



PARTicles

The newsletter of PART of Westford, MA – WB1GOF

December 2013

President's Column

- *Andy Stewart (KB1OIQ)*

I've just returned from 4 hours of driveway clearing due to the 10" of snow dropped by Mother Nature. The new snowblower isn't quite as easy to use as I thought, but I am getting the hang of it. My driveway isn't perfectly smooth, so it catches and pulls the snow blower in directions all its own. Still, compared to the prospect of shoveling, this is a huge advantage. I presume others are warm in their ham shacks, having fun in the 10m contest. I hope you make a lot of QSOs!

You've seen the email (I hope!) about the upcoming PART Kit Building activity, which will *probably* be held in January 2014. We're in the process now of securing a room where we can meet. Stay tuned. More details will be forth-coming shortly. However, you really should buy your kit NOW to be sure it arrives on time, and to give you a chance to check the kit for missing parts. Many thanks to Scott (NE1RD) for once again taking the role of event chairman.

I haven't been on the air much lately, but I bagged VU7AG on their DXpedition to the Lakshadweep Islands off the west coast of India. I got them on 40m SSB with 100W and my G5RV antenna around 0200 UTC in early December.

I've been spending time on a new Linux software project for ham radio. Since the Micro-Fox program is working really well, I've started working on a

program for the Byonics TinyTrak3. I've coded the basic graphical user interface, so now it is time to add the guts to it. Wait...don't I have to get my Christmas shopping done sometime soon?!

I am looking for a speaker and topic for the January 2014 club meeting. If you would like to be the speaker, or have direct contact with a prospective speaker, please send me email at kb1oiq@arrl.net.

CW operators may be interested to hear about the month long K3Y event, sponsored by the Straight Key Century Club (SKCC) during the entire month of January 2014. There will be stations operating K3Y/0 - K3Y/9, K3Y/KL7 (Alaska), K3Y/KH6 (Hawaii), and several others in Canada(?) and Europe. The object is to get on the air with CW, at ANY speed you can muster, and see how many stations you can contact. For an added bonus, get all of them QRP! Several PART members are active participants in this event, and it is a lot of fun. For more info, go to <http://www.skccgroup.com/k3y>.

I look forward to seeing everybody at the PART Christmas / Holiday Party, coming up very soon on Tuesday, December 17th! Be sure to thank Hugh (N1QGE) and his elves for their hard work to make this possible!

73 de Andy KB1OIQ

Next PART meeting: Tuesday January 21st

@1930 – Westford Police station

No meeting in December!!!



Treasurer's Report

PART Treasury between 15-October '13 & 18-November '13 (As of 19- November '13)

	General Fund	Repeater Fund	Checking Total
Old Balance	\$2,895.97	\$2,423.82	\$5,319.79
Income	\$ 40.00	\$ 00.00	\$ 40.00
Expenses	\$ (48.82)	\$ -	\$ (48.82)
Net	\$ 8.82	\$ 00.00	\$ 8.82
New Balance	\$2,887.15	\$2,423.82	\$5,310.97

PART 2013 Membership as of 5-November '13

	Individuals (= New for 2013 + Renew for 2013)	Households (= New for 2013 + Renew for 2013)
Full (\$25)	42 (= 12 + 30)	42 (= 12 + 30)
Senior (\$15)	37 (= 3 + 34)	37 (= 3 + 34)
Family (\$30)	21 (= 4 + 17)	10 (= 2 + 8)
Student (\$15)	1 (= 1 + 0)	1 (= 1 + 0)
Associate (\$10)	0 (= 0 + 0)	0 (= 0 + 0)
Grand Total	101 (= 20 + 81)	90 (= 18 + 72)

ARRL members: 91

ARRL Life members: 10

NOTE: * Starred lines changed since 5-November '13

Latest new PART members:

No new members

##To pay dues##

PART, P.O. Box 503, Westford, MA 01886-0015

-or-

Club Meeting, Westford P.D., 7:30PM, 3rd Tuesday

4 seniors and 1 family have now already renewed for 2014.

