# PARTicles

The newsletter of PART of Westford, MA – WB1GOF

June 2014

## President's Column

- *Andy Stewart (KB1OIQ)*

Field Day planning is in full swing under the leadership of our Field Day chairman (Bob W1IS). Everything seems to be coming together rather nicely. A whole bunch of publicity was recently sent out by our Public Information Officer, Lela (KC1ACV). I will shortly be writing the first draft of an hourly schedule for the SSB station. The Field Day planning committee will be having a meeting later this month to finalize the details. I look forward to seeing a lot of people at Field Day.

The 13 Colonies special event is coming very soon! The event runs from July 1 - 6, 2014. Charlie (K1PUB) is leading this event for PART and coordinating all of the operators for Massachusetts. We are in need of an understudy who would like to run this event next year. If you are interested, please contact either Charlie or me. For more info, please go to the website: http://www.13colonies.info/

WRTC2014 is also just around the corner on July 8 - 14, 2014. The ARRL Centennial convention is on July 17 - 19, 2014.

Several people have mentioned that they seem to be having difficulty receiving emails from the PART mailing list. After checking your spam folder and your mail filters, if you still need help, please contact Dave (WI1R), our mailing list administrator.

Our next club meeting will be on Tuesday, June 17th, at 7:30 PM. There is no guest speaker for this meeting. I expect that after our usual introductions and brief announcements, the Field Day planning will consume the remainder of the meeting.

Check out the picture to the right… Brent KB1LQD & Bryce KB1LQC are vacationing in London and visited Am-Sat UK Amateur Radio Satellites.

Have a lot of fun!

73 de Andy KB1OIQ


Next PART meeting: Tuesday June 17th

@1930 – Westford Police station

## Treasurer's Report

### PART Treasury between 15-April '14 & 19-May '14 (As of 20-May '14)

| | General Fund | Repeater Fund | Checking Total |
|---|---|---|---|
| Old Balance | $3,733.00 | $2,382.12 | $6,115.12 |
| Income | $ 85.00 | $ 5.00 | $ 90.00 |
| Expenses | $ (51.31) | $ 0.00 | $ (51.31) |
| Net | $ 33.69 | $ 5.00 | $ 38.69 |
| New Balance | $3,733.00 | $2,387.12 | $6,153.81 |

### PART 2014 Membership as of 4-June '14

| | Individuals | (= New for 2014 + Renew for 2014) | Households | (= New for 2014 + Renew for 2014) |
|---|---|---|---|---|
| Full ($25)* | 34 | (= 7 + 27) | 34 | (= 7 + 27) |
| Senior ($15)* | 35 | (= 0 + 35) | 35 | (= 0 + 35) |
| Family ($30)* | 23 | (= 2 + 21) | 11 | (= 1 + 10) |
| Student ($15) | 1 | (= 1 + 0) | 1 | (= 1 + 0) |
| Associate ($10) | 0 | (= 0 + 0) | 0 | (= 0 + 0) |
| Grand Total* | 93 | (= 10 + 83) | 81 | (= 9 + 72) |
| ARRL members:* | | 83 | | |
| ARRL Life members: | | 8 | | |

NOTE: * Starred lines changed since 11-May '14

**Latest new PART members:**

Greg-N1DAM - Stow

**Silent Key:**

David W. Calkins, Sr./W1ZSG (Westford)
http://goo.gl/tERS2K

##To pay dues##
PART, P.O. Box 503, Westford, MA 01886-0015

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

## Upcoming PART Meetings/Events

**June 17th, 2014**
- PART Meeting. 7:30 -9 p.m. Westford Police station

**June 28th & 29, 2014**
- Field Day. Concord Rod & Gun Club

**July 5th, 2014**
- PART monthly breakfast. Westford Regency. 8-10 AM ($15/$9; kids: $8 – see note below)

**July 15th, 2014**
- PART Meeting. 7:30 -9 p.m. Westford Police station

**August 2nd , 2014**
- PART monthly breakfast. Westford Regency. 8-10 AM ($15/$9; kids: $8 – see note below)

**August 19th, 2014**
- 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 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***

