

BROWARD COUNTY FLORIDA



EMERGENCY COMMUNICATIONS TRAINING

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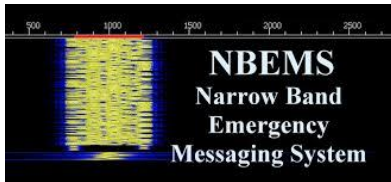
The Broward County Emergency Preparedness Net (BCEPN) meets three (3) Wednesdays per month on the BARC repeater on 146.910 MHz, -600, PL 110.9 and on the fourth Wednesday of each month on the simplex frequency of 146.550. In months with five (5) Wednesdays the net will be held on the BARC repeater. Net Manager is Mike Davis / K2MOL sixdaywarrior67@hotmail.com

Next Meeting February 16 2016

NBEMS Part 2. (A hands-on NBEMS Workshop will be announced at this meeting)
Presented by Barry Porter / KB1PA

Please plan on attending this meeting. Starts at 7:30 PM. Map and contact information on the last page.

February 2016



NBEMS WORKSHOP COMING TO BROWARD COUNTY

Please pass this onto your EC, RO, Skywarn Coordinator and NTS staff members so they have the first shot in taking this class.

Please send me the following information. Name, full home Address, Cell #, Callsign and position that you hold.

After we hear from the District 7 hams, I will open this up for the remaining seats.

The deadline to hear from you will be February 10th and then the class will be open until 40 seats are taken.

This is by pre-registration only. Do not show up on the day of the Workshop without pre-registering first.

Any questions, email me.

n4hhp@comcast.net

Robin Terrill N4HHP

Dear Fellow Hams, RACES/ARES Members, and Emergency Coordinators,

Broward County Emergency Management will be hosting a Communications Workshop event on **Saturday, March 5, 2016 at 10 am to 1 pm**. We are very happy to have the Wellington Radio Club and the Florida Emergency Messaging Associates (FLEMA) share their expert knowledge with us. We will all meet our Region 7 ARES/RACES Emergency Responders and Emergency Coordinators; and then conduct the NBEMS (**N**arrow **B**and **E**mergency **M**essaging **S**ystem) using FLDIGI and FLMSG Workshop.

Many of you will serve at EOCs, shelters, points of distribution, command posts, and other emergency sites where accuracy is required of communicators. Whether you use an FM ham radio or those for other radio services, the Basic NBEMS tool will also save loads of time! (FM services also include as FRS/GMRS, LMR, Marine, etc.)

The space is limited to about 40 participants, so we would like to see about 8 to 10 participants from each County in Region 7. **(EC's, please coordinate who in your County will participate, and forward me the Names and Call Signs.)**

We all realize that this is just **one** of the many tools in your Communications tool-box. This is not a replacement of your established procedures, just another valuable tool.

To learn more about Basic NBEMS, visit the website of the Basic NBEMS coalition: [FLORIDA Emergency Messaging Associates](#)

At your hands-on sessions, in addition to the primary instructor, there will be Elmers, knowledgeable volunteers to assist you. Since the hands-on session is approximately 2 hours, covering the subject matter will mean being focused and coming prepared.

Please pay special attention to the sections in bold type:

ADMISSION REQUIREMENTS

EACH RADIO AMATEUR REGISTRANT MUST BRING A 2 METER HANDHELD RADIO PROGRAMMED FOR: 147.540 SIMPLEX, NO TONE! CHARGE ITS BATTERY AND TEST IT. IT MUST RUN THE RADIO FOR AT LEAST AN HOUR.

ALL REGISTRANTS MUST BRING A COMPUTER.

- 1) IT MUST BE SETUP ACCORDING TO THE ATTACHED GUIDE... a 20 minute process.**
- 2) THE SOUND CARD MUST BE TESTED AND FUNCTIONING.**
- 3) YOU ALSO NEED A WORKING COMPUTER MICROPHONE THAT CAN BE BUILT-IN OR EXTERNAL.**
- 4) THE BATTERY OF YOUR COMPUTER MUST POWER IT FOR ABOUT AN HOUR... IF IT IS WEAK, BRING A 6 FOOT POWER STRIP TO CONNECT TO AN OUTLET.**

Don't hesitate to email or phone with any questions. Looking forward to meeting all of you.

PLEASE CONFIRM THE RECEIPT OF THIS EMAIL BY SENDING ME A "REPLY".

Broward County Emergency Communications Training

Thank you and 73,
Robin Terrill N4HHP
N4HHP@COMCAST.NET
954 249-5343

Name	Region 7 - ARES/RACES Digital Emergency Communications Meeting and Workshop :	
Description	Meet and greet our Region 7 ARES/RACES Emergency Responders; and NBEMS (N arrow B and E mergency M essaging S ystem) Using FLDIGI and FLMSG Workshop.	
PreRequisite	Laptop with Pre-installed and configured FLDIGI and FLMSG software using resource Website http://www.gsl.net/k4wrc/PBC-BASIC-NBEMS.html , HT Amateur Radio; Please use Website (above) and complete BOTH "Download, Install & Configuration Guide" -AND- "Testing & Troubleshooting Basic NBEMS" – FREE Download; <u>prior to Workshop Date.</u>	
Target Audience	Region 7 Amateur Radio EOC Staff, Region 7 Emergency Coordinators	
Additional Information	Bring Picture ID, laptop with pre-installed, configured FLDIGI FLMSG, Amateur HT (Handi-Talkie) Radio, pen/pencil, notepad, etc. Thank you to the Wellington Radio Club and FLORIDA Emergency Messaging Associates (FLEMA). Contact Jim Calcanes or Robin Terrill if you have questions. Please bring a coat or jacket since the room can turn cold at times. No sleeveless shirts permitted.	
Location	Broward County EOC, Rm 326. (The Community Room)	
Address	201 NW 84th Avenue Plantation 33324 Broward Region 7 View Map https://plus.google.com/112376369658462224743/about?gl=us&hl=en#112376369658462224743/about?gl=us&hl=en	
Date	Saturday, March 5, 2016 – 10 am to 1pm	
Point of Contact	Jim Calcanes 954-831-3912 JCalcanes@broward.org	Robin Terrill 954-249-5343 N4HHP@comcast.net

Choosing Your First Handheld Radio

by Rich Stiebel, W6APZ, Customized by AB6HB
New hams frequently ask, "Which radio should I buy?"
Reprinted with permission

Most of these new hams are products of a one-day "ham-cram" licensing session. Many of these licensees have obtained their licenses so that they can be more effective in helping with their CERT (Community Emergency Response Team) groups in emergencies. Because of this, they know that they want a handheld radio, but they do not know what is important to look for in an HT (handheld or Handie-Talkie®). The ham radio magazines run survey articles every few years comparing the features and prices for current HTs. Manufacturers are constantly coming out with new rigs with various features, so it is difficult to recommend one radio today that will also be the choice tomorrow. What I can do is to recommend certain features found to be helpful, and mention some features to avoid. First, I will list these below; then discuss each feature.

I recommend that a radio have the following features:

- Keypad for direct frequency entry
- 5-watt RF output
- Sub-audible tone: encode and decode • Computer programmable with software and interface cable

- External DC connection so the radio can be connected to and operated from an external battery or power supply
- Available AA battery pack
- Illuminated frequency display and keypad
- Repeater "reverse" button
- Easy-to-understand manual
- Nifty! Mini Manual TM Users Guide
- Several dozen memory slots for repeaters and simplex frequencies
- Robust antenna connector
- Jack for an external earphone and/or speaker

Optional features:

- External microphone jack

I would try to avoid radios that:

- Are not operationally intuitive
- Provide only one watt or less of power output
- Have a built-in antenna with no possibility of connecting an external antenna
- Are only programmable with a computer

Other Considerations:

- How many bands?
- General coverage vs. ham band only
- Price
- Can't find and HT will all features?

