



FEEDBACK



Web Site k3dn.org

Warminster Amateur Radio Club

May 2010

Next Meeting May 6th - Potpourri

President's Message



Old Betsy and our Future

On WARC's trip to ARRL headquarters in March, one of the highlights was to see Hiram Percy Maxim's spark gap transmitter *Old Betsy*. WIAW station manager Joe Carcia NJ1Q told the story that after many years of service, *Old Betsy* broke down and would no longer function. Hiram was asked if the transmitter should be fixed. Noting that equipment that employed the recently-invented vacuum tube was just beginning to be used in amateur radio, Hiram said that if vacuum tube transmitters were the way of the future then that was what the ARRL should be using. *Old Betsy* was retired.

Hiram Percy Maxim recognized that as technology advanced, amateur radio had to advance as well. Hams had to be willing to let go of the "traditional" way things had been done, and explore using the latest technological advances. Unless ham radio stayed on the cutting edge of technology it would very likely fail to survive.

This is as true today as it was back in those early days. Technology is advancing at a breakneck pace. Like Hiram Percy Maxim, we as hams must be willing to embrace the technologies of the future, and where necessary, retire what has become obsolete. If amateur radio is to survive we must evolve as technology evolves.

So what are these technologies of the future and how can we use them? Well, unfortunately my crystal ball is on the

bench waiting for parts so I can't "see" the answer. However, several current examples do come to mind:

- The Internet – Using Echolink and IRLP (Internet Radio Linking Project) hams can interface their radios to the Internet as another way to communicate world-wide.
- E-mail – Using Winlink, amateur radio operators can send emails that can be passed via radio, via the Internet, or both.
- Digital communications – Digital modes such as PSK 31 are being used to communicate, digital voice modes (such as D-Star) can replace analog audio, and slow-scan TV images can be sent via a digital signal.
- Microprocessors – Many radio functions in newer radios are microprocessor controlled, computers can be interfaced with radios for both digital communication and radio control, and software-defined radio allows most radio functions to be computer-based rather than controlled by radio circuitry.

Now if you are like me, making a change does not always happen easily. Some of the new technologies are unfamiliar and outside of my comfort zone. I occasionally find myself saying, "That's not really ham radio," or "What's wrong with the way we have always done that." Adapting to technological changes can require learning new skills, changing methods of operation, and even purchasing new equipment. Sometimes I foolishly wonder if it would be easier to just

avoid changes and keep doing things the same old way.

But what if Hiram Percy Maxim and his contemporaries had done that? What if they had decided to just keep on doing things the same old way? Well, my guess is that first of all they would have missed out on a wealth of exciting new opportunities. But even worse, our hobby would probably have disappeared and amateur radio would have just been a small footnote in history. Adapting to changes in technology and exploring these new worlds has been an integral part of amateur radio from its earliest days, and will keep our hobby strong and vital in the future.

73,
Ralph L. "Larry" Abbott WA3ELQ

Warminster Amateur Radio Club General Meeting Minutes April 1, 2010

Meeting was called to order by the President, Larry (WA3ELQ) at 7:40 pm.

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The Warminster Amateur Radio Club is a volunteer-based organization. Without the selfless work performed by volunteers such as yourself, there would be no Club.



PROGRAMS

May 6, 2010 – Potpourri

Video of our recent trip to ARRL
 After action discussion of Hamfest
 Discussion of club nominations of officers
 Elmer questions/answers for the membership

June 3, 2010 – Club Election of Officers / Pizza Night / Home Brew Projects

This is a triple event. It's our annual Warminster ARC Election of officers. It's Pizza Night – always a hit, and it's that time of the year where you bring in your Home Brew that you have built, or are building. Last year we had the famous Spud Gun which was used at Field Day, and the Altoids tin QRP radio. What will we see this year?? Also this is the last meeting prior to Field Day, and we'll spend a few minutes on last minute issues.

July 1, 2010 - Geocaching

Mark (N3GNW) will present Geocaching (pronounced geo-cashing) - a worldwide game of hiding and seeking treasure.

August 5, 2010 – Open.

