



# FEEDBACK



Web Site [k3dn.org](http://k3dn.org)

Warminster Amateur Radio Club

April 2021

## Next Meeting April 1st via ZOOM - The K3DN Repeater system

### President's Message

Hi everybody, hope you are all still healthy and well. We are now officially into Spring, and things feel like they're opening back up – both environmentally and logistically. Personally, it felt like the combination of a stronger season than we've become accustomed, along with the restrictions imposed by the government due to the pandemic, turned this into a much longer Winter than normal, and I'm glad to put it behind us!

Our club schedule is starting to fill out a little at a time, as items like Field Day and the Warminster CoC golf outing are starting to get organized. As always, your individual participation will be your choice, as you find your comfort level with the size and make-up of any gatherings you decide to attend. Hopefully, as more vaccines are available and people become readjusted to group events, we can find a way to get together again, and begin to reconvene our meetings in person. The Board, along with direct input from our members, will evaluate our options and make whatever changes are deemed necessary and worthwhile based on the information available to us at any given time. I would expect a slow roll-out of any changes, and things to open up in steps, much as they are now for the general public.

The fix-and-repair season is upon us, so in between your mandatory duties (lawn care, home improvements, honey-do's, etc.), try to find some time to get those radio projects checked off your list, and maybe even make a little time to get on the air – when you're not out enjoying the long-overdue sunshine!

Have a joyous Spring, and I'll look for you all on the bands!

Tony W3FLH  
73

### **Warminster ARC General Meeting Minutes March 4th, 2021**

#### **Attendance:**

Call to Order

#### **Minutes from last Meeting**

Additions/Corrections - Motion made and the February minutes were approved with the following change regarding the repeater – interference was on R F Hill repeater not the WARC repeater.

#### **Committee Reports**

**Treasurer's Report:** *Herb KB3VMN*  
As reported at the meeting

#### **Programs:** *Tony N3YNH*

April – Repeater system - Radio frequency interference, Brian N3EXA  
May – Understanding and Applying Solar Indices w/Carl K9LA – his website is <http://www.k9la.us>  
June – Field Day Prep  
July – Battleship New Jersey NJ2BB

#### **Membership:** *Kathy KC3FBY*

We have 101 active or alumni paid members for 2021; still have 20 members that have not paid

(Continued from page 1)

**Public Service:** *George N3HBT*

Nothing confirmed at this time but looking at the Memorial Day parade and golf outing in June and October

**Classes:** *George KA3WXV*

Nothing to report

**VEC Testing:** *Larry WA3ELQ*

We had a session on Monday, February 22

5 new Hams with 2 successful up to General

1 upgrade

March 22 will be our next session and will require preregistration again. At this time we are full and there is a waiting list

**Repeater:** *Brian N3EXA*

Battery changed on repeater and everything seems to be working

Solid state system is running and will be added to the system in the spring

Losing Center City input, will be looking for another input

Everyone needs to get on the air. There is very low usage on the air

**Good and Welfare:** *Ken K9KJL*

Nothing requested or sent out this past month.

Send requests to either Ken or Tony

**Other Committees**

**Radiosport:** *Irwin KD3TB*

Solar cycle 25 is coming back

This weekend is the big ARRL DX Voice contest – worldwide contacts - exchange is 59 and state for us - 7pm tomorrow night through the end of Sunday night

**Hamfest:** *Tony W3FLH*

Hamfest is postponed at this time. Hopefully, 2022 will be a good year.

**Field Day:** *\*Doc W3GAD\**

The Shrine is willing to have us on their field

Need to know if we can get band captains for each station

We will need to work on food options

Will need to determine sanitary conditions

ARRL will be allowing working from home as well as stations at the Shrine

The board will discuss further to determine whether or not we will have stations at the Shrine

**Old Business**

Elmer Program – tabled

Club Station: Interest/Activity? (Marty NR3Z & Andy KD3RF) – tabled

Director/Appointed for 2021 –We still have an open appointed director position. Please contact anyone on the board if you are interested.

