



# FEEDBACK



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

Warminster Amateur Radio Club

September 2016

## Next Meeting September 1st - Homebrew Night

### President's Message

The Summer's winding down fast, I hope everyone is enjoying it. Although we never seem to find the time to do it, it's a great time to make those adjustments/repairs/installs of our antenna systems, while the weather cooperates and daylight is long. Nah, we'll wait for a blustery day with a rime of ice on everything before we undertake a project like that!

Last month's presentation by the Franklin Institute's Chief Astronomer Derrick Pitts KA3NQN was an educational and entertaining time, and one of the most well-attended meetings in WARC history! Thanks to everyone who came out, you were a receptive and respectful audience, and are welcome back at any time. And a special thanks to everyone who lent a hand in putting it together, especially George N3HBT for contacting Derrick and securing his time, and Brandon KC3DYT for ramping up the refreshments and making our guests feel welcome.

WARC is holding a kit-building session on Saturday, Sept. 24, at 10:00am in the Ben Wilson Center. The kit is a 10W dummy load w/LED power readout, it's a simple build and requires no power source when it's done – the RF from your rig supplies the power! We have a maximum of 17 kits for purchase, and will have plenty of Elmers on hand to assist with the builds and ensure that everyone leaves with a functioning piece of gear. Hope to see you there!

Don't forget, our November presentation will be given by Bob Allison WB1GCM, ARRL Product Review Engineer, who will enlighten us on the procedures and methods involved in those Product Reviews everyone looks forward to each month in QST.

Of course, nominations for the WI3Y Outstanding Ham of the Year award are still being sought and accepted. They may be given to any Board member for consideration.

This month is Homebrew Night, always an interesting affair. Bring your projects and show off your skills!  
de Tony, W3FLH

73

### Meeting Minutes WARC General Membership Meeting, August 4, 2016

#### Attendance

Call to order – *Tony, W3FLH*

Minutes from Last Meeting – Approved as printed in Feedback

#### Committee Reports

**Treasurer's Report:** *Bill, K3FMQ* – as reported at the meeting

**Programs:** *Vinny, K3VJP* not in attendance

September – Homebrew Night

October – Using QRZ.com, FCC/ULS database

November – Understanding HF Transceiver Data with Bob Allison, ARRL Product Review Engineer

*(Continued on page 2)*

(Continued from page 1)

December – Holiday Dinner

**Membership:** *George, KC3ESH*

Total of 142 members

Sign in at front table

**Public Service:** *George, N3HBT*

Nothing to report

**Classes:** *George, N3HBT*

Tech classes will resume on 2<sup>nd</sup> Monday in September with Ron Small, WB2OQB. General classes will begin at the same time with George N3HBT.

**VEC Testing:** *Larry, WA3ELQ*

Session held on Monday evening, July 25, 3 people attended all 3 successful new techs. No session in August. Next session will be the last Monday in September 26.

**Repeater:** *Brian, N3EXA*

Need to relocate the antenna tower since the township needs to remove the tower from its current location.

**Good and Welfare:** *Vince, KD3TC*

Sent a few cards out this month.

#### Other Committees

*Mark, WA3QVU* spoke about the MS150. There is more help needed. They need an additional 40 hams to help out. Mark passed out pamphlets to those interested in signing up.

#### Old Business

**Kit Building** – *Tony, W3FLH* reported that the kit building will take place on Saturday, September 24. More information to follow.

**ARRL HQ** – *Tony, W3FLH* reports that the trip has been postponed. Did not have enough people to make the trip cost effective for those wanting to go. Will reach out to other clubs for Spring of 2017.

**WI3Y OHOTY Award** – *Tony, W3FLH* Don't forget to get your nominations in to the Board.

**Membership Committee** – *George, KC3ESH* nothing to report tonight.

**Contingency Committee** – *Andy, KD3RF* nothing to report tonight.

**Estate Sales/Silent Auctions** – *Andy, KD3RF* link to the auction was sent in an email to the active members. If you did not get the email, contact Andy.

#### New Business

**RFI from LED street lamps** – *Tony, W3FLH* was contacted by a reporter from Bucks County Courier Times regarding a ham having issues with RFI from newly installed LED street lamps. Tony gave a bit of an interview and can be found on the newspapers website and Facebook page.

**Ron Small** – Tech Classes at Falls Township Building, Saturday and Sunday, September 10-11, Building 8am-5pm. At the end of the day on Sunday there will be a VE testing session.

