



PARTicles

The newsletter of PART of Westford, MA – WB1GOF

August 2010

President's Column

Dennis Blanchard (K1YPP) is coming! Dennis will be our featured speaker at the August 2010 PART meeting. Dennis will talk about his trip on the Appalachian Trail and his use of his QRP rig. Dennis also has a book entitled, "Three Hundred Zeroes", which describes his adventure.

Boxboro is coming! On August 27 - 29, 2010, the Boxboro hamfest and convention will be held. There will be a flea market, speakers, vendor booths, and license exams. PART will be well represented at this event. Many of the speakers are from PART. In addition, PART will have some space in the flea market, selling items to raise money for the repeater fund. I know that many members are planning to attend. It will definitely be a good time. Be sure to take a look at <http://www.boxboro.org> for more information.



PART elections are coming! Every year in September, we have the PART election of officers. Each officer serves a one year term. The elected officers are President, Vice President, Secretary, and Treasurer. Upon election, each officer becomes a voting member of the PART Board of Directors. The Board of Directors meet about four times per year. At these meetings, the board discusses club activities and makes important decisions about how the club operates. If you are interested in participating at this level, please contact Alan (K1ALL), who is collecting nominations and will be running the election.

John (G3BVU) is coming! John will be our featured speaker at the September 2010 PART meeting. John will be discussing antennae.

73 de Andy KB1OIQ

**Club Meeting – August 17th – Westford Police station – Public Meeting Room
53 Main Street, Westford, MA 01886
7:30 PM**

Upcoming PART Meetings/Events

Aug. 17, 2010

- Dennis Blanchard-K1YPP, Appalachian Trail QRP trip

September – PART Annual Elections

Balance of 2010

- Speakers have not yet been scheduled for these dates

We have a large membership, and I'm sure each of you knows somebody who would be an excellent speaker at a future PART meeting. Perhaps YOU would like the chance to address the club. All of you can help! Please send me email with contact information for prospective speakers, including your self. I'll work out the logistics with the prospective speaker. All of you collectively know a LOT more people than I do. With your help, I'm sure that we'll continue the PART tradition of having fine speakers at our monthly meetings. Thanks, and 73 de Andy KB1OIQ.



Treasurer's Report

PART Treasury between 16-June-10 and 20-July-10

	General Fund	Repeater Fund	Checking Total	
Old Balance	3250.30	934.01		4184.31
Income	70.00	135.96		205.97
Expenses	63.80	0.00		63.80
New Balance	3256.50	1069.98		4326.48

PART 2010 Membership Demographics as of 10-May-10

	Households (New + Renew)	Individuals (New + Renew)
Full	35 (8 + 27)	35 (8 + 27)
Senior	23 (3 + 20)	23 (3 + 20)
Family	7 (0 + 7)	14 (0 + 14)
Student	0 (0 + 0)	0 (0 + 0)
Associate	1 (0 + 1)	1 (0 + 1)
Grand Total	66 (11 + 55)	73 (11 + 62)

Upcoming Events

- Flea@MIT, 3rd Sun Apr thru Oct, Cambridge (<http://w1mx.mit.edu/flea-at-mit>)
- NE Division Convention Aug. 27-29, Boxboro, MA (<http://www.boxboro.org>)
- Fall NEAR-Fest Oct. 15th & 16th Deerfield Fairgrounds, NH (<http://www.near-fest.com>)
- Every Wednesday, 6 AM, Owl Diner Lowell – Breakfast
- Every 1st Saturday, 8 AM, Regency Inn Westford – PART Monthly Breakfast



The ARRL New England Convention

at the Holiday Inn in Boxborough, Massachusetts

AUGUST 27 -28-29, 2010

[See the Boxboro Program Schedule \(rev 1 as of 6/23/2010\)](#)

Amateur Radio News

Fire department needs ham (radios)

That is the tag line of a online article about Hurricane Hudson which came roaring thru New England on the evening of August 2nd. Hurricane Hudson was not real, but an exercise that brought many communications components from several agencies including MEMA and the local communities who chose to participate. Read more at: <http://www.wickedlocal.com/halifax/news/x897602722/Fire-department-needs-ham-radios>

As heard on the Net

Antenna Mystery

Bill K1NS wrote:-

At the NE corner of the Rte. 62 off ramp (exit 26) in Bedford, there's a couple of towers and beams, and several wire and vertical antennas. I have stopped there a couple of times, and the coax goes into a building that almost looks deserted. Are these ham antennas? Maybe, a company club? They look like they are tuned for amateur frequencies, but maybe they are industrial antennas?