Annual Club Auction/Online (Board/Andy KD3RF) – Stay tuned for more information.

We received some items from a SK and Andy KD3RF has cataloged it and will be holding it for the club auction

**New Business**

No new business

**Motion to Adjourn at 8:06 pm**

**Presentation:** Home Brew Night

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**FOR SALE**

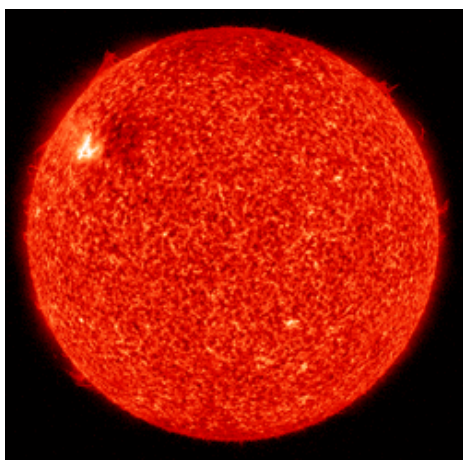
Drake TR-4C, RV-4C, AC-4 with Harbach modes by WB4HFN, Drake desk mic 7075, original Drake manual for TR-4C, a few spare Drake parts. All in excellent electrical and physical condition. New matched finals replaced a few years ago. No issues. Great back up set-up or set up for new ham.

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)*

**The K7RA Solar Update**

Tad Cook, K7RA, Seattle, reports: On March 21 and 22, two new sunspot groups, 2811 and 2812, appeared. Average daily sunspot number this week faded a bit from 19 to 17.9, but average daily solar flux went from 78.1 to 78.6. Neither change was significant.

We haven't seen a day with no sunspots since March 1, so that brought the percentage of spotless days so far this year to 38%, down from 57% for 2020, and 77% in 2019.

Geomagnetic activity was steady throughout this week, with average daily planetary A index rising from 10.3 to 13.3, and average middle latitude A index from 7.3 to 10.4.

But geomagnetic conditions were disturbed at higher latitudes. Alaska's College A index, measured near Fairbanks, was 40 and 45 on March 20 - 21. This was reflected in a report from N6QEK/KL7 in North Pole, Alaska (a town southeast of Fairbanks, not *at* the north pole), who wrote, "HF frequencies here in the interior of Alaska were wiped out for the BARTG RTTY Contest. FT8 signals were almost nonexistent as

well."

Saturday was the first day of spring in the Northern Hemisphere, and fall in the Southern Hemisphere, which can benefit HF propagation.

Predicted solar flux over the next month is 80 on March 25 - 27; 75 on March 28 - April 1; 79, 80, and 81 on April 2 - 4; 82 on April 5 - 7; 81 on April 8; 80 on April 9 - 10; 78 and 76 on April 11 - 12; 75 on April 13 - 14; 76 on April 15; 77 on April 16 - 17; 76 on April 18 - 20; 77 on April 21, and 78 on April 22 - 28. Solar flux is expected to rise to 82 on May 2 - 4.

Predicted planetary A index is 8 on March 25; 5 on March 26 - 27; 25 on March 28; 20 on March 29 - 30; 12 on March 31; 8, 15, and 8 on April 1 - 3; 5 on April 4 - 7; 15, 18, and 20 on April 8 - 10; 5 on April 11 - 15; 25, 22, 20, 15, 8 on April 16 - 20; 5 on April 21 - 23, and 25 on April 24.

Sunspot numbers for March 18 - 24 were 12, 14, 12, 12, 23, 26, and 26, with a mean of 17.9. The 10.7-centimeter flux was 73.4, 73.5, 80.3, 77.1, 80.4, 81.8, and 83.6, with a mean of 78.6. Estimated planetary A indices were 4, 6, 29, 24, 8, 11, and 11, with a mean of 13.3. Middle latitude A index was 4, 6, 20, 17, 6, 9, and 11, with a mean of 10.4.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. 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.