15 June Cambridge MA FLEA at MIT Mitch 617 253 3776 F
Third Sunday April thru October
21 June Newington CT NARL @StMarySch Quentin KB1EWM 860 383 8203 A
18,19 July Hartford CT ARRL Nat Conv 100th Anv. W+
20 July Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
9 Aug Milo ME PARC @AmLegion George WA1JMM 207 441 6112 A+
9 Aug St Albans VT StAARC @VFW Arn N1ARN 802 309 0666 A+
17 August Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
24 Aug Adams MA NoBARC @BoweFld $5@9 $10S@8 Eric KA1SUN 413 743 9975 F+
6 Sept Windsor CT VR+C Mus 115 Pierson LN @8AM Outdoor John 860 673 0518
6 Sept Gander NF @MasonicLodge Ira VO1IRA R+
7 Sept Ballston Spa NY SCRACES @FG $10@7 Darlene N2XQG 518 587 2385 W+
14 Sept Newtown CT CARA @TownHall$5@8:30 $10/TG $15/T Ron AB1RJ 203 938 7007 +
20 Sept Forestdale RI RIAFMRS @VFW $5/Sp@8 Pete AA1PL 401 639 4484 T+
20 Sept Riverview NB MAARC @Lions $5@10 S@8 Charles VE9CEL R+
21 Sept Cambridge MA FLEA at MIT Mitch 617 253 3776 F+
27 Sept Brookline NH NEARC Antique $5@8:30 $10@7:30 Bruce 603 772 7516 F+
5 Oct Queens NY HoSARC Stephen WB2KDG 718 898 5599 W+
10,11 Oct Deerfield NH NEARfest XVI @FG Mike K1TWF 978 250 1235 +
12 Oct Meriden CT Nutmeg @Sheraton was Wallingford John N1GNV 203 440 4973
18,19 Oct Wakefield MA Photographica @AmericalCtr ~photo~ John 781 592 2553 +
18 Oct Longueuil PQ CRA-RS $10/T@7 $7@9 Martin VE2DNF 405 466 2810 R+
19 Oct Cambridge MA FLEA at MIT Mitch 617 253 3776 F
25 Oct Gales Ferry CT TCARC Auction @FireCo @10 Darryl WA1DD 860 443 7799 T
26 Oct Hicksville NY LIMARC @Levittown Hall Richie K2KNB 516 694 4937 A
8 Nov Bourne MA FARA @UpperCC VoTech $5@9 $10/S@7 Ralph N1YHS 508 548 0422
29 Nov Windsor CT VR+C Mus 115 Pierson LN @8AM Indoor John 860 673 0518

# 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/

## FUN, FOOD and FRIENDSHIP aka Field Day!

- *By Bob Glorioso W1IS*


If you missed my presentations at the last two PART meetings, you would have heard my Field Day mantra of Fun, Food and Friendship. In this FD note, I want to expand on this.

FOOD
Let's start with the usual common denominator of get togethers of all kind, Food. We have a tradition at PART Field Days of having some great food, not only to get our energy up as we keep the stations on the air for 24 hours, but as a way of enhancing our community. Charlie, W1ADL, and Rick, W1RAG, have done a super job with our meals in past years and this year, with Lela, KB1ACV, joining them, I look forward to tasting their culinary masterpieces. We gather for at least two meals where we eat in a communal dining room and share stories of the DX that got away, antennas that did or didn't launch quite as planned, how the generator that sat idle for a year started on the first pull, or how we managed to get all set-up before lunch! We also get to know each other better. This leads to the last part of the FD mantra, Friendship.

FRIENDSHIP
I have found the informal atmosphere of FD a great place to make new friends, get reacquainted with old friends, find others with common interests, both in and out of Ham Radio, and to appreciate the great knowledge and capabilities of other PART members. If you only come to FD for the camaraderie it is well worth the effort.

Clearly, Food and Friendship alone are two good reasons to come to FD and are indeed Fun. But there are many other things that we do at FD that support the FUN, especially if you are interested in one or more of the many aspects of our terrific hobby.

FUN
It takes teamwork to do all that we do at Field Day and in that teamwork we also get to know our fellow PART members as we accomplish the many tasks required to get on-the-air in this simulated emergency environment. What tasks you may ask? There are indeed many.

First, there is the planning and recruitment of people who will lead the many activities from getting the Site, to PR, Web announcements, Safety, Antennas, Station set-up and operation, Food, scheduling, Signs, Funding, etc. These are just some of the jobs that put the infrastructure of FD together. This year there are over 20 people on the FD Committee.

Next, is getting stations on the air. The first question is what power will we run? We did well last year running 4 QRP stations (3 on HF and one on VHF) using batteries and solar power. This year we are trying something different running QRO (100 Watts) using three generators.

We are also moving the SSB station out of the main building into a tent about 100 Yards South of the lodge to minimize inter-station interference, besides, Andy really wants to camp!

