

Web Site k3dn.org

Warminster Amateur Radio Club

January 2022

Next Meeting Jan. 6th - Stump the Chump

PRESIDENT'S MESSAGE

A New Year is upon us and offers a chance to start fresh, with a clean slate – a sort of reboot, if you will. There are plenty of things for us to look forward to as a club in the coming year, including better band conditions on the air; once again hosting our Hamfest in May; and the chance to get back to a group Field Day operation in June, among others. Unfortunately, the beginning of 2022 finds us still facing concerns over the state of the pandemic, with new case numbers rising and calls for various levels of restrictions once again being heard. Although we are planning to resume our meetings at the Ben Wilson Center in a hybrid (live/virtual) manner, we will need to keep close watch on the decisions of state and local governments, as well as the Center itself, to be sure that our plans are able to proceed.

Speaking of the Hamfest: we are happy to have secured the Lower Bucks Campus of Bucks County Community College in Bristol, PA once again, and will be moving forward with a full slate of events. The date is Sunday, May 1, and as usual we will need all members to lend a hand in making this a successful event. We have also been chosen to host the ARRL EPA Section Convention again this year (as we have previously, before the forced cancellations), and are very much looking forward to that, too! As Hamfest Co-Chair, I will be sharing more info and requesting volunteers to help organize as we get closer – keep that weekend clear and come out to help show everyone why WARC is the best club in EPA!

In 2022, we will be looking for members to step into leadership roles in the club, as a few positions, including some on the Board of Directors, will need to be filled:

Herb KB3VMN is looking to step away from his tenure as Treasurer after 5 years of service to the club. Herb has been an integral part of the Board, and his thoughtful input has been an asset to our decision making. This is a crucial role that will need to be filled and is a voting position on the Executive level of the Board.

Additionally, Kathy KC3FBY is looking to turn over the duties of Membership Chair to another member of the club. Among the myriad of things that Kathy has facilitated, implemented, and bettered during her time in WARC, she has also gotten the duties of Membership Chair streamlined, and would be willing to take time during a transition phase to be sure that the incoming Chair has a firm grasp on the position. Although not a voting position on the Board itself, the Membership Chair is still included on Board emails and conversations and deals with them on a regular basis. Kathy also has a new grandson to dote on, which will take all her time and attention! I cannot begin to express to you how her influence will be missed...

Finally, I will be stepping aside as President at the end of my term. Having served in that position for 5 total terms, as well as sitting on the Board for the past 8 years, it's time for another active member of WARC to take the reins and lead us going forward. It's been a fantastic run, and of course I will still serve on the BoD as Past President once the new President has been elected, offering guidance as requested, but the need for a fresh take on things is an important part of the growth of any organization, and WARC is no exception.

Please consider volunteering for one of the above roles and help WARC continue the tradition of excellence that it has established over the 50+ years of its existence.

I will wrap it up there, and close with this: Here is wishing you all a wonderful and joyous New Year!

Tony W3FLH 73

Warminster ARC General Meeting Minutes - December 2nd, 2021

Meeting called to order 7:30pm

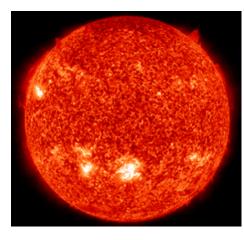
Ham Fest BCCC has been secured for May.

Outstanding Ham of the Year award. George (KC3ESH/sk) and Kathy Acker (KC3FBY).

Membership: 132 paid members

Business portion adjoined at 7:45pm

Guest Speaker: Nicole Douglas, from the Bucks County Recorder of Deeds Office. History of Bucks County



The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: Sunspot activity persisted over the reporting week, although numbers were a bit lower. Average daily sunspot number declined from 124.4 to 110.1. Average daily solar flux slipped just slightly from 125 to 124. Average daily planetary A index went from 9.1 to 6.4, and average middle latitude numbers changed from 6.4 to 4.4.

New sunspot groups appeared on December 25, 26, and 28.

Predicted solar flux over the next month is expected to peak at 130 on January 18 - 19, and the numbers are 110, 108, and 105 on December 30 - January 1; 104 on January 2 - 3; 100 on January 4; 98 on January 5 - 6; then 92, 100, 105, and 110 on January 7 - 10; 115 on January 11 - 13; 118 on January 14 - 15; 122 and 128 on January 16 - 17; 130 on January 18 - 19; 128, 125, and 120 on January 20 - 22; 125 on January 23 - 24; 122 on January 25; 120 on January 26 - 27; 115, 110, 100, and 95 on January 28 - 31; 90 on February 1 - 2, and 92 and 100 on February 3 - 4.

