

PARTicles

The newsletter of PART of Westford, MA – WB1GOF

Desember 2011

President's Column

Andy Stewart (KB10IQ)

The PART Christmas and Holiday party is fast approaching! I look forward to seeing you on December 20th at the Yangtzee River Restaurant in Littleton. Hugh (N1QGE) has been busting his butt with help from Alan (W1AHM) so that we can have a great event, and



I'd like to thank these gentlemen for their efforts. This event will occur INSTEAD of the normal monthly meeting. Our monthly meetings will resume in January 2012.

Scott (NE1RD) has taken orders for the PART kit building activity, to be held sometime in the early part of 2012. The kits have been ordered and delivered. Scott's elves will shortly be busy preparing things for the kit builders so they will have a fun time at this event. We are in the process of identifying when and where the event will take place. These details will be announced soon. Many thanks to Scott and his helpers for their efforts!

I have been experimenting with an inverted L antenna lately. I wired the antenna wire to the downspout and gutter of the home QTH using a coax cable where one part of the coax was connected to the downspout, and the braid connected to a short rod driven into the soil. My tuner was able to tune it on all bands except 75m. I worked stations in Sweden, Poland, and France with decent signal reports on phone and CW. I thought I had succeeded until I tried PSK31.

It turns out that there is a big problem with RF in the shack on 80m, 40m, and 30m, manifesting itself as computer lockups when transmitting, flickering of the fluorescent lights, and a weird sensation in my head (this can't be a good thing). The radio and operating position

are less than a dozen feet from the antenna (most likely much too close).

I received some tips from Steve (WA1KBE) which I promptly implemented, and these ideas helped a lot! I removed the coax and connected the downspout via one wire to the random wire post of the antenna tuner. This allowed me to tune every band to 1:1 SWR - an improvement! Also, the addition of 66 feet of wire to the ground post of the radio, with the wire outside of the house laying on the ground, removed the RF in the shack on 30m - another improvement! However, with the good comes the bad, and now there is serious RF in the shack on 10m when transmitting only 5W. I guess I have a bit to learn about proper RF grounding. Until I really solve this problem, I'll limit my use of the downspout antenna to QRP power levels.

I have decided to pursue another option. A gutter and downspout as an inverted L antenna isn't the best choice if other options are available. Operating within a dozen feet of an antenna on anything other than QRP power levels probably isn't such a smart idea, either. Scott (NE1RD) contacted me with a potential solution. We have decided that I should put up a set of vertical dipoles much farther from the house. This should remove the RF from the shack, and it should put me at a safe distance from the antenna (about 100 feet). In addition, it should give me much more desirable radiation patterns on those bands. I'm eager to see how this works. The plan is to put up these antennas before Christmas so that I'll be ready to operate as K3Y/1 in January for the SKCC CW event. I really hope that the weather cooperates. Stay tuned for further updates.

I'd like to wish everybody a Merry Christmas, Happy Hanukkah, and a Happy New Year!

73 de Andy KB1OIQ

Next PART Meeting – January 17th 7:30 PM – Westford Police Station

Upcoming PART Meetings/Events

December 20th, 2011

- Annual Christmas Dinner. Cocktails: 6:00, Dinner: 6:30 -9 p.m. Yangtze River, 584 King St. Littleton (<u>NO regular meeting</u>)

January 7th, 2011

- PART monthly breakfast. Westford Regency. 8-10 AM (\$14/\$9; kids: \$8 – see article below)

January 17th, 2011

- PART Meeting. 7:30 -9 p.m. Westford Police station

Treasurer's Report

PART Treasury 18-October-2011 thru 14-November-2011

		Repeater	Checking
	General Fund	Fund	Total
Old Balance	\$3,028.29	\$605.82	\$3,634.11
Income	\$25.00	\$0.00	\$25.00
Expenses	(\$144.47)	(\$0.00)	(\$144.47)
Net	(\$119.47)	\$0.00	(\$119.47)
New Balance	\$2,908.82	\$605.82	\$3,514.64

PART Membership Demographics as of 6-December-11

	Households	Individuals
	(New + Renew)	(New + Renew)
Full (\$25)	43(14+29)	43(14+29)
Senior (\$15)	24(3+21)	24(3+21)
Family (\$30)	8(1+7)	18(2+16)
Student (\$15)	0(0+0)	0(0+0)
Associate (\$10)	0(0+0)	0(0+0)
Grand Total	75(18+57)	85(19+66)

