



FEEDBACK



Web Site k3dn.org

Warminster Amateur Radio Club

June 2019

Next Meeting June 6th - Laura Floyd, KC3GWL Project Recap, Pizza Night

President's Message

This month marks the end of my first term as President of the Warminster Amateur Radio Club. It has been an honor to serve this past year and I am looking forward to the next year. Two of our current officers are stepping down. Jacek, KC3HXF, has served as the club's Vice-President and Kathy, KC3FBY as the Club's Secretary. I thank you both for all the work you have done for the club. I know you both won't be "disappearing" and look forward to working with you both in the future. I would also like to welcome Marty, NY3Z who will be taking over the Vice-President position and Norm, AA3Z who will become the club's secretary, to the board.

I also need to thank Michael, W3MAS and his crew for all the work that they did for this years Hamfest. Though the weather didn't cooperate this year it was still a great time for all who attended. I heard nothing but great things about the programs and speakers and the vendors were happy with their sales even with the rain. And a special thank you goes out to all who worked the front gate and parking areas. You folks had the toughest job of all, dealing directly with the rain, and did great. Thank you.

This month we will kick off something new in the club, The Club Challenge. This will be a fun way to make contacts on the club's repeater system. The challenge will start after our meeting on June the 6th and end at the start of the meeting on July 11th (Reminder, the meeting is a week later due to the Fourth of July holiday). You get a point for each contact you make, another point if they are a club member and one more point if they are a current board member or a past president. How will you know if they are a club member, board member or past president? Ask them, this challenge is to encourage people to talk on the repeater, so take some time and use your club's repeater system to have a conversation with someone. The member with the most points will win a prize. The rules and log sheet are available on the files section of WARCTalk.

See you at Field Day!

George, KC3ESH
KC3ESH@yahoo.com

The K7RA Solar Update

No sunspots appeared over this past reporting week, May 23-29.

Compared to the previous seven days, average daily solar flux dropped from 69.8 to 67.4. Average daily planetary A index increased from 5 to 7.3, and average mid-latitude A index went from 6.1 to 8.1.

Predicted solar flux over the next 45 days is 70 on May 31, 71 on June 1, 72 on June 2-6, 76 on June 7-10, 74 on June 11, 72 on June 12-13, 70 on June 14-15, 69 on June 16-17, 68 on June 18, 67 on June 19-26, 68 and 70 on June 27-28, 72 on June 29 through July 10, then 70 and 68 on July 11-12 and 67 on July 13-14.

Predicted planetary A index is 8 on May 31, 5 on June 1-4, 8 on June 5-6, 5 on June 7-15, 8 on June 16-18, 5 on June 19-23, then 10, 16, 12, 10, 10 and 8 on June 24-29 and 5 on June 30 through July 14.

When might we see a return of visible sunspots? Perhaps a table of recent sunspot numbers and solar flux gives us a clue: ftp://ftp.swpc.noaa.gov/pub/indices/old_indices/2019Q2_DSD.txt

Note when the solar flux dropped below 70, sunspots disappeared. With predicted flux values above 70 for the first half of June, perhaps we won't have long to wait.

Courtesy of the ARRL Newsletter

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WARC General Membership Meeting Minutes May 2, 2019

Minutes from last Meeting

Additions/Corrections – Minutes approved as written in Feedback

Committee Reports

Treasurer's Report: *Herb KB3VMN*

As reported at the meeting

Programs: *Jacek KC3HXF*

June – Pizza Night, Laura Floyd, KC3GWL Project Recap, Field Day Prep

July - Radio Astronomy, Robert Welsh, N3RW

Special Event Station-May 26th at the Shrine of Czestochowa. W3P call sign.

Membership: *Norm AB3ZZ*

113 paid members

1 pending member

Public Service: *George N3HBT*

Memorial Day parade – Sign up sheet is at the meeting

Hole in One golf outing – June 6 morning start – sign-up sheet is at the meeting

Michael KB1JEY – Tour De Cure bike ride. Ham operators and SAG drivers needed

Classes: *George KA3WXV/Ron WB2OOB*

2nd Monday in September we will start tech classes

Advanced classes for those who are tech and generals would like to get deeper into the hobby.

