



# PARTicles

The newsletter of PART of Westford, MA – WB1GOF

*Celebrating 40 years of public service 1975-2015*

July 2015

## President's Column

### - Andy Stewart (KB1OIQ)

This is definitely a busy time of year in the ham radio hobby, and it is a lot of fun as well! We just finished a very successful Field Day, which we will discuss at length at the next PART meeting. Please bring your constructive ideas of what went well, and what could have gone better. I submitted the paperwork for our Field Day score, which was lower than last year due at least in part to suboptimal band conditions. I was very pleased with the attendance at the GOTA station, which is the first GOTA station that I can remember being operated at a PART Field Day since 2007. I was also quite pleased with the decent article that appeared in a local newspaper. The weather wasn't so great on Sunday, but it had mostly cleared up by cleanup time.

As July 4th came upon us quickly after Field Day, the 13 Colonies Special Event station went on the air for 6 days of operating fun. Massachusetts was well represented with many operators logging several hundred contacts or more. We operated CW, SSB, and PSK31. As the K2H QSL manager, I collect the logs from each operator. For the first time in 5 years, I promptly received a log from every K2H operator - thank you! The Massachusetts QSO count was higher than last year, and the overall number of QSOs for the event continues to grow.

Many thanks to the gang that joined me at a local restaurant to fill out about 300 K2H QSL cards! I filled out about 50-75 more this weekend, and am all caught up. We definitely got the job done much earlier this year than in the past, largely due to your help. Charlie (K1PUB) will give us a full report at the next PART meeting.

I attended the ARRL New England Division Cabinet meeting on July 11th, 2015. Items that were discussed included the upcoming Boxboro Convention, legislation related to antennas and

HOAs/CC&Rs, current and potential future band allocations, and sources of interference, such as grow lights, and the relative quality of HTs from certain countries vs. the main 3-4 vendors.

The Boxboro Convention is coming up at the end of August, and I could use a few volunteers for the event. This year, I am the event coordinator for the convention. If you are interested in volunteering, please contact me at kb1oiq@arrl.net.

PART will be very well represented at the convention, which has an excellent series of presentations for both Saturday and Sunday. Fred (AB1OC), George (K1IG), yours truly, John (KB1MGI), and Terry (KA8SCP) will all be giving presentations during that weekend. Thank you all for your time and energy!

I've finished the project to make my station always operate on emergency power. A new 100Ahr battery, a N8XJK boost regulator, and some short (but heavier) wires have done the trick. Coupled with a solar panel and charge controller, I was able to easily operate 100W SSB in contest mode for 3-4 hours with only about 30-40% battery utilization. I don't typically operate for that many continuous hours, so I considered this a stress test, and the system passed with flying colors. I am now always operating in this emergency power (off grid) mode while at home.

During the September PART meeting, we will have our annual election of officers. We will have a Board of Directors meeting sometime in August to discuss a change in the meeting location, as well as decide who will be next year's Director at Large. The agenda for that board meeting is starting to materialize.

Have a lot of fun!

73 de Andy KB1OIQ

**Next PART meeting: Tuesday July 21<sup>st</sup>**

@1930 – Westford Police station

## Treasurer's Report

### PART Treasury between 19-May '15 & 15-June '15 (As of 16-June '15)

	General Fund	Repeater Fund	Checking Total
Old Balance	\$ 3,829.77	\$ 3,420.31	\$ 7,250.08
Income	\$ 145.00	\$ 51.26	\$ 457.22
Expenses	\$ ( 111.95)	\$ 0.00	\$ ( 111.95)
Net	\$ 33.05	\$ 51.26	\$ 84.31
New Balance	\$ 3,862.80	\$ 3,451.57	\$ 7,334.39

### PART 2015 Membership as of 7-July '15

Individuals (= New for 2015 + Renew for 2015)			Households (= New for 2015 + Renew for 2015)		
Full (\$25)*	43	(= 9 + 34)	43	(= 9 + 34)	
Senior (\$15)*	42	(= 4 + 38)	38	(= 4 + 38)	
Family (\$30)	19	(= 2 + 17)	9	(= 1 + 8)	
Student (\$15)	0	(= 0 + 0)	0	(= 0 + 0)	
Associate (\$10)	0	(= 0 + 0)	0	(= 0 + 0)	
<b>Grand Total*</b>	<b>104</b>	<b>(= 11 + 83)</b>	<b>94</b>	<b>(= 10 + 74)</b>	

ARRL members:\* 93 / 89%

(Including ARRL Life members:\* 8)

NOTE: \* Starred lines changed since 3-June '15

#### Latest new PART members:

Jonathan/KB1ZRB (Haverhill MA)  
Fred/W1FRR (Windham, NH)  
Gary/KC1GDO (Wakefield MA)  
Bob/KC1DZU (Concord MA)

##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

Renew online by PayPal at: [http://www.wb1gof.org/F\\_join/part\\_dues.html](http://www.wb1gof.org/F_join/part_dues.html)

## Your Call EXPIRED?

### How to avoid losing your license...

The USA Callsign database contains about 750,000 listings and at any given moment, approximately 30,000 of these callsigns are expired! Over 1,000 old callsigns are returned to the unused pool each month! <http://www.qrz.com/expired/>



## Upcoming PART Meetings/Events

### July 21<sup>st</sup> 2015

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

### August 1<sup>st</sup> 2015

- PART monthly breakfast. Westford Regency. 8-10 AM (\$15/\$9; kids: \$8 – see note below)

### August 18<sup>th</sup> 2015

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

### September 5<sup>th</sup> 2015

- PART monthly breakfast. Westford Regency. 8-10 AM (\$15/\$9; kids: \$8 – see note below)

### September 15<sup>th</sup> 2015

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

### October 3<sup>rd</sup> 2015

- PART monthly breakfast. Westford Regency. 8-10 AM (\$15/\$9; kids: \$8 – see note below)

### October 20<sup>th</sup> 2015

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

## Monthly PART Meetings and Social Events

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

## Ham Fleas/Events

### Flea at MIT

Sunday - 19 July, 16 August, 20 September, 18 October 2015

Buyers \$6.00, 9:00AM-2:00PM (\$1.00 discount with flyer:

<<http://web.mit.edu/wimx/www/swapfest/swapfest-2015.04.pdf>> )

Parking Lot & Garage on Albany St. Cambridge, at Portland St.

