

N.E.W.S. LETTER

The Official Publication of the North East Weak Signal Group – <http://www.newsvhf.com/>

January, 2015

Volume 24

Issue 1

NEXT MEETING: January 3, 2015

January 3 Meeting Program
REPORTS ON SHORT PROJECTS
EQUIPMENT TESTING SESSION

BOARD MEETING - 11:15 AM at Lulu's, 151 Hazard Ave. Enfield, CT
phone: (860) 763-2377
I-91 exit 47 Rt.190E. 1 mile on left.

GENERAL MEETING - STORRS LIBRARY - from 1 PM to approximately 3:45 PM.
693 Longmeadow St, Longmeadow, MA 01 <http://www.luluspizzeria.com/106>
<http://longmeadowlibrary.wordpress.com/>

DON'T FORGET

The North East Weak Signal Group
2 Meter VHF and Above Net
Every Thursday at 8:30 PM local 144.250 MHz.
W1COT, WZ1V or K1PXE Net Control

MEMBERSHIP in the N.E.W.S Group is \$15 per year. Apply to Tom Williams, WA1MBA. Email [tomw\(at\)wa1mba.org](mailto:tomw(at)wa1mba.org) You may download an application from our web page:
<http://www.newsvhf.com/>

The N.E.W.S. LETTER is the publication of the North East Weak Signal Group. Articles may be reprinted with proper credit given to the author and the N.E.W.S. LETTER. Send articles to Tom Filecco W1WSO, via email to w1wso.fn31@gmail.com.

N.E.W.S. GROUP OFFICERS

PRESIDENT:

WA2AAU, Dick Frey
7262 Skyline Dr,
Delanson, NY 12053, FN22vs
Home: 518-895-2798
rffbauer@gmail.com
ACTIVE ON: 6, 2, 222, 432, 903, 1296, 2304,
3456, 5760, 10 GHz, 24 GHz.

VICE PRES:

N1JFU, Steve Meuse
80 Walnut St.
West Bridgewater, MA 02379 FN42la
Home: 508-345-3742
smeuse@gmail.com
ACTIVE ON: 6, 2, 222, 432, 10 GHz.

SECRETARY:

W1GHZ, Paul Wade
582 Dubray Road
Cabot VT 05647, FN34uj
Home: 802-563-2110
Cell: 802-498-4797
w1ghz@arrl.net
ACTIVE ON: 6, 2, 222, 432, 10GHz, more to
come.

TREASURER:

WA1MBA, Tom Williams
POB 28,
Shutesbury, MA 01072, FN32sl
Home: 413-259-1921
tomw@wa1mba.org
ACTIVE ON: 6, 2, 432, 903, 1296, 2304, 3456,
5760, 10, 24, 47 GHz.

EDITOR:

W1WSO/7, Tom Filecco
PO Box 384
Rock Springs, WY 82902, DN51jo
Cell: 203-364-4225
w1wso.fn31@gmail.com
ACTIVE ON: 6, 2, 10 GHz.

SPECTRUM MGR:

K1MAP, Mark Casey
303 Main Street,
Hampden, MA. 01036, FN3
Home: 413-566-2445
map@mapinternet.com
ACTIVE ON:6, 2, 222, 432, 903, 1296, 2304,
3456, 5760, 10 GHz

BOARD OF DIRECTORS:

(All terms expire 2015)

K1MAP, Mark Casey
303 Main Street
Hampden, MA. 01036, FN32sb
Home: 413-566-2445
map@mapinternet.com
ACTIVE ON: 6, 2, 222, 432, 903, 1296, 2304,
3456, 5760, 10 GHz

K1WHS, Dave Olean
177 Dixon Rd.
Lebanon ME 04027, FN43mj
Home: 207-658-7758
k1whs@metrocast.net
ACTIVE ON: 6, 2, 222, 432, 903, 1296, 2304,
3456, 5760, 10 GHz, 24 GHz.

