FEEDBACK

Warminster Amateur Radio Club

Web Site k3dn.org **Warminster Amateur Radio Club** **January 2019**

Next Meeting January 3 - Stump the Chumps

President's Message

As we enter 2019, I can't help but think about the year ahead. The board is already making plans to have plenty of interesting things happening in the club this year. The plans for the "Main Events" like Hamfest and Field Day are already underway.

Our Club's Hamfest will be on Sunday, May 5th this year. As in the past couple of years the location will be the Lower Bucks Campus of Bucks County Community College. The address is 1304 Veteran's Highway (Rt. 413) in Bristol, PA. We will also be the EPA Section Convention this year. The speaker schedule and other details will be announced soon.

Mark your calendar for Field Day 2019 which will be on June 22-23 this year. We will be operating from the Shrine of Czestochowa again this year. This is a great opportunity for the club to come together and operate for the weekend. If you are new to the hobby or do not own a HF rig, this is a great time to get on the air. There will be plenty of Elmers there to help you get on the air for the first time or plenty of time for the experienced ham to transmit.

In November we will have a special event station at the Union League in Philadelphia. November 9th and 10th will be the operating days for this special event honoring Veteran's Day. More information will be available as we get closer to the dates.

The Meeting Programs are always a large part of the club's activities during the year. The club's Vice-President Jacek, KC3HXF, is working on many interesting programs for this year. The Club's auction will be in February and programs on 3D printing, Fusion Radio, repeaters, SDR Radios and many more are being planned. If you have an idea for a program, please contact Jacek and let him know.

As always there will be Public Service Events throughout the year. Events for Warminster Township like the parades, Golf outings and others are expected. The dates and details for these will be announced as they become available.
And of course, the Holiday Dinner will be held on December 5th, 2019 starting at 6:30pm.
Hope Santa was good to everyone and you all had a great Holiday Season!

73, George, KC3ESH
KC3ESH@outlook.com

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
Yaesu FT 60
FNB-83 Battery Packs (2)
G3 Globe Traveler Radio
YAE VX-170 Transceiver
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

(Continued on page 2)

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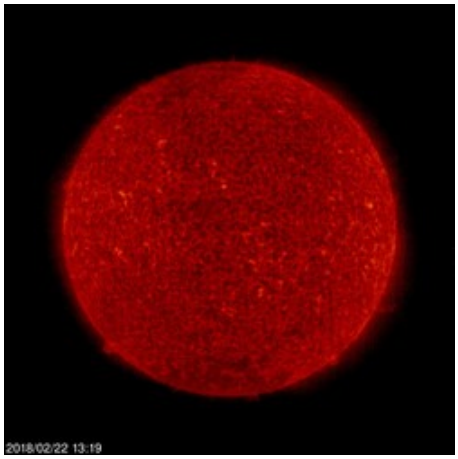
HOLIDAY DINNER AWARDS

Ham of the Year Award presented to Irwin, KD3TB

Scholarship presented to Laura, KC3GWL

The K7RA Solar Update



No sunspots over our reporting week, December 20 – 26, so compared to the previous 7 days average daily sunspot number declined from 3.4 to 0. Average daily solar flux was 70, down slightly from 70.4. Average planetary A index increased from 4.1 to 4.3, while average mid – latitude values went from 3 to 4.

Predicted solar flux is 69 on December 28 – January 4; 72 on January 5; 70 on January 6 – 13; 69 on January 14 – 18; 71 on January 19 – 26; 72 on January 27 – February 1; 70 on February 2 – 9, and 69 on February 10.

Predicted planetary A index is 8, 12, 8, 12, and 10 on December 28 – January 1, 5 on January 2 – 4, then 10, 10, and 8 on January 5 – 7; 5 on January 8 – 12; 8 on January 13; then 5, 5, and 12 on January 14 – 16; 5 on January 17 – 19; 8 on January 20; 5 on January 21 – 23; then 8, 12, 10, and 8 on January 24 – 27; 5 on January 28 – 29; 10 and 12 on January 30 – 31; 10 on February 1 – 2; 8 on February 3, and 5 on February 4 – 10.

