



FEEDBACK



Web Site k3dn.org

Warminster Amateur Radio Club

September 2024

Next Meeting September 5th - Intro to Antenna Modeling, Dan K3MGQ

Warminster ARC General Meeting Minutes August 1, 2024

Call to order at 7:30 PM & Introductions approx. 25 present

Minutes from the June 6th Meeting: Approved as submitted

Committee Reports:

Treasurer's Report: Tom (K3PLA) as of Jul 30, 2024
As reported

Programs: Rich (KC3WNX)

August - Jack Sullivan (W2INF)- Fat Dipole
September – Dan Clementi (K3GMQ) - “An Introduction to Antenna Modeling”

Membership: Tony (W3FLH):

Total Roster	124
Paid Membership	106
Regular Members	99
Student	0
Alumni/Associate	7
Owe Dues	17

Public Service: George (N3HBT)

Nothing until September

Classes: Dave (K3FTD)/Dan (K3GMQ)/Tony (N3YNH)

Probably starting in September

VE Testing – Larry (WA3ELQ)

July 29th Session: Two applicants, 1 upgraded to Extra Class one missed upgrading to General.
NO VE SESSION IN AUGUST, the next session will be September 30th

Other Committees

Refreshments: Arlene (KA3PLA) – Karl hurt his shoulder and may need surgery. Keep him in your prayers.

Repeater: Brian (N3EXA) - All is presently good and working as expected.

Radio Sport: Irwin (KD3TB) - Checkout ContestCalendar.com for upcoming contests, etc.

Club Station Status: George (N3HBT) – Up and running.

Old Business

None

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New Business

ARRL Grant – Herb (KB3VMN) is working with a few other members for the Council Rock School District for the Fall of this year.

Volunteers will be needed for a work night to clean up the upstairs and inventory the equipment. Anyone able to help should let one of the Board members know.

Question was brought up regarding a filing/registration with the Commonwealth of PA that had been previously done (about 10 years ago). Tony (N3YNH) will investigate.

Motion to Adjourn at 7:48 PM

Presentation by Jack Sullivan (W2INF) and the Fat Dipole

ARRL IT Security Incident - Report to Members

Sometime in early May 2024, ARRL's systems network was compromised by threat actors (TAs) using information they had purchased on the dark web. The TAs accessed headquarters on-site systems and most cloud-based systems. They used a wide variety of payloads affecting everything from desktops and laptops to Windows-based and Linux-based servers. Despite the wide variety of target configurations, the TAs seemed to have a payload that would host and execute encryption or deletion of network-based IT assets, as well as launch demands for a ransom payment, for every system.

This serious incident was an act of organized crime. The highly coordinated and executed attack took place during the early morning hours of May 15. That morning, as staff arrived, it was immediately apparent that ARRL had become the victim of an extensive and sophisticated ransomware attack. The FBI categorized the attack as "unique" as they had not seen this level of sophistication among the many other attacks, they have experience with. Within 3 hours a crisis management team had been constructed of ARRL management, an outside vendor with extensive resources and experience in the ransomware recovery space, attorneys experienced with managing the legal aspects of the attack including interfacing with the authorities, and our insurance carrier. The authorities were contacted immediately as was the ARRL President.

The ransom demands by the TAs, in exchange for access to their decryption tools, were exorbitant. It was clear they didn't know, and didn't care, that they had attacked a small 501(c)(3) organization with limited resources. Their ransom demands were dramatically weakened by the fact that they did not have access to any compromising data. It was also clear that they believed ARRL had extensive insurance coverage that would cover a multi-million-dollar ransom payment. After days of tense negotiation and brinkmanship, ARRL agreed to pay a \$1 million ransom. That payment, along with the cost of restoration, has been largely covered by our insurance policy.

From the start of the incident, the ARRL board met weekly using a continuing special board meeting for full progress reports and to offer assistance. In the first few meetings there were significant details to cover, and the board was thoughtfully engaged, asked important questions, and was fully supportive of the team at HQ to keep the restoration efforts moving. Member updates were posted to a single page on the website and were posted across the internet in many forums and groups. ARRL worked closely with professionals deeply experienced in ransomware matters on every post. It is important to understand that the TAs had ARRL under a magnifying glass while we were negotiating. Based on the expert advice we were being given, we could not publicly communicate anything informative, useful, or potentially antagonistic to the TAs during this time frame.