Predicted planetary A index is 10 and 8 on December 30 - 31, then 6, 12, and 8 on January 1 - 3; 5 on January 4 - 10; 10 on January 11 - 12; 5 on January 13 - 14; 8 and 12 on January 15 - 16; 8 on January 17 - 18; 5 on January 19 - 22; 8, 10, 8, and 8 on January 23 - 26, and 5 on January 27 - February 6.

Sunspot numbers for December 23 - 29 were 143, 145, 117, 95, 85, 107, and 79, with a mean of 110.1. The 10.7-centimeter flux was 129.8, 126.2, 130.7, 125.4, 123.9, 120.5, and 111.4, with a mean of 124. Estimated planetary A indices were 4, 5, 7, 3, 10, 9, and 7, with a mean of 6.4. Middle latitude A index was 2, 3, 5, 2, 8, 6, and 5, with a mean of 4.4.

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> the Propagation Page of Carl Luetzelschwab, K9LA.

A propagation bulletin archive is available. For customizable propagation charts, visit the VOACAP Online for Ham Radio website.

Share your reports and observations.

Courtesy of the ARRL Newsletter

FEEDBACK

FOR SALE

Drake TR-4C, RV-4C, AC-4 with Harbach modes by WB4HFN, Drake desk mic 7075, original Drake manual for TR-4C, a few spare Drake parts. All in excellent electrical and physical condition. New matched finals replaced a few years ago. No issues. Great back up set-up or set up for new ham.

ASKING: \$495 with local pick-up at my home or nearby local to be discussed.

Contact Bob Wilderman a WARC member at dlrwild1@verizon.net or 267-535-9189 cell

K3SRO

(Continued from page 2)

WINTERHEAT 2022

WINTERHEAT 2022 is a month long amateur radio simplex event.

The goal and purpose is for amateur radio operators to make as many contacts as possible over a month long period of time using only designated simplex frequencies..

Currently there are 589 participants registered for the event.

WINTERHEAT 2022 will start at 00:01 UTC on January 1, 2022 and conclude at 23:59 UTC on January 31, 2022.

0 Days 0 Hours 35 Minutes 45 Seconds

This is the third year for this event. Last year participants made nearly 50,000 contacts.

The event is open to all FCC licensed amateur radio operators.

All contacts shall be via voice but can be either analog or digital (fusion, D-STAR, DMR).

https://hamactive.com/WH22/logs/index.php

Thanks to Art Patten for this info.

WSJT-X Development Group Partner Bill Somerville, G4WJS, SK



Bill Somerville, G4WJS (left), and Joe Taylor, K1JT (right), hold the RSGB Wortley-Talbot Trophy in 2018 for the most outstanding experimental work in amateur radio. RSGB President Nick Henwood, G3RWF (center), assists.

A key member of the *WSJT-X* Development Group -- where FT8 and other cutting-edge digital amateur radio technology has originated -- has died. Bill Somerville, G4WJS, was reported to have passed away earlier this week. He was in his mid-60s, and his death was unexpected. The development group founder, Joe Taylor, K1JT, called Somerville "a dear friend and very close colleague." Taylor said that

Somerville was the first to join with him in 2013 to form a core development group for *WSJT-X*, then in its digital infancy.

"Bill has been closely involved with *WSJT-X* and related software projects ever since," Taylor said. "Our free, open-source software could not have achieved its extensive worldwide popularity and influence in ham radio without Bill's essential contributions."

Somerville collaborated with Taylor and Steve Franke, K9AN -- the third member of the *WSJT-X* development group -- to author articles for *QST* and *QEX* about FT8 and other digital modes in the *WSJT-X* suite. The trio won the October 2017 *QST* Cover Plaque Award. They also received the Dayton Hamvention[®] Technical Achievement Award in 2020, and the ARRL Doug DeMaw, W1FB, Technical Excellence Award in

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2021.

Taylor said Somerville "devoted countless hours to program support, patiently answering user's questions on WSJT-related forums."

"I have only started to think about the many ways in which I will miss Bill -- not [to] mention how we all will miss his immense and positive impact on *WSJT-X* and related projects," Taylor said.