Upcoming PART Meetings/Events

December 19th, 2013

- NO PART Meeting, Holiday Buffet instead. 6:00 -9 p.m. Yangtze River 584 King Street (Route 110) Littleton

January 4th, 2014

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

January 21st, 2014

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

February 1st, 2014

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

February 18th, 2014

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



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 1st Saturday, 8 AM, Regency Inn Westford – PART Monthly Breakfast
- Every Wednesday, 6 AM, Owl Diner Lowell – Breakfast

Ham Fleas/Events

New England Area Ham/Electronic Fleas:

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

2014

1 Feb Windsor CT VR+C Mus 115 Pierson LN @8AM Indoor John 860 673 0518 +
8 Feb Springfield VT CVFMA @Cong Ch Steve N1QDT 802 885 8110 A+
15 Feb Marlborough MA AARC @MS \$5@9 \$20/T@6:30 Bef 9 Tim KA1OS 508 919 6136 +
16 Feb Westford MA NEARC RadioXVL 8AM@Regency \$10 antique Bruce 603 772 7516 F+
22 Feb S Burlington VT HAM-CON @HI I89x14 \$8@8 \$15@6 Mitch W1SJ 802 879 6589
2 Mar Hicksville NY LIMARC @Levittown Hall Richie K2KNB 516 694 4937 A+
15 Mar Dayville CT ECARA 8A @StJosephCh Paul KE1LI 860 928 5147
16 Mar Southington CT SARA \$5@8A @HS \$20/T@6:15 eve Norm W3IZ 860 584 1403 F+
28,29 Mar Lewiston ME AARC ME Conv @Ramada @8 Ivan N10XA 207 784 0350
12,13 Apr Wakefield MA Photographica @AmericalCtr ~photo~ John 781 592 2553 F+
12 Apr Windsor CT VR+C Mus 115 Pierson LN @8AM Outdoor John 860 673 0518 +
18 April S.Portland ME PAWA @AmLegion \$6@8 \$10/T@6:30John W1JLB 207 776 2288 W+
20 Apr Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
Third Sunday April thru October
27 Ap Middletown NY OCARA @CommCtr \$7@9 \$12Sell Neil AC2O 914 490 2001 F
2,3 May Deerfield NH NEARfest XV @FG Mike K1TWF 978 250 1235 R+
10 May E Greenbush NY EGARA @FireCo \$6@8 \$6/T@6 Tom KC2FCP 518 272 1494 W+
18 May Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
7 June Hermon ME PSARA @8 @HS TG@6:30 Jerry K1GUP 207 848 3400 W+
15 June Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
18,19 July Hartford CT ARRL Nat Conv 100th Anv. W+
20 July Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
17 August Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
20 Sept Forestdale RI RIAFMRS @VFW \$5/Sp@8 Pete AA1PL 401 639 4484 T+
21 Sept Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
12 Oct Meriden CT Nutmeg @Sheraton was Wallingford John N1GNV 203 440 4973
19 Oct Cambridge MA FLEA at MIT Mitch 617 253 3776 F+

July 17-20, 2014 -- Hartford, Connecticut



In the News

- [ARRL Centennial Convention \(PDF\)](#)
- [ARRL Plans Centennial Celebration in Hartford in 2014](#)

More information coming soon.

ARRL Hamfests and Conventions



Hamfest/Convention

02/15/2014 | [Algonquin ARC Flea Market](#)

Location: Marlborough, MA

Type: ARRL Hamfest

Sponsor: Algonquin Amateur Radio Club

Website: <http://n1em.org>

[Learn More](#)



Hamfest/Convention

03/16/2014 | [SARA Flea Market](#)

Location: Southington, CT

Type: ARRL Hamfest

Sponsor: Southington Amateur Radio Association

Website: <http://www.chetbacon.com/flea2013.pdf>

[Learn More](#)



Hamfest/Convention

07/17/2014 | [ARRL NATIONAL CENTENNIAL CONVENTION](#)

Location: Hartford, CT

Type: ARRL Convention

Sponsor: American Radio Relay League

Website: <http://ARRL2014.org>

[Learn More](#)

Member Contribution

Sunday's Fall Freeze Fox Hunt: 11/24/2013

- Tim KC1AJJ

Sunday morning around 0830, I had some free time with the kids otherwise occupied, so I thought I'd use it to try to track down a fox. John KB1MGI and mentioned on the repeater the day before that there was a 98% chance he'd put his fox out for Sunday, and so I thought it was worth a shot.

