

# N.E.W.S. LETTER

The Official Publication of the North East Weak Signal Group – [N.E.W.S. - Home \(newsvhf.com\)](http://newsvhf.com)

November 2022

Volume 30

Issue 3

## Next Meeting: November 19, 2022

### Speaker WA1ZMS

#### AC Power Wiring Your Shack

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**BOARD MEETING - 11:00 AM at Lulu's, 151 Hazard Ave. Enfield, CT**

Phone: (860) 763-2377 I-91 Exit 47 Rt. 190E 1 Mile on Left

<http://luluspizzeria.com>

**GENERAL MEETING - STORRS LIBRARY - from 1 PM to approximately 3:45 PM.**

693 Longmeadow St, Longmeadow, MA 01106

<http://longmeadowlibrary.wordpress.com>

#### DON'T FORGET

**The North East Weak Signal Group 2 Meter Net**

**Every Thursday at 8:30 PM local 144.250 MHz**

**W1COT, WZ1V, or K1BXC Net Control**

MEMBERSHIP in the N.E.W.S Group is \$10 per 2 years.

Apply to George Collins, KC1V. E-mail: [news.kc1v@gmail.com](mailto:news.kc1v@gmail.com).

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 by e-mail to Don Twombly at [donw1fkf-news@yahoo.com](mailto:donw1fkf-news@yahoo.com).

## Treasurer's Report October 31, 2022

<u>Opening Balance 10-1-2022:</u>	\$3391.18	
Income:	\$32.00	Dues and Donations
Expenditures:	\$00.30	PayPal Fees
<u>Balance as of 10-31-2022:</u>	\$3422.88	

### Current Paid Members:

Three renewals in October.

Totals are:

75 Regular  
3 Life  
12 Permanent

Submitted October 31, 2022

George Collins, KC1V

Treasurer, North East Weak Signal Group

## **NEWS Meeting 24 September 2022 Minutes** W1GHZ at Storrs Library, Longmeadow, MA and by ZOOM

Called to Order by President, WA2AAU, at 1325

Old : none

### **NEW BUSINESS**

K1MAP: Microwave Update plus Northeast VHF/UHF Conference will be April 14 & 15, Windsor CT near Bradley Airport

-Possible on hill activity for microwaves?

-Sunday tailgate swap - possibly at radio museum?

-CALL FOR PAPERS - w1ghz@arrl.net

### **ANNOUNCEMENTS:**

W3CCX 432.300 beacon back on with good signal FN20tk

W1FKF - content for NEWSletter welcome.

Please contribute

WA1MBA - brought MDS equipment from picnic. Will write up for conference

### **CONTEST DISCUSSION:**

KA1SUN - suggests separate VHF contests for Analog & digital.

W1TR - allow one contact per mode per bands

WZ1V - lots of activity on SSB & CW in September

### **More discussion...**

MOTION: W1TR - submit proposal to ARRL: suggestion VHF contents for one contact per band per mode.

FAILED

MOTION: WZ1V - submit proposal to ARRL: one digital & one analog contact per band. PASSED 8 for 2 against several abstaining

\*\* WZ1V by email 30 September 2022:

"I want to officially withdraw my proposal about the contest rules, if possible. Based on the comments received by email, it has very little support."

### **Adjourned 1419**

Presentation: by Hisen Zhang KD2TAI  
SDR Rover Kit and Log2Chart Profiling Tool  
Pluto+ and SDRangel for 144 to 5760 MHz

hisenzhang01@gmail.com.

SDR Rover Kit  
and Log2Chart Profiling Tool

Hisen Zhang KD2TAI  
[hisenzhang01@gmail.com](mailto:hisenzhang01@gmail.com)

09/24/2022

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**Microwave Update 2023  
plus Northeast VHF/UHF  
46th Conference  
[April 13 to 16, 2023](#)  
Hilton Garden Inn @ Bradley  
Airport, Windsor, CT**

Details for registration and hotel coming very soon at [Microwave Update - Home](#)

**Tentative Schedule So Far:**

**Thurs. afternoon: Local Tour TBD  
Thurs. 6-9pm Social Gathering at Hotel meeting room**

**Fri. 8:45am intro, talks starting at 9:00am  
Fri. 6-9pm Social gathering at Hotel meeting room  
Fri 7-9pm Swap session**

