

Fall 2023 Amateur Radio Emergency Service Simulated Emergency Test Eastern Pennsylvania ARES and Pennsylvania American Red Cross

On October 7th, 2023, Pennsylvania amateur radio operators participated in an exercise to test their ability to communicate with Amateur Radio Emergency Service (ARES) and Pennsylvania Red Cross Regions.

ARES conducts Simulated Emergency Tests (SET) twice per year. These exercises provide ARES organizations opportunities to train for eventual real-world activations and deployments where they will provide emergency communication (EMCOMM) support to communities in need.

The Fall 2023 SET had two elements: 1) The American Red Cross “ARC” element, a general call from Red Cross to Pennsylvania hams to simulate a check-in message from a Red Cross shelter and 2) The “ARES” element. Eastern Pennsylvania ARES Emergency Coordinators (ECs) were asked to alert their units and provide a listing of resources available to deploy.

PARTICIPATION

Overall, 160 amateur radio operators participated in this event. The ARC element had 86 participants and the ARES 122.

ARC ELEMENT - AMERICAN RED CROSS – SHELTER ARRIVAL

A Winlink alert message was sent to hams who participated in the Spring 2023 SET and the emergency communications teams of the Greater Pennsylvania American Red Cross region and the Southeastern Pennsylvania Red Cross region.

The Alert message was:

DRILL DRILL DRILL

A Coronal Mass Ejection (CME) event has affected the telephone and power network. Red Cross is opening shelters in PA counties. Please report to your local (SIMULATED) shelter. Upon arrival send an ARC-213 with your arrival status to your Red Cross Region (WINLINK tactical calls ARC-GPA or ARC-SEPA).

Provide the following information:

- Your actual county location
- Your Winlink connection (VHF/UHF/HF, VARA/Packet/Etc, RMS, Frequency)
- Your deployment potential, how long you are capable of deploying and operating VHF/HF phone and or VHF/HF Winlink.

Use the ARC-213 template in Winlink Express
(Select Template/Standard Templates ->ARC Forms ->ARC 213.txt)

Send to ARC-SEPA if you are in Philadelphia, Delaware, Chester, Montgomery, and Bucks county otherwise send to ARC-GPA if you are in any other county.

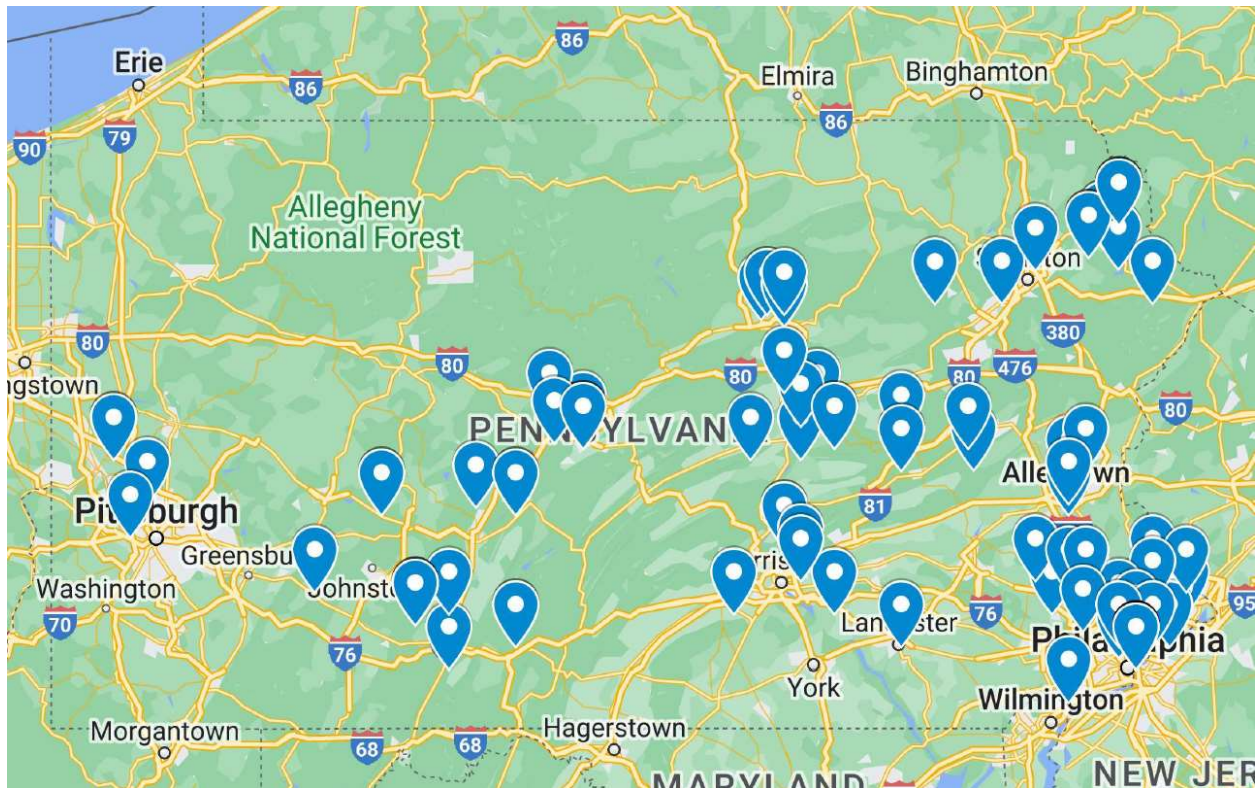
Messages were received at Winlink stations (ARC-GPA and ARC-SEPA) staffed by the exercise team. All messages were responsive to the Alert. Participants identified their location and described their resources for maintaining communication.