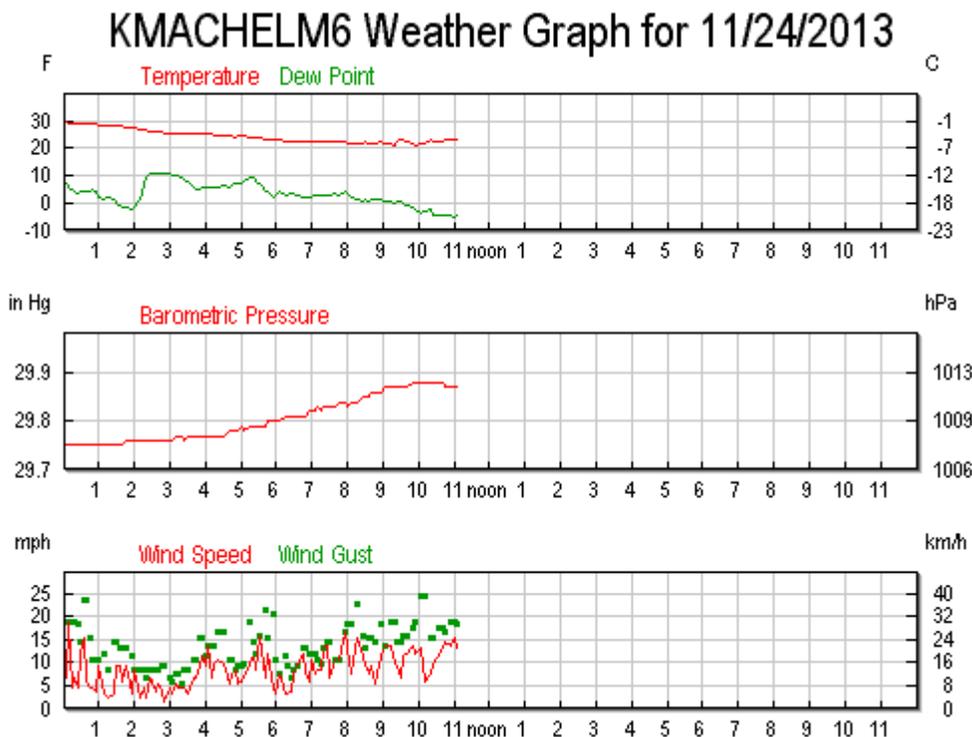
I initially drove from Drum Hill in North Chelmsford down route 3 to try and establish a border. With my HT connected to my mag mount, I got some faint pings of a signal, but not clear which fox it was.

I got off on Treble Cove Rd as I lost the signal, and took it west to rt 4, where I headed back north towards Chelmsford Center. No luck on the signal.

As I stopped in Chelmsford Center to get my bearings, I saw an email from KB1MGI stating that the fox was on the air and at the Nashoba Brook Trails in Westford, so I immediately re-launched, headed west out Rt. 110.

Started to pick up a signal as I crossed into Westford, but switched back to the repeater to chat with Mark K1MGY as John had already provided a starting address.