#### Motion to Adjourn

Meeting adjourned at 7:58 pm

(Continued on page 3)

---

---

*(Continued from page 2)*

### The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: Solar activity over the August 18-24 reporting period was down, compared to the previous week, with the average daily sunspot number declining from 73.9 to 33.9, and average daily solar flux from 89.2 to 79.6. The average planetary A index increased from 6.9 to 9.7, while the mid-latitude number rose from 7.4 to 8.7.

Expected solar flux is 80 on August 25-26; 75 on August 27-September 1; 80 and 85 on September 2-3; 90 on September 4-10; 88 on September 11-12; 85 on September 13; 80 on September 14-15; then 78 and 75 on September 16-17; 80 on September 18-20; 84 on September 21-22; 82, 80, and 78 on September 23-25; 75 on September 26-28; 80 and 85 on September 29-30, and 90 on October 1-7.

Predicted planetary A index is 10 and 6 on August 25-26; 5 on August 27-28; 14, 20, 12, 10, and 15 on August 29-September 2; 12 on September 3-4; 15 on September 5-6; 8 and 10 on September 7-8; 5 on September 9-12; 10 and 8 on September 13-14; 5 on September 15-16; 8, 7, 8, 12, and 8 on September 17-21; 5 on September 22-24; 15, 25, and 18 on September 25-27; 15 on September 28-29; 12 on September 30-October 1, and 15 on October 2-3.

NOAA released an interesting bulletin regarding a new site for watching Total Electron Content ([TEC](#)) of the ionosphere. TEC is the total number of electrons present along a path between a radio transmitter and a receiver. The Space Weather Prediction Center ([SWPC](#)) has deployed an updated and expanded version of its US Total Electron Content ([US-TEC](#)) model.

Sunspot numbers for August 18 through 24 were 54, 37, 12, 11, 33, 47, and 43, with a mean of 33.9. The 10.7 centimeter flux was 82.4, 80.8, 78.1, 76.7, 80, 81.3, and 78, with a mean of 79.6. Estimated planetary A indices were 7, 5, 4, 10, 5, 18, and 19, with a mean of 9.7. Estimated mid-latitude A indices were 8, 5, 4, 9, 6, 12, and 17, with a mean of 8.7.

[Send](#) me your reports and observations.

*Courtesy of the ARRL Newsletter*

### HAARP Facility to Reopen in 2017 under New Ownership

Alaska's High-Frequency Active Auroral Research Program (HAARP) facility will reopen in 2017. The sprawling facility now is under the ownership of the University of Alaska Fairbanks (UAF), and the UAF Geophysical Institute is preparing HAARP for a new sponsored research campaign that's set to begin early next year, UAF Researcher Chris Fallen, KL3WX, told ARRL.

"This involves, for example, reinstalling the vacuum tubes in each of the 10 kW amplifiers -- eventually 360 in total -- that were removed by the US Air Force [the facility's former owner] for warm storage in the main facility," Fallen said. He later clarified that's just one-half of the 720 tubes required to equip all of HAARP's transmitters.

"For the first campaign we will only be bringing half of the array online, as we will only have half the tubes installed," he explained. "It's a long process and we have limited resources." He noted that the transmitter shelters have been unheated since the previous campaign in the summer of 2014. "The five generators -- approximately 3 MW each -- have recently been tested individually and are verified operational."

Fallen said the HAARP ionosonde (DPS4D "Digisonde") will be brought back online. "Some instruments on site need to be repaired or replaced," he said. Those would include riometers and a UHF radar. "Optical instruments will be brought back. The flux-gate magnetometer is operational again."

Fallen said other researchers are planning to install instruments at the science pads. "We are still investigating models for increasing Amateur Radio involvement with HAARP, which, in addition to announcing operating schedules, can potentially include hosting one or more ham stations on or near the science pads," he said.



**The HAARP facility is located near Gakona, Alaska. Part of the massive antenna field is on the right.**

*(Continued on page 4)*

*(Continued from page 3)*

UAF describes HAARP as "the world's most capable high-power, high-frequency transmitter for study of the ionosphere." Built in three phases, starting in the early 1990s and continuing through 2007, at a cost of some \$300 million, HAARP over the years has inspired a wide range of conspiracy theories that became grist for late-night radio talk shows. Some have claimed that HAARP's transmitters and 30-acre antenna farm -- capable of generating up to 5 GW ERP -- have been used to control the weather, while others have argued that HAARP has caused earthquakes.

The FCC recently granted two Part 5 Experimental Service licenses for HAARP ionospheric research "across multiple bands." W12XFX will cover experiments in discrete parts of the HF spectrum, including 2650-2850; 3155-3400; 4438-4650; 4750-4995; 5005-5450; 5730-5950, and 7300-8100 kHz. A second Experimental license, W12XDV, covers ionospheric research between 1 and 40 MHz.

