Web Site k3dn.org

Warminster Amateur Radio Club

February 2020

Next Meeting February 6th - Club Auction

President's Message

Since this is my first President's message I would like to introduce myself. I was first licenced in 1979 as KA2DYG while still a student at Villanova University (go Nova). I first became a member of WARC sometimes around 1986 and I have previously served as the VP back in the 90s. Ham radio has been described as a many hobbies within a hobby. I work mostly HF and I have a simple setup; an HF radio, a few antennas (small yagi, OCF dipole and vertical) and I only run 100 Watts. I also enjoy building kits including QCXs and KD1JV designed radios. The kits are all QRP and it is a thrill working someone with a radio you've built using only 5 Watts. I am also interested in Parks on the Air or POTA and while I have only activated one Park I plan to activate more this year. Recently I set up a ZumSpot and listen to AmericaLink on Fusion and DMR talkgroups. I also belong to several clubs; QCWA, NAQCC, FIST, QRP ARCI, CWOps and recently FRC.

As I mentioned before Ham radio is many hobbies within a hobby and I've only scratched the surface. Here are some of the things I'd like to learn more about; Satellite communication using only a handheld radio and armstrong antenna, digital including RTTY, PSK31, JT65 and FT8, Fox Hunting, digital voice (my ZumSpot is a start), really understand propagation, antenna modeling and the list goes on. So what are you doing in Ham radio? Would you like to share it with the club? I know giving a talk is a big commitment but would you be willing to set up a table and talk to club members 1 on 1 at a meeting. I've been tossing around the idea of a Science fair like event but instead of science projects showcase different aspects of Ham radio. Just a thought but let me know what you think.

I realize most of you have already broken your New Year's resolutions but it's good to have goals for the year and they should be realistic and something you can measure. I've set several goals for myself including making X number of QSO's this year, the number of new DXCC countries worked/confirmed, finish kits that I've started and increase my code speed. I do have numbers for all of them and I can see how I'm progressing each month. What are your goals for the year? Pick a few goals and at the end of the year we can see how we did.

This month is the club Auction so bring a few things to sell for the benefit of the club. Remember only ham and ham related items, no commercial equipment i.e. stereos, wireless phones etc.

May the Morse be with you, Marty NR3z

WARC Meeting Minutes

January 2, 2020

Note: Due to the passing of George Acker, KC3ESH, Vice President Marty Squicciarini, NR3Z will be filling the role of President for the remainder of his term. Tony Simek, N3YNH, will be filling the role of Vice President, as appointed by the board in an electronic meeting started December 30, 2019.

Attendance:

• Call to Order - 7:33 PM

o Moment of Silence for George Acker, KC3ESH/SK

• Kathy, KC3FBY, said a few words thanking the members of club for support.

o Introductions - pass mic

Minutes from last Meeting

• Additions/Corrections – Approved as published in Feedback

Committee Reports

• Treasurer's Report: Herb KB3VMN

o As Reported at meeting

• **Programs:** Marty NR3Z

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(Continued from page 1)

o Announced Tony Simek, N3YNH, as Vice President for duration of term.

- Membership: Kathy KC3FBY
 - o 120 Members
 - o 2 Pending
- Public Service: George N3HBT
 - o Nothing until June.
- Classes: George KA3WXV/Ron WB2OOB
 - o Tech class and General/Extra starting 2nd Monday in March
 - 8 Weeks duration
 - Starting at 7pm
- VEC Testing: Larry WA3ELQ (Not in attendance)
 - o No Report
- Repeater: Brian N3EXA
 - o Everything is functioning with the exception of the remote site identifiers.
- Good and Welfare: Ken K9KJL
 - o Condolence card sent for George, KC3ESH
- Other Committees
 - o Radio Sport: Irwin KD3TB (Not in attendance)
 - RTTY Roundup this weekend
 - FT/8 and FT/4 allowed
 - UHF/VHF
 - January 18th

o ISS & Council Rock Contact - Andy KD3RF

- December 5th, ARISS Contact
- 10 contacts made
- Media coverage
- Congressman Fitzgerald Awarded WARC a certificate and US Flag which was flown over the capitol building.

o Union League Special Event - Joe AA3JH

- Veteran's day weekend
- 40m and 20m
- 100+ contacts

Old Business

• Constitution Review

o Tabled, will be starting

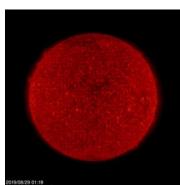
New Business

• No new business

Motion to Adjourn

Program: Stump the Chumps

The K7RA Solar Update



Tad Cook, K7RA, Seattle, reports: This week, we finally saw the return of sunspots over 6 of the last 7 days, January 24 - 29. The average daily sunspot number rose from 0 to 11.1, while average daily solar flux jumped from 71.2 to 72.9.