In the parking lot, I was surprised to see 3 cars already there: people who were running on this frigid morning. As you can see from my home weather station, it wasn't a welcoming day out there, with temperatures hovering around 20F and wind gusts up at 25mph:

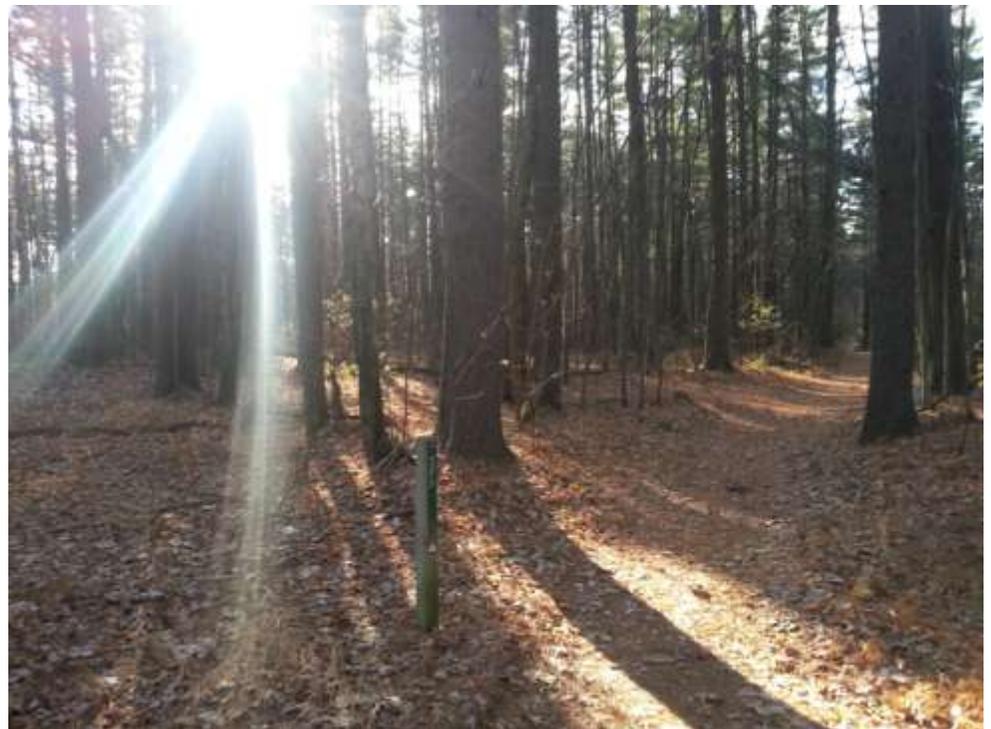


I briefly deployed my tape measure yagi at the trail head.



The signal was already strong enough that it wasn't getting much of a bearing, so I put it back in the car. This made me think that the fox might have a fairly good line of sight to the trail head. John's hints to "take the fork" (hat tip to Yogi Berra, secondary hat tip to the Muppets) had me walking up to the first fork, where I had to make a choice based on body fade, which led me to the right hand trail:

As I headed down the trail, I starting looking for the white maple as hinted by John, and ran into a SECOND fork in the road, which was troubling because I was starting to get overwhelmed on the primary frequency and body fade wasn't particular effective:





At this point, I had programmed in the third harmonic, so I began switching to it whenever the fox was transmitting, but no dice on that one yet. I walked down the trail until I ran into a curious roadblock that, combined with the third harmonic starting to get a signal, made me think I was in the right neighborhood.

I held my HT close to my body, which let me set a few lines from the trail that looked promising, all indicated that I should head left from this obstruction up the hill, off trail. I took a moment to warm up my hands, adjust my gloves and ear muffs, and make my way up the hill. At least the trees blocked the wind. But the trees also blocked the sun, so it was a wash. Did I mention it was cold?

The number of trees in this vicinity, combined with my suspicion that the fox was probably near the top of this local hill, made for a lot of reflections, so I had to circle around a fair amount to confirm that the fox was somewhere to the left of the trail, but fairly in line with these downed trees.



After another few minutes, I got a direct line with the antenna off on the second harmonic, and started walking towards a tree that I discovered had a chain on it, and that was the end of that.



I signed the log book, which was a frostbite-inducing experience, then jumped on WB1GOF repeater to announce the find. John was on the air, so we talked a bit and then I had to evacuate back to the warm confines of my car. I passed 2 runners on my hurried walk back to the parking lot. Strange folks out in the woods this morning!

Thanks to John KB1MGI and all the others who put foxes out and hunt them. It's been a great learning experience for me, and fun to boot!