Professionally, Somerville was a software engineer who worked mainly as a C++ system software developer, as he explained on his <u>QRZ profile</u>. As an active radio amateur, he also applied his expertise to such projects as setting up an SO2R (single operator, two radio) station and enhancing his station's automated processes.

Courtesy of the ARRL Newsletter

A new release of *WSJT-X* is available.

The WSJT-X development group -- Joe Taylor, K1JT; Steve Franke, K9AN; and new member Nico Palermo, IV3NWV -- have announced the release of WSJT-X 2.5.3. This new release includes a feature of special interest to users participating in the ARRL January VHF Contest (January 15 - 17). This new feature is an enhanced macro facility for text messages that is aimed at making it easier to ask another station to move to another band. This feature is described briefly in the updated <u>WSJT-X User Guide</u>. Installation packages for WSJT-X 2.5.3 are available on the <u>WSJT-X website</u>.

Courtesy of the ARRL Newsletter

Senator Blumenthal Supports Amateur Radio at Senate Confirmation Hearing

Senator Richard Blumenthal (CT) received an affirmative reply from FCC Chairwoman Jessica Rosenworcel when he asked her to commit to providing his office "an update on the steps that the FCC is taking to support amateur radio operators." The Senator posed the <u>written</u>

<u>question</u> as part of Rosenworcel's renomination hearing conducted by the Senate Commerce, Science, and Transportation Committee.

Blumenthal noted specifically that "Radio amateurs voluntarily provide an array of public services, especially emergency and disaster-related support communications when infrastructure has been destroyed by a hurricane or similar disaster. Their contributions in this area are regularly recognized by local and state authorities."

"ARRL is grateful to Senator Blumenthal for his support and recognition of radio amateurs," said ARRL President Rick Roderick, K5UR. Blumenthal has previously co-sponsored legislation supporting amateur radio, and his staff was recently briefed by ARRL on pending amateur radio matters at the FCC. Roderick added, "We need the partnership of the FCC and Congress to ensure our rules and spectrum continue to support the march of technological innovation in our vibrant Amateur Radio Service."



US Senator Richard Blumenthal

Multiple proceedings to update or change the FCC's Amateur Radio Service Part 97 rules to account for changes in technology and operating practices have been languishing at the FCC, some going back five or more years. ARRL is hopeful that these will be addressed soon.

Courtesy of the ARRL Newsletter

Observations of Over-the-Horizon Radar Interference in Ham Bands Top All Others

The volume of reports of over-the-horizon (OTH) radar interference from observers working with the International Amateur Radio Union (IARU) Region 1 Monitoring System (IARUMS) dwarfs that of all other interference sources, the <u>November IARUMS</u> <u>newsletter</u> reports. Nearly 800 OTH radars were observed during November alone, and the total number of reports for the year is more than 4,500 — although that number likely includes multiple reports of the same OTH radar systems. While the intruder watcher is focused on IARU Region 1, much of the major interference it recounts can affect the amateur bands in the world's other two

(Continued on page 5)

FEEDBACK

FEEDBACK

IARU regions. IARUMS has tracked most OTH radar signals to sites in Russia and China, but a <u>recent report</u> indicated that India has an OTH radar system in the works. IARUMS is calling the system "of concern," although it's not known what frequencies it may use.

During November 17 - 21, IARUMS reported a "strange, somewhat washed-out signal" on the order of 7 kHz wide, that "drifted slowly back and forth" in 40 meters and below.

"The first evaluation suggested a double-sideband signal," the newsletter said. "Wolf, DK2OM, could determine the symbol rate at 2400 bps. It was probably a signal from the family of single-tone 1800 Hz [8-PSK] modulated modems."



Some IARUMS stalwarts made multiple time-difference-of-arrival (TDoA) observations that pinned the signal's source to east-southeast of Toulouse, France, not far from a French Naval radio station. The signal disappeared on November 21.

IARUMS said it's been observing wideband radars — likely of Chinese origin — with bandwidths of up to 160 kHz at 10 sweeps per second. In November, however, reports began to accumulate of radars — or perhaps a combination of OTH radar signals — with bandwidths of up to 360 kHz. "It was also often observed that the [OTH radar] shifted its frequency back and forth, which is

also sometimes the case with the [Chinese] 'Foghorn' systems," IARUMS said. In the Far East, IARUMS speculated, such a signal could blanket the entire 40-meter band.