Our station managers are responsible for getting all the gear together including the logging computer and SW and, in the case of the SSB station, the shelter. The station managers who have stepped up this year are Andy, KB1OIQ, for SSB, Steve, WA1KBE, Digital, Allison, KB1GMX, VHF and the threesome, Bill, AA1O, Al, W1CCE, and Bob, W1IS, for the CW station. The question all the station managers have been asking the past few weeks is whether we have enough operators to keep all three HF stations on the air for 24 hours. This is always an issue for every FD I have participated in since the mid-50s (Yes, I am that ancient!). The answers have come in slowly with SSB and CW reporting that they have enough operators to make it through the night. If the response from members who want to operate continues, it looks like we can operate in the 3A class (Three Stations operating simultaneously on emergency power.) again this year. As an emergency power operation, we get some nice perks including free VHF station and satellite stations. Allison, KB1GMX, will, once again, be putting up her 6 & 2M station at the Trap Range and Bob, KB1SWZ, will be operating his neat satellite set-up. Jon, N1ILZ, with help from Anita, AB1QB, Rich, N1HY, and Steve, N1BDA, will be copying and sending formal traffic.

Setting up stations also includes antennas and we have several people who are working on this now. Allison, KB1GMX, and Bob, W1IS, are each building 2-element tri-band wire beams for 20, 15, & 10 Meters. The SSB station will also have a G5RV for 80 and 40 M and the CW and Digital Stations will also have a 2-element wire beam for 40 & 15 M and a G5RV for 80 & 40 M. The VHF station will have beams for 6 and 2 Meters on a tower that we will launch Saturday morning. A small antenna team will start work on Friday afternoon putting up ropes for all the wire antennas using the air powered launcher Al, W1CCE, and Dave, KB1EDE, made.

Another aspect of FD encompasses meeting the public: Press, other hams, casual visitors, and public officials. Our PR team of Lela, KB1ACV, and Mark, K1MGY, have been busy sending out press releases and invitations and others have stepped up to greet visitors and give them tours. Scott, NE1RD, is revising our brochure to give to visitors.

At the last meeting we talked about contest operation. Although FD encompasses many aspects of our hobby, especially our ability to operate under simulated emergency conditions, it also includes contest operation. Contest operation is indeed different from normal rag-chewing and is very different from VHF FM repeater operation. Through the years I have seen people come to operate FD for the first time and be bewildered by contest operation, especially on the crowded lower bands, 80, 40, 20 & 15M. This year we are instituting some changes to make the transition a little less bewildering and, hopefully, help more folks make their first contacts in this new environment. We started with the presentation on Contesting and DXing at the last meeting.

First, set your expectations properly. New FD operators should not sign up to operate for many hours. Plan on a maximum of one-half hour. You will see why once you get into it.

Second, assist in station set-up. This will get you familiar with the equipment and help you get to know the station manager/s who will most likely be your Elmer for that operation.

Third, attend the Tool Box Talks where the station managers will describe operating their station and the logging software.

Fourth, sit by the station you wish to operate for at least one-half hour to see how it's done. You may even step in and help log or do other tasks to assist the operator.

Fifth, with the assistance of your Elmer, get on the air and enjoy the satisfaction of making your first FD contacts.

FD begins at 0830 on Saturday morning June 28th. Please come to help launch antennas, install generators, set-up stations and meet fellow club members in a Ham's "natural environment!" Once you have seen how things were set-up, you are well armed to help us tear it all down starting at 1400 on Sunday afternoon. Set-up and tear-down do require many hands.

As you can see, we have a lot going on at PART FD. I do hope you will join us June 28 &29 for: FUN, FOOD & FRIENDSHIP.

## Member Contribution

### SpaceCat Balloon Launch

- *By Mark Richards, K1MGY*

On Thursday, May 26, a group of inquisitive Upper Elementary and Middle School student engineers from Oak Meadow School (OMS) in Littleton, MA launched their Space Cat high altitude balloon from a small private airfield in southwest New Hampshire. Part of Oak Meadow's well-rooted Science Technology Engineering and Math (STEM) initiative, this after school project took several months of thoughtful planning, imagination, and creativity to prepare for lift off. "The Oak Meadow environment encourages, and provides total support for, the creative expression of students," said Mark Richards (K1MGY), parent of OMS student Hyatt Mayor. "Success of this, and any other educational effort, is not bounded by test scores but instead is measured in units of imagination and creative drive. The balloon payload has yet to be recovered, but the positive results of this student-led project will last a lifetime".