Today, most systems have been restored or are waiting for interfaces to come back online to interconnect them. While we have been in restoration mode, we have also been working to simplify the infrastructure to the extent possible. We anticipate that it may take another month or two to complete restoration under the new infrastructure guidelines and new standards. Most ARRL member benefits remained operational during the attack. One that wasn't was Logbook of The World (LoTW), which is one of our most popular member benefits. LoTW data was not impacted by the attack and once the environment was ready to again permit public access to ARRL network-based servers, we returned LoTW into service. The fact that LoTW took less than 4 days to get through a backlog that at times exceeded over 60,000 logs was outstanding.

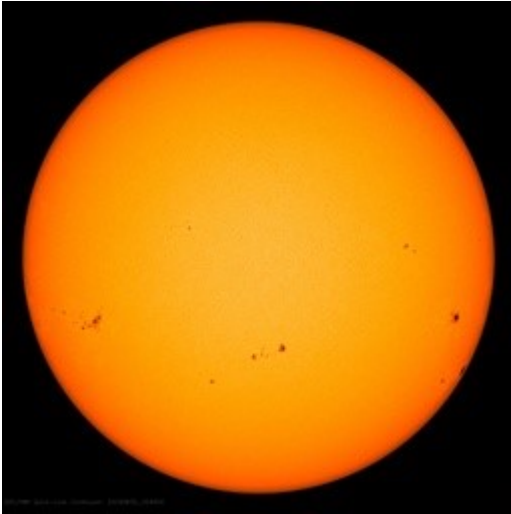
The board at the ARRL Second Board Meeting in July voted to approve a new committee, the Information Technology Advisory Committee. This will be comprised of ARRL staff, board members with demonstrated experience in IT, and additional members from the IT industry who are currently employed as subject matter experts in a few areas. They will help analyze and advise on future steps to take with ARRL IT within the financial means available to the organization.

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We thank you for your patience as we navigated our way through this. The emails of moral support and offers of IT expertise were well received by the team. Although we are not entirely out of the woods yet and are still working to restore minor servers that serve internal needs (such as various email services like bulk mail and some internal reflectors), we are happy with the progress that has been made and for the incredible dedication of staff and consultants who continue to work together to bring this incident to a successful conclusion.

The K7RA Solar Update



"ASWFC GEOMAGNETIC DISTURBANCE WARNING ISSUED AT 0200 UTC/29 AUGUST 2024 BY THE AUSTRALIAN SPACE WEATHER FORECASTING CENTRE.

The solar wind environment remains elevated due to ongoing CME effects. G0-G1 geomagnetic conditions are expected on 29-Aug.

INCREASED GEOMAGNETIC ACTIVITY EXPECTED DUE TO CORONAL MASS EJECTION FOR 29 AUGUST 2024 GEOMAGNETIC ACTIVITY FORECAST 29 Aug: G0-G1."

This week seven new sunspot groups emerged, with two on August 22, one on August 25, two on August 26 and two more on August 28.

Average daily sunspot number declined slightly from 180.3 to 177.1, and average daily solar flux from 232.7 to 229.

Planetary and middle latitude A index averages were about the same, at 12.3 and

12.

Predicted solar flux shows 210, 220 and 215 on August 30 to September 1, 220 on September 2-3, 225 and 230 on September 4-5, 275 on September 6-8, 280, 285, 280 and 280 on September 9-12, then 275, 270, 265, 260, 255, 250, and 245 on September 13-19, then 240 on September 20-21, then 235, 230, 235, 240 and 245 on September 22-26, 250 on September 27-28, then 255, 260, 265 and 270 on September 29 through October 2, and 275 on October 3-5.

Predicted planetary A index is 8 on August 30 to September 1, 5 on September 2-16, then 8, 8 and 12 on September 17-19, then 5 on September 20 to mid-October.

Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere for August 29, 2024 from OK1HH.

"About 10 sunspot groups can still be observed in the solar disk, two to four of which have magnetic field configurations that are indicative of middle magnitude flares.

After several solar flares in recent days, the arrival of CMEs to Earth was widely expected. This was also true for the X1.1/2b class flare in AR 3784 (N12E05) with a maximum on August 14 at 0640 UT, accompanied by bursts of solar radio noise types II/IV. However, nothing special continued to happen either. So much so that some authors canceled the predictions of a geomagnetic disturbance on 27 August. Which was a mistake - the disturbance began on the afternoon of August 27, while reaching G2 level.