Ongoing is the "radio war" between Russia and Ukraine, which IARUMS said has been "a constant nuisance for years." The broadcasts are heard on 7050 and 7055 kHz, as well as on other frequencies.

Courtesy of the ARRL Newsletter

Spain, Norway Seek Ways to Attract a Younger Generation of Hams

Spain's national amateur radio society, Union of Spanish Radio Amateurs (<u>URE</u>), is attempting to entice youth and youngsters to become interested in amateur radio. URE is offering free membership in the organization and a free amateur radio license manual. The organization has framed amateur radio as "the technological and experimental hobby that will hook you forever."

URE's pitch to the next generation of radio amateurs is that ham radio opens "a universe of technology and operational challenges" that includes advanced digital modes, satellite and microwave communication, contesting, and experimentation, as well as "great opportunities to learn and make friends."

Prospective young radio amateurs must be between 14 and 18 years old to qualify for a free URE membership and a license manual to prepare for the exam and obtain an operator license. URE says the manual explains the basics of electricity, electronics, and telecommunications, as well as the regulatory structure.

Those aged under 25 can qualify for a half-price membership once they've obtained their radio amateur license and become full URE members.

Meanwhile, Norway is looking to introduce a new 10 W entry-level license that will enable 12- and 13-year-olds to get started building simple transmitters and receivers. The Research Council of Norway has granted 1 million kroner (approximately \$114,600) to support the Radio Communications Technology for Young People project, aimed at recruiting young radio amateurs.

Norway's national amateur radio organization, NRRL, said the program wants to leverage young peoples' "digital competence and understanding of digital technology." NRRL and the Norwegian Defence Research Establishment (FFI) are partnering in the project, headed by Torbjørn Skauli, LA4ZCA. The project aims to increase interest in technology and science in schools. The idea is to introduce amateur radio as a high school elective, as well as develop an entry-level certificate allowing 12- and 13-year-olds to get started with amateur radio.

The Norwegian Communications Authority (NKOM) has already laid out the requirements and conditions of the entry-level license. Skauli, a professor at FFI, has previous experience with computer coding workshops in schools. The proposal for an entrylevel certificate has received broad support in education and public administration in Norway, according to the SSA (Sweden's national amateur radio organization), which says it's looking forward to cooperating with NRRL in this area.

ARDC Grant Will Expand RMHAM's 5 GHz Microwave Network in the Rockies

A grant of \$374,233 from Amateur Radio Digital Communications (ARDC) to Rocky Mountain Ham Radio (<u>RMHAM</u>) will go toward expanding a multistate 5 GHz microwave network and help to outfit communications trailers.



AMATEUR RADIO DIGITAL COMMUNICATIONS

The microwave network enables partnering amateur radio clubs and groups to access, enable, or expand their repeater and other FCC Part 97-appropriate applications. The network provides 50 - 100+ Mbps of bandwidth and is managed and monitored by a dedicated network operations team.

In Colorado, RMHAM will be able to grow its microwave network by 23 new microwave sites and 20 new point-to-point spans to expand IP

connectivity and future repeater coverage across the western slope of Colorado and along the I-70 and I-76 corridors in eastern Colorado.

In New Mexico, RMHAM will grow its microwave network by 16 sites and 15 new point-to-point spans to expand IP connectivity and

future repeater coverage south from Albuquerque to El Paso, Texas; along US Route 550 to Durango, Colorado, and across the Rio Grande Valley to Alamogordo, New Mexico. The club will also expand RMHAM digital repeater coverage (DMR or D-STAR, depending on coverage gaps) across New Mexico through the addition of seven repeaters co-located at their proposed new microwave sites.

As a result of the grant, RMHAM will also be able to upgrade its Colorado communications trailer, which offers both RF and IP connectivity, and to outfit a new trailer for service in New Mexico.

Courtesy of the ARRL Newsletter

World's Smallest Moon Lander from Japan will Put Ham Radio Transmitter on the Moon

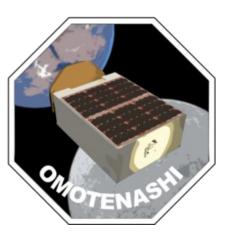
Japan's <u>OMOTENASHI</u>, the world's smallest moon lander, will have an X-band and UHF communication system, although it will not carry an amateur band transponder. OMOTENASHI is a 6U CubeSat set for launch via a NASA SLS rocket as early as February 2022. It will have a mission period of from 4 to 5 days. The name is an acronym for Outstanding Moon Exploration Technologies demonstrated by Nano

Semi-Hard Impactor. Wataru Torii of the Japan Aerospace Exploration Agency (JAXA) Ham Radio Club, JQ1ZVI, said radio amateurs can play a role in gathering data from the spacecraft.

