Web Site k3dn.org

Warminster Amateur Radio Club

March 2017

Next Meeting March 2nd - QSL Card Presentation

President's Message

The Sunspots are coming! The Sunspots are coming! OK, so it's not revolutionary (sorry, couldn't resist...), but there has been some new sunspot activity recently, pointing towards the start of Solar Cycle 25. The bands seem to agree, as propagation has picked up a bit, and brought with it an increase in activity.

For those unfamiliar, the solar cycles are a way that science delineates the rise and fall of sunspot numbers (literally, blemishes that appear on the surface of the Sun), and the associated spike in radio wave propagation. A solar cycle generally lasts about 11 years, and may be strong or weak, as the last cycle, Cycle 24, was. With a strong cycle, the bands are hopping, activity is everywhere, and propagation allows for some amazing feats of DX, even on higher bands like 10m & 6m. For DXers, sunspot numbers, along with indices like the solar flux and K & A index, help to determine the viability of the bands to carry their signals to various DX entities around the world. Here's hoping Cycle 25 snaps us out of our doldrums and brings with it some great operating opportunities! We're looking at making this a presentation topic for an upcoming meeting, so if you find this interesting and would like to learn more about it, let us know and we'll work it into the schedule.

Our trip to ARRL HQ on April 4 is filling up, thanks to the work of some members in spreading the word to several other clubs. The cost is \$55.00 per person, and more info is available on our website, or by contacting me at: W3FLH <at>ARRL.net.

Of course, we are still making preparations for our Hamfest/EPA Section Convention, May 7 at the Bucks County Community College - Lower Bucks Campus. We will be focusing more on this coming up, and will be looking for your participation. There is a volunteer form that you can fill out on our website, or you can contact Mike W3MAS to let him know of your avialabilty.

de Tony, W3FLH **73**

HAM Radio Classes in the Spring of 2017

Morse Code is no longer required for HAM Radio licenses

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.

Technician classes will be taught by Ron Small WB2OOB starting March 13th for 6 Mondays in a row from 7pm to 9 pm.

Extra classes will be taught by George Altemus KA3WXV starting March 13th for 8 Mondays in a row from 7pm to 9 pm.

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

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Page 2 FEEDBACK

(Continued from page 1)

WARC General Membership Meeting Minutes-02.02.17

Attendance

Call to Order – Tony W3FLH

 $Introductions-pass\ the\ mic$

W3GK SK son Steve – is working on cataloging and appraising his father's equipment to sell either through an auction, or Hamfest, etc. See him this evening for a list of items that will be available.

Minutes from last Board Meeting

Additions/Corrections – Minutes approved with no additions/corrections

Committee Reports

Treasurer's Report: Bill K3FMQ

As reported at the meeting

Programs: George KC3ESH

March – QSL Card Presentation w/Tom Mills AF4NC

April - Hamfest prep

May - Field Day Prep/Hamfest recap - elections

June – Field Day recap and pizza night

Membership: George KC3ESH

New Member Applications – 3 new applications tonight

Membership Update – approximately 154 members

Mike Karabin WJ3O won the free 1 year membership for paying his dues by January 31

Public Service: George N3HBT

No public service events

The first event will probably be at the end of April for the March of Dimes

Classes: George KA3WXV

Next classes will begin on Monday, March 13th for Tech with Ron Small WB2OOB and Extra with George KA3WXV.

VEC Testing: Larry WA3ELQ

Session was held on Monday, January 30, 2017, 6 candidates successful at the test session, with 2 new extras

Repeater: Brian N3EXA

147.09 repeater is functioning and battery changed out

Good and Welfare: Vince KD3TC – not in attendance – not aware of any cards sent out

Other Committees

Old Business

Day trip to ARRL HQ (Tony W3FLH) – Tuesday, April 4, 2017 – All day trip 5:30 am to 8:00 pm. Payment of \$55.00 due by March 17, 2017. Responsible for your own expenditures. Open to all Hams, not just our club. Tony has a sign-up sheet and information.

W3U Special Event station – Union League/W3U (Tony W3FLH), Saturday, June 17, 2017, 9:00 am – 3:00 pm. Will set up on Friday evening. We are looking for operators and helpers to set up. Thank you to Doc KA3RAU for helping put this together. He has been working with the Union League with putting it together. In conjunction with Flag Day observance.