ARC SEPA received 42 messages from 26 participants. ARC-GPA received 71 messages from 57 participants.

This is an excellent performance when you consider that many of the participants had little notice of the drill. The drill instructions were delivered only by Winlink. Participants had to first check Winlink to receive the Alert and then deliver their reply. See APPENDIX for a full participant list.

ARC ELEMENT PARTICIPANT MAP

Participants were located throughout the state,



WINLINK CONNECTION OPTIONS

Chris Beggy, KC3QVF, checked in a total of 12 times, using 12 different RMS, demonstrating that there are many options to connect with Winlink. He made 40 Meter HF connections with IN, CT, NJ, SC and GA. If the internet had been out locally, Chris would have found a place where it was available! He also connected locally using VHF via Packet (1) and VARA FM (5).

Here are the RMS's that Chris used:

VARA HF

W6IDS – Richmond IN
W1AW – Newington CT
W2MMD – Pitman NJ
W2GSA – Holmdel NJ
KB3HNB – Manning SC
K4PAR – Eatonton GA

Packet - KC3SMW

VARA FM - KC2QVT, N3MEL, KB3PCY, K3FZT, KE3HG

ARES ELEMENT COUNTY ROLLUP

The ARES Rollup portion of the exercise began with an email message from the Eastern Pennsylvania Section Emergency Coordinator (EPA SEC) to Eastern Pennsylvania (EPA) county Emergency Communicators (ECs). These are the leaders of the county organizations. The Alert message was:

MESSAGE FROM EPA SEC TO EPA ECS

DRILL DRILL DRILL

A CME event has affected the telephone and power network. PEMA has requested help from ARES. Please report your county's ARES availability to deploy.

Need to know who from your county is able to deploy. For each, provide name, call, county and deployment radio capabilities (VHF HT, VHF Mobile, whip antenna, portable mast, HF mobile, output power, portable antennas, etc) and time they can be deployed (i.e. 4 to 8 hrs).

Use your local ALERT and communication procedures. Employ any form of ham communication. VHF phone, HF, Winlink etc. Try not to use telephone or email. Summarize data on ICS-213. Report by end of day 7 Oct 2023. Send to the Winlink tactical address ARES-EPA (EPA SEC). Use of Winlink Telnet is okay for the response.

DRILL DRILL DRILL

The intention was for the ECs and their teams to use local procedures to initiate and conduct the drill. They were to collect deployment capability from their membership and report back to the EPA Section Emergency Coordinator (EPA SEC) by the end of the day. They were asked to use an ICS-213 and send it via Winlink.

A tactical address, ARES-EPA, was used for the EPA SEC. 12 EPA counties participated with 122 operators checking in. All the participating counties were responsive to the drill request. All used the requested format. All delivered their message on time.

SUMMARY

The purpose of this exercise was to coordinate activities between Pennsylvania ARES and Pennsylvania Red Cross EMCOMM teams and demonstrate their ability to communicate effectively with one another.

Many of the Pennsylvania Red Cross EMCOMM team are ARES members. This was an opportunity to engage the wider ARES membership in the scope of potential EMCOMM hubs across Pennsylvania at Red Cross Chapters and Regions. These activities are open to all Pennsylvania amateur radio operators.

In a Gray Sky event, it would be expected that communications teams would operate from these Red Cross facilities and/or would be providing EMCOMM services between them, shelters, and disaster operations elsewhere in the state.

WINLINK is employed by EMCOMM practitioners worldwide. It is designed to handle the Red Cross documents including ARC-213 General Message, ARC-6409 Requisition Form, ARC Daily Shelter Reports, and many others.

RECOGNITION

Many people contributed to the planning, execution, and success of this exercise.