<<http://goo.gl/maps/KpTQO>>

<<http://web.mit.edu/wimx/www/swapfest/buyers-parking.pdf>>

### New England Convention

Friday, 21-Aug'15, Saturday, 22-Aug'15 and Sunday, 23-Aug'15

\$15.00 (Covers Fri/Sat/Sun)

<<http://www.boxboro.org/>>

Holiday Inn

242 Adams Pl., Boxboro, MA

<<http://www.boxboro.org/directions.html>>

### Links to hamfest websites (partial)

Boxborough MA	NE ARRL Conv	<a href="http://www.boxboro.org">http://www.boxboro.org</a>
Adams MA	N BerkshireARC	<a href="http://www.nobarc.org/hamfest.htm">http://www.nobarc.org/hamfest.htm</a>
Dartmouth MA	SEMARA	<a href="http://www.semara.org/flea.htm">http://www.semara.org/flea.htm</a>
Falmouth MA	FARA	<a href="http://www.falara.org">http://www.falara.org</a>
Feeding Hills MA	MTARA	<a href="http://www.mtara.org">http://www.mtara.org</a>
Framingham MA	FARA	<a href="http://www.fara.org">http://www.fara.org</a>
Marlboro MA	AARC	<a href="http://www.qsl.net/n1em/2015FleaFlier.pdf">http://www.qsl.net/n1em/2015FleaFlier.pdf</a>
Newton MA	Waltham ARA Auction	<a href="http://www.wara64.org/auction">http://www.wara64.org/auction</a>
Rockport MA	CAARA	<a href="http://www.caara.net">http://www.caara.net</a>
S Dartmouth MA	SEMARA	<a href="http://www.semara.org">http://www.semara.org</a>

Wakefield MA	Photographica	<a href="http://www.phsne.org">http://www.phsne.org</a>
Westford MA	NEAntiqueRC	<a href="http://www.nearc.net">http://www.nearc.net</a>
Whately MA	FranklinCARC	<a href="http://www.fcarc.org/news.htm">http://www.fcarc.org/news.htm</a>
Worcester MA	WPI ACM	<a href="http://acm.wpi.edu/swapmeet">http://acm.wpi.edu/swapmeet</a>

## ***New England Area Ham/Electronic Fleas:***

<http://web.mit.edu/w1gsl/Public/ne-fleas>

### **2015**

8 Aug Milo ME PARC @Kiwanis	George WA1JMM 207 441 6112 A+
8 Aug St Albans VT STARC @VFW	Arn N1ARN 802 309 0666 A+
16 Aug Cambridge MA Flea at MIT	Mitch 617 253 3776 F
21, 23 Aug Boxboro MA FEMARA NE Conv	Mike K1TWF 978 250 1235 A
30 Aug Adams MA NoBARC @BoweFld 6:30sell 7:30buy	Eric KA1SUN 413 743 9975
5 Sept Windsor CT VR+C Mus 115 Pierson LN @8AM Outdoor	John 860 673 0518 +
12 Sept Windsor ME AARA @8 @FG Rt32	Bill K1NIT W+
13 Sept Ballston Spa NY SCRACES @FG \$10@7	Darlene N2XQG 518 587 2385
13 Sept Newtown CT CARA @TownHall\$5@8:30	Ron AB1RJ 203 938 7007
19 Sept Forestdale RI RIAFMRS @VFW \$5/Sp@8	Pete AA1PL 401 639 4484
19 Sept Fishkill NY MtBARC @QWL DnStCorr	Adam KC2DAA 845 849 3666 A+
19 Sept Alexander ME SCVARC \$5@8 @EISch	Perro WA4KEO W+
20 Sept Cambridge MA Flea at MIT	Mitch 617 253 3776 F
26 Sep Brookline, NH NEARC Antique \$5@8:30 \$10@7:30	Bruce 603 772 7516 W+
16, 17 Oct Deerfield NH NEARfest XVIII @FG	Mike K1TWF 978 250 1235 +
17 Oct Longueuil PQ CRARivSud \$7@9 \$10/T@6	Noel VE2BR 450 691 2009 R
17, 18 Oct Wakefield MA Photographica @AmericalCtr ~photo~	John 781 592 2553
18 Oct Cambridge MA Flea at MIT	Mitch 617 253 3776 F
18 Oct Meriden CT Nutmeg @Sheraton	John N1GNV 203 440 4973 A+
18 Oct Queens NY HOSARC @HoS	Stephen WB2KDG 718 898 5599 +
25 Oct Hicksville NY LIMARC @LevitHall \$6@9 \$20/T	Richie K2KNB 516 694 4937 W+
31 Oct Gails Ferry CT TCARC @FireCo	Darryl WA1DD 860 443 7799 A+
14 Nov Bourne MA FARA @UpperCC VoTech \$5@9 \$10/S@7	Ralph N1YHS 508 548 0422 +
5 Dec Windsor CT VR+C Mus 115 Pierson LN @8AM Indoor	John 860 673 0518 +

