Apps and FAQ About For Participants

<h2 style="margin: 0;">Broward Emergency Management ARES / RACES Membership Application</h2> <p style="margin: 5px 0 0 0;">Please type or print clearly</p>	<p>EOC Use Only</p> <p>RACES # _____ RACES POSITION _____</p> <p>Effective _____</p> <p>Expires _____ Approved by _____</p>																																																																																																																																																																					
<p>Name _____</p> <p>Address _____</p> <p>City _____ Zip Code _____ County _____</p> <p>Home Phone _____ Work _____ Cell _____</p> <p>Amateur Call _____ License Class _____ Expiration Date _____ Date of Birth _____</p> <p>Emergency Contact _____ Phone _____</p>	<p style="text-align: center;">Completion of this Application DOES NOT OBLIGATE YOU</p> <p>Enrollment in RACES qualifies you for County insurance in the event RACES is activated, and you are performing duties.</p> <p>This information provides a database of qualified Amateur Radio operators available for ARES/RACES emergency activation.</p> <p style="text-align: center;">ARES/RACES participation is voluntary.</p> <p>By submitting this application you consent to a background check.</p>																																																																																																																																																																					
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<p>In the event of an emergency do you have family members you must assist? YES NO</p> <p>Are you willing to Staff a shelter during a hurricane? YES NO</p> <p>Is your home station capable of operation without commercial power? YES NO</p> <p>Could you serve another area in Florida by joining the Communications Away Team (CAT)? YES NO MILES AWAY _____</p>																																																																																																																																																																						
<p>Indicate below any capabilities you have i.e. big beam, tall tower, high power, special mode etc. that could assist in the event of an emergency.</p> <table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Modes</th> <th>160</th> <th>80</th> <th>40</th> <th>30</th> <th>20</th> <th>17</th> <th>15</th> <th>12</th> <th>10</th> <th>6</th> <th>2</th> <th>1.25cm</th> <th>70cm</th> <th>Add. Bands/ Comments</th> </tr> </thead> <tbody> <tr> <td>SSB- Power in Watts</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>CW- WPM</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TOR- RTTY, PSK31, WinLink, Pactor II, etc.</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>SSTV, DSSTV, NBTV</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Mobile / RV- Modes and Power in Watts</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Packet- Baud 300, 1k2, 9k6</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>APRS- GPS, WX, DF, Tracker</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>ATV- AM, FM</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>FM- Power in Watts</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Satellite- AO, FO, RS, SO etc.</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>		Modes	160	80	40	30	20	17	15	12	10	6	2	1.25cm	70cm	Add. Bands/ Comments	SSB- Power in Watts															CW- WPM															TOR- RTTY, PSK31, WinLink, Pactor II, etc.															SSTV, DSSTV, NBTV															Mobile / RV- Modes and Power in Watts															Packet- Baud 300, 1k2, 9k6															APRS- GPS, WX, DF, Tracker															ATV- AM, FM															FM- Power in Watts															Satellite- AO, FO, RS, SO etc.														
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Broward County ARES/RACES

3rd Tuesday of the month, at 7:30 P.M. Meeting in the Oak Room.

**Broward Health (The old Broward General Medical Center)
1600 South Andrews Avenue, Fort Lauderdale, FL 33316 Meeting is held In The Oak Room**



Parking will be in the 7 story parking garage, (see A Above). The entrance to the building is on the first floor directly across from the parking garage. You will need to go in the main entrance and sign in at the security desk and they will issue you a pass to wear. Bring a driver's license with you or a picture I.D. Do not by-pass security. They will tell you how to get to the Oak Room.

From I-95 or 595

Take I-95 or 595 to SR 84. Go east on 84 until you get to Andrews Avenue turn left (North) until you get to the hospital on your right. 1600 South Andrews Avenue

From I-95 to Broward Blvd

Take I-95 to Broward Blvd. East on Broward Blvd until you get to Andrews Avenue turn Right (South) until you get to the hospital on your Left. 1600 South Andrews Avenue

Talk-in will be on the 146.910 MHz. -600 PL 110.9 Hz.
If you get lost or need directions, please call our cell phones:

Robin Terrill, N4HHP RACES Officer 954 249-5343
Carol Sjursen, KJ4AWB ARES EC 954 803-6338



If you would like to receive this training Newsletter when they come out, please reply to n4hhp@arrl.net