Web Site k3dn.org

Warminster Amateur Radio Club

February 2022

Next Meeting Feb. 3rd - No program

ARRL Foundation Grants First-Year Funding for ARISS *STAR* Keith Pugh Initiative



A \$47,533 <u>ARRL Foundation</u> grant will fund the initial phase of the Amateur Radio on the International Space Station (<u>ARISSâUSA</u>) *STAR* Keith Pugh Memoriam Project. *STAR*, which stands for Space Telerobotics using Amateur Radio, honors the memory of Keith Pugh, W5IU, a highly respected member of the ARISS team who died in 2019. ARISS arranges live question-and-answer sessions via ham radio between International Space Station (ISS) crew members and students. A long-time and enthusiastic supporter of ARISS, Pugh was a star ARISS technical mentor, assisting schools with ARISS contacts, encouraging interest in ARISS among educators, and visiting schools to

teach students about wireless radio technology. One goal of ARISS is to engage students in science, technology, engineering, arts, and mathematics (STEAM) subjects.

The ARISS *STAR* Project is a new educational initiative that will enable US junior and senior high school groups to remotely control robots via ham radio through digital APRS (Automatic Packet Reporting System) commands. Year 1 will focus on systems development and initial validation of ARISS *STAR*, and year 2 will focus on evaluation and final validation.

Systems development and evaluation will be led by university staff and students who will undertake hands-on wireless and telerobotics lesson development, learn about amateur radio, and support *STAR* engineering hardware and software development.

Next, youth teams will be selected to experiment and critique *STAR* telerobotics scenarios in closed courses. In the process, ARISS will encourage students to prepare for and earn an FCC amateur radio license, enabling them to use ham radio to learn and practice concepts in radio technology and radio communication.

ARISS-USA Executive Director Frank Bauer, KA3HDO, praised the ARRL Foundation for its generosity. "ARISS team member Keith Pugh, W5IU, poured his energy into inspiring, engaging, and educating youth in space and in amateur radio endeavors," Bauer said. "What better way to honor Keith than through the ARISS *STAR* initiative. We thank the ARRL Foundation for its vision to move this initiative forward. Maybe someday one of our ARISS *STAR* students will use their telerobotics skills to control scientific rovers on the moon or Mars!"

Over the past 2 decades, more than 1,400 ARISS contacts have connected more than 1 million youth with the ISS using amateur radio, with millions more watching and learning.

The overarching goals for *STAR* are to improve and sustain ARISS STEAM educational outcomes. Robotics is gaining popularity among youth and adults alike, and telerobotics adds a wireless accent to robotic control.

This will expand ARISS's educational dimension to attract the attention of more groups, stu-

dents, and educators -- outreach that promises to attract new audiences.

The ARRL Foundation was established in 1973, to advance the art, science, and social benefits of the Amateur Radio Service by awarding financial grants and scholarships to individuals and organizations that support their charitable, educational, and scientific efforts.

ARISS is a cooperative venture of international amateur radio societies and space agencies that support the ISS. US sponsors include ARRL, the Radio Amateur Satellite Corporation (AMSAT), the ISS National LabâSpace Station Explorers, and NASA's Space Communications and Navigation program (SCaN). The primary goal of ARISS is to promote exploration of science, technology, engineering, the arts, and mathematics topics. For more information, visit www.ariss-usa.org and www.ariss.org.

Page 2 FEEDBACK

Warminster ARC General Meeting Minutes - January 6th, 2022

Meeting Call to Order, 7:40pm

Introductions:

(26 Hybrid Check-Ins / 7 In-Person Attendees)

Minutes from last Meeting:

Motion made to approve, seconded and accepted as submitted.

Committee Reports:

Treasurer's Report: Herb (KB3VMN)

Not present, Not Given

Programs: Ray (KA3TRU)

February - TBD

Possible future topics; Skywarn, Fusion and other Digital Modes, ARRL EPA section manager for April Meeting (prior to t

he ham fest). Any Suggestions for future meetings, please contact Ray.