Newest PART Members:

Steven/WB8WGY (Lowell)
Brian/W1BP (Westford)
Ron/KB1UXT (Pelham, NH)

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* To pay dues *
PART, P.O. Box 503, Westford, MA 01886-0015
-or-
Club Meeting, Westford P.D., 7:30PM, 3<sup>rd</sup> Tuesday
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Monthly PART Events

- Every Sunday, 8 PM PART Net on 146.955 repeater
- Every 3rd Tuesday, 7:30 PM PART Meetings at Westford Police station
- Every Wednesday, 6 AM, Owl Diner Lowell Breakfast
- Every 1st Saturday, 8 AM, Regency Inn Westford PART Monthly Breakfast

The Night Before Christmas -- From a Ham's Perspective:

Just in time for the Holidays, Gary Pearce, KN4AQ, has created a video version of Clement Clark Moore's poem A Visit from St Nicholas -- more commonly known as The Night Before Christmas -- but Pearce's version has a decidedly Amateur Radio twist. With a guitar accompaniment by Don Mercz, WA3AYR, A Ham's Night Before Christmas features QST magazine covers, Gil cartoons and Christmas-themed QST advertisements from days gone by. http://www.youtube.com/watch?v=c 9REVC4dtc Click on the link to watch the video on the ARRL YouTube channel.



Repeater Nets

146.955 Nets – There are a number of nets that are regularly scheduled on the 955 repeater.

- Sunday night at 2000/8:00 PM Sunday Night PART Net every
- Sector 1C RACES Net this net occurs the 1st Monday or every month (except when it is a holiday). Skywarn and ARES Nets these nets are spontaneous when local conditions warranted.

NOTE: You can LISTEN ONLY to this repeater audio by linking to this URL: http://www.radioreference.com/apps/audio/?feedId=6253

442.450 D-Star Nets - There are a number of nets that are regularly scheduled.

- Sunday 8:00 PM Ozark Mtn D-STAR Net Reflector 001C
- Tuesday 8:00 PM New England Amateur D-STAR Net Reflector 010C

NOTE: The Port B node (442.450) is connected to <u>REF010C</u> Mon – Fri from 10:00 am until 3:30 pm. The Port C node (145.330) is connected to <u>XRF019B</u> usually 7x24 unless changed by users.

Users can LISTEN ONLY to D-Star Reflector 10C by linking to this URL: http://www.radioreference.com/apps/audio/?feedId=5031

Monthly PART Breakfast

Don't forget the monthly PART breakfast the 1st Saturday of each month at the Westford Regency Inn at 8 AM. The full hot & cold buffet breakfast costs about \$14 (includes tip) per person, a cheaper, lighter fare is available for adults and children. **NOTE: PLEASE let the folks who are settling the bill with the staff know whether you had a full or continental breakfast!**



Monthly Breakfast Pricing

Andy Stewart (KB10IQ)

The full breakfast is \$10.95 + 18% + 6.25% = \$14.00 (rounded up slightly). This price is unchanged. I'm showing the math for completeness and full disclosure.

Summary:

Continental breakfast: \$9.00 (new price) Full breakfast: \$14.00 (same price)

Kid's breakfast: \$8.00





Holiday Dinner

You and a spouse / guest are invited to: Annual PART winter holiday Dinner

<u>December 20 2011</u>

Cocktails at 6:00pm (cash bar) Raffle Inspection 6:30 pm Dinner at 7:00 pm

Yangtze River Restaurant

584 King Street (Route 110) Littleton, MA 01460 Phone: (978) 486-0500

http://www.yangtzeriverlittleton.com/





YANGTZE RIVER

RESTAURANT

Yes, this is the third Tuesday of the month. This dinner party takes the place of our regular December meeting.

\$30.00 per person [member and guest] covers your buffet and tickets to the raffle with prizes chosen for amateur and (non-amateur) guest alike. Payable at the door

Advance reservations are necessary in order to properly select raffle gifts. Reply to: Hugh Maguire,

N1QGE hulin127@verizon.net by or before December 13th 2011

The Fine Print: 45 attendees needed to meet the (big) room guarantee. A headcount of Amateur and non-amateurs is needed to properly select & purchase raffle prizes. Number of prizes will be equal to the reservation head-count on December 1st 2011. Payment in cash (preferred) or check made out to PART. Cash bar. This event is subsidized by the club treasury - non members will be charged \$45.00.