Direct Frequency Entry

Some very compact radios save space and cost by not having a keypad on the radio. To program these radios, one has to go into the VFO mode (which frequently starts with the band edge or a preprogrammed frequency in the band) and scan the band sequentially until the desired frequency is found. At this point, one can save this frequency to memory, but this process may require pressing many buttons in the proper sequence to place the desired frequency in the desired memory position. Push a button at the wrong time and the process must be started over. To enter the next frequency, the procedure is repeated. This can be a very time consuming task, but the result is a very usable radio, if the only frequencies one needs are those you have stored in the memories. This type of radio can be used as a monitor rig for your local repeater, but I would not recommend it for CERT work. Why not?

In emergencies, one often has to change frequencies to accommodate the local area situation. For example, if the repeater goes out, one may need to switch to a different machine, or switch to operate on the repeater output. If you are assigned to a post outside your usual repeater area, you may need to program in a new frequency. With direct frequency entry using the telephone style keypad on the front of the radio, this is easy; without it, entering a new frequency is a chore. It also allows you to access VoIP connected stations to communicate around the world.

5-Watt RF Output

Shirt pocket-sized radios are cute and are good for monitoring your local repeaters, but I would avoid them for serious emergency work. While 100 milliwatts may give you a clear signal into your local repeater, when disaster strikes, you can't count on your local repeater to be on the air. In such cases, direct contact between two hams provides the most reliable communication. This depends upon each ham's RF power output and antennas. The higher your output and the better and higher your antenna, the greater distance over which you will be able to communicate.

Sub-audible Tone Encode/Decode

Most repeaters in areas with many repeaters (such as metropolitan areas), require a specific sub-audible tone (below the normal audio range) in order to retransmit the incoming signal. These tones, also known as CTCSS or by Motorola's term, PL (Private Line) tones, typically range from 67 Hz to around 250 Hz. To transmit through these repeaters, one must have a radio that generates a subaudible tone while the PTT (push to talk) button is depressed. In densely populated areas, more than one repeater may be heard on any given frequency. By assigning a different PL tone to each repeater, users can select the repeater through which they wish to transmit, thereby directing their signal to a particular geographic area.

Similarly, if the radio has PL decode, also known as tone squelch, the user will hear only the desired repeater rather than all the repeaters on the frequency. (Editor's note: This is true as long as the repeater controller either passes the tone from the transmitting station-many do not-or the repeater transmits its own tone on its transmitter-many don't). While PL is supposed to eliminate interference, in reality, it masks the problem, but the result is generally more pleasant for the users. PL decode is useful when using your radio around a computer. Many stores now use computerized cash registers and many homes now have computers. Computers generate a great deal of radio frequency hash. PL decode will keep your radio squelched until the desired repeater comes on the air. Not having the squelch open any time one is near some locally generated interference, is much more pleasant.

External DC Connection

Most HTs come with an internal rechargeable battery, so why would you want an external DC connection on the radio? At some point, the HT battery will need recharging. While mobile with the HT, it is very convenient to be able to use the car's twelve-volt battery. Similarly, for emergency work that may require keeping the radio operational all day or for several days at a time, one will need a supply of rechargeable battery packs, an AA battery pack, or an external DC connection capability.

Cost ideally, the radio should transmit at full power when powered from an external source, such as a car's accessory socket. It's better if the HT can be connected directly (through a fuse) to the car's 12-volt socket and work properly. Less desirable are the models that require a voltage converter to drop or condition the voltage to match the radio's design voltage. While this voltage converter will power the radio, the user is required to purchase another item from the HT manufacturer, which adds to the total purchase cost for the radio.

12-volt gel cells are readily available either new or at flea markets. I use a fused 12-volt gel cell, which I carry in a camera pouch on my belt, with a cable that plugs into my HT. This battery can power my HT at a full 5 watts all day during public service events, leaving the internal rechargeable battery at full charge for later use. If I need to be operational for several days, I can use this same cable to connect to any 12-volt source.

AA Pack

During many natural disasters, local 117VAC house power is not available to recharge the internal HT battery. Most HT manufacturers make a case that holds several AA size alkaline cells to keep your radio on the air during these times. Alkaline AA cells have a multi-year shelf life. Keep a quantity of these AA cells available and rotate them through flashlights, MP3 players, and other electronic equipment so there is always fresh stock for emergencies.

Ideally, the number of batteries in the HT case, multiplied by 1.5V, should equal the voltage needed for full power output from the transmitter. To keep this pack small, the manufacturer may provide space for only two or four AA cells, which will generally produce much less than full power output from your HT. Consider a radio that has an AA pack with sufficient cells to provide full power. If you buy a radio that does not produce full power with its AA pack, consider buying an accessory pack so you can stay on the air when you can't recharge your internal HT battery.

Illuminated Frequency & Keypad

At night or in low-light conditions, it is very helpful to be able to press a button and have the dial and keypad light up. While emergency drills are usually scheduled for daylight hours, real emergencies can occur day or night. Whether you are just changing from one pre-programmed channel to the next or actually entering a new frequency, PL, and offset into the HT, being able to see what you are doing is very helpful. But use the light only when needed, in order to conserve battery power.

Repeater Reverse Button

Most FM VHF/UHF operation is through a repeater. The Reverse button changes the HT's transmit frequency to the repeater's output and listens on the repeater's input. This function can be important in emergencies when a repeater goes down, as it enables communication between hams using that repeater. It can also be used to listen for hams who do not have, or know how to use, the proper PL tone. Without PL, their signals may not be retransmitted through the repeater. One way to hear them, if they are close enough to you, is to press the Reverse button. Then, you will then be listening on the repeater's input.

Easy-to-Understand User's Manual

Even with years of experience as a ham radio operator and as the owner of many models of HTs, I still inadvertently hit a button on the keypad of my current HT that puts the radio in a mode that I don't normally use. Unless one has an easy-to-understand manual handy, it can be frustrating trying to get the radio back to normal operation. For a new ham, this could be a souring experience. Of course, having read the manual cover-to-cover at least once (so you will recognize what mode your radio is in), and keeping the manual handy is always a good idea.

Unfortunately, people whose second language is English have written some user's manuals. The sentence structure in the manual makes perfect sense in their native language but results in a confusing English sentence. What to do? Before you purchase a radio, read parts of the user's manual and try following the instructions. Many HT manufacturers provide downloadable copies of their manuals on-line. Look up the instructions for inputting a repeater frequency, PL, repeater offset, and for storing this information in a memory slot. Try doing this on a friend's radio or at the radio store where you are considering buying the radio. Then try the radio on the air. If the radio brings up the local repeater, the manual was clear enough for you.

If you really like the radio, but the manual is less than optimum, check out Users' Groups on-line, or with your local ham club or CERT group. Someone who has figured out how to make that particular radio work may have rewritten parts of the user's manual in plain, simple, English.

Nifty! Mini-Manual TM Users Guide This Company publishes waterproof, spiral-bound quick reference guides written in plain English for most of the current Ham Radio models. They typically sell for under \$20 and are available on-line or from your favorite Ham Radio dealer.