The Silver Ranch Airpark in Jaffrey, NH generously accommodated the launch team with a clear field. Ordinarily a site where light airplanes come and go, this small airport earned the distinctive title, "Silver Ranch Near-space Port", as the high altitude balloon lifted off at 1:15 PM with tracking radios, photography, and temperature sensing among its payload.

The design and launch team, including Oak Meadow students Jasmine Vogtli, Hyatt Mayor, Ben Cooper, Benjamin Tadmor, and Meera Iyengar-Gupta, released the balloon and watched it quickly rise for

its destined 30KM (100,000 Ft.) altitude, where it was predicted that the balloon would burst, returning the payload safely to the Earth by parachute.

Tracking and recovery efforts commenced immediately after lift-off. Using an Amateur Radio APRS (Automatic Packet Reporting System) system, the Tracking Team comprised of Oak Meadow science teacher Kirsten Wright, all Middle School students, and UE students Meera Iyengar-Gupta and Hunter O'Toole, remained at Oak Meadow to keep the Launch and Recovery Teams aware of the balloon's position and track. In addition, several Amateur Radio operators, many skilled in radio direction finding, assisted in the search which terminated at 6:30 p.m. when the signal was lost. Unfortunately the GPS position data ended a few hours into the flight, but a tracking beacon – another Amateur Radio system – continued to transmit until it, too, faded. Several local Amateur Radio operators, members of the Police Amateur Radio Team (PART) of Westford, MA, assisted by providing bearings to the balloon beacon signal. From these and other data it was finally determined that the balloon continued out to sea at high altitude.

Project leader Bob Vogtli (KB1ZHX), referring to a beloved stuffed animal passenger that traveled on this ultimate journey, said "it is also possible that Pouch will make it across the Atlantic. That should take her between 24 and 48 hours, depending on the winds at altitude (unknown). Also hard to predict is landfall, but it should overfly Spain or Morocco. Now, the batteries will be long dead at that point, hence no radio contact with European Amateur Radio operators will be possible. However, if it lands (and it would, as the latex will fail sometime after), then it is possible that someone will find the balloon and call us back. (It has rescue placards on all capsules.) If so, a Spanish-speaking OMS rescue team may need to be dispatched to Europe."

This mufti-faceted STEM lesson was made possible with the guidance of dedicated Oak Meadow teachers and parents, plus the enthusiasm and creativity of students. From lessons on the stratosphere to building a strong capsule and using GPS and tracking devices, students were exposed to an exciting challenge while engaging their minds with STEM activities.

"The Oak Meadow education is rooted in the principles set out by Maria Montessori. It is one of unbounded opportunity," said parent Mark Richards. "As leaders we prepared the learning environment, asked challenging questions, gently guide, and then got out of the way – allowing each student to express their creativity, intelligence, and personal responsibility."

## My view of the balloon chase on May 29

- *By Tim Miranda, KC1AJJ*

The morning of May 29th, I was working from home, and saw an email on the club list from John KB1MGI announcing the high altitude balloon launch that Mark K1MGY was working with.

Since I was at home, and stuck on my laptop anyway, I thought it would be fun to watch the balloon's progress on aprs.fi, and also keep an ear on the Westford repeater in case Mark needed any assistance while he was chasing the balloon post-launch.

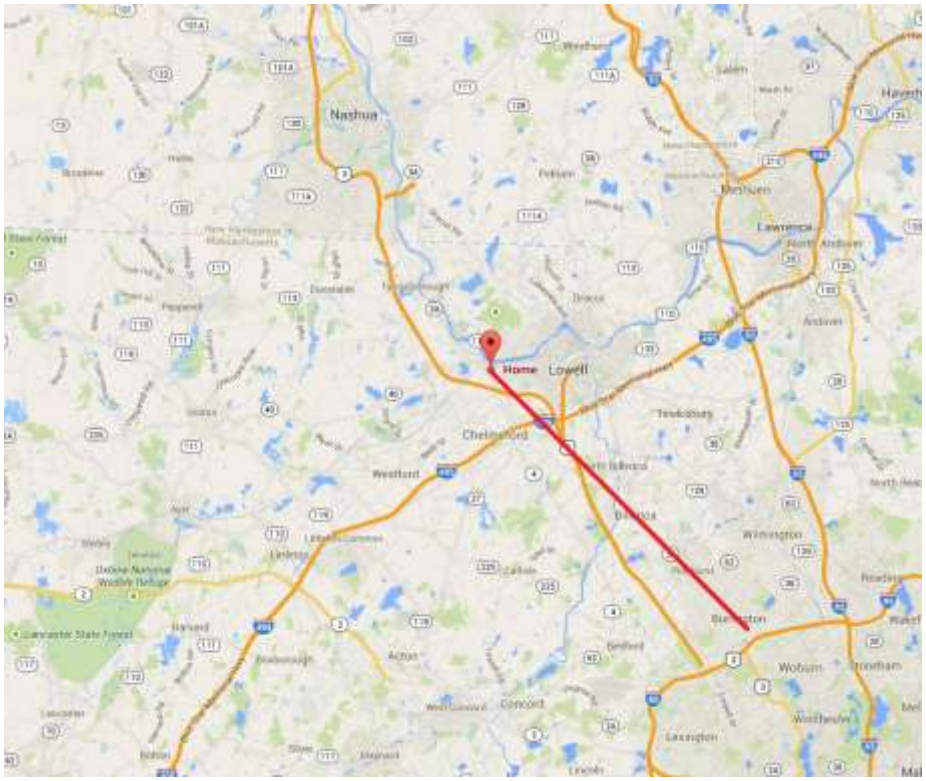
At lunch time, I ended up heading out to Westford to get some takeout, and listened on the fox frequency for the balloon, but nothing heard. I had a brief chat with Bob W1FDR about whether the balloon had actually been launched yet, but we hadn't seen or heard any updates, so we both kept an eye on emails and listening to the fox just in case.