Geomagnetic activity forecast for the period December 28, 2018 to January 23, 2019 from F.K. Janda, OK1HH:

- Geomagnetic field will be:
- Quiet on January 10 – 12, 22 – 23
- Quiet to unsettled on January 13, 19
- Quiet to active on December 28, 31, January 1 – 2, 9, 20

(Continued on page 3)

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- Unsettled to active on December 29, (30,) January (3 – 5,) 6 – 8, 14, 17 – 18, 21
- Active to disturbed on January (15 – 16)

Solar wind will intensify on December 28 – 31, January 1, (3 – 4,) 5 – 7, (8, 13 – 14,) 15 – 16, (17 – 19)

Parenthesis means lower probability of activity enhancement.

Al Brown, W1VTP, of Manchester, New Hampshire sent this email:

"I manage The Vermont Net on 3,975 kHz at 2330 UTC. We have been having propagation issues since November. I recall similar difficulties back in 2009 and it straightened out somewhere around mid Feb 2010. I have used the **foF2 map** put out by the Australian government for some time, but it doesn't always make sense. I understand that Amateur Radio operators are mostly interested in DX propagation, but some of us have regional nets with average distance of 100 miles.

"Do you have any other explanation where I could predict propagation for a given night? I'm thinking it may have something to do with a disturbance in the magnetosphere and the effect of coronal dark holes when pointed at earth but do not have any reference material to back that up.

"The closest thing I have is that foF2 map but it doesn't always work out that way."

We covered the same issue in this bulletin in the past. This happens when sunspot numbers are too low to support local propagation on 75/80 meters. We might think of local nets in that part of the spectrum using groundwave propagation, but for wider coverage beyond line-of-sight it depends on high angle signals reflecting back from the ionosphere.

This is why NVIS antennas are useful. When I asked K9LA about this, Carl responded: "The MUF can be low enough that high angle 75/80-meter signals go thru the ionosphere at night during the winter (especially at solar minimum). As you know, with high-angle signals, the MUF is pretty close to foF2, so foF2 could be a good indicator. You may have to modify foF2 a bit based on distance. And having an ionosonde near you would be best."

Here is a site with a number of links to ionosondes:
http://giro.uml.edu/IonogramMovies/

Note the link to Millstone Hill, which may be the closest ionosonde to W1VTP.

Click on the MHJ45 link.
Clicking on that link goes to a page with ionosonde data from 1992 to 2018.

If you click on 2018, it will take you to links for all 12 months of the year. Click on December, and click on the latest date, and you will see links for every 15 minutes of the day. I clicked on the latest one, which was for 0930 UTC at the time. It showed the foF2 value at 2.45 MHz, which is too low to support local high angle coverage for 75 meters, but 160 meters should work.

I see there are links to ionosondes at Wallops Island (Virginia), Boulder (Colorado), Eglin AFB (Florida), Idaho National Labs, and many other locations around the globe.

K9LA suggested that the net could QSY to 160 meters when this happens.
Courtesy of the ARRL Newsletter

Fox-1Cliff/AO-95 Suffers Apparent Receiver Failure

The receiver on the newly launched Fox-1Cliff/AO-95 CubeSat seems to have suffered a receiver failure that could render the satellite unusable, AMSAT said over the weekend. Efforts continue by AMSAT Engineering to establish the cause of the problem and determine if a fix is possible. AMSAT Vice President-Engineering Jerry Buxton, N0JY, reported over the weekend that the issue cropped up during efforts to commission Fox-1Cliff/AO-95.

"After a few days of tests, analysis, and discussion, it appears that Fox-1Cliff/AO-95 will not be commissioned as our fourth Fox-1 Amateur Radio satellite," Buxton said. Commissioning began on December 4, right after the CubeSat's successful launch a day earlier.

"AMSAT Engineering will continue to evaluate and test Fox-1Cliff/AO-95 for solutions to the anomaly, and your continued help

(Continued on page 4)

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AMSAT Vice President-Engineering Jerry Buxton, N0JY, with a model of

in providing telemetry is appreciated so that we can have data throughout her daily orbits, rather than limited data over our US stations," Buxton said. "The data, analysis, and testing could lead to a positive solution, but at the very least will be important to AMSAT's satellite programs in providing information that would help us and others avoid similar situations with future missions."