Membership: Kathy (KC3FBY)

101 Paid members, 34 unpaid members. One new, Bill Sharp (W3WDS), approved for membership. Kathy will be stepping down as membership chairperson. Dave McGowen (KC3RAT) will be taking over as membership chairperson. Thank you

Kathy for your years of service.

Public Service: George (N3HBT)

Nothing scheduled until June 2022

Classes: George: (KA3WXV)

Next classes: Spring 2022. A teacher is needed for the spring classes. George is stepping down as instructor. Thank you George for your many years of club service. A testament to your many years of dedication is all the hams you brought along, helping them to get licensed. George thanked the club for the opportunity to serve. He further stated, his satisfaction

came from watching those hams he taught become involved in and "running with the hobby."

VEC Testing: Larry (WA3ELQ)

Next session: Jan. 31. December's session saw one successful candidate for Tech and General Class license. Future VE

sessions require NO preregistration. Walk-ins are welcome.

Repeater: Brian (N3EXA)

Not present. All appears to be operational.

Good and Welfare: Ken (K9KJL)

One card sent to Kathy (KC3FBY) on a happy note- Congratulations on a new grandson!

Other Committees:

Radiosport: Irwin (KD3TB)

ARRL RTTY round-up 24 hr, all digital mode contest. January 15, North can VHF contest and North American CW QSO Party and SSB contest.

Ameri-

Hamfest: Tony (W3FLH)

Sunday May 1, back at the BCCC. The club will again host the ARRL Section convention. 50 indoor tables will rent for \$20 each. Outdoor spaces will remain \$10 each and the gate fee will remain \$7. Help needed on Saturday April 30 for setting

up of indoor tables.

Field Day: Doc (W3GAD)

Tabled

Old Business:

Club Station: Interest/Activity- Marty (NR3Z) & Andy (KD3RF)

Tabled

(Continued on page 3)

FOR SALE

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

ASKING: \$495 with local pick-up at my home or nearby local to be discussed.

Contact Bob Wilderman a WARC member at dlrwild1@verizon.net or 267-535-9189 cell

K3SRO

(Continued from page 2)

Elmer Program – Ongoing Tabled

Annual Club Auction/Online (Board/Andy KD3RF):

Herb (KB3VMN) will be Andy's board liaison. Andy is accepting consignments for the next timed auction, which will probably run for two weeks.

Reconvening In-person Activities/Upcoming meetings:

Planning to do Hybrid (Virtual and Live) meetings for the foreseeable future.

New Business:

Appointed Directors for 2022:

Doug Beker (KC3MNQ) and Bruce Farrington (WA3ZPC)

Candidates for Board positions for 2022:

Herb (KB3VMN) will be stepping down after five years as Treasurer. Also, Tony (W3FLH) will not be seeking re-election. A new president is needed. The board approved an early convening of the nominating committee consisting of Irwin (KD3TB), Doug(KC3MNQ), and Bill (K3FMQ). If you are interested in running as an officer or director, please contact the nominating committee.

Clean-up crew for WARC storage area at BWSAC:

Mike Karabin (WJ3O) needs about five volunteers to help out.

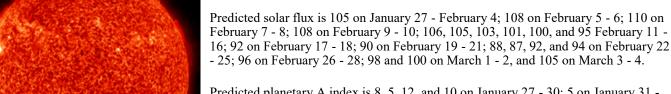
Motion to Adjourn business portion of meeting, 8:25pm

Presentation: Ham Radio Q&A – Open forum moderated by Tony (W3FLH)

The K7RA Solar Update

Tad Cook, K7RA, Seattle, reports: A new sunspot group appeared on January 20, another on January 24, two more on January 25, and one more on January 26. But, overall solar activity declined from the previous week, January 13 - 19. Average daily sunspot

number declined from 94.4 to 39.6, and average daily solar flux went from 112 to 97.6.



Predicted planetary A index is 8, 5, 12, and 10 on January 27 - 30; 5 on January 31 - February 3; 15 and 10 on February 4 - 5; 5 on February 6 - 9; then 12, 15, and 12 on February 10 - 12; 5 on February 13 - 19; 6 on February 20 - 23; 5, 12, and 10 on February 24 - 26; 5 on February 27 - March 2, and 15 and 10 on March 3 - 4.

