



FEEDBACK



Web Site k3dn.org

Warminster Amateur Radio Club

August 2020

Next Meeting August 6th via ZOOM - The Civil Air Patrol, Chris Trotter KB3CET

President's Message

Hello everybody, I hope this finds you all healthy and well. Let me start by thanking Marty NR3Z for his tenure as President, which started off under difficult circumstances and only got more unprecedented from there. He handled the entire situation with poise, maintained a positive approach, and forged new paths for the club to continue unabated during an extremely trying time for us all. Very well done, Marty!

Let me also say thank you to everyone for once again entrusting me with the reins of the club. As we continue under the restrictions currently in place, and navigate whatever next course of action we may be presented with, it will truly be an honor to serve you again as President of WARC.

Following Marty's lead, WARC will continue to conduct all business remotely, holding our Board & General Membership meetings via ZOOM, as well as keeping up the healthy exchange on our WARCtalk Groups page for all members to stay involved with the goings on within the club. This situation will continue for the foreseeable future, until we are cleared (and comfortable) to once again congregate in person at the Ben Wilson Senior Activity Center. Larry WA3ELQ has explored some alternative approaches for VE Testing, and will keep us up to speed if he is able to implement a method that he feels will work for our club. Tony N3YNH has been actively working on the upcoming presentations for our monthly meetings, and has been successful in lining up several interesting speakers who are comfortable in a virtual environment. Overall, the reaction to online meetings seems to be positive, with certain exceptions; hopefully we can continue to keep things interesting and well-attended, and we can work out the kinks that some of our members have experienced.

As you are all aware, the 2020-21 WARC Budget was approved after some debate (and two votes), which prompted a vigorous exchange regarding our finances. It was great to see so many members actively involved in the discussion and taking a closer look at the costs associated with running the club. Several changes were made to bring spending closer in line with anticipated income; with the current circumstances curtailing most club activities, and an upcoming online auction about to be conducted, things look good for an anticipated surplus this year. This is a good thing, and something the Board will continue to strive for on a yearly basis, but hopefully not due to a continued lack of in-person events. When we are once again able to gather together, we have taken steps to ensure that costs are contained, and that our avenues of income are maximized.

That'll wrap it up for this month. I look forward to your continued support and involvement in the coming year; this club is only as successful as it is due to the amount of participation of its members.

Tony W3FLH
73

MINUTES FOR THE JULY 2nd GENERAL MEETING

Attendance:

Call to Order – Marty NR3Z Via ZOOM

Minutes from last Meeting

Additions/Corrections – Motion to approve and minutes accepted as written in Feedback

Introduction of New Officers

President - Tony Cuttone W3FLH
Vice President - Tony Simek N3YNH
Secretary - Kathy Acker KC3FBY

(Continued from page 1)

Treasurer - Herb Hickmott KB3VMN

Elected Directors:

Larry Abbot WA3ELQ

George Brechmann N3HBT

Tony W3FLH thanked outgoing president Marty NR3Z for stepping into the role as president after George KC3ESH/SK passed and for leading us through these past few months of COVID-19. Tony also thanked the nominating committee for their work in successfully filling each of the positions as well as the other candidates for elected director positions who were not elected.

Committee Reports

Treasurer's Report: Herb KB3VMN – as reported at the meeting. Forming financing committee to increase income in various ways. If anyone is interested in being a part of this committee, please contact Herb directly. Good timing to undertake this effort.

Programs: Tony N3YNH

Tonight's program is moved back to August. We will have a Field Day discussion.

Civil Air patrol in August with Chris Trotter

September is still in the air depending on whether or not we are at the senior center

Membership: Kathy KC3FBY – 103 members. I will be removing those who have not paid membership from our WARCTalk Groups.io.

Public Service: George N3HBT – Nothing until October. Golf outing is still up in the air.

Classes: George KA3WXV – Not in attendance. Not sure where we stand with in person classes. Will maybe check in on doing online, Zoom style.

VE Testing: Larry WA3ELQ – June VE session was cancelled. Next session will be on July 27 and we are hoping that we will be able to have an in person.

Repeater: Brian N3EXA – EchoLink is still down. Everything else is operational. County repositioned the antenna that was damaged in the wind storm several weeks ago.