**Sat.8:45am intro, talks starting at 9:00am  
Sat 6pm-10pm Banquet, Program, Prize drawing**

**Sun 9am-noon Tailgate & Museum open, at Vintage  
Radio Museum, Windsor**

Sunday AM tailgate swap. at the Vintage Radio Museum, about 3 miles away from the hotel, and still in Windsor. And, if folks want to tour the museum, they've offered our group a discount if they want to go on Sunday—it's \$5 per person, down from \$10Adult/\$7Senior

**CALL FOR PAPERS**

**Presentations and papers for PROCEEDINGS needed  
(you've had three years, so there must be some  
good stuff out there). more info: [w1ghz@arrl.org](mailto:w1ghz@arrl.org)**

## For Sale:

Chip W1AIM K1LPS Estate [w1aim@fairpoint.net](mailto:w1aim@fairpoint.net)

2 meter 6el HB Yagi, 8 foot boom part of driven element broken

2 meter M2 Yagi, 17 elements on 32 foot boom

pair of HB 432 Yagis, 24 elements on 17 ft. booms, one is missing several elements

Two sections Rohn 45 with surface rust one with a slight bend at end of one leg

Rohn FR45G roof mount (Used on a concrete pad) good condition

3 Pieces Rohn 25, one 8 ft tapered top section, one 10 foot section, one 8 foot section with one end cutoff.

HB house bracket mount for Rohn 25

REASONABLE offers considered. Pick up here or can deliver within a hundred miles.

Chip W1AIM [w1aim@fairpoint.net](mailto:w1aim@fairpoint.net)

Pacific Measurements 1034A microwave power meter with a good 10mw head. (Accurate on a second 1034A but readings seem off a bit on this meter. Can bring to NEWS meeting if any interest. Too nice to toss in the local E Waste bin

## Weekly Calendar

Mon. Packrats Nets start at 7:30pm on 6 meters, 8pm on 144.150, etc. Philadelphia area.

**Tues. Mud Toads Net FM17, Virginia 8pm 144.250**

**Activity Night 7:30pm 222.100 K1WHS+**

**Weds Activity Night 432 N1DPM+**

**Thurs. NEWS net, W1COT (K1BXC alternate) 8:30pm 144.250**

Sat. Chesapeake Net 144.205 W3BFC FM28 9pm

> 144.205 Mornings 8:30-9:30 AM -- 144.205 , 144.190, ME, Canada to NC and out to OH, WV

-

## Officers:

**President Dick Frey, WA2AAU, Delanson, NY**

**Vice Pres. Eric Mazur, KA1SUN, Savoy, MA**

**Secretary Paul Wade, W1GHZ, Cabot, VT**

Treasurer George Collins, KC1V, Somers, CT

## Board Of Directors:

Don Twombly W1FKF, Loudon, NH

Dick Wilborg W1ZC, Mason, NH

Bob Bownes KI2L, Troy, NY

Mark Casey K1MAP, Hampden, MA

The North East Weak Signal [N.E.W.S.] Group was established to form a comradery amongst fellow VHF-UHF-SHF enthusiasts, and support a convenient means to exchange technical information

We are an ARRL affiliated regional club dedicated to the interests of "weak signal" work on the bands 50 MHz - Light. With over 100 members, we have a lot of technical expertise within our club which can help with about any question or problem conceivable on VHF and up.

Meetings are held 6 times per year at the [Richard Salter Storrs Library](#), in Longmeadow, MA on a Saturday from 1 - 3:45 pm. and will feature either a noted speaker or 'show & tell' presentation on a VHF-SHF related topic. Our "[N.E.W.S. LETTER](#)" is mailed about 2 to 3 weeks prior to our meetings.

## New Rugged Digital Multimeter

Paul Wade W1GHZ

When we are out roving on microwaves, it seems like 80% of the problems are with 12 volts – batteries, cables, connections, missing cables, etc. (The other 80% are often between the headphones). Having a good digital voltmeter can help troubleshoot. I often carry one of the cheap disposable ones from Harbor Freight, but it sometimes just adds another problem.

The most recent QST, November 2022, has a Product Review of digital multimeters, including rugged models from two reputable brands of electrical instruments, Fluke and Klein Tools. It got me thinking about replacing my reliable ~25 year old Fluke 111 with a new rugged meter. The Klein MM600 has more features for less money (\$69), and several more features than my old meter. The additional Klein features are temperature, frequency, duty cycle, capacitance, and an included case. It also measures milliamps and microamps, not just a 10 Amp range, and has a MIN-MAX setting, possibly useful for tuning.