### **2016**

6 Feb Springfield VT CVFMA.org @VFW @8-12	Steve N1QDT 802 885 8110 +
27 Feb S Burlington VT RANVT @HI x14 I89	Mitch W1SJ 802 879 6589 W+
5 Mar Chicopee MA MtTomARA @MooseLodge @8:30 S@6:30	Mary KB1ME 413 222 1990 +
6 Mar Westford MA Radio @Regency Antique	Bruce 603 772 7516 +
12 Mar Dayville CT ECARA @StJosephCh \$3@8A \$10/T	Peter K1LNX 401 603 1485 +
25,26 Mar Lewiston ME AARC ME Conv @Ramada @8	Ivan N1OXA 207 784 0350 +
29,30 Apr Deerfield NH NEARfest XIX @FG	Mike K1TWF 978 250 1235
7 May E Greenbush NY EGARA @FireCo \$6@8 \$6/T@6	Tom KC2FCP 518 272 1494 +
14,15 Oct Deerfield NH NEARfest XX @FG	Mike K1TWF 978 250 1235



**CAN YOU BELIEVE IT, PART IS  
40 YEARS OLD THIS YEAR!**

## PART Field Day 2015

### Open Letter to Concord Rod and Gun Club

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Henry Dane  
President, Concord Rod & Gun Club  
74 Strawberry Hill Road  
Concord, MA 01742

Dear Mr. Dane,

On behalf of the Police Amateur Radio Team (PART) of Westford, MA, I would like to thank the Concord Rod & Gun Club for the use of its facilities during the weekend of June 27 – 28 for the annual American Radio Relay League (ARRL) Field Day. Field Day is a nationwide communications exercise with over 40,000 participants that tests the ability of amateur radio operators to set up stations and operate using only emergency power and simulate conditions encountered during natural disasters and communications outages. Recognizing the importance of this event, Governor Baker proclaimed June 27 – 28 as “Amateur Radio Weekend” for the Commonwealth of Massachusetts.

Your land and clubhouse were perfect for this exercise and helped us achieve all our goals. We were able to set up and operate seven stations, from low frequencies using very long antennas, through satellite communications, and we contacted other stations in almost all 50 states and several foreign countries. We hosted over 75 PART club members and guests, and official visitors included representatives from the Acton Police Department, Billerica Emergency Management Agency, and the Concord Fire Department. The Westford Eagle newspaper and WickedLocal community website provided media coverage and highlighted the Rod & Gun Club venue.

The generosity of Concord Rod & Gun Club in providing its facilities during this major public service exercise is commendable. PART of Westford is very appreciative, and we look forward to continuing our association.

Yours truly,  
Andy Stewart, KB1OIQ  
President, PART of Westford

## Digital Ham'ing - WSPR

### My experiments with WSPR - a QRP digital wonderland

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- *Tim Miranda – KC1AJJ*

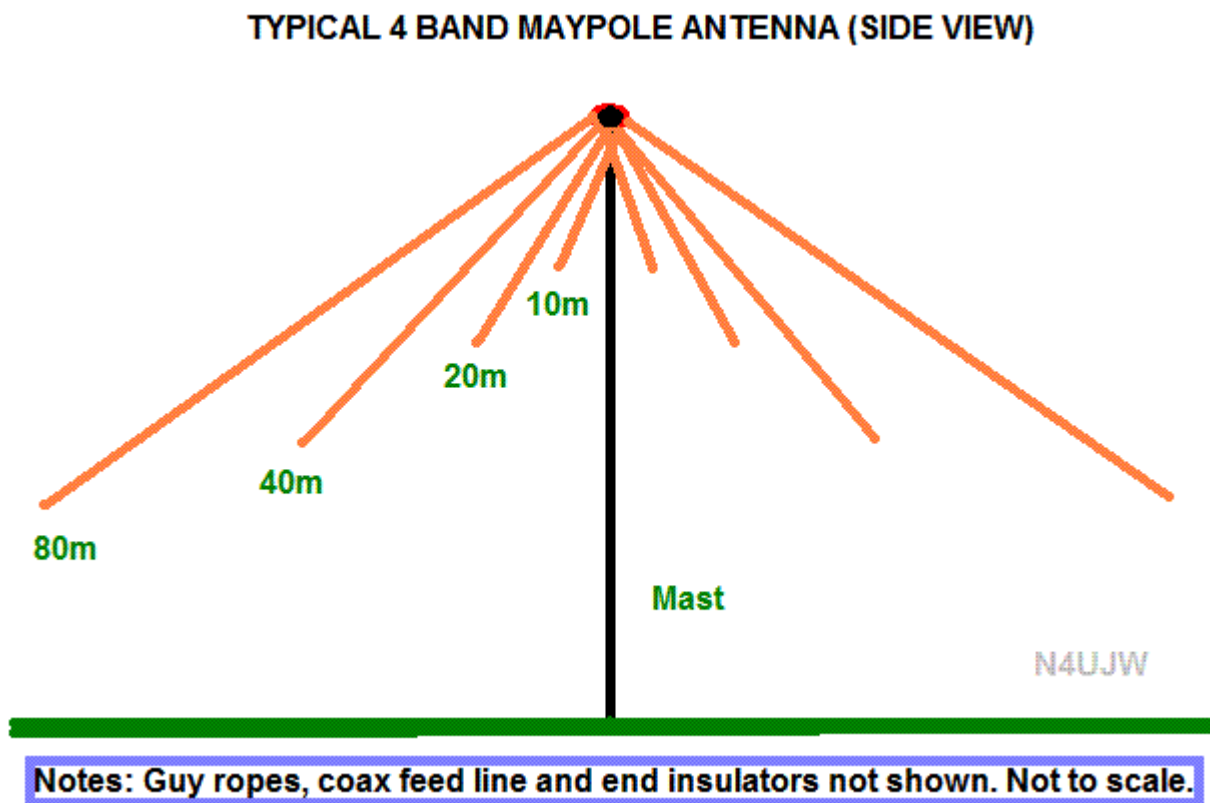
Having upgraded to my general ticket earlier this summer, I instantly became excited by the possibilities of new bands and new modes to play with. One thing that particularly interested me, prior to getting my first HF rig, was how I might be able to use my Raspberry Pi to transmit, as I had read about in a recent issue of QST magazine. I did some googling, and found that of course someone had already implemented some open source software to get me part of the way there (<https://github.com/JamesP6000/WsprryPi>).

