



FEEDBACK



Web Site k3dn.org

Warminster Amateur Radio Club

January 2021

Next Meeting January 7th via ZOOM - Stump the Chumps Zoom style

President's Message

Whew – *THAT's* finally over....

Hello everyone, and welcome to 2021! I can honestly say that I've never been happier to see the calendar change than I am this year. As we're all too aware, 2020 presented some serious challenges to all of us, many of which will leave a lasting, if not permanent, impression on our daily lives. As a club, WARC was able to address most of these with minor difficulty and come through this in a solid position heading forward. Unfortunately, our group events took the hardest hits, most notably the cancellation of our two biggest efforts: Hamfest & Field Day, and the outlook for both for 2021 is murky at best. The Board is already in discussion as to how best to handle these activities this year, but the unpredictability of restrictions and participation make it a tall order. As always, we will keep you posted as we navigate these uncharted waters.

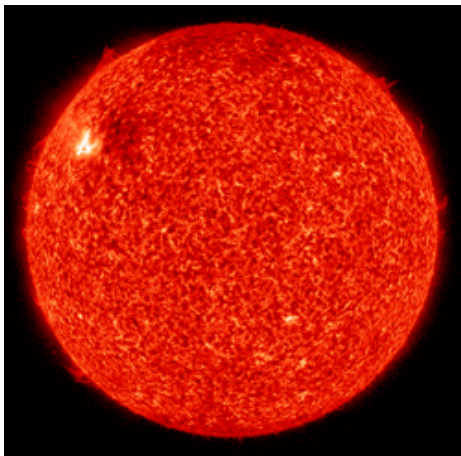
On a lighter note, Sunspot Cycle 25 appears to have started in earnest, and the bands have been showing signs of life. ZS and VK stations can be heard regularly on the HF bands, and there have been reports of some interesting openings on VHF, as well. This is a great time to get on the air and see what sort of contacts can be made – or just throw a "CQ" out there and see what comes back to you!

I'll keep it short this month, and close with this thought: I hope that everyone had an enjoyable Holiday Season and that you were able to find some peace in the midst of this trying situation. From our humble QTH to yours - Happy New Year!

Tony W3FLH

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The K7RA Solar Update



Tad Cook, K7RA, Seattle, reports: Solar Cycle 25 is progressing normally, and with the new year, my outlook is optimistic. Solar minimum occurred just over a year ago (December 2019), and now we see very few days with no sunspots.

Both of the current sunspot groups (2794 and 2795) are about to slip across the sun's western horizon.

Average daily sunspot number this past week was 27.1, up from 10.3 the previous week. Average daily solar flux rose from 82.8 to 86.4.

Predicted solar flux over the next 30 days is 81 and 80 on January 1 – 2; 79 on January 3 – 4; 78 on January 5 – 8; 84 on January 9 – 14; 85, 86, and 87 on January 15 – 17; 88 on January 18 – 28; 87 on January 29, and 86 on January 30. It then dips to 84 on February 1 – 10.

Predicted planetary A index is 5 on January 1 – 2; 8 and 5 on January 3 – 4; 8 on January 5 – 7; 5 on January 8 – 17; 10 on January 18 – 20; 8 on January 21; 5 on January 22 – 24; 10 on January 25, and 5 on January 26 – 30.

When I check the [STEREO website](http://STEREO.website) any possible coming activity, I don't see anything obvious, but do not be surprised if new activity appears soon — perhaps before mid-January — along with the predicted higher flux values.

Here's the geomagnetic forecast from J.K. Janda, OK1HH, of the Czech Propagation Interest Group for January 1 – 26, 2021. The geomagnetic field will be:

- quiet on January 1, 3, 13 – 14

(Continued from page 1)

- quiet to unsettled on January 2, 4, 8, 10, 12, 15 – 16, 21, 25 – 26
 - quiet to active on January 5 – 7, 9, 11, 17, 22 – 23
 - unsettled to active January 20, 24
 - active to disturbed January 18 – 19
 -
- Solar wind will intensify on January (1-3, 7-9, 19-20,) 21-22, (23, 25-26)

Notes:

Parentheses mean lower probability of activity enhancement.