Member Contributions

A multiple use 12V battery box

Rich Crisafulli (AB1HD)

At a recent PART monthly meeting we had a Show & Tell where I had brought in a battery box. I built this for the purpose of having battery backup due to the recent weather that had us without power for many days, specifically Hurricane Irene and the October Nor'easter. I wanted something that could be used to power a small TV using an inverter, recharge cell phones and be useful for other miscellaneous tasks without having to take off the cover in order to access power.

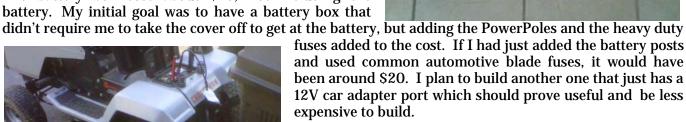


The box used for this project was found at Walmart for \$13 and the battery is a Marine deep cycle rated at 115A that I got at Costco for \$83. While at Wal-Mart, I also got battery posts for \$3 that would allow me to use the battery box as an emergency jump starter and give easy access to hook up devices, such as an inverter. For safety, I used two 100A fuses, one for each battery terminal. The fuses I used were designed for high-end automotive stereo equipment and cost \$18 for the pair, but I could have

saved some money

and used a blade type of automotive fuse instead. At HRO at saw a dual PowerPole connector for \$9 that I felt would be useful to put into the cover of the box. This was installed by just cutting out the plastic with a sharp knife and just snapping it into place. Afterwards, all that was left to complete the project was to get about 6 feet of 10 gauge wire along with some connectors from Home Depot.

The battery box cost about \$45, not including the battery. My initial goal was to have a battery box that





When not in use, I have it connected to a small solar panel to keep the battery charged. When fully depleted, I use a 12V car battery charger to bring it back to full capacity. If needed, the case makes it easier to bring someplace with power to recharge it.

Soon after I completed this project, I went to go start my lawn tractor and the battery was dead. So I attached the battery box to the tractor using a jumper cable and it started right up!

Bo Budinger (WA1QYM)

This year's early Fall snow storm was a truly good example of why we all should have emergency back-up power. I have lived in Westford since 1971. During that time I have witnessed easily a dozen times when we have had significant power outages. They generally come in the early winter and the end of winter when the precipitation falls in the form of ice rather than snow. The longest time I have been without power has been a whole week. That took place back in the late 1970's. When I lose power it is particularly critical as I am not on a community water system but rely on a well that is driven by an electrical pump. Not only do I lose light and heat but also my source of water.

Two years ago I decided to look into what was necessary to power my home during extended electrical outages. I did not want to spend a huge amount of money (there are systems out there costing \$10,000 or more that are all automatic and instantly come on when they sense a loss of power) but I wanted one that will power the whole house and be relatively easy to maintain. I realized that this system would seldom be used so I had no problem with the idea that I would have to do a bit of work to set it up when power was out. A generator system that could easily be tied into the house wiring through the appropriate switching network looked like the best choice.



The first decision was what generator to buy. This depended on how big of a generator I needed. The generator had to be able to power the high starting current components of the house such as the water pump, the furnace and the refrigerator. It had to have a four prong 240 volt outlet. I had found, from previous experience, that a 3000 watt generator was just barely able to start my water pump. So, I opted for a GENTRON Pro2 (7500 watt peak) gas powered generator. This generator (shown in Figure 1) cost less than \$800 and had an electric starter. It has a 13 hp engine and a 6 gallon gas tank that only needs refilling every 9 hours when under load. It has two 120 volt outlets and a 240 volt 4 prong twist outlet along with a 15 volt DC outlet.

Figure 2

The second decision was how to connect the generator power to the electrical system in the house. I chose a Gen/Tran 10 circuit transfer switch. (Figure 2).