[Share](#) your reports and observations.

*Courtesy of the ARRL Newsletter*

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### Cooperative Effort Under Way to Resolve Potential 70-Centimeter Interference Issue

ARRL, the FCC, and the US Department of Defense are cooperating in an effort to eliminate the possibility of amateur radio interference on 70 centimeters to a future missile control system at White Sands Missile Range ([WSMR](#)) in New Mexico. The Defense Department's Regional Spectrum Coordinator contacted the FCC in March, seeking information on whom to contact regarding amateur transmissions operational on 70-centimeter frequencies slotted for use on the new control system. The FCC, in turn, asked ARRL to oversee the coordination efforts. It is to be noted that the Amateur Radio Service is a secondary service on the band.



Investigation revealed that the potential problem was not with individual operators or repeaters, but with RF control links at 420 - 430 MHz used to establish a linked repeater system within New Mexico. "Based on the investigation, and with the support of the FCC, the owners of the RF control links being used in the 420 - 430 MHz portion of the amateur allocation within a certain proximity to WSMR are being asked to re-coordinate the link frequency to a new one above 430 MHz," explained ARRL Regulatory Information Manager Dan Henderson, N1ND.

ARRL enlisted the assistance of the state's designated repeater frequency coordinator for information on specific links in that part of the band. New Mexico Repeater Frequency Coordinator Bill Kauffman, W5YEJ, agreed to work with the control link operators to find new frequencies that will meet the needs of the link operators.

"Time is a factor in this request," Henderson said. "The new WSMR systems are in advanced testing and will become fully operational by early summer 2021." The negotiated deadline for the affected control links to change frequencies is set for May 31, 2021.

"It appears a total of 32 control links will have to be addressed," Henderson said. ARRL has mailed letters to each of the RF control link operators, based on the record keeping of the frequency coordinator, to advise them of the DoD's request. "Any links with the potential to affect the identified control systems at WSMR still in operation after May 31, 2021 will be subject to action by the FCC."

Henderson said the changes should have no direct impact on the use of any local repeater, but until all the affected RF control links are transitioned to new frequencies, certain links may be temporarily inoperative. Links unable to be relocated by May 31 will have to be shut down until the situation can be resolved. ARRL will maintain contact with the FCC to advise it of the status of the coordination efforts.

*Courtesy of the ARRL Newsletter*



### The 2021 Comm Academy April 10 - 11 is 2 days of training, talks, and information on emergency communications and amateur radio.

This year's theme is *Disasters Here, There, and Everywhere -- Are We Ready?* [Registration](#) is free and required to gain access to the complete schedule and academy materials. The academy is entirely virtual and hosted online. Headquartered in Seattle, Washington, Comm Academy is attended and supported by organizations including the Amateur Radio Emergency Service (ARES®); Radio Amateur Civil Emergency Service (RACES); Auxiliary Communications Service (ACS); EOC Support Teams; Civil Air Patrol; Coast Guard Auxiliary; REACT, and CERT, among others. Anyone interested in emergency and amateur radio communications are welcome to network and share experiences. The event focuses on education for communications leaders, volunteers, and professionals.

### Years ago, a mysterious signal dubbed "the ditter" showed up on 20 meters.

The transmissions turned out to be unintentional. Now, the [IARU Region 1 Monitoring System](#) February [newsletter](#) reports that mysterious groups of dashes -- sometimes five, sometimes 16, sometimes continuous -- are being transmitted over long periods daily at or around 7075 kHz, a segment of 40 meters typically occupied by FT8 operators. So far, no one's been able to pinpoint the source of the transmissions. The "dasher" aside, over-the-horizon radars (OTHRs) continue to be the biggest source of interference in the HF amateur bands. A "numbers station" continues to be heard Wednesdays on 7062 kHz and 14280 kHz. The voice is female, speaking

(Continued on page 5)