UAF is hosting an [open house](#) at HAARP, located near Gakona, Alaska, on August 27. The event will feature facility tours, a mobile planetarium, a permafrost exhibit, science demonstrations and talks, and barbecue.



**A closer look at a portion of the HAARP antenna array. The white buildings house transmitters.**

Fallen will deliver a free science lecture on Friday, August 26, at the Wrangell-St Elias National Park Visitor Center Auditorium, "Radio Modification of the Ionosphere, and Who Uses This HAARP Thing Anyway?" in partnership with the Wrangell Institute for Science and the Environment ([WISE](#))

HAARP is aimed at studying the properties and behavior of the ionosphere. Operation of the research facility was transferred from the US Air Force to the University of Alaska Fairbanks last August, allowing HAARP to continue exploring ionospheric phenomena via a land-use cooperative research and development agreement.

*-- Thanks to Chris Fallen, KL3WX, Steve Floyd, W4YHD, and UAF*

*Courtesy of the ARRL Newsletter*

## **NOW FREE OF HAARP, US AIR FORCE STILL WANTS TO TINKER WITH THE IONOSPHERE**

A lot of radio amateurs bemoaning the recent spate of poor HF conditions would love to have a way to improve propagation – perhaps without even having to rely on the whims of the Sun. The US Department of Defense has been thinking along the same lines. An August 9 article <https://www.newscientist.com/article/2100382-us-air-force-wants-to-plasma-bomb-the-sky-using-tiny-satellites/> in New Scientist reports that the US Air Force is exploring a plan to bombard Earth's upper atmosphere with ionized gas dispersed from CubeSats. According to the New Scientist article by David Hambling, the Air Force hopes to improve long-distance radio communication by "detonating plasma bombs" in the upper atmosphere, and the military branch has contracted with corporate and university researchers to figure out how to make this a reality.

The US Air Force is no stranger to ionospheric tinkering, having just last year transferred the High Frequency Active Auroral Research Project (HAARP) facility to the University of Alaska Fairbanks (UAF), which hopes to restart it <http://www.arrl.org/news/haarp-facility-to-reopen-in-2017-under-new-ownership> next year. HAARP's super-power RF in the high-frequency spectrum has been used to stimulate the ionosphere and create a plasma cloud that could support HF radio propagation; it also has been used to study how the ionosphere functions.

The trick with using CubeSats to disperse ionizing gas above Earth is coming up with a plasma generator small enough to fit within a CubeSat, and controlling how the plasma will disperse. New Scientist said General Sciences of Souderton, Pennsylvania, and Enig Associates of Bethesda, Maryland, are working with scientists at Drexel University and at the University of Maryland, respectively, on separate methods to produce plasma.

The New Scientist article said the better approach will be selected for a second phase, which will involve testing plasma generators in vacuum chambers and exploratory space flights. Read more <http://www.arrl.org/news/now-free-of-haarp-us-air-force-still-wants-to-tinker-with-the-ionosphere>.

*Courtesy of the ARRL Newsletter*

*(Continued on page 5)*

*(Continued from page 4)*

### **ANNUAL IOTA DXPEDITION MORPHS INTO VISIT TO RARE ONE -- AVES ISLAND**

An unexpected invitation from the Venezuelan Navy gave rise to a DXpedition later this month to Aves Island -- Isla de Aves -- currently number 17 on the ClubLog DXCC Most Wanted List <<http://www.clublog.org/mostwanted.php>>. The departure date for the YX0V Aves Island DXpedition <<http://yx0v.com>> has been moved up by a few days. The team now will depart Caracas on Saturday, August 27. The YX0V team will include 14 operators.

Members of the Asociación de Radioaficionados de Venezuela (ARV) and Grupo DX Caracas received the surprise Navy invite while trying to organize their annual Islands on the Air (IOTA <<https://www.rsgbiota.org/index.php>>) DXpedition to Los Monjes Island (SA-015). Aves Island (NA-020) was last activated in 2007.

The group will be on the air for up to 10 days as YX0V, with the full support of the Navy. Tiny Aves Island is situated west of the Leeward Islands. It's only about 1200 feet long and some 150 feet wide. -- Thanks to The Daily DX <<http://www.dailydx.com>> for some information.