The predictability of changes is lower again, as there are ambiguous and changing indications.

Wishing a Happy New Year, positive thinking, and negative tests!

(The Czech Propagation Interest Group has been compiling this geomagnetic activity weekly forecasts since January 1978.)

Ted Leaf, K6HI, of Kona, Hawaii, shared [another optimistic report](#) on new Solar Cycle 25. Here's [more](#) on the NCAR prediction and the solar clock.

Sunspot numbers for December 24 – 30, 2020, were 25, 30, 31, 26, 26, 26, and 26, with a mean of 27.1. The 10.7-centimeter flux was 87.4, 87.7, 87.9, 87.8, 87.2, 84.2, and 82.8, with a mean of 86.4. Estimated planetary A indices were 10, 5, 4, 6, 7, 7, and 9, with a mean of 6.9. Middle latitude A index was 7, 4, 3, 4, 6, 5, and 6, with a mean of 5.

For more information concerning radio propagation, [visit](#) the ARRL Technical Information Service, [read](#) “What the Numbers Mean...,” and [check out](#) K9LA's Propagation Page.

A propagation bulletin [archive](#) is available. For customizable propagation charts, visit the [VOACAP Online for Ham Radio](#) website.

Courtesy of the ARRL Newsletter

WSJT-X 2.4.0 Introduces New Digital Protocol Q65

WSJT-X version 2.4.0 has introduced a new digital protocol called Q65, which is designed for “minimal two-way QSOs over especially difficult propagation paths,” the [Quick Start Guide](#) says.

“On paths with Doppler spread more than a few hertz, the weak-signal performance of Q65 is the best among all *WSJT-X* modes. Q65 is particularly effective for tropospheric scatter, ionospheric scatter, and EME on VHF and higher bands, as well as other types of fast-fading signals.”

The new protocol uses 65-tone frequency-shift keying and builds on the demonstrated weak-signal strengths of QRA64, introduced in 2016. User messages and sequencing are identical to those in FT4, FT8, FST4, and MSK144. Q65 employs a “unique tone” to sync time and frequency. “As with JT65, this ‘sync tone’ is readily visible on the waterfall spectral display,” the *Guide* said. “Unlike JT65, synchronization and decoding are effective even when meteor pings or other short signal enhancements are present.

Transmit/receive sequence lengths of 15, 30, 60, 120, and 300 seconds are available. According to the *Guide*, “Q65 will enable stations with a modest Yagi and 100 W or more and to work one another on 6 meters at distances up to ~1600 kilometers at most times, in dead band conditions.”

Courtesy of the ARRL Newsletter

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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)

FCC Reduces Proposed Amateur Radio Application Fee to \$35

The FCC has agreed with ARRL and other commenters that its proposed \$50 fee for certain amateur radio applications was “too high to account for the minimal staff involvement in these applications.” In a *Report and Order* ([R&O](#)), released on December 29, the FCC scaled back to \$35 the fee for a new license application, a special temporary authority (STA) request, a rule waiver request, a license renewal application, and a vanity call sign application. All fees are per application. There will be no fee for administrative updates, such as a change of mailing or email address.

This fall, ARRL filed comments in firm opposition to the FCC proposal to impose a \$50 fee on amateur radio license and application fees and [urged its members](#) to follow suit.

As the FCC noted in its *R&O*, although some commenters supported the proposed \$50 fee as reasonable and fair, “ARRL and many individual commenters argued that there was no cost-based justification for application fees in the Amateur Radio Service.” The fee proposal was contained in a *Notice of Proposed Rulemaking* ([NPRM](#)) in MD Docket 20-270, which was adopted to implement portions of the “Repack Airwaves Yielding Better Access for Users of Modern Services Act” of 2018 — the so-called “[Ray Baum’s Act](#).”