PART 2014 Kit Building Adventure

B. Scott Andersen, NE1RD

Winter brings cold weather, warm fires on the hearth, and maybe a few flurries in the air. It is also a time to belly up to the bench, warm up the soldering iron, and get to work. PART will continue keeping that happy tradition going with its annual PART Kit Building Adventure slated for 25 January 2014 (the weekend before the Superbowl).

It is important to get your kit purchased early to ensure that it arrives in time for the event. This year we are also encouraging participants to open their kits long before the event to perform a parts inventory. If you have missing or damaged parts you should contact your kit vendor and get those parts replaced before kit build day.

You are welcome to bring any kit of your choosing to the event. Below is a list of ideas for kits to prime the pump.

Kit name	Description	Price
41dB Step RF Attenuator	http://www.qrpkits.com/attenuator.html A step attenuator for fox hunting, etc.	\$50.00
MFJ-941EK antenna tuner KIT	http://www.mfjenterprises.com/Product.php?productid=MFJ-941EK This is the very same tuner they sell assembled (MFJ-941) except in Kit form for \$20 off. It handles 300 watts, has cross-needle meter, and the whole works.	\$129.95
Cyclone 40 An Innovative Transceiver from David Cripe, NMØS	http://www.4sqrp.com/cyclone.php This is a complete kit, including the enclosure. A high quality board package includes the pc board, front and back panels, the sides, and top and bottom all of which make up the enclosure. The control and jack labels are silk screened in white letters and vividly contrast with the black solder mask, and the holes for the connectors and controls are pre-drilled. The ends are "dovetailed" together making a very rugged, easy to build, and attractive enclosure.	\$104.00
Texas Topper	http://qrpme.com/?p=product&id=TEX This is an amplifier for QRPp radios to bring Rockmites up to power levels approaching 5 watts. Requires enclosure (not included)	\$35.00
Rockmite II Transceiver	http://qrpme.com/?p=product&id=RM3 The original Rockmite has been updated by QRPme to include all controls, an additional stage of low pass filtering, and the new circuit board features all through-hole construction. Bands available: 80m, 40m, 30m, and 20m with a variety of frequencies in each band. Requires enclosure (not included). The original Rockmite from Small Wonder Labs was featured at one of our first PART Kit Building adventures.	\$40.00

Also worth considering are the line of Mini-Module kits from Elecraft <http://www.elecraft.com>, the complete line of kits from Hendricks <http://www.qrpkits.com>, and any of Rex Harper's kits from QRPme <http://www.qrpme.com>.

Find the kit that suits your mood and join your fellow club members in the joy of building. See you there.

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 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=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 ****CHANGED****

The 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: \$8.00



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Robert Schmeichel
2011



Copyright WB1GOF,
Robert Schmeichel
2013



The PART winter holiday Dinner
December 17 2013

Cocktail Hour Begins at 6:01pm
Buffet Dinner from 7:00 – 7:59 pm
Activity from 8:00pm to 9:14pm

\$20.00 per person Cash only at the door for buffet - Cash Bar

Yangtze River Restaurant

<http://www.yangtzeriverlittleton.com/>

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



To participate in the gift Grab: Please bring 1 gift per person. This year's theme is "Communications" (Amateur – Computer – Phone – Pen/Paper – even post-its – related items). Grab gifts should be new items priced at or under \$19.99. BTW: Exchanging items between participants is encouraged as a second activity.

