



N.E.W.S. LETTER

The Publication of the North East Weak Signal Group



April 2010

Volume 19

Issue 3

President: K1WHS, Dave Olean
Vice President: WZ1V, Ron Klimas

Current Officers
NEWSLetter Editor: W1FKF, Don Twombly

Secretary: W1GHZ, Paul Wade
Treasurer: WA1MBA, Tom Williams

**36th EASTERN VHF/UHF CONFERENCE:
APRIL 16-18, 2010
CROWNE PLAZA HOTEL
1 BRIGHT MEADOW BLVD. (OFF RT.5)
ENFIELD, CT 06082**

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Don't Forget

**The North East Weak Signal Group
2 Meter VHF and Above Net
Every Thursday at 8:30 PM Local 144.250
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/>

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The President's Corner

We have had some breathtakingly beautiful days in March, which has served to get the VHF juices flowing in fine shape. Normally, I resurrect the VHF ham shack on about April 1, but this year I was early and hauled most of the stuff up a few weeks early. Not that it has been a nice winter. The storms were particularly bad as far as wind damage goes. There is much antenna work to be done. To get us all in the VHF mood, the April NEVHF Conference is the place to be. Attending the Conference the weekend of April 16 thru 18, is a great way to kick off the VHF season. I am the administrator of the VHF Trivia QUIZ. I take a solemn oath to make the quiz much easier this time. I am looking forward to some great presentations. Don't miss it!

I would like to extend my sincere thanks to Dr. Gordon Pettengill, W1OUN, for the excellent presentation at last month's meeting. Gordon's discussion of planetary coherent radar mapping was quite enthralling. The results obtained by this technique were, and are, fantastic, and highlight the creativity at play to advance science. The weekend of the conference is also the weekend that a number of big dishes will be aimed at the moon for the Echoes of Apollo Program. The big Arecibo dish is one of the participants and will be on 432 for the weekend. Two dry runs so far have produced incredible lunar signals, as the KP4AO team configures the hardware. We hope to have a receiving setup going at the Conference out behind the hotel. It should be quite interesting to hear loud signals off the moon from simple equipment. Time is getting short, and we need to coordinate the lashup. The plan is for two long yagis on an AZ EL mount..

The wintertime construction projects are winding down as warm weather is almost upon us. So far this winter I have turned out Kilowatt amplifiers for 160 and 10 meters, plus have integrated the new internal 144 transverter into my Elecraft K3. The 432 and 50 MHz KW amps were also upgraded and tweaked. I learned much about PI networks and circulating currents in the process. The 10 meter amp was a real winner. It is a powerhouse that worked perfectly right out of the gate. These two amps plus some antennas will keep me busy in the winter months. The XYL is starting to question my sanity and hers as well for putting up with me for so long! I hope your projects have gone well. We can discuss them all at the conference and in the hospitality room. 73 Dave K1WHS

From our Secretary

meeting 6 March 2010
Storrs Library, Longmeadow, MA
Directors meeting 1225

Old Business:

- results of 3 surveys

New Business:

- EME at conference
 - 432 robots
 - Larcan amp on 2 meters
- NEWS Meeting, Storrs Library, Longmeadow, MA
President K1WHS called meeting to order 1319Z
Present were 4 visitors, 1 new member

Treasurers Report

Current balance \$3016
Expected \$2800 at end of year
of which \$800 prepaid for future years
Now 93 members

OLD BUSINESS:

Survey results:

- WA1MBA - light rules - coherent light demonstration,
- read proposed rule
 - straw vote for 1km minimum distance - 28 in favor, 13 opposed
 - straw vote for bandwidth requirement - majority in favor
 - will present new proposal for next meeting

N1DPM - EME rules assisted

- assisted helps small stations, was eliminated from EME contest

- separate category would increase activity
- proposal was in NEWSletter

MOTION by W1RZF 2nd K1BXC to accept recommendation in NEWSletter

- approved unanimously

NEW BUSINESS:

- Eastern VHF/UHF Conference April 16-18
- EME demonstration during conference - some interest
- antenna measuring on 5&10 GHz
- a proposal to FCC for 4 meters has been made

PROGRAM:

Gordon Pettengill, W1OUN, described Coherent Radar Mapping of Venus and other celestial bodies using the Arecibo Observatory.