As described on the WSJT web site: "WSPR implements a protocol designed for probing potential propagation paths with low-power transmissions. Normal transmissions carry a station's callsign, Maidenhead grid locator, and transmitter power in dBm. The program can decode signals with S/N as low as -28 dB in a 2500 Hz bandwidth. Stations with internet access can automatically upload their reception reports to a central database called WSPRnet, which includes a mapping facility".

This sounded interesting to me! Without an HF rig, I might be able to have some fun with this, even without a receiver.

## Getting started with the Raspberry PI as a transmitter

Reading up on how the RPi device could emit signals via its GPIO pins, it became clearly very quickly that it wasn't as simple as hooking it up to a feedline and an antenna and "seeing what happens". Because the RPi is generating a square wave, albeit at a fraction of a watt, I'd really need to add in a low-pass filter if I didn't want to splash up and out of all the bands. I ended up ordering a kit that did the trick for 20m, and then took the next step of building my first dipole antenna. I wanted an antenna that I'd be able to use in the future when I got a real HF rig, and I also wanted to have some fun learning about how to do this, so I ended up following the instructions to build a "maypole antenna" as described here (<http://www.hamuniverse.com/4bandmaypoleantenna.html>):



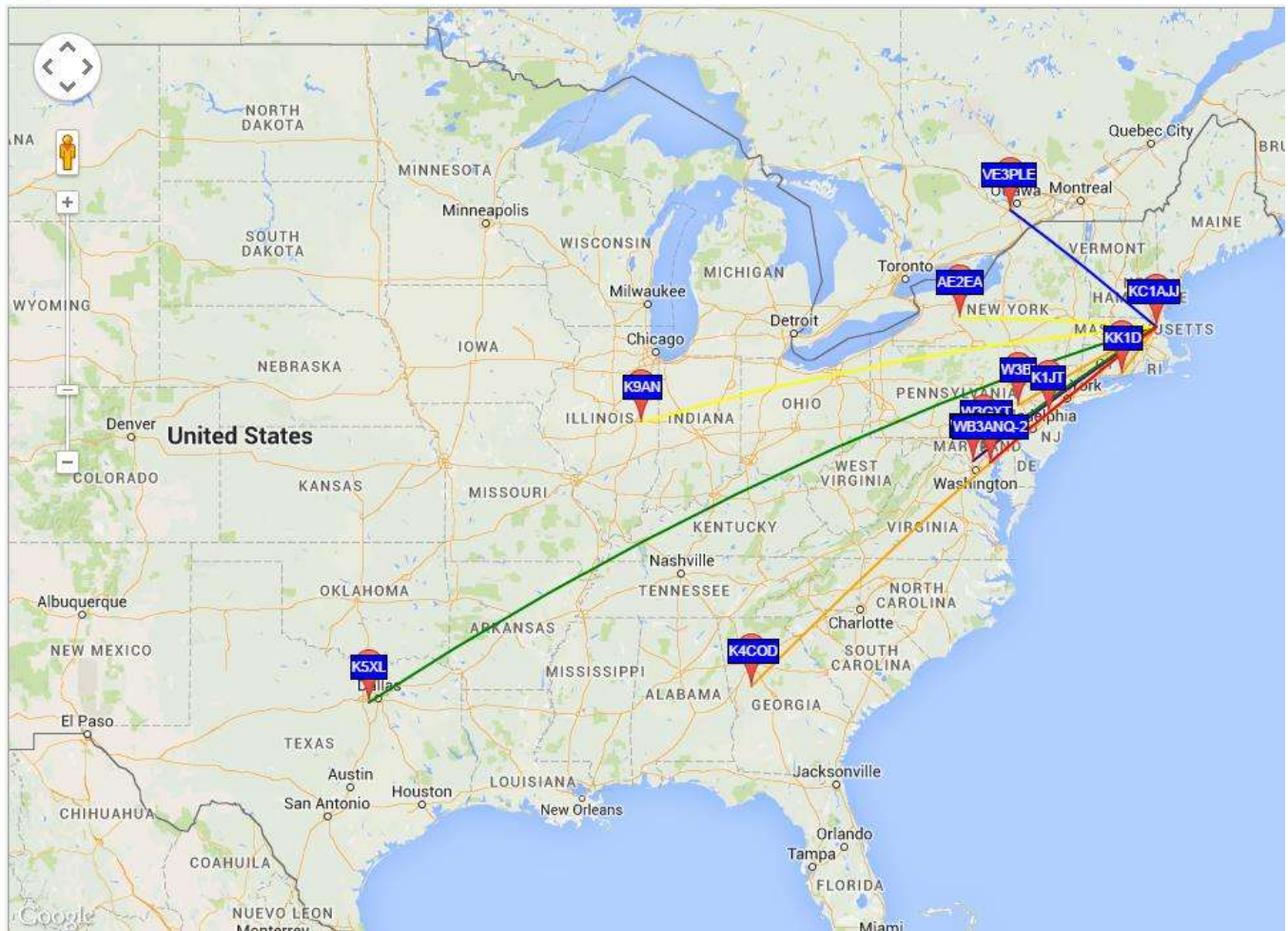
Of course, I had to adapt to my reality, which was that I wanted to build this inside my attic, so I ended up making a 30/20/10 antenna. It wasn't clear to me, being my first dipole, if this would be a good idea or not, but I figured it would be a cheap adventure and if it didn't work, I could always try again with different lengths.

