

Web Site k3dn.org

Warminster Amateur Radio Club

#### November 2018

# Next Meeting November 1st - George Miller W3GWM, EPA Section Manager

# **President's Message**

Things have settled down a little for me and I was finally had some spare time to do some operating this past month. I noticed that my rig, an Icom IC7300, didn't seem to be receiving the way it used to. I hooked up an analyzer to the antenna and the results came back fine. So I started to check some other things and found that a quick disconnect that I had leading to an antenna switch was loose. Snugged it up and the radio was like new, signals showing up and down the waterfall. Ended up working special event stations of National Fire Prevention Week and the PA QSO Party. Wish I had more time to work both events but is was nice to know the rig was performing well. Now is the time to check over your rig and antenna system to make sure it's in working before the weather changes.

Don't forget about the club's nets. They are a great way to get onto the air and gain some experience. The Wednesday Night Net starts at 8:00pm on the club's repeater, 147.090 (pl 131.8) and is a round table discussion net. The net control will announce a topic and check-in's can share their experiences on the topic. The Sunday Night Net also starts at 8:00pm on the 10-meter band on a frequency of 28.445 USB and is a general discussion net. You don't need to be a club member to check into either of the nets, just tune in and enjoy.

Before you know it, December will be here and along with it will be the club's Holiday Dinner. There is no "official" business meeting, just the club members and families getting together to share a good time. The fun begins at 6:30pm at the Ben Wilson Senior Center. The Dave Simpson Outstanding Ham of the Year Award will be presented that evening along with some door prizes. The link is up and running on the club's website, K3DN.org for the dinner. Please get your reservations in early so we can give an accurate count to the caterer.

73 George, KC3ESH KC3ESH@outlook.com

# FOR SALE

2009 Chrysler Town and Country mini van with 2 meter/ 440 meter mobile radio and antenna installed. 18,450 miles. \$10,500 with radio and antenna or \$10,000 without the radio and antenna.

Contact George N3HBT at 215-443-5656 or <u>n3hbt@arrl.net</u>.

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 SD-239 Connectors Travel Alarm Clock

Don (Byron) Rector W3UBF Apt 2102 84 Dernstine Rd Hatfield, PA 19440 215-723-1421 donaldrector14@yahoo.com

#### **Minutes WARC General Meeting October 4, 2018**

#### Attendance:

Call to Order George KC3ESH Introductions - pass mic

#### Minutes from last Meeting

Motion made, and minutes approved as presented in the newsletter

#### Committee Reports

Treasurer's Report: Herb KB3VMN As reported at the meeting Programs: Jacek KC3HXF November - ARRL Night - George Miller W3GWM, new EPA Section Manager, via Skype December - Holiday Dinner - start time 6:30pm If anyone has any ideas for programs, please contact Jacek Membership: Norm AB3ZZ (not in attendance) Public Service: George N3HBT Columbus Day golf outing this Monday, October 8 starting at 8:30am Craven Hall Community Run beginning at 9:00am in the Warminster Community Park on October 20 - still need a few more operators Covered Bridge Run October 14, need 3 more operators. Please see Drex W3ICC if you are interested Classes: George KA3WXV/Ron WB2OOB 2 students in the General classes and no students arrived for the tech class for the fall. Next tech class will be in the spring. VEC Testing: Larry WA3ELQ 1 candidate successful upgrade to General Next session is last Monday in October **Repeater:** Brian N3EXA (not in attendance) Good and Welfare: Vince KD3TC Sent some cards out this month, including a card to Rich Luce AG3L If you know anyone who needs a card, please let Vince know **Other Committees** Hamfest - Michael W3MAS not in attendance, but George KC3ESH reported that we are still looking for someone to be Michael's co-chair for 2019 and be able to take over as chair for 2020. Radio Sport: Irwin KD3TB PA OSO contest next weekend At the end of the month CO Worldwide SSB contest is at the end of the month. Irwin KD3TB, Andy KD3RF and Michael W3MAS will be broadcasting from Turks and Caicos as call sign VP5W Core Creek Park Pavilion 9 8:30-5:00 this Saturday Old Business **Holiday Dinner** Thursday, December 6 beginning at 6:30pm