In a post to AMSAT-BB, Buxton mentioned one suggestion of employing a high-power station to see if AO-95 could hear its signal, but he added that AMSAT Engineering would not be offering a blow-by-blow narrative of its efforts to restore the satellite to operating condition, "unless it is something of merit or actionable."

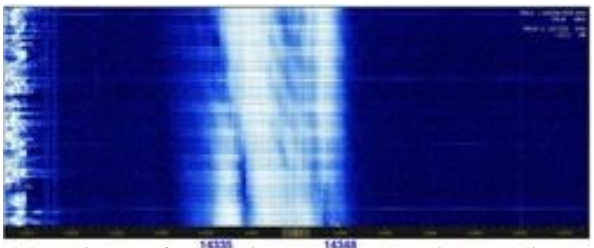
Buxton noted that AMSAT's resources are limited, and all involved are volunteers. "Most -- if not all -- of our remaining Fox-1 engineers are also involved in the GOLFTEE project, so I have asked them to give that first priority with their available volunteer time in order to keep the schedule," Buxton said. "AO-95 is in orbit now, and we can vary the amount of attention on her as resources allow in order to achieve both goals. If the results of our investigation point to a possibility of recovery, be it partial, full, or some workaround method, we would all like to see her working as much as the rest of you, and that is a driver for this investigation."

Buxton said he anticipates that AMSAT Engineering will continue to seek the cause of the apparent receiver failure, "until we have results or reach a dead end, because of the inability to take the lid off and look inside AO-95."

"I will certainly be keeping everyone posted when we have something new to report," Buxton said.

Courtesy of the ARRL Newsletter

Broadcasters Intruding on Exclusive Amateur Radio Frequencies



The signal of a Russian over-the-horizon radio on 20 meters. [Photo courtesy of Wolf Hadel, DK2OM]

The International Amateur Radio Union Region 1 (IARU-R1) Monitoring System (IARUMS) reports that Radio Hargeisa in Somaliland has returned to 7,120 kHz after a break of several weeks, while Radio Eritrea has been reported on 7,140 and 7,180 kHz. Radio Sudan has been transmitting on 7,205 kHz with excessive splatter, IARUMS said. German telecommunications authorities have filed official complaints.

IARUMS has also reported digital signals attributed to the Israeli Navy on 7,107 and 7,150 kHz. In addition, a Russian military F1B signal was observed in mid-November on 7,179 kHz. A Russian over-the-horizon radar has returned to 20 meters on 14,335 - 14,348 kHz. It was monitored on November 22.

Earlier this fall, IARUMS reported digital signals from the Polish military daily on 7,001.8 kHz where Amateur Radio has a worldwide primary allocation. Telecommunications officials in Germany filed a complaint.

IARUMS has received reports of short "beeps" exactly 1 second apart, as well as frequency hopping between 10,108 and 10,115 kHz and 18,834 and 18,899 kHz. The signals are believed to emanate from a site near Chicago associated with an FCC-licensed experimental operation involved with low-latency exchange trading on HF (see "Experiments Look to Leverage Low-Latency HF to Shave Microseconds off Trade Times"). Although Amateur Radio is secondary on 30 and 17 meters, Experimental licenses may not interfere with Amateur Radio operations.

Courtesy of the ARRL Newsletter

(Continued on page 5)

FCC Tells LED Sign Marketers to Abide by Statutes and Rules

The FCC Enforcement Bureau has called on marketers of light-emitting diode (LED) signs to ensure that these lights comply with FCC rules. Since March of this year, the agency has entered into 21 settlement agreements with companies that marketed non-compliant LED signs in violation of the Communications Act and FCC rules. The settlements yielded approximately $850,000 in penalties, and commitments to ensure compliance with the law going forward. Adherence to the FCC's equipment authorization and marketing rules is critical because radio frequency emissions from the signs may cause harmful interference to licensed communications, such as wireless services, the FCC said.

"In light of these recent settlements, we remind LED sign marketers of their obligations under the law," said Enforcement Bureau Chief Rosemary Harold. "The FCC takes seriously its responsibility in ensuring that energy-emitting devices like LED lights do not interfere with authorized transmissions."