Memory Slots

Some simple radios come with a few dozen memory slots, which are fine for local communication, but lacks flexibility for emergencies and general listening. Those memory slots will probably be sufficient for ARES/RACES/ACS (Amateur Radio Emergency Service) (Radio Amateur Civil Emergency Service) / (Auxiliary Communications Service) and CERT support in your local area. However, one does not want to have to erase a favorite local repeater in order to program in a repeater used for a bikeathon or similar event. I find that, in addition to ham radio frequencies, I like to be able to program in several of my local weather channels, which are generally found in the 162.4 MHz range. When I travel, I program in the repeater frequencies for the area I'm going to. (This is also a reason to use programming software where you can create a file for reroute and destination frequencies.) In addition to listening to weather, many hams like to monitor the aircraft band, which many 2-meter HTs can also cover. Adding aircraft channels takes more memory. Additionally some Police and Fire departments still use conventional VHF and UHF radio channels that can be received on many HTs. Most radios today provide between 100 and 400 memory slots or more, but some low end, or older and/or smaller HTs don't.

Robust Antenna Connector

Unfortunately, the antenna connector on most small modern HTs is an SMA. This type of connector is generally fine if all you are doing is using the HT with the supplied 6-8" long rubber-duckie antenna. The base of the rubber duckie antenna should be about 5/8 inch in diameter to spread the torque load of the antenna to the HT case. The range of a 5-Watt HT is greatly extended by connecting the HT to an outside antenna positioned in the center of a car roof or on the roof of your home. The downside of this is the strain placed on the very small center pin of the SMA connector and the case if the radio. Many hams that do this regularly have found that they have broken the rubber-duckie center pin or the connection inside the radio.

When in the field, I frequently attach a 1/4 wave or 5/8-wave whip antenna to my HT to greatly increase my usable range. This type of antenna puts a lot of torque on the small SMA antenna connector and may cause the wire going from the connector to the radio's circuit board to break off. There are spaghetti whips that provide more gain than the rubber duckie antenna and put less stress on the SMA connector, but they do not have the gain of a 5/8 wave antenna.

Years ago, when HTs were larger and came with BNC connectors that could take any type of antenna without damaging the HT, I got used to disconnecting the supplied HT antenna and connecting my mobile magnetic mount two-meter antenna. Other things being equal, a radio with a BNC connector will give fewer problems if you plan to connect different antennas to your HT. You may be stuck with an SMA connector, as that is the current design on most of the new, smaller HTs. Just be aware of the potential difficulties if you plan to connect an external antenna to an HT with an SMA antenna connector. If you plan to use a Magnetic Antenna or other external antenna, you need to use an SMA adapter to fit the connector that is attached to the end of your

coax cable. I recommend that use a flexible adapter.... One that is on a short (12 to 36 inch) cable. Do not use a rigid one. Doing so can literally snap the top of your radio off if it suddenly gets bumped, caught or flexed.

External Earphone/ Speaker Jack

Most HTs have adequate volume for inside a house or in a relatively quiet outside environment. However, outside on a busy street, the audio from the HT's speaker may be marginal. I have found that plugging an external earphone into my HT has prevented me from missing important calls. In addition, using an earphone keeps the radio from disturbing people nearby. Some external Speaker/Microphones (speaker mic) have an earphone jack on them.

Optional characteristics— External microphone jack

Some people prefer to leave the HT on their belts or velcroed to their dashboard and use an external speaker/mic. If you think this applies to you, look for a radio that also provides a jack for connecting an external microphone. In terms of priorities, I'd rank this one high.

Avoid

Not Operationally Intuitive

This is a difficult topic. Most radios are not Operationally Intuitive to a beginner. Terms are strange, features are confusing and there is this steep learning curve. Owner's manuals seem to be written in Greek. After owning radios made by ICOM, Kenwood, Alinco, and Yaesu over the years, I have been able to pick up some models of those manufacturers and figure out the basics just by looking at the labels on the buttons. Some of what I consider intuitive may be based on my experience and the fact that at one time the basic programming operation of a manufacturer's new radio was very similar to their prior models. It may be that the first radio you try will seem confusing, the second one less so, and by the third radio, you may be getting used to the typical programming procedure. To see if this is happening to you, after looking at several models, go back to the first radio and give it another chance.

One Watt Output or Less

Some radios are so small that the battery pack will support only one watt of RF output. Other even smaller radios put out only 300 milliwatts, or 1/3rd of a watt. These are great radios for operation close in to a repeater location, but are marginal for communications when a repeater may not be available, or even for simplex operation in hilly terrain. Depending upon elevation and terrain, even one watt may not permit reliable communications on simplex in your area.

No External Antenna Connection

A good antenna helps by extending both an HT's transmit range and the HT's ability to receive signals. Rubber duckie one antennas are a compromise in favor of small size, but are not very efficient antennas. Avoid radios that do not have an external antenna connector unless you plan to use the radio only for monitoring the local repeater.

Other Considerations

How Many Bands?

Most communities rely on either or both, the 2-meter and 440 MHz (70 centimeter) ham band for emergency communications. Some HTs are designed to cover any two of three bands at a time, such as 2 meters, 70 cm, and 6 meters, or 2 meters, 70 cm and the 1.25 cm (222 MHz) band. The most popular HTs are "Dual-Band" radios the cover 2 meters and 440 MHz and that's what you should plan on getting. Some multiband radios

can monitor two frequencies in the same band or one frequency in each of two bands but most all radios have a scan feature that allows you to monitor multiple channels no matter which band they're on.

General Coverage vs. Ham Band Only

Many HTs available today will cover not only the desired ham band but also adjacent frequencies, such as some public safety, aircraft, weather and FRS. Being able to pick up the local weather in the 162.4 MHz range is a plus. Some of the more complex radios will cover the AM broadcast band up through commercial FM. Some will also receive SSB (single sideband) and CW (Morse code) transmissions. These are nice features, but sensitivity and selectivity on an HT will be inferior to the performance of a communications receiver.

Price

At this writing, good quality, Dual Band HTs cost as little as \$30 for a "Little Chinese Radio (LCR) or as much as \$500 with some of the latest bells and whistles such as GPS and Bluetooth. But typically as quality name brand dual-bander runs around \$200-\$250.

What do you do when you decide you need more capability in an HT? Fortunately, there will always be Hams looking for a bargain when buying an HT. If you wish to upgrade in a few years, there is a good market for used radios. Conclusion I have discussed HT features that I consider important in choosing your first HT to give you some things to look for when trying to decide what to buy. The two primary Ham Radio magazines, QST and CQ, often have comparative articles on popular radios. But no matter how you address which radio to buy, you might look for the recommendation of the person you might turn to for help.

Can't Find an HT with All the Features

Ok, so you've looked at the current group of HT's available and you can't find any HT that has all the features suggested above, or you found one that has most of the features, but it also has some of the "Avoid" items listed. What should you do?

As consumers, we are limited to what is available. When I was looking for a new HT for my daughter-in-law, I was faced with the same problem. I knew what I wanted, but to get most of what was important for her. I had to accept a few features that were less than ideal. To help me decide, I made a spreadsheet (see Figure 1) of the desired on the left with the manufacture name and model numbers across the top. I've listed the HT manufacturers who have advertised in ham magazines for the past several months, leaving space for you to fill in up to three model numbers for each manufacturer. You can adjust the top part of this form to suit your needs. The spread sheet consists of an Excel matrix with the names of the currently available HTs across the top with each of the important HT features listed vertically down the left side of the spread sheet. One simply looked at the characteristics of each HT & places an "X" in each box if the HT has that characteristic. The HT with the most "X"s is the logical choice.

Using this form. I filled in the model numbers of the HT's across the top and entered checks in the columns for each feature that model has. I was then able to compare HT's and decide which one to buy. I would not rule out an HT just because it did not have one of more of these features. You may have to do a trade-off, deciding which features are most important to you.