“After reviewing the record, including the extensive comments filed by amateur radio licensees and based on our revised analysis of the cost of processing mostly automated processes discussed in our methodology section, we adopt a \$35 application fee, a lower application fee than the Commission proposed in the *NPRM* for personal licenses, in recognition of the fact that the application process is mostly automated,” the FCC said in the *R&O*. “We adopt the proposal from the *NPRM* to assess no additional application fee for minor modifications or administrative updates, which also are highly automated.”

The FCC said it received more than 197,000 personal license applications in 2019, which includes not only ham radio license applications but commercial radio operator licenses and General Mobile Radio Service (GMRS) licenses.

The FCC turned away the arguments of some commenters that the FCC should exempt amateur radio licensees. The FCC stated that it has no authority to create an exemption “where none presently exists.”

The FCC also disagreed with those who argued that amateur radio licensees should be exempt from fees because of their public service contribution during emergencies and disasters.

“[W]e are very much aware of these laudable and important services amateur radio licensees provide to the American public,” the FCC said, but noted that specific exemptions provided under Section 8 of the so-called “Ray Baum’s Act” requiring the FCC to assess the fees do not apply to amateur radio personal licenses. “Emergency communications, for example, are voluntary and are not required by our rules,” the FCC noted. “As we have noted previously, “[w]hile the value of the amateur service to the public as a voluntary noncommercial communications service, particularly with respect to providing emergency communications, is one of the underlying principles of the amateur service, the amateur service is not an emergency radio service.”

The Act requires that the FCC switch from a Congressionally-mandated fee structure to a cost-based system of assessment. The FCC proposed application fees for a broad range of services that use the FCC’s Universal Licensing System (ULS), including the Amateur Radio Service, which had been excluded previously. The 2018 statute excludes the Amateur Service from annual *regulatory* fees, but not from *application* fees.

“While the Ray Baum’s Act amended Section 9 and retained the regulatory fee exemption for amateur radio station licensees, Congress did not include a comparable exemption among the amendments it made to Section 8 of the Act,” the FCC *R&O* explained.

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The effective date of the fee schedule has not been established, but it will be announced at least 30 days in advance. The FCC has directed the Office of Managing Director, in consultation with relevant offices and bureaus, to draft a notice for publication in the *Federal Register* announcing when rule change(s) will become effective, "once the relevant databases, guides, and internal procedures have been updated."

Courtesy of the ARRL Newsletter

First Solar Image from Hawaii Observatory Shows Sunspot Close-Up

The world's largest solar observatory, National Science Foundation (NSF) Daniel K. Inouye Solar Telescope in Hawaii, [has released](#) its first image of a sunspot, capturing the phenomenon in striking detail. The image, taken last January, is among the first solar images of the new Solar Cycle 25. The telescope's 4-meter primary mirror will give the best views of the sun from Earth throughout Solar Cycle 25. The image was released along with the first of a series of Inouye-related articles featured in the *Solar Physics* journal. As radio amateurs know, sunspots and other solar activity can affect HF radio

propagation, among other things, and they are where coronal mass ejections (CMEs) and solar flares originate. The Inouye telescope is in its final stages of construction.

"While the start of telescope operations has been slightly delayed due to the impacts of the COVID-19 global pandemic, this image represents an early preview of the unprecedented capabilities that the facility will bring to bear on our understanding of the sun," said David Boboltz, NSF Inouye Solar Telescope Program Director. Solar Cycle 25 is predicted to peak in mid-2025.

"With this solar cycle just beginning, we also enter the era of the Inouye Solar Telescope," said Matt Mountain, President of the Association of Universities for Research in Astronomy (AURA), the organization that manages the National Solar Observatory and the Inouye Solar Telescope. "We can now point the world's most advanced solar telescope at the sun to capture and share incredibly detailed images and add to our scientific insights about the sun's activity."

During the peak of Solar Cycle 24, 120 sunspots were tracked. Some 115 sunspots are predicted for the peak of Solar Cycle 25.