\$15.00 for adults / \$10.00 for children 12 and under PayPal link will be on the website in a few days

#### **OHOTH Award Nomination:** George KC3ESH

Nominations are due by October 24, please email kc3esh@arrl.net

#### Groups.io Migration: Brandon N3UO

Stay tuned for more details

#### **JOTA:** Norm AB3ZZ

October 19-21 – Stay tuned for details to see if we will be operating from Camp Ockanickon

#### **Union League Special Event**

November 2019 in celebration of Veteran's Day. Joe AA3H has agreed to chair the event.

#### **New Business**

#### **Continuing Education**

What can we as a club do to help newer hams and get them active in the hobby and keep them interested Create an Elmer core

Set up classes for those that are interested in learning more about certain topics like CW, digital, etc. A discussion ensued on what we can do to help out new hams and several great ideas were discussed

(Continued on page 3)

# FEEDBACK

(Continued from page 2)

Anyone with other ideas should contact any board member

2018 Club QSO Party

10/13 - 10/14 - operate 12 out of the 24 hours

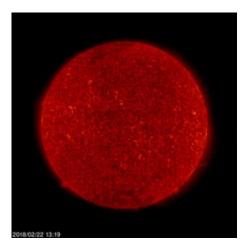
Digital Net Mark WA3QVU

Attempting to run a Fusion net on Tuesday evenings. Move Fusion net to new night

Motion to Adjourn

Meeting adjourned at 8:16pm

**Phil Weber, KH2EI** – unable to attend will reschedule **Michael, KB1JEY** – filled in with My Favorite Test Equipment is From China



#### The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: We saw no sunspots during the October 18 - 24 reporting week, so the average daily sunspot number dropped from 12.6 to 0. The average daily solar flux declined from 71 to 70.4. Geomagnetic indicators were quieter, with the average daily planetary A index declining from 7.4 to 3.3, and the average daily middle latitude A index dropping from 7.3 to 2.1.

Predicted solar flux is 70 on October 25 - 26; 68 on October 27 - November 5; 70 on November 6 - 18; 69 on November 19 - 20; 68 on November 21 - December 2, and 70 on December 3 - 8.

Predicted planetary A index is 8 on October 25 - 26; 5 on October 27; 8 on October 28 - 29; 5 on October 30 - November 2; 22 and 20 on November 3 - 4; 15 on November 5 - 6; then 8, 5, 12, 8, and 10 on November 7 - 11; 5 on November 12 - 13; 12 on November 14; 5 on November 15 - 17; 6, 5 and 12 on November 18 - 20; 8 on November 21 - 22; 5, 8, and 12 on November 23 - 25; 5 on November 26 - 29, 22 and 20 on November 30 - December 1; 15 on December 2 - 3, and 8, 5, 12, 8, and 10 on December 4 - 8.

Sunspot numbers for October 18 - 24 were 0, 0, 0, 0, 0, 0, 0, and 0, with a mean of 0. The 10.7-centimeter flux was 69.5, 69.6, 70.4, 71, 70.9, 71.6, and 69.7, with a mean of 71. Estimated planetary A indices were 2, 2, 2, 4, 6, 4, and 3, with a mean of 7.4. Estimated mid-latitude A indices were 0, 1, 0, 4, 5, 3, and 2, with a mean of 7.3.