LED lights are often used in digital billboards and other commercial and industrial applications, including billboards and large video displays in sports arenas. Given the electrical design of these lights, they may emit RF energy. Prior to being marketed in the US, LED sign models must be tested and comply with FCC technical standards and must include the proper labeling, identification, and user information disclosures. The FCC Office of Engineering and Technology (OET) oversees the equipment authorization process for RF devices, including LED signs.

The Enforcement Bureau investigated hundreds of indoor and outdoor LED sign models and discovered repeated FCC rule violations concerning the failure to market the models with the required equipment authorizations, labeling, and user information disclosures.

Courtesy of the ARRL Newsletter

The following article is re-printed courtesy of The Packrats Cheese Bits

WSJT-X 2.0 in the January Contest
Joe Taylor, K1JT

ARRL members usually receive *QST* around the 15th of the preceding month. The January 2019 *QST*, due around December 15, will contain a tutorial on how to use the FT8 digital mode in the HF contest “RTTY Roundup”. Although it’s not covered in that article, Packrats and friends should know that *WSJT-X 2.0* is also eminently suitable for use in our big event — the January VHF Sweepstakes.

For those not already in the know, here are a few hints on how to use it to your best advantage:

First and foremost: Most Packrats already know that digi-modes should be only one of many arrows in your quiver. As implemented in *WSJT-X*, digital QSOs involve the exchange of terse, carefully optimized, highly structured messages. Most transmissions contain callsigns, grid locators, maybe a signal report, rogers, or 73s, and that’s pretty much it. Yes, you can send free text messages with up to 13 characters. But in general it’s not easy or convenient to convey meanings like “Do you have any other bands?” or “Let’s QSY to 222.130”. In return for these restrictions and limitations, the digi-modes let you make QSOs with signals 10 to 20 dB weaker than required for SSB or CW, and with meteor-induced signal enhancements that last less than a tenth of a second. For most ’Rats in the January contest, your best bet is to use digi-modes to make QSOs that you can’t make with SSB or CW — especially to gain new multipliers. If you have the station capabilities, always remember that those making the best scores in the January VHF SS use lots of bands and make many of those “money QSOs” at 902 MHz and higher.

Second: *WSJT-X **2.0*** is scheduled for public release on December 10, 2018. If you plan to use *WSJT-X*, be sure to get this one. Installation is simple; there’s no need to uninstall any previous version(s) on your computer. The program has a wide range of features and options. Be sure to read the Quick-Start Guide to WSJT-X 2.0, available from the Help menu. If you are not already a frequent user, you will surely benefit from practice well in advance of the contest. Do *not* install the program the week before the contest and expect to use it effectively!

MSK144, **FT8**, and **JT65** are the digital modes most useful in a VHF contest. The first two of these use timed 15-second Tx/Rx sequences, while JT65 uses one-minute sequences. You need a reliable means of keeping your computer’s clock synchronized with UTC within a second or so. Follow instructions for your operating system found in the *WSJT-X User Guide*. Computer aided transceiver (CAT) control of your radio is also highly recommended, and fully supported by *WSJT-X*.

MSK144 is designed for meteor scatter. It’s highly effective on both 50 and 144 MHz. On either band you can work stations out to 1200 miles or so, any morning. Best times are 3 AM to 9 AM, local time. With a single Yagi and 100 Watts you can usually work a similarly equipped station in no more than 15 minutes (6 meters) or 30 minutes (2 meters). With a kilowatt these times are more like 5 and 10 minutes. Make skeds if you wish, either online or in advance of the contest, to increase your multiplier totals

on these bands.

FT8 is highly effective for weak sporadic E on 6 meters — conditions in which it seems "the band is almost open, but not quite". You can easily work signals you can't even hear. The mode is also very good for tropospheric scatter, from 50 MHz up to at least 432 MHz. On any of these bands a single Yagi and 100 Watts can work similar stations out to 300 or 400 miles, pretty much any time. With a bit of effort, it's not that hard to accumulate 30 multipliers (grids) on 6 and 2 meters.