From our Treasurer

Our membership has grown just a bit more during the past month, and finances are in good shape. See you at the Eastern conference where I will give a quick update at the NEWS Group meeting.

Tom WA1MBA

Club position regarding above-275 GHz contest qsos.

At our last meeting we took straw-votes to see how the club felt about certain issues around the use of coherent emissions and distances for minimum contacts above 275 GHz. A fraction of the club members had an opinion, probably due to the fact that so few of us have used or intend to use these frequencies (which include light). The preferences were to require that contacts be made at a minimum distance of 1 km, and that there be some limitation of the bandwidth of the transmitter so that a flashlight or a candle light would not count. A suggestion was made to limit the bandwidth to no more than 10 % of the center frequency at the 3 dB points. If we adopt this position, our suggested rewording of the ARRL rule could be as follows:

Above 275 GHz, contacts are permitted for contest credit only between licensed amateurs, with inter-station distance greater than 1 km, employ at least one stage of electronic detection on receive, transmitter -3dB bandwidth 10% or less of center frequency, legal governing rules about light and lasers will always apply.

A few of us pointed out that the minimum-distance rule would be an exception to the rules in many contests, the exception being the 10 GHz and above cumulative where all contacts must be over 1 km. We will have at least a brief discussion during the meeting and decide whether to offer our opinion to the ARRL or to put the discussion off until another meeting.

Tom WA1MBA

Elegant 12-Volt Outlet Box Paul Wade W1GHZ ©2010 w1ghz@arrl.net

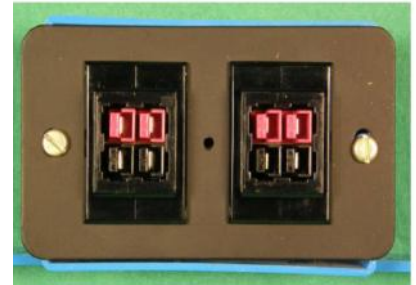
Most of our VHF, UHF, and microwave gear runs on 12 volts, particular for portable and rover stations. Anderson Powerpole connectors (www.andersonpower.com) have become the standard for robust and reliable connections, and are readily available at reasonable cost. Even with the Powerpoles, power distribution is still a problem. The back of some rover installations look like red and black octopuses mating! As an attempt to improve the situation, I've made some distribution boards for a group of Powerpoles, but some metal (or plastic) work is required to box them up and look half-decent.

At a recent hamfest, one of the vendors, Quicksilver Radio (www.qsradio.com) offered some snap-in housings to hold groups of Powerpoles, and a "PowerPlate" which fits a standard electrical box and holds two housings for a total of four Powerpoles. This looked like a winner, so I bought a set.

The PowerPlate kit solves the problem of making a robust and presentable distribution box – they could even be mounted on the shack wall like AC receptacles. However, the back side was still a rats nest, with wires twisted together, even in the display model. Of course, this can all be hidden inside the box. Still, it seems to me that a simple PC board would provide a neater solution and be easier to assemble. I squeezed the pattern in with another project for my next Miniboard order from ExpressPCB (www.expresspcb.com).

The result is shown in Figure 1, from the front, and Figure 2, from the back – I nice, neat power distribution box in a robust plastic electrical box.

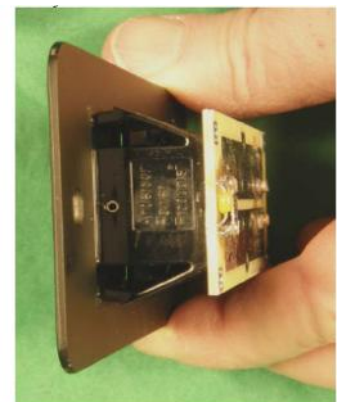
The board includes a small bypass capacitor and an idiot diode; don't forget to include a fuse in the input line



The copper pattern on the board is sized for 30 amps per Powerpole. Assembly consists of crimping and soldering short lengths of #10 bare copper wire (scraps from household wiring) into Powerpole pins, then



assembling the pins into red and black housings, and fitting hose into the group housings. The group housings snap into the PowerPlate, leaving all the wire ends sticking out. The PC board slides over the wire ends and the wires soldered with a hefty soldering iron. Then the capacitor and 1N400x diode are soldered in place – the band on the diode toward the red end. The end view below shows how it goes together. Input wires (with fuse) may be connected to the center of the board, and the whole assembly screwed into an electrical box.