Transfer switches become more expensive the higher the number of switching positions. The choice of a 10 position switch allowed me to switch the generator to the critical home circuits: water pump, furnace, radio shack, kitchen etc. but not all the circuits in the house. This particular transfer switch has two power meters (one for each leg of the 240 volt supply) that show how much power is actually being drawn from the generator. The generator is connected to

much power is actually being drawn from the generator. The generator is connected to the transfer switch through a 20 foot cable connected to a plug on the outside of the house. (Figure 3). The transfer switch costs me about \$300 and the installation cost about \$400.



I am happy to report this system ran flawlessly during our last four day power outage. It hardly even blinked when the water pump or the refrigerator or the furnace came on. The power meters on the transfer switch generally read less than 1000 watts except for the few times I ran the 1.5 KW space heater in the radio shack. The family has happy with the arrangement and the only drawback I could see was that every 9 hours we had to shut the generator down for refueling. This generator is noisy but one gets used to it after a while. It is outside and the noise tends to get muffled.

Greater Boston Net Directory

Daily 5:30 pm Eastern Mass/Rhode Island Phone Net (NTS) 3.915
Daily 7 and 10 pm Eastern Mass/Rhode Island CW Net (NTS) 3.658

Daily 8 pm Eastern Mass 2M Traffic Net (NTS) 145.230 (PL 88.5)

Daily 8 pm Slow Speed CW Net 28.160

Daily 10:00 pm Heavy Hitters Traffic Net (NTS) MMRA-linked repeaters:

146.610, 146.670, 146.715, 146.820, and all 222 and 440

repeaters

First Mon 8:30 pm EMA Section ARES Net 146.610 and all MMRA links

Mon 9 pm BARC Club Net 145.230 (PL 88.5)

Tue 8 pm MMRA Club Net 146.610 and all MMRA links

Wed 8 pm Wellesley Amateur Radio Society Net 147.030; 444.600 (PL 88.5)

 Wed 9 pm
 HHTN Swap Net
 146.640

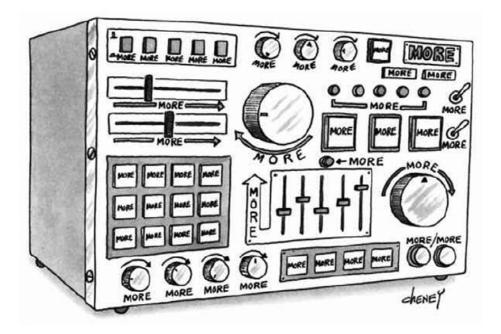
 Thu 8:30 pm
 AMSAT Net
 146.640

 Sat 9 am
 Northeast SATERN Net
 7.265

 Sun 9:30 am
 Yankee SSB Net
 50.275

Sun 8 pm Algonquin Amateur Radio Club Net 446.675 (PL 88.5)
Sun 8 pm Westford PART Net 146.955 (PL 74.4)

Sun 8:30 pm NSRA Net (with Newsline) 145.470



The latest gotta-have-it rig.

Amateur Radio News



House-Passed Payroll Tax Bill Includes Amateur Radio Study

Thursday, December 15, 2011, 6:14:00 PM

The *Middle Class Tax Relief and Job Creation Act of 2011* (**HR 3630**) -- the bill to extend the payroll tax reduction that passed the US House of Representatives on Tuesday, December 13 -- includes among its many other provisions the "Jumpstarting Opportunity with Broadband Spectrum Act" or "JOBS Act" that passed the Communications and Technology Subcommittee on December 1.

NTSB Urges States to Ban Cell Phone Use by Drivers

Thursday, December 15, 2011, 3:04:00 PM

On Tuesday, December 13, the National Transportation Safety Board (**NTSB**) recommended that States ban the nonemergency use of *all* cellular telephones and other "portable electronic devices" (PEDs) by drivers of motor vehicles. This would include hands-free cell phone operation and all text messaging while mobile.

Amateur Radio Balloon Flight Crosses Atlantic, Sets Records

Thursday, December 15, 2011, 2:33:00 PM

Ron Meadows, K6RPT, and his son Lee -- leaders of the **California Near Space Project** -- successfully launched an Amateur Radio high altitude balloon on Sunday, December 11 at 4:43 PM PST. The balloon reached a cruise altitude between 105,000 and 115,000 feet, where it continued its travel across the United States, the Atlantic Ocean and Spain and into the Mediterranean Sea.

