



**Come out to the BARS Meeting on Thursday May 21<sup>st</sup>**

Come on out to the monthly BARS meeting at the Brandon Assembly of God at 710 South Kings (next to the golf driving range). The meeting will be in the annex next to the sanctuary building. Things get underway at 7:30 p.m. when Doris WB9VDT bangs the gavel.

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**This Month's Program:**

The program for the May BARS meeting will be a video presentation on operational amplifiers entitled "Op-Amps 101." The basic features of op-amps will be reviewed, and the common ways these amplifiers can be configured will be examined.

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**Hurricanes, Catastrophes, and Disasters (Part 2)**

Mark WB9UJS



Last month we started off looking at Ham frequencies, U.S. Coast Guard frequencies, and FEMA frequencies used in disaster situations. This month we will wrap it up with business band channels, Family Radio Service frequencies, military squad radios, the county trunked system, and some others.

There are other radio services that can play a communications role in disaster situations. The General Mobile Radio Service (GMRS) has frequencies in the UHF part of the spectrum, close to the 440 MHz Amateur Radio band. Often this allocation is referred to as "business band". Some other frequencies that will likely yield a lot of traffic are the GMRS (business band) and Family Radio

Service (FRS) frequencies. The FRS is folded into the GMRS frequency plan by having simplex channels in between the repeater inputs and outputs.

**Figure 1** shows the GMRS Frequencies along with some of the common designation for the more popular repeater pairs.

Designation	Input	Output
“550”	462.550	467.550
“575”	462.575	467.575
“600”	462.600	467.600
“625” REACT Black Dot	462.625	467.625
“650” REACT Orange Dot	462.650	467.650
“700”	462.700	467.700
“725”	462.725	468.725

**Figure 1: GMRS Repeater Pairs and Designations**

You will note the 5 MHz channel split for GMRS. When you look at the FRS frequency plan in **Figure 2** you will see that channels 1-7 are 5 MHz lower than channels 8-14. These channel pairings were repeaters in GMRS that were pulled into FRS as simplex frequencies.



CH#	Frequency	CH#	Frequency
1	462.5625	8	467.5625
2	462.5875	9	467.5875
3	462.6125	10	467.6125
4	462.6375	11	467.6375
5	462.6625	12	467.6625
6	462.6875	13	467.6875
7	462.7125	14	467.7125

**Figure 2: FRS Channel Frequencies**

Most GMRS radios incorporate the FRS channels. GMRS radio operation requires an FCC license.

If National Guard or other military forces are active in the area they will likely use the frequencies shown in **Figure 3** for intra-squad communications. The idea for these low power squad radios originated from the FRS.

396.875	397.125	397.175	397.375	397.425
397.475	387.550	397.950	398.050	399.425
399.475	399.725	399.925	399.975	

### Figure 3: Military Intra-Squad Frequencies

The first time I encountered this communication set-up was in 1999-2000 during exercises with the Marine Corps. at Camp Pendleton.

One set of frequencies that should be at the top of your list (if you have a trunking-capable scanner) are the county frequencies on the EDACS system shown in **Figure 4**.

A lot of county traffic is on these frequencies: Sheriff, County administration, and paramedics are on these channels. In loading an EDACS system in your scanner it is key to load them exactly in the order given.

<b>Trunk East</b>	<b>Trunk West</b>
866.3750	866.2250
866.7000	866.7500
867.9125	867.0625
868.2750	868.5250
868.6000	868.7125
868.8250	868.7375
866.1250	868.1250
867.5500	866.2500
867.8000	866.4125
867.6500	866.7250
866.5625	867.0375
866.8125	868.1000
867.3125	868.3000
868.2500	868.6875
868.5750	867.4000

**Figure 4. Channel Arrangement For Trunking Frequencies**

There are some other county frequencies that can pay off with information during disaster situations. **Figure 5** lists the older repeaters still in use. Some of these will be simulcast with the trunking channels for some emergency services. In other cases they will carry separate traffic. As some of these repeaters come to the end of their service lives, they are taken out of service and not replaced.

<b>County Fire/Medical</b>	
153.920	155.235
154.130	155.325

154.175	155.340
154.220	173.585
154.310	462.975
154.385	463.150
154.430	463.1750
155.040	468.150
155.220	468.1750

**Figure 5. County Fire and Medical Frequencies**

A lot of these frequencies seem very intuitive to the searcher, but there are some other frequencies that will show up with a lot of activity and provide a lot of information during disaster situations.

Those channels are the ones used by the HARTLINE transport system. HARTLINE busses will be used for mass evacuations and certain HARTLINE routes are posted as evacuation routes. The communications between the drivers and the dispatchers can give you a lot of information on actual road and environmental conditions during a disaster. **Figure 6** lists the frequencies used by the dispatchers and the busses in Hillsborough County.

<b>Hartline/County Govt</b>	
453.2500	453.600
453.300	453.775
453.375	453.900
453.450	

**Fig 6. HARTLINE Frequencies**

In case of a severe distress on the high seas, You might hear distress calls in SSB in the Global Maritime Distress and Safety System (GMDSS). **Figure 7** lists the HF channels for SSB distress calls. The most common frequencies used are 2.182 and 8.291 MHz. There are other frequencies for GMDSS activity, but they use digital selective calling (DSC). Most of us are not set up at the home station to receive those transmissions

2.182	4.125
6.215	8.291
12.290	16.420

**Figure 7: GMDSS SSB Distress Frequencies**

Over the last two months we have covered a lot of ground with disaster communication frequencies. Here is what is key for you to do:

- (1) Spend some time in front of your HF receiver – get to know what is on those frequencies during normal events.
- (2) Spend some time listening on the VHF/UHF frequencies. Get familiar with what is going on in regular traffic patterns. You’ll be more prepared when you need emergency information.

**Some links and numbers:**

Here are some area numbers (all 813 area code unless specified) for Hillsborough County agencies and other entities.

Emergency Management 272-6900

Information Hotline 272-5900

Sheriff 272-8200

Hillsborough County Fire 272-6600

U.S. Coast Guard 7<sup>th</sup> District 1-800-874-7561

Plant City Police 257-9200

Plant City Fire 757-9131

Tampa Police 276-3200

Tampa Fire 232-605

FEMA 1-800-621-3362

National Weather Service Forecast Office Tampa Bay Area 645-4111 ([www.weather.gov/tampa](http://www.weather.gov/tampa))

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That's it for this month. Have FUN with radio!

**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)**