There will be several desirable & highly useful door prizes that will be provided by PART

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

Southgate Amateur Radio News

[SARL: Madiba we salute you](#)

Today is indeed a sad day as ex-President Nelson Mandela is laid to rest. The South African Radio League, its council and members join the world in mourning the loss of South Africa's greatest statesman, Nelson Rolihlahla Mandela

[VK waits for full return of 6 metres](#)

With only digital television being available in Australia from 10 December, and the loss of the last TV transmitter Channel 0, it does not automatically mean the unfettered return of 50-52 MHz to the amateur radio service

[Studies of ionograms show supremacy of 5 MHz band](#)

The ionograms generated by the South African ionosonde network clearly illustrate the supremacy of the 5 MHz band for short range, near vertical incidence skywave (NVIS) communications under certain conditions

[First Novel about Cubesats and Personal Spacecraft published](#)

The first novel to find inspiration from Cubesats and the new wave of personal spacecraft - such as the Sprites - has been published and is available in the next few days from Amazon and Createspace

[PUCP-SAT-1 deploys POCKET-PUCP Femtosatellite](#)

The Peruvian CubeSat PUCP-SAT-1 (145.840 MHz AX.25 FM) was carried by the microsatellite UNISAT-5 which was launched on a Dnepr on November 21, 2013

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

Hannes Coetzee, ZS6BZP, reports that the solar activity is at moderate levels. Sunspot AR1918 has a "beta-gamma" magnetic field that harbors enough energy for M-class flares

[Amateur Radio Direction Finding in Bangalore](#)

The Hindu newspaper report that this weekend enthusiastic radio hams in Bangalore will go on a 'fox hunt'

[UKube-1 on its way to Kazakhstan](#)

UKube-1 left Clyde Space in Glasgow on its way to Baikonur in Kazakhstan on December 12, 2013

Fontana Elementary School Students to Connect with Space Station:

by sbsun.com on December 15, 2013

FONTANA: Meet “kilowatt, kilowatt, six, hotel, zulu, hotel,” which is written KK6HZH. At age 10, Laisha Vergara, a fifth-grade student at Dorothy Grant Elementary School, has become one of the more than 710,000 licensed amateur radio operators, often called hams, in the nation. As a girl, she belongs to an even more elite group. Only about 15 percent of the amateur station license holders in the United States are women, said Sean Kutzko, spokesman for the Connecticut-based American Radio Relay League (ARRL), the association of amateur radio operators. While school-based radio clubs are found in junior high and high schools across the nation, having one at an elementary school is “very unusual,” Kutzko said. Fontana Unified School District Teacher Beverly Matheson founded the club in fall 2012 with David Colingham, a Fontana High School graduate who is a ham radio expert based in Maryland. Matheson said originally she looked at the club as a platform to get students interested in cultures in other lands. Using the club’s high frequency radio and portable antenna, students set up outside the classroom and take down after their weekly meetings - students have made contact with amateur radio operators such diverse places as Hungary, Maldivia, Japan and the Falkland Islands.

1963 Radio Club Wins First Place:

by statesman.com on December 15, 2013

The Lost Pines Radio Club of Smithville, W5KPI/5, once again won first place in the International Amateur Radio Relay League Field Day contests, and in doing so, established a new record for Class A stations using one transmitter. The December issue of “QST,” the national amateur radio magazine, carried a picture of the operators at work, with the following caption: “W5KPI/5, the Lost Pines ARC, topped 1A for a new scoring record attributed to months of hard work, planning, excellent conditions, sideband and fine operators. This unusual view shows K5JRR (Dr. J. W. Thomas) observing K5BSZ (Butch Barber), K5ABV (Marvin Bloomquist) and W5TFB (Jack Bryant).” Also in an article on the ’63 Field Day Results in the magazine was the following from Lost Pines W5KPI/5: “Thanks to the County Commissioner for bulldozing out the wooded area to give more room for our antennae, to a local electric company who did all the wiring from the generator, to members of a line crew who, in their free time, set the poles and did the power work, to the City of Smithville for poles and cross arms; and to the local mortuary for the use of a tent and boy, did we ever need it – we had a downpour!”

Sun's Solar Activity Most Anemic in 100 Years:

by wnd.com on December 15, 2013

(Space.com) The sun’s current space-weather cycle is the most anemic in 100 years, scientists say. Our star is now at “solar maximum,” the peak phase of its 11-year activity cycle. But this solar max is weak, and the overall current cycle, known as Solar Cycle 24, conjures up comparisons to the famously feeble Solar Cycle 14 in the early 1900s, researchers said. Don’t let the current weak solar cycle make you complacent. Read how some cosmic event 98 million miles away could leave America “A Nation Forsaken”. “None of us alive have ever seen such a weak cycle. So we will learn something,” Leif Svalgaard of Stanford University told reporters here today (Dec. 11) at the annual meeting of the American Geophysical Union.