W1COT, Bob Leiper
47 Diane Dr.
Vernon, CT 06066, FN31st
Home: 860-649-6690
releiper@ix.netcom.com
ACTIVE ON: 6, 2

W1ZC, Dick Wilborg
791 Brookline Rd.
Mason, NH. 03048, FN42dr
Home: 603-878-3680
w1zc@myfairpoint.net
ACTIVE ON: 6, 2, 432, 1296

President's Report

Wow, January 3 is upon us RIGHT after the holidays. I hope everyone had a good time with family over the past few weeks. And just to keep things popping, remember the January VHF contest is on the 24-26. We are in the middle of winter and we tend to spend more time in the shop this time of year so this meeting let's have some activities to support our building habits.

This meeting let's have some "small project" reports... please tell us about something you have been working on in the last several months that you can describe in 5-15 minutes. More than one project is perfectly fine... the more the merrier. Please bring a couple of photos, and/or some presentation "slides" to describe what you have been working on. It doesn't need to be complicated, or high science, just tell us about what you did. Also, bring some show and tell models of the stuff so we can see the finished project if that makes sense.

Remembering the January contest is not very far away, let's do some testing during this meeting. What I have available is certainly not as impressive as the Rhode & Swartz equipment Greg often brings to our conferences, but it should give a lot of good information nevertheless. I will bring an HP-8970B noise figure meter for testing preamps or receive converters. The noise figure meter operates up through the 1296 MHz band without a converter in front of it. It would be great if someone could bring a low-ENR noise source. If you want to test preamps on 2304 MHz or above, please bring a receive converter or transverter to facilitate testing. Almost any converter will work so long as the IF is on the 1296 MHz band or below.

Partial Test Equipment List

HP8753B Network Analyzer 300 kHz – 6 GHz	HP8555A Spectrum Analyzer to 18 GHz +
HP85046A S-Param. Test Set 300 kHz – 3 GHz	(2) HP8640B Signal Generators One to 1100 MHz
Home Made N.A Frequency Doubler Equipment	Weak Signal Up Converters for 2G, 3G, 5G
HP8742 Reflection. Test Set 2-12 GHz	12 G Automatic Microwave Frequency Counter
HP 8xxx 3G Network Anal (Internal Refl. Bridge)	Several HP432 Power Meters + Attenuators
HP xxxx Scaler Network Analyzer	100 Watt Coax load good to 10 GHz
HP8970B Noise Figure Meter with 18G noise head	Many directional couplers and adapters etc.

I plan to bring 2 vector network analyzers for general pur-

pose measurements up to 3 GHz, or maybe 6 GHz if I can round up a volunteer. I know some of the guys in the NEWS Group have HP8753Bs that are capable of measurements up to 6 GHz. If you can bring yours, please send me an E-Mail. Even if not, I have an 8753B that will make measurements up to 3 GHz, and with some messing around will make limited measurements up to 6 GHz at least in the 3456 and 5760 MHz ham bands. I am hoping I can arrange a 10 GHz scalar network analyzer. Sorry guys, I don't know anyone who owns a 10 GHz VNA but if you have one and are willing, it would be great if you could bring it. We will also have a microwave frequency counter with a rubidium clock reference for accurate frequency measurements.

We will also have some older style power meters and spectrum analyzers on hand for trouble shooting some problems your equipment may have up through 10.5 GHz. I will have calibrated stable weak signal sources available up through the 5760 MHz band to trace signals through equipment. We will be able to accurately measure power up to 100 watts at frequencies up to 10.5 GHz.

If you don't have any equipment you need to test, please come to help run the test equipment to help your fellow hams figure out their problems. Also, some of the "show and tell" items might be fun to see!

Finally, remember the January VHF sweepstakes will be here on January 24-26 at the end of the month. Please get ON THE AIR on as many bands as you can. Be prepared to tell the group what bands you will be active on, and any new bands you will be on for the first time. If you plan to do some roving, tell us about the route you might take. ETC, Etc, etc.

