



# FEEDBACK



Web Site [k3dn.org](http://k3dn.org)

Warminster Amateur Radio Club

December 2024

## Next Meeting December 5th - Holiday Dinner

### **\$500 DX Engineering Gift Card**

Tickets will be available at the December 5th Holiday Dinner or members wishing to purchase tickets can contact Herb, KB3VMN through email or WARCtalk and he will hold them for them. Payments can be sent to the club post office box. WARC P.O. Box 113, Warminster PA 18974. Tickets are \$20.00 per.

### **Warminster ARC General Meeting Minutes November 7th, 2024**

Call to order: 7:30 PM

Introductions: 30 in attendance

Minutes from last Meeting: Motion to approve and accepted

Committee Reports:

- **Treasurer's Report:** Tom (K3PLA)
  - \$25,878 cash balance – report under separate cover
- **Programs:** Rich (KC3WNX)
  - November – Matt Vanderhoff (N3VAN) Reliance Antenna
  - December – Holiday Party
- **Membership:** Tony W3FLH – (in absentia) 130 Total members; 112 paid, 102 regular, 3 student, 7 alumni/associate, 17 owe dues
- **Public Service:** George (N3HBT)
  - No events at this time.
- **License Classes:** Dave (K3FTD)/Dan (K3GMQ)/Tony (N3YNH):
  - Planning General Class, followed by a Technician Class after the first of the year.
- **VE Testing** – Larry (WA3ELQ)
  - October 30<sup>th</sup> – 3 Applicants, 3 new Tech licensees
- **Repeater:** Brian (N3EXA)
  - Up and running; Echo link was down, but is working now.
- **Radio Sport:** Irwin (KD3TB)
  - Contest season is Sept – Oct. Check out [ContestCalendar.com](http://ContestCalendar.com)
- **Hamfest:** Tony (W3FLH) – Looking for future Chair
  - Next year's date is 5/4/2025. Location is BCCC. WARC will host the ARRL Section meeting at the Hamfest.
- **Field day:** Herb (KB3VMN)
  - Date is 6/28-29, 2025. Location is tentatively the Warminster Community Park for 2025. We will be able to use the Pavilion and the bathrooms. Overnight camping has also tentatively been approved.
- **Club Station Status:** George (N3HBT)
  - Station is still not usable due to ceiling issue.

Old Business:

(Continued from page 1)

- **Club Station Clean Out/Up** – Waiting to hear from the Township about where we could move the club equipment so that ceiling repairs could begin. As of 10/30 no response.
- **Storage Container** - The Board is looking into acquiring a storage container to be placed somewhere on the BWSC property. Once acquired all of the club's gear would be moved to the storage container making the upstairs space clear for ceiling repairs. Cost of a shipping container estimated a \$2800 (20-foot container). There may be additional costs for ground prep/permits. Membership will be apprised of the progress on this issue.
- **ARRL Grant** – Herb (KB3VMN) is on hold for now. There was some discussion about getting assistance with writing the grant request.  
**Fund raising-** Herb (KB3VMN) has tickets for a \$500 DX Engineering Gift Card. Price is \$20 per ticket; only 50 tickets will be sold. The drawing will be held at the Holiday Dinner.
- **Holiday Dinner** – Kathy (KC3FBY) put out a survey to assess interest in catered dinner at the BWSC vs a restaurant (e.g. Giuseppe's). Waiting responses. Also, volunteers will be needed with planning and pre- and post- event. Please watch for communication in the WARC Talk for the dinner.
- **Club Auction** – Mark WA3QVU will be coordinating. Help is needed to plan and carry out the auction. Please let Mark or any one of the Board members know if you can help.