Hamfest – Section Convention, change of venue (Mike W3MAS) – Bucks County Community College in Lower Bucks County is the new venue. Much nicer venue. The date is Sunday, May 7, 2017. Setup will be on Saturday and there is no camping on the grounds at the college. Slacks is will to open the facility for us so that we will have coffee, donuts, breakfast sandwiches and then lunch items. Working on a floor plan and laying out (Continued on page 3)

FEEDBACK Page 3

(Continued from page 2)

tables for venues. We will have card checking with Bill Dobson. Irwin Darack KD3TB will head up publicity and sending out cards and emails. Other details will be shared as they become available. It is also the EPA Convention so we are working on speakers. We have asked ARRL's Sean Kutzko KX9X to come down and speak; we will also have a few other presentations and speakers. Need the members of the club to step up and help.

Tax exempt status {501(C).3} for club (Tony W3FLH) – Board has approved moving forward with filing the paperwork for 501(C).3. Tony informed membership of this filing and asked if there are any concerns from membership. None were heard.

New Business

New Directors appointed – Mike Shanblatt W3MAS and Brandon Penglase KC3DYT/AE have been approved by the board to fill the 2 appointed director positions.

Motion to Adjourn

Meeting adjourned at 8:18pm

Presentation: Club Auction - Make Our Junk Your Junk!

THE K7RA SOLAR UPDATE

Tad Cook, K7RA, Seattle, reports: On February 22 at 0124 UTC, Australian Space Weather Services issued a geomagnetic disturbance warning: "The effect of a high-speed solar wind stream from a recurrent coronal hole is expected to raise geomagnetic activity to active levels from 22 to 24 February with the possibility of minor storm periods on 23 and 24 February.

<u>Spaceweather.com</u> on February 22 reported that NOAA forecasters were estimating a 60% chance of polar geomagnetic storms on February 23. It could be a good time to watch for aurora.

Over the February 16-22 reporting week, the average daily sunspot number increased from 17.6 to 19.1, compared to the previous 7 days, while average solar flux increased from 75.1 to 78.5.

Geomagnetic indicators were slightly higher, with average planetary A index increasing from 4.7 to 11.3, and average mid-latitude A index changing from 2.9 to 9.

Predicted solar flux is 84 on February 23-24; 83 on February 25; 82 on February 26-March 1; 78 on March 2; 73 on March 3-4; 72 on March 5-7; 73 and 74 on March 8-9; 75 on March 10-14; then 74, 75, 77 and 79 on March 15-18, 82 on March 19-24, then 80, 78 and 76 on March 25-27, 75 on March 28-29; 73 on March 30-31, and 72 on April 1-3.

Predicted planetary A index is 18 and 12 on February 23-24; 8 on February 25-26; 16, 24, and 20 on February 27-March 1; 15 on March 2-5; 8 on March 6; 5 on March 7-14; 10, 20, 15, 10, and 12 on March 15-19; 10 on March 20-21; 12, 15, 20, and 18 on March 22-25; 8, 30, 25, and 20 on March 26-29.

Sunspot numbers for February 16-22 were 23, 14, 13, 23, 25, 19, and 17, with a mean of 19.1. The 10.7-centimeter flux was 74, 74.6, 76.6, 78.1, 80.7, 82.5, and 83.2, with a mean of 78.5. Estimated planetary A indices were 9, 20, 16, 10, 10, 4, and 10, with a mean of 11.3. Estimated mid-latitude A indices were 7, 16, 11, 9, 8, 4, and 8, with a mean of 9.

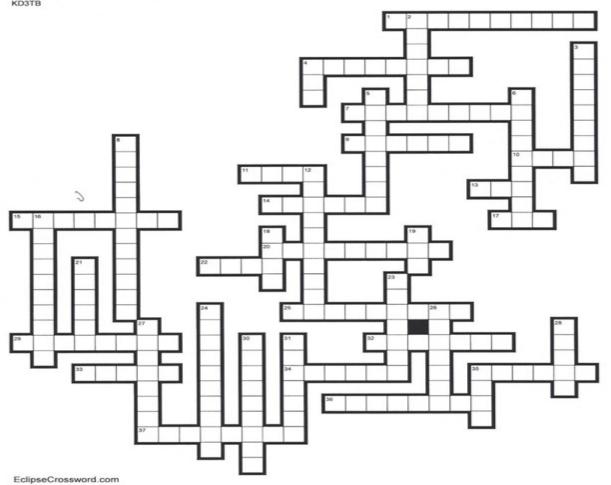
Send me your reports or observations.