Good and Welfare: Ken K9KJL – sent one condolence card this month

Old Business

FD Wrap-Up – will hold off on this as it will be tonight's program

New Business

Budget – went up for discussion and vote on WARCTalk. There was much discussion and the budget was revised and reposted for vote. Since we did not get enough votes on WARCTalk, the voting will be closed on WARCTalk and reopened via a Constant Contact email and survey. Look for it in your email by the weekend.

Reminder that Groups.io is our main means of communication. Please use it and check into it as we like to keep club sensitive information posted there.

Club Auction – Andy has taken inventory of an estate and we will be doing a silent auction beginning at the beginning of August and will run the entire month of the August. Great list of equipment. There will be a buy it now price on all of the items. Stay tuned for more details to follow. Several questions from membership will be checked into that included: Will we only be able to bid once? Will there be a preview of the equipment before the auction begins?

Motion to Adjourn – motion made and meeting adjourned at 8:14pm

Program: Field Day Wrap Up

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QSO Today Virtual Ham Expo Confirms Packed Lineup Of 70+ Speakers

Los Angeles, CA: QSO Today host Eric Guth, 4Z1UG, announced that the first QSO Today Virtual Ham Expo taking place on August 8-9, 2020 has now confirmed a packed lineup of over 70 great speakers for the event. For more information about the speakers and to register, go to www.qsotodayhamexpo.com. Attendance is free.

There will be speaker tracks on a variety of topics to ensure plenty of great content for everyone. For those new to the hobby, there will be two tracks focused entirely on providing hands-on, simple practical advice for getting started in amateur radio. For example, Steve Johnson, WD8DAS, will be showing basic soldering techniques for repair of equipment and new construction projects. Marcel Steiber, AI6MS, will provide an overview on common battery types and will discuss the pros/cons of each chemistry, common uses/misuses, and everyday application tips for your latest amateur radio project.

For the experienced operator, there will be speakers on topics ranging from new techniques, equipment upgrading, 3D printing, and more. For example, Glenn Johnson, W0GJ, talk is entitled “Is 3 dB Worth a Divorce?” and covers everything you need to know about antennas. Jim Veatch, WA2EUI, discusses how to build a home brew QRP radio. John Portune, W6NBC, in “The Slot Antenna -- Undiscovered Country for Most Hams”, presents how an ordinary satellite TV dish, accepted by most HOAs can be “slotted” to make an effective 2 meter or UHF outside antenna.

The Expo also features a fantastic youth track, led by Carole Perry, WB2MGP, that will feature amateur radio’s future leaders. For example, Audrey McElroy, KM4BUN, is speaking on “Getting Girls Involved in STEM, Specifically Amateur Radio!” while Jack McElroy, KM4ZIA, is talking on “Highly Flying Kids With HAB”.

“One big challenge with a ham convention, whether in-person or virtual, is that the speaking content can easily become complicated and overwhelming. For our inaugural virtual Expo, we’ve made sure that there are great speakers for both beginners and experienced hams. We’ve asked all of our speakers to be laser focused on their topics while providing hands-on, practical advice. In addition, after each speaker finishes their talk, there will be a virtual live Q&A so participants can get immediate answers to their questions” said Eric, 4Z1UG.

Icom is the Expo’s Platinum Sponsor, along with Gold Sponsors GigaParts, RT Systems, FlexRadio, RFinder, DX Engineering, Elecraft, RigExpert, and NCG Company (Comet Antenna).

For more information and to register, go to www.qsotodayhamexpo.com. Attendance is free.

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FIELD DAY 2020 COMMENTS & PHOTOS

I threw up a low dipole and a sloper, hauled my K3 set-up from the basement shack and set up the little Harbor Freight two cycle generator to run a 1B from my sunroom. Search and pounce on phone was almost useless so I ran there as much as I could. Search and pounce was more effective on CW and that added nicely to the log.

Fun but hot!

Take care,

Mark

AA3K



The "work from home" Field Day was a good experience on all fronts and something worth repeating.

I hope the ARRL makes the 1-D to 1-D scoring a permanent feature. There were certainly a lot more operators on the air.

