BCARES
Bucks County Amateur Radio Emergency Service

February 2025 https://kb3bux.org

NEWSLETTER

2025 Goals:
1. Improve individual operator capabilities
2. Advocate our role in the community

Meeting Recap

In November 2024, Bucks County ARES Group held its first in person meeting in five years at the Neshaminy Valley Baptist Church building in Bensalem. The meeting was well attended, with 13 people present. The main topic of conversation for this meeting was to discover our vision for the next year, and to set our priorities. Leading up to this, we discussed some of the history of BCARES since 2003, and the evolution of our relationships with served agencies, and with the ARRL. Each time one of these agencies experiences a change in leadership or a change in priorities, we have to start over almost from scratch at advocating for ourselves and demonstrating the value we bring. This led us to develop our focus for 2025.

Fundamentally, we are last mile providers. Because of our distributed resources, most of which do not rely on commercial infrastructure of any kind, we can maintain a widespread network of ground truth observation, and provide reliable messaging even when other means of communications break down. At the same time, the types of information that needs to be communicated has changed. Image and digital data are much more valuable than the telegram style messaging of years past. To that end, we need to become more proficient at handling this type of traffic, without losing sight of our core voice capabilities. Continual improvement of both our stations and our skills is our first priority for this year. Secondly, we want to advocate for ourselves not just to served agencies, but to our friends and neighbors. Field Day and Parks on the Air (POTA) operations go a long way toward this objective, but we also wanted to choose a community event to showcase ourselves at. After some discussion, we selected Yardley Harvest Days as the best option, taking place the last Saturday of September, even

though this conflicts with the MS-150 City to Shore ride. Earl, WA3DX, is our point person for this effort.

Following up on this meeting, we had a great discussion on alternative power capabilities during the net of November 20, and found that many of our members have already invested in full home generators. We were reminded that regularly testing the generator system, and ensuring adequate fuel for extended operation, is an important part of personal preparedness.

Standard Channels

1. K3DN 147.090 +0.600 PL 131.8
2. WA3BXW 147.300 +0.600 PL 131.8
3. K3ESJ 145.330 -0.600 PL 131.8
4. Simplex 146.400
5. Simplex 146.520
6. W3SK 146.790 -0.600 PL 131.8
7. Simplex 147.435
8. WA3ZID 147.000 +0.600
9. WA3EPA 145.350 -0.600 PL 131.8
10. Simplex 147.550
11. W3AI 145.310 -0.600 PL 131.8
12. 146.850 -0.600 PL 151.4
13. Simplex 146.535
14. Offline
15. Simplex 446.050
16. KW3P 449.725 -5.000
17. Simplex 446.025
18. K3DN 443.950 +5.000 PL 131.8
19. Simplex 446.000
20. APRS 145.390 Digital
21. Digital 145.350
22. Digital 145.670
23. W3SK 145.610 Digipeter
    a. KC3SMW-10 WinLink

On January 29, we met again in person at the Warminster VFW after learning that the Levittown VFW was unavailable. Mark, WA3QVU, and Karl, K3KH, led the effort in securing this location and ensuring we would also have Zoom capabilities. At this meeting, between those attending in person and those who joined us via Zoom, we had 21 individuals present. Our main topics of conversation were AREDN Mesh networking and DMR digital voice modes.

Montgomery County has been investing a lot into mesh networking (see the AREDN Mesh map at https://worldmap.arednmesh.org/#8.59/40.1543/-75.2281), with funding from ARRL Club grants via a local foundation. The easiest way to get started is to set up a single wireless node at your home, and connect it to the network over the public internet using VPN. Setting up a local peer to peer network requires line of sight between multiple nodes, making adequate height a prerequisite. As discussion followed, a suggestion came up about contacting the Delaware Valley Radio Association north of Trenton, NJ, and coordinating with them for space on their tower. This was left as a follow up item for the group.

Where AREDN Mesh uses frequencies inside or adjacent to computer Wi-Fi bands, a competing standard known as Meshtastic works with LoRa equipment, and does not require an amateur license. AREDN networks are capable of higher power outputs consistent with our Part 97 privileges.

ARRL Field Organization Leadership
Bucks County Emergency Coordinator - KB3GJT
SEPA District 1 Emergency Coordinator - K3ITH
EPA Section Emergency Coordinator - W2AFE
EPA Section Manager - W3BIG
Atlantic Division Director - K3RF

Following the discussion on mesh, we spent some time talking about DMR. A number of organizations in the area are already meeting on DMR talk groups, and a number of local DMR repeaters have already been set up. One of the biggest motivating factors to set up DMR capabilities is PEMA's proximity and use to DMR repeaters in Harrisburg. Because the backbone is on the public internet, DMR allows long distance communications with amateur radio providing the last mile. A common entry into DMR, even without a repeater nearby, is setting up a hotspot connected to a low power radio transceiver as the access point, and a DMR enabled HT or mobile radio for the actual comms.

Lastly, we discussed ongoing training for the ARES Taskbook. ARRL has recently updated, and made free, the basic and intermediate courses. Part of the taskbook also requires completion of FEMA's free independent study courses on incident command and national incident management. Links to the taskbook and the ARRL and FEMA can be found on the BCARES website at https://kb3bux.org/training.php.

A Blast From the Past

https://www.youtube.com/watch?v=X2_Rjdf16tY

The RATPAC group has Zoom presentations every Wednesday and Thursday night, later published to YouTube, on a variety of amateur radio and public service topics.

Website: https://www.ratpac.us/

Upcoming presentations:
Feb 12 Palomar Engineering - Optimizing end-fed antennas- Bob Brehm, AK6R
Feb 13 VHF/UHF and HF Winlink Gateways- John Trinterud, K9ONR
Feb 19 An Early History of Radio- James Wades, WB8SIW
Feb 20 Amateur Radio Podcast- Bill Salyers, AJ8B
Feb 26 The IEEE MOVE Disaster Response Trucks- Jay Diepenbrock, KM4EP
Feb 27 Coaxial Cable & Connectors- The Inside Look- Richard Cetron, K2KNB
Mar 06 Youth On The Air- Neil Rapp, WB9VPG
Mar 12 The Anatomy of a QRP Field Radio Kit from QRPer.com- Thomas Witherspoon, K4SWL
Mar 13 Creating a Go Kit That is Right for You- Dan Lundwall, N7XDL
Mar 19 Chasing DX During a Contest- Bill Salyers, AB8J
Mar 20 Expect the Unimaginable- Greg Hauser
Mar 27 EMP - What It Is and How It Affects Us- Dan Lundwall, N7XDL
Apr 02 The Wilderness Protocol- Dan Lundwall, N7XDL
Apr 03 Hello from ARDC- Rosy Schechter, KJ7RYV
Apr 09 OCFD Antennas Revisited- Steven Dick, K1RF
Apr 10 Canst Thou Send Lightnings- James Wades, WB8SIW
Apr 16 Temporarily Offline Ham Radio- Steve, KM9G
Apr 24 The Radio Relay International Certified Radio Operator Program- James Wades, WB8SIW