Courtesy of the ARRL Newsletter

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(Continued from page 3)

WARC March 2017 Crossword Puzzle



Across

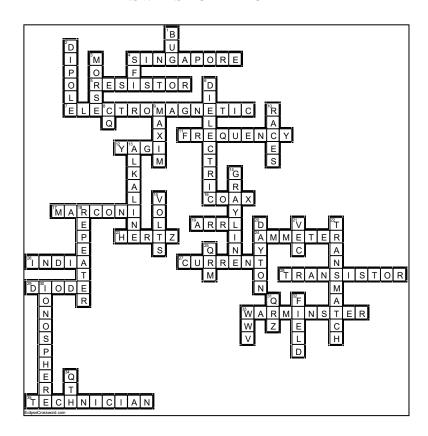
- Propagation via radio waves that travel along the surface of the earth
- 4. Home built equipment
- 7. VK's DXCC Country
- 9. A type of repeater that restricts access to members of a certain group
- 10. The material used in the centre of an Inductor coil
- 11. A type of directional antenna
- 13. A scheduled and structured on-air meeting of amateurs
- An FSK mode that combines packet and AMTOR technologies
- A unique identifier for each radio amateur and licensed radio station throughout the world
- 17. A unique number assigned to an individual by the FCC
- 20. The opposition to electrical current in a circuit (Includes both reactance and resistance)
- 22. Amateur Radio Disaster Services, Amateur Radio Emergency Services
- 25. A set of numbers that describes a satellites orbit
- 29. The channel or frequency used for satellite to earth communications
- 32. A device that converts chemical energy into electrical energy
- A passive electronic device that converts between balanced and unbalanced electrical signals using some form of electromagnetic coupling.
- 34. A most urgent distress call (frangais). Stations commonly send SOS
- 35. An electric circuit that allows certain frequencies to pass but rejects other unwanted frequencies
- 36. A type of filter designed to pass a certain range of frequencies.
- 37. The desired operating frequency of a tuned circuit

Down

- 2. Bending of electromagnetic wave as it travels though materials with different properties
- 3. A device that is used to increase voltage, current or power.
- 4. Slang for Amateur Radio Operator
- A frequency splitting device used to couple two transceivers to either a single antenna or a dual band antenna.
- 6. Electrical Component that passes AC but not DC
- 8. How well a receiver can handle very strong signals without overloading
- 12. A device that converts voice into electrical signals
- A resistive device to reduce the amplitude or power of a signal.
- A highly directional antenna, parabolic in shape. Often used at microwave frequencies
- The US government body that regulates the use of the radio spectrum
- A station that transmits signals either continuously or on a timed basis, for location and propagation purposes.
- 23. DL's DXCC Country
- 24. The process of adding information to a carrier signal
- A device to either radiate radio signals or to receive them from another station.
- 27. A coil of wire often uses with capacitors in tuned circuits
- 28. Slang for a person who helps newcomers get started in amateur radio
- A circuit used to connect the sound card of a computer to a transceiver to allow digital modes to be used.
- 31. An event at which hams can buy sell and swap equipment
- 35. A device that self destructs when too much current passes through it

FEEDBACK Page 5

ANSWERS TO FEB PUZZLE



Election of Officers Term of Office: June 1, 2017 – May 31, 2018

The election of officers and directors for the 2017 - 2018 term will take place at the May 4 meeting. The following positions will be voted on:

President

Vice-President

Secretary

Treasurer

Two Directors

Club members interested in running for these positions should contact Bill, K3FMQ, Membership Committee, no later than April 15. K3FMQ@verizon.net

HAARP Goes Classical During New Experimental Campaign

The just-concluded run of ionospheric investigations conducted from Alaska's High Frequency Active Auroral Research Program (HAARP) observatory -- quite likely the most powerful HF transmission facility in the world -- revived the latent shortwave listener (SWL) lurking within most radio amateurs. Operating under Part 5 Experimental license WI2XFX, HAARP this month even aired some classical music as it conducted its first scientific research campaign since being taken over 18 months ago from the military by the University of Alaska Fairbanks (UAF) Geophysical Institute.

UAF Space Physics Group Assistant Research Professor Chris Fallen, KL3WX, focused on two experiments -- one called "airglow" that literally aimed to light up the ionosphere, and another to demonstrate the so-called "Luxembourg effect," first noticed on a 1930s Radio Luxembourg broadcast. Public engagement was part of his plan, and Fallen this week said the Twitter and e-mail feedback from his transmissions had been "fantastic," and that his science campaign had become "quite an event."