Look for reports on 6-meter openings in Friday's bulletin.

(Continued on page 4)

Page 4 FEEDBACK

(Continued from page 3)

Sunspot numbers for January 20 - 26 were 60, 23, 22, 22, 26, 53, and 71, with a mean of 39.6. The 10.7-centimeter flux was 99.3, 97.3, 95.2, 93.5, 95.2, 100.9, and 101.8, with a mean of 97.6. Estimated planetary A indices were 5, 8, 10, 8, 4, 13, and 10, with a mean of 8.3. Middle latitude A index was 5, 5, 7, 7, 3, 10, and 8, with a mean of 6.4.

A comprehensive K7RA Solar Update is posted Fridays on the ARRL website. For more information concerning radio propagation, <u>visit</u> the ARRL Technical Information Service, <u>read</u> "What the Numbers Mean...," and <u>check out</u> the Propagation Page of Carl Luetzelschwab, K9LA

A propagation bulletin <u>archive</u> is available. For customizable propagation charts, visit the <u>VOACAP Online for Ham Radio</u> website.

Share your reports and observations.

Courtesy of the ARRL Newsletter

ARES Activates as Wind-Driven Year-End Fire Destroys 1,000 Colorado Homes

Members of the Amateur Radio Emergency Service[®] (ARES[®]) in Colorado, volunteering for the Boulder County (Colorado) Amateur Radio Emergency Services (BCARES), turned out on December 30, 2021 as the devastating Marshall Fire roared through Superior and (portions of) Louisville, Colorado. Intense winds whipped a grass fire south of Boulder near Marshall into a massive firestorm that became too large and fierce for firefighters to battle.



"The only battle was evacuation, as the towns of Louisville and Superior and [the] northern suburbs of Denver lay in the fire's wind-driven path," said Amateur TV (ATV) enthusiast and equipment dealer Jim Andrews, KH6HTV, of Boulder. Andrews said the only thing limiting the fire's spread was the fact that the winds diminished by that evening.

"By that time, hundreds of homes had burned down," Andrews said, whose own house was among them. "This was not a typical forest fire, but an urban firestorm." Thousands of people were evacuated.

BCARES Board of Directors Chairman and Region 1, District 3 Emergency Coordinator Allen Bishop, K0ARK, said that a request from the Boulder Office of Emergency Management (OEM) to activate the

emergency operations center (EOC) is what initiated the ARES activation. "At that time, staffing was initiated with the activation of the BCARES Radio Network, with three BCARES members assigned to the EOC," Bishop said. The BCARES Net was promptly activated.

ARES volunteers supported communication at evacuation sites and established emergency communication as commercial power failures and preventive shutdowns by utilities caused a loss of commercial communication. "Within about 8 hours," Bishop said, "battery back-up systems for cell phones and landlines failed, and 911 services went down."

"To facilitate a restoration of these emergency services, BCARES activated the Mountain Emergency Radio Network (MERN)," Bishop said. Established in 2010, MERN consists of repeaters installed at fire stations in Gold Hill and Allenspark, at community centers in Nederland and Raymond, and the privately owned Airlink



Repeater. "These repeaters provided the emergency communication links that facilitated the restoration of 911 communications back to the dispatch center for the duration of the power outages," Bishop explained. The Allenspark Neighbors Emergency Network (ANEN) and Airlink (Alternate Access Radio Network) participated.

According to Bishop, as the Marshall Fire expanded, evacuation center support was requested at three locations to provide on-site situation reports using Winlink. Bishop said BCARES members and mutual-aid ARES operators from neighboring Districts established local communication with the BCARES EOC radio position from designated field locations. BCARES was activated for 2 days. One person died as a result of the fire.

As Andrews reported, Boulder County announced on New Year's Day that nearly 1,000 homes were lost. In addition to his own home, the fire destroyed his daughter's home next door, as well as the homes of all his close neighbors. "We had no official warning of the coming firestorm," Andrews said. "My only warning was from our daughter who saw it happening." Andrews added, "KH6HTV VIDEO, as a supplier of ATV gear, will be out of operation for a very long time to come." Andrews edits the monthly Boulder Amateur Television Club TV Repeater's RE-PEATER newsletter.