September 2, 2010 – Contesting

Mark (N3GNW), Irwin (KD3TB) and Andy (KD3RF)

October 7, 2010 – Presentation by Rich (AG3L) on Army MARS (Military Auxiliary Radio System)

November 5, 2010 - Ham Radio Outlet

RICK LAMB (K3TL).

December 2, 2010 - Annual Warminster ARC Dinner.

(Continued from page 1)

INTRODUCTIONS:

MINUTES FROM THE March 4, 2010, MEETING:

A motion was made, seconded and unanimous vote to accept them as printed in the Feedback Newsletter.

TREASURER REPORT- Rich (AG3L):

As given

COMMITTEE REPORTS:

PUBLIC SERVICE- George (N3HBT):

April 22 – 7:00 – 9:00 Skywarn Training

April 25 – March for Babies (March of Dimes) At Bucks County Community College. Six miles. Registration starts at 7:00. Hams at 8:00. March starts at 9:00. See Steve (WW3Y) for the March in Montgomery County (Temple-Ambler).

May 29 – Memorial Day Parade. Unknown at this time.

June 3 – (first Thursday) - 8:00 am – 2:00 pm - Hole-In-One golf outing at Five

Ponds. Hot meal afterwards. Hatboro car show – Not invited back.

NON-CLUB:

April 18 (Sunday) – Valley Forge Revolutionary Run. 7:00 am to 11:00 am. Donuts, Coffee and Bagels provided. See Michael (KB1JEY)

April 24 – 25 – NJ State ARRL Convention at Trenton Computerfest. Pack Rats will be giving seminars.

BCARES – May 23 (Sunday) - Communications support exercise for the American Diabetes Association Tour de Cure bike tour. Please contact Brian (N3QGO) for more information.

MEMBERSHIP- Mark (WA3QVU) and Michelle (KB3MTW):

There are currently 130 paid-up members.

Mark (WA3QVU) passed around Membership Roster # 2 (email). If a member goes to the website to download the Feedback mark a 0 (zero) to indicate not to send a Feedback email notice.

Every member is also encouraged to

join the ARRL. The club must have at least 50% of its members as ARRL members to keep the WARC's affiliation. We presently have 86 with ARRL memberships. ARRL annual membership dues are \$39.00. New member: Jorge E, Arsuaga KB3UBJ (General). Lives In North Wales.
 Call Sign Change: Mark (N3GNW) is now AA3K.

CLASSES – George (N3HBT):

In March a Class started for both the Technician and General Class licenses. They started the first Monday (March 1, 2010) at 7:30 – 9:00 pm and will go for 8 weeks. Both are at the Senior Center. Rich (KB3NRL) is teaching the Technician part upstairs. Irwin (KB3TB) and Andy (KB3RF) are teaching the General in the conference room. Study guides are the responsibility of the student. Classes are half way through. Some students took the VE Exam on March 31.

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REPEATER – AI (WI3Z):

Brian (N3EXA) is going to get an input at the EOC within a week or two.

PROGRAMS- Rich (AG3L):

May 6, 2010 – Open

June 3, 2010 – Pizza night, Club election and Homebrew night.

July 1, 2010 - Geocaching by Mark (N3GNW)..#

August 5, 2010 – Open.

September 2, 2010 – Mark (N3GNW), Irwin (KD3TB) and Andy (KD3RF) on Contesting.

October 7, 2010 – Presentation by Rich (AG3L) on Army MARS (Military Auxiliary Radio System)

November 5, 2010 - Ham Radio Outlet - RICK LAMB (K3TL).

December 2, 2010 - Annual Warminster ARC Dinner.

#Geocaching by Mark (N3GNW). Geocaching (pronounced geo-caching) is a worldwide game of hiding and seeking treasure. A geocacher can place a geocache in the world, pinpoint its location using GPS technology and then share the geocache's existence and location online. Anyone with a GPS device can then try to locate the geocache. See <http://www.geocaching.com/about/> for further information.)

HAMFEST - Mark (WA3QVU)

There are 36 days until the hamfest. April is the last meeting before the hamfest. If it rains, we will open a second building.

Please sign up for some area such as: Vendor Parking, General Parking, Gate, etc. We need a chairperson for each.

Set Up is on Saturday, May 1. One change is the amplifier will be on the right-hand side. Two tables on the right and left will be separated and pushed back against the wall. Please come out and support your club.