Reply:

11th August 2010

K1NS de G3BVU BT

Bill,

No mystery at all. I am/was responsible for the installations. The towers and antennae belong to MBARC, the MITRE Bedford Amateur Radio Club.

The 60ft Rohn 45 tower has a full size, 20M, 5-element beam. We erected this back in the early 1980s. We assembled the beam on the ground and slid it up the upper guy wire using a standard Rohn Gin Pole. When Hurricane Gloria came through, the beam was damaged; several elements were bent and the associated insulators were broken. We brought the beam down, via the guy wire, repaired the damage and re-installed it, once again sliding it up the guy wire. If you look carefully along the beam's boom you will see that the boom is slightly bent. Gloria was a powerful hurricane!

The 90ft Rohn 25 tower was installed a few years later. It originally carried a large, Club built, 2M beam. More recently, and since hanging up my "soldering iron", the 2M beam was taken down. A 13MHz-30MHz commercial, twin boom, Log-Periodic Dipole Array antenna was installed. There's a "story" to this installation. The Log-Periodic was assembled on the ground and installed using a crane. But a problem was discovered when using it. It had a "multi-lobe, omni-directional"

pattern and apparently almost zero gain! The crane was brought back and the Log-Periodic lowered to the ground.

When assembling the beam, the team had committed a classic error. All of the elements on one side were connected to one boom; all of the elements on the other side were connected to the other boom. This makes for a very neat installation, BUT IT IS WRONG. If the team had read the assembly instructions or asked for help, or inspected the existing Log-Periodic antennae in MITRE's front field along Rte. 62 (which I had erected, starting in 1968 with the pair of zenith-looking antennae) they would have noticed that a Log-Periodic Dipole Array's elements connect alternatively, not consecutively, to the twin booms. After re-connecting the elements, the crane was again used to install the beam on the 90ft tower, where it resides today.

Over the years, a pair of wire element HF LPAs (vertical and horizontal polarized) were installed on 120ft towers. A 2-bay, 8-element, HF Beverage array was installed adjacent to Rte62. Along the Middlesex Turnpike, a twin (North looking and South looking on a common backscreen), 16 element, HF

steerable Phased Array was built. This has since been removed to make way for a new road to be built across the field.

Currently you will see a large microwave dish antenna and associated building in the Rte62 section. It is, I believe, fixed in both azimuth and elevation. If you stand some distance away, at right angles to its boresight, you can get a reasonably good estimate of its elevation angle by using your "schoolboy protractor". Since it is "fixed" and South looking you know it is looking at a geo-stationary satellite located on the equatorial plane. Using the elevation angle data, it is an easy exercise to calculate the longitude and sub-satellite point of the satellite and, from a published table of satellites, identify the actual satellite!

Q.E.D. quod erat demonstrandum (Ah, memories of my schoolboy years)
73s, de G3BVU/W1 SK

Jet Rally Aug 21 – 22, 2010

Jim Whelan- KX1M says:

For those interested in R/C Jets, there will be a Jet Rally this coming August 21st & 22nd. I was discussing this with some of the hams and we're thinking of taking a day and heading out there. Dick K1RWS was the first to invite me out there. I went out and brought my son along and had a great time watching people fly their jets off the runway at Gardner Airport doing all kinds of aerobatics hundreds of feet in the air. Some of these jets were 5 – 6 feet in length and wing spans 4-6 feet wide. Some single engine others two and fours engines. Just something else to do and hang out together! Who knows.... we may have some closet R/C Jet people among us! Hosted by Wachusett Barnstormers R/C flying club <http://sites.google.com/site/wachusettbarnstormers/>
Flyer is at <http://bvmjets.com/images/Flyers/NewEngland10.jpg>

EmComm news item

Western Mass. Section Emergency Coordinator (SEC) John Ruggerio/N2YHK will be leading the Worcester Emergency Communications Team (WECT) in a full day group training session some weekend this autumn. Akin to the Eastern Mass. section's acclaimed EmComm Workshops_, WECT members will review generic fundamentals such as the Incident Command System (ICS) organizational structure, and the assembly of personal Go Kits for disaster deployment. However, the session will also review region-specific processes, in order to ensure that everyone on the team has consistent training to support the Greater Worcester area. More information on WECT itself is available at their web site: <http://www.wect.org/news.php>

Local Nets

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

Sunday Night PART Net – every Sunday night at 2000/8:00 PM

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.