Radio Arcala Landscape Is One Short:

by WIA on December 14, 2013

While driving to the Arctic region north of the city of Oulu at 65degrees North, you will now find the wintry landscape more naked than before. Something is missing from the landscape, a reflection of the challenges facing the stormy and icy North. Sorrow has descended on the population of the village of

Arkala. It was the recent storm Oskari creating gusts of up to 68 knots (78MPH) that not only knocked down the massive 330ft (100m) 40+ ton 160/80M array but also left 200,000 homes in Finland without electricity. The mammoth structure collapsed peacefully, not hitting any of the other six towers, not hurting people or damaging buildings. As professional engineering efforts had up to now ensured the survival of this 5-year old structure, inspectors are busy trying to evaluate the cause of the failure. It is suspected that automation designed to enable the array to find its most comfortable position in high winds somehow locked up and caused the structure to corkscrew. Consequently the giant crumbled down on its on base just like the WTC building in those other sad years.

Telescope To Track Space Junk Using Youth Radio Station:

by WIA on December 14, 2013

A combination of pop songs, talkback radio and cutting-edge science has enabled Australian astronomers to identify a way to prevent catastrophic, multi-billion dollar space junk collisions, a new study has revealed. The inaugural research project spearheaded by Curtin University in Western Australia, will use the newly operational Murchison Widefield Array (MWA), one of three precursor telescopes for the \$2B Square Kilometre Array project, to detect radio waves reflecting off thousands of objects orbiting the earth. The study has already tracked radio waves from FM transmitters located near Perth and Geraldton bouncing off the International Space Station as it passed over WA, approximately 500 kilometres above the Earth's surface. Team leader Professor Steven Tingay, Director of the MWA at Curtin University and Chief Investigator in the Australian Research Council Centre for All-sky Astrophysics (CAASTRO) said the MWA will be able to detect the space junk by listening in to the radio signals generated by stations including popular youth network Triple J. "We have shown that we are able to detect approximately 10 pieces of space junk simultaneously. Over time this means we are in a position to monitor a significant fraction of the space junk that is in Earth orbits," Professor Tingay explained. The importance of this is that space debris is unpredictable and poses a significant collision risk to expensive space infrastructure, such as communication satellites, according to Professor Tingay. "An early warning system has the potential to protect the billions of dollars' worth of vital infrastructure orbiting the earth but also prevent collisions that will result in even more space debris being generated, such as what happened in the case of the Iridium 33 satellite in 2009," he said.

UI Radio Operators Successfully Talk to Spacecraft Heading to Jupiter:

by press-citizen.com on December 13, 2013

Back in October, University of Iowa researchers and members of UI's Amateur Radio Club joined thousands of other radio enthusiasts around the world in an attempt to communicate with a NASA probe named Juno as it hurtled above Earth toward Jupiter. Two months later, now that the Juno team has had a chance to parse the instrument data, it appears they were successful. UI researchers involved in the mission said this week that the message that ham radio operators on Earth sent to Juno -- a simple "hi" via Morse code -- was indeed visible in the spacecraft's data. The probe received the message when it was about 23,000 miles from the Earth, the researchers found. The exercise is significant because it's thought to be the first time intelligent information has been transmitted to a passing interplanetary space instrument, UI researchers say.