For the state of the Earth's ionosphere, this happened at the right time. In the positive phase of the disturbance, the highest usable frequencies of the F2 layer increased, while propagation from Europe to the west coast of the USA through the ionospheric waveguides was observed up to around the boundary between HF and VHF.

As expected, on 28 August the evolution in the negative phase of the disturbance continued with a significant decrease in f_oF₂, including an increase in attenuation. Surprisingly rapid improvement already occurred on the following day, August 29, while can be attributed not only to the high solar radiation in the ongoing solar cycle maximum, but also to the change in the polarity of the interplanetary magnetic field."

Check Tamitha Skov's latest videos: <https://www.youtube.com/user/SpWxfx>

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

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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/wlaw-bulletins-archive-propagation>

More good information and tutorials on propagation are at <http://k9la.us/>

Also, check "Understanding Solar Indices" from September 2002 QST: <https://bit.ly/3Rc8Njt>

Instructions for starting or ending email subscriptions to ARRL bulletins are at <http://arrl.org/bulletins> .

Sunspot numbers for August 22 through 28 2024 were 175, 180, 172, 178, 202, 170, and 163, with a mean of 177.1. 10.7 cm flux was 230.6, 241.7, 232.6, 232.6, 232, 221.3, and 211.9, with a mean of 229. Estimated planetary A indices were 10, 7, 10, 7, 5, 11, and 26, with a mean of 12.3. Middle latitude A Index was 11, 8, 12, 8, 4, 11, and 30, with a mean of 12.

Courtesy ARRL Newsletter

Lost and Found: EME WAC Award Application

Forty-eight years ago, the Pennsylvania-based Mt. Airy VHF Radio Club “Pack Rats” were experimenting with the latest amateur radio technology, Earth – Moon – Earth (EME), which became known simply as *moonbounce*.

While the radio equipment was pretty standard for the day, EME was not an easy technology. Moonbounce contacts required big antennas and kilowatt transmitters.

“There were a number of dedicated amateur operators in a dozen or so countries that had assembled stations capable of making the ultimate long-distance QSO with one goal in mind – to be the first to work all six populated continents on the globe, the Worked All Continents (WAC) award,” said club president Phil Miguelez, WA3NUF.

The Pack Rats were early experimenters of EME communications. Thanks to a donation of a 20-foot stressed dish antenna by Al Katz, K2UYH (SK), an EME station was assembled at a rural sheep barn in Revere, Pennsylvania. The station, W3CCX/3, began making EME contacts but the major obstacle to obtaining the WAC award was the lack of an EME station on 432 MHz on the South American continent.

Through a long series of coincidences, hard work by the Pack Rats to help assemble and transport to South America 20 boxes/ crates, with the longest box being 6 feet or less, and a seaside cottage in Barranquilla, Colombia, six months of very intense effort ultimately paid off.

In early July 1976, six Pack Rats, Elliott Weisman, W3JJZ; Walt Bohlman, K3BPP; Tony Souza, W3HMU; Bill Olson, W3HQT (now K1DY); Dan Mitten, WA3NFV, and Bolmar Aguilar, WB3AOP / HK1AMW, headed to Barranquilla with the callsign HK1TL. In one week of operating, the HK1TL expedition made 16 contacts, but since they were the only station in South America, it was one short of the six continents needed for the WAC award in Colombia.

Meanwhile, in Revere, Pennsylvania, the W3CCX/3 station manned by Dave Mascaro, WA3JUF, completed a contact with HK1TL on July 29, 1976, achieving the goal of contacting the final continent needed to give the Mt. Airy VHF Radio Club WAC on the 70-centimeter band.

But the story doesn't end there. The application for the WAC award was mailed and received. There was an issue with application, but no one remembered the details or recalled what actions were taken at that time. But the club never received a certificate.

With the help of retired ARRL Chief Executive Officer Dave Sumner, K1ZZ; ARRL Radiosport and Field Services Manager Bart Janke, W9JJ, and current Chief Executive Officer David Minster, NA2AA, "the ARRL went above and beyond to rectify the Mt. Airy VHF Radio Club lost EME WAC award application," said Miguelez. The award was dated June 6, 1977.

Thanks to Phil Miguelez, WA3NUF, and Walt Bohlman, K3BPP, for their contributions to this story. More information can be found at the Pack Rats website <https://packratvhf.com>. The HK1TL story is located on the History TAB or directly at: <https://packratvhf.com/index.php/history/30-pack-rat-1976-eme-expedition-hk1tl>

Courtesy ARRL Newsletter

The ARRL Simulated Emergency Test (SET) is coming this fall

This nationwide exercise is the chance to test your personal emergency-operating skills and the readiness of your communications equipment and accessories in a simulated emergency-like deployment.