The new image encompasses an area on the sun's surface of some 10,000 miles across -- just a tiny part of the sun, but large enough to fit Earth inside, the Inouye Solar Telescope said in its statement. Read [more](#). -- *Thanks to the National Solar Observatory and news media reports*

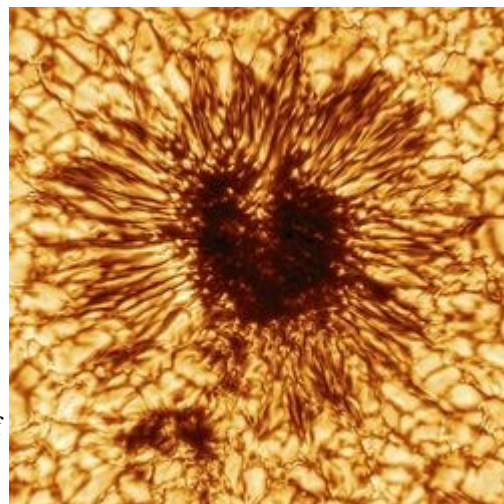
Courtesy of the ARRL Newsletter

Nathan Simington Confirmed as Newest FCC Member

On a 49 - 46 vote, the US Senate on December 9 confirmed Nathan Simington to be a Commissioner at the FCC. Simington previously served as a senior advisor at the US Department of Commerce. Earlier, he was a legal associate at various law firms, often specializing in finance.

Upon being sworn in, he will take the seat of Commissioner Michael O'Rielly, whose renomination was pulled by President Donald Trump last summer, shortly before it was to go to the Senate floor.

FCC Chairman Ajit Pai has announced that he will step down on January 20, opening a seat for incoming President Joe Biden to appoint a new commissioner to form a new 3 - 2 Democratic majority. Biden then could either designate that new commissioner as chairman, or select one of the two sitting Democrats already on the Commission, Jessica Rosenworcel and Geoffrey Starks. Biden could also designate one of the two sitting Dem-



The first sunspot image taken on January 28, 2020 by the NSF's Inouye Solar Telescope's Wave Front Correction context viewer. The sunspot is sculpted by a convergence of intense magnetic fields and hot gas boiling up from below. [NSO/AURA/NSF, photo]



(Continued on page 5)

ocrats as Acting Chairman to manage the FCC until his new pick has been confirmed by the Senate and sworn in. Until that happens, the FCC will have a 2 - 2 party split.

Courtesy of the ARRL Newsletter

Arecibo Observatory Instrument Platform Falls into Iconic Dish

The 900-ton instrument platform of the 305-meter radio telescope at Arecibo Observatory in Puerto Rico fell some 400 feet Tuesday morning, crashing into the huge, already-damaged dish below, the National Science Foundation (NSF) reported in a December 1 Tweet. “No injuries were reported,” NSF said, adding that it is still assessing the situation. “Our top priority is maintaining safety.” The calamity not only was a final and fatal blow for the observatory but for the people of Puerto Rico.

Head of Telescope Operations Angel Vazquez, WP3R, called December 1 “indeed a sad day.” Vazquez was in the Observatory’s control room at the time, salvaging important instruments when he heard a loud noise.

“At around 7:55 AM, the platform collapsed due to the extra stress on the existing cables because of the main cable failure in November. Strands were starting to pop all weekend long, and it was just a matter of time,” he told ARRL. “It came off the easternmost tower (T4) and took about 15 seconds. The azimuth arm that housed the dome came off the track, fell into the dish a little north of center and the triangle was pulled by the other existing cables to the northwestern part of the dish. The tops of the towers broke as well. This was a 900-ton platform, and the dome was smashed like an eggshell.”

The towers supported the massive instrument platform, which was suspended on cables above the dish. On August 10, an auxiliary cable that helped to support the platform snapped and fell, causing a 100-foot gash in the reflector dish. After an extensive evaluation, NSF [announced](#) on November 19 that the damaged radio telescope — in service for nearly 60 years — was beyond repair and would be decommissioned due to safety concerns. Arecibo, which, among other accomplishments had contributed to the observation of black holes, was the second-largest radio telescope in the world.