Conclusion

I have discussed HT features that I consider important in choosing your first HT to give you some things to look for when trying to decide what to buy.

Today, the list of amateur radio manufacturers are growing daily.

To date they are:

- Alinco
- AnyTone
- BTech
- Baofeng
- Icom
- JetStream
- Juentai
- Kenwood
- Leixen
- Luiton
- Pofung
- Puxing
- Quansheng
- QYT
- Retevis
- SainSonic
- TDXOne
- Tonfa
- TYT
- VGC
- Wouxun
- Yaesu

Manufacturer	ALINCO	AOR	ICOM	KENWOOD	STANDARD	YAESU
HT Model						
FEATURES						
Direct Frequency Entry						
5-Watt RF Output						
Sub-audible Encode/Decode						
External DC Connection						
AA Pack Available						
Illuminated Frequency Display						
Illuminated Keypad						
Repeater Reverse Button						
Understandable Manual						
Two dozen + Memory Slots						
Robust Antenna Connector						
External Earphone/Spkr Jack						
Number of Bands						
General Coverage vs. Ham						
Price						
Optional						
External Microphone Jack						
AVOID						
Not Operationally Intuitive						
One Watt or Less						
No External Ant. Connection						
Requires Internet Access						

Figure 1

Editor's Note:

Handheld devices are ideal for light emergency communication and monitoring public service events. The limited size impacts its battery life, which also shortens the device's range. HT's are great for line of site communications, usually up to 5 to 7 miles line of site, which means that there are no structures, to include buildings, trees and other manmade or natural structures. It is always suggested to purchase a mobile radio when possible.

What is a Skywarn Storm Spotter?

By Robin N4HHP Broward County Skywarn Coordinator

Even with all the technology the National Weather Service still needs "ground truth" observations. You do not need to be a Meteorologist to be a storm-spotter! You do not need a home weather station nor do you need a vehicle to chase severe weather.

Did you know that it is as easy as just looking out your window and reporting severe-weather and its damage that it causes? In fact, as an amateur radio operator, you can be of great assistance during severe-weather outbreaks. All you need is your eyes and your radio to report what you see. These volunteers that take a Skywarn class are spotters who have completed certain requirements, and are able to give more accurate information. Through training the NWS teaches interested volunteers to be safe, effective and accurate weather spotters who provide them with the needed ground truth. SKYWARN spotters are trained to spot tornados, funnel clouds, and severe thunderstorms. They are told how to report hail, strong winds, heavy rain and floods. Forecasters combine information from spotters with that of WSR-88D radar, satellite and other tools. This information is then used to provide appropriate warnings for communities in the path of the storm and to keep people informed about what is happening and what steps they may need to take to protect themselves.

Spotters are also encouraged to make themselves available during severe weather outbreaks. So, do you know what the difference between a trained and non-trained storm spotter is? The differences are so basic. You are not just a volunteer but you are a TRAINED volunteer and would have been issued a SPOTTER ID number with a toll free phone number so you can contact the Forecasters Severe Weather Desk directly to give your severe weather reports too. These reports are used to aid forecasters in issuing and verifying severe weather watches and warnings and to improve the forecasting and warning processes and the tools used to collect meteorological data.

During severe weather, weather reports and damage will be taken from any and all locations within the affected areas. Skywarn Nets will be activated on 146.910, -600, PL 110.9, and the back-up will be on the 146.790, -600, PL 88.5. When checking into the net, please give your callsign, wait to be acknowledged then give your Skywarn Number if you have one, location and what severe weather you observed.

The SKYWARN® Spotter and the Spotter's Role

Material Source from the Weather Spotter's Field Guide
U.S. Department of Commerce



The United States is the most severe weather prone country in the world. Each year, people in this country cope with an average of 10,000 thunderstorms, 5,000 floods, 1,200 tornadoes, and two landfalling hurricanes. Approximately 90% of all presidentially declared disasters are weather-related, causing around 500 deaths each year and nearly \$14 billion in damage.

SKYWARN® is a National Weather Service (NWS) program developed in the 1960s that consists of trained weather spotters who provide reports of severe and hazardous weather to help meteorologists make life-saving warning decisions. Spotters are concerned citizens, amateur radio operators, truck drivers, mariners, airplane pilots, emergency management personnel, and public safety officials who volunteer their time and energy to report on hazardous weather impacting their community.

Although, NWS has access to data from Doppler radar, satellite, and surface weather stations, technology cannot detect every instance of hazardous weather. Spotters help fill in the gaps by reporting hail, wind damage, flooding, heavy snow, tornadoes and waterspouts. Radar is an excellent tool, but it is just that: one tool among many that NWS uses. We need spotters to report how storms and other hydro meteorological phenomena are impacting their area.

SKYWARN® spotter reports provide vital "ground truth" to the NWS. They act as our eyes and ears in the field. Spotter reports help our meteorologists issue timely, accurate, and detailed warnings by confirming hazardous weather detected by NWS radar. Spotters also provide critical verification information that helps improve future warning services. SKYWARN® Spotters serve their local communities by acting as a vital source of information when dangerous storms approach. Without spotters, NWS would be less able to fulfill its mission of protecting life and property.

Spotter Reporting Procedures

Effective spotter reports are a critical component of NWS severe weather operations. NWS meteorologists use science, technology, training, experience, and spotter reports when making warning decisions. An effective spotter report is one that is timely, accurate, and detailed. Spotters should use the following guidelines when reporting:

- Follow the specific reporting guidelines for your area.
- Remain calm, speak clearly, and do not exaggerate the facts.
- If you are unsure of what you are seeing, make your report, but also express your uncertainty.

Your report should contain the following information:

- WHO you are: trained spotter
- WHAT you have witnessed: the specific weather event
- WHEN the event occurred: NOT when you make your report

- WHERE the event occurred, (not necessarily your location) using well known roads or landmarks

Immediate, real-time reports, are most helpful for warning operations, but delayed reports are also important, even days after an event. Delayed reports are used for climatological and verification purposes.

Weather events should be reported according to the instructions provided by your local NWS office. Here are some general guidelines on what to report.

Tornadoes

- What damage did you observe?
- How long was it on the ground? When did it start and end?
- How wide was it? How far did it travel if known?

Flash Flooding

- Report flooded roadways, rivers and streams, giving approximate water depth.
- Does the flooding consist of standing water or is it flowing?
- Is the water level continuing to rise, staying steady or falling?
- Is the flooding occurring in a known flood prone area?
- Any damage from the flooding or mud slides?

Wall Clouds

- Report if clouds are rotating and how long they have existed.

Funnel Clouds

- Watch for organization, persistence and rotation.

Lightning

- Only report lightning when damage or injuries occur.

Winter Weather

- Report any occurrence of freezing rain, ice accumulation and damage.
- How much heavy snow accumulation is there and is there any damage?
- Do blizzard conditions exist: winds 35 mph or more AND visibility $\frac{1}{4}$ mile or less?

Wind

- Report estimated or measured wind speed and wind damage.
- Wind speed estimation is difficult. A detailed description of moving objects or damage is often more useful.

Details to submit for tree damage:

- What is the height and diameter of the branch, limb or tree that was broken or blown down?
- Was the tree healthy or decayed?
- What type of tree was damaged, e.g., hardwood or softwood?

Details to submit for damage to structures.

- Is the damage to a well-built structure or a weak outbuilding?
- What is the main building material for the structure: wood, brick, metal, concrete, etc.?

- If the structure is a mobile home, was it anchored down?