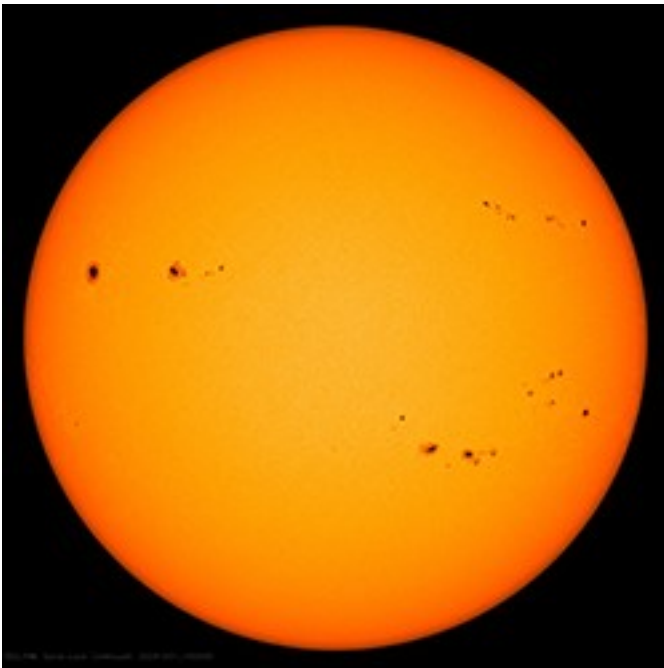
New Business:

Karl K3KH announced that BCARES will be holding an in-person meeting at the Neshaminy Baptist Church on Bristol Road (NOT Bristol Pike) next Tuesday, November 12 at 7 PM.

Meeting Adjourned 7:55 PM

Presentation – Matt Vanderhoff (N3VAN) Reliance Antenna was expected to present at this meeting. However, he contracted pneumonia this week and was not able to come to the meeting. The remaining time was spent in social discourse.

## The K7RA Solar Update



**EDITOR'S NOTE: This is the 11/22 Solar Update. The 11/29 Update was not published as of the publication of Feedback.**

*11/22/2024*

Solar activity was lower this reporting week, November 14-20, with the average daily sunspot number down from 141.6 to 99.3, and solar flux from 203.7 to 152.4. Geomagnetic indicators were quiet.

This follows a period during August and October when it seemed we must be at the peak of Solar Cycle 25. But we won't know that until nearly a year after solar max, when a long moving average of daily sunspot numbers is examined.

Predicted solar flux is 170 on November 22, 175 on November 23-24, 180 on November 25-26, 175 and 180 on November 27-28, 250 on November 29-30, then 240, 230, 220, and 210 on December 1-4, 205 on December 5-6, then 200, 180, 170 and 150 on December 7-10, 145 on December 11-12, then 149, 145, and 230 on December 13-15, 235 on December 16-17, 240 on December 18-20, 245 on December 21-22, then 240, 245 and 255 on December 23-25.

Predicted planetary A index is 8 on November 22-25, 5 on November 26-29, then 10, 12, 9, 8, 7 and 5 on November 30 through December 5, 12 on December 6-7, then 10, 5, 5, 10, 15 and 10 on November 8-13, then 8 on December 14-15, then 5 and 12 on December 16-17, and 5 on December 18-21.

Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere - November 21, 2024, from F. K. Janda, OK1HH:

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"During November, solar activity was relatively lowest in the middle of the month, which happened after the large sunspot groups in the west of the disk had set and before the larger groups in the east came out. The largest of these is designated AR3901 and will pass through the central meridian on November 23. Solar activity will therefore still increase slightly. A more significant rise could perhaps be expected after the rise of the other groups, but their current activity on the far side of the Sun does not appear to be great for now.

"The low number and small area of coronal holes are the likely cause of the geomagnetically quieter development, which is likely to continue.

"November belongs to the Autumn DX season, Therefore we can expect continued above-average shortwave propagation. They were admittedly a little worse as a result of the drop in solar radiation, but the rest of the month could, yet, correct this. Which is true for the northern hemisphere of the Earth, where the season of favorable propagation conditions on the longer shortwave bands is already beginning!"

Images from the European Space Agency:

<https://tinyurl.com/42r665y9>

From "Space Daily," solar orbiter images:

<https://tinyurl.com/bdz33ake>

<https://tinyurl.com/yvkf66u2>

Send your tips, reports, observations, questions and comments to [k7ra@arrl.net](mailto:k7ra@arrl.net). When reporting observations, don't forget to tell us which mode you were operating.