The iconic dish has served as a backdrop for several science fiction movies. The Arecibo Observatory Amateur Radio Club, KP4AO, is headquartered at the research facility, and several other radio amateurs are employed there in addition to Vazquez. Operations at the world-famous observatory have been managed by the University of Central Florida (UCF).

Engineers were ready to implement emergency structural stabilization of the auxiliary cable system, but while arranging delivery of two replacement cables and two temporary cables, a main cable broke on the same tower on November 6. Based on the stresses borne by the second broken cable, engineers concluded that the remaining cables were likely weaker than originally projected.

Antenna designer and electrical engineer Jim Breakall, WA3FET, who conducted research at the world-famous facility over more than 45 years, told ARRL that his experience with Arecibo began in 1974 when he was a student, and he worked on the first HF ionospheric heating design and calibration of the dish for ionospheric research. He also conducted amateur radio moonbounce experiments there. Later, he designed feeds for radio astronomy and designed and built the HF ionosphere modification facility that fed the dish with a dipole array at the bottom of the huge dish, after Hurricane Georges destroyed the first HF facility some 10 miles away in 1998.

“I built a super contest station on my farm there about 2 miles away using Angel’s call sign, WP3R. It got destroyed in Hurricane Maria in 2017,” Breakall recounted. “I also was on the team for KP4AO in 2010 for EME [moonbounce] and my photo was on the cover of *QST* with Joe Taylor, K1JT.”

“I was prepared for this, but still never wanted to hear it,” Breakall told ARRL. “It is like losing a loved one when you know they are dying. *Wow*. Who would have ever believed it.”

NSF said it was saddened by the latest development regarding the aging radio telescope. “As we move forward, we will be looking for ways to assist the scientific community and maintain our strong relationship with the people of Puerto Rico.”

Courtesy of the ARRL Newsletter

2021 Contest Calendar

January

2 [Kids Day](#)
 Saturday 1800 UTC - 2359UTC
 2-3 [RTTY Roundup](#)
 Starts 1800UTC Saturday through 2400UTC Sunday
 16-18 [January VHF](#)
 Starts 1900UTC Saturday through 0359UTC Monday

February

8-12 [School Club Roundup](#)
 1300 UTC Monday through 2359 UTC Friday
 20-21 [International DX – CW](#)
 0000 UTC Saturday and runs through 2359 UTC Sunday.

March

6-7 [International DX– Phone](#)
 0000 UTC Saturday and runs through 2359 UTC Sunday.

April

18 [Rookie Roundup – Phone](#)
 1800 to 2359 UTC

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@arrrl.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@arrrl.net
 Alt Contact: Jim, 610-287-5630

➤ ATLANTIC DIV. HAMFESTS ➤ 2021

April 17

[DELMARVA Hamfest, ARRL Delaware State Convention](#)

Cheer Community Center
 20520 Sand Hill Road
 Georgetown, DE 19947
www.radioelectronicsexpo.com

June 20

[Father's Day Hamfest at Arcadia](#)

Arcadia Fairgrounds
 16920 Carnival Ave.
 Upperco, MD 21155
<http://W3FT.com> Facebook Baltimore Amateur Radio Club

CLUB INFO**PUBLIC SERVICE****CLUB STATION**

The WARC club station is open to anyone with an interest, on the first Thursday of the month (meeting night) between the hours of 6:30 and 7:30 pm. with the exception of the December dinner meeting For further information, call George Brechmann N3HBT at 215-443-5656.

WARC ALUMNI MEMBERSHIP

An Alumni membership category is available for WARC members who are unable to attend meetings and club activities on a regular basis because of health considerations, travel impediments, or other hardships. Dues for the Alumni membership are \$10.00 annually and are approved by the Board. Please contact the Membership Committee for more information if interested."