VEC Testing: *Larry WA3ELQ*

Last VE session was Monday 3 successful 1 upgrade to extra, 1 upgrade to general and 1 new tech

We will have testing at the Hamfest

May session will be a week earlier because of Memorial Day

Repeater: *Brian N3EXA*

We have a great repeater with 6 receivers connected to it. Everything is working great. Get on the air and use them.

Good and Welfare: *Ken, K9KJL – not in attendance*

Other Committees

Hamfest: Michael W3MAS – Hamfest this weekend. Weather not going to be great, but we will work through it. Need to fill out the rest of the crews. Transport crew 2 more people to meet here to load up at 2pm at the senior center. Set up, we need 1 or 2 more people for this to meet at the college. Tear down after Hamfest. Need about 4 more people to work the gate. We will have a shelter to stand under if it rains. Parking need about 4 more people for this. Gate and parking are shift times. You will not need to work the entire Hamfest. We have 3 great speakers.

Radio Sport: Irwin KD3TB – no contests coming up

Field Day: Doc W3GAD – June 22-23. Trailer loading on Friday, June 21, 7pm. We have band captains, but 40 meters need to be covered. We need someone to do publicity, Mike Malone will be Safety officer.

Old Business

July Meeting Date Changed- Changed to July 11

Constitution Review – committee will be meeting after Hamfest

New Business

Club Challenge – will happen on the repeater, from the June meeting to until July meeting. Keep track of how many contacts you make with club members. Rules and log will be on WARCtalk and email and the newsletter.

Budget – we will have a budget for approval at next month's meeting

Elections – everyone who is a paid member has been given the ability to vote. Motion made and approved to close elections. After a 15-minute break, ballots were tallied, and the results are as follows:

George Acker, KC3ESH – President

Marty Squicciarini, NR3Z – Vice President

Norman Miles, AB3ZZ - Secretary

Herb Hickmott, KB3VMN – Treasurer

Larry Abbott, WA3ELQ and George Brechmann, N3HBT – Elected Directors

Motion to Adjourn: meeting adjourned at 8:30pm

Program: Pete Putman

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FOR SALE

Nine (9) aluminum military mast sections sold by the MAST COMPANY, high quality aluminum, each section about 3.75 feet once overlapped on each other for a total height of approximately 34 feet. Brand new in shipping carton. I can bring them to one of the meetings if you are interested. Contact, Bob, K3SRO at dlrwild1@verizon.net

267-535-9189 cell ASKING: \$110 cash or check

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WELZ TP05 Power Meter WELZ TP05 Power Meter

Yaesu FT 60

FNB-83 Battery Packs (2) FNB-83 Battery Packs (2)

G3 Globe Traveler Radio G3 Globe Traveler Radio

YAE VX-170 Transceiver YAE VX-170 Transceiver

3 ft Cable with Connectors 3 ft Cable with Connectors

SO-239 Connectors

Travel Alarm Clock

Don (Byron) Rector W3UBF

Apt 2102

84 Dernstine Rd

Hatfield, PA 19440

215-723-1421

_donaldrector1932@yahoo.com

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Kenwood TS-520S in good working order priced at 250.00.

Kenwood R-2000 Receiver with optional YG-455C included 250.00.

Both Items sell on EBAY for well over 300.00.

Elliott Ressler W3YEP

erressler27@gmail.com

Tel: 215-635-4893

ARRL FIELD DAY 2019

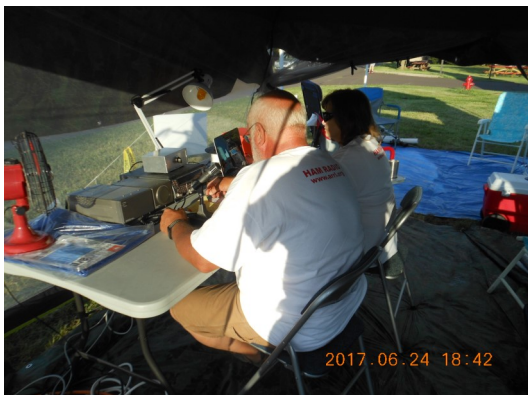


We have the privilege of being licensed radio amateurs. Some of us have been active for many years - for me, that would be 62 years and counting. Over those many years we have learned several different ways to assemble and operate a station. We have also seen many transitions within the hobby. Today, amateur radio is attracting a wider variety of talents and interests, with a lot of focus on computer aided technologies.