FIELD DAY :

Band captains must have at least one meeting before Field Day.

LIBRARY - Bill (K3ZMA):

Nothing new.

GOOD AND WELFARE:

Everything covered.

Doc (W3GAD) was mugged in Philadelphia. Some serious injuries.

OLD BUSINESS:

April 22, 7:00 – 10:00 Skywarn training at the Senior Center.

Feedback – Go to the back table for printed copies.

ARRL Trip – Two videos on YouTube – See website for URLs

NEW BUSINESS:

Nominating Committee – Election in June, so must have names by next meeting.

Penn Wireless – Third Monday of the month they will travel to some interesting site. In July they are going to the Antique Radio Museum in Wall, NJ.

Doc (KA3RAU) – In 1993 our club had a special event station at the Union League in Philadelphia. We had dipoles for antennas. Doc wants to do it again. We need operators who will spend 24 hours there.

TONIGHT'S PROGRAM:

Bucks County Amateur Radio Emergency Service (BCARES) presentation by Brian (N3QGO).

Submitted:

WDØESL, Club Secretary

April 6, 2010

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

Attention all former WARC members. At the March 4, 1999 General Meeting, revisions to our club's constitution were approved that among other things, establishes a new Alumni membership category for former WARC members who are unable to attend meeting and Club activities on a regular basis due to health considerations or travel impediments. Dues for the Alumni membership were established at \$10.00 annually to cover the costs of printing and mailing our monthly FEEDBACK newsletter. Please contact co-chair Mark Hinkel (WA3QVU) for more information.

ATTENTION MEMBERS

If you want to have your picture taken to be placed on the 'Members Photos' section of the www.k3dn.org website, please email Mark Hinkel at mrhinkel@verizon.net or myself Michelle at mal61@comcast.net with your interest. If we get enough people who are interested, I will pass the info on and then we will have camera ready at the following club meeting. Remember to bring your best face!"

The Membership Committee has badges and Club cards for you to pick up. If you do not have a Warminster Amateur Radio Club badge or card with your picture on it, please stop by and visit your Membership Chairs, Mark Hinkel - WA3QVU or Michelle London - KB3MTW at the WARC monthly meetings. Otherwise, please contact Membership at: WARCmembership@K3DN.org. Thank you.

FOR SALE

Garmin Nuvi 350 GPS with mounting

WARC JACKETS, SHIRTS AND HATS

Are available. Delivery within one month of placing order- the more we order, the lower the prices. See Burt (N3YVH) for order forms and cost information.

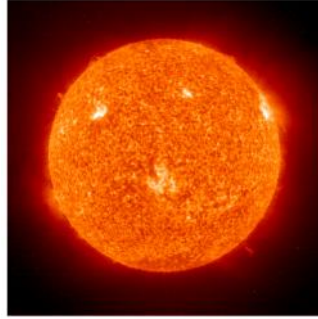
bracket, carrying case, usb cable, power outlet cable, and printed instructions. \$125.00. For information contact George N3HBT at 215-443-5656 or n3hbt@arrl.net.

Working HF by KD3TB

The Sun

I decided to start writing occasional articles on working the HF bands for the WARC Feedback. With the sun spot cycle slowly starting to improve, it's a great time to start listening for those distant stations we call DX. Imagine, on a Saturday morning you turn on your radio to the 40 Meter band and hear a VK3 calling CQ US. You give him a call back and start a conversation with someone from the "Land Down Under". Later in the day after finishing your chores, you start listening again on 20M and start a conversation with someone from Italy. You discover that you both enjoy fishing and have a great time sharing stories. You don't need high power equipment or fancy antennas, but an HF radio and a basic dipole antenna will get you started. This is how I started and you can too.