The spacecraft is made up of two separable components, both having independent communication systems -- an orbiting module and a surface probe. The orbiting module will take the surface probe to the moon. It will transmit beacon or digital telemetry data on UHF (437.31 MHz). The surface probe -- the moon lander -- will transmit digital telemetry or three-axis acceleration analog-wave with FM modulation on UHF (437.41 MHz). Transmitter power will be 1 W in both cases.

"If we succeed in receiving the UHF signal from the surface probe, we could know the acceleration data on the impact on the moon and the success of the landing sequence," Torii explained.

"We already have a station for uplink and downlink at Wakayama in Japan -- used as an EME [moonbounce] station. However, if the satellite is invisible from Japan, we cannot receive the downlink signal. So, we need a lot of help from ham radio stations worldwide."



The orbiting module beacon will transmit on 437.31 MHz using PSK31. The surface probe beacon will transmit on 437.41 MHz using FM, PSK31, and PCM-PSK/PM.

Contact Torii for more information.

Courtesy of the ARRL Newsletter

FEEDBACK

2022 Contest Calendar

January

 Straight Key Night
 0000 UTC through 2359 UTC
 Kids Day
 1800 UTC through 2359 UTC
 8-9 <u>RTTY Roundup</u>
 1800 UTC Saturday, ends 2359 UTC Sunday
 15-17 January VHF
 1900 UTC Saturday, ends 0359 UTC Monday
 15-16 North American QSO Party - CW
 1800Z, Jan 15 to 0559Z, Jan 16
 22-23 North American QSO Party - SSB
 1800Z, Jan 22 to 0559Z, Jan 23

February

5-6 North American Sprint, CW
2300Z, Feb 5 to 0300Z, Feb 6
12-13 CQ WW RTTY WPX Contest
0000Z, Feb 12 to 2359Z, Feb 13
14-18 School Club Roundup
19-20 International DX – CW
26-27 North American QSO Party, RTTY
1800Z, Feb 26 to 0559Z, Feb 27

ATLANTIC DIV. HAMFESTS > 2022

January 8

<u>WinterFest</u> Vietnam Veteran's of America 8000 Derry St. Harrisburg, PA 17101

April 23

Delmarva Amateur Radio & Electronics Expo Cheer Community Center 20520 Sand Hill Rd. Georgetown, DE 19947 http://www.radioelectronicsexpo.com

May 1

Warminster ARC Hamfest, ARRL Eastern Pennsylvania Section Convention Bucks County Community College-Lower Bucks Campus 1304 Veteran Hwy (Rte.413) Bristol, PA 19007 http://www.k3dn.org/hamfest/

July2

Firecracker Hamfest, ARRL Pennsylvania State Convention Harrisburg Postal Picnic Grounds 1500 Roberts Valley Road Harrisburg, PA 17101 <u>http://www.w3uu.org</u>

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 2021 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

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

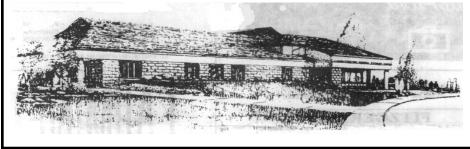
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even 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 2022

January- "Stump the Chump."

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.