We had a nice setup at my son Steve's house in Harrisburg, with a full size antenna (Butternut HF6V) that is now part of his permanent station. We set it up ahead of time on Friday and worked some good DX with New Zealand, Spain, the UK and a few US stations in the log.

It was nice having air conditioning, a well stocked refrigerator 20 feet away and a BBQ grille on the back deck.

Steve - KC3NNO did a great job for a first time effort on HF, and worked 90% of all the contacts including CW, and is looking forward to operating CQWW. We even worked my other son, Dave - KB3TIG on 2 meter FM for an additional band.



-- Andy, KD3RF



Unfortunately I was able to operate only a few hours on Sunday, and due to other obligations I was not able to set up to operate any class except 1D.

There seemed to be mostly 1D stations on (at least the ones I could hear) which was a little disappointing. Hopefully next year everyone will be able to return to a normal Field Day. I think that while 1D stations should be able to participate, they should not be able to work each other for points on a normal Field Day. (However, I did appreciate the rules exceptions for this year allowing stations to operate who would otherwise have been left out.)

Larry WA3ELQ

(Continued on page 5)

I ran a modest solar powered 1B station in my neighbor's yard, and had a lot of fun with it.
Robert Mittel-Carey N3RMC



FD@Home was a very humbling experience this year. Condx were difficult here on Saturday at the outset, with high S-level noise, static crashes from the t-storms, and a bunch of 1D's competing in the pile-ups, making it tough to bust any from the mobile. Worked about 4 hours on Sat., with only around 15 Q's to show for it; although I did spend the last hour or so of that time making my (4) first-ever CW contacts in a contest (all hand/ear, no PC connection - very glad for the diligent ops on the other end!). Sunday afternoon was much better: almost decided to bag it entirely, but then got on just before 1700z and made about 3 dozen more Q's over the last hour and change, to bring my score up to a not-quite-respectable level. I definitely need more practice, and more patience.



If you're wondering about the extension cord running to the truck: that's for powering the accessories only (PC, fan, light [which was not used]), and is legal for Class C operation per the rules. The rig itself was fully powered by the truck, which I ran about half the time I was operating (and the AC less than that). And yes, all operating was done from the driveway!

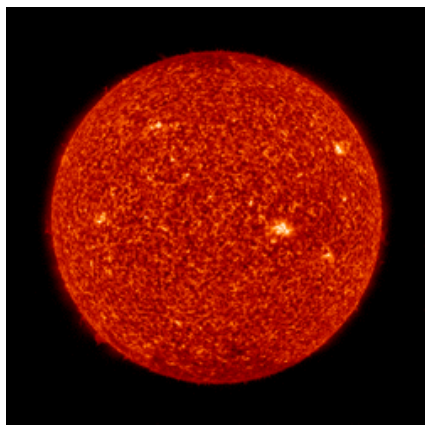
Tony W3FLH

This was my first experience operating QRP in a contest. It was challenging competing with 1D stations in pile-ups, but fun. I operated class 1B- Battery using my Elecraft KX3 at 5 watts.

I set up a Butternut 5-band vertical attached to a fence post in my back yard. 20 random length radial wires on the ground were sufficient to tune the antenna.

I had 77 QSO's - in 41 ARRL sections (37 in the US and 4 in Canada) and 33 states. All were on CW.
Bill Ballatine K3FMQ

The K7RA Solar Update



Tad Cook, K7RA, Seattle, reports: Sunspots finally have returned! Currently, two sunspots are visible, both from new Solar Cycle 25. The daily sunspot number was 11 on July 21 - 27 and is currently 22. We've noticed an improvement in propagation recently, due to seasonal sporadic-E activity.

Average daily sunspot numbers rose from 3.1 to 14.1 this week, and average daily solar flux changed from 69.1 to 71.1.

Total sunspot area covered 80 millionths of the solar disc on July 21, 120 millionths on July 22 -- 26, and the coverage on the following 3 days was 70, 50, and 85.

Geomagnetic indicators were a bit more active, with average daily planetary A index rising from 3.9 to 6.7, while average daily mid-latitude indicators rose from 4.3 to 8.7.

Predicted solar flux is 72 on July 30 - August 6; 68 on August 7 -- 22; 69 on August 23 -- 28, and 68 on August 29 - September 7.