I decided to research a bit further and found that the Klein MM600 is missing one feature that I think is important: True-RMS voltage. Ordinary meters measure peak voltage and divide by 1.414 to get RMS voltage; this is fine for sine waves, but not other waveforms. For switching power supplies, inverters, generators, and other non-sinusoidal AC waveforms, True-RMS is gives the RMS voltage used to calculate power.

I also discovered that the next model, the Klein MM700, includes all the same features plus True-RMS voltage, but at a higher price. However, an ad immediately popped up offering the MM700 for \$75 on ebay. It arrived a few days later, brand new in the original packaging.

So far, it looks like a winner. Reads 10.01 volts on my ([http://www.w1ghz.org/small\\_proj/voltage\\_std.pdf](http://www.w1ghz.org/small_proj/voltage_std.pdf)) voltage standard marked 10.007 volts; it reads 10.008V with my precision HP bench meter, which hasn't been calibrated in many years. I also found an additional feature – a LoZ measurement, which adds a load while measuring voltage so you aren't fooled by leakage or a flaky connection.

A couple of minor nits: since Klein's major market is electricians, the default for all ranges is AC; a SEL button switches to DC. The other is an expensive 10 Amp fast blow fuse for that range, just like my old Fluke meter. You can guess how I know that the fuse is expensive.

You might already have a favorite DVM, but if you are considering a good rugged one, I'd recommend the Klein MM700, or a Fluke meter if you prefer that brand. This one is going roving with me.



October 4, 2022

**Before the Federal Communications Commission Washington, DC 20554  
In the Matter of ) ) Amendment of Part 101 of the )  
RM-\_\_\_\_\_ Commission's Rules to Enable ) Greater  
Commercial Use ) of the 10.0-10.5 GHz Band )**

In this Petition for Rulemaking, the Coordinated Sharing Coalition (“Coalition”) proposes the allocation of the 10.0-10.5 GHz band for point-to-point use on a shared basis with Federal and Amateur users. Under specific rules the Coalition proposes, access to the band by a variety of users would be authorized pursuant to nationwide, non-exclusive licenses with individual links coordinated through an Automated Frequency Coordination (“AFC”) system informed by incumbents to ensure protection from harmful interference. The Commission should adopt a notice of proposed rulemaking at the earliest possible time to invite public comment on the proposals and proposed rules described in the Petition.

The maximum conducted power would be 20 dBm (100 mW) and a conducted power spectral density of 7 dBm/MHz, with a maximum EIRP of 58 dBm. Devices must support automatic transmit power control to limit unnecessary transmitter power. Antennas would be required to have a minimum gain of 27 dB, with a maximum 3 dB beam width of 5.5 degrees and specified minimum performance characteristics. Devices must have automatic geolocation. Licensees would be permitted to use per-link emission bandwidths of 5 to 160 megahertz, whether contiguous or non-contiguous. Out-of-channel emission requirements would match those applicable to standard power devices in the 6 GHz band but limited to the mask of a 40-megahertz channel. The out-of-band conducted emission maximum would be -27 dBm/MHz RMS.

PETITION FOR RULEMAKING OF THE COORDINATED SHARING COALITION Pursuant to Section 1.401(a) of the Commission’s Rules, the Coordinated Sharing Coalition (“Coalition”) hereby requests that the Commission modify Part 101 of its rules to permit up to 500 megahertz in the 10.0-10.5 GHz spectrum band to be licensed on a non-exclusive basis for non-Federal point-to-point communications governed by a publicly accessible and appropriately tailored, tested, and approved Automated Frequency Coordination (“AFC”) system.<sup>1</sup> The requested rule modifications will promote the public interest by enabling a wide variety of consumers to obtain improved and greater access to broadband services.<sup>2</sup> In the attached Appendix B, the Coalition proposes a new Part 101, Subpart R, for a non-Federal point-to-point service in the 10.0-10.5 GHz band. Non-Federal users would operate on a secondary basis under a nationwide, non-exclusive license, as is presently the case in the 70/80/90 GHz bands under Part 101, Subpart Q, with incumbent protection provided by an AFC system instead of typical Part 101 frequency coordination. The Coalition requests that, pursuant