Russian. The signal is believed to belong to the Ukraine Security Service. The broadcasting stations Voice of Broad Masses (VOBM1 and VOBM2) from Eritrea continue to cause interference daily at 7140 and 7180 kHz. Another station at 7200 kHz -- believed to be National Unity Radio -- also broadcasts daily from 1100 to 1300 UTC. -- *Thanks to IARU Region 1 Monitoring System*

*Courtesy of the ARRL Newsletter*

### ARISS Ham Station in Columbus Module Is Once Again Operational



Some 6 weeks after going silent following a spacewalk that installed new antenna cabling, the Amateur Radio on the International Space Station ([ARISS](#)) ham station in the Columbus module is once again operational. The Columbus station, which typically uses the call sign NA1SS, is the primary ARISS amateur radio station used for school contacts and other activities. A January 27 spacewalk replaced a coax feed line installed 11 years ago with another built by the European Space Agency (ESA) and Airbus.

While the specific cause of the problem has not yet been determined, a March 13 spacewalk that restored the antenna cabling to its original configuration provided the cure. The plan to return the ARISS cabling to its original configuration had been a “contingency task” for a March 5 spacewalk, but the astronauts ran out of time. The ARISS work was appended to the to-do list for astronauts Mike Hopkins, KF5LJG, and

Victor Glover, KI5BKC, to complete a week later.

“On behalf of the ARISS International Team, our heartfelt thanks to all who helped ARISS work through the cable anomaly investigation, troubleshooting, and ultimate repair,” ARISS International Chair Frank Bauer, KA3HDO, said. Bauer praised NASA, the ESA, Airbus, and ARISS-Russia lead Sergey Samburov, RV3DR. While the Columbus ham station was off the air, ARISS school and group contacts were able to continue using the ham station in the ISS Service Module on the Russian side of the station.

During the weekend spacewalk, Hopkins swapped out a cable for the [Bartolomeo](#) commercial payload-handling platform that had been installed in series with the ARISS VHF-UHF antenna feed line, returning the ARISS system to its pre-January 27 configuration. Hopkins raised a question concerning a sharp bend in the cable near a connector, but no further adjustments were possible.

On March 14, ARISS was able to confirm the operation’s success when Automatic Packet Reporting System (APRS) signals on 145.825 MHz were heard in California, Utah, and Idaho as the ISS passed overhead. ARISS team member Christy Hunter, KB6LTY, was able to digipeat through NA1SS during the pass. With additional confirmation from stations in South America and the Middle East, ARISS declared the radio system operational again.

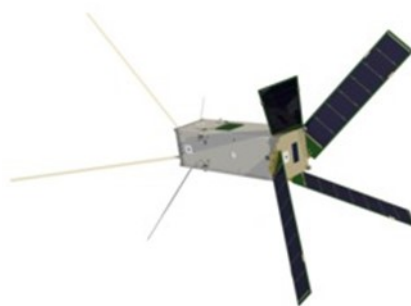
Work during the March 13 spacewalk also made Bartolomeo operational. “Yesterday was a great day for all!” Bauer exulted. “Ad astra!”

*Courtesy of the ARRL Newsletter*



### Ham Radio Satellite Returns from the Dead

After 7 years of silence, the Delfi-n3Xt satellite is again transmitting a signal. The 3U Delfi-n3Xt nanosat, launched by Delft University of Technology (TU Delft), has not been heard since 2014, and its sponsors were surprised to learn that it was transmitting again. Delfi-n3Xt carries a linear amateur radio transponder. It was the second satellite launched by TU Delft, as part of the Delfi Program, which develops very small satellites. The first Delfi satellite, Delfi-C3, is still working as well. Now that Delfi-n3Xt is transmitting again, steps are being taken to further its mission. The Delfi-n3Xt project started in 2007, and the satellite was launched in November 2013. The satellite operated successfully for 3 months, achieving mission success. Contact with the satellite was lost in late 2014 after an experiment with the linear transponder.