ATTENTION MEMBERS

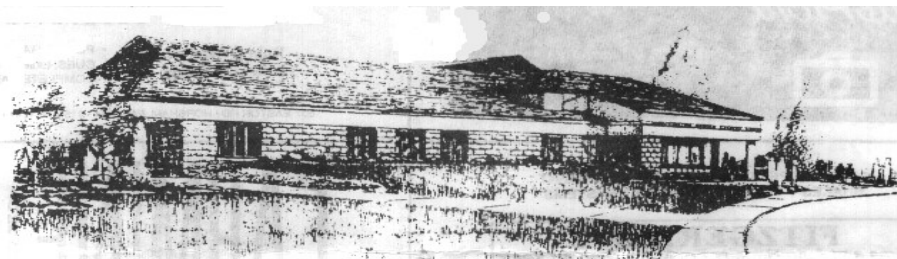
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even numbered months. If you do not have at least a Warminster Amateur Radio Club badge with your picture on it, please contact your Membership Chairs at the WARC monthly meetings. Otherwise, please contact Membership by email at: membership@k3dn.org.

If you want to have your picture taken to be placed on the 'Members' Photos' section of the www.k3dn.org website, please contact Membership with your interest. When we get enough people who are interested we will post a notice in Feedback and have a camera ready at the following club meeting.

PROGRAMS 2020 - 2021

January 7 Stump the Chumps Zoom style
February 4 Bonding and Grounding (K3LR tentative)
March 4 Home Brew

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.

SKYWARN INFORMATION**Bucks County SKYWARN Weather Spotter PRIMARY FREQUENCY: 147.300MHZ (+ 131.8)**

Fairless Hills, PA (many remote access locations throughout Bucks County)

Mount Holly NWSFO SKYWARN Homepage:

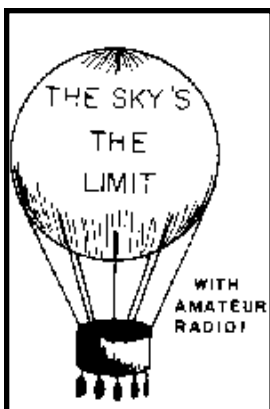
<https://www.weather.gov/phi/Info>

SKYWARN Basic Weather Spotter Educational Programs URL:

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

➤ CLUB EQUIPMENT

WARC has 2 Baofeng UV-5R dual band HT's and a Yaesu FT-2900 2M mobile that are available for use by members of the club. The radios are available on a month-by-month basis and have been purchased primarily to help new hams get on the air. However, they may also be used by any club member who is in need of a temporary 2-meter radio. They are also available for use by participants in WARC's public service activities. DE, Tony Simek N3YNH



*The Warminster Amateur Radio Club
Announces Free Ham Radio Instructional Classes*

If you're interested in Ham Radio, or think you might be, this is your opportunity. Perhaps you'd like to learn about digital communications, VHF, UHF, satellite, or perhaps you'd rather sit down and chat with someone in South Africa, Russia, Great Britain or in the space station.

For further information contact George Brechmann, N3HBT at 215-443-5656.

Area Repeaters**VHF**

145.310 R.F. Hill
145.350 Doylestown R.C.
146.790 Penn Wireless
145.330 Hilltown
146.670 DVRA
146.685 Holmesburg
146.925 Willingboro
147.000 Ham Buergers
147.030 Phil-Mont
147.090 Warminster
147.270 Frankford
147.300 BEARS
147.390 CBRA

220

224.580 PackRats
223.76 K3NAL

UHF

442.650 DVRA
443.250 TAG
443.050 Metro-Comm
443.950 Warminster
444.200 BEARS
447.475 WR3B
448.225 Penn Wireless
444.759 RF Hill Analog/
Fusion

D-STAR

146.61000 K3PDR DV
445.18125 K3PDR DV
445.01875 AA3E Montco
RACES

6 Mtr

53.030 WA3BXW
53.230 N3DQZ
53.320 K3MFI

Bucks County Amateur Radio Emergency Service (BCARES)

www.bucksares.org

Bucks County ARES will be on the air Wednesdays, at 9:00 PM . We will be using Warminster Amateur Radio Club's repeater on 147.090, pl 131.8. This net is linked as shown in the Net Schedule box for the Wednesday night net. It may also be linked to 147.300.