When you first got your license, like so many, you ran out and purchased a new or used handi-talkie, and maybe even made a few contacts on a local repeater. For some, unfortunately, that is the end of their interest. Now perhaps your interest can be rekindled with a visit to

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the Warminster Amateur Radio Club's (WARC) participation in ARRL Field Day 2019. This year we will again be at the Shrine of Our Lady of Czestochowa on Ferry Road, just north of Doylestown.

My first effort at Field Day was as a Junior in high school. A couple of friends and I went to an abandoned house, high on the ridge above what is now Peace Valley Park. We set up in the attic with a homebrew 6 meter station, using a homebrewed 4 element Yagi pushed up through a hole in the roof and an "armstrong" rotator – that's ham-speak for turning the antenna manually by rotating the pole that it's attached to! The most memorable part was being attacked by a Lunar Moth in the middle of the night as it zoomed into, and out of, our one light.

Today, our Field Day effort is better organized and more visible to the public. It is a great opportunity to experience many different aspects of the hobby, and to try your hand at operating a station without using a repeater. We expect to have CW, phone (SSB) and digital modes active, with experienced operators available to guide you in making perhaps your first on the air contact on HF. In addition to making radio contacts, WARC's ARRL Field Day is an opportunity to learn more about antennas; see and operate a wide variety of modern equipment; and learn about some basic safety steps to keep yourself and others from harm when installing and operating an amateur radio station.



ARRL Field Day is always the 4th weekend in June - this year that is June 22nd and 23rd. Our activities actually start the evening of 21 June by moving equipment & supplies from the Ben Wilson Senior Activity Center (WARC HQ) to the Shrine. They end Sunday afternoon, when all the equipment has been returned to its proper place at our club HQ. Along with lots of on the air

activities there will be excellent food, plenty of cold beverages (the club does not supply the alcoholic beverages so it's (BYO Beer). Alcohol is allowed in moderation.

If you are newly licensed, come out, learn and get energized in this terrific hobby. If you're one of us "Old Timers", consider one of the many Elmering positions available. We are looking for satellite, solar power, dedicated digital, CW and SSB stations. Another interesting position is called the Get On The Air (GOTA) Station, which is purposed to take the newly licensed in their first journey to an on the air experience.

In the June 2019 issue of ARRL's QST magazine, there are several Field Day related articles and a bit of a summary on pages 76-77. To learn more about Field Day, I suggest reading the June issue, starting with ARRL CEO Howard Michel's "Field Day Thoughts" column (page 9), as well as the many fine Field Day articles throughout.

We will have sign-up sheets for stations and support activities at the June meeting. In the meantime, if you have any questions about how you can join in the fun, contact:

Doc Whitticar – w3gad@arrl.net, or 215-990-4683 (evenings only)
Tony Cuttone - w3flh@arrl.net



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Emergency Messaging Demonstration for Red Cross, FEMA is a Success

With Red Cross and Federal Emergency Management Agency (FEMA) officials monitoring, dozens of radio amateurs along the US east coast on May 23 demonstrated Amateur Radio's ability to deliver messages without commercial power, infrastructure, or permanently established stations. The event took place in coordination with ARRL. The demonstration was a mock response to a simulated disaster scenario — a major hurricane with mass casualties. During the event, radio amateurs at portable stations from New England to the Carolinas delivered message traffic to W1AW, which coordinated and delivered the information to officials attending a joint Red Cross-FEMA meeting in Baltimore.

"About a dozen stations participated in the demonstration, including operators in Maine, Rhode Island, Massachusetts, New York, northern New Jersey, western Pennsylvania, Delaware, and South Carolina," ARRL Communications Manager Dave Isgur, N1RSN, said. "Red Cross officials were on-site at W1AW and at the receiving station in Baltimore. At both sites, they indicated that were impressed with Amateur Radio's ability to deliver messages digitally so that could be displayed on a computer screen and in a format that matched the format for messages that the Red Cross uses." Isgur said ABC, CBS, and Fox TV affiliates sent reporting teams to W1AW.