Courtesy of the ARRL Newsletter

#### Successful Ham Radio Contact between Students and Space Station Excites and Inspires

"My best day as a teacher!" was educator Kathryn Craven's exuberant reaction following a successful October 22 ham radio contact between International Space Station (ISS) crew member Serena Auñón-Chancellor, KG5TMT, and youngsters at Ashford School in Ashford, Connecticut. ARRL Headquarters provided equipment for the Amateur Radio on the International Space Station (<u>ARISS</u>)-sponsored event, and several ARRL Headquarters staffers were among those assisting in setting up the station, working with teachers, students, and the media, shooting photos, and offering other support.



The entire student body of the kindergarten-through-eighth grade school in northeastern Connecticut sat in rapt attention during the event, as a dozen of their classmates spoke directly to Auñón-Chancellor, who was at the helm of NA1SS on the ISS. Using ARRL's equipment, members of the Eastern Connecticut Amateur Radio Association (<u>ECARA</u>) set up the Earth station (KZ1M), with technical and handson help from W1AW Station Manager Joe Carcia, NJ1Q, who also assisted in sum moning NA1SS for the approximately 10-minute pass.

ECARA's Bernard Dubb, KB1DGY, holds the microphone as Amena Perry asks astronaut Serena Auñón-Chancellor, KG5TMT, her question. [Michelle Patnode, W3MVP, photo]

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#### (Continued from page 3)



W1AW Station Manager Joe Carcia, NJ1Q, sets up Earth-station gear in advance of the ARISS event at Connecticut's Ashford School. [Michelle Patnode, W3MVP, photo] One reporter asked Carcia what was being displayed on the large screen. "I explained that the program we were using -- *SatPC32* -- allowed us to see where the ISS is located and controlled the rotators with respect to our location," he said.

Some Ashford School students have been studying microgravity and are working on a research project that they hope will eventually be selected to be conducted on the ISS. Auñón-Chancellor, the Mission 56/57 flight surgeon, answered 16 student questions that ranged from "Do you wear sunscreen into space?" to "What is the hardest thing about having zero gravity?" and "How many flips can you do?"

Others attending on behalf of ARRL were ARRL Lifelong Learning Manager Kris Bickell, K1BIC; Lifelong Learning and Knowledge Department Administrator Ally Riedel, KM3ALF; ARRL Communications Content Producer Michelle Patnode, W3MVP, and ARRL Communications Manager David Isgur, N1RSN.

"It was great!" Patnode said afterward. "The space station responded right away, and everyone instantly got so excited."

Crews from four local television stations and print publication reporters joined an audience of more than 400.

"We are so incredibly grateful to ARISS, ECARA, and ARRL for making this possible for the entire Ashford School community," a statement on the <u>school's website</u> said.

"Our students were literally bursting with excitement at the end of the contact. Look out universe -- here comes the Mars generation!" *Courtesy of the ARRL Newsletter* 

#### SPRAY-ON ANTENNAS COULD BE THE WAVE OF THE FUTURE, UNIVERSITY RESEARCHERS BELIEVE



Researchers at Drexel University's College of Engineering report <https:// drexel.edu/now/archive/2018/September/MXene-spray-antennas/> a breakthrough in nanomaterials technology that promises to make installing an antenna as easy as applying sunblock or bug spray. The University reported the research in a DrexelNOW article, "Drexel's Spray-On Antennas Could Be the Tech Connector of the Future." The advance could mean wearable and invisible antennas that could find their place in the next generation of the Internet of Things (IoT), and even have Amateur Radio applications.

"The ability to spray an antenna on a flexible substrate or make it optically transparent means that we could have a lot of new places to set up networks," said Drexel Wireless Systems Laboratory Director and engineering professor Kapil Dandekar, a co-author of the research published recently in Science Advances.

"This technology could enable the truly seamless integration of antennas with everyday objects, which will be critical for the emerging Internet of things," Dandekar said.