Deadline Approaching for Hams to Recommend Updates to Microwave Band Plan

Wednesday, December 14, 2011, 3:30:00 PM

Attention microwavers! An ARRL Ad Hoc Committee has been tasked by the Board of Directors with recommending updates to the ARRL band plans for the amateur bands between 902 MHz and 3.5 GHz. If you are now active on any of these bands or are developing plans to do so, the committee would like to hear from you by Thursday, December 15.

ARRL Warns Members to be Aware of E-mail Scams

Tuesday, December 13, 2011, 1:45:00 PM

Many ARRL members with **arrl.net** e-mail accounts have recently received bogus e-mails in a "**phishing**" attack. These are scams designed to scare people into e-mailing back personal information -- such as user names and passwords -- to the scammer at an unknown address. This particular attack was more sophisticated than usual, but far from unique.

Ham Radio in Hollywood: Comedian Tim Allen Stars as Radio Amateur on New TV Show

Monday, December 12, 2011, 2:08:00 PM

Tim Allen -- star of *Home Improvement*, *Toy Story*, *The Santa Clause* and *Galaxy Quest*, just to name a few -- stars in *Last Man Standing*, an ABC comedy airing at 8 PM (EST) on Tuesday nights. Allen plays Mike Baxter, KA0XTT, a married father of three and the director of marketing at an outdoor sporting goods store in Colorado whose life is dominated by women.

50th Anniversary of OSCAR 1

Monday, December 12, 2011, 7:15:00 AM

On December 12, 1961 the first Amateur Radio satellite took to the skies. Known as OSCAR 1 (Orbiting Satellite Carrying Amateur Radio), the satellite was part of a payload launched from Vandenberg Air Force Base aboard an Agena rocket. It was inserted into a 431 X 245 kilometer orbit inclined about 81 degrees to the Earth's equator.



FCC Commissioner Michael Copps Announces Resignation

Tuesday, December 13, 2011, 2:05:34 AM

On Monday, December 5, FCC Commissioner Michael Copps notified President Barack Obama that he would resign as Commissioner effective January 1, 2012. If the Senate does not confirm a successor prior to Copps' departure, the FCC would be down to three commissioners: two Democrats and one Republican. Only three sitting Commissioners may be members of the same political party. At present, Chairman Julius Genachowski, Copps and Mignon Clyburn are Democrats. Ever since Meredith Attwell Baker left the Commission in June 2010, Robert McDowell has been the lone Republican.

New Rules for 60 Meters Have Yet to Take Effect

Tuesday, December 13, 2011, 2:04:24 AM

Last month, the FCC released a Report & Order (R&O), detailing new rules for the 5 MHz (60 meters) Amateur Radio band. These rules have not been published in the Federal Register. In order to be official, the rules must be published in the Federal Register and will take effect 30 days after the publication date. Any radio amateur who is operating under the new rules before this time is in violation of the current rules. The official date for these new rules will be announced on the ARRL website as soon as the information is available.

QRP Group Offers Free Kit Building Services to Hams with Physical Limitations

Tuesday, December 13, 2011, 2:03:45 AM

Members of the Four States QRP Group (4SQRPG) -- a group of kit aficionados centered in Kansas, Missouri, Oklahoma and Arkansas -- are offering kit building services at no charge to hams who, due to physical limitations, need assistance with building. Hams who wish to have kits built for them need to visit the 4SQRP website and purchase one or more of the six kits offered.

Repeater Information

Repeater Interference

The 146.955 repeater continues to see interference to existing conversations as well as at random quiet times throughout the day and night. The repeater interference committee needs your help in collecting data. If you hear any type of interference, please report the following info to "**repeater**" at "wb1gof.org":



- Time: When did the event happen?
- Observing location: Where were you? Were you mobile?
- Frequency: Input only (146.355 MHz)
- What you heard: Voices, tones, kerchunking or whatever.
- Signal strength: Either by ear (noisy, quiet or full quiet) or S meter
- Radio: To get an idea of the reporter's radio situation.

* Most important - what direction: How did you determine direction? This is the most essential piece of information. Even if it's an estimate as in "Roughly east" or "from the Northeast" it's useful. NEVER EVER reply or direct any thing to the sick person causing the interference. Because some of us have answered this person, he knows we are aware of him and that is what keeps him doing it. Also since you are communicating with a non IDing station you are operating just as illegally as he is. YOU ARE BROADCASTING! NEVER TALK ABOUT INTERFERENCE on air. NEVER

If you are interested in assisting in helping us identify the sources of interference, contact Terry-KASSCP.