A section of the extensive HAARP antenna array and one of the transmitter shelters. [Photo courtesy of Jeff Dumps, KL4IU]

Page 6 FEEDBACK



"Thank you for making a difference and advancing Amateur Radio as well," Doug Howard, VE6CID, tweeted. Another Twitter follower enthused, "You're running the coolest DX station in the world." Fallen said he also received "a lot of great waterfalls," as well as video and audio recordings from hams and SWLs.

Fallen started and stopped each experiment block with DTMF tones, transmitted in AM on or about 2.8 and 3.3 MHz, each channel fed with audio tones of different frequencies or, in the case of music, as a separate stereo channel. If the Luxembourg effect is present, skywave-signal listeners would hear both channels combined on a single frequency; Fallen said the effect is easier to detect with tones. In addition to tones, he transmitted "a 'dance track,' a Pachelbel Canon arrangement, and a variation of 'Row, Row, Row Your Boat.'" Jeff Dumps, KL4IU, composed some of the music, and he arranged and performed all of it.

University of Alaska Fairbanks Space Physics Group Assistant Research Professor Chris Fallen, KL3WX. The CW "airglow" artificial aurora experiment followed the Luxembourg effect transmissions. All week, Fallen despaired that the "ratty" ionosphere and cloud cover were diminishing his hopes for success with the artificial aurora experiments. But on the last night, he tweeted, "Seeing

artificial airglow with the spectrometer. Film at 11."

Fallen is now evaluating the results of his HAARP efforts. He said one listener posted "a most excellent" YouTube clip. He was not specific; several have been posted that document this week's experiments, including this one from Stephen Oleson, VE6SLP. Laurence Howell, KL7L, in Wasilla, Alaska, posted an audio file.

"The miracle of crowd sourcing!" Fallen said. "If only the Luxembourg effect was more pronounced, but it is in the 3,300 kHz recording."

Fallen has been working under a \$60,000 National Science Foundation grant. "During campaigns, significant expenditures for fuel and personnel are required," the grant abstract said. "Large start-up costs make HAARP experiments largely inaccessible to individual researchers unless multiple experiments and funding sources can be bundled together during a campaign of up to 2-week duration." According to the abstract, public participation would maximize "the broader impacts of the investigations."

A view from the HAARP helm during the Luxembourg Effect experiment. [Photo courtesy of Chris Fallen, KL3WX]

Fallen posted additional information on his "Gakona HAARPoon 2017" blog. Courtesy of the ARRL Newsletter

"Mysterious Foghorn" is Chinese Over-the-Horizon Burst Radar

The International Amateur Radio Union Region 1 (IARU-R1) Monitoring System newsletter reports a mysterious "foghorn" -- a Chinese over-the-horizon (OTH) burst radar -- is operating in Amateur Radio bands.

"We observed the mysterious foghorn on 7, 10, and 14 MHz," the newsletter recounted. "This is a Chinese OTH radar, which is often jumping, and sounding like a foghorn." The signal is frequency modulation on pulse (FMOP) with 66.66 sweeps-per-second bursts.

Other intruders include a Russian frequency shift keying (FSK) signal from Kaliningrad on 7,193 kHz and a Russian FSK signal on 7,193 kHz (50 baud, 200 Hz shift). German telecommunications authorities have filed another complaint.

The latest IARUMS newsletter also reports strong splatter from Radio France International (RFI) on 7,205 kHz down to 7,186 kHz. The French REF has informed RFI and French telecommunications authorities.

Intruders still reported, and the subjects of complaints from German authorities include Radio Hargeysa in Somaliland on 7,120.0 kHz; Radio Eritrea with Ethiopian interference on 7,175.0 kHz; Radio Taiwan and a Chinese jammer on 7,200.0 kHz, and a Radio Tajik harmonic (from 4765 kHz) on 14,295.0 kHz.

Courtesy of the ARRL Newsletter

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MICHELLE'S CONDO ANTENNAS

These are pictures of my stealth antennas that I just put up and used in the January VHF contest.

Living in a condominium with CCRs presents problems. We did get permission to put up an MFJ 1775 6 band 2 to 40 meter antenna. A dual band 2/440 squalo halo and 2 small 903 and 1296 Yagi antennas plus a small 222 fm mobile mag mount.

For the January VHF contest we wanted to add 222 SSB capability to our shack. I asked for permission from the Condo Board, but the said no.

This didn't deter me because 2 stacked 222 squalos would be pretty small. So I put them up anyway.



This shows all the antennas minus the dual stacked 222 squalos.



We attached plastic foliage to the pole so anyone looking up on our deck will see the leaves.



This shows a pvc pipe with the dual band 2/440 squalo halo. Underneath is the stacked 222 squalos.