In their paper, Dandekar and his colleagues laid out a method for spraying invisibly thin antennas made from a type of twodimensional metallic material called MXene -- a conductive, two-dimensional titanium carbide material -- which can be dissolved in water to create an ink or paint. They said the exceptional conductivity of the material enables it to be employed as an RF radiator, even when applied in a very thin, nearly invisible coating. The MXene antennas perform as well as those now being used in mobile devices, wireless routers, and other devices, the Drexel researchers said. In addition, the MXene materials were shown to be 50 times better than graphene and 300 times better than silver ink antennas in terms of preserving the quality of RF transmission.

(Continued on page 5)

# FEEDBACK



Courtesy of the ARRL Newsletter

#### Yury Gogotsi, director of the A.J. Drexel Nanomaterials Institute. [Photo courtesy of Drexel University]

"Current fabrication methods of metals cannot make antennas thin enough and applicable to any surface, in spite of decades of research and development to improve the performance of metal antennas," said Yury Gogotsi, Ph.D., director of the A.J. Drexel Nanomaterials Institute, who initiated and led the project. "We were looking for twodimensional nanomaterials, which have sheet thickness about 100,000 times thinner than a human hair; just a few atoms across, and can self-assemble into conductive films upon deposition on any surface. Therefore, we selected MXene as a candidate for ultra-thin antennas."

"The MXene antenna not only outperformed the macro and micro world of metal antennas, we went beyond the performance of available nanomaterial antennas, while keeping the antenna thickness very low," said Babak Anasori, a research assistant professor in the A.J. Drexel Nanomaterials Institute. "The thinnest antenna was as thin as 62 nanometers -- about a thousand times thinner than a sheet of paper -- and it was almost transparent."

Unlike existing nanomaterial fabrication methods that require several steps, the Drexel research team's spray-on antennas can be fabricated in a single step by airbrush spraying a water-based MXene ink, Anasori said. -- Thanks to DrexelNow

#### Peggy Sue has died

Peggy Sue Gerron, ex-K5PSG, of Lubbock, Texas, who inspired singer Buddy Holly's 1957 rockabilly hit "Peggy Sue," died on October 1. She was 78. First licensed in 2004 as KE5AKW, she later obtained the vanity call K5PSG. Her license expired in 2014, and K5PSG has since been reissued. Gerron went to high school with Holly and later married The Crickets drummer, Jerry Allison. As rock 'n' roll history has it, Holly originally titled the song "Cindy Lou," but Allison convinced the singer to change the tune's name to "Peggy Sue." In a 2004 interview, Gerron said that story is close to the truth, but not entirely accurate. After Holly's death in 1959, Gerron toured with The Crickets when the band got back together. Over the years, Gerron made public and media appearances all over the country. She said her participation in the 2004 W5B special event in Lubbock commemorating Holly helped inspire her Amateur Radio aspirations. "You can do TV specials, and you can be interviewed by the very best DJs," she said, "but there is nothing like the feeling of putting your finger down, and transmitting your call sign, and having somebody answer back."

Courtesy of the ARRL Newsletter



Kenneth Waddell.

#### CLIMBER DIES IN AMATEUR RADIO TOWER COLLAPSE

A young Tennessee father of five is dead after the Amateur Radio tower on which he was working collapsed due to a guy anchor letting go. Thirty-year-old Ken Waddell was killed on September 29 while attempting to erect a 70-foot Rohn 25G tower on the property of Dale Darling, W9WBA, in Cookeville, Tennessee. A professional tower climber, Waddell handled the tower job on a freelance basis, rather than for his employer.

According to media accounts, Waddell and Darling checked the new guy anchors in advance of putting up the tower. Waddell was getting ready to attach a second set of guys at 70 feet when a guy at the 40-foot level let go, taking him to the ground on the section where he was attached. He was the only person on the tower when it fell, and died at the scene.