ARRL Field Organization leaders at the section and local levels, and many other volunteers who are active in public service and emergency communications, are developing scenarios in consultation with a variety of agencies and organizations for whom radio amateurs are known to provide service during emergencies.

The League's ARES, National Traffic System (NTS), the governmental Radio Amateur Civil Emergency Service (RACES), SKYWARN™, Community Emergency Response Teams (CERT), the Salvation Army Team Emergency Radio Network (SATERN), and other allied groups and public-service oriented radio amateurs are among those who are eligible to participate in the exercise to practice emergency operation plans, nets and procedures. The ARRL has longstanding relationships with several national organizations including the American Red Cross, the National Weather Service, the Federal Emergency Management Agency, and the Salvation Army (among others). More information on these and other national served agencies may be found at www.arrl.org/served-agencies-and-partners.

Courtesy ARRL Newsletter

2024 Contest Calendar

September

8 North American Sprint, CW

0000Z-0400Z, Sep 8

14-16 [September VHF](#)

1800 UTC Saturday, ends 0259 UTC Monday

21-22 [EME - 2.3 GHz & Up](#)

0000 UTC on Saturday through 2359 UTC Sunday

28-29 CQ Worldwide DX Contest, RTTY

0000Z, Sep 28 to 2400Z, Sep 29

October

19-20 [EME - 50 to 1296 MHz](#)

0000 UTC on Saturday through 2359 UTC Sunday

QSO Parties

Tennessee 1700Z, Sep 1 to 0300Z, Sep 2

Iowa 1400Z, Sep 21 to 0200Z, Sep 22

New Jersey 1400Z, Sep 21 to 0159Z, Sep 22

Texas 1400Z, Sep 21 to 0200Z, Sep 22 and 1400Z-2000Z, Sep 22

New Hampshire 1600Z, Sep 21 to 0400Z, Sep 22 and 1200Z-2200Z, Sep 22

Maine 1200Z, Sep 28 to 1200Z, Sep 9

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.

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 jmccloskey@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

➤ 2024



September 8 - [ARRL Southern New Jersey Section Convention and Hamfest](#)

Gloucester County 4H Fairgrounds 235 Bridgeton Pike (Rt 77)

Mullica Hill, NJ 08062

<http://w2mmd.org>

October 6 - [CARA Fest 2024](#)

Howard County Fairgrounds 221 Fairgrounds Road

West Friendship, MD 21794

<http://www.carafest.org>

October 20 - [RF Hill Amateur Radio Club Hamfest 2.0](#)

Upper County Campus of the Bucks County Community College

1 Hillendale Rd. (Use Blooming Glen Rd. entrance 40°22'57.2"N 75°16'26.3"W))

Perkasie, PA 18944

<http://www.rfhillarc.club>

CLUB INFO

PUBLIC SERVICE

October – Golf Outing Part 2. Anyone interested in helping contact George at N3HBT@ARRL.NET

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

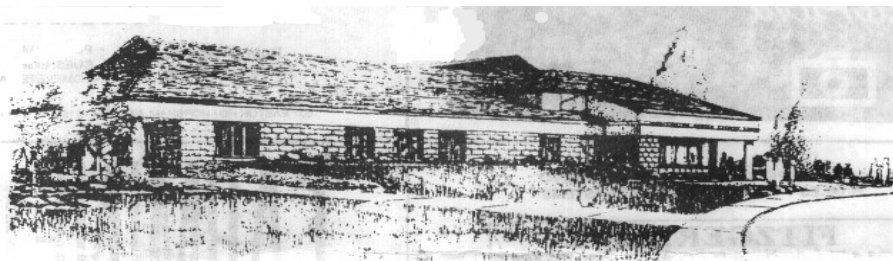
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even 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.

If you want to have your picture taken to be placed on the 'Members' Photos' section of the 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

September - Intro to Antenna Modeling

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

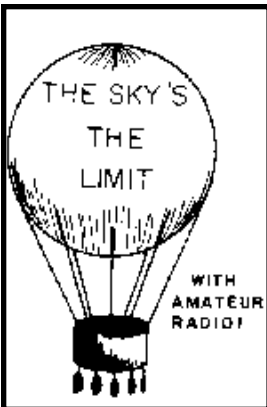
D-STAR

- 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

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
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

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			