To begin with, let's start with some basics regarding our sun and how it affects our ability to work distant stations. You have heard about the solar cycle, right? Well what is it and what does it mean? Our closest star, what we call the Sun, goes through an approximate 11.1 year cycle of increasing and decreasing solar activity called a solar cycle. We are currently in the beginning of cycle number 24. The previous cycle peaked in 2000 to 2003. This solar cycle was first reported in 1843 by Samuel Heinrich Schwabe. We usually measure the solar cycle by the amount of Ultraviolet (UV) radiation that the sun gives off. A measurement at 2800 MHz or 10.7 cm wave length is taken from different locations from around the world and reported as solar activity. This measurement is referred to as the Solar Flux Index (SFI). If we look at the sun, as the solar cycle increases, we see an increase in a



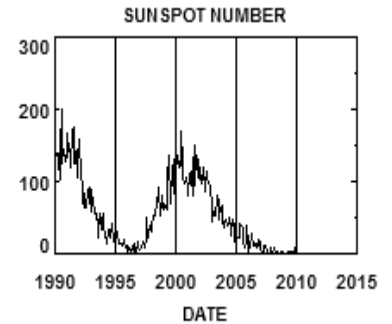
temporary phenomena we call sunspots. Sunspots were first reported by Galileo Galilei in 1610. The numbers of sunspots seen are counted through special telescopes and cameras. In today's age of the internet, we can see actual up to date pictures of the sun on the internet. A sunspot is an area of highly organized magnetic activity on the surface of the sun that is a cooler region of the sun (surface temperature) and may appear black compared to the surrounding area.

How does the number of sunspots compare to the Solar Flux index. It's a basic linear relationship. Zero sun spots have a solar flux index of around 65. That's the minimum. 100 Sunspots would have a solar flux index of around 150 and so on. The reported number of sunspots is determined by a formula developed by a Swiss scientist named Rudolf Wolf in 1849.

So what does this mean? The increase in solar ultraviolet radiation can break down gas molecules in our upper atmosphere knocking off electrons. These newly charged particles have the ability to respond to voltages resulting in radio wave propagation. We refer to this layer of our atmosphere to be the ionosphere. The higher the number of charged particles, the greater the propagation of radio waves. I'll cover this in a future article.

Solar activity has two more indexes that are important to us, the K-index and the A-index. The K-index is measured from 0 to 9 and reflects the short term stability of the earth's geomagnetic field. This value is updated every three hours and reported by the National Institute of Science and Technology in Boulder, Colorado.

The A-index is a mathematical



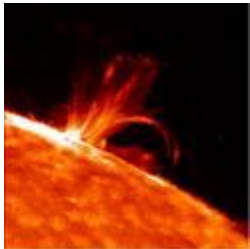
relationship based on the previous 8 values of the K-index from around the world. The A-index is measured from 0 (stable) to 400 (very unstable).

Enough with the technical stuff, now let's see why we care about this. In our Tech and General classes we learned that this increase and decrease in UV radiation has an effect upon our ability for our signals to travel around the world. The higher the SFI, the better the propagation on the higher HF bands 20, 15 and 10 Meters. I can remember having SFI numbers in the 300's at night during solar cycle number 22 that gave us great propagation on 20 Meters late into the night and 10 Meters open to Europe and Asia. Today, with the cycle just beginning we are lucky to get a small opening on 10 Meters to the Caribbean and some small opening on 15 Meters into Asia.

So why do we care about these A and K indexes? Isn't the SFI number all we really need to know? Basically the K-Index is a measurement of geomagnetic (radio) noise within the ionosphere. A K-Index of 0 is a very quiet band where we can hear weak signals, while a K-Index of 5 or greater, becomes a very noisy band and hearing weak signals becomes very difficult. The A-Index reflects stability. The lower the A-Index, the more stable the ionosphere. As the A-Index increases, I expect the propagation conditions to change quickly. You can find these numbers on the internet or listen to WWV and WWVH on the air (<http://tf.nist.gov/stations/wwv.html>) at 2.5, 5, 10, 15 and 20 MHz or at <http://>

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solarcycle24.com/.

Finally, what happens with a solar flare? Solar flares were first observed on the Sun by Richard Christopher Carrington and independently by Richard Hodgson in 1859 as localized visible brightness of small areas within a sunspot group. Basically a solar flare is a large eruption of energy and solar material on the surface of the sun. We find an increase in solar flares as the solar cycle reaches its peak. It takes approximately 8 minutes for this high level of radiation to reach the earth. This sudden increase in solar ultraviolet and X-ray radiation causes a sudden ionization of the D region in our ionosphere (you do remember these layers from your Tech and General classes) and shuts down radio propagation. On September 1–2, 1859 the largest recorded solar flare occurred, causing the failure of telegraph systems all over Europe and North America and resulted in Auroras seen around the world, including the Caribbean. Auroras were so bright over the Rocky



Mountains they woke gold miners, who began preparing breakfast because they thought it was morning.