Waddell was the sole financial provider for his family, and a GoFundMe campaign <a href="https://www.gofundme.com/waddellfamily">https://www.gofundme.com/waddellfamily</a>> has been established. The Tower Family Foundation <a href="https://towerfamilyfoundation.org/">https://towerfamilyfoundation.org/</a>> and the Hubble Foundation <a href="https://towerfamilyfoundation.org/">https://towerfamilyfoundation.org/</a>> have also reached out to assist Waddell's widow, Cadie, and their

five children. Both the Tower Family Foundation and the Hubble Foundation are dedicated in part to providing financial assistance and support to the families of tower workers injured or killed in tower-climbing mishaps.

Courtesy of the ARRL Newsletter

# Waterlogged VP6D Ducie Island DXpedition Reported to be "Progressing Well"

Significant rainfall this week hampered the ability of the <u>VP6D Ducie Island</u> DXpedition team to erect additional antennas but did not dampen spirits.

"It's been raining; we're waterlogged," an October 24 update said. "In 24 hours we expect a significant storm to pass through, with heavy rainfall and up to 25-knot winds with potential for stronger gusts. Pileups continue to be energetic and reasonably well behaved. One request on SSB: please do not call over the station we're working."

At this point, VP6D is approaching 30,000 contacts with nearly 10,000 unique call signs. Some 4,000 contacts had been made on FT8 as of October 24, and 141 DXCC entities were in the log. "We know some FT8 Qs are not in the log yet [but we're] working that problem," the update said. The VP6D team has also acknowledged issues with the near-live DXA online log display.

As the DXpedition got under way last weekend, operators reported that signals on their end were loud. "We are progressing well," an earlier update said, also noting that

some callers were using the wrong version of FT8. The correct version is WSJT-X 1.9.1 in DX mode, in "hound" configuration.

The VP6D site consists of a main camp and kitchen, tents for sleeping, and generators, with the SSB camp located at the main camp and a CW camp about a 30-minute walk from the main camp.

A couple of *Braveheart* crew members are on the island to assist the operators. The DXpedition is set to continue until November 3.

Ducie Island is the 19th most-wanted DXCC entity, according to <u>Club Log</u>. *Courtesy of the ARRL Newsletter* 

# Practice Makes Perfect with FT8 and Other WSJT-X Protocols

FT8 co-developer Joe Taylor, K1JT, recommended in a recent post to the <u>Pack Rats reflector</u> that those planning to use FT8 or other <u>WSJT-X</u> protocols, such as MSK144, should practice using the software before jumping into a contest or other activity. A short <u>FT8 demonstration contest</u> will take place on Thursday, October 25, 0200 - 0300 UTC (Wednesday, October 24, in North American time zones).

"[O]ne thing is for sure: Downloading the software and trying it out a week before the contest is *not* a good plan, either for you or for those of us who write and polish the software," Taylor said. "You need practice and experience with the software before the contest." Taylor reminded readers that the original motivation for developing nearly all of the *WSJT-X* modes was VHF DXing and contesting; however, the software became very popular on HF. A couple of major DXpeditions have included FT8 in their mix of modes, and FT8 lately has been edging into the contesting arena, with its inclusion in the ARRL RTTY Roundup in 2019.

FlexRadio CEO Gerald Youngblood, K5SDR, recently <u>suggested</u> that FT8 has attained "killer app" or "tipping point" status in Amateur Radio. The protocol permits working stations on seemingly "dead" bands, countering the current dearth of sunspots, Youngblood pointed out, and also lets operators of modest or antenna-restricted stations work HF DX, just like larger, well-equipped stations.

"In my humble opinion, FT8 is at the very heart of what Amateur Radio has been about from its inception -- amateurs who love the art of radio enhancing the art of radio," Youngblood wrote. He continued, speculating, "What will ultimately kill Amateur Radio is not FT8. To the contrary, FT8 is an example of what will keep it alive and relevant. What will kill Amateur Radio is if we cease to innovate, become old and grumpy, and no longer bring new blood into the hobby."

Taylor believes that digital modes, such as FT8, can significantly boost contact and multiplier totals in contests that permit its use, not to mention in efforts to attain DXCC and other awards. "How best to merge digi-modes into your operating plan, along with CW and

SSB, will be different for each station and each operator," he said. .