With my 30/20/10 dipole hung up and spread out throughout my attic, and a feedline routed down to my humble shack in my basement, and my Raspberry PI up and running with WsprryPi and an LPF connected to the coax, I figured it was worth starting up the program and seeing what happened!

## The first day of transmissions

I figured I might end up being heard regionally, given that I was transmitting at less than 100 milliwatts. But with the help of the WSPR spotter network (<http://wsprnet.org/drupal/>), I realized the power (pun-intended) and attractiveness of QRP operations with what was really a shoddily-implemented dipole and some simple open-source software. With the RPi transmitting on 20 meters, and leaving it up and running for about an hour, I was spotted about 2500 miles away in Dallas, Texas:

## Map



The map also shows the orientation of my 20 meter dipole pretty well: it runs in an approximate N -> S direction in my attic, about 40 feet up in the air.

## The next step: 5 watts with an HF rig

I was instantly hooked on WSPR, and wanted to have more fun with it and other digital modes. I recently acquired a Yaesu FT-450d, and after getting it all hooked up to my humble multi-band dipole, I downloaded the WSPR-X software for Windows (<http://physics.princeton.edu/pulsar/K1JT/wspr.html>), got it configured, and with the help of a Signalink USB, gave WSPR a shot at 5 watts. This was even more interesting that the RPi experiment because I was also receiving WSPR packets, so I had to play with attenuation and RF gain a lot to try and get the setup just right so the packets wouldn't get washed out or overwhelmed by RTTY or other stronger transmissions.

I was floored by what going from less than 100 milliwatts (with a shoddy transmitter) to 5 watts on a real rig did for my spotting results. I was being heard over 7000 miles away, in both western and eastern directions, as far away a Australia and South Africa!



radio camp in August. All this and an update on our Young Ham of the Year Award in Amateur Radio Newslines report number 1968 coming your way right now.

### **Group Goes On the Air Waves:**

by theboltonnews.co.uk on July 19, 2015

FOR many of our younger readers this image will probably look like something from a history book. However, our older readers will be familiar with this "old technology" and in 1980 the equipment was being used by members of Bolton and District Amateur Radio Society. The society -- which was affiliated to the Radio Society of Great Britain - started in the 1920s when a group of wireless enthusiasts formed a club to pursue the, then, newly authorised hobby of amateur radio. Today radio has a much more high tech look and would be taking place in a studio rather than someone's living room as appears to be happening here. Of course this particular equipment would be cutting edge for the 1980s, no doubt.

### **Weak Solar Activity Puzzles Scientists:**

by voanews.com on July 19, 2015

At almost regular intervals, our sun displays phenomena benignly called sunspots. Actually, they are violent storms. Space scientists closely observe this activity, because it may have adverse effects on communications, navigation and even power grids. But the diminishing intensity of the last two solar cycles leaves them puzzled. When gigantic electromagnetic storms occur on the sun, we see them eight minutes later, which is how long it takes the light to reach Earth. It takes the first charged particles ejected by the storms 20 to 30 minutes to arrive. They are dangerous to humans, so if the storm is intense, astronauts aboard the International Space Station are advised to move into specially protected areas. After a day or two comes the biggest part of the storm, the coronal mass ejection. "That is billions of tons of solar material that's blown away from the sun," said Alex Young of NASA's Heliophysics Science Division. "It's traveling millions of kilometers an hour, but that is relatively slow." Several government agencies, as well as the U.S. Air Force, observe the space weather, as they call it, 24 hours a day. NASA does it in order to protect its astronauts and the sensitive electronics of its spacecraft, but also because many questions about our star still need to be answered. One of them is why the sunspots follow a roughly 11-year cycle, from low to high activity. "Also, sometimes the intensity is higher and sometimes it is lower," Young said. "The current solar cycle that we are in is much lower than the previous one."

### **5 Huge X-class Solar Flares, in a Row!**

by Tomas, NW7US on July 18, 2015

One of the largest sunspot regions during this Sunspot Cycle 24, and one of the biggest in several decades, gave us quite a show, back in October 2014.

### **AFCCE Fields the Field Day:**

by radioworld.com on July 18, 2015

Association of Federal Communications Consulting Engineers members who also happen to be amateur radio operators didn't have to choose between their professional society's annual meeting and their hobby's annual outdoor activity, Field Day. The organization planned and deployed a Field Day station at the Historic Inns of Annapolis for members to operate during the annual meeting held June 26–29. Hams in attendance were delighted. AFCCE President David Snively, W5ZC, noted that the Field Day scheduling conflict couldn't be avoided this year. "We actually do try to avoid Field Day," Snively commented, "but this year the way everything fell on the calendar - Father's Day, various graduations, industry meetings -- we had to schedule the annual meeting on Field Day. We knew that would disappoint our hams who look forward to Field Day all year. "So we brought Field Day to the annual meeting." Field Day is an annual activity whereby amateur operators take the last weekend in June to test their emergency preparedness, operating their radio equipment from campgrounds and other portable locations on emergency power to prove out its readiness in times of emergency. For many the weekend provides an excuse for a campout and some relaxation time.

