



### **Come to the Club Meeting Thursday May 18<sup>th</sup>**

Come out to the meeting this month at Arise Brandon Assembly of God 710 South Kings Avenue in the Annex. Things get underway at 7:30 p.m. when Scott bangs the gavel to start things off.

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### **May Program: A Modelling Program for the G5RV Antenna**

In 1946 Louis Varney, G5RV (SK), was living in a house with a English garden barely 100 feet long. He created a multi-band antenna 102-feet long that has become known as the G5RV Multi-Band HF Dipole. We are going to explore the operation of his popular antenna in the Amateur Bands from 80-meter through 10-meters using a free computer modeling program called MMANA-GAL.

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### **Severe Storms, Hurricanes, and Tornados**

#### **Getting Your Ham Shack, Yourself, and Your Family Ready for Disaster Situations**

As we move into the hurricane season and the summer storm patterns, it's a good idea to review disaster planning. There are a lot of disaster planning guides, but most of them don't take into account the special capabilities and needs of the Ham Radio operator. This month, we will go over some of the basics in preparedness with an eye to the special capabilities that most hams have in communicating during disaster situations as well as the capability to stay informed during these times. As you read through this, ask yourself: Is my family ready for a disaster? Am I ready for a disaster? Is my ham station ready for a disaster?

#### **Step One: Your Own Disaster Plan:**

Plan your work and then work your plan. If family members know what to do ahead of a crisis, they will minimize panic and confusion. If they have gone over it in training they will do much better when the crisis comes. These are your initial steps:

(A) **Know your risk.** The most dangerous thing is NOT being aware of what you don't know. Learn what disaster situations might affect your area. Find out if your home is in a Hurricane Evacuation Zone. Look on [www.tampabayprepares.org](http://www.tampabayprepares.org).

(B) **Pick two meeting places.** If something happens to force your family outside your residence pick two meeting places: one out in your yard and the second location outside your neighborhood for use in a wider area disaster.

(C) **Choose a contact person out of the immediate area** to coordinate communication in a disaster. Ideally, this should be another with some communications capability. Remember in many disaster situations the **FIRST THING TO GO DOWN IS THE PHONE SYSTEM AND THE INTERNET**. That Gee Whiz Smart Phone will become a very expensive paperweight. For the non-hams in the family the Family Radio Service (FRS) radios will provide some short range communications when the usual means have failed. If you have the ability to operate on HF your contact person can be well outside the immediate disaster area. Even Technician class operators can get on HF on CW. If you're a serious ham do two things: (1) Learn how to set up a basic HF station to communicate on 40 meters and above. This is one of the important things you should learn from participating in Field Day. (2) In advance of a disaster send copies of important papers etc. to your distant contact person. Plan what frequencies you will use for comms and try it ahead of time.

(D) **Evacuation requires planning.** Plan your needs in advance for an evacuation. How would you evacuate and where would you go? Learn what the routes are. Remember this will be a panic situation which will be somewhat worse than the usual commute home on Friday afternoon. If you evacuate you will need to take pillows and blankets, extra clothes, eyeglasses, hearing aids (with batteries), personal hygiene items, folding chairs and cots, important papers: insurance, driver's license, and other important papers, along with quiet games, books, and playing cards.



## Step 2: You have to eat

(A) **At a minimum, keep enough food to get through three days** (nine meals). Choose things that don't require refrigeration OR COOKING. Microwave ovens are great, but they need electricity. Go with canned foods, protein bars, the packs of peanut butter and crackers. Don't let this stuff go stale. Rotate it every few months. Don't forget a non-electric can opener

(B) **Remember water: 1 Gallon per person/per day.** Plan on water for 7 days (that's seven gallons per person).

(C) **Extra batteries** for these things you should have: flashlights, AM/FM radio, SCANNER (more about that later), two-meter rig etc.

(D) **Remember medicines.** Have enough on hand for at least 14 days. In addition, keep an updated list of family medicine needs and dosages along with phone numbers for your doctor and the pharmacy.

(E) **Items for infants:** Sterile water, formula, bottles, and medicine.

**Step 3: Other items to have during and after the disaster:**

- (A) **Medical needs:** First aid book and kit including bandages, antiseptic, compresses, tape, aspirin and aspirin-free pain relievers, antacid, and anti-diarrhea medication.
- (B) **Fire extinguisher:** the ABC type is best because it covers just about all fires.
- (C) **Mosquito repellent** (this is Florida).
- (D) **Camera** to photograph damages (your smart phone can do this).
- (E) **Garbage can or bucket** with tight fitting lid and kitty litter for an emergency toilet.
- (F) Plastic trash bags, toilet paper, paper towels, pre-moistened towelettes, or baby wipes.
- (G) **CASH.** The electrical grid and the Internet may be down, so there will be no credit cards or ATM access.
- (H) **Charcoal, matches, and a grill.**
- (I) If the landline system is functioning a **corded phone** would be a BIG help.



OK. The big storm is coming and there you are as a Ham Radio Operator. You're in the same boat as everyone else, except for one big difference: You can communicate and you have access to more information about the disaster than the rest of the public **IF YOU KNOW HOW TO PUT YOUR SKILLS TO USE.** Most important: You need to keep your station/ham shack maintained and ready to go at a moment's notice. Backups are key. Even a second HF rig could prove to be valuable if something happens to your main rig. Coaxial

cable, connectors and a wire antenna in case your usual antenna doesn't survive the storm. How are you going to power that rig?

If the threat is from a hurricane you have the opportunity to gather information before the storm gets here by monitoring the Amateur Radio Hurricane nets. These nets will activate over an entire region when hurricanes threaten enabling you to gather information before the hurricane arrives in your area. **Table 1** is a listing of frequencies for hurricane nets on the HF bands.