Around 1330, I was logged into the Westford repeater on Echolink, and several club members called in to ask about the balloon. We all noticed the balloon was reporting, via APRS, that it was about 100,000 feet in the air, but essentially stationary, so there was much speculation about GPS failures.

At that same time, I started getting a faint previously-unheard melody on the 2m fox frequency on my portable, at my home in Chelmsford! I happily announced that the balloon's beacon was transmitting over the repeater, and discovered that others (like John KB1MGI) could also hear it. It was amazing to consider the simple line-of-sight implications of a fox over 100,000 feet in the air, being heard over the whole Middlesex county region quite clearly.

Folks then began a multi-channel, multi-region, tracking adventure for the balloon: Operators at home in Chelmsford, Acton, Littleton, Billerica, Framingham, mobile operators in their cars commuting home from work around the whole 495/95/2/3 area, people assisting from California over the email list even!

An interesting initial moment for me personally was when I took a tape-measure yagi reading of the balloon's beacon from my QTH, and at that same moment, Bryce Salmi announced over email that the balloon had started providing a probable position via APRS again.

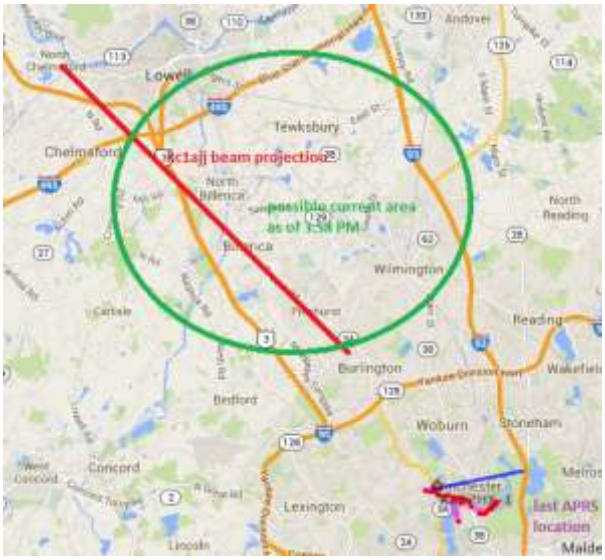



The APRS reading showed it in Medford, over the Middlesex Fells. My yagi reading actually intersected pretty closely with that region, adding to the speculation that the balloon was in that unexpected area,

With Allison on the case from Framingham, a reading from there intersected as well.

Around 1600, the balloon again ascended and stopped providing dynamic APRS positioning, so it appeared "stuck" over Winchester.

Relying on yagis and foxhunting again, readings from my QTH, Allison in Framingham, and Bob who was now mobile in Billerica with his dish gave a general sense that the balloon was in this area.




After that point, multiple readings from my QTH, Allison in Framingham, and now Mark in his chase vehicle stopped on 495 at the rest area outside Chelmsford, we speculated that the balloon had floated west towards Groton

At this point, I had to jump off the tracking and get to some other obligations.

I really appreciate Mark K1MGY's work and enthusiasm with this project, encouraging an engineering and scientific focus for the next generation. I also think, as a relatively new ham, the ad-hoc net that self-organized that day to help the balloon chasers out was a great example of the power and relevancy of ham radio: people stepped up to be net control, APRS watchers, fox hunters, and tour guides to those on the ground, combining radio, internet, and cell phone into a single adhoc communication network.