### **Propagation Forecast Bulletin #29 de K7RA:**

by W1AW Bulletin via the ARRL on July 17, 2015

Average daily sunspot numbers dropped from 109.1 on July 2 to 8 to 73.7 in the past week, July 9 to 15. Average daily solar flux dropped from 123.2 to 114.8 over the same two periods. Geomagnetic indices were more active, with average daily planetary A index increasing from 10 to 13.7, and average mid-latitude A index going from 8.9 to 12.3.

### **Norfolk Schoolchildren Will Be Able to Speak to Astronaut at Space Station:**

by edp24.co.uk on July 17, 2015

But a select group of Norfolk schoolchildren will do more than just that as they are given a remarkable chance to speak live to an astronaut at the International Space Station (ISS). Youngsters from Norwich School, City of Norwich School, Reepham High School and the University of East Anglia will be able to link up with British astronaut Tim Peake when he visits the ISS. Major Peake, who retired from the British Army as a major in 2009, will become the first Briton ever to visit the ISS in December. He will spend six months living in space and local schools have the chance to host a direct link-up with the ISS. Mark Venables, head of physics at Norwich School, said: "We're very excited about it. Hearing on the day that Nasa flies by Pluto, the timing couldn't be better. "The contacts themselves are pretty brief, around 20 minutes, so we all have to be organised and flexible if there are unforeseen changes." There will only be a 10-minute window, when the ISS will be over the UK, where an amateur radio contact can be established with Major Peake. Students will then be able to ask him questions about his life and work on board the ISS.

### **The Maunder Minimum is Back! (Maybe. And We Probably Won't Notice):**

by arstechnica.com on July 17, 2015

A new ice age is not actually coming. But you wouldn't know that based on headlines from places like The Telegraph. The "reasoning" behind the headlines is that a new study suggests the Sun is headed for a severe low in its activity, and the last time that happened coincided with a cold period called the Little Ice Age. Ergo, another one is on the way. Pretty much every aspect of this reasoning is wrong. To understand why, we have to understand sunspots. Sunspots are the product of magnetic activity inside the Sun, and they appear as darker, cooler areas on the star's surface. You might think that they would cause less light to reach Earth, but the areas around the sunspot brighten up, more than compensating for the dark areas. As a result, there's a simple relationship: the more sunspots, the more solar output reaches Earth. Normally, sunspots come and go with the 11-year long solar cycle - more during peak activity, less during the Sun's quieter times. But superimposed on that cycle are longer-term trends in activity that we don't understand very well. For example, solar activity has been trending downward since the 1980s, and it's not entirely clear why. But it's still much more active than it was during a roughly 70-year period around 1700, when the Sun experienced what's called the Maunder Minimum, with very few sunspots visible the entire time. That period happened to coincide with the Little Ice Age, which saw global temperatures dip and glaciers advance, with Europe experiencing notably colder weather. The lack of solar activity provided a nice explanation for this, so the two were assumed to be connected.

### **Lazar, Siddall, Join CQ as Contributing Editors:**

by CQ Communications on July 16, 2015

Two longtime hams will be joining CQ magazine's staff of contributing editors, CQ Editor Rich Moseson, W2VU, announced today. Dennis Lazar, W4DNN, has been named interim QRP Editor, effective with the August issue; while David Siddall, K3ZJ, takes over as Contest Editor as of the September issue.

### **DX News -- ARRL DX Bulletin #28:**

by W1AW Bulletin via the ARRL on July 16, 2015

This week's bulletin was made possible with information provided by QRZ DX, the OPDX Bulletin, 425 DX News, The Daily DX, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

### **Just Ahead in Radiosport:**

by The ARRL Letter on July 16, 2015

Just Ahead in Radiosport:

### **ARRL Board of Directors to Meet July 17-18:**

by The ARRL Letter on July 16, 2015

The ARRL Board of Directors will hold its second meeting of 2015 Friday and Saturday, July 17-18, in Windsor, Connecticut. Much of the League's governance work is done by committees between Board meetings. At this meeting, as usual, the Board will receive reports and consider recommendations from its committees.

### **ARISS Initiates Fundraising Effort, Offers 'Challenge Coin' Keepsake:**

by The ARRL Letter on July 16, 2015

The Amateur Radio on the International Space Station (ARISS) program has kicked off a fundraising program, and it's offering an ARISS Challenge Coin as a token of appreciation to those who contribute at a certain level. ARISS

relies on resource support from NASA, ARRL, AMSAT, and individual donors and volunteers to ensure day-to-day operation of its programs and to pay for spaceflight equipment certification. In light of budget cutbacks at NASA over the past 2 years, the funding needed to cover operational expenses down the road has become more uncertain, however, and ARISS leadership initiated the fundraising effort with the goal of securing greater financial stability.

#### [Amateur Radio Parity Act of 2015 Politicians Do Listen ARRL President Says:](#)

by The ARRL Letter on July 16, 2015

ARRL President Kay Craigie, N3KN, said in the July ARRL Legislative Update Newsletter that Washington politicians are paying attention to League members who have contacted lawmakers to urge their cosponsorship of the Amateur Radio Parity Act of 2015.