PC boards are available – w1ghz@arrl.net

Or you could just skip the board and hide the wiring inside



36th EASTERN VHF/UHF CONFERENCE:

APRIL 16-18, 2010

CROWNE PLAZA HOTEL (860)-741-2211

1 BRIGHT MEADOW BLVD. (OFF RT.5)

ENFIELD, CT 06082

4/16/10 FRIDAY LODGING

6:00pm 'til HOSPITALITY ROOM Socializing, Photo displays Snacks, Refreshments and More.

4/17/10 SATURDAY REGISTRATION, FORMAL TALKS, BANDESSIONS, LABORATORY TEST SESSION, EQUIPMENT VENDORS & MUCH, MUCH MORE.

7:30am REGISTRATION BEGINS

8:30am TALKS BEGIN We have the following set up:

8:45 am ANNOUNCEMENT more to come soon

9:00am *Marty Johnson, W3YOZ - W3SO Contest Station*

9:15am Someone New callsign 6,2 & 222 BANDESSION,

10:00am *Paul Wade, W1GHZ - Topic TBD*

10:00am Someone Familiar callsign 432, 903 & 1296 BANDESSION,

10:45am AUCTION/BREAK,

11:00am *Chris Patterson W3CMP - VHF DXpeditions*

11:00am Someone YouKnow callsign 2304 & up BANDESSION,

12:00pm LUNCH (on your own)

1:00pm AUCTION,

1:15pm *Steve Simons, W1SMS - Tower Safety*

2:00pm *Bob Bownes KI2L - Low Cost RF Power Meter + Other Projects*

2:00 - 5pm *Test Lab to 50 GHz - Greg Bonaguide, WA1VUG Rohde & Schwarz America*

3:00pm *Dick Frey WA2AAU - Band Switch Repair of the HP8555A Microwave Spectrum Analyzer*

4:00pm BREAK

4:30pm *NEWS MEETING - K1WHS*

7:00pm BANQUET (7 PM - 8:30 PM)

8:20pm Tom Kirby Award Presentation

8:30pm VHF - MICROWAVE TRIVIA QUIZ, Dave Olean K1WHS

9:00pm DOOR PRIZE EXTRAVAGANZA, Art Holmes W1RZF and Michele Clement W1MKY

4/18/10 SUNDAY

8:00am-11am VHF-SHF SWAPnSELL - Mark Casey - K1MAP

(buyers free, pre-reg sellers free, un-reg sellers \$7)

Also Sunday morning 5 & 10 GHz Antenna range by Paul Wade W1GHZ (test your dishes)

DIRECTIONS & RESEVATIONS

FROM SPRINGFIELD, I-91 TO EXIT 49, LEFT OFF RAMP, TAKE 2ND RIGHT.

FROM HARTFORD, I-91 TO EXIT 49. RIGHT OFF RAMP, TAKE FIRST RIGHT

EACH REGULAR REGISTRANT RECEIVES A COPY OF THE PROCEEDINGS ON CD AND IS ELIGIBLE FOR PRIZE DRAWINGS.

REGISTRATION:

NEW

[PayPal online Registration form](#)

<http://www.newsvhf.com/regpayp.html>

[Print a Mail-in Registration form](#)

<http://www.newsvhf.com/regmail.html>

note: You save \$5 on full Conference admission by pre-Registering

2010 North East Weak Signal Group VHF

CALENDAR:

Tentative 2010 dates:

April 12th 144 Spring Sprint 7-11pm local time
 April 16-18 - [Eastern VHF-UHF Conference](#)
 April 20th 222 MHz Spring Sprint 7-11 pm local time
 April 22, ?????Z - Lyrids meteor shower
 April 23-24 - [Southeastern VHF Society Conference](#)
 April 28th 432 MHz Spring Sprint 7-11 pm local time