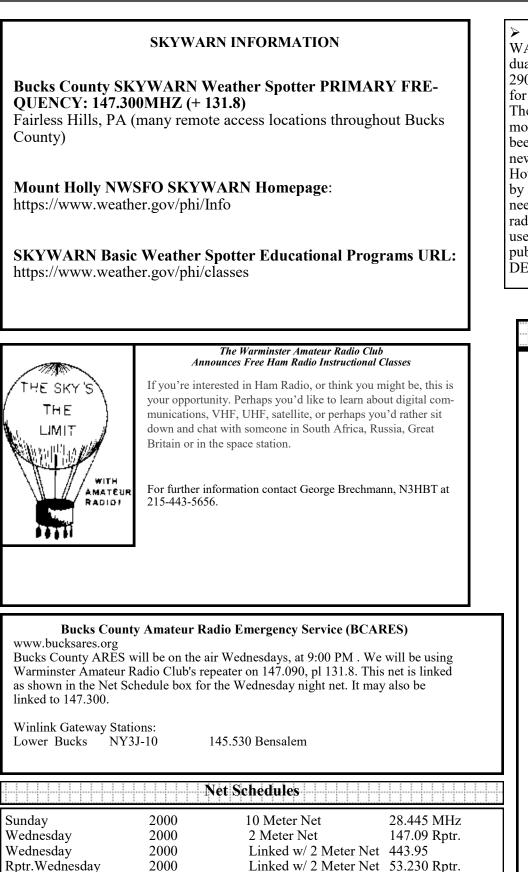
➢ WARC Meetings are held the first Thursday of each month at 7:30 pm at the Benjamin Wilson Senior Center, Delmont Avenue, Warminster, PA. Talk in is available on the 147.09 & 443.950 repeaters.

Sunday

Thursday

2030

1900



Informal Net

Mont. Cnty RACES Net 146.835 Rptr.

223.5 Simplex

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 N3DQZ 53.320 K3MFI					

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Ano you anhanitting an		2021 Office		
Are you submitting an		4041 OIIICE	13	
article for the Feedback ? Contributions of articles to be pub-				
lished are always accepted for consid-				
eration. Please follow these guidelines:	Executive Officers			
E-Mail to:	President	Tony Cuttone	W3FLH	267-679-9297
wa4ywm@comcast.net	Vice-President	Ray Oechslin	KA3TRU	267-269-3198
Or via snail mail to: FEEDBACK EDITOR	Secretary	Dan Myers	K3NXX	215-957-2343
Warminster Amateur Radio Club	Treasurer	Herb Hickmott		267-718-3601
Box 113	Director (A)	Doug Becker	KC3MNQ	
Warminster, Pa 18974	Director (E)	Larry Abbott		215-704-3282
> Use both upper and lower case	Director (A)	Mike Malone	W3MJM	215-639-2175
letters,	Director (E)	George Brechmann	N3HBT	215-443-5656
Use your program's spell check.	Past President	Marty Squicciarini	NR3Z	215-872-9644
If you don't have a computer,				
then typewritten sheets are o.k.	Committee Chairper		1/ 1/11	215 264 1055
but please use both upper and lower case.	ARES/RACES Liason		K3KH	215-264-1855
 Put your name and call at the be- 	ARRL Liason	Irwin Darack	KD3TB	215-343-8170
ginning or end of the article, and	Awards Manager	Vince Pironti	KD3TC	215-674-0446
show credits if you are using ma-	Classes	George Altemus		215-855-3856
terial from another source.	Digital and APRS	Ron Wenig	NY3J	215-638-9257
	Feedback Editor	Jim Elmore		M215-538-1889
day before the regular meeting.	Field Day 22	Doc Whitticar	W3GAD	215-968-6397
	Hamfest 22	Michael Shanblatt	W3MAS	267-491-5773
	Hamfest 22	Tony Cuttone	W3FLH	267-679-9297
	Hamwear	Kathy Acker	KC3FBY	215-815-7978
	Holiday Dinner	George Brechmann	N3HBT	215-443-5656
	Membership	Kathy Acker	KC3FBY	215-815-7978
	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
For general club corre-	RF Interference	Bill Ballantine	K3FMQ	215-766-0764
spondence:	Repeater Coordinator	•	N3EXA	215-257-6303
k3dn@k3dn.org	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
Visit our Home Page at:	VE License Testing	Larry Abbott		215-704-3282
http://www.k3dn.org	VHF/UHF/MW	George Altemus		215-855-3856
	Website Coordinator	Al Konschak	WI3Z	215-491-9941
The annual dues rate struc-	Youth Programs	Steve Larson	WW3Y	215-822-1511
ture is as follows:				
Full Member: \$20.00				
2nd FamilyMember: \$10.00				
Student: \$ 10.00				
Alumni: \$ 10.00				
Are your dues current ?				

FEEDBACK



Prudential Bank is proud to be a Corporate Sponsor of the Warminster Amateur Radio Club.



Prudential's Executive office is located at 3993 Huntingdon Pike, Suite 300, Huntingdon Valley PA 19006.

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