Courtesy of the ARRL Newsletter



Jim Andrews, KH6HTV, shared this photo of what remained of his home. [Jim Andrews, KH6HTV, photo]

Launch of a Wooden Satellite Still Pending

Two spacecraft comprised of wood or using wooden framing are hoping to launch this year and next. One will carry an amateur radio payload.

WISA Woodsat, a Finnish spacecraft that planned to include an amateur radio payload, was forced to postpone its announced launch target from 2021 to 2022 after the International Amateur Radio Union (IARU) Amateur Satellite Frequency Coordination system turned away its request to use amateur radio frequencies.

"I regret to inform you that IARU is not in a position to support the WISA Woodsat Coordination request," the coordinator said. "The main reason is that the primary mission doesn't seem to be an amateur mission."

As announced last year, WISA Woodsat was designed to accommodate multiple missions -- from materials science, space education, and awareness to promoting and facilitating amateur radio communication with and via satellites. No transpond-

An artist's depiction of LignoSat. [Photo courtesy of Kyoto University]

er was on board, but the satellite's sponsors said they had the support of Finland's IARU member-society, SRAL, to use amateur radio frequencies. They are now reworking the spacecraft to use commercial radio frequencies.

Meanwhile, LignoSat, a 1U-sized CubeSat with an outside structure mainly composed of wood, has applied for IARU frequency coordination and hopes to launch from the ISS in 2023. Built by students at Japan's Kyoto University, LignoSat includes a unique amateur radio payload but not a transponder.



WISA Woodsat, with its selfie stick extended.

The LignoSat application for IARU Satellite Frequency Coordination in December said the CubeSat would carry amateur radio equipment that will extract call signs of amateur radio stations from uplinked FM

packet signals and respond to them via the CW downlink and the sender's call signs to convey thank you messages. The plan proposes UHF downlinks for CW and FM.

The satellite's development team, comprised of Kyoto University and Sumitomo Forestry Company, said it's aiming to harness the environmental friendliness and the economy of wood in spacecraft development. They say a satellite with a wooden exterior would burn up upon re-entering Earth's atmosphere at the end of its mission, lessening its burden on the environment. The wooden framework also will permit the satellite's antennas to be inside the spacecraft. A plan is under way to use an experimental apparatus on the International Space Station to hold wooden sheets of varying hardness, taken from several tree species, attached. These would remain exposed to the space environment for about 9 months to determine their deterioration.

LignoSat would be deployed from the ISS in July 2023. Read <u>an expanded version</u>. -- *Thanks to Joey Ferguson, W4JF, and* Japan Times.