Predicted planetary A index is 5 on July 30 - August 23; 8 on August 24 -- 25, and 5 on August 26 - September 7.

Sunspot numbers for July 23 - 29 were 11, 11, 11, 11, 11, 22, and 22, with a mean of 14.1. The 10.7-centimeter flux was 70.3, 69.5, 70.4, 71.4, 71.4, 71.8, and 72.6, with a mean of 71.1. Estimated planetary A indices were 4, 11, 15, 3, 4, 5, and 5, with a mean of 6.7. Middle latitude A index was 4, 13, 27, 3, 5, 5, and 4, with a mean of 8.7.

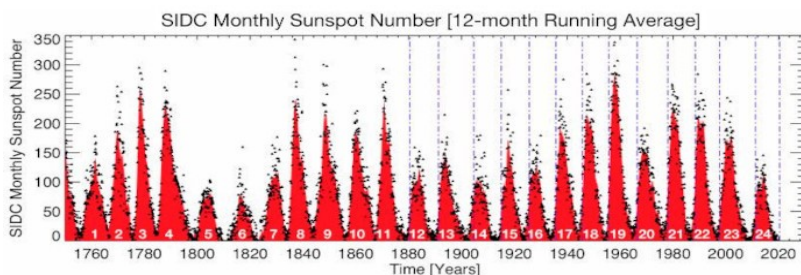
A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, [visit](#) the ARRL Technical Information Service, [read](#) "What the Numbers Mean...", and [check out](#) K9LA's Propagation Page. A propagation bulletin [archive](#) is available. For customizable propagation charts, visit the [VOACAP Online for Ham Radio](#) website. *Courtesy of the ARRL Newsletter*

Newer Solar Cycle 25 Forecast Runs Counter to Consensus

Scientists associated with the National Center for Atmospheric Research, the University of Maryland, NASA Goddard Space Flight Center, and other institutions are offering a "bold prediction" on how Solar Cycle 25 will play out. In a [paper](#), "Overlapping Magnetic Activity Cycles and the Sunspot Number: Forecasting Sunspot Cycle 25 Amplitude," they assert that the next sunspot cycle will be of major proportions. The forecast stands in stark contrast to the consensus of forecasters who predict that the magnitude of the nascent Cycle 25 may not be much different from the current unremarkable solar cycle, which appears to have reach its low point.

"From the dawn of modern observational astronomy, sunspots have presented a challenge to understanding -- their quasi-periodic variation in number, first noted 160 years ago, stimulates community-wide interest to this day," the abstract points out. "A large number of techniques are able to explain the temporal landmarks, (geometric) shape, and amplitude of sunspot 'cycles,' however, forecasting these features accurately in advance remains elusive."

The paper notes that recent studies have illustrated a relationship between the sun's 22-year Hale magnetic cycle and the production of sunspot cycle landmarks and patterns, but not the amplitude of the cycle.



Monthly sunspot numbers since 1749. The data values are represented by dots, and the 12-month running average values are illustrated as a red shaded area. Vertical blue dashed lines signify the magnetic activity cycle termination times that trigger the rapid growth of sunspot activity.

"Using discrete Hilbert transforms on 270 years of monthly sunspot numbers to robustly identify the so-called 'termination' events -- landmarks marking the start and end of sunspot and magnetic activity cycles -- we extract a relationship between the temporal spacing of terminators and the magnitude of sunspot cycles," the abstract explains. "Given this relationship and our prediction of a terminator event in 2020, we deduce that Sunspot Cycle 25 will have a magnitude that rivals the top few since records began. This outcome would be in stark contrast to the community consensus estimate of Sunspot Cycle 25 magnitude."

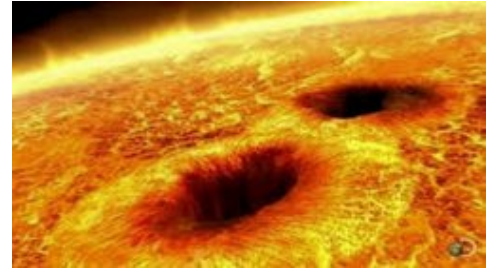
According to the paper, low-amplitude solar cycles ap-

pear to correspond with widely separated terminators, while larger-amplitude cycles correspond to more narrowly separated terminators.