When functioning properly, the Delfi-n3Xt satellite transmits telemetry on 145.870 MHz and 145.93 MHz, and high-speed data on 2405 MHz. The inverting SSB/CW transponder has an uplink passband of 435.530 - 435.570 MHz LSB and a downlink passband of 145.880 - 145.920 MHz USB. The ham transponder was a last-minute



addition to the project.

On February 9, an automatic email notification was received from the satellite's ground station, indicating that a signal from the Delfi-n3Xt had been picked up. Student and ground station operator Nils von Storch said he'd programmed the ground station software so that it would continue to track Delfi-n3Xt and notify him if it ever came back to life. Relevant checks and analysis of telemetry frames prove the satellite is transmitting again. The reason it stopped transmitting has not yet been determined, and the big question now is how it was able to resume operation.

Hypotheses include a bit flip in the software or a short circuit, given the extreme conditions in space.

"Of course, in the past, we have looked for all kinds of explanations, and we also had theories about how the contact could ever come back," nanosatellite program manager Jasper Bouwmeester, PC4JB, said. "But after so long, I hadn't counted on it anymore." Bouwmeester, who has been managing the mission since 2007, expressed confidence that the satellite can still be of use to science.

"But I am sure that we will be able to find solutions," operations manager Stefano Speretta said. "If we don't lose the signal again, there are interesting times ahead." -- *Thanks to AMSAT News Service and Delft University of Technology*

*Courtesy of the ARRL Newsletter*

### Monster Dipole Can Deliver Monster Signal

A [video](#) shows how Gary Watson, ZL3SV, in Nelson, New Zealand, installed an enormous all-band dipole with each leg extending 320 meters (about 1,050 feet). The antenna is multiple wavelengths on HF, and on 20 meters it has a gain of more than 16 dB, Watson says. It hears quite well, too.



A huge 12:1 balun resembling a utility pole power step-down transformer converts the impedance from 50 W unbalanced to 600 W balanced. The wire he uses for each leg is aluminum-wrapped, power-line cable (10-millimeter cable with wrap), and he uses power-line fittings, because they're designed to handle the wire. The line has a 60-ton breaking strength.

Watson said he made the 600 W ladder line himself and he uses the antenna on all bands, typically running only 200 W. The coaxial feed line goes to his house down a slope from the antenna via a conduit. His home is entirely off the grid, powered by solar power. The noise level is very low at his location, with power lines some distance away, although his solar power system's inverter is nearby.

Watson says he can copy stations with the "monster" antenna that remain undetectable with a half-wave dipole.

*Courtesy of the ARRL Newsletter*

### Plans Proceeding for Fall 2021 Willis Island DXpedition

The team from the Hellenic Amateur Radio Association of Australia ([HARAOA](#)) that's planning a November 3 - 13 DXpedition to Willis Island (VK9HR) has expanded by one, and the DXpedition planning is on schedule. A vessel to take the team to Willis Island has been chartered to leave Australia on November 3, returning on November 13. Willis ranks #38 on Club Log's [DXCC Most Wanted List](#). The group announced earlier that it had put off plans to include a stint from Mellish Reef, last activated in 2017. The ham radio team will be just in time to celebrate the centennial of the island's meteorological facility.

"With time away from jobs a consideration for the operators, Mellish is being put off to 2022," said team leader John Chalkiarakis, VK3YP.

While the call sign VK9HR is expected to be renewed in August, Chalkiarakis is trying to get VK9W. "VK9IR will be an additional call sign to be allocated," he said. VK9IR and VK9HR were used for HARAOA's 2011 DXpedition to Lord Howe Island.

Team members for this fall's DXpedition will hail from Australia and New Zealand. They're in the process of obtaining a permit from Parks Australia, which is "required to 'camp' at these Australian Coral Sea marine parks." Chalkiarakis said the most important document is the landing permit, also from Parks Australia. No permit is required to visit these coral sea islands for non-commercial purposes, but a permit



application is needed to set up a campsite and to stay overnight on the island.