A few stations, including W1AW and stations in Baltimore, generated local media coverage of their participation, much of it tied into the notion of "Amateur Radio operators and the partner agencies they serve are getting ready for 2019 Hurricane season." Hurricane Season begins on June 1 and continues through November 30.

W1AW Station Manager Joe Carcia, NJ1Q, said the exercise went well overall. "Conditions were a bit tepid at best, but we were able to establish voice contact first, and then proceed with the digital traffic (MT63-1KS) during the roll call," Carcia said. "Digital signals were good. I needed just one retransmit. We used *fldigi* with *flmsg*. This made life so much easier."

Courtesy of the ARRL Newsletter

Magnetic Loop Antenna Designs Multiply



The magnetic loop for 40 and 20 meters designed by Richard Robbins, WA8RR. [Photo courtesy of *DELARA News*]

result of a very high circulating current and heating of the separate components." Encouraged, he went for a higher-end design constructed around a 5 - 500 pf vacuum variable capacitor, the project's most expensive component (these go for \$150 or more on eBay). "It is big and heavy," Robbins said. He had a metal fabricator bend a new piece of thin-wall copper tubing into a more aesthetically pleasing circle.

"To drive the capacitor, I obtained a stepper motor and driver, an Arduino controller board, and a four-channel remote," Robbins explained. "I used some sample programs to develop the code that would move the capacitor at different speeds depending on how long the remote was pressed. I added markings on the capacitor, so I could quickly move to different bands." --
Thanks to DELARA News

Magnetic loops have become popular as effective and compact antennas for traveling and stealth applications. An HF magnetic loop design by John Chappell, W3HX, was an honorable mention in the 2018 *QST* Antenna Design Competition. Chappell's mag loop offers coverage on 80 - 20 meters, and he runs FT8 at 50 W. See his article on page 39 of the June 2019 issue of *QST*.

Richard Robbins, WA8RR, wanted to build one of his own for 40 and 20 meters, and he [described his efforts](#) in a recent edition of his club's newsletter, *DELARA News*. An [online calculator](#) helped him come up with the basics, and he decided on a 10-foot circumference loop constructed from half-inch copper pipe that would handle 100 W. His prototype, constructed from a piece of pipe "hand bent into an approximate circle," a Dayton Hamvention flea market capacitor, and a coax drive loop, would tune the two bands -- although, as expected, tuning was very sensitive and affected by body capacitance.

He worked up a reduction drive and remote motorized tuning, and was able to make several FT8 contacts, using his antenna analyzer to tune the loop. "The tuning would shift as I was transmitting," Robbins recounted. "This is a



May 14 FT4 Mock Contest Session Canceled, New WSJT-X Beta Version Pending

A second hour-long FT4 “practice contest” set for May 14 UTC has been cancelled, following the success of an initial mock contest held on May 9 UTC (the evening of Wednesday, May 8, in continental US time zones). The event followed [ARRL RTTY Roundup](#) rules, with everyone working everyone. *WSJT-X* program suite developer Joe Taylor, K1JT, was among those jumping into the fray. He called the exercise “very useful” and has drawn some preliminary conclusions as to how the FT4 protocol functions in a contest setting.



“FT4 works well, but — as implemented *WSJT-X* 2.1.0-rc5 — it has some rough spots and performance issues,” Taylor said in a post to the Yahoo WSJT Meteor Scatter and Weak Signal Group. “Many of these have been fixed already during this beta-testing period, and more improvements are still to come.”

Taylor said a second mock contest session using the current -rc5 “release candidate” (beta version) would not be helpful, and it’s not convenient for the developers to build and distribute -rc6 in time for a session early next week, a few days before the Dayton Hamvention. “Instead, we are aiming now to release *WSJT-X* 2.1.0-rc6 about 2 weeks later — probably in the last week of May or the first week of June,” Taylor said. “Another mock contest practice session will be scheduled soon after that release.” The current -rc5 beta version will expire automatically on June 7.

Taylor said he used a program build that was probably closer to the pending *WSJT-X* 2.1.0-rc6 beta version than to -rc5. “With my dial set at 7.090 and a 4 kHz displayed spectral window, my waterfall was mostly filled with FT4 signals from well before

0000 UTC to well after 0100,” he said. Taylor managed some 60 stations in 22 states, four Canadian provinces, and in two DXCC entities.