## Addendum to the Story - Recovery

- *By Mark Richard K1MGY*

We've spent the past week trying to reconstruct Pouch's spaceflight. A theory that is fitting all of the facts will follow.

Much of the analysis is based on the work of the Westford amateur radio club on the day of the flight, who monitored our astronaut's VHF radio beacon as mentioned previously. They performed signal strength measurements, triangulated position with directional antennae, and even drove mobile units to home in on the beacon signal.

Another useful piece of information is coming from the APRS transmitter onboard. This is an automated VHF radio that transmits digital data to APRS ground sites throughout New England. As mentioned previously, the attached GPS unit failed for most of the flight, and the APRS data received did not provide direct position and altitude data. However, the time of reception, and distance of the receiver from the postulated position of the balloon, does reveal something about the flight path.

With that, the theory that best fits all of the observations and facts is this:

- The ground crew nailed the 'neck lift' of the balloon - good job all. The desired launch volume seemed to be 'on the money'. However, we had calculated for another launch site, and the higher altitude of Jaffrey meant the air pressure was lower than calculated. Hence the amount of helium injected was lower than calculated ... and the resulting ascent rate was 3.7 m/sec vs. the desired 4.5 m/sec.

- The balloon rose to an altitude exceeding 85,000 feet by 3:30PM, stationed over Winchester and Billerica. At some point (and I've yet to find any other club that performed this feat!), we (only) developed a slow leak ... INSTEAD of the balloon actually rupturing. This may have been due to the slow ascent rate and the makeup of the balloon - it may be hard to know. With this leak, the balloon began a slow descent. The true rate will be hard to determine, but somewhere between 500 ft/min and 700 ft/min is a good guess for now.

- The balloon continued to descend and also to drift slowly westward, reaching as far as Groton MA by 5:00PM. At around this time, the balloon reached the upper extent of what we know as weather, perhaps 60,000 to 65,000 ft, "low" enough where it started to experience a strong(er) wind that pushed it in an easterly direction.

- By 6PM, the balloon, still descending, was down as low as perhaps 25,000 ft and somewhere over or to the east of Orleans MA (on the Cape). At this point, the wind direction started to push it on a more northerly track.

- By 6:30PM, the balloon was quite close to the ocean. The last APRS transmission received from her was from a coastal APRS station along the New Hampshire coast.

- Splashdown occurred sometime afterwards, perhaps as late as 7:00PM. Pouch's splashdown point will be difficult to determine: perhaps as far as 100 miles from shore. However, the prevailing surface currents off our New England coast tends to move water in a clockwise pattern along the NH and ME coast, up along Nova Scotia, back down into the ocean, and eventually back to MA. So there is good hope that the capsule, being buoyant, would eventually wash up on shore.

********** UPDATE **********

The launch team received a voicemail Thursday, June 5th at 3PM. The caller was Lieutenant Commander (LCDR) Eric Hurley, captain of the United States Coast Guard (USCG) Jefferson Island (WPB-1340). This is a 110-foot long Island Class Patrol Boat used by the USCG for offshore patrolling.

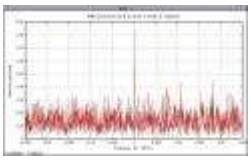
LCDR Hurley relayed that his ship had recovered the 'OMS High-altitude balloon experiment' 7 nautical miles north of Provincetown MA. (Since the capsule has been drifting for a week now, it did not land there, but very likely far from this point.) He further relayed that the capsule will be mailed to us when they return to base.

The Jefferson Island sails from Portland Maine.
Their emblem and a picture of an Island-class boat or 'cutter' is attached.
Information on the boat can be found at:
< http://www.uscg.mil/d1/cgcJeffersonIsland >
and the vessel class at:
< http://en.wikipedia.org/wiki/Island-class_patrol_boat >

When better contact is made, we will propose an Expedition to recover the capsule and properly thank the crew in person.

In the meantime, astronaut Pouch, her video camera & her still camera should soon be home, and will provide us with some interesting photos of downtown Boston on a clear summer day from 85,000 ft up.