For more information concerning shortwave radio propagation, see <http://www.arrl.org/propagation> and the ARRL Technical Information Service web page at, <http://arrl.org/propagation-of-rf-signals> . For an explanation of numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere> .

An archive of past propagation bulletins is at <http://arrl.org/w1aw-bulletins-archive-propagation> . More good information and tutorials on propagation are at <http://k9la.us/> .

Also, check this:

<https://bit.ly/3Rc8Njt>

"*Understanding Solar Indices*" from September 2002 *QST*.

Sunspot numbers for November 14 through 20, 2024 were 96, 71, 71, 117, 118, 109, and 113, with a mean of 99.3. 10.7 cm flux was 146.8, 148.9, 139.9, 146.3, 165, 157.2, and 162.6, with a mean of 152.4. Estimated planetary A indices were 11, 13, 8, 8, 4, 9, and 9, with a mean of 8.9. Middle latitude A Index was 10, 10, 8, 6, 3, 6, and 8, with a mean of 7.3.

Courtesy ARRL Newsletter

## **Hawaii is preparing for the 83rd commemoration of the December 7, 1941, attack on Pearl Harbor.**

The 83rd anniversary of Pearl Harbor theme of "Forging Ahead" emphasizes not only the historical significance but also the vital role of the younger generation in preserving and honoring this legacy. This year's event will take place December 07, 2024, 7:30 AM – 9:00 AM HST at the Pearl Harbor National Memorial, 1 Arizona Memorial Place, Honolulu, HI. The event will also be live streamed. ARRL requested, and has received, a waiver from the Federal Communication Commission's Part 97 rules to communicate with military stations as part of Pearl Harbor Day commemorations December 7 – 8. ARRL made the request on behalf of the Battleship Iowa Amateur Radio Association, to allow amateur-military cross-band capabilities to communicate with the Battleship Iowa using the ship's original callsign NEPM. The USS Iowa is moored at the Port of Los Angeles. Also, the [Amateur Radio Club](#)

(Continued on page 4)

of the National Electronics Museum (ARCNEM) will hold a Pearl Harbor Day Commemoration December 1 - 11 from 1300Z - 2200Z. Special event station W2W will operate on 14.241, 14.041, 7.241, and 7.041 MHz. A certificate & QSL will be available. Primary operation will be December 1 - 7 with additional operation possible during December 8 - 11 as operator availability permits. Operation on 80 meters, 3.541 and 3.841 MHz, and digital modes is possible during event.

*Courtesy ARRL Newsletter*

## How to Let Kids Talk with Santa Over Ham Radio This Holiday Season

Santa Claus will be on the amateur radio airwaves again this year.

The 3.916 Santa Net will be on the air every night at 7:00 PM CST from November 29 through December 24. Reserve a spot with Santa by making a pre-net check in. You can check in each night starting at 6:30 PM CST online at [www.CQSanta.com](http://www.CQSanta.com).

Santa and Mrs. Claus will also be on the air, together, thanks to special arrangements with the Cowley County Amateur Radio Club in Kansas. They will be on the air on the 147.000 repeater and the Sunflower Net system, between 10 AM and noon CST on November 30 and beginning at 10 AM until band conditions change on December 14 and 21. In addition to the local repeater, the Sunflower Net offers connection options to Allstar, DMR, Dstar, Echolink, Fusion, Hamshack Hotline, M17, and P25. The club is also setting up a radio link at the local library to talk to Santa. A special effort is being made to give children who are hospitalized or otherwise unable to visit personally an opportunity to reach out to Santa.

Also, for the 4th year, Santa has sent Elf Chucky and his team of amateur radio operators to northern Colorado, to help make sure children of all ages can talk to Santa on station NØP from the North Pole. Thanks to the Longmont Amateur Radio Club and the Northern Colorado Amateur Radio Club, children can get into the holiday spirit by talking to Santa on the radio. Both are ARRL Affiliated Clubs. Get the details on that operation at <https://w0eno.org/santa>.