Hail

BB	Less than 1/4"
Pea	1/4"
Dime	7/10"
Penny	3/4"
Nickel	7/8"
Quarter	1"
Half Dollar	1 1/4"
Walnut or Ping-Pong Ball	1 1/2"
Golf Ball	1 3/4"
Lime	2"
Tennis Ball	2 1/2"
Baseball	2 3/4"
Large Apple	3"
Softball	4"
Grapefruit	4 1/2"

- Report the size of the largest stone and any damage.
- To estimate size, compare hail to well-known objects such as coins or balls, but not to marbles, or measure the hail with a ruler.

Severe Hail and Winds Hail: NWS issues a severe thunderstorm warning for hail of 1 inch across or larger. When reporting hail, it is best to measure the hail when safe to do so. If you are not equipped with a ruler or other measuring instrument, hail size can be related loosely to coins or athletic balls, as in this table:

Marine Hazards

- Report the following marine events:
- Waterspouts: you must observe rotation
- Squall lines
- Heavy freezing spray
- Wave heights and winds that differ significantly from forecasted conditions
- Hydro meteorological phenomena that are not in the current marine forecast, e.g., thunderstorms, dense fog
- Waves greater than twice the size of surrounding waves
- Tsunami inundation and any damage

Coastal Flooding:

- Inundation of people, buildings, and coastal structures on land at locations that under normal conditions are above the level of high tide
- Lakeshore Flooding: Inundation of land areas along the Great Lakes over and above normal lake levels
- High Surf: Large waves breaking in the surf zone with sufficient energy to erode beaches, move large logs, wash over jetties or exposed rocks, etc.

Other Environmental Hazards

- Dense fog: visibility 1/4 mile or less
- Dust storms: visibility 1/4 mile or less
- Volcanic ash accumulation and any damage
- Any injuries or fatalities as a direct result of weather

Estimating Wind Speed:

Wind Speed (mph)	Effects
25-31	Large branches in motion
32-38	Whole trees in motion
39-54	Twigs break off trees, wind impedes walking
55-72	Damage to TV antennas, large branches break off trees
73-112	Surfaces off roofs peeled off, windows broken, trailer homes overturned
113+	Roofs blown from houses, weak buildings and trailer homes destroyed, large trees uprooted, train cars blown off tracks

It's often difficult to estimate wind speed, especially in the plains where there are few physical indicators to observe damage. Below is the Beaufort Wind Force Scale for estimating wind speeds. This is only a rough guide. Actual damage may occur at weaker or stronger speeds.

Submit a Storm Report

It's important for the NWS forecasters to have ground truth during severe weather events.

Items to include in your report:

- Type of report (hail, tornado, wind damage, snow, ice, etc.)
- If reporting hail, the size of hail in relation to a coin or ball
- If reporting strong wind, the wind speed and whether it was measured or estimated
- Any damage caused by the event (trees or powerlines down or structural damage, etc. - please include the number of trees or powerlines down)
- If reporting winter weather, the amount of snow or ice
- Where and what time the event occurred. Please include your location as accurately as possible. For example, approximately 2 miles east of Port Everglades or provide your street address (preferred method).

The National Weather Service in Miami-Dade County Florida
11691 SW 17th Street
Miami-Dade, FL. 33165

**If you are a Skywarn™ Spotter the best way to contact the Miami-Dade NWS is by using the "800" number provided on your Skywarn™ card.
"Remember to identify yourself with your Skywarn number"**

**If you are not a Skywarn Spotter, then call the non-emergency number
305 229-4522 to report severe weather.**

**If you are not a Skywarn Member and want to take a Skywarn Class, please check the
2016 SKYWARN™ South Florida Spotter Training Schedule**

<http://www.srh.noaa.gov/mfl/?n=skywarn>



Home Damage Assessment Program

Please share the links below with your friends and family. These links were sent by Adam Yanckowitz, Broward County Office of Emergency Operations and it is very informative as to how to report damage to your home in the event of a storm/hurricane.

<http://gis.broward.org/ReportHomeDamage/>
<http://www.broward.org/Hurricane/AtoZ/Pages/DamageAssessmentBeforeEvent.aspx>

Here's how it works:

Before the storm, print the [Home Damage Assessment photos](#) and include them in your hurricane kit.

Bookmark the Home Damage Assessment application on your cell phone or other mobile device at:

<http://gis.broward.org/ReportHomeDamage/>

After the storm, when it is safe to do so examine to see if you sustained damage and then fill out the report.





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ARES Deployment Vest Could Save Your Life

Broward County ARES/RACES advocate every member to purchase this ARES Deployment Vest as part of their go-kit. The purpose of you having one of these vest is for visibility to the public, letting them know that you are providing communication and for your safety to let everyone see you if you are deployed at night.

Please Note: This item is manufactured as ANSI/ISEA 107-2004 Class 2 compliant, a design and performance criteria for vests worn by police officers, firefighters, emergency medical services and other public safety personnel.

ARES Deployment Vest (Mesh)



This reflective style vest is similar to the type you'd see police or runners wearing. Place this green "bib" over your shirt or jacket. Constructed of neon mesh with large front and back reflector panels. Imprinted with the words "AMATEUR RADIO EMERGENCY COMMUNICATIONS" on one side and the ARES logo on the other. Lightweight. Fold it up, and store this small handful in your immediate-response kit. Great for ARES volunteers, emergency and public service use.



This vest is produced exclusively for ARRL, the national association for AMATEUR RADIO.

Cost for ARES deployment Vest with no pockets \$15.95

ARES Deployment Vest with Pockets (Solid) \$24.95

ARES Deployment Hat \$14.95



**Contact the ARRL at 1-888-277-5289 to order yours
Buy yours today and wear it to all the Broward County ARES/RACES meetings!
Let's be proud to show off our hobby to everyone!**

Contact Mike's Electronics for a group pricing and save the shipping cost!

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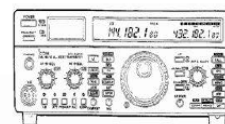
Broward Amateur Radio Club



SATURDAY, April 23rd 2016

Starting at 7:00 AM

Vendor set-up at 6:00 AM



**FREE TO
BUY-SELL**

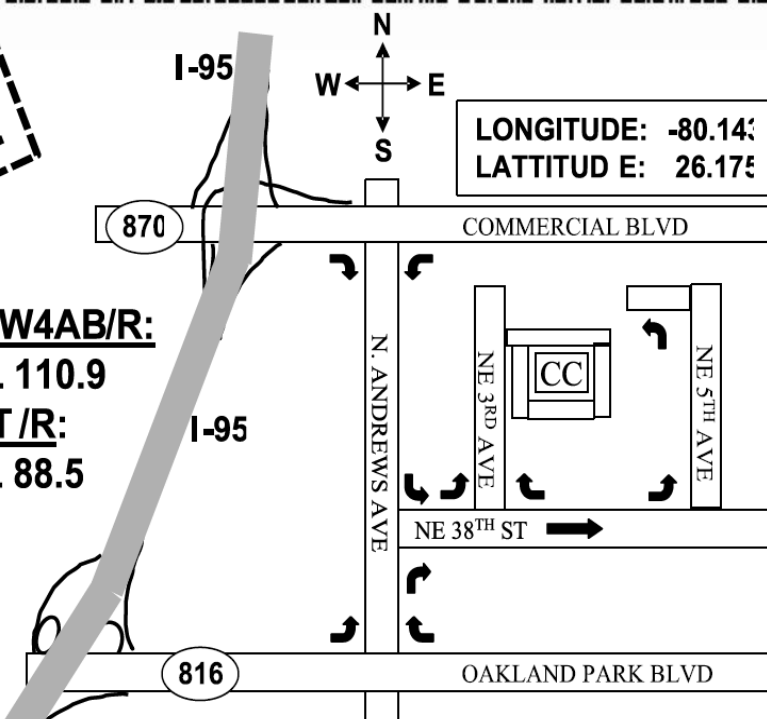


Talk-In Freq. on W4AB/R:

146910 (-600)PL 110.9

Back-Up W4MOT /R:

146790 (-600)PL 88.5



Testing

10 am VE Testing,
Bring ID + \$15.00
Tech, General, Extra
DX QSL Card
checking
ARRL Both

**Collins Center near Wimberly Field Park
3900 NE 3rd Ave
Oakland Park, FL 33334**

East of I-95 between Oakland Park Blvd &
Commercial Blvd. Take Andrews to NE 38th
St.