Courtesy of the ARRL Newsletter



FlexRadio CEO Gerald Youngblood, K5SDR.





## **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**

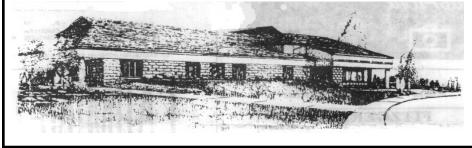
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even 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 2018

# November – ARRL Night - George Miller W3GWM, new EPA Section Manager December – Holiday Party

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.

# 2018 - 2019 Contest Calendar

## November

**3-5** <u>Nov. Sweepstakes – CW</u> 2100 UTC Sat. through 0259 UTC Monday.

**17-19** Nov. Sweepstakes – Phone 2100 UTC Sat. through 0259 UTC Monday.

**24-25** <u>EME - 50 to 1296 MHz</u> 0000 UTC on Sat. through 2359 UTC Sunday

**30-12/2** <u>160 Meter</u> 2200 UTC Friday, ends 1600 UTC Sunday

# December

**8-9** <u>10 Meter</u> Starts 0000 UTC Saturday; runs through 2359 UTC Sunday

16 **Rookie Roundup–CW** 1800 UTC through 2359 UTC.

# January

1 Straight Key Night: 0000 UTC - 2359 UTC5-6 RTTY Roundup 1800 UTC Saturday through 2359 UTC Sunday

# > ATLANTIC DIV. HAMFESTS > 2018 - 2019

December 8 - Third Annual SantaFest

American Legion Youth Camp 9201 Surratts Road Cheltenham, MD 20623 http://pgares.org/santafest/

**April 27** - <u>Delaware State Convention (Delmarva</u> Radio & Electronics EXPO)

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

# W.E. TEST LOCATIONS

FEEDBACK

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 2018 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.

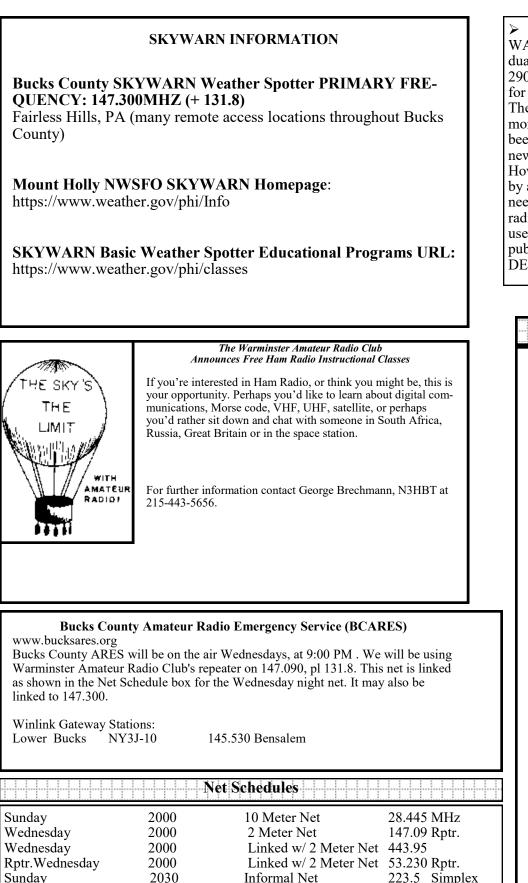
**Philadelphia, PA**, Testing is done on the 4th, non holiday Thursday of the month at the, Community Ambulance Association of Ambler, 1414 E Butler Pike, Ambler PA 19002 at 7:00 PM We also are testing on Saturdays at least once per quarter at 9:00 AM. For further information contact James McCloskey at jmccloskey@msn.com and by phone 215 -275-2979.