"[O]ur best estimate for the [sunspot number] amplitude of Solar Cycle 25 is 233 spots, with a 68% confidence that the amplitude will fall between 204 and 254 spots," the paper posits. "We predict with 95% confidence that the Cycle 25 amplitude will fall between 153 and 305 spots."

The researchers concede that their forecast is outside of the scientific consensus, based on different paradigms. "Over the coming months, as [Solar Cycle] 25 matures, it will become evident which of these paradigms is most relevant," the paper says. "Very early indications of the spot pattern are appearing at higher-than-average latitudes ($\sim 40^\circ$). Historically, high-latitude spot emergence has been associated with the development of large amplitude sunspot cycles -- only time will tell."

Courtesy of the ARRL Newsletter



NASA's Solar Dynamic Observatory captured this image of a sunspot, with a core larger than Earth.

Propagation as a Matter of Life or Death

On May 25, 1928, the airship *Dirigible Italia* crashed on pack ice northeast of the Svalbard Islands on the return leg of a trip to survey the North Pole with 16 passengers and crew on board. At impact, one person was killed, and the cabin carrying nine people



separated from the hydrogen-filled airframe. Six crew members on the dirigible structure were never seen again, after the airship again became airborne. The survivors on the icepack turned to their 5 W wireless set, a one-tube Hartley oscillator, to put out a call for help, but it was only after 9 days of trying that they were able to get the attention of a radio amateur 1,900 kilometers (1,178 miles) away.

The recently published [article](#), "The Shipwreck of the Airship *Dirigible Italia* in the 1928 Polar Venture: A Retrospective Analysis of the Ionospheric and Geomagnetic Conditions," provides the gripping historical context and tries to explain why it was so difficult to establish communication for a rescue. Drawing from sources of geophysical data collected at the time, and using

modern theories of propagation -- including [some directly derived](#) from amateur radio observations -- the authors present data including sunspot count, magnetic flux, and F2 layer height, and take the reader through an analysis of the sky-wave and ground-wave paths.

Ultimately, the authors suggest, ground-wave path losses likely exceeded 100 dB, leaving only skywave as a potential link. In the first few days after the crash, the ionospheric path was impossible at the frequencies being used -- 9.1 and 9.4 MHz -- due to disturbed conditions. It was only after conditions had settled that communication became possible, and it only became reliable when a lower frequency was chosen.

Even after communication was established, 15 rescuers were lost in the search and recovery operations, including Roald Amundsen, Norway's famed polar explorer. Finally, on July 12, 1928, 48 days after the initial crash, a Russian icebreaker was able to reach and rescue the survivors. -- *Thanks to The ARRL Contest Update*

Courtesy of the ARRL Newsletter

Russian-Ukrainian Radio War May be Escalating

The [June newsletter](#) of the International Amateur Radio Union Region 1 Monitoring System ([IARUMS](#)) reports that what's being called "the Russian-Ukrainian radio war" continues apace.

"The Russian-Ukrainian radio war remained on a high escalation level also in June," IARUMS Region 1 Coordinator Peter Jost, HB9CET, said. "Almost every day, we heard the massive spiteful and provocative broadcasts. In June, they used more frequencies than before, affecting our bands very hard. It is a great annoyance and a big shame!"

Jost points out that the IARU Monitoring System has little opportunity to stop the on-the-air conflict. "Only national authorities can hopefully do something against international complaints," he said. "It is very important and very helpful that many other [IARU] member-societies also observe these frequencies and make complaints to their regulators. We have to coordinate this well within IARU and act together. This is the only way we have a certain power."

In May, Jost reported that the radio war has raged "for years" at 7055 kHz LSB (as well as on 7050 or 7060 kHz). Jost also reported continued daily transmissions from the Russian over-the-horizon radar known as "Contayner" in the 40- and 20-meter amateur bands and elsewhere. The Chinese "V" has been reported on 20 meters, from 14,246 to 14,256 kHz.

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 \$10.00 annually and are approved by the Board. Please contact the Membership Committee for more information if interested."