- R. L. Frey – WA2AAU

Secretary's Report

NEWS Meeting 22 November 2014, Storrs Library, Longmeadow, MA

Preceded by a Board of Directors meeting at Lulu's Restaurant

President WA2AAU called meeting to order

NO TREASURERS REPORT - Treasurer not present

NEW BUSINESS

2015 meeting dates (tentative)

1/3

3/21

4/17-19 Eastern VHF/UHF Conference

7/11 picnic

9/? tbd

11/21

APPROVED by consensus

MOTION by K1MAP to cohost the
Eastern Super VHF Conference April 14-17 2016
with SEVHFS and PackRats

- UNANIMOUS

Proposed ARRL VHF Contest rule changes

Suggestion: allow telephone in 1.16

Comment: may result in less activity because stations will
be on chat rooms instead of calling CQ

Suggestion: one year trial

Comment: beware of unintended consequences

-> Secretary to forward comments to committee

ANNOUNCEMENTS

W1COT has been in hospital - now in rehab

Speakers needed for 2015 Eastern VHF/UHF Conference

PRESENTATIONS

N1JEZ - GPS, Anglian transverter

Jason Mativi - Williams College

jwm1@williams.edu

413-597-2205

ATMOSPHERIC TELEMTRY

Balloon - temp pressure humidity

Adiabatic Lapse Rate = 9.8K/km elevation for dry air

Helium balloon

80g payload 120g lifting capacity 3-4ft dia

433.92 MHz 10 mw AM MCW morse every 30 sec - Ana-
sonde

1+ hours data to ~25k ft

Missing desired data: GPS, other

Balloon cheap but weight and guidance limit

Rocket or drone - cost & complexity

Recoverable payload with data storage?

Courtesy notification to FAA

K1JK - balloon transmitter

Arduino and GPS - 10 char Maidenhead in Morse

Adafruit crystal replacement

KA1SUN & W1AUV also participated

Treasurer's Report

I normally review the treasury and membership in July at our
annual meeting and in January when most of the stragglers
have remembered to pay their dues. I'm pleased to report

that the treasury and membership are running at slightly
above the numbers for this time last year, and are in fact at
the highest levels of the last decade. Thanks to all members
who have recruited and kept our club active and attractive.
We have paid for our space at Storres Library for 2015, and
have also sent our annual donation. Let's continue to think
about and discuss ways we can promote and advance our
club's cause with our funds.

As I have mentioned in the past, this is my last year as Trea-
surer. The office has no specific term, but I have decided
that I have been doing it long enough and so am resigning
in July 2015. Please consider whether you would like the
job. In addition to keeping the dues/membership database
up to date, the treasurer has to report at meetings, write
checks to support our function, send the up-to-date email list
of paid-up members to the NEWSLetter editor, print and
mail the NEWSLetter to those who do not get it electroni-
cally (about 20 members), and send call signs and some
other data of paid-up-members to the keeper of the website.
Also, reminders have to be sent to members who have for-
gotten to renew between August and January, and thanks
sent to those who have renewed and joined. That's about
the total of it. The "database" is just an excel spreadsheet.
We hope, some day, to move to a shared file, perhaps in
Google Drive or Docs, so that the data sharing functions
and web page update can become more automated rather
than sending emails.

- Tom WA1MBA

Richard Salter Storrs Library

693 Longmeadow Street • Longmeadow, MA • Phone: (413) 565-4182 • Fax: (413) 565-4183

North East Weak Signal Group
PO Box 28
Shutesbury, MA 01072

December 22, 2014

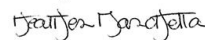
Dear Thomas:

On behalf of the staff and patrons at the Storrs Library, we would like to thank
the North East Weak Signal Group for your generous donation of \$100.00.

We are so pleased that your group finds our library hospitable. We work hard to
make this a very welcoming environment for all and always enjoy your visits.

Thank you, again, for your very generous donation.

Sincerely,



Heather MARCHETTA
Youth Services Librarian

2015 Calendar

January 3, 1PM - 4PM -
[N.E.W.S. Group Meeting](#)

January 4 -
Quadrantids meteor shower

January 24-26, 1900Z-0359Z -
[ARRL January VHF SweepStakes](#)

February 28 -
[Winter Hamfest - Big Flats, NY](#)

March 21, 1PM - 4PM -
[N.E.W.S. Group Meeting](#)

April 6, 1900-2300 Local -
[144 MHz Spring Sprint](#)

April 17-19 -
[Eastern VHF-UHF Conference](#)

April 14, 1900-2300 Local -
[222 MHz Spring Sprint](#)