*Courtesy ARRL Newsletter*

## FROM THE EDITOR

I am going to try something new starting in January with an introduction here.

Due to the ARRL cutting back on news on the web site I am finding it increasingly difficult to find articles in order to fill Feedback with any useful information other than the Minutes and the Solar Update. Even the Update was missing the last week this month. I don't know what has happened with the ARRL Newsletter editor but anything new or unique is almost non-existent. Perhaps very little is happening in the hobby but I find that hard to believe.

Also, I have asked several times in meetings for contributions of any type from members. These could be articles of a technical nature or operational experience or just a history of experience in the hobby. No response.

I am going to start what I will call the WA4YWM Blog in Feedback—not on-line. My hope is that others will be inspired to contribute their experiences either technical, personal or operational to Feedback. I know of members who have You Tube Channels or have particular expertise or areas of interest who could contribute. All members could benefit from some aspect of these contributions.

My intent on any technical articles is to not get too technical. I don't want to have anyone's eyes glaze over but I do want to impart enough information to perhaps spark some interest in the topic. Enough interest and I will elaborate on the topic.

On the next page is my introduction to this process.

## WA4YWM Blog

In this introductory blog I want to present a synopsis of my intended topics for future blogs. I do not pretend to be an expert on any topic. I am not a particularly good writer - after all I was an engineer. I am not good at teaching. I just intend to present what I have experienced and learned and present that information to you. Hopefully this information will spark an interest in some aspect of the hobby that hasn't been considered or will increase interest in some areas.

In the beginning I intend to discuss the use of GNU Radio, the NanoVNA, DX operating, FT8 and perhaps other digital modes, public service operations, my own personal history of 60 years in the hobby and anything else I can think of.

“GNU Radio is a free & open-source software development toolkit that provides signal processing blocks to implement software radios. It can be used with readily-available low-cost external RF hardware to create software-defined radios, or without hardware in a simulation-like environment. It is widely used in research, industry, academia, government, and hobbyist environments to support both wireless communications research and real-world radio systems. “ This is a quote from the GNU Radio web site and sums it up. I intend to show what I used it for in developing a Software Defined Radio for both SSB and FT8.

The NanoVNA is an incredibly useful tool in the amateur radio arsenal for analysis of antennas, transmission lines and circuits. An added benefit is that it is inexpensive. A current version of it is available from Amazon for \$140. I will discuss my use of it and point to numerous web sites from which much operational information can be obtained.

In the case of DX operations I will mostly concentrate on my operating history, some techniques to be used and in particular my use of FT8 in chasing DX. I seldom operate SSB.

My FT8 blog will concentrate on operations of the WSJT suite of modes and its history. I may discuss some aspects of FT8 technology but not too much. It is a very complex piece of software using techniques that are far from the usual amateur radio technology.

My personal history may not be very interesting but it will be in line with the wishes of the powers that be to encourage member participation in the club. I intend to discuss all aspects of the hobby that I have experienced.

I look forward to this undertaking and hope that readers will take something away from each article and will be encouraged to write an article of their own.

### Elmer's Corner

Welcome to Elmer's Corner. This will be a section where hams can request help with ham related issues. Our goal is to match someone with experience with the issue you are having in order to resolve your problem. This is intended to cover all aspects of ham radio:

Equipment    Software    Antennas    Operations

Send the editor an email detailing the issue: [wa4ywm@comcast.net](mailto:wa4ywm@comcast.net).

## 2024 - 2025 Contest Calendar

### December

#### 6-8 [160 Meter](#)

2200 UTC Friday, ends 1559 UTC Sunday

#### 14-15 [10 Meter](#)

0000 UTC Saturday; runs through 2359 UTC Sunday

#### 22 [Rookie Roundup-CW](#)

1800 to 2359 UTC

### January

#### 1 Straight Key Night

0000 UTC - 2359 UTC

#### 4-5 RTTY Roundup

1800 UTC Saturday through 2359 UTC Sunday

#### 18-20 January VHF Contest

1900 UTC Saturday, ends 0359 UTC Monday

## V.E. TEST LOCATIONS

Confirm all information, in advance, with the contact person. Licensed applicants must bring the original, and one photocopy of their license. All applicants, including children, must bring two forms of positive ID. Also bring the original, and a copy, of any Certificate of Successful Completion needed to prove current status. The ARRL VEC'S 2024 test fee is \$15.00.