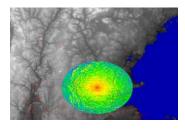
EmComm events and repeater use

Most everyone knows that the 146.955 repeater is used during times of emergency situations, drills and exercises. Skywarn and the monthly RACES drills are the normal events.

So what does this mean to those that are just looking for regular QSOs with other users? It means that if you are in a regular QSO and there is a significant weather situation that has been getting press/air-time lately, you can expect that if severe weather develops in our area, the folks from Taunton-WX1BOX may interrupt a QSO and ask anyone on frequency what may be happening weather wise. The BOX operator will probably ask for specific information, hail, wind damage, property dame from lightning or wind, etc. Please give him the information he needs or tell him that you've not heard of any such activity. You don't need to tell him it is sunny in Nashua!

There may come a time when an unexpected emergency situation arises. These will significant events that may affect life and property. This is where ARES/RACES activity may step in. Usually an NCS will interrupt a QSO and announce the situation and ask for a QSO to cease or to be "aware" of the possibility of priority calls/traffic. Please make sure you leave breaks between transmissions so stations with traffic can get in between QSOs. If there is enough traffic, it may be necessary for your existing/interrupted QSO QSY to another frequency. You should use your best judgment or check with the NCS on what he feels is best.

If you have any questions, please feel free to correspond with either Hugh-N1QGE (Westford RACES Officer and Skywarn NCS) or Terry-KA8SCP (regional RACES Officer and Skywarn NCS). They will be more than happy to talk about these programs with you.



New additional repeater info is now available on the PART <u>website</u>. Check out the links to the summit information as well as coverage and plot plans maps for the WB1GOF repeaters.

PART Gear

The PART Quartermaster has lots of great PART-ware for sale including mugs and shirts. You can get information how you can obtain your PARTware at the monthly club meetings.

Club members are also encouraged to obtain an official PART badge from The Sign Man (http://thesignman.com/clubs/part.html) PLEASE NOTE: There is a new PART badge available if you'd like to order one. Price for badge is \$15 which includes shipping and handling.



EmComm

RACES – The WB1GOF 146.955 repeater is used on the first Monday of every month (except federal/state holidays) for RACES starting at 1930 local time. If you are interested in being part of the local emergency communications team in your community, feel free to contact any of the following

Terry Stader – KASSCP, MEMA Region 1 RACES Officer Hugh Maguire – N1QGE, RACES Officer, Town of Westford Bill Ohm – W1OHM, RACES Officer, Town of Chelmsford

We need radio operators that can pass messages on to the local emergency management directors in several towns in northern Middlesex County.



Skywarn - The WB1GOF 146.955 repeater is also used for reporting significant weather events to the National Weather Service from our local spotters. We expect to have a local Skywarn training class in 2010, more information as it becomes available. You can provide valuable information even if you have not attended one of the training sessions. Listen to the Skywarn Net Control Station for reporting criteria, when you have information that qualifies, please advise him with your report.

Situational Awareness – Recently, the Massachusetts Emergency Management Agency has asked the Amateur Radio community to provide situational awareness and disaster intelligence information within your local community via RACES, ARES and/or Skywarn stations. Significant events such as widespread power outages can be reported and by agencies such as MEMA to evaluate the scope of a blackout for example. Initially, you should try and contact RACES or ARES operators on the Westford 146.955 repeater to pass this information. More on this new program will be forthcoming.

PART Sunday Night Net – The PART Net each Sunday night is an IMPORTANT part of our regional EmComm function. With each station that checks in from the surrounding communities, we test our ability to communicate vital information to the ham radio community. Sure we announce club info but we can also communicate regional disaster news and serve as a "hub" for news of situations in our communities. The repeater is on a generator, so even if we loose power in the region, an HT with a supply of batteries will reconnect you to other local hams.

PARTicles © 2010, a publication of PART of Westford, MA - WB1GOF

This month's editor: Terry Stader - KA8SCP

PART official mailing address is: PART, PO Box 503, Westford, MA 01886

Our website is: http://wb1gof.org Our forum is: http://wb1gof.net/forums/ Contact us at: info@wb1gof.org