Early records of sunspot activity indicated that the Sun went through a period of inactivity, very few sunspots in the late 17th century from about 1645 to 1715. This was called a Maunder Minimum named after Edward Walter Maunder who first reported it. This period of solar inactivity also corresponds to a climatic period called the "Little Ice Age" when rivers that are normally ice-free, froze and snow fields remained year-round at lower altitudes. With our current solar cycle taking longer than average to begin,

some scientists thought we were seeing the beginning of another Maunder Minimum.

So, if you are still totally lost, here is all you need to remember. The higher the solar flux indexes the better the HF propagation. The higher the K-index, the higher the atmospheric radio noise, the harder to hear weak signals.

Enough for now. In my next article I plan on reviewing the regions of the ionosphere and how they affect our HF bands.

This article is not meant to be a definitive discussion of solar activity. If you are interested in further reading, there are numerous references on the internet. Information used for this article and photos came from a variety of websites and ARRL publications. Just search 'Solar Cycle' on the internet and enjoy the wealth of information available.

Two good starting points can be found on Wikipedia at http://en.wikipedia.org/wiki/Solar_cycle and NASA at <http://solarscience.msfc.nasa.gov/SunspotCycle.shtml>

About the author: KD3TB, Irwin Darack, was first licensed in 1979 as KA1CLH and currently holds an Amateur Extra license. He has also held licenses from different countries, including Singapore as 9V1AP. He is active in both the Warminster Amateur Radio and Frankford Radio Clubs. He enjoys DXing and contesting using a variety of modes, including SSB, PSK31, CW and RTTY. He is a member of the VE2DXY team which activates CQ Zone 2 in Sept Isles, Canada during the CQWW SSB contest. Irwin can be reached at idarack@gmail.com.

SOLAR UPDATE

Tad "The early mist had vanished and the fields lay like a silver shield under the Sun

<http://www.americanliterature.com/Wharton/EthanFrome/10.html>>" Cook, K7RA, reports: A haunting specter from the past -- a Sun with no spots -- returned this week. As of Wednesday, we've seen seven days with no spots, a quiet Sun unseen since early December. A spot may be emerging in the solar northeast quadrant, and NOAA and USAF predict a rising solar flux of 76, 78, and 78 for April 22-24, followed by 80 for nine days, so perhaps this will turn around. Look for more information on the ARRL Web site on Friday, April 23. For more information concerning radio propagation, visit the ARRL Technical Information Service Propagation page <http://www.arrl.org/propagation-of-rf-signals>>. This week's "Tad Cookism" brought to you by Edith Wharton's Ethan Frome <http://www.americanliterature.com/Wharton/EthanFrome/EthanFrome.html>> (Chapter 8).

Courtesy The ARRL Newsletter

2010 Valley Forge Revolutionary Run Photos

Michael KB1JEY



A Thank-You Note from Sgt. Joe Bainbridge Regarding the March of Dimes Walk

George,

I had a great time today. Having you right there and hearing the administrative (and, at times safety) route dynamics, gave me a new perspective to information exchange. Today, I was able to see, at first hand, the extrapolating that you and the HAM's have been doing for many years. I will need some time to process the events of today and revisit some ideas that I have for future events.

The HAM's today, as always, exceed my expectations. They are a testament to true caring, professionalism and public service. I could never thank them enough. The ability for this crew to adapt to today's quick assignments &

challenges is remarkable. Within your group, someone has to say, "Job well done!" That would mean a lot to me.

I look forward to any event where our camaraderie serves the public well. Please share this message with all of those who have assisted with any March of Dimes event. And, I truly appreciate all of the years of service that you and the HAM's have provided to the March of Dimes. And, for those who I looked forward to seeing today, and were not able to make it here, please find the time to give my 73's.

With great thanks,
Joe Bainbridge

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 2010 test fee is **\$15.00**.