*Courtesy of the ARRL Newsletter*

### **AMATEUR RADIO SLEUTHING PINS DOWN SOURCE OF STRANGE RF INTERFERENCE**

Police in Evanston, Illinois, contacted the ARRL Lab, after an apparent interference source began plaguing wireless vehicle key fobs, cell phones, and other wireless electronics. Key fob owners found they could not open or start their vehicles remotely until their vehicles were towed at least a block away, nor were they able to call for help on their cell phones when problems occurred. The police turned to ARRL for help after striking out with the FCC, which told them it considered key fob malfunctions a problem for automakers, although the interference was affecting not just key fobs but cell phones -- a licensed radio service. ARRL Lab EMC Specialist Mike Gruber, W1MG, feels the FCC should have paid more attention.

"This situation is indicative of what can happen as a result of insufficient FCC enforcement, especially with regard to electrical noise and noncompliant consumer devices," Gruber said.

Evanston authorities worried that a serious situation could develop if someone were unable to call 911, putting public safety at risk. They also were concerned that the RFI could be intentional and indicate some nefarious or illegal activity. Given the seriousness of this situation,

Gruber contacted Central Division Director Kermit Carlson, W9XA, to ask if he could look into the matter.

On June 2, Carlson met with an Evanston police officer, her sergeant, a local business owner, and the local alderman, and he quickly confirmed that the 600 block of Dempster Avenue in Evanston was plagued with an odd RFI problem. Carlson determined that the problem prevailed along a set of eight on-street parallel parking spots in the downtown commercial district of the North Chicago suburb.

Carlson employed a Radar Engineers 240A Noise Signature Receiver and UHF Yagi antenna to survey the affected block. Since key fobs typically operate at around 315 MHz and 433 MHz, he looked on both frequencies. The survey identified several noise sources in the affected block, but in particular a strong signal in the middle of the block. The interference source turned out to be a recently replaced neon sign switching-mode power supply, which was generating a substantial signal within the on-street parking area just across the sidewalk, between 8 and 40 feet from the sign.

The problematic power supply interference also disabled Carlson's cell phone when he was within a few feet of the device. Carlson anticipated that further investigation would show that the harmful interference could disrupt licensed radio services in close proximity.

The troublesome transformer was not replaced, but the building owner agreed to turn off the sign should problems arise. Carlson called the Evanston case "a particularly alarming example of radio interference," especially since local authorities considered it a public safety matter. "This situation demonstrates the electromagnetic compatibility problems that are evolving in an atmosphere of noncompliant, unintentional RF-emitting devices," he said.

A return visit to the area with calibrated antennas and equipment capable of measuring the radiated signal strength with quasi-peak detection is planned for later this year. Since the initial visit, several other instances of unexplained key fob malfunctions have been reported in the Greater Chicago area. -- Thanks to Kermit Carlson, W9XA, and Mike Gruber, W1MG

*Courtesy of the ARRL Newsletter*

## CLUB INFO

### **PUBLIC SERVICE**

Golf Outing part 2 at Five Ponds is scheduled for Columbus Day October 12 with a 9:00 am morning start.

MS-150 City to Shore bike run. Sept. 24 - 25. For more info, Contact Jim WA4YWM.

### **CLUB STATION**

The WARC club station is open to anyone with an interest, on Tuesday evenings between the hours of 7:00 and 9:00 pm. 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 \$5 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 2016

September – Homebrew Night

October - Using QRZ.com

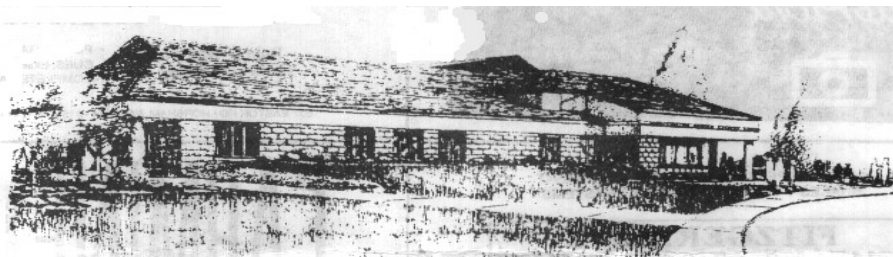
November - Understanding HF Transceiver Data from QST Product Reviews, What do these values mean? - Bob Allison ARRL

December - Holiday Dinner

**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 non-holiday Tuesday evenings from 7 to 9 pm . 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.**





**2016 Contest Calendar**

**SEPTEMBER**

**September VHF**

September 10-12, Begins 1800 UTC Saturday and runs through 0259 UTC Monday

**10 GHz and Up**

September 17-18, Operations may take place for 24 hours total on each contest weekend. Each weekend begins at 6:00 AM local Saturday though 12:00 midnight local Sunday.