NVARC Slow Speed CW Net

Pete-KB1LZH reports that there is a Slow Speed CW Net being conducted by our neighbors in Pepperell. If you have some interest in learning CW and or learning how to interact in a NET, you might want to join the net on Tuesday and Thursday evenings, at 7:30 PM. The net is run by the NVARC in Pepperell. It is a good chance to develop skills in NET procedures and in developing CW capability. This net meets on 10 meters on 28.123 MHZ. The (usual) Net Control Operator is Bruce, K1BG.

Repeater News

442.450 WB1GOF UHF Repeater D-Star update

The D-Star settings for WB1GOF Port B D-Star system:

RX Freq: 442.450

TX Freq: 447.450

MYCALL: <your callsign>

URCALL; CQCQCQ

RPT1: WB1GOF B

RPT2: WB1GOF G (make sure this is set!)



We have seen a lot of new “faces” on the D-Star repeater. Many of these new users have indicated they’ll be joining PART and attending meetings.

We have recently started linking the port B system (i.e., the UHF frequency) to some of the D-Star nets that occur around the US (and beyond). Currently the repeater will automatically link to the New England Amateur D-Star Net on Tuesday nights at 8:00 PM local time. While this is a New England based net, there are stations and other repeaters from all over connected at various times. New to Sunday night (following the PART Net), we will be connecting to the Ozark Mountain D-Star Net. This is the “grand daddy” of nets and features Connie-KB0ZSG (look her up on QRZ) as the net control and draws participants from all over the world. This net used to start at 9 PM local time but it supposed to be moving to an earlier start time, 8 PM. No worries if this is so, there will be plenty of time to check in after the Sunday Night PART Net!

Repeater Interference

The 146.955 repeater continues to see interference to existing conversations as well as at random quite times throughout the day and night. The repeater interference committee needs your help in collecting information about this interference.

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.

Upcoming Repeater changes

The repeater technical committee members have been having discussions on the air and in person with other PARTers about the upcoming repeater changes. We thought it would be a god idea to put someof this in print for everyone to see.

The current repeater inside the communications building is currently in 2 19" equipment cabinets. The left cabinet holds the 2 meter/146.955 gear, the right contains the 70 cm/442.950 D-Star repeater as well as some common equipment located at the bottom. On top of the 440 cabinet is the new D-Star pieces and then behind the cabinet is the gateway computer