Warminster Amateur Radio Club, Monthly, Last Wed. 7:00 pm at the Warminster Recreational and Educational Center on Little Lane.

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, 1st Saturday - George LeNoir, WR3B, 215-943-4886.

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 jmcloskey@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

2010 Contest Calendar

June 12 - 14 ARRL June VHF QSO Party
26 ARRL Field Day
July 10 - 11 IARU HF World Championships
August 7 - 8 ARRL UHF Contest
21 - 22 ARRL 10 GHz and Up Contest
Indiana QSO Party 1600Z, May 1 to 0400Z, May 2
New England QSO Party 2000Z, May 1 to 0500Z, May 2 and 1300Z-2400Z, May 2

➤ **ATLANTIC DIV. HAMFESTS - 2010**

- 1 May** + Great Hagerstown Hamfest Antietam Radio Association <http://www.w3cwc.org/HamFests.html> Hagerstown, MD Washington County Agricultural Center MD State Route 65 South Sharpsburg Pike
- 2 May** + Warminster Amateur Radio Club <http://www.k3dn.org/hamfest.htm> Wrightstown, PA Middletown Grange Fairgrounds 576 Penns Park Road
- 8 May** Lebanon Valley Society of Radio Amateurs Sanborn Residence 1007 North 8th Avenue Lebanon, PA 17046 <http://www.LVSRA.org>
- 30 May** Maryland FM Association <http://www.marylandfm.org> Howard County Fairgrounds West Friendship, MD 21794
- 12 June** Columbia-Montour ARC <http://www.qsl.net/cm-arc/hamfest.htm> Lime Ridge Community Center Lime Ridge, PA
- 19 June** React of Schuylkill and Lebanon County & Appalachian Amateur Radio Group <http://kidsforkidsofpa.us/index.htm> Cleona Park Cleona, PA
- 3 July** Harrisburg Radio Amateurs Club <http://hrac.tripod.com> Marysville Lions Club Park Marysville, PA 17053

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

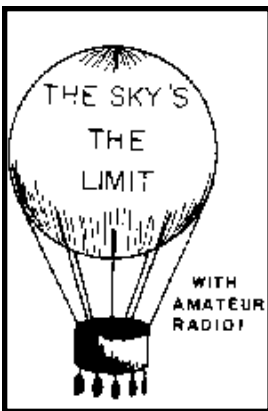
Bucks County SKYWARN Weather Spotter PRIMARY FREQUENCY: 147.300MHZ (+ 131.8)
 Fairless Hills, PA (many remote access locations throughout Bucks County)

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 purchased four Vertex Standard 2-meter HT's that are available for use by members of the club. The HT's 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, Richard Luce AG3L
 215-441-8264



*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 shuttle.

For further information contact: George Brechmann at 215-443-5656

Area Repeaters

VHF

- 145.310 R.F. Hill
- 145.350 Doylestown R.C.
- 145.250 Penn Wireless
- 145.330 Hilltown
- 146.670 DVRA
- 146.685 Holmesburg
- 146.925 Willingboro
- 147.000 Ham Buegers
- 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
- 449.325 KA3WXV
- 447.475 WR3B
- 447.625 WE3E
- 448.225 Penn Wireless

D-STAR

- 447.625 K3PDR DStar DV

6 Mtr

- 53.030 WA3BXW
- 53.230 N3DQZ
- 53.320 K3MFI

Bucks County Amateur Radio Emergency Service (BCARES)

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

Winlink Gateway Stations:

Upper Bucks	NJ3A-10	145.610 Riegelsville
Lower Bucks	NY3J-10	145.530 Bensalem
Montco	W3CF-10	145.950 Hatfield
Chester County	W3EOC-10	145.690

Net Schedules

Sunday	2100	10 Meter Net	28.445 MHz
Wednesday	2030	2 Meter Net	147.09 Rptr.
Wednesday	2030	Linked w/ 2 Meter Net	443.95
Rptr.Wednesday	2030	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 Board meeting.