Courtesy of the ARRL Newsletter

Page 6 FEEDBACK

2022 Contest Calendar

February

5-6 North American Sprint, CW

2300Z, Feb 5 to 0300Z, Feb 6

12-13 CO WW RTTY WPX Contest

0000Z, Feb 12 to 2359Z, Feb 13

14-18 School Club Roundup

Monday through Friday from 1300 UTC Monday through 2359 UTC Friday

19-20 International DX - CW

Begins 0000 UTC Saturday and runs through 2359 UTC Sunday

26-27 North American QSO Party, RTTY

1800Z, Feb 26 to 0559Z, Feb 27

OSO Parties

Vermont 0000Z, Feb 5 to 2400Z, Feb 6

Minnesota 1400Z-2400Z, Feb 5

British Columbia 1600Z, Feb 5 to 0359Z, Feb 6 and 1600Z-2359Z,

Feb 6

North Carolina 1500Z, Feb 27 to 0100Z, Feb 28

> ATLANTIC DIV. HAMFESTS > 2022

April 23

Delmarva Amateur Radio & Electronics Expo

Cheer Community Center 20520 Sand Hill Rd. Georgetown, DE 19947

http://www.radioelectronicsexpo.com

April 24

Maryland Mobileers Spring Hamfest

Odenton Volunteer Fire Company

1425 Annapolis Road

Odenton, MD 21113

https://sites.google.com/view/marylandmobileers/hamfest?authuser=0

May 1

Warminster ARC Hamfest, ARRL Eastern Pennsylvania Section Convention

Bucks County Community College-Lower Bucks Campus

1304 Veteran Hwy (Rte.413)

Bristol, PA 19007

http://www.k3dn.org/hamfest/

July2

Firecracker Hamfest, ARRL Pennsylvania State Convention

Harrisburg Postal Picnic Grounds

1500 Roberts Valley Road

Harrisburg, PA 17101

http://www.w3uu.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 2022 test fee is \$15.00.

Warminster Amateur Radio Club, Monthly, Last Mon. 7:00 pm at the Wilson Senior Community Center 580 Delmont Avenue Warminster, PA 18974 George Brechmann (215) 443-5656.

Atco, NJ, The fourth (4th) Tuesday of each month, at 7 p.m. Winslow Township Senior Center, 33 Cooper Folly Road, 08004-2603.

Mark (K2AX) jtra@comcast.net

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

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

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

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

Olaf N. Markert - Phone (610) 517-5074, E-mail w3pa@arrl.net
Alt Contact: Jim, 610-287-5630

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."

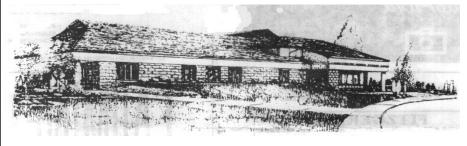
ATTENTION MEMBERS

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 2022

The Club Station - K3DN - is located at the Benjamin Wilson Senior Center, Delmont Avenue, Warminster, PA. The station is open for club members and the interested general public on the first Thursday of the month (meeting night) between the hours of 6:30 and 7:30 pm. with the exception of the December dinner meeting . The station is fully operational on HF (80 meters through 10 meters) both phone and CW. There is an assortment of amateur radio shareware which may be copied under the shareware licensing agreement.



For additional information on the Club Station please call the Station Manager N3HBT - George at 215-443-5656.

WARC Meetings are held the first Thursday of each month at 7:30 pm at the Benjamin Wilson Senior Center, Delmont Avenue, Warminster, PA. Talk in is available on the 147.09 & 443.950 repeaters.

SKYWARN INFORMATION

Bucks County SKYWARN Weather Spotter PRIMARY FRE-QUENCY: 147.300MHZ (+ 131.8)

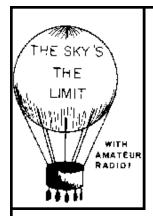
Fairless Hills, PA (many remote access locations throughout Bucks County)

Mount Holly NWSFO SKYWARN Homepage:

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

SKYWARN Basic Weather Spotter Educational Programs URL:

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



The Warminster Amateur Radio Club Announces Free Ham Radio Instructional Classes

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

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

Bucks County Amateur Radio Emergency Service (BCARES)

www.bucksares.org

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

Winlink Gateway Stations:

Lower Bucks NY3J-10 145.530 Bensalem

Net Schedules											
Sunday	2000	10 Meter Net 28.4	45 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 53.2	30 Rptr.								
Sunday	2030		5 Simplex								
Thursday	1900	Mont. Cnty RACES Net 146.									

CLUB EQUIPMENT

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

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 N3DOZ

53.320 K3MFI

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.