146.955 repeater

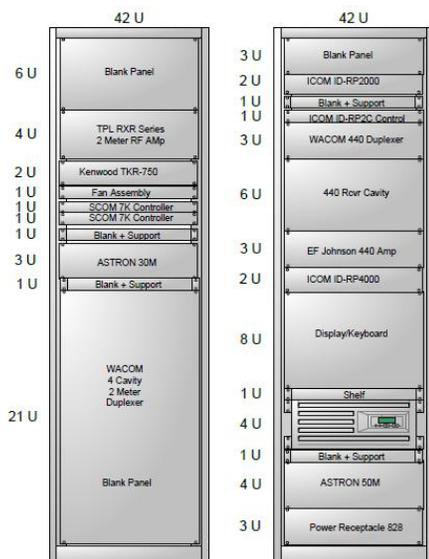


442.450 repeater



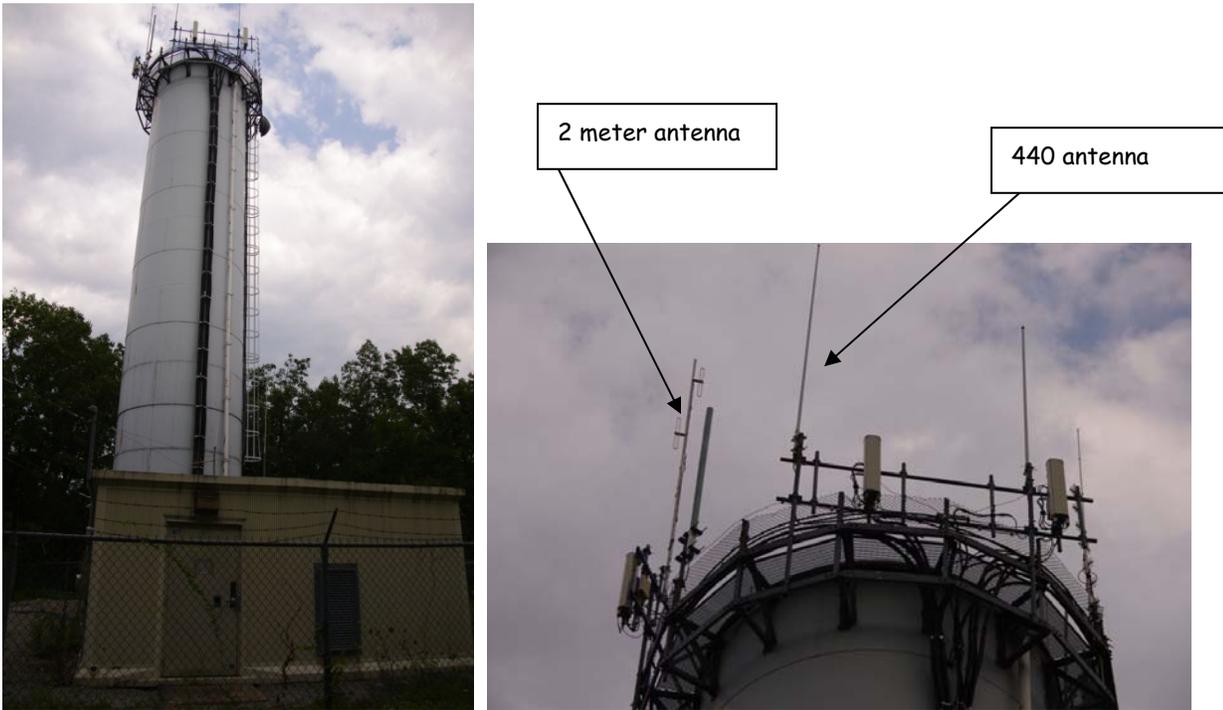
D-Star gateway computer

As part of adding a 3rd repeater (the new D-Star 2 meter repeater) to this site, we will be combining the existing equipment, removing some old, no longer required equipment and then adding the new gear in to 2 identical taller cabinets. As previously announced, there will be no change to the 146.955 system at all. The new 2 meter D-Star repeater will be operating on a new frequency and will share the same antenna as 955.



Initially we will be putting the new D-Star repeater on the old 2m link radio antenna we used to use but no longer do. This antenna (as shown on the right) is located on the top of the communications building, not at the top of the tower.





The antenna configuration as shown above will not be changing.

We have a number of PARTers that have offered to assist with the assembly of the cabinet environment. When we disassemble the existing configurations, we will be taking the two repeaters off the air for the day. We will be making announcements prior to this outage. We expect this work to be done shortly after Boxboro Hamvention weekend.

PART table at Boxboro

PART will have a sales table(s) full of high quality donated ham related equipment and books for sale. All proceeds will benefit the PART repeater fund.

Donations have been coming in and more are needed. All will be sold no reserve. Drop them off at 127 Coldspring Road, Westford (in the green shelter) or bring them with you. If they do not sell you still own them and you will need to pick them up over the next week. No tube type monitors!, other special policies apply to large and heavy items.

PART has reserved 3 spaces at the outdoor flea market. We plan to load up the "goods" on Friday night the 27th of August and arrive quite early on Saturday morning the 28th for the main event. This is planned to be a one day effort unless several volunteers step up to man the spaces for another day.

IMPORTANT -- I am looking for one or more "pop-up" type (about 10'x10') standing height tents to help with shelter from the sun and or rain. Please reply soonest if you can bring one and/or drop one off for our use on the 28th.

Hugh N1QGE

PART Gear

The PART Quartermaster has lots of great PART-ware for sale including hats, mugs, and shirts. You can get information how you can obtain your PART-ware 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) (<http://thesignman.com/clubs/part.html>)



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 folks:

Terry Stader – KA8SCP, 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.
- There is a Region 1 RACES meeting to be held on Saturday, March 20th at the MEMA Region 1 HQ in Tewksbury from 10:00 am to noon. Contact Hugh-N1QGE or Terry-KA8SCP for more information.

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.



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