#### [IARU Member-Societies Conducting Second Kosovo Vote; Burundi Admitted:](#)

by The ARRL Letter on July 16, 2015

International Amateur Radio Union (IARU) member-societies are taking a second vote on whether to admit Kosovo's national Amateur Radio association, Shqata e Radio Amatoreve te Kosoves (SHRAK) to IARU membership.



## ARRL News

### [ARRL Complains to FCC About The Home Depot's Marketing of RF Lighting Devices](#)

July 17, 2015. The ARRL has filed a **formal complaint** with the FCC, alleging that The Home Depot home improvement chain has been illegally marketing certain RF-ballast lighting devices in violation of FCC Part 18 rules. Accompanying the League's July 14 letter to FCC Enforcement Bureau Spectrum Enforcement Division Chief Bruce Jacobs and Office of Engineering and Technology Laboratory Division Chief Rashmi Dos...

### [The K7RA Solar Update](#)

July 17, 2015. Average daily sunspot numbers dropped from 109.1 on July 2-8 to 73.7 in the past week, July 9-15. Average daily solar flux dropped from 123.2 to 114.8 over the same two periods. Geomagnetic indices were more active, with average daily planetary A index increasing from 10 to 13.7, and average mid-latitude A index going from 8.9 to 12.3. The geomagnetic field was active on July 11 when the mid-lat...

### [FCC Announces Enforcement Bureau Field Office Reorganization Plans](#)

July 16, 2015. Forced under political pressure to take a few steps back from its initial proposal to eliminate two-thirds of its Enforcement Bureau field offices, the FCC has announced its final, scaled-down plan to reorganize its field resources. In an **Order** released July 16, the Commission said it would close 11 of its 24 field offices and relocate three others to nearby FCC-owned sites. In slimming down it...

### [Two Radio Amateurs Set to Launch to ISS](#)

July 16, 2015. Three new International Space Station (ISS) crew members will launch July 23 (UTC) from Baikonur Cosmodrome in Kazakhstan. Kjell Lindgren, KO5MOS; Oleg Kononenko, RN3DX, and Kimiya Yui will travel into space in a Russian *Soyuz* spacecraft that will rendezvous with the ISS and dock after four orbits of Earth. **NASA TV** will cover the activities. Expedition 44 Commander Gennady Padalka, RN3DT, and Fl...

## [Dayton Hamvention Reports 2015 Attendance Rose Slightly Over 2014](#)

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July 15, 2015

## [International DX Association Encourages Humanitarian Dimension to DXpeditions](#)

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July 15, 2015. The International DX Association (**INDEXA**) has announced plans to make additional funding available to DXpedition groups that carry out pre-approved plans to provide humanitarian aid and services that benefit the communities they visit. The incentive can be as much as an additional 15 percent to any financial support INDEXA offers the DXpedition. "INDEXA believes that many of the DXpeditions we s...

## [New Horizons Phones Home](#)

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Wednesday, July 15, 2015, 3:03:00 PM

## [SSTV Images from Space Will Commemorate 40th Apollo-Soyuz Mission Anniversary](#)

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July 15, 2015, To commemorate the 40th anniversary of the ***Apollo-Soyuz mission***, the Amateur Radio on the International Space Station (**ARISS**) team will transmit a series of 12 Slow Scan Television (SSTV) images. The SSTV transmissions 145.80 MHz will begin on the morning of Saturday, July 18, and continue through Sunday July 19, subject to change. *Apollo-Soyuz* represented the first joint US-USSR mission, and i...

## [ARISS Initiates Fund-Raising Campaign, Offers "Challenge Coin" Keepsake to Donors](#)

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July 15, 2015, The Amateur Radio on the International Space Station (**ARISS**) program has kicked off a fund-raising program, and it's offering an ARISS Challenge Coin as a token of appreciation to those who contribute above a certain level. ARISS relies on resource support from NASA, ARRL, AMSAT, and individual donors and volunteers to ensure day-to-day operation of its programs and to pay for spaceflight equip...

## [ARRL 2015 Hurricane Season Webinar Set for Monday, July 20](#)

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July 15, 2015, *A reminder:* The ARRL will host a 2015 Hurricane Season webinar on Monday, July 20. The session will get under way at 8 PM EDT (0000 on July 21). The approximately 90-minute session will address the role of Amateur Radio during the 2015 Hurricane Season, which runs through November. All who are interested in hurricane preparedness and response are invited to **register** for this online presentation...

## [Wednesday, July 15, is Amazon Prime Day! Support ARRL by Shopping at AmazonSmile](#)

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July 14, 2015, "Amazon Prime Day" is a 1-day shopping event on Wednesday, July 15, 2015, offering more deals than Black Friday. As you browse the great deals available exclusively to Amazon Prime members, we invite you to shop at **AmazonSmile**, choosing the ARRL as your charity of choice. With every qualifying purchase you make through AmazonSmile, Amazon will make a contribution to ARRL. This helps the League t...

## Remotely Controlled VY1AAA Put Northern Territories on the Air for Field Day, Canada Day

July 14, 2015, If you worked VY1AAA in Yukon Territory (Northern Territories or NT Section) during Field Day 2015 or Canada Day, the operator was actually in the US. VY1AAA is a Canadian club station call sign for the station of J Allen, VY1JA, near Whitehorse, Yukon Territory. Gerry Hull, W1VE, was among those operating VY1AAA remotely from the K1B Field Day site of the Contoocook Valley Radio Club (CVRC) in...