**Warminster Amateur Radio Club,** Monthly, Last Mon. 7:00 pm at the Wilson Senior Community Center 580 Delmont Avenue Warminster, PA 18974 George Brechmann (215) 443-5656.

**Atco, NJ**, The fourth (4th) Tuesday of each month, at 7 p.m. Winslow Township Senior Center, 33 Cooper Folly Road, 08004-2603.  
Mark (K2AX) jtra@comcast.net

**Levittown, PA**, Monthly, 1st Wednesday at 6:30. Levittown Library - Ben Johns, K3JQH, 215-657-5994

**Telford, PA**, RF Hill ARC. Indian Valley Library. Held the third Monday of odd months (January, March, May, July, September, November)  
Contact: Jim Soete 215-723-7294  
[wa3ylq@arrl.net](mailto:wa3ylq@arrl.net).

**Philadelphia, PA**, Testing is done on the 3rd, non holiday Monday of the month at the Giant Supermarket, 315 York Rd., Willow Grove, 19090 at 6:30 PM in the Community Room. For further information contact James McCloskey at jmcloskey@msn.com and by phone 215-275-2979.

**Lansdale, PA** Testing on the fourth non-holiday Thursday of the month starting at 7:00 PM. The Lansdale Library Community Room Vine St. and Susquehanna Ave. Lansdale, Pa. Registration is required 48 hrs. or more before the scheduled exam date. If there are no registrations the scheduled exam date will be canceled. NO WALK-INS. You can register by contacting:  
Olaf N. Markert - Phone (610) 517-5074, E-mail w3pa@arrl.net  
Alt Contact: Jim, 610-287-5630

### ➤ ATLANTIC DIV. HAMFESTS

#### ➤ 2025



#### Jan 11 - [Winterfest](#)

Vietnam Veterans Association Building  
8000 Derry Street  
Harrisburg, PA 17101  
<http://www.w3uu.org>

#### Apr 26 - [Delmarva Amateur Radio and Electronics Expo, ARRL Delaware State Convention](#)

Cheer Center  
20520 Sand Hill Rd.  
Georgetown, DE 19947

#### May 4 - [Warminster ARC - Annual Hamfest, ARRL Eastern Pennsylvania Section Convention](#)

Bucks County Community College-Lower Bucks Campus  
1304 Veterans Highway (Route 413)  
Bristol, PA 19007  
<http://wp.k3dn.org/hamfest/>

## CLUB INFO

### PUBLIC SERVICE

### CLUB STATION

The WARC club station is open to anyone with an interest, on the first Thursday of the month (meeting night) between the hours of 6:30 and 7:30 pm. with the exception of the December dinner meeting For further information, call George Brechmann N3HBT at 215-443-5656.

### WARC ALUMNI MEMBERSHIP

An Alumni membership category is available for WARC members who are unable to attend meetings and club activities on a regular basis because of health considerations, travel impediments, or other hardships. Dues for the Alumni membership are \$12.50 annually and are approved by the Board. Please contact the Membership Committee for more information if interested."

### ATTENTION MEMBERS

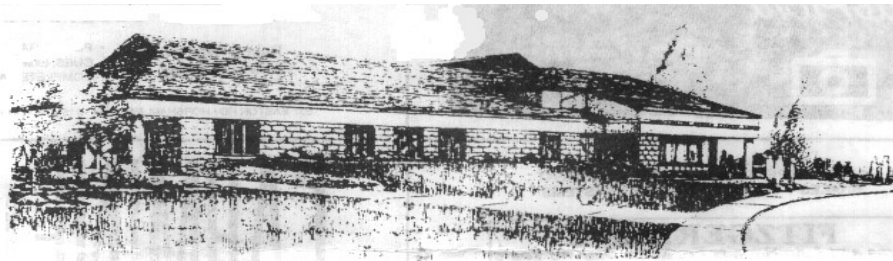
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even numbered months. If you do not have at least a Warminster Amateur Radio Club badge with your picture on it, please contact your Membership Chairs at the WARC monthly meetings. Otherwise, please contact Membership by email at: [membership@k3dn.org](mailto:membership@k3dn.org).