JT65 has a 6 dB advantage over FT8, owing to its longer transmissions. In practice, these days, it is mainly being used for EME. If your station is moonbounce-capable using JT65 on 2 meters, by all means make some EME QSOs. Nearly every one of them will be a new multiplier! In the January 2013 contest I operated on 2 meters only, making 268 QSOs in 96 grids. Of these, 73 QSOs and 67 grids were via EME. No skeds — I just called CQ, and answered CQs, off the moon. There's plenty of activity on 2m EME, especially in Europe, and with JT65 you can make as many as 10 QSOs per hour. In this year's contest moonrise is around 3:40 pm on Saturday, moonset 6:30 am Sunday. About an hour later the next day. EME conditions will be excellent in both moon passes. It's always nice to see a few Europeans, VKs or JAs in a VHF contest log!

Default operating frequencies, 6 and 2 meters

Mode	Typical propagation	Default frequencies
MSK144	Meteor scatter	50.260, 144.150
FT8	Weak Es, troposcatter	50.313, 144.174
JT65	EME	50.190, 144.100 – 144.160

New Two-Ham ISS Crew Launched to ISS is the First Since Aborted October Flight

Three astronauts -- including two radio amateurs -- have docked at the International Space Station (ISS) on the first crewed *Soyuz* vehicle launch since a dramatic failure in October. The astronauts, from the US, Canada, and Russia, left Kazakhstan at 1130 UTC on December 3, and the Russian space agency Roscomos confirmed their successful docking at the station. On board were David Saint-Jacques, KG5FYI, a Canadian engineer, astrophysicist, and medical doctor; space veteran Oleg Kononenko, RN3DX, of Russia, and Anne McClain, of the US. Investigators have blamed a faulty sensor, said to have been damaged during assembly in Kazakhstan. Crew commander Kononenko said his crew recognized the risks of spaceflight as part of their profession and expressed confidence in the flight preparation.

(L - R) Expedition 58 crew members Anne McClain, Oleg Kononenko, RN3DX, and David Saint-Jacques, KG5FYI. [NASA photo by Victor Zelentsov]

ee-person crew's mission was originally set for later this month, but officials up the date to avoid leaving the space station unstaffed, when the current ISS crew onaut Sergey Prokopyev and astronauts Serena Auñón-Chancellor, KG5TMT, and der Gerst, KF5ONO, return to Earth on December 20.

hile, NASA astronaut Nick Hague, KG5TMV, who was on the aborted October 11 unch, is getting ready for another try. Hague, NASA astronaut Christina Ham- och, and cosmonaut Alexey Ovchinin are scheduled to launch from Baikonur drome on February 28 aboard the Russian *Soyuz* MS-12 spacecraft.

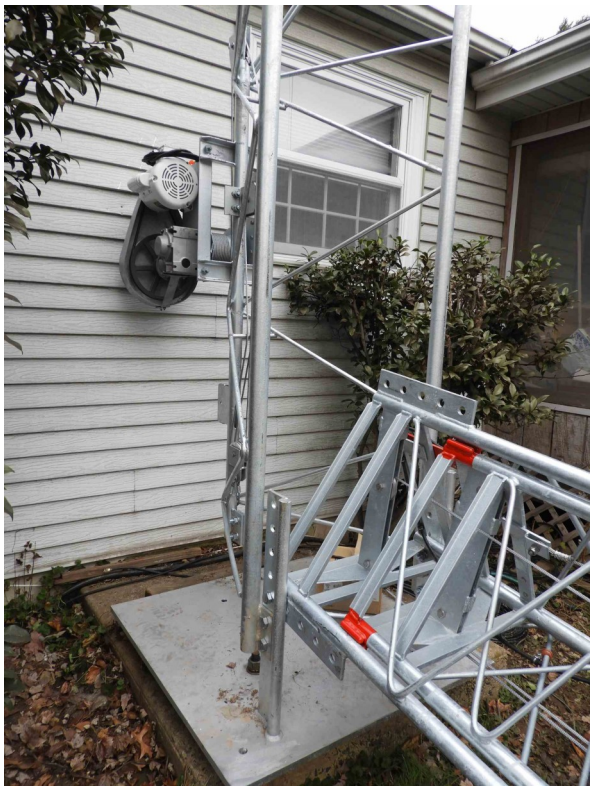
will join the ISS Expedition 58 crew that just went up, and they will return to October 2019 as members of Expedition 60. Hague and Koch will serve as flight engineers for Expeditions 59 and 60. Ovchinin will serve as a flight engineer on Expedition 59 and as the commander of Expedition 60.