. :			Ξ	_	. :		_			۲.		. :			۲.		-	5.	-		5					. :			3			Ξ			_					5.		. :			Ξ.					Ξ.	
٠,			п	ľ	-		-			Ξ.		-	÷	-			÷		Š	÷	ï	-	×		г.	٠,				7		ľ		÷	1					٠.	-	~		ä			-		ë		
			г	٦,	t		п					٠	,	t	•	ı	ı	£	•	н	ľ	2	1	:					21	ı	•	ı		R	•	п	Ξ				•		•		8	1	E	-	м	>	
.:	٠.	ı d	٠.			4		١.,		٠.		s	-		2.			33	ب	a	٤,		я	ı.	٤,	.:				٠,	4	٠.		4	P	Ψ.				٠.		يد		у,	25	٠.			ید	۲.	
																							-											-																	
			*																										٠								*								*						
			Ċ	ı	ĸ.	•		•	٠.	'n.	٠.	a		и	٤.	0	٠.	O	v	۰	٠.			١.					÷			٠.		-:			٠			٠.		.:			٠.		.:			٠.	
			м		,	ı	,	•	ш	ı.	•	v	7	п	и	ĸ.	. !	T	7.	-	۰								٠			۰													۰						
٠.			Y	ı	-	•	-	•	-	•	_	7	•	•	:	-	•	•		•									٠			:													•						
. :		115	Ξ,	•	ü				٠.	٠.	100	ü		٠	٠.	10	ż	٠.	×	,	٠.		.;	٠.					÷.		٠	٠.		.:			÷			٠.					Ξ.		٠:		• •	٠.	,
			ı.	ζ,	7	١.	_	١.		٠,	1		`	1	_	_	7	٠.	_	в	┖	_		٠.	_	1	ь.					۰										٠			٠						
١:			L	,	-	v	a	п	n	Ľ/	•	7)	L	z		٠	ī.	n	п	r	1		: 1	U.	v	r	ď	•			:					:			:		:			:					:	
. :		15	n	۸,	J	4	u	×		ĽΛ	ı	c	4	F	٠.	۰	,	а.	ч	L	ı	ı	ø	ı.	u	ı	L	٠.	-		٠	ī.					ū			٠.		• •			٠.		٠.			i.	
										•	`	٠	/															C	G	,		۰																			
			:		:		- 1			:		:			:			:		- 1	:					:			٠			:					:			:		:			:					:	
			ī.		• •				• •	÷.		·i			÷.			٠.			٠.		• i	٠.		·i			ě.		٠	÷.								٠.		٠ī			ī.		• i		• •		,
			٠				- 1			٠		٠			٠						۰					٠			٠			۰										٠			٠						
١:			:				- 1			:		:			:			•		- 1	:					:			٠			:					:			:		:			:					:	
			÷,		·÷	٠.	-		••	٠.		·÷			٠.			٠.						٠.		÷		٠.	÷			٠,					÷	٠.		٠.		·÷		• •	÷,		٠.			÷	,
																																۰																			
			:		:		- 1			:		:			:			:		- 1	:					:			:			:					:			:		:			:					:	
			ī.		• •				• •	÷.		·i			÷.			٠.			٠.		• i	٠.		·i			ě.		٠	÷.								٠.		٠ī			ī.		• i		• •		,
			٠				- 1			٠		٠			٠						۰					٠			٠			۰										٠			٠						
١:			:				- 1			:		:			:			•		- 1	:					:			۰			:					:			:		:			:					:	
. :			٠.		• •		- 1		٠.	÷.					÷.			٠.			٠.			٠.		·i	٠		÷.		٠	÷.					ū			٠.		٠.			٠.		٠.			i.	
																																۰																			
			:				- 1			:		:			:			:		- 1	:					:			٠			:					:			:		:			:					:	
			ī.		• •		- 1		• •	÷.		·i			÷.			٠.			٠.		• i	٠.		·i			ě.		٠	÷.								٠.		٠ī			ī.		• i		• •		,
				_	- 1					٠		٠			٠			_	_							٠			1			۰										٠			٠						
١:			L	7	•	٠.		٠.	4	:	_		_		٠.	_		ı	- 1	п	٠.	_	-	٠.		.:			81	ı	'n	Ĉ.	_	- 2	_		_		-	٠.	4	. :			:					:	
			-	Z		ж	ч	×		- 1	41	ч	н	н	r	٠.		8		н	4	٠	н	п	п	H	"	١.	61	ŀ	•	ĸ,	а	4	3	-		٠.	۰	3	ı		٠.,	• •	÷,		٠.			÷	,
			2.	,		I.	,		·	٠,	u	A	υ	Ų	L			•	J	L		,	ч	U	U	ų	•	,	54	L		9	ч		_	v	۳		۰	ŧ	u		•								
١:																																										:			:		:			:	
			÷		ĸä.	**			• •	÷,	•	·			÷.			٠.			٠.		۰	٠.	-	ĸ.		-	ě.		٠	÷.								٠.		٠ī			ī.		• i		• •		,
			L		4	4	-		•	•/	•	٠			٠	-		•		н			в	٠	9	ď				-		۰	_	. 1			٠					٠			٠						
١:				ľ	Ľ		ı	:	•	7	7	м	w	v	а	и	V	:1	И	V	١.		к	۲.		Y.	ı	•	и	1	١.	3	П	•	г	٠,	U			:		:			:					:	
			٠,	٠.		٠,			۰	7.	ı.	. 3	а	١.	31	м	L	- 1	ı.	۲.		v	ь	N	٠.	•	•	А			м		v	4	٠.	-		٠.		٠.		٠.			٠.		٠.				,