3.815	3.900	3.965	7.165
7.268	14.270	14.283	14.325

Another source of HF weather information is from the United States Coast Guard (USCG). **Table 2** lists the frequencies and times for the USCG station in New Orleans, NMG.

UTC	E.S.T.	E.D.T.	Frequencies (MHz)
0330	10:30 p.m.	11:30 p.m.	4.426
05:15	12:15 a.m.	1:15 a.m.	8.502
09:30	4:30 a.m.	5:30 a.m.	12.788
11:15	6:15 a.m.	7:15 a.m.	
15:30	10:30 a.m.	11:30 a.m.	
17:15	12:15 p.m.	1:15 p.m.	
21:30	4:30 p.m.	5:30 p.m.	
23:15	6:15 p.m.	7:15 p.m.	

## Local disaster information via Ham Radio on VHF/UHF

Even if you had no idea of where emergency nets were, you could quickly find out by doing a bit of frequency searching. Some of the key repeaters for this area are shown in **Figure 1**.

Repeater	Frequency	Offset	Tone Hz	Additional Information
Big Stick K4WCF	145.430	-	100.0	Weather nets and traffic nets on this repeater system
N4TP Tampa	147.105	+	146.2	ARES Repeater
W4HSO	146.610	+	141.3	Sheriff Amateur Radio Operations VHF
W4HSO	444.900	+	141.3	Primary for Sheriff Amateur Radio Operations

**Figure 1: Some Key Repeaters In Our Area**

Unless you have a true emergency resist the urge to jump on the frequency and transmit. LISTEN to determine what is going on and get some idea of what procedures are. When the net asks for stations to check in with location and condition, do so, but be succinct. Listening to the net will give you a good idea of what is going on in your immediate area as well as adjacent areas.

Monitoring broadcast information is another good start to getting informed and staying informed. A battery powered radio is a key item of emergency equipment. This will allow you to monitor the local broadcast stations and some emergency radios also include the weather bands. **Figure 2** lists some common frequencies to monitor. These will be for the public with an AM/FM radio and a weather radio.

Station	Frequency	Other Information
WFLA	970 KHz	Local information and bulletins to the public
WWRM	94.9 MHz FM	Local information and bulletins to the public
KHB32	162.550 MHz	NOAA weather.

**Figure 2: Public Access Sources of Information**

If you have a VHF/UHF ham rig with a wide band receiver or a scanner, you will have access to many more frequencies which could provide you with useful information. Let's look at some other VHF/UHF frequencies that may prove useful in disaster situations.

Since we are in a bay area, marine radio activity can play a key role in area communications during emergencies. Two key emergency frequencies on VHF are the Marine channel 16 distress and calling frequency: 156.800 MHz and the USCG liaison and bulletin frequency: 157.100 MHz. This USCG station is out of St. Petersburg and is on the air daily at 1300Z and 2300Z (8 a.m. and 6 p.m. E.S.T. or 9 a.m./7 p.m. EDT).

If the area suffers a major disaster, the Federal Emergency Management Agency (FEMA) will move in to quickly re-establish communications and other basic services. FEMA operations use several VHF frequencies which are listed in **Table 3**. Note that this table also lists some Red Cross frequencies in the low VHF range. FEMA comes in with multiple communications set-ups. In some cases they will even bring in repeaters for extended range to enable county-wide communications.

<b>Table 3: FEMA and Red Cross Frequencies in the VHF Range</b>		
142.230	142.350	142.975
143.000	164.8625	165.6612
<b>Red Cross Frequencies in the Low VHF Range</b>		
47.420	47.460	47.500
47.660		

If you have a trunking-capable scanner these frequencies in **Table 4** should be at the top of your list: The Hillsborough County frequencies on the EDACS system. When loading these frequencies into most scanners it is important to load them in the order given.

<b>Table 4: Hillsborough County Frequencies (EDACS)</b>	
<b>Trunk East</b>	<b>Trunk West</b>
851.3750	851.2250
851.7000	851.7500
852.9125	852.0625
853.2750	853.5250
853.6000	853.7125
853.8250	853.7375
851.1250	852.1250
852.5500	851.2500
852.8000	851.4125
852.6500	851.7250
851.5625	852.0375
851.8125	853.1000
852.3125	853.3000
853.2500	853.6875
853.5750	852.4000

While most of the activity you will hear will be police and fire department traffic, you will also hear other county agencies from time to time. They are assigned different talk groups and diverse users never hear each other.

If you are monitoring vehicle traffic situations in various areas of the county, another set of frequencies that can be informative is the Hartline bus frequencies. As busses travel throughout the county they report traffic problems back to dispatch or in many cases dispatch will call the busses to inform them of traffic problems along the various routes. There are only seven Hartline UHF channels. They are listed below:

453.2500      453600      453.300  
 453.775      453.375      453.900  
 453.450.

It's up to you. Spend some time in front of your HF receiver. Get to know what is on those frequencies during normal events.

- (1) Fire up the wide band VHF/UHF rig or the scanner on VHF/UHF. Get familiar with the usual communication patterns. (2) Take time to listen to the nets on the other area repeaters and get familiar with procedures. You'll then be more prepared when you have to report or acquire

emergency information.

**Keep in Mind Our Weekly Nets and Bulletins**

**Monday 8 p.m. The Two Meter Net 147.765 - 147.165 MHz Hosted by Doris Haskell WB9VDT**

**Tuesday 7 p.m. 6-meter Roundtable 50.200 MHz USB followed at 8 p.m. with the 10 Meter Roundtable 28.365 MHz USB**

**Send us your articles AND PICTURES! We do much more in the digital format! I would like to have pictures of BARS members and their ham shacks!**

**Remember to check out the BARS website:**  
**[brandonhamradio.org](http://brandonhamradio.org)**