ATTENTION MEMBERS

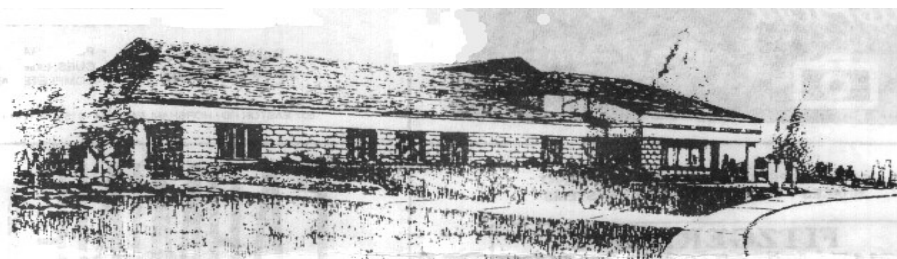
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even 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 2020

August 6 - Chris Trotter KB3CET and the Civil Air Patrol
September 3 - DX Engineering
October 1 - TBD
November 5 - ARRL Night
December 3 - 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.

2020 Contest Calendar

August

1-2 [222 MHz and Up Distance Contest](#)

1800 UTC Saturday and ending at 1759 UTC Sunday

15-16 [10 GHz & Up – Round 1](#)

6:00 AM local Saturday though 12:00 midnight local Sunday

16 [Rookie Roundup – RTTY](#)

1800 to 2359 UTC

September

12-14 [September VHF](#)

1800 UTC Saturday and runs through 0259 UTC Monday

19-20 [10 GHz & Up - Round 2](#)

6:00 AM local Saturday though 12:00 midnight local Sunday

QSO Parties

Maryland-DC	1400Z, Aug 8 to 0400Z, Aug 9
North American CW	1800Z, Aug 1 to 0559Z, Aug 2
North American SSB	1800Z, Aug 15 to 0559Z, Aug 16
Hawaii	0400Z, Aug 22 to 0400Z, Aug 24
Ohio	1600Z, Aug 22 to 0400Z, Aug 23
Kansas	1400Z, Aug 29 to 0200Z, Aug 30 and 1400Z-2000Z, Aug 30

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 2020 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 ➤ 2020

August 8

[Reading Radio Club Hamfest](#)

Heritage Park
992 Clematis Street
Sinking Spring, PA
<http://www.qsl.net/w3bn/>

September 13

[Gloucester County ARC Hamfest, ARRL Southern New Jersey Section Convention](#)

Gloucester County 4-H Fairgrounds
235 Bridgeton Pike (Route 77
Mullica Hill, NJ 08062

September 20

[EPARA HamFest](#)

American Legion Post 346
5th Street
East Stroudsburg, PA 18301
<http://www.qsl.net/n3is>

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:

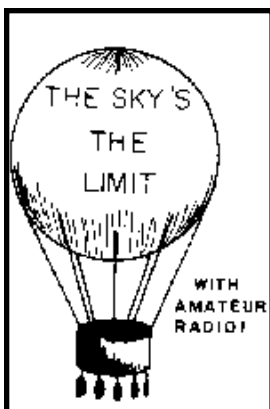
<https://www.weather.gov/phi/Info>

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, Tony Simek N3YNH



*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.

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 ?

2020 Officers

Executive Officers

President	Tony Cuttone	W3FLH	267-679-9297
Vice-President	Tony Simek	N3YNH	
Secretary	Kathy Acker	KC3FBY	215-815-7978
Treasurer	Herb Hickmott	KB3VMN	267-718-3601
Director (A)	Doug Becker	KC3MNQ	
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	Marty Squicciarini	NR3Z	215-872-9644

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 20	Doc Whitticar	W3GAD	215-968-6397
Hamfest 20	Michael Shanblatt	W3MAS	267-491-5773
Hamfest 20	Tony Cuttone	W3FLH	267-679-9297
Hamwear	Kathy Acker	KC3FBY	215-815-7978
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Membership	Mary Miles	KC3KJZ	267-625-8538
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	215-639-2175
Station Trustee	George Brechmann	N3HBT	215-443-5656
Sunshine Club	Ken Lichtenstein	K9KJL	847-697-1188
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