This will be Koch's first spaceflight. Hague and Ovchinin were on their way to join the station's Expedition 57 crew on October 11, when their *Soyuz*'s rocket booster experienced a malfunction shortly after launch, aborting the mission. Both returned safely to Earth. The MS-10 flight abort marked the first Russian human spaceflight booster accident in 35 years.

Investigators looking into the October 11 incident said afterward that other *Soyuz* vehicles may have been similarly defective, but pointed out that additional pre-flight checks had been introduced. NASA offered its own reassurances about continued cooperation with and confidence in the Russian space program.

Courtesy of the ARRL Newsletter

PRESIDENT TRUMP HAS THE TRUMP TOWER—WE HAVE THE GEORGE TOWER (N3HBT)



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."

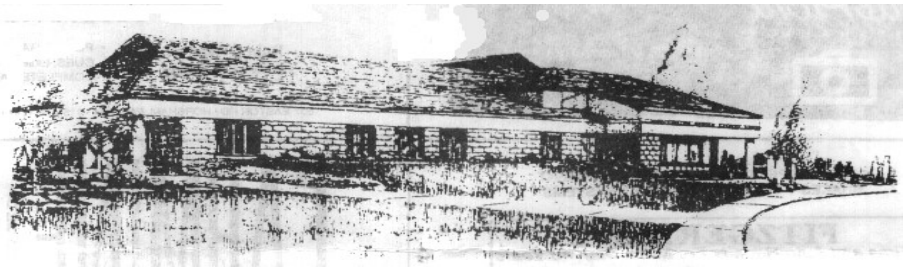
ATTENTION MEMBERS
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for $8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club 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 2019

January – Stump the Chumps
February – Club Auction
March – 3D Printing w/ Dean KC3JXT

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

January
1 Straight Key Night:
0000 UTC - 2359 UTC
5-6 RTTY Roundup
1800 UTC Saturday through 2359 UTC Sunday
19-21 January VHF
Begins 1900 UTC Saturday, ends 0359 UTC Monday

February
11-15 School Club Roundup
Monday through Friday from 1300 UTC Monday through 2359 UTC Friday
16-17 International DX – CW
Starts 0000 UTC Saturday; ends 2359 UTC Sunday

March
2-3 International DX– Phone
Starts 0000 UTC Saturday; ends 2359 UTC Sunday

April
14 Rookie Roundup – Phone
1800 UTC through 2359 UTC

➢ ATLANTIC DIV. HAMFESTS
➢ 2019

January 27 - Maryland Mobileers Post Holiday Hamfest
Odenton Volunteer Fire Company
1425 Annapolis Road Rt. 175
Odenton, MD 21113
https://sites.google.com/site/marylandmobileers/hamfests-1/hamfest-2

April 27 - York Hamfest
Elicker's Grove Park
511 Roth Church Road
Spring Grove, PA 17362
http://www.yorkhamfest.org

April 27 - Delaware State Convention (Delmarva Radio & Electronics EXPO)
Cheer Community Center
20520 Sand Hill Road
Georgetown, DE 19947
http://radioelectronicsexpo.com

May 5 - 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/

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.

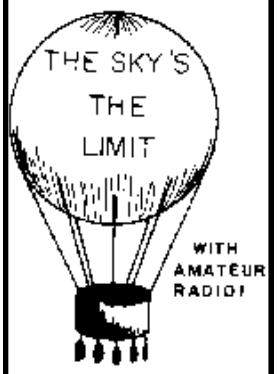
Lansdale, PA Testing on the fourth non-holiday Thursday of the month starting at 7:00 PM. The Lansdale Library Community Room Vine St. and Susquehanna Ave. Lansdale, Pa. Registration is required 48 hrs. or more before the scheduled exam date. If there are no registrations the scheduled exam date will 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

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



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.

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.

➢ **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

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

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