Winlink Gateway Stations:

Lower Bucks NY3J-10

145.530 Bensalem

Net Schedules

Sunday	2000	10 Meter Net	28.445 MHz
Wednesday	2000	2 Meter Net	147.09 Rptr.
Wednesday	2000	Linked w/ 2 Meter Net	443.95
Rptr.Wednesday	2000	Linked w/ 2 Meter Net	53.230 Rptr.
Sunday	2030	Informal Net	223.5 Simplex
Thursday	1900	Mont. Cnty RACES Net	146.835 Rptr.

Are you submitting an article for the Feedback ?

Contributions of articles to be published are always accepted for consideration. Please follow these guidelines:

- E-Mail to:
wa4ywm@comcast.net
Or via snail mail to:
FEEDBACK EDITOR
Warminster Amateur Radio Club
Box 113
Warminster, Pa 18974
- Use both upper and lower case letters.
- Use your program's spell check.
- If you don't have a computer, then typewritten sheets are o.k. but please use both upper and lower case.
- Put your name and call at the beginning or end of the article, and show credits if you are using material from another source.
- Deadline for articles is the Saturday before the regular meeting.

For general club correspondence:
k3dn@k3dn.org

Visit our Home Page at:
<http://www.k3dn.org>

The annual dues rate structure is as follows:

Full Member: \$ 20.00
2nd FamilyMember: \$ 10.00
Student: \$ 10.00
Alumni: \$ 10.00

- Are your dues current ?

2021 Officers

Executive Officers

President	Tony Cuttone	W3FLH	267-679-9297
Vice-President	Tony Simek	N3YNH	
Secretary	Kathy Acker	KC3FBY	215-815-7978
Treasurer	Herb Hickmott	KB3VMN	267-718-3601
Director (A)	Doug Becker	KC3MNQ	
Director (E)	Larry Abbott	WA3ELQ	215-704-3282
Director (A)	Brandon Penglase	N3UO	215-259-7255
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Marty Squicciarini	NR3Z	215-872-9644

Committee Chairpersons

ARES/RACES Liason	Karl Harris	K3KH	215-264-1855
ARRL Liason	Irwin Darack	KD3TB	215-343-8170
Awards Manager	Vince Pironti	KD3TC	215-674-0446
Classes	George Altemus	KA3WXV	215-855-3856
Digital and APRS	Ron Wenig	NY3J	215-638-9257
Feedback Editor	Jim Elmore	WA4YWM	215-538-1889
Field Day 21	Doc Whitticar	W3GAD	215-968-6397
Hamfest 21	Michael Shanblatt	W3MAS	267-491-5773
Hamfest 21	Tony Cuttone	W3FLH	267-679-9297
Hamwear	Kathy Acker	KC3FBY	215-815-7978
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Membership	Mary Miles	KC3KJZ	267-625-8538
Net Manager	George Brechmann	N3HBT	215-443-5656
Publicity	Bernice Kraut	KB3PCX	215-884-8195
Refreshments	Brandon Penglase	N3UO	215-259-7255
RF Interference	Andy Vavra	KD3RF	610-287-3295
RF Interference	Bill Ballantine	K3FMQ	215-766-0764
Repeater Coordinator	Brian Taylor	N3EXA	215-257-6303
Safety Officer	Mike Malone	W3MJM	215-639-2175
Station Trustee	George Brechmann	N3HBT	215-443-5656
Sunshine Club	Ken Lichtenstein	K9KJL	847-697-1188
Township Liason	George Brechmann	N3HBT	215-443-5656
VE License Testing	Larry Abbott	WA3ELQ	215-704-3282
VHF/UHF/MW	George Altemus	KA3WXV	215-855-3856
Website Coordinator	Al Konschak	WI3Z	215-491-9941
Youth Programs	Steve Larson	WW3Y	215-822-1511