Geomagnetic indicators remained very quiet, signaling continued great conditions on 160 and 80 meters. Predicted solar flux over the next month and a half is 74 on January 30 - February 2; 70 on February 3 - 6; 71 on February 7 - 13; 72 on February 14 - 20; 73 on February 21 - 22; 74 on February 23 - 29; 72 on March 1 - 3; 71 on March 4 - 11, and 72 on March 12 - 14.

Predicted planetary A index is 8 on January 30; 5 on January 31 - February 24; 10 on February 25 - 26; 5 on February 27 - 29; 8 on March 1 - 3, and 5 on March 4 - 14.

On January 27, the total sunspot area was 100 millionth of the visible solar disc. The total sunspot area hasn't been larger or even near that size since May 18, 2019, when the area was 140 millionth of the visible solar disk.

Sunspot numbers for January 23 - 29 were 0, 12, 14, 18, 12, 11, and 11, with a mean of 11.1. The 10.7-centimeter flux was 70.8, 71, 72.7, 74.7, 72.9, 74.2, and 74.3, with a mean of 72.9. Estimated planetary A indices were 5, 3, 3, 4, 3, 5, and 9, with a mean of 4.6.

(Continued on page 3)

(Continued from page 2)

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

Kenwood TS-570D HF Transceiver. 10-160 meters. Automatic Antenna Tuner. SSB and CW (500hz) filters. Includes hand mic, power cord, and original box. PS-40 Power supply for the radio.

Asking \$550.00 for both.

Marty NR3Z Skitch@SkitchFamily.net NR3Z@ARRL.net

Middle latitude A index was 3, 1, 3, 2, 2, 4, and 6, with a mean of 3.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, <u>visit</u> the ARRL Technical Information Service, <u>read</u> "What the Numbers Mean...," and <u>check out</u> K9LA's Propagation Page. A propagation bulletin <u>archive</u> is available. <u>Monthly charts</u> offer propagation projections between the US and a dozen DX locations.

Share your reports and observations.

Courtesy of the ARRL Newsletter

Barry Shelley, N1VXY, is ARRL Interim CEO

At its January 17 - 18 meeting, the ARRL Board of Directors did not elect Howard Michel, WB2ITX, as the ARRL Chief Executive Officer.

As of January 20, Barry Shelley, N1VXY, became interim CEO. Mr. Shelley was ARRL's Chief Financial Officer for 28 years and CEO during 2018 before his retirement.

The Board has created a search committee to select the next CEO. More details on this and other matters that took place at the Board meeting will be released shortly.

Courtesy of the ARRL Newsletter

(Continued on page 4)

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ARRL's New On the Air Magazine on its Way to Members



The premiere issue of ARRL's *On the Air* magazine has left the printer and is on its way to member subscribers. The magazine should be in mailboxes within the next 10 days.

<u>On the Air</u> is the newest ARRL member benefit to help new licensees and beginner-to-intermediate radio communicators navigate the world of amateur radio. Eligible US-based members can elect to receive *On the Air* or *QST* magazine in print when they join or when they renew their ARRL membership.

Delivered six times a year, the magazine will present articles and tips on selecting equipment, building projects, and getting involved in emergency communication. *On the Air* will also spotlight the experiences of those involved in public service communication and casual operating.

All members will be able to access digital editions of *On the Air* magazine. The first digital issue of *On the Air* will be available beginning January 14, supported by a new version of ARRL's digital magazine app. With one app, members will be able to access *On the Air* and *QST*.

Courtesy of the ARRL Newsletter

ARRL Emergency Preparedness Assistant Sabrina Jackson, KC1JMW, is featured on the cover of the premiere issue of

State QSO Party Challenge Announced

The <u>State QSO Party Challenge</u> is a competition comprised of other contests, namely state and provincial QSO parties. As explained on the website, the annual cumulative score program is open to any radio amateur who participates in any approved state QSO parties (SQPs). Participants just need to submit their QSO party scores to **3830scores.com** to enter the challenge.



Participants' cumulative scores will be calculated by totaling up the number of reported contacts and multiplying by the number of SQPs entered in the year to date. Periodic standings will be posted to <u>3830scores.com</u>, the <u>QSOParty</u> Groups.io forum, and the StateQSOParty.com website.