If you want to have your picture taken to be placed on the 'Members' Photos' section of the [www.k3dn.org](http://www.k3dn.org) website, please contact Membership with your interest. When we get enough people who are interested we will post a notice in Feedback and have a camera ready at the following club meeting.

## PROGRAMS 2024

### December - Holiday Dinner

The Club Station - K3DN - is located at the Benjamin Wilson Senior Center, Delmont Avenue, Warminster, PA. The station is open for club members and the interested general public on the first Thursday of the month (meeting night) between the hours of 6:30 and 7:30 pm. with the exception of the December dinner meeting . The station is fully operational on HF (80 meters through 10 meters ) both phone and CW. There is an assortment of amateur radio shareware which may be copied under the shareware licensing agreement.



For additional information on the Club Station please call the Station Manager N3HBT - George at 215-443-5656.

➤ WARC Meetings are held the first Thursday of each month at 7:30 pm at the Benjamin Wilson Senior Center, Delmont Avenue, Warminster, PA. Talk in is available on the 147.09 & 443.950 repeaters.

**SKYWARN INFORMATION**

**Bucks County SKYWARN Weather Spotter PRIMARY FREQUENCY: 147.300MHZ (+ 131.8)**

Fairless Hills, PA (many remote access locations throughout Bucks County)

**Mount Holly NWSFO SKYWARN Homepage:**

<https://www.weather.gov/phi/Info>

**SKYWARN Basic Weather Spotter Educational Programs URL:**

<https://www.weather.gov/phi/classes>

➤ **CLUB EQUIPMENT**

WARC has 2 Baofeng UV-5R dual band HT's and a Yaesu FT-2900 2M mobile that are available for use by members of the club. The radios are available on a month-by-month basis and have been purchased primarily to help new hams get on the air. However, they may also be used by any club member who is in need of a temporary 2-meter radio. They are also available for use by participants in WARC's public service activities.  
DE, Dave McGowan KC3RAT

**Area Repeaters**

**VHF**

- 145.310 R.F. Hill
- 145.350 Doylestown R.C.
- 146.790 Penn Wireless
- 145.330 Hilltown
- 146.670 DVRA
- 146.685 Holmesburg
- 146.925 Willingboro
- 147.000 Ham Bueggers
- 147.030 Phil-Mont
- 147.090 Warminster
- 147.270 Frankford
- 147.300 BEARS
- 147.390 CBRA

**220**

- 224.580 PackRats
- 223.76 K3NAL

**UHF**

- 442.650 DVRA
- 443.250 TAG
- 443.050 Metro-Comm
- 443.950 Warminster
- 444.200 BEARS
- 447.475 WR3B
- 448.225 Penn Wireless
- 444.759 RF Hill Analog/Fusion

**D-STAR**

- 146.61000 K3PDR DV
- 445.18125 K3PDR DV
- 445.01875 AA3E Montco RACES

**6 Mtr**

- 53.030 WA3BXW
- 53.230 N3DQZ
- 53.320 K3MFI

*The Warminster Amateur Radio Club  
Announces Free Ham Radio Instructional Classes*



If you're interested in Ham Radio, or think you might be, this is your opportunity. Perhaps you'd like to learn about digital communications, VHF, UHF, satellite, or perhaps you'd rather sit down and chat with someone in South Africa, Russia, Great Britain or in the space station.

New Classes (Tech and General) to start Sept 13 from 7 pm to 9 pm.

For further information contact George Brechmann, N3HBT at 215-443-5656.

**Bucks County Amateur Radio Emergency Service (BCARES)**

[www.bucksares.org](http://www.bucksares.org)

Bucks County ARES will be on the air Wednesdays, at 9:00 PM . We will be using Warminster Amateur Radio Club's repeater on 147.090, pl 131.8. This net is linked as shown in the Net Schedule box for the Wednesday night net. It may also be linked to 147.300.