April 22 -
Lyrids meteor shower

April 22, 1900-2300 Local -
[432 MHz Spring Sprint](#)

April 25-26 -
[Southeastern VHF Society Conference](#)

May 1-2 -
[New England Amateur Radio Festival - Deerfield, NH](#)

May 2, 0600-1300 Local -
[Microwave Spring Sprint](#)

May 9-10, 2300-0300Z -
[50 MHz Spring Sprint](#)

May 15-17 - [Dayton Hamfest](#)

June 13-15, 1800Z-0300Z -
[ARRL June VHF QSO Party](#)

July 11, 11AM - 4PM -
[N.E.W.S. Group Picnic](#)

July 18-19, 1800Z - 2100Z -
[CQ Worldwide VHF Contest](#)

August 1-2, 1800Z - 1800Z -
[ARRL UHF Contest](#)

August 12-13 -
Perseids meteor shower

August 15-16, 6AM - 11:59:59PM -
[ARRL 10-GHz & up Cumulative Contest](#)

September 5 (tentative), 1PM - 4PM -
[N.E.W.S. Group Meeting](#)

September 12-14, 1800Z-0300Z -
[ARRL September VHF QSO Party](#)

September 19-20, 6AM - 11:59:59PM -
[ARRL 10-GHz & up Cumulative Contest](#)

September 21, 1900-2300 Local -
[144 MHz Fall Sprint](#)

September 29, 1900-2300 Local -
[222 MHz Fall Sprint](#)

October 2-4 -
[Mid-Atlantic States VHF Conference](#)

October 7, 1900-2300 Local -
[432 MHz Fall Sprint](#)

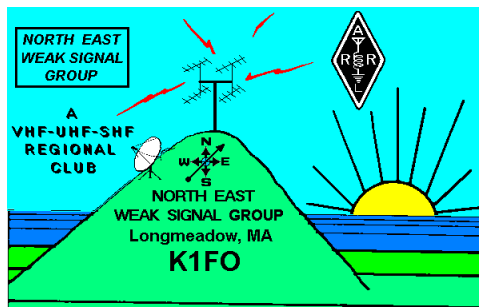
October 9-10 -
[New England Amateur Radio Festival - Deerfield, NH](#)

October 11, 8AM-2PM -
[Nutmeg Hamfest & ARRL CT State Convention](#)

October 17, 0600-1300 Local -
[Microwave Fall Sprint](#)

November 17 -
Leonids meteor shower

November 21, 1PM - 4PM -
[N.E.W.S. Group Meeting](#)



Name: _____

Call sign: _____

Grid: _____

Street: _____

City: _____ State: _____ Zip: _____

Phone (home) _____ Optional (work) _____

Email _____

ARRL member? Y N Electronic Newsletter Delivery? Y N

Operational Bands (circle) 50 MHz 144 MHz 222 MHz 432 MHz 903 MHz

1.2 GHz 2.3 GHz 3.4 GHz 5.6 GHz 10 GHz 24 GHz 47 GHz

76 GHz Light Other (list)

The North East Weak Signal [N.E.W.S.]Group is being established to form a camaraderie among fellow VHF-UHF-SHF enthusiasts, and support a convenient means to exchange technical information. We currently have 6 meetings per year, held at a centrally located facility, and provide a "NEWSLETTER" that is distributed 2 weeks prior to each meeting. Any contributions to this publication are appreciated and can be sent to: Tom Filecco, W1WSO via email – w1wso@comcast.net. Dues are \$15/year. Remember, this group is formed by VHF'ers for VHF'ers.

Mail to:

North East Weak Signal Group
c/o WA1MBA Tom Williams PO Box 28
Shutesbury, MA 01072

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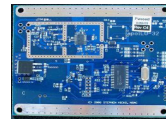
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John Seney Senior Sales Engineer WD1V fn42 http://www.teledynelecroy.com john.seney@lecroy.com 617 686-9882 65 GHz Real-Time Serving ME NH & NE MA	
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North East Weak Signal Group

c/o WA1MBA Tom Williams, PO Box 28, Shutesbury, MA 01072

Check your membership
expiration date on your mailing label!