NASA Releases Stunning Images of Violent Solar Activity:

by natmonitor.com on December 13, 2013

HD imaging technology provides NASA scientists with unprecedented access to solar events. Not news: The sun is hot. But, as it turns out, certain regions of our closest star might be more active than scientists previously thought. The Interface Region Imaging Spectrograph, or IRIS, captured highly-detailed images of prominences in the sun's atmosphere. The new image clarity is challenging the way scientists view solar events. Solar observatories look at the sun in layers. By capturing light emitted by atoms of different temperatures, they can focus in on different heights above the sun's surface extending well out into the

solar atmosphere, the corona. IRIS was launched On June 27, 2013 to study what's known as the interface region – a layer between the sun's surface and corona that previously was not well observed. The mission's early observations were presented at a press conference at the Fall American Geophysical Union meeting on December 9, 2013. "The quality of images and spectra we are receiving from IRIS is amazing," said Alan Title, IRIS principal investigator at Lockheed Martin in Palo Alto, Calif. "And we're getting this kind of quality from a smaller, less expensive mission, which took only 44 months to build." IRIS is making it possible to study the explosive phenomena in the interface region in sufficient detail to determine their role in heating the outer solar atmosphere. Tracking the complex processes in the interface region requires instrument and modeling capabilities that are only now within our technological reach. IRIS captures both images and what's known as spectra, which display how much of any given wavelength of light is present. "We are seeing rich and unprecedented images of violent events in which gases are accelerated to very high velocities while being rapidly heated to hundreds of thousands of degrees," said Bart De Pontieu, the IRIS science lead at Lockheed Martin. "These types of observations present significant challenges to current theoretical models."

ARNewsline Report 1896 -- Dec 13 2013:

by Bill Pasternak (WA6ITF) on December 13, 2013

The following is a QST. Colorado hams coordinate rescue of vehicle that runs off icy road; House of Representatives subcommittee passes FCC reform measure; Radio Acala loses its prized 330 foot high 160 meter beam antenna in fierce windstorm; six meters comes to all hams in New Zealand; 2014 will host a pair of Contest Universities in the United States and the Weather Channel celebrates Skywarn Recognition Day. Find out the details are on Amateur Radio Newsline report number 1896 coming your way right now.

NASA'S Juno Spacecraft Hears Hams Say 'Hi':

by The ARRL Letter on December 12, 2013

In a first-of-a kind for an interplanetary spacecraft, NASA's Juno spacecraft in October was able to detect Amateur Radio signals transmitting "HI" in coordinated, very slow-speed CW. More than a thousand radio amateurs around the globe greeted Juno October 9 as it looped past Earth for a gravity-assisted boost on its way to Jupiter. Participants were invited to spread out across 10 meters to transmit "HI" in very slow speed CW (1/25 WPM), sending 30 second dits punctuated by 30 second spaces and 90 seconds between the two characters.

Deadline Looms to Comment On ARRL's 'Symbol Rate' Petition:

by The ARRL Letter on December 12, 2013

The deadline is December 21 to file comments on the ARRL's "Symbol Rate" Petition for Rule Making (PRM).

Radio Direction Finding Enthusiasts Enjoy National, Regional Competition:

by The ARRL Letter on December 12, 2013

Nearly 50 radio direction finding enthusiasts took part in the 13th USA Amateur Radio Direction Finding (ARDF) national championships, held in the Uwharrie National Forest near Asheboro, North Carolina, in October. This year's weeklong US competition was combined with the Seventh ARDF Championships of IARU Region 2.

Contest University to Include Sessions at ARRL Centennial Convention:

by The ARRL Letter on December 12, 2013

Contest University Chairman Tim Duffy, K3LR, is predicting a great year in 2014 for Contest University (CTU). For the first time, CTU in 2014 will hold two different all-day sessions, with no overlap or repeats between the two. Each CTU event will feature unique and updated presentations.

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-KA8SCP.

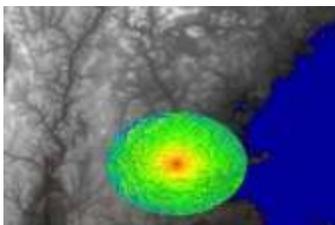
EmComm events and repeater use

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 either Hugh-N1QGE (Westford EmComm/Skywarn NCS) or Terry-KA8SCP (MEMA Region 1 Communications Officer and Skywarn NCS) . They will be more than happy to talk about these programs with you.



Repeater info is now 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, 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
Hugh Maguire – N1QGE, for the 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. 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 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.



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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/>

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