“Generally I found *WSJT-X* to work well in FT4 contesting mode, but I noted several behavioral oddities that still require attention,” Taylor continued. For example, he said the “TU” message need only be sent once, and if the new station needs to be called again, the leading “TU” should be stripped. He also noted that the “Call 1st” check box becomes unchecked in certain circumstances. “This was intentional, part of an attempt to defeat robo-QSOs; but there may be a better way to address this issue,” he remarked. He said the “Best S+P” button was effective, but feels its behavior can be improved. “Its selection of a ‘best’ caller should favor new multipliers, and perhaps also stronger signals,” he said. “Currently, the button only functions as desired during a reception interval.”

In a post to the [Yahoo WSJT Group](#), Rich Ferch, VE3KI, described the mock contest in one word: “chaotic.” He requested eliminating the “feature” that lets the operator continue to call a CQ-ing station, even after the station has come back to someone else. “At the very least, make it wait until the other QSO is over before calling,” he said.

Before the practice event, Taylor said the developers were “looking for feedback on what works well, what does not, and what an FT4-enabled contest might be like.”

If you took part, post your observations and comments to the [Yahoo WSJT Group](#) reflector, the [WSJT Development Group Mailing List](#), or the [RTTYDigital list](#).

The *WSJT-X* Development Group reports that it’s aware of several other anomalies in the -rc5 version of *WSJT-X* 2.1.0. In addition to unexpected program crashes, the program will reset itself to FT8 protocol after the operator accesses the Settings screen. The current build of *WSJT-X* 2.1.0-rc5 does not run correctly under macOS.

Installation packages for Windows and Linux are on the [WSJT-X page](#). A full release of *WSJT-X* version 2.1 is targeted for release in July 2019.

Hams Help Trace "Mystery" Signal Disrupting Keyless Entry Devices in Ohio

A [recent article](#) in *The New York Times* reported that many garage door openers and keyless vehicle entry fobs in an Ohio town near Cleveland mysteriously stopped working. While the article invoked *The X-Files* and hinted initially that a NASA research center might be involved, the cause was not so much mystifying as arcane.



"Garage door repair people, local ham radio enthusiasts, and other volunteer investigators descended on the neighborhood with various meters," the May 4 article by Heather Murphy recounted. "Everyone agreed that something powerful was interfering with the radio frequency that many fobs rely on, but no one could identify the source."

More than a dozen residents reported intermittent issues getting their key fobs and garage door openers to operate, and most lived within a few blocks of each other. At one point, the local power utility started shutting off power to areas where the strongest RF signal was detected, but the signal persisted. Dan Dalessandro, WB8ZQH, a TV repairer, was among several hams who investigated. He initially picked up "little blips" on a signal detector, but finally, on one block and at a particular house, the signal was quite loud.

"The source of the problem was a homebrew, battery-operated device designed by a local resident to alert him if someone was upstairs when he was working in his basement," the *Times* reported. "It did so by turning off a light." The inventor, not identified for privacy concerns, had no malicious intent nor any inkling that his device was wreaking havoc on the neighborhood until a North Olmstead City Council member and a volunteer knocked on his door. The device operated on 315 MHz, the frequency many keyless-entry devices use under FCC Part 15 rules. The device's battery was removed, the signal stopped, and all who were involved breathed sighs of relief.

Courtesy of the ARRL Newsletter

Science and Technology: An Ultra-Small Transmitter for VLF?

A study, "[A high Q piezoelectric resonator as a portable VLF transmitter](#)," by Stanford University SLAC National Accelerator Laboratory researcher Mark A. Kemp et al., in the April 12, 2019, edition of *Nature Communications* describes using a small rod of lithium niobate and taking advantage of the material's piezoelectric properties to convert an imposed voltage to a mechanical effect, which in turn radiates an electromagnetic current.