"Using the number of QSO parties entered as a multiplier is expected to encourage radio amateurs to enter more state/province QSO parties," the program's organizers said. "The first SQPs in 2020 are the Vermont, Minnesota, and British Columbia QSO Parties in the first weekend of February."

Entrants must make at least two contacts in a QSO party for it to count as a multiplier. The full details are available on the State QSO Party Challenge website.

Challenge sponsors expressed appreciation to Bruce Horn, WA7BNM, for developing the <u>SQP Activity Tracker</u> on **3830scores.com**.

Courtesy of the ARRL Newsletter

US Air Force Space Fence Nearing Operational Acceptance

According to NASA's most recent *Orbital Debris Quarterly News*, the space agency calculates about 17.6 million pounds of objects are in earth orbit, a number that will grow as launches proliferate -- including thousands of small satellites -- presenting a huge problem. The US Air Force Space Fence -- a second-generation space surveillance system now nearing completion -- is expected to play a crucial role.



Using advanced solid-state S-band radar technology, Space Fence is located on Kwajalein Atoll in the Marshall Islands. Such critical space-based technologies as weather forecasting, banking, global communications, and GPS navigation are under threat from space junk orbiting Earth. Collisions already are frequent, and defunct satellites and rocket boosters have increased the amount of space debris.

The Air Force Space Surveillance Network tracks about 25,000 objects. When Space Fence comes online, the catalog will expand considerably, and when fully operational, it will be the world's largest and most advanced radar system, offering unprecedented space situational awareness. Beyond cataloging objects, Space Fence will detect closely spaced objects, breakups, maneuvers, launches, and more.

Contractor Lockheed Martin reported last spring that Space Fence was able to detect debris from a microsatellite destroyed by India as part of an anti-satellite test. It then was able to determine the orbit of the remnants and predict when the space junk would pass through the fence again.

Space Fence is located on Kwajalein Atoll

Space Fence is expected to become fully operational this year. -- Thanks to AMSAT News Service via Milsat Magazine; Lockheed Martin

Courtesy of the ARRL Newsletter

ARISS Next-Generation Radio System Ready for Launch to Space Station

Amateur Radio on the International Space Station (ARISS) reports that its first Interoperable Radio System (IORS) flight unit -- serial number 1001 -- has been delivered to NASA's Johnson Space Center for launch in early March. The IORS represents the

first major upgrade in ARISS equipment on the International Space Station since Amateur Radio gained a permanent presence onboard the ISS in 2000. In December, ARISS received approval from NASA Safety to launch the IORS on SpaceX CRS-20 and stow the radio system on the ISS for future installation.

"The IORS is a foundational element of the ARISS next-generation radio system and is an incredible engineering achievement by the ARISS hardware team," ARISS International President Frank Bauer, KA3HDO, said. "This first element delivery will support easier radio mode transitions and enable new, exciting capabilities for hams, students, and the general public."

The new system includes a higher-power radio, an enhanced voice repeater, and updated digital packet radio (APRS) and slow-scan television (SSTV) capabilities for both the US and Russian space station segments. The IORS consists of a custom-modified JVC Kenwood TM-D710GA transceiver, an AMSAT-developed multi-voltage power supply, and interconnecting cables.

ISS Reduce Station A Stati

The IORS set to launch in March will be installed in the ISS *Columbus* module; a second flight unit is expected to be launched later this year for installation in the Russian *Service* module. The ARISS hardware team will assemble four flight units -- and 10 IORS units in all -- to support onboard flight operations, training, operations planning, and hardware testing.

"Future upgrades and enhancements to the next-generation system are in various stages of design and development," Bauer said.

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"These include a repaired Ham Video system -- currently planned for launch in midto-late 2020, L-band (uplink) repeater, ground command operations capability, LimeSDR signal reception, a microwave 'Ham Communicator,' and Lunar Gateway prototype experiment."

Bauer said a lot of "heavy lifting" remains to prepare the IORS for operation on the space station. "ARISS has 92 engineering requirements and our operations Phase III safety review to complete," he explained. "The space agencies take a position of 'trust, but verify.' Thus, these engineering and safety 'verifications' all need to be closed out before the IORS can be unstowed and turned on. This will be the ARISS hardware team's focus over the next few months."

Bauer reminded that ARISS is almost entirely run by volunteers and encouraged <u>donations</u> for next-generation hardware developments, operations, education, and administrative functions.