## Amateur Radio News

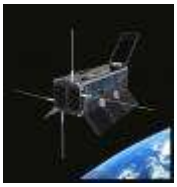


06/06/2014 | **Radio Amateur's Sub-9 kHz VLF Signal Detected Across the Atlantic** A North Carolina ham's sub-9 kHz signal has been detected in the UK. Learn More

06/06/2014 | **W100AW/7 On the Air from Sea-Pac — ARRL Northwestern Division Convention** W100AW/7 will be on the air this weekend from Sea-Pac, the ARRL Northwestern Division Convention and an ARRL Regional Centennial Event. Learn More

06/06/2014 | **LoTW, Centennial QSO Party Page, and ARRL E-Mail Will Be Offline Briefly on Saturday, June 7** Network maintenance at ARRL Headquarters will affect LoTW and Centennial QSO Party sites plus @arrl.org e-mail on June 7. Learn More

06/05/2014 | **AMSAT-NA Board of Directors Nominating Petitions Due by June 15** The AMSAT Board has four seats opening up this fall. Nominating petitions are due June 15. Learn More



06/05/2014 | **Amateur Radio Satellite Payloads Set to Launch into Orbit this Month** Several Amateur Radio satellite payloads are set to go into space this month. Learn More

06/04/2014 | **Honor Roll DXer, Assistant ARRL Director H.O. Townsend, K5CX, SK** Honor Roll DXer, Assistant

ARRL Director H.O. Townsend, K5CX, has died. He was 69.
Learn More

06/04/2014 | **Radio Amateurs Are Key Players in Effort to Maneuver 36-Year-Old NASA Spacecraft** Hams are primary participants in the ISEE-3 Reboot Project that is attempting to resurrect a 36-year-old NASA spacecraft.
Learn More

Southgate Amateur Radio News

Latest Amateur Radio News from around the world
*URL:* http://www.southgatearc.org

### Ham Radio SummerFun Television Contest
The BATC SummerFun Contest will run from 1200 UT on Saturday, June 14, 2014 until 1200 UT on Sunday, June 15. There is also a Dutch ATV Contest on the same weekend

### Radio ham's 9 kHz VLF signal crosses Atlantic
A signal on 8.971 kHz has spanned the Atlantic, from North Carolina to the UK

### Influence of ham radio on astronaut
ISS Astronaut Alexander Gerst KF5ONO mentions how his grandfather helped him moon bounce a radio signal when he was 6 and the influence amateur radio had on his career

### NASA beams 'Hello, World!' video from space via laser
NASA successfully beamed a high-definition video 260 miles from the International Space Station to Earth Thursday using a new laser communications instrument

### RAC volunteer recognition: Jacques Dubé VE2QK (VE2 QSL Bureau)
This year marks 20 years of true continuous volunteer dedication RAC wishes to highlight. The dedication from our volunteers is what brings success to many aspects of our organization

### Amateur Radio World Castles Award
Andrew RN1CW has news of more castle activations plus details of the World Castles Weekend (WCW - 2014)

### Ham radio tutors newsletter
The May edition of the free amateur radio training instructors' newsletter is now available for download

## RSGB AGM recording

The RSGB report a recording of this year's AGM, held in Manchester on April 12, 2014, is now available for members to listen to and download

## Propagation de K7RA

Boy, has solar activity declined this week, and the near term outlook weakened as well

## Navajo code talker Chester Nez dies at 93

The BBC report the last of the 29 Navajo Americans who developed a code with their native language to encrypt military messages in World War 2 has died

## Pot growers' lights interfering with ham radios

The Coloradoan reports that Marijuana growing operations, using grow lights can emit interference blocking radio broadcasts on both the ham radio and AM spectrum

## The Economist: Nanosats are go!

The Economist magazine has a feature on CubeSats and Nanosats and mentions the UK amateur radio satellite STRaND-1

## Space station cargo ship departure to air on NASA Tv

NASA Television will provide live coverage of the departure of an unpiloted Russian cargo vehicle from the International Space Station (ISS) beginning at 9 a.m. EDT Monday, June 9

## HAM RADIO 2014: new appointment with European hams

27-29 June, at Friedrichshafen exhibition hall/stand no.: A1-563, you will find EURAO and some of its members: AFCD, CISAR, FEDI-EA, URC and VRA, ready to exchange points of view

## Honor Roll DXer, Assistant ARRL Director H.O. Townsend, K5CX - SK

ARRL Life Member Howard O. 'H.O.' Townsend, K5CX (ex-WA5MLT), of Naples, Texas, died on May 30. He was 69. Townsend was a retired software designer and a US Army veteran

## RAC President to visit CAARC (Alberta) June 14th

The Central Alberta Amateur Radio Club (CAARC) is holding their 44th annual picnic and hamfest June 13, 14 and 15th