The annual dues rate structure is as follows:

Full Member: \$25.00 Student: \$7.50 Alumni: \$12.50

> Are your dues current?

2022 Officers

Executive Officers

President	Tony Cuttone	W3FLH	267-679-9297
Vice-President	Ray Oechslin	KA3TRU	267-269-3198
Secretary	Dan Myers	K3NXX	215-957-2343
Treasurer	Herb Hickmott	KB3VMN	267-718-3601
Director (A)	Doug Becker	KC3MNQ	
Director (E)	Larry Abbott	WA3ELQ	215-704-3282
Director (A)	Bruce Farrington	WA3ZPC	
Director (E)	George Brechmann	N3HBT	215-443-5656
Past President	Marty Squicciarini	NR3Z	215-872-9644

Committee Chairpersons

ARES/RACES Liasor	n Karl Harris	K3KH	215-264-1855				
ARRL Liason	Irwin Darack	KD3TB	215-343-8170				
Awards Manager	Vince Pironti	KD3TC	215-674-0446				
Classes	George Altemus	KA3WXV	215-855-3856				
Digital and APRS	Ron Wenig	NY3J	215-638-9257				
Feedback Editor	Jim Elmore	WA4YWN	1215-538-1889				
Field Day 22	Doc Whitticar	W3GAD	215-968-6397				
Hamfest 22	Michael Shanblatt	W3MAS	267-491-5773				
Hamfest 22	Tony Cuttone	W3FLH	267-679-9297				
Hamwear	Kathy Acker	KC3FBY	215-815-7978				
Holiday Dinner	George Brechmann	N3HBT	215-443-5656				
Membership	Kathy Acker	KC3FBY	215-815-7978				
Net Manager	George Brechmann	N3HBT	215-443-5656				
Publicity	Bernice Kraut	KB3PCX	215-884-8195				
Refreshments	Brandon Penglase	N3UO	215-259-7255				
RF Interference	Andy Vavra	KD3RF	610-287-3295				
RF Interference	Bill Ballantine	K3FMQ	215-766-0764				
Repeater Coordinator	Brian Taylor	N3EXA	215-257-6303				
Safety Officer	Mike Malone	W3MJM	215-639-2175				
Station Trustee	George Brechmann	N3HBT	215-443-5656				
Sunshine Club	Ken Lichtenstein	K9KJL	847-697-1188				
Township Liason	George Brechmann	N3HBT	215-443-5656				
VE License Testing	Larry Abbott	WA3ELQ	215-704-3282				
VHF/UHF/MW	George Altemus	KA3WXV	215-855-3856				
Website Coordinator	Al Konschak	WI3Z	215-491-9941				
Youth Programs	Steve Larson	WW3Y	215-822-1511				

Page 10 FEEDBACK



Prudential Bank is proud to be a Corporate Sponsor of the Warminster Amateur Radio Club.



Prudential's Executive office is located at 3993 Huntingdon Pike, Suite 300, Huntingdon Valley PA 19006.

Notice of Non-Affiliation and Disclaimer: Prudential Bank is not affiliated, associated, authorized or endorsed by or in any way officially connected with The Prudential Insurance Company of America or any of its subsidiaries or affiliates.