Lansdale, PA Testing on the fourth nonholiday 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

# Page 8

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

Amon Domostown

Area Repeaters				
	VHF			
145.310	R.F. Hill			
	Doylestown R.C.			
	Penn Wireless			
	Hilltown			
	DVRA			
146.685	Holmesburg			
146.925	Willingboro			
	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			
	UHE			
442.650	UHF DVRA			
443.250				
443.050	Metro-Comm			
	Warminster			
444 200	BEARS			
444.200 447.475	WR3B			
448.225	Penn Wireless			
	RF Hill Analog/			
	Fusion			
	D-STAR			
146 6100	0 K3PDR DV			
	5 K3PDR DV			
445 0187	5 AA3E Montco			
115.0107	RACES			
52.020	6 Mtr			
	WA3BXW			
	N3DQZ K3MFI			
55.520	1.51911-1			

# Page 10

Page 10			FEEDBACK
Are you submitting an article for the Feedback? Contributions of articles to be pub- lished are always accepted for consid- eration. Please follow these guidelines:	Executive Officers	2018 Office	
<ul> <li>E-Mail to: wa4ywm@comcast.net Or via snail mail to: FEEDBACK EDITOR Warminster Amateur Radio Club Box 113 Warminster, Pa 18974</li> <li>Use both upper and lower case letters.</li> <li>Use your program's spell check.</li> <li>If you don't have a computer; then typewritten sheets are o.k, but please use both upper and lower case.</li> <li>Put your name and call at the be- ginning or end of the article, and</li> </ul>	President Vice-President Secretary Treasurer Director (A) Director (E) Director (E) Past President <u>Committee Chairper</u> ARES/RACES Liason ARRL Liason Awards Manager	n Karl Harris Irwin Darack Vince Pironti	KC3ESH215-815-7783KC3HXF215-343-1899KC3FBY215-815-7978KB3VMN267-718-3601W3MAS267-491-5773WA3ELQ215-704-3282N3UO215-259-7255N3HBT215-443-5656W3FLH267-679-9297K3KH215-264-1855KD3TB215-343-8170KD3TC215-674-0446
show-crédits if you are using ma- terial from another source. → Deadline for articles is the Satur- day before the regular meeting.	Classes Digital and APRS Feedback Editor Field Day 18 Hamfest 18 Hamwear Holiday Dinner Membership Net Manager Publicity Refreshments RF Interference RF Interference	George Altemus Ron Wenig Jim Elmore Doc Whitticar Michael Shanblatt Kathy Acker George Brechmann Norm Miles George Brechmann Bernice Kraut Brandon Penglase Andy Vavra Bill Ballantine	KA3WXV 215-855-3856 NY3J 215-638-9257 WA4YWM215-538-1889 W3GAD 215-968-6397 W3MAS 267-491-5773 KC3FBY 215-815-7978 N3HBT 215-443-5656 AB3ZZ N3HBT 215-443-5656 KB3PCX 215-884-8195 N3UO 215-259-7255 KD3RF 610-287-3295 K3FMQ 215-766-0764
For general club corre- spondence: k3dn@k3dn.org Visit our Home Page at: <u>http://www.k3dn.org</u>	Repeater Coordinator Safety Officer Station Trustee Sunshine Club Township Liason VE License Testing VHF/UHF/MW Website Coordinator Youth Programs	Brian Taylor Mike Malone George Brechmann Vince Pironti George Brechmann Larry Abbott George Altemus Al Konschak Steve Larson	N3EXA 215-257-6303 W3MJM N3HBT 215-443-5656 KD3TC 215-674-0446 N3HBT 215-443-5656 WA3ELQ 215-704-3282 KA3WXV 215-855-3856 WI3Z 215-491-9941 WW3Y 215-822-1511
The annual dues rate struc- ture is as follows: Full Member: \$ 20.00 2nd FamilyMember: \$ 10.00 Student: \$ 10.00 Alumni: \$ 10.00 ≻ Are your dues current ?			