Courtesy of the ARRL Newsletter

ARISS International President Frank Bauer, KA3HDO.

ARES Volunteers Establish "Plan B" Communication Network in Puerto Rico



Amateur Radio Emergency Service (ARES®) volunteers in Puerto Rico continued over the weekend to report for daily duty at an American Red Cross (ARC) distribution center in Mayagüez and at ARC Headquarters in San Juan. The two sites are

ready to provide a "Plan B" communication backbone in the event the seismic situation worsens. A magnitude 6.4 earthquake struck southwestern Puerto Rico on January 7, fast on the heels of a magnitude 5.8 tremor the day before, damaging homes in Guayanilla, Peñuelas, Yauco, and Guánica. ARRL Puerto Rico Section Manager Oscar Resto, KP4RF, told ARRL this week that the situation is relatively "calm and quiet" for now and starting on January 22, volunteers began monitoring from their homes or vehicles, permitting most, including Resto himself, to get back to their jobs and homes.

ARES volunteers had been deployed to an ARC distribution center in Yauco, but that part of the operation was shifted to Mayagüez over the weekend, because it was considered safer there. An ARRL-provided VHF/UHF radio and antenna have been set up at the Mayagüez facility. Resto said a second operating position is being added at the San Juan ARC Headquarters site.

Resto said Red Cross officials know that they can rely on amateur radio, if the situation calls for it, but for now commercial communications are fully operational, although aftershocks from the January 7 quake persist. "In case the situation escalates, the ARES team will immediately mobilize at the ARC sites and establish communication (VHF/UHF or HF) as required," Resto said.

Last week, the Red Cross had requested assistance from the ARES volunteers as well as volunteers from the CB radio and GMRS communities, to identify undeclared refugee camps and to report on close or damaged roadways and bridges. Resto said the ARES volunteers "did a marvelous job" that earned praise from Red Cross officials.



The ARRL Ham Aid program provided this antenna, installed in Mayagüez.
[Oscar Resto, KP4RF, photol

Resto said about two dozen volunteers have made themselves available in the Mayagüez area. In the event they're needed, Resto said, he has seven or eight HF radios and 15 VHF/UHF transceivers left over from the Hurricane Maria emergency response. He said the HF equipment has been safely stowed for use in case of another major earthquake, when they might be needed.

He was expecting additional antennas and feed lines provided through ARRL's Ham Aid program to show up this week.

Courtesy of the ARRL Newsletter

Massachusetts Club Offers Support to Arecibo Observatory Following Earthquakes

Although not in the hardest-hit earthquake zone, Puerto Rico's Arecibo Observatory nonetheless has been affected by the recent spate of earthquakes and aftershocks. The landmark Arecibo radio telescope and ionospheric radar facility was a victim of the devastation wrought by Hurricane Maria in 2017.



Members of the Nashoba Valley Amateur Radio Club (NVARC) have stepped up to assist in support and recovery efforts for the Arecibo Observatory radio telescope and ionospheric radar facility. NVARC members Phil Erickson, W1PJE; Rod Hersh, WA1TAC, and Jim Wilber, AB1WQ, participated in daily scheduled radio contacts with Arecibo's lead telescope operator and spectrum manager, Angel Vazquez, WP3R. Other NVARC members volunteered to serve as back-up stations.

"All AO staff members are safe, and our technical teams have completed preliminary visual analysis of the primary structure and have found no immediate damage/issues, however a more detailed inspection needs to be completed once the aftershocks subside," said Francisco Córdova, Arecibo Observatory's director, at the University of Central Florida.

Site operations were suspended and access was limited to essential personnel, according to the latest information available from the Arecibo Observatory website.

Over several days, when commercial power and water were not available near Arecibo, club members inquired about potential assistance. Although conditions are slowly improving on the northern portion of the island where the observatory is located, Vazquez noted that thousands of people displaced from their homes in the hard-hit southern part of the island had to camp outside, due to extensive structural damage and ongoing aftershocks.

NVARC members were also able to provide messages of support from MIT's Haystack Observatory in Westford, Massachusetts, and from program officers at the National Science Foundation (NSF) Geospace Facilities Division in Washington, DC. NSF funds the observation programs and scientific research at Arecibo Observatory. NVARC said the radio contacts would continue as the recovery proceeds.