(iii) Licensed Amateur Radio operators may, via a portal, enter locations and frequencies in current or impending use (e.g., expected to be in use within 30 days of entering data into the portal) that are to be protected. This may include narrowband or wideband operations, up to 20 MHz wide, and may also include both repeater input and output frequencies. Amateur satellite frequencies in current or impending use may also be entered for nationwide protection. Specific interference protection criteria will be determined by the Commission in B-7 consultation with Amateur representatives and the public. A weak-signal working portion from 10.365 to 10.370 GHz will be excluded nationwide from use under this Subpart unless a specific determination of local non-interference is made. (iv) A single database of protected areas and entities may be created such that all AFC systems have access to and make use of the same protection data which need only be entered once, for example into a portal. (3) Propagation models used by the AFC system will be as specified in §15.407 (1)(1), except that adaptations may be made specific to the different frequency range.

## Comments from:

Wed, Oct 26

**Mark K1MAP**

Thank-You for the heads up. Looks like this proposes an amateur cut-out for 10.365-.370 GHz, but a problematic part is that there's a process for Commercial operation permit, even within that small slice.

73

Mark K1MAP

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**Tom Williams**

Thu, Oct 27 at 8:58 AM

Thanks for sharing this.

We have to take some action.

Note that in this petition for ruling there is an intended set-aside of 5 MHz around 10,368 where supposedly there would be no operation of commercial gear. However, read it carefully.

1) There is an assumption that Amateur operation is predetermined and at specific locations, whereas much 10 GHz Amateur operation is sporadic and at unpredictable locations.

2) Furthermore, there is no limit on spurious emissions of the commercial gear which could interfere with those "protected" frequencies, and

3) furthermore, amateur stations often leak LO frequency signals, which fall inside the 10 to 10.5 allocation but will possibly cause interference with this proposed commercial point-to-point use.

4) Also, because there is possibly 120 MHz channels, the avoidance of a 5 MHz channel could be ignored when using 120 MHz channels, thereby causing direct interference.

We have work to do.

Tom WA1MBA

Note that this is a petition that has been filed but the FCC has not released it asking for comments yet. I'm sure the ARRL will be coordinating and filing a response.

Best thing now is to gather information on users, their types of use, etc. Work with your ARRL Division Director.

73 Tom/K1KI

Nov 1 2022

<https://www.fcc.gov/ecfs/search/search-filings/filing/100492331184>

Regarding the recent request for sharing of the 10 GHz band with commercial interests, here is a message forwarded to me. It states that the ARRL is aware of the filing

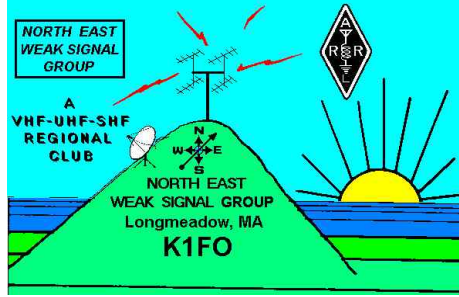
k3zj at the league would like to hear from amateurs about our use of the 10 GHz band. I believe that short comments (no emotional reactions please) would be helpful. At some point the FCC will probably release a proposal for public comment. Hopefully, the league will have info from us and others to formulate a strong response, and of course individuals can also respond directly to the FCC when there is an invitation for public input.

Tom WA1MBA



QRPme PO Box 160 Limerick, Maine 04048 <http://www.qrpme.com/?p=contact>





**MEMBERSHIP APPLICATION**

Date: \_\_\_\_\_

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 six meetings per year, held at a centrally located facility and provide a "NEWSLETTER" that is distributed two weeks prior to each meeting. Any contributions to this publication are appreciated and can be sent to: Don Twombly, W1FKF by e-mail to donw1kf-news@yahoo.com. Dues are \$10/2 years. Remember, this group is formed by VHF'ers for VHF'ers. E-mail: [news.kc1v@gmail.com](mailto:news.kc1v@gmail.com).

Mail to:

North East Weak Signal Group  
c/o George Collins  
105 Ninth District Road  
Somers, CT 0607

**NEWSLetter**

**North East Weak Signal Group**

c/o Don Twombly, W1FKF  
32 Bumfagon Road  
Loudon, NH 03307