**OCTOBER**

**School Club Roundup**

October 17 - 21

1300 UTC Monday through 2359 UTC Friday

**QSO PARTIES**

Colorado	1300Z, Sep 3 to 0400Z, Sep 4
Tennessee	1800Z, Sep 4 to 0300Z, Sep 5
New Jersey	1600Z, Sep 17 to 0359Z, Sep 18 and 1400Z-2000Z, Sep 18
New Hampshire	1600Z, Sep 17 to 0400Z, Sep 18 and 1600Z-2200Z, Sep 18
Maine	1200Z, Sep 24 to 1200Z, Sep 25
Texas	1400Z, Sep 24 to 0200Z, Sep 25 and 1400Z-2000Z, Sep 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 2016 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**, Monthly, RF Hill ARC. 3rd Monday at the Indian Valley Library. Charles Schmell, KB3CEZ, 215-257-6368 days 215-538-7458 evenings.

**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 first non-holiday Tuesday 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

➤ **ATLANTIC DIV. HAMFESTS**  
➤ **2016**

**September 11** - 38th Annual Gloucester County ARC Hamfest  
Gloucester County 4-H Fairgrounds 235 Bridgeton Pike (Route 77) Mullica Hill, NJ 08062  
<http://www.w2mmd.com>

**September 24** - DVRA 2016 Hamfest  
West Windsor Community Park 167 Princeton Hightstown Road West Windsor, NJ  
<http://www.w2zq.com>

**October 9** - CARAFest 2016  
Howard County Fairgrounds 2210 Fairgrounds Road West Friendship, MD 21794  
<http://www.carafest.org>

**October 16** - RF Hill ARC Hamfest  
Sellersville Fire House 50 North Main Street Sellersville, PA 18960  
<http://www.rfhillarc.org>

**October 22** - 4th Annual TailgateFest  
Hollywood Volunteer Fire Department 24801 Three Notch Road Hollywood, MD 20636  
<http://www.k3hki.org>

**October 23** - Sportsman's Hall Skating Rink  
15500 Hanover Pike Upperco, MD 21155  
<http://www.qis.net/~k3pzn>

**SKYWARN INFORMATION**

**MOUNT HOLLY NWSFO SKYWARN Weekly Information Net: EVERY THURSDAY AT 21:00 HOURS**  
**SKYWARN Net Repeater Listing/ Streaming Audio of scheduled SKYWARN Net:** <http://www.skywarnnet.net>  
**\*You do NOT have to be a certified SKYWARN Weather Spotter to check into the Net\***

**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:**  
<http://www.erh.noaa.gov/phi/skywarn/index.html>

**SKYWARN Basic Weather Spotter Educational Programs URL:**  
<http://www.erh.noaa.gov/phi/skywarn/training.html#sched>

➤ **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, Vinny Porcaro K3VJP  
 215-493-0783

**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

**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

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

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

Tech classes will resume on September 12 for 8 weeks on Monday nights. General classes will begin at the same time.

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



**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	2100	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 ?**

**2016 Officers**

**Executive Officers**

President	Tony Cuttone	W3FLH	267-679-9297
Vice-President	Vinny Porcaro	K3VJP	215-493-0783
Secretary	Kathy Acker	KC3FBY	215-815-7978
Treasurer	Bill Ballantine	K3FMQ	215-766-0764
Director (A)	Michael Shanblatt	W3MAS	267-491-5773
Director (E)	Larry Abbott	WA3ELQ	215-704-3282
Director (A)	Jim Elmore	WA4YWM	215-538-1889
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Irwin Darack	KD3TB	215-343-8170

**Committee Chairpersons**

ARES/RACES Liason	Karl Harris	K3KH	215-264-1855
Arrl Liason	Richard Luce	AG3L	215-441-8264
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 16	Doc Whitticar	W3GAD	215-968-6397
Hamfest 16	Mike Karabin	WJ3O	215-317-4029
Hamwear	Kathy Acker	KC3FBY	215-815-7978
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Membership	George Acker	KC3ESH	215-815-7783
Net Manager	George Brechmann	N3HBT	215-443-5656
Publicity	Bernice Kraut	KB3PCX	215-884-8195
Refreshments	Brandon Penglase	KC3DYT	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	Vinny Porcaro	K3VJP	215-493-0783
Station Trustee	George Brechmann	N3HBT	215-443-5656
Sunshine Club	Vince Pironti	KD3TC	215-674-0446
Township Liason	Richard Luce	AG3L	215-441-8264
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