2010 Officers

Executive Officers

President	Larry Abbott	WA3ELQ	215-443-7521
Vice-President	Richard Luce	AG3L	215-441-8264
Secretary	Frank Clayton	WD0ESL	215-957-2343
Treasurer	Richard Luce	AG3L	215-441-8264
Director (E)	Michelle London	KB3MTW	215-672-7578
Director (E)	Mark Kempisty	AA3K	215-953-1493
Director (A)	Al Konschak	WI3Z	215-491-9941
Director (A)	Brian Taylor	N3EXA	215-257-6303
Past President	George Brechmann	N3HBT	215-443-5656

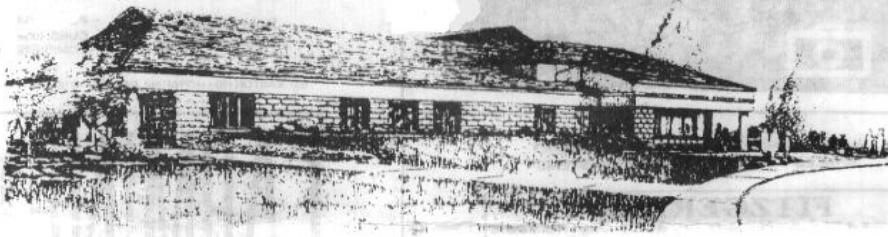
Committee Chairpersons

Archives	Burt Ludin	N3YVH	267-781-0603
ARES Liaison	Denise Burstein	KB3ANO	215-355-1150
Arrl Liaison	Richard Luce	AG3L	215-441-8264
Awards Manager	Vince Pironti	KD3TC	215-674-0446
Classes	Rich Enwright	KB3NRL	215-357-9055
Digital and APRS	Ron Wenig	NY3J	215-638-9257
DXpedition	Doc Whitticar	W3GAD	215-968-6397
Feedback Editor	Jim Elmore	WA4YWM	215-538-1889
Field Day 10	Mark Kempisty	AA3K	215-953-1493
Fundraising	Adam Huffnagle	KB3JCP	215-442-9526
Hamfest 10	Mark Hinkel	WA3QVU	215-659-4449
Hamwear	Burt Ludin	N3YVH	267-781-0603
Holiday Dinner	George Brechmann	N3HBT	215-443-5656
Interference	Mark Kempisty	AA3K	215-953-1493
Membership	Michelle London	KB3MTW	215-672-7578
Membership	Mark Hinkel	WA3QVU	215-659-4449
Net Manager	George Brechmann	N3HBT	215-443-5656
PA QSO Party	Mark Kempisty	AA3K	215-953-1493
Publicity	Dan Myers	KB3IBQ	215-957-2343
RACES Liason	Chris McCormack	N3JHR	215-969-2626
Refreshments	Doc Morein	KA3RAU	215-542-0593
Refreshments	Randy Gehman	N3LJE	215-822-9473
Repeater Coordinator	Brian Taylor	N3EXA	215-257-6303
Satellite	Joe Bagnick	N3EMA	215-997-2539
Skywarn Liaison	Mike Patton	W3MJP	215-491-9665
Station Trustee	George Brechmann	N3HBT	215-443-5656
Sunshine Club	Vince Pironti	KD3TC	215-674-0446
Township Liaison	George Brechmann	N3HBT	215-443-5656
VE License Testing	Larry Abbott	WA3ELQ	215-443-7521
VHF/UHF/MW	Al Sheppard	N3ITT	610-847-5490
Website Coordinator	Al Konschak	WI3Z	215-491-9941
Youth Programs	Richard Luce	AG3L	215-441-8264
Youth Programs	Steve Larson	WW3Y	215-822-1511

The annual dues rate structure is as follows:

Full Member:	\$ 20.00
2nd Family Member:	\$ 10.00
Student:	\$ 10.00
Alumni:	\$ 10.00
Associate:	\$ 5.00

- Are your dues current ?
- Check the date on your Feedback mailing label.

Club Station**Meetings****Talk To Us**

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.

For general club correspondence:

k3dn@k3dn.org

For Feedback articles:

wa4ywm@comcast.net

Visit our Home Page at:

<http://www.k3dn.org>

**Federal Communications
Commission**

1270 Fairfield Road
Gettysburg, PA 17325

License Information

800-322-1117 - M-F 0800-1630

Fax-On-Demand 202-418-0177

FEEDBACK

Warminster Amateur Radio Club
Box 113
Warminster, Pa 18974

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