For more information contact:

Tony Becker KK4GUU

tony@mcrsys.com

954 612-9303



ARTICLES NEEDED!!!

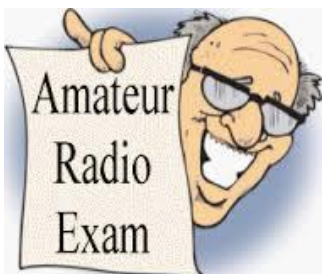
If you have anything pertaining to ARES, RACES or Skywarn training that you would like to contribute and share with others in the ARES/RACES/SKYWARN organizations, I would be happy to include your offering in any future edition. Anything you would like. Hints and kinks, antennas, technical talk, operating tips, public service, weather related, etc., would be heartily welcomed!!! All articles are to be camera ready. All articles must be in by the 12thth of every month. Copyright rules and permission apply to all submissions. All submitted articles submitted will be at the discretion of the Editor.

I hope you enjoy my Newsletters as much as I do putting them together!
Please send your submission to:

Robin / N4HHP Editor

If you know someone that would like to receive these Newsletters, send me their email address
n4hhp@comcast.net

Amateur Radio Testing in Broward County



Davie Cooper City Amateur Radio Club: Meets 6:00 PM for Testing on the first Monday of each month at Davie Moose Lodge, 4483 SW 64th Ave, (Davie Road) Davie, FL 33314. Contact Tom Hayes, N4MEO / DCARC VEC Phone: 954 218-1567.
Email: hayest6961@gmail.com



Broward Amateur Radio Club: (BARC) W4AB Meets 7:30 PM on the second Tuesday of each month in the Oak Room, which is located at Broward Health Medical Center, 1600 S. Andrews Ave, Fort Lauderdale. Contact Tom Hayes, N4MEO / BARC VEC Phone: 954 218-1567, email: hayest6961@gmail.com



Gold Coast Amateur Radio Association: (GCARA) W4BUG meets on the fourth Tuesday of each month (except December) at the Imperial Point Medical Center, 6401 North Federal Highway, Ft. Lauderdale, FL in the hospital auditorium. ARRL VE Testing @ 6:00 pm in Auditorium C. Contact: Melanie Fernandez, KJ4VCT. GCARA President. Phone: (954) 560-3706 E-mail: earthymel1950@gmail.com



The Palmetto Amateur Radio Club test by reservations ONLY! They will set the time and place for the session. Please Contact Volunteer Examiner (V.E.): Ed Kashuba, WD4HIP (954) 551-9463 for further Information.

Broward County Amateur Radio Clubs and Nets



AllStar: The AllStar Link portal allows licensed amateur radio stations to communicate with one another over the internet using streaming-audio technology. This allows worldwide connections to be made between stations or from computer to station greatly enhancing amateur radio communications capabilities. Broward Amateur Radio Club [146.910 MHz -600 Hz PL 110.9 FM AllStar Node 28478](#) Nodes List: <https://allstarlink.org/nodelist.php>



American Radio Relay League: Founded in 1914 by Hiram Percy Maxim, ARRL (American Radio Relay League) is the national association for [Amateur Radio](#) in the US. Today, with more than 161,000 members, ARRL is the largest organization of radio amateurs in the world. ARRL's mission is based on five pillars: Public Service, Advocacy, Education, Technology, and Membership. <http://www.arrl.org/>



Broward Amateur Radio Club: (BARC) W4AB Meets 7:30 PM on the second Tuesday of each month in the Oak Room, which is located at Broward Health Medical Center, 1600 S. Andrews Ave, Fort Lauderdale. Further information is available on the club repeater 146.91 Contact: Tony Becker, KK4GUU BARC President. Phone: (954) 612-9303 E-mail: tony@mcrsys.com: Club Web site: <http://browardarc.net>, Club Info: info@w4ab.org Club repeaters: 146.910 MHz -600 Hz PL 110.9 FM AllStar Node 28478, 444.825 +5 MHz PL 110.9 FM, 442.450 +5 MHz no PL DSTAR (Gateway). For information VE Testing contact VE Tom Hays/N4MEO 954-218-1567 Email: hayest6961@gmail.com



Broward County ARES®/RACES: The Amateur Radio Emergency Service (ARES) is a corps of trained [amateur radio](#) operator volunteers organized to assist in public service and [emergency communications](#). It is organized and sponsored by the [American Radio Relay League](#) The Radio Amateur Civil Emergency Service (RACES) is a standby radio service provided for in Part 97.407 of the [Federal Communications Commission](#) (FCC) rules and regulations governing [amateur radio](#) in the [United States](#).



Broward County ARES/RACES: provides emergency communications through amateur radio in the event of a disaster. They meet every *3rd Tuesday of the month, at 7:30 PM*. Broward Health 1600 South Andrews Avenue, Fort Lauderdale, FL 33316. RACES Club Repeater 224.76MHz -1.6 MHz PL 110.9 Hz FM, Club Call W4BEM. Meeting is held In the Oak Room. Broward County ARES Emergency Coordinator, Carol Sjursen, KJ4AWB (kj4awb@arrl.net) Phone: 954 803-6338, Broward County RACES Officer and Broward County Skywarn Coordinator, Robin Terrill, N4HHP (n4hhp@comcast.net) Phone: 954 249-5343, Broward County ARES/RACES Training Officer Barry Porter, KB1PA (barryp13@mac.com) 1 561 499-8424 Website: <https://www.facebook.com/BrowardARES/RACES>. Want to be a member? Fill out the application in the rear or this newsletter and email it to kj4awb@arrl.net or n4hhp@comcast.net
Broward County Emergency Operations Center [Broward County Emergency Operations Center](#)



Broward County Emergency Preparedness Net (BCEPN): Broward County ARES RACES provides emergency training. Net meets every Wednesday at 7:00 PM on the 146.910 [MHz -600 Hz PL 110.9](#) Net Manager: Mike Davis Cell: 954 826-4758 Email: k2mol@seftn.net Website: <https://www.facebook.com/BrowardARES/RACES>



Davie Cooper City Amateur Radio Club: Meets 6:30 PM. on the first Monday of each month at Davie Moose Lodge, 4483 SW 64th Ave, (Davie Road) Davie, FL 33314. Further information is available on the club website, <http://www.dcarc.club/> Contact Tom Hayes, N4MEO / DCARC President. Phone: 954 218-1567, email: hayest6961@gmail.com Club Callsign is NA4DC



DCARC RF Net: is held on the 146.790 MHz -600 PL 88.5 Hz on the every other Thursday starting at 7:30 PM for an question and answer session or you can tell us what you've been doing; purchased a new rig, worked a new DX contact, upgraded your license, put up a new tower, etc. You can also Buy, sell or trade on this net too. Net Manager Tom Hayes, N4MEO, 954 218-1567, email: hayest6961@gmail.com Club Callsign is NA4DC



D-STAR: (Digital Smart Technologies for Amateur Radio) D-Star offers digital voice and slow and high-speed data communications. Slow-speed digital voice and data are transported at 4800 bps, of which 3600 bps is used for voice transmission and the remaining 1200 bps is used for synchronization and general use. <http://www.dstarusers.org/repeaters.php>



Echolink / VOIP Net: High-Speed digital data communication is transported at 128kbps and is capable of supporting Ethernet packets and also is fast enough to use for Internet applications such as displaying web pages. Repeater Fort Lauderdale 443.625 + PL 110.9. ECHOLINK #48646 Margate Repeater on 444.025+ PL. 107.2 ECHOLINK #269436. Boynton Repeater 147.225+ PL TONE 107.2 Hz and on 444.650- 5 PL 127.3 Hz.