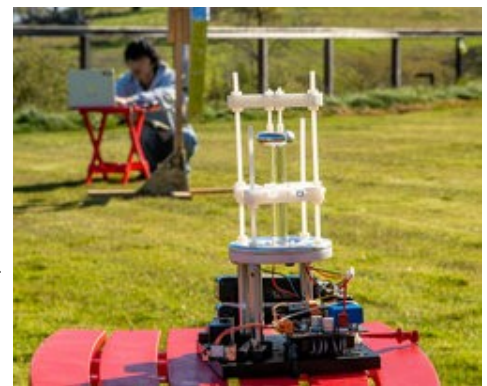
The National Accelerator Lab describes the research in an article, "[SLAC develops novel compact antenna for communicating where radios fail](#)," which said a new type of pocket-sized devices "could be used in portable transmitters for rescue missions and other challenging applications demanding high mobility" where conventional radios don't work, such as under water, through the ground, and over very long distances through air. "The device emits VLF radiation with wavelengths of tens to hundreds of miles. These waves travel long distances beyond the horizon and can penetrate environments that would block radio waves with shorter wavelengths."

"Our device is also hundreds of times more efficient and can transmit data faster than previous devices of comparable size," Kemp, the project's principal investigator. "Its performance pushes the limits of what's technologically possible and puts portable VLF applications, like sending short text messages in challenging situations, within reach."

The paper by Kemp et al. points to the fact that large size and high loss render conventional transmitter techniques inadequate. "We show that a strain-based, piezoelectric transmitter can overcome many of the fundamental limitations of conventional electrically small antennas (ESA)," the paper's abstract reads. "These transmitters can resonate in a very small footprint while exhibiting low losses."

Taking a deeper dive: "Traditionally, a disadvantage of passive high-Q antennas was low bandwidth. Utilizing piezoelectricity as the radiating element allows us to dynamically shift the transmitter resonant frequency. Therefore, high total Q (low loss) no longer constrains the system bandwidth. These are our fundamental advancements: Achieving an exceptionally high system Q with no external impedance matching network and an effective fractional bandwidth beyond the passive [Bode-Fano limit](#). Although demonstrated at VLF, this concept straightforwardly scales to other frequency bands."

Courtesy of the ARRL Newsletter



A new compact VLF transmitter, developed and tested at SLAC, consists of a 4-inch-long piezoelectric crystal (clear rod at center) that generates VLF radiation. [Photo courtesy of Dawn Harmer/SLAC National Accelerator Laboratory]

CLUB INFO

PUBLIC SERVICE

June is the Hole in One golf outing on the first Thursday in June. Sign up sheet at the May meeting. We will need about 10 operators

July 15 - Michael KB1JEY – Tour De Cure bike ride. Ham operators and SAG drivers needed

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 \$10.00 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.

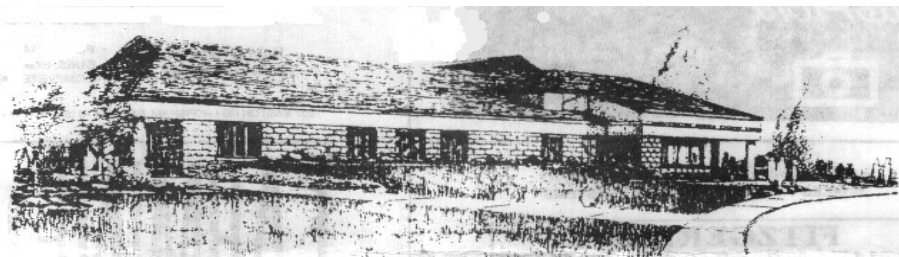
If you want to have your picture taken to be placed on the 'Members' Photos' section of the www.k3dn.org website, please contact Membership with your interest. When we get enough people who are interested we will post a notice in Feedback and have a camera ready at the following club meeting.

PROGRAMS 2019

June - Laura Floyd, KC3GWL Project Recap, Pizza Night

July - Radio Astronomy, Robert Welsh, N3RW

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.