 April 30-May 1 - New England Amateur Radio Festival - Deerfield, NH
 May 1, - Microwave Spring Sprint 6 am to 1 pm local time
 May 8 th, 50 MHz Spring Sprint 6-10 pm local time -
 May 14-16 - Dayton Hamfest
 June 5 - Rochester NY RARA Hamfest
 June 12-14, 1800Z-0300Z - ARRL June VHF QSO Party
 July 10, 11AM - 4PM - N.E.W.S. Group Picnic
 July 17-18, 1800Z - 2100Z - CQ Worldwide VHF Contest
 August 7-8, 1800Z - 1800Z - ARRL UHF Contest
 August 12, ?????Z - Perseids meteor shower
 August 21-22, 6AM - 11:59:59PM - ARRL 10-GHz & up Cumulative Contest
 September 11-13, 1800Z-0300Z - ARRL September VHF QSO Party
 September 18-19, 6AM - 11:59:59PM - ARRL 10-GHz & up Cumulative Contest
 September 20?, 1900-2300 Local - 144 MHz Fall Sprint
 September 25-26? - Mt. Airy VHF PackRats Conference and Hamarama
 September 28?, 1900-2300 Local - 222 MHz Fall Sprint
 October 2, 1PM - 4PM - N.E.W.S. Group Meeting
 October 6?, 1900-2300 Local - 432 MHz Fall Sprint
 October 15-16? - New England Amateur Radio Festival - Deerfield, NH
 October 16?, 0600-1200 Local - Microwave Fall Sprint
 October 21-24? - Microwave Update
 October 23?, 2300-0300 UTC - 50 MHz Fall Sprint
 November 13, 1PM - 4PM - N.E.W.S. Group Meeting
 November 18, ?????Z - Leonids meteor shower
 December 14, ?????Z - Geminids meteor shower

NEAR-Fest VII

Friday April 30th and May 1st 2010

Deerfield Fairgrounds - Deerfield NH, USA



Southeastern VHF Society Conference

Morehead State University
 Space Science Center
 Morehead, Kentucky
 April 23 - 24, 2010
 Jeff Kruth, WA3ZKR
 Conference Chair

<http://www.svhfs.org/conference.html>

March 22, 2010 KP4AO on the Arecibo radio telescope

Paul N2GHR FN30 reports working KP4AO on 432 SSB Monday using 500W and just a pair of RIW-19's on a small tripod in his backyard, armstrong rotor method! Listen to audio clip at

<http://www.newsvhf.com/kp4ao-n2ghr.mp3>

or <http://www.newsvhf.com/audio.html> and scroll down to KP4AO.

Congrats to Paul on this FB EME QSO!

-73, Ron WZ1V



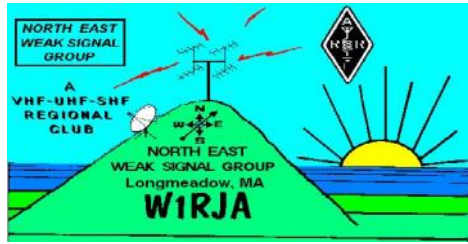
<http://echoesofapollo.com/moon-bounce/>