Courtesy of the ARRL Newsletter

HuskySat-1 With VHF/UHF Linear Transponder Set to Deploy Soon

The University of Washington's <u>HuskySat-1</u> 3U CubeSat, launched November 2, 2019, is set to deploy on January 31 after the vehicle that carried it to the International Space Station undocks. HuskySat-1 has remained stowed aboard a Northrop Grumman Cygnus supply vehicle. Within 24 hours after Cygnus' departure from the ISS, HuskySat-1 and <u>SwampSat 2</u> will be deployed into orbit.

After deployment, HuskySat-1's 1,200 bps BPSK beacon on 435.800 MHz should be active and decodable with the latest release of AMSAT's <u>FoxTelem</u> software. HuskySat-1 is expected to carry out its primary mission before being turned over to AMSAT for amateur radio operation.

HuskySat-1 features a 30 kHz wide V/U linear transponder for SSB and CW. The uplink passband will be 145.910 - 145.940 MHz LSB/CW. The downlink passband will be 435.840 - 435.810 MHz USB/CW (inverting). Telemetry will be transmitted on 435.800 MHz, 1k2 bps BPSK with an experimental downlink at 24.049 GHz. The "Fox-in-a-Box" FoxTelem software has been updated for HuskySat-1 operation at its download website. The new release now contains the SD card image, FIAB-distro8-V1.08w.zip. This file, when unzipped and written to a 16 GB SD card, will provide the latest software for FoxTelem and will run on a Raspberry Pi 4. The 1.08 versions can switch bands between listening on VHF and UHF, based on which Fox and Husky satellites are overhead at the time.

The linear transponder and telemetry system carried aboard AMSAT's Fox-1E was designed for use in different CubeSats merely by adding an interface adapter for connection to the host bus. Noting the prevalence of CubeSats built and launched by universities and other organizations, AMSAT adopted a goal of "amateur radio in every CubeSat."



University of Washington graduate student Paige Northway with HuskySat-1. She has been involved in the project since its inception.

Additional information is posted on the University of Washington <u>Husky Satellite</u>
<u>Lab site</u>. -- Thanks to AMSAT News Service via the HuskySat-1 Team, AMSAT Engineering, AMSAT Operations, the Fox Telemetry Team, and NASA

Courtesy of the ARRL Newsletter

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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

February-Auction March

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

February

15-16 International DX Contest - CW

0000 UTC Saturday through 2359 UTC Sunday.]

March

7-8 International DX- Phone

0000 UTC Saturday; ends 2359 UTC Sunday

April

19 Rookie Roundup - Phone

1800 to 2359 UTC

June

13-15 June VHF

1800 UTC Saturday, runs through 0259 UTC Monday

20 Kids Day

1800 UTC through 2359 UTC

27-28 Field Day

800 UTC Saturday and running through 2059 UTC Sunday

QSO Parties

Vermont 0000Z, Feb 1 to 2400Z, Feb 2

Minnesota 1400Z-2400Z, Feb 1

South Carolina 1500Z, Feb 29 to 0159Z, Mar 1

> ATLANTIC DIV. HAMFESTS > 2020

April 18

DELMARVA Amateur Radio and Electronics EXPO, ARRL Delaware State Convention

CHEER Community Center 20520 Sand Hill Road Georgetown, DE 19947 http://www.radioelectronicsexpo.com

April 25

York Hamfest

ELICKER'S GROVE PARK 511 Roth Church Road

Spring Grove, PA 17362

http://www.yorkhamfest.org/

May 3

Eastern Pennsylvania Section Convention (Warminster ARC Hamfest)

Bucks County Community College - Lower Bucks Campus 1304 Veteran Highway Bristol, PA 19007

http://www.k3dn.org/hamfest/

June 21

Father's Day Hamfest at Arcadia

Arcadia Fairgrounds

16920 Carnival Avenue

Upperco, MD 21155

http://W3FT.com & Facebook

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

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SKYWARN INFORMATION

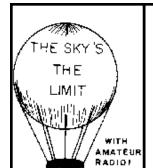
Bucks County SKYWARN Weather Spotter PRIMARY FRE-QUENCY: 147.300MHZ (+ 131.8)

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



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.

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	*		
Rptr.Wednesday	2000	Linked w/ 2 Meter Net	53.230 Rptr.		
Sunday	2030	Informal Net	223.5 Simplex		
Thursday	1900	Mont. Cnty RACES Net			
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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

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 N3DOZ 53.320 K3MFI

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.

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Visit	our	Hom	e Pa	ge a	t:
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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	Marty Squicciarini	NR3Z	215-872-9644
Vice-President	Tony Simek	N3YNH	
Secretary	Norm Miles	AB3ZZ	267-625-9117
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	1215-538-1889
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