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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 2017

March - QSL card Presentation Tom Mills AF4NC

April - Hamfest

May - Field Day Prep/Hamfest recap — elections

June – Field Day recap and pizza night

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. **FEEDBACK** Page 9

2017 Contest Calendar

MARCH

International DX- Phone - March 4-5

Starts 0000 UTC Saturday; ends 2359 UTC Sunday

APRIL

Rookie Roundup (SSB) - April 16

1800 UTC through 2359 UTC

JUNE

VHF Contest - June 10-12

Begins 1800 UTC Saturday, runs through 0259 UTC Monday

Kids Day - June 18

1800 UTC through 2359 UTC

Field Day - June 24-25

1800 UTC Saturday and running through 2059 UTC Sunday

QSO Parties

Oklahoma 1400Z, Mar 11 to 0200Z, Mar 12 and 1400Z-2000Z, Mar 12

Idaho 1900Z, Mar 11 to 1900Z, Mar 12 Wisconsin 1800Z, Mar 12 to 0100Z, Mar 13

1400Z, Mar 18 to 0200Z, Mar 19 and 1200Z-2400Z, Mar 19 Virginia

1400Z, Mar 18 to 0200Z, Mar 19 Louisiana

ATLANTIC DIV. HAMFESTS > 2017

March 25 - Fredfest Indoor Hamfest

Independent Hose Company

310 Baughmans Lane

Frederick, MD 21701

http://frederickarc.org

March 26 - JSARS Hamfest by the Shore

Riverwood Park

100 Riverwood Drive

Toms River, NJ 08753

http://JSARS.ORG

April 22 - Delaware State Convention (Delmarva Amateur Radio and Electronics EX-

Cheer Center

20520 Sand Hill Road

Georgetown, DE 19947

http://www.radioelectronicsexpo.com

May 7 - Eastern PA Section Convention (Warminster Amateur Radio Club - Hamfest)

Bucks County Community College - Lower Bucks Campus

1304 Veterans Highway

Bristol, PA 19007

http://www.k3dn.org

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 2017 test fee is \$15.00.

Warminster Amateur Radio Club, Monthly, Last Mon. 7:00 pm at the Wil-

son 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) itra@comcast.net

Levittown, PA, Monthly, 3rd Monday at 6:30. Falls Township Building - Ben Johns, K3JQH, 215-657-5994

Telford, PA. RF Hill ARC. Indian Valley Library. Held the third Monday of odd months (January, March, May, July, September, November) Contact: Jim Soete 215-723-7294 wa3ylq@arrl.net.

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

Lansdale, PA Testing on the fourth nonholiday Thursday of the month starting at 7:00 PM. The Lansdale Library Community Room Vine St. and Susquehanna Ave. Lansdale, Pa. Registration is required 48 hrs. or more before the scheduled exam date. If there are no registrations the scheduled exam date will be canceled. NO WALK-INS. You can register by contacting: Olaf N. Markert - Phone (610) 517-

5074, E-mail w3pa@arrl.net Alt Contact: Jim, 610-287-5630 Page 10 FEEDBACK

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)

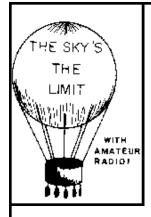
Fairless Hills, PA (many remote access locations throughout Bucks County)

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



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.

Technician classes will be taught by Ron Small WB2OOB March 13th for 6 Mondays in a row from 7pm to 9 pm.

Extra classes will be taught by George Altemus KA3WXV March 13th for 8 Mondays in a row from 7pm to 9 pm.

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

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

	Ŋ	Net Schedules	
Sunday Wednesday	2100 2000		8.445 MHz 47.09 Rptr.
Wednesday	2000	Linked w/ 2 Meter Net 4	43.95
Rptr.Wednesday Sunday	2000 2030	Linked w/ 2 Meter Net 5 Informal Net 2	3.230 Rptr. 23.5 Simplex
Thursday	1900	Mont. Cnty RACES Net 1	

> 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, George Acker KC3ESH

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 FEEDBACK Page 11

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.

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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?

2017 Officers

Executive Officers

President	Tony Cuttone	W3FLH	267-679-9297
Vice-President	George Acker	KC3ESH	215-815-7783
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)	Brandon Penglase	KC3DYT	215-259-7255
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Irwin Darack	KD3TB	215-343-8170

Committee Chairpersons

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 17	Doc Whitticar	W3GAD	215-968-6397		
Hamfest 17	Michael Shanblatt	W3MAS	267-491-5773		
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	-				
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		