## Radio transmitter use with Unmanned Aeronautical Vehicles (UAVs) or Drones

New Zealand's regulator, RSM, has published some advice on its website regarding the use of UAVs in the country

## Dave Raycroft's ICPO Bulletin

ICPO - Islands, Castles and Portable Operations. Probably the most comprehesive ham radio activity listings available anywhere on the internet

## Tony's 10 Metre Band Report

A disappointingly poor week, with W1AW generally topping the ratings. 7QNL is correct and is Malawi. Unusual form of callsign that


ARRL National Centennial Convention 2014

Thursday, July 17, 2014 - Saturday, July 19, 2014

The Algonquin Amateur Radio Club is sponsoring a round-trip bus ride from Marlborough to the ARRL Centennial convention in Hartford, CT on Saturday, July 19th. Transportation will be via a touring class Greyhound type coach with 55 plush seats, air-conditioned with onboard restroom and professional driver. The bus will leave from the Marlborough High School rear parking lot at 8:00 AM. The return trip will depart from Hartford at 4:00 PM, arriving back in Marlborough approximately 5:30 PM, giving you about six hours at the convention. The round-trip cost is $10.00 per person. AARC subsidize the cost of the bust trip to make it more affordable to individuals.

This is being offered on a first come first served basis, the offer also extended to other area club members, if you are interested contact Skip (WB6VVA) at ewswenson50@comcast.net

## Area Events

### WRTC 2014 Volunteers Needed

The WRTC organizing committee is still in search of volunteers for the upcoming event in early July. Please visit the site to see what opportunities exist, and what areas they still need more help with. The World Radiosport Team Championship will be held July 8 thru 14 during the IARU HF Championship.

The training session was held May 31th in Milford MA was a huge success, the turnout exceeded all expectations. It was a perfect venue to familiarize oneself with the setup process of tower and beam assembly, as well as site related equipment.

Now is time to focus on the actual event where we can showcase New England, our hospitality and our enthusiasm with Amateur Radio in front of international fellow operators. We have one opportunity to make this event successful. Visit the official WRTC site to sign up to volunteer.

## Man Found In Hara Arena, Days After Hamvention Ends

- *By K5KVN, on the scene*

**DAYTON, Ohio** — A Vermont amateur radio operator was found today in a remote hallway within the Hara Arena complex, three days after the end of Hamvention. Officials at a news conference identified the man as Gerry Mapleshire and described him as being found "disoriented, hungry, and with three days of beard growth."


After medical technicians on the scene revived his blood sugar by providing him a leftover $6 Hamvention Hotdog, Mapleshire recalled what happened.

"It was shoulder-to-shoulder on the arena floor. I remember a nice-looking lady handing me a free Kenwood cloth bag full of brochures and a lapel pin, then the crowd shifted and I was pushed into the MFJ booth," said Mapleshire.

He says that's when his "survival instincts" kicked in.

"I got on my hands and knees and crawled out of the MFJ booth. I got to the arena floor ramp but the crowd was so thick. I somehow ended up in a hall by the loading docks, without my Kenwood bag," he said.

He wandered through dark hallways trying to find his way out of the vast complex for three days before a maintenance worker found him. "I called for help on 146.520 but no one answered," said Mapleshire.

Hamvention information deputy Ned Doubtman investigated why his radio call went unanswered. "Turns out he was transmitting WITHOUT a PL tone. Everyone here blocks out QRM by using a PL tone on transmit and receive. It's no wonder he wasn't heard," said Doubtman.

Mapleshire says he's still recovering from the traumatic experience, but would like to get in touch with someone from Kenwood so he can get his lapel pin.

### hamhijinks.com

Thanks to Bill Principe – K1NS

## 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!**

Copyright WB1GOF, Robert Schmeichel 2011

### Monthly Breakfast Pricing

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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## 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.*

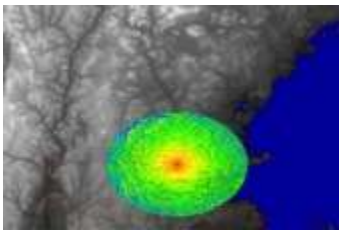
### EmComm events and repeater use

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 dame from lightning or wind, etc. Please give him the information he needs or tell him that you've not heard of any such activity. You don't need to tell him it is sunny in Nashua!

There may come a time when an unexpected emergency situation arises. These will significant events that may affect life and property. This is where 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) 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 & 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:
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Our website is: http://wb1gof.org
Our forum is: http://wb1gof.net/forums/
Contact us at: info@wb1gof.org
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