"The VoIP Connection" originating in Naples Florida, connects to Fort Lauderdale on 146.910-600 PL 110.9 AllStar Node 28478. We meet every Tuesday night at 7:00 PM EST Net MGR. is Harry Sevush, KD4JMV Email: kd4jmv@comcast.net



Gold Coast Amateur Radio Association: (GCARA) W4BUG Meets 7:30 p.m. on the fourth Tuesday of each month (except December) at Broward Health Imperial Point, 6401 North Federal Highway, Ft. Lauderdale, FL in the hospital auditorium. Refreshments are provided. Dinner is available in the cafeteria @ 5:15pm GCARA / ARRL VE Testing @ 6:00pm in Auditorium C. Meeting starts @ 7:30pm in Auditorium A. Talk-in on 146.610 MHz and 146.820 MHz, -600 PI 110.9 Hz. Other repeaters: 442.50 MHz. +5 PL 151.4 Hz. and 145.340 MHz D-STAR SYSTEM. Contact: Melanie Fernandez, KJ4VCT. GCARA President. Phone: (954) 560-3706 Web: <http://www.w4bug.org/>; E-mail: earthymel1950@gmail.com



Gold Coast Amateur Radio Association: (GCARA) Amateur Radio Fun Net every Thursday. Starts @ 7:00pm on 146.610 MHz -600 PI 110.9 Hz and 442.500 MHz +5 PL 151.4 Hz. Discussion: Anything the check-in wishes to discuss. Everything from Ham Radio topics to general information. It's an easy come format and I never have a set discussion. It's where the station ops take it. Contact: Melanie Fernandez, KJ4VCT. GCARA President. Phone: (954) 560-3706 Web: <http://www.w4bug.org> E- mail: earthymel1950@gmail.com



Internet Radio Linking Project: (ILRP) uses Voice-Over-IP (VoIP) custom software and hardware. Coupled with the power of the Internet, IRLP will link your repeater site or simplex station to the world in a simple and cost effective way. IRLP operates a worldwide network of dedicated servers and nodes offering very stable worldwide voice communications between

hundreds of towns and cities. All this with unsurpassed uptimes and the full dynamic range of telephone quality audio. Node: 7830 WB2NBU Wellington FL USA 147.2850 +600 No PL.



Knights Of The Roundtable Net: When all else fails, keep it Simple. This is an open Forum Radio Group. We meet every Monday starting at 7:30 on either the 146.550 MHz (no PL tone) Simplex frequency or on a back-up frequency 145.555 (no PL tone) Simplex frequency. At that time Check-ins will be taken and begin our Rag Chew session.

Web: www.knightsoftheroundtable.info www.knightsnet.org NCS: Kenny Hollenbeck
KD4ZFW Cell 954 692-4600 Email: kd4zfw@gmail.com



Motorola Solutions Amateur Radio Club: (MARC) (open only to current and former Motorola employees) Contact: Rich Pratt, K4XF. Web: E-mail: w4mot.club@gmail.com The repeaters are accurately listed on QRZ.com under the call sign W4MOT. Current VHF repeater is 146.790 – 600 PI 88.5 Hz



Hurricane Watch Net: 14.325 MHz The Hurricane Watch Net consists of a group of licensed Amateur Radio Operators trained and organized to provide essential communications support to the National Hurricane Center during times of Hurricane emergencies. Our primary mission is to disseminate tropical cyclone advisory information to island communities in the Caribbean, Central America, along the Atlantic seaboard of the U.S., and throughout the Gulf of Mexico coastal areas. We also collect observed or measured weather data from amateur radio operators in the storm affected area as well as any post storm damage, and convey that information to the Hurricane Forecasters in the National Hurricane Center via the amateur radio station in the center (WX4NHC).



Palmetto Amateur Radio Club: (PARC) Meets quarterly. Meeting place announced on the club web site: <http://www.palmettoarc.org> The Palmetto Amateur Radio Club's Repeater's. Call Sign: K4PAL 146.850 MHz - 600 PL 91.5 Hz, 442.250 MHz +5 PL 114.8 Hz., 147.210 MHz - 600 PL 103.5 Hz., 147.375 MHz - 600 PL 91.5 Hz, 443.825 MHz +5 PL 103.5 Hz. Contact: Edward Kashuba / WD4HIP. Phone: (954) 551-9463 E-mail: questions@palmettoarc.org

SARnet

The Statewide Amateur Radio Network (SARnet) is a network of linked UHF voice repeaters that serves the State of Florida. The repeaters are operated by their local trustees and the network that connects them together does not interfere with the local use of the repeaters. The key to what makes SARnet work so well is that this network uses dedicated bandwidth that is separate from the internet. Statewide connectivity is achieved without the use of any commercial telecommunications services. SARnet does not use the internet, cellular telephones, or land lines. They use part of the Florida Department Of Transportation network that connects amateur radio repeaters to their microwave system together. Currently, the Duval County EOC conducts a brief check-in net on Friday mornings starting at approximately 0900 on SARnet and any amateur that can access SARnet is encouraged to check in (late check-ins are ok too). The Fort Lauderdale frequency is 442.850 MHz +5 PL 110.9 Please go the SARnet site and read what SARnet is all about. <http://www.sarnetfl.com/home>



Southeast Florida Traffic Net: (SEFTN) SEFTN is part of the American Radio Relay League's National Traffic System. We meet daily at 6:00 PM local time on 146.61MHz- with a PL tone of 110.9, or 442.50MHz+ with a PL tone of 151.4, which is the Gold Coast Amateur Radio Association repeater. Our backup frequency is 146.79 MHz with a PL tone of 88.5, which is the Motorola Amateur Radio Club repeater. Learn the ARRL MESSAGE FORMAT



National Traffic System: Our purpose is to pass formal written traffic, announce amateur radio events, deliver information on severe Weather, and to provide training for new operators and net control stations. We also provide emergency or special sessions when necessary and will assist agencies under Homeland Security, such as FEMA and Broward County Emergency Management, and the Broward County Emergency Coordinator, if called upon to do so. Thank you for visiting and we hope you will join us on the air. Web site: <http://seftn.net/> Net Manager is Mike Sanner, KM2V Email: km2v@arrl.net



How to Become a Skywarn Storm Spotter: SKYWARN Amateur Radio Serving the National Hurricane Center Covering all counties served by the Miami forecast office of the NWS on your local Florida AllStar Hub Repeater Since 1965 [WX4SFL Skywarn Net FL AllStar Wiki](#) [The National Weather Service](#) in Miami-Dade Florida [National Weather Service](#) [The Amateur Radio Station at the National Hurricane Center](#) for over 35 years. [National Hurricane Center](#) "Become A Storm Spotter From Home" <http://www.improvenet.com/a/become-a-storm-spotter-from-home> Broward County Skywarn Coordinator, N4HHP Email: n4hhp@comcast.net



South Florida DX Association: (SFDXA) K4FK Meets 7:33 p.m. on the first Wednesday of odd numbered months at Florida Medical Center, 5500 West Oakland Park Blvd, Ft. Lauderdale. Further information is available on the club repeater K4FK, 147.33/93 PL 103.5 DX Net: Wed. evenings at 7:30 PM on the club repeater. Contact: Don Drennon, N4TZH, SFDXA President E-mail: n4thz@arrl.net Web: <http://www.qsl.net/k4fk/>.