SATURDAY 71° 32' 30" W (PREPARED BY GJTRACKER) A +8 DAYS 15.61°SD							SUNDAY 71° 32' 30" W (PREPARED BY GJTRACKER) A +9 DAYS 15.74°SD												
UTC	W	AZIMUTH	ELEV	DEC	AZIMUTH	ELEV	POL	SKY	*	UTC	W	AZIMUTH	ELEV	DEC	AZIMUTH	ELEV	POL	SKY	*K
1825	141.6	69.0	24.5	139.9	68.2	-1	27	2.1		1920	139.3	69.3	25.2	137.6	68.5	-1	35	2.4	
1830	144.4	69.6	24.5	142.5	68.8	-1	27	2.1		1925	142.0	69.9	25.2	140.2	69.1	-1	35	2.4	
1835	147.2	70.1	24.5	145.2	69.3	-1	27	2.1		1930	144.8	70.4	25.2	142.9	69.6	-1	35	2.4	
1840	150.2	70.6	24.5	148.1	69.8	-1	27	2.1		1935	147.8	70.9	25.2	145.7	70.2	-1	35	2.4	
1845	153.3	71.0	24.5	151.0	70.3	-2	27	2.1		1940	150.9	71.4	25.2	148.6	70.7	-2	35	2.4	
1850	156.5	71.4	24.5	154.1	70.7	-1	27	2.1		1945	154.1	71.8	25.2	151.7	71.1	-1	35	2.4	
1855	159.9	71.8	24.5	157.3	71.1	-2	27	2.1		1950	157.5	72.2	25.2	154.9	71.5	-2	35	2.4	
1900	163.4	72.1	24.6	160.6	71.4	-2	27	2.1		1955	161.0	72.5	25.2	158.3	71.9	-2	35	2.4	
1905	166.9	72.3	24.6	164.0	71.7	-2	27	2.1		2000	164.6	72.8	25.2	161.7	72.2	-2	35	2.4	
1910	170.5	72.5	24.6	167.5	72.0	-3	27	2.1		2005	168.3	73.0	25.2	165.2	72.5	-3	35	2.4	
1915	174.2	72.6	24.6	171.1	72.1	-3	27	2.1		2010	172.0	73.2	25.2	168.9	72.7	-3	35	2.4	
1920	177.9	72.7	24.6	174.7	72.2	-3	27	2.1		2015	175.8	73.3	25.2	172.6	72.8	-3	35	2.4	
1925	181.7	72.7	24.6	178.3	72.3	-3	27	2.1		2020	179.7	73.3	25.2	176.3	72.9	-3	35	2.4	
1930	185.4	72.6	24.6	182.0	72.3	-3	27	2.1		2025	183.5	73.3	25.2	180.0	72.9	-2	35	2.4	
1935	189.1	72.5	24.6	185.6	72.3	-3	27	2.1		2030	187.3	73.2	25.2	183.8	72.9	-3	35	2.4	
1940	192.7	72.4	24.6	189.2	72.1	-3	27	2.1		2035	191.1	73.0	25.2	187.5	72.8	-3	35	2.4	
1945	196.3	72.1	24.6	192.8	72.0	-3	27	2.1		2040	194.8	72.8	25.2	191.2	72.6	-3	35	2.4	
1950	199.8	71.9	24.6	196.3	71.7	-3	27	2.1		2045	198.4	72.6	25.2	194.8	72.4	-3	35	2.4	
1955	203.1	71.5	24.6	199.7	71.5	-3	27	2.1		2050	201.9	72.3	25.2	198.4	72.2	-3	35	2.4	
2000	206.4	71.1	24.6	203.0	71.1	-3	27	2.1		2055	205.3	71.9	25.2	201.8	71.9	-3	35	2.4	
2005	E 209.5	70.7	24.6	206.2	70.8	-2	27	2.1		2100	208.6	71.5	25.2	205.1	71.5	-3	35	2.4	
2010	E 212.6	70.3	24.6	209.3	70.3	-3	27	2.1		2105	E 211.7	71.0	25.2	208.3	71.1	-3	35	2.4	
2015	E 215.4	69.7	24.6	212.3	69.9	-3	27	2.1		2110	E 214.7	70.5	25.2	211.4	70.6	-2	36	2.4	
2020	E 218.2	69.2	24.6	215.1	69.4	-2	27	2.1		2115	E 217.5	70.0	25.2	214.4	70.2	-3	36	2.4	
										2120	E 220.2	69.4	25.2	217.2	69.6	-3	36	2.4	

For Sale

Yaesu G-5400B Az/EI rotor for sale. Brand new, never been outside. Rotors, hardware, control head. \$450. Is located in Troy, NY. I can deliver in the area of Norwalk Ct or bring to the conference in April.

Thanks! Bob KI2L



N.E.W.S. Group

Membership Application

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: Don Twombly, W 1FKF 23 Maura Dr. Woburn, MA 01801 Email: donw1fkf-news (at) yahoo (dot) com. 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

Email: [tomw \(at\) wa1mba \(dot\) org](mailto:tomw@wa1mba.org)

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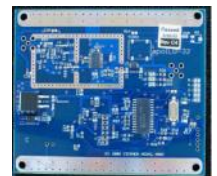
New Product Announcement
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LIVE OAK, FLORIDA

DEM A32

Synthesizer



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**36th EASTERN VHF/UHF
CONFERENCE
APRIL 16-18, 2010**

**1 PM at the Storrs Library
693 Longmeadow Street, RT 5
Longmeadow, MA**

*Don't Forget to Register for the
36th EASTERN VHF/
UHF CONFERENCE*

Don't Forget
**The North East Weak Signal Group
2 Meter VHF and Above Net
Every Thursday at 8:30 PM Local 144.250
W1COT, WZ1V or K1PXE Net Control**

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!