Courtesy of the ARRL Newsletter

The now eight-operator team plans to use verticals on 160, 80, 40, and 30 meters, while VDAs (vertical dipole arrays) will be used on 20, 17, 15, 12, and 10 meters. Operation on 6 meters is under consideration. Activity is expected on SSB, CW, and FT8 on 160 through 10 meters. The equipment complement is expected to be Kenwood TS-590S and Icom IC-7300 transceivers with amplifiers on all.

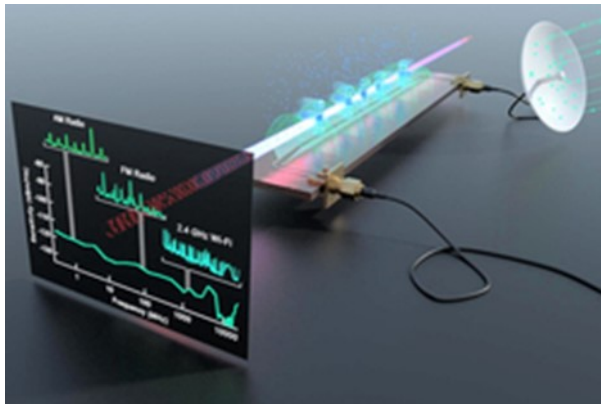
A DXpedition website and logo are in the works. Home to a meteorological station, Willis Island is in the Coral Sea, off the northeast coast of Australia.

Chalkiarakis also said that he and some friends have been trying to obtain a landing permit for Macquarie Island (VK0M), which is #12 on Club Log's DXCC Most Wanted List, but he conceded that it's nearly impossible to get permission from the Tasmania Parks and Wildlife Service because Macquarie is a protected nature reserve. -- Thanks to [The Daily DX](#)

### Quantum Receiver Can Detect Huge Swath of the RF Spectrum

US Army researchers have built a so-called “quantum sensor,” which can analyze the full RF spectrum and real-world signals, a [report](#) on Physics.org says. The quantum sensor — technically a Rydberg sensor — can sample the RF spectrum from 0 to 20 GHz and is able to detect AM and FM radio signals, as well as Bluetooth, Wi-Fi, and other RF communication protocols. The peer-reviewed *Physical Review Applied* published the researchers’ findings, “Waveguide-coupled Rydberg spectrum analyzer from 0 to 20 Gigahertz,” coauthored by Army researchers David Meyer, Paul Kunz, and Kevin Cox.

“The Rydberg sensor uses laser beams to create highly excited Rydberg atoms directly above a microwave circuit, to boost and hone in on the portion of the spectrum being measured,” the article explains. “The Rydberg atoms are sensitive to the circuit’s voltage, enabling the device to be used as a sensitive probe for the wide range of signals in the RF spectrum.”



**A Rydberg receiver and spectrum analyzer detects a wide range of real-world radio frequency signals above a microwave circuit including AM radio, FM radio, Wi-Fi, and Bluetooth. [US Army, illustration]**

pass fundamental limitations of traditional electronics in sensitivity, bandwidth, and frequency range.

According to Meyer, “Devices that are based on quantum constituents are one of the Army's top priorities to enable technical surprise in the competitive future battlespace. Quantum sensors in general, including the one demonstrated here, offer unparalleled sensitivity and accuracy to detect a wide range of mission-critical signals.”

The researchers plan additional development to improve the signal sensitivity of the Rydberg spectrum analyzer, aiming to outperform existing state-of-the-art technology. “Significant physics and engineering effort is still necessary before the Rydberg analyzer can integrate into a field-testable device,” Cox said.

Courtesy of the ARRL Newsletter

Cox, a researcher at the US Army Combat Capabilities Development Command ([DEVCOM](#)) Army Research Laboratory, called the development “a really important step toward proving that quantum sensors can provide a new and dominant set of capabilities for our soldiers, who are operating in an increasingly complex electromagnetic battlespace.”