Wellington Radio Club: in Palm Beach County leads the effort to promote and train amateurs in the reliable transmission of complex documents such as FEMA and Red Cross forms and spreadsheets. All done with only with a computer, simple and free software and a transceiver. No special equipment or cables are needed. It's called Basic Narrow Band Emergency Messaging System. Repeaters and nets 147.285 +600 PL 103.5 and 442.050 +5 PL 103.5. Emergency Net on Mondays 7:30 PM on the 1st, 2nd and 3rd Mondays on VHF. This net also meets on holidays. President Larry Lazar KS4NB Phone: (561) 694-0868 Email: LARRY33414@aol.com Beginner's Guide to FLDIGI [FLDIGI User's Guide](#) Free FLDIGI/FLMSG Digital software download site <http://www.w1hkj.com/>



WR4AYC Repeater Group repeaters are 145.110 -600 PL 110.9, 145.110 -600 PL 100.9 and 443.850 +5 PL 110.9. These repeaters are also P25 machines. Contact: Marshall A. Paisner, K4MAP. Phone: (954) 873-2234 Web: <http://wr4ayc.org/> E-mail: wr4ayc@arrl.net for more information



WX4SFL South Florida Regional Skywarn Training Net: The Purpose of the net is to assist Skywarn operators in the training for and handling of emergency communications, to provide useful information to Skywarn Members, and to familiarize people with directed net operations. We provide support for the NWS WFO's in both Miami and Key West. The Net meets every Thursday night at 1930 hrs. Local time on the SoFla AllStar Broward Amateur Radio Club 146.910 MHz -600 Hz PL 110.9 FM AllStar Node 28478. Net Mgr.: Chris Vasilenko, K4FLL phone: 954-465-8425 email: WX4SFL@earthlink.net www.facebook.com/SouthFloridaRegionalSkywarn

If you know of any Broward County clubs or training nets that are not on this list or you notice an error in a listing, please contact me, Robin Terrill, N4HHP Editor n4hhp@comcast.net

Southeast Florida Repeaters At A Glance Miami-Dade – Broward – Palm Beaches

Output Freq. MHz (Numeral Order)	Offset	PL in Hz	Location	Callsign	Notes
145.270	-	-----	Parkland	WR4AYC	(Not on yet)
145.290	-	110.9	Boca	N4BRF	Monday Club Roundtable 7:00 PM
145.290	-	110.9	Boca	N4BRF	Monday New Ham Net 7:30 PM
145.290	-	110.9	Boca	N4BRF	Wednesday Training Net Starts at 7PM for South County, 7:30 for North County and 8 PM for Central County
145.340	- D	-----	Fort Lauderdale	W4BUG	
145.555	S	-----	Broward County	-----	Knights of the Roundtable
146.550	S	-----	Broward County	-----	Knights of the Roundtable
146.610	-	110.9	Pompano Beach	W4BUG	SEFTN Net 6:00 PM Daily (GCARA) Amateur Radio Fun Net every Thursday. Starts @ 7:00pm on 146.610 MHz / 442.500 MHz
147.615	+	110.9	North County	W4JUP	North Co. ARES Net 7:30 PM
146.790	-	88.5	Plantation	W4MOT	
146.820	-	110.9	Boca Raton	W4BUG	
146.850	-	91.5	Hollywood	K4PAL	
146.910	-	110.9	Fort Lauderdale	W4AB	BCEPN Wednesday at 7 PM
146.910	- A	-----	Fort Lauderdale	W4AB	AllStar Node 28478
147.045	+	110.9	Lantana	WV4I	Central County ARES Net 8 PM Wed
147.075	+ I	110.9	Delray	W2GGI	IRLP, node 9050
147.210	+	103.5	Dade/Broward Co. Line	K4PAL	
147.255	+	110.9	Delray	NR4P	South County ARES Net 7 PM Wed
147.285	+	103.5	Wellington R.C.	K4WRC	M-EM Net, T-NBEMS Net, Th-Mem Lane Net, Su-SSTV All 7:30 PM
147.285	+ E&1	103.5	Wellington R.C.	K4WRC	Echolink Node 475456 IRLP Node 7830 Both Nodes connected 24/7
147.330	+	103.5	Fort Lauderdale	K4FK	
147.375	+	91.5	Dade/Broward Co. Line	K4PAL	
147.625	+	-----	N. Palm Beach City	W4JUP	North Co. ARES Net 7:30 PM Wed
224.180	+	131.8	Plantation	N4RQY	
224.400	+	110.9	Ft. Lauderdale	KF4LZA	Linked to 927.700 MHz
224.680	+	131.8	Coral Springs	N2DUI	Linked to 444.575 MHz
224.760	+	110.9	Plantation	W4BEM	RACES 220 MHz Repeater (Can be linked to VHF & UHF Repeaters)
442.200	+ D	-----	Fort Lauderdale	W4BUG	
442.250	+	114.8	Dade/Broward Co. Lin	K4PAL	
442.450	+ D	-----	Fort Lauderdale	W4AB	DStar Gateway
442.500	+	151.4	Pompano Beach	W4BUG	
444.600	+	94.8	Miami-Dade	K4AG	Local Coverage
444.600	+	167.9	Miami-Dade	K4AG	SARNET
444.700	+	110.9	Boca Raton	KC4GH	
442.825	S	110.9	Andytown on Alligator Ally		SARNET
442.850	+	110.9	Fort Lauderdale	-----	SARNET
442.875	+	110.9	Boca Club		
442.875	+ E	110.9	Boca Club		Echolink Node 826953
443.825	+	103.5	Dade/Broward Co. Line	K4PAL	
443.850	+	110.9	Coral Springs	WR4AYC	
443.975	S	110.9	Palm Beach	K4EEX	SARNET (Not in repeater guide)
444.025	+	107.2	Margate	KA4EPS	AllStar Florida Hub
444.825	+	110.9	Fort Lauderdale	W4AB	

Note: S = Simplex D = DStar A = AllStar I = IRLP E = Echolink S = SARNET

If you know of any Broward County clubs or nets that are not on this list or you notice an error in a listing, please contact me.
Robin Terrill, N4HHP Editor n4hhp@comcast.net

<h2 style="margin: 0;">Broward Emergency Management ARES / RACES Membership Application</h2> <p style="margin: 10px 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>																																																																																																																																																																					
<p>Email Address to receive Broward County ARES / RACES Alerts / Bulletins _____</p>																																																																																																																																																																						
<p>You reside at the above address during what months? From _____ To _____</p> <p>Are you capable of setting up a station in the field? Indicate what, below, if yes YES NO</p> <p>What languages are you fluent in? _____</p>																																																																																																																																																																						
<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 style="width: 15%;">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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Please email this Application to Carol, KJ4AWB at Carol Sjursen (CSjursen@bellsouth.net) or bring it to the next meeting

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 (see B above). 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

Barry Porter, KB1PA ARES/RACES Training OFFICER 1 561 499-8424



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Advancing the Art and Science of Radio—Since 1914

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