2019 Contest Calendar

June

8-10 [June VHF](#)

1800 UTC Saturday, runs through 0259 UTC Monday

22-23 [Field Day](#)

1800 UTC Saturday and running through 2059 UTC Sunday

July

13-14 [IARU HF World Championship](#)

200 UTC Saturday and ending 1159 UTC Sunday

August

3-4 [222 MHz and Up Distance Contest](#)

1800 UTC Saturday and ending at 1759 UTC Sunday

18 [Rookie Roundup – RTTY](#)

1800 to 2359 UTC

QSO Parties

Kentucky 1400Z, June 1 to 0200Z, Jun 2

West Virginia 1600Z, Jun 15 to 0400Z, Jun 16

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 2019 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, 3rd Monday at 6:30. Falls Township Building - 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 4th, non holiday Thursday of the month at the, Community Ambulance Association of Ambler, 1414 E Butler Pike, Ambler PA 19002 at 7:00 PM We also are testing on Saturdays at least once per quarter at 9:00 AM. 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 ➤ 2019

June 8 - [Bloomsburg Hamfest](#)

Lime Ridge Community Center 6405 4th Street Lime Ridge, PA
<https://www.qsl.net/cm-arc/hamfest.htm>

June 16 - [Father's Day Hamfest at Arcadia](#)

Arcadia Fairgrounds 16920 Carnival Avenue Upperco, MD 21155
<http://w3ft.com>

July 7 - [Firecracker Hamfest](#)

Shumaker Public Safety Center 3599 Industrial Road Harrisburg, PA 17101
<http://www.w3uu.org>

July 13 - [Valley Forge Hamfest](#)

Kimberton Fire Company Fairgrounds 762 Pike Springs Road
Phoenixville, PA 19460
<http://marc-radio.org/>

August 3 - [Reading Radio Club's Hamfest](#)

Heritage Park, Sinking Spring, PA 19608
992 Clematis Street (GPS) - Park Entrance
Sinking Spring, PA
<http://readingradioclub.org>

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:

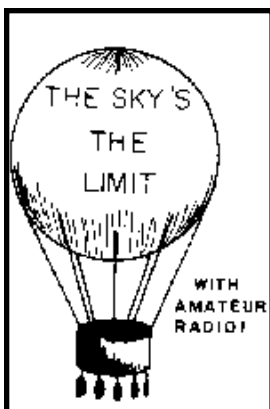
<https://www.weather.gov/phi/Info>

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, Jacek Ostrowski KC3HXF



*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, Morse code, 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.

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

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 Buergers
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

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:
k3dn@k3dn.org

Visit our Home Page at:
<http://www.k3dn.org>

The annual dues rate structure is as follows:

Full Member: \$ 20.00
2nd FamilyMember: \$ 10.00
Student: \$ 10.00
Alumni: \$ 10.00

- Are your dues current ?

2019 Officers

Executive Officers

President	George Acker	KC3ESH	215-815-7783
Vice-President	Jacek Ostrowski	KC3HXF	215-343-1899
Secretary	Kathy Acker	KC3FBY	215-815-7978
Treasurer	Herb Hickmott	KB3VMN	267-718-3601
Director (A)	Michael Shanblatt	W3MAS	267-491-5773
Director (E)	Larry Abbott	WA3ELQ	215-704-3282
Director (A)	Brandon Penglase	N3UO	215-259-7255
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Tony Cuttone	W3FLH	267-679-9297

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	George Altemus	KA3WXV	215-855-3856
Digital and APRS	Ron Wenig	NY3J	215-638-9257
Feedback Editor	Jim Elmore	WA4YWM	215-538-1889
Field Day 19	Doc Whitticar	W3GAD	215-968-6397
Hamfest 19	Michael Shanblatt	W3MAS	267-491-5773
Hamfest 19	Tony Cuttone	W3FLH	267-679-9297
Hamwear	Kathy Acker	KC3FBY	215-815-7978
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Membership	Norm Miles	AB3ZZ	
Net Manager	George Brechmann	N3HBT	215-443-5656
Publicity	Bernice Kraut	KB3PCX	215-884-8195
Refreshments	Brandon Penglase	N3UO	215-259-7255
RF Interference	Andy Vavra	KD3RF	610-287-3295
RF Interference	Bill Ballantine	K3FMQ	215-766-0764
Repeater Coordinator	Brian Taylor	N3EXA	215-257-6303
Safety Officer	Mike Malone	W3MJM	
Station Trustee	George Brechmann	N3HBT	215-443-5656
Sunshine Club	Vince Pironti	KD3TC	215-674-0446
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	Al Konschak	WI3Z	215-491-9941
Youth Programs	Steve Larson	WW3Y	215-822-1511