Cox said earlier demonstrations of Rydberg atomic sensors were only able to sense small and specific regions of the RF spectrum, but “our sensor now operates continuously over a wide frequency range for the first time.” The technology uses rubidium atoms, which are excited to high-energy Rydberg states. These interact strongly with the circuit’s electric fields, allowing detection and demodulation of any signal received into the circuit.

The report says the Rydberg spectrum analyzer has the potential “to surpass



**Researchers use a Rydberg spectrum analyzer experimental apparatus at the DEVCOM Army Research Lab. [US Army,**

### 2021 Contest Calendar

#### April

**18** [Rookie Roundup – Phone](#)

1800 to 2359 UTC

#### June

**12-14** [June VHF](#)

1800 UTC Saturday, ends 0259 UTC Monday

**19** [Kids Day](#)

1800 UTC through 2359 UTC

**26-27** [Field Day](#)

1800 UTC Saturday and running through 2059 UTC Sunday

#### QSO Parties

##### April

Louisiana	1400Z, Apr 3 to 0200Z, Apr 4,
Mississippi	1400Z, Apr 3 to 0200Z, Apr 4,
Nebraska	1300Z, Apr 10 to 0100Z, Apr 11, and 1300Z-2200Z, Apr 11
New Mexico	1400Z, Apr 10 to 0200Z, Apr 11,
Georgia	1600Z, Apr 10 to 0400Z, Apr 11,
North Dakota	1800Z, Apr 10 to 1800Z, Apr 11,
Michigan	1600Z, Apr 17 to 0400Z, Apr 18,
Florida	1600Z, Apr 24 to 0159Z, Apr 25, and 1200Z-2159Z, Apr 25

### 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](mailto: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](mailto: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](mailto:w3pa@arrl.net)  
Alt Contact: Jim, 610-287-5630

### ➤ ATLANTIC DIV. HAMFESTS ➤ 2021

#### June 20

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

Arcadia Fairgrounds

16920 Carnival Ave.

Upperco, MD 21155

<http://W3FT.com> Facebook Baltimore Amateur Radio Club

#### July 4

[Murgas ARC Hamfest and Computerfest](#)

Polish American Veterans Club

2 South Oak Street

Plains, PA

<http://hamfest.murgasarc.org>



## 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

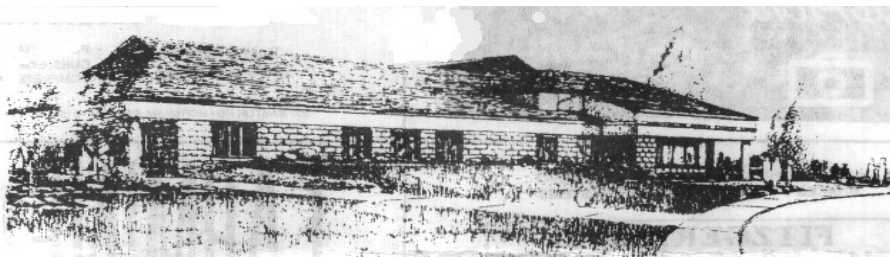
The Membership Committee can provide Club badges. Two types are available: an engraved plastic callsign and name badge for \$8 or a free, laminated plastic, photo ID badge/card. The photo id badge is included with your membership. Pictures for the club badge will be taken before club meetings on even 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](mailto:membership@k3dn.org).

If you want to have your picture taken to be placed on the 'Members' Photos' section of the [www.k3dn.org](http://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 2021

- April - The K3DN Repeater system
- May - Understanding and Applying Solar Indices
- June - Field Day Preparation
- July - The Battleship New Jersey

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:**

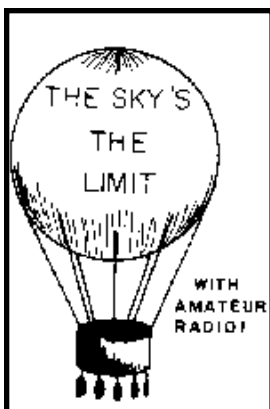
<https://www.weather.gov/phi/Info>

**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](http://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)			
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