Winlink Gateway Stations:

Lower Bucks NY3J-10 145.530 Bensalem

**Net Schedules**

Sunday	2000	10 Meter Net	28.445 MHz
Wednesday	2000	2 Meter Net	147.09 Rptr.
Wednesday	2000	Linked w/ 2 Meter Net	443.95
Rptr. Wednesday	2000	Linked w/ 2 Meter Net	53.230 Rptr.
Sunday	2030	Informal Net	223.5 Simplex
Thursday	1900	Mont. Cnty RACES Net	146.835 Rptr.

**Are you submitting an article for the Feedback ?**

Contributions of articles to be published are always accepted for consideration. Please follow these guidelines:

- E-Mail to:  
[wa4ywm@comcast.net](mailto:wa4ywm@comcast.net)  
Or via snail mail to:  
**FEEDBACK EDITOR**  
Warminster Amateur Radio Club  
Box 113  
Warminster, Pa 18974
- Use both upper and lower case letters.
- Use your program's spell check.
- If you don't have a computer, then typewritten sheets are o.k. but please use both upper and lower case.
- Put your name and call at the beginning or end of the article, and show credits if you are using material from another source.
- Deadline for articles is the Saturday before the regular meeting.

**For general club correspondence:**

[WARMrinfo@gmail.com](mailto:WARMrinfo@gmail.com)

**Visit our Home Page at:**

<http://www.k3dn.org>

**The annual dues rate structure is as follows:**

**Full Member:     \$25.00**  
**Student:           \$ 7.50**  
**Alumni:             \$12.50**

- Are your dues current ?

**2024 Officers**

**Executive Officers**

President	Dave McGowan	K3FTD	215-850-5846
Vice-President	Rich Parker	KC3WNX	215-913-1860
Secretary	Tony Simek	N3YNH	215-796-0336
Treasurer	Tom Newman	K3PLA	215-630-5965
Director (A)	Doug Becker	KC3MNQ	215-932-1370
Director (E)	Herb Hickmott	KB3VMN	
Director (A)	Bruce Farrington	WA3ZPC	215-262-4215
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Ray Oechslin	KA3TRU	267-269-3198

**Committee Chairpersons**

ARES/RACES Liason	Karl Harris	K3KH	215-264-1855
ARRL Liason	Irwin Darack	KD3TB	215-343-8170
Awards Manager	Vince Pironti	KD3TC	215-674-0446
Classes	Dave McGowan	KC3RAT	215-850-5846
	Dan Clementi	K3GMQ	267-337-0392
Digital and APRS	Ron Wenig	NY3J	215-638-9257
Feedback Editor	Jim Elmore	WA4YWM	215-538-1889
Field Day 24	Herb Hickmott	KB3VMN	267-718-3601
Hamfest 24	Tony Cuttone	W3FLH	267-679-9297
Hamwear	Kathy Acker	KC3FBY	215-815-7978
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Membership	Tony Cuttone	W3FLH	267-679-9297
Net Manager	George Brechmann	N3HBT	215-443-5656
PA QSO Party	Mark Kempisty	AA3K	
Publicity	Herb Hickmott	KB3VMN	267-718-3601
Refreshments	Arlene Newman	KA3PLA	215-345-4539
RF Interference	Bill Ballantine	K3FMQ	215-766-0764
Repeater Coordinator	Brian Taylor	N3EXA	215-257-6303
Safety Officer	Mike Malone	W3MJM	215-639-2175
Station Trustee	George Brechmann	N3HBT	215-443-5656
Good and Welfare	Regina Litman	KC3LRF	
Township Liason	George Brechmann	N3HBT	215-443-5656
VE License Testing	Larry Abbott	WA3ELQ	215-704-3282
VHF/UHF/MW	George Altemus	KA3WXV	215-855-3856
Website Coordinator	Kathy Acker	KC3FBY	215-815-7978
Youth Programs			