## ARISS Announces Live Video Feed of Contact with Russian Cosmonaut

July 13, 2015, A **live video feed** is planned of an Amateur Radio on the International Space Station (**ARISS**) contact Wednesday, July 15, with members of the **Vail Vaqueros 4H Club** in Pima County, Arizona. The event will get under way in at Empire High School Auditorium in Tucson at approximately 18:01 UTC, and will be a direct contact via W7LB. Cosmonaut Mikhail Kornienko, RN3BF, will speak with the students via ...

## IARU Member-Societies Conducting Second Kosovo Vote, Burundi Admitted

July 13, 2015. International Amateur Radio Union (**IARU**) member-societies are taking a second vote on whether to admit Kosovo's national Amateur Radio association, Shoqata e Radio Amatoreve te Kosoves (**SHRAK**). IARU Proposal 254 is a revote on whether or not to admit SHRAK. "Many of you will recall that Kosovo was proposed for IARU membership in IARU Proposal 251 in 2014," IARU Secretary Rod Stafford, W6ROD, exp...

## DeorbitSail CubeSat Put into Orbit, Heard in US

July 13, 2015. The **DeorbitSail** CubeSat, built by researchers and radio amateurs at the Surrey Space Centre in Guildford, England, was launched into orbit on July 10. It carries a 1200 bps BPSK beacon transmitting on 145.975 MHz. The first DeorbitSail packet reports to the Surrey Space Centre came from Ken Swaggart, W7KKE, in Oregon. Nitin Muttin, VU3TYG, reported receiving signals as the CubeSat passed over In...



*The ARRL New England Convention  
at the Holiday Inn in Boxborough,  
Massachusetts*

**August 21 - 23, 2015**

**TICKETS NOW ON SALE!** [Purchase Tickets](#)

## [Tracking and Receiving the LightSail CubeSat](#)

Jason Davis @jasonrdavis reports that the LightSail CubeSat is operational again

## [Return to Earth of Radio Ham on TV](#)

The departure and return to Earth of ISS astronaut Samantha Cristoforetti IZoUDF will be broadcast on NASA TV during June 11

## [A program to assist new and inexperienced radio hams](#)

Etienne Naude, ZS6EFN, approached the SARL President Fritz Sutherland, ZS6SF, with a proposal of starting a Rookie Radio Amateur Program in South Africa

## [Russian DOMINO activity](#)

On June, 12th, 2015 the Russian Digital Radioamateur Club invites to celebrate our national holiday the Day of Russia to play with colleagues in 'Russian DOMINO' - the name of our new radio event

## [Tom W5KUB is available to give a talk at your radio club](#)

Tom W5KUB of Dayton Hamvention webcasting fame is willing to give a club talk using Skype audio/video to any radio club in the world

## [16th IARU Region 1 Youth ARDF Championships](#)

The 16th IARU Region 1 Youth ARDF Championships (EYAC) took place June 4-7, 2015 in Zamość, Poland

## [Propagation Report from Hannes Coetzee, ZS6BZP](#)

Hannes Coetzee, ZS6BZP, reports that the expected solar activity will be at low levels



## 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 Emergency Communications Net](#) – this net occurs the 1<sup>st</sup> 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=10933> (effective 2/2012)

**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
- Friday 8:00 PM CanNet D-Star Net – XRF021B

NOTE: The status of the WB1GOF D-Star repeaters can be seen at <https://wb1gof.dstargateway.org>

## 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 \$15 (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

The adult full breakfast is  $\$11.95 + 18\% + 6.25\% = \$15.00$  (rounded up slightly). This price has recently changed. Here is the math for completeness and full disclosure.

*Continental breakfast: \$9.00 (same price)*

*Full breakfast: \$15.00 (new price)*

*Kid's breakfast: \$9.00(new price effective March 2015)*



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Robert Schmeichel  
2011



Copyright WB1GOF,  
Robert Schmeichel  
2013

## Repeater Information

### Repeater Interference

The 146.955 repeater periodically has had interference to in-progress 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-KA8SCP.*

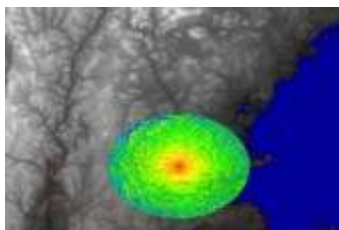
### EmComm events and repeater use

Most everyone knows that the 146.955 repeater is used during times of emergency situations, drills and exercises. Skywarn and the monthly EmComm 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 damage 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 EmComm 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 Terry-KA8SCP. All requests for repeater use can be initiated by email to [info@wb1gof.org](mailto:info@wb1gof.org).



**R**epeater propagation info is available on the PART [website](#). Check out the links to the summit information as well as coverage and plot plans maps for the WB1GOF repeaters. Complete info on the site can be found at this [URL](#).

## 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 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>) PLEASE NOTE: Please check with Hugh Maguire-N1QGE, [hulin127@verizon.net](mailto:hulin127@verizon.net), if you need a badge.



## EmComm

**Emergency Communications** – The WB1GOF 146.955 repeater is used on the first Monday of every month (except federal/state holidays) for an EmComm Net 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 Communications Officer & Town of Westford

Bill Ohm – W1OHM, for the Town of Chelmsford

Darrel Mallory – K1EJ, North Middlesex ARES

- 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. 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 EmComm nets 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 the EmComm Net Control Stations 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 © 2015, a publication of PART of Westford, MA – WB1GOF

This month's editor: Terry Stader – KA8SCP

PART official mailing address is:  
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Our website is: <http://wb1gof.org>

Our forum is: <http://wb1gof.net/forums/>

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