Red Cross

- David Herzog KC3KAG, GPA Red Cross Disaster Program Manager
- Cliff Hotchkiss KC3PGT, SEPA DST Regional Lead, Philadelphia County ARES Emergency Coordinator

ARES

Eastern PA Section Emergency Coordinator
Bob Wilson W3BIG
Western PA Section Emergency Coordinator
Bud Plants N3TIR

ARRL

Eastern PA Section Manager
Bob Wilson W3BIG
Western PA Section Manager
Joe Shupienis W3BC

Exercise Team (developed and executed the exercise)

- Sean Campbell KC3LMZ, Red Cross Rivers Chapter Emcomm Lead, Red Cross DAT Supervisor
- Greg Cheng KC3SMW, Philadelphia County ARES Winlink net control, Red Cross DCS
- Jay King W2AFE, Philadelphia County ARES AEC, Red Cross Blood Collections Ambassador, Red Cross DST and Logistics
- Brett Saylor W3SWL, Red Cross Mid Central PA Emcomm Lead, ARES member, ARC Volunteer, Centre County AEC for Liaison to the American Red Cross.

Thanks to Doug Rice, W3COB, Lancaster County EC, for suggesting the ARES rollup drill.

BACKGROUND

Amateur Radio Emergency Service (ARES)

Amateur radio operators use their training, skills, and equipment to provide communications during emergencies when all else fails. Hams serve our communities when storms or other disasters damage critical communication infrastructure, including cell towers, and wired and wireless networks. Amateur radio can function independently of the internet and phone systems. An amateur radio station can be set up almost anywhere in minutes. Hams can quickly raise an antenna in a tree or on a mast, connect it to a radio and power source, and communicate effectively with others.

Pennsylvania ARES

Pennsylvania is served by the Western Pennsylvania Section and the Eastern Pennsylvania Section. ARES groups typically serve at the county level, working with the county emergency management staff. Philadelphia County ARES is unique. It serves the Southeastern Pennsylvania Red Cross region of Bucks, Montgomery, Chester, Delaware, and Philadelphia counties.

Red Cross

The Red Cross responds to approximately 70,000 disasters in the United States every year, ranging from home fires that affect a single family to hurricanes that affect tens of thousands, to earthquakes that impact millions. In these events, the Red Cross provides shelter, food, health and mental health services to help families and entire communities get back on their feet. Although the Red Cross is not a government agency, it is an essential part of the response when disaster strikes. They work in partnership with other agencies and organizations that provide services to disaster victims. Pennsylvania is served by two Red Cross Regions; Greater PA and Southeastern PA. The Regions are made up of Chapters. The Chapters are the focus for first response and EMCOMM opportunities. Red Cross EMCOMM is commonly planned at the Region level and executed at the Chapter level.

APPENDIX - AMERICAN RED CROSS SHELTER ARRIVAL - PARTICIPATING STATIONS

Our thanks to the following amateurs who participated in this exercise by contacting their ARC Region.

American Red Cross Greater PA Region (60 participants)

Allegheny - W3KWH, KC3WMS
Beaver - KB3VSP, KC3NAF, KC3KHK, KB3DFZ, KC3NAF, KC3RHR, W3XOX
Cambria - KC3QWI, KC3WQI, KC3KFW, ND3L
Centre - K3CWP, WX2DX, W3SWL, K3CLM, WX2DX, KC3WQG
Cumberland - N3EPY
Dauphin - K3URT, K3RTS, K3FXA, KC3LYV, KD3MAD, KZ3KBD, WX2DX
Lackawanna - NW3X
Lancaster- N3QZS, W3COB
Lehigh - WA3PNY, KC3LMZ, N3WGH, KC3BLF, N3XG, KB3YOT
Luzern - N3RN, K3EAM
Lycoming - KC3UWB, N3RPB, KC8T, WJ3OM
Montour - KC3SQO
Northumberland - KE3NJ
Schuylkill - W3DFX, KC3RWX, N3RZI, KC3RWX, KC3QLX
Snyder - N1OEP, KC3ULG
Union - KC3OXN, KB3AC
Wayne - KC3POC, KC3QPC, KC3NDU, N2KJW, KC3NDU, WA3ZCR
Westmorland - WC3PS

American Red Cross Southeastern PA Region (26 participants)

Bucks - KC3SMW, K3KH, WA3DX, KC3SZB, NY3J, KB3GJT, K3KIC, N3PEG, KC3SSG, K3FKW
Chester - W2AFE
Montgomery - W3AFV, W3EX, NE3I, N2ADD, AA3E, W3ZQN, KC3PGT
Philadelphia - KA3TTT, KC3QVF, W3BIG, K3FZT, KC3UGC, KC3CEW, KC3CEW, N3PEG

Note: Merging the logs from multiple Winlink stations is complicated. If you participated in the exercise and your call is missing, please contact Jay King W2AFE jayhking@yahoo.com. This report will be revised as necessary.

APPENDIX - EASTERN PA ARES ROLLUP

Our thanks to the ECs and ARES members who participated in this exercise by Alerting their organizations and responding to the drill request. Data is organized by Pennsylvania County.


County	EC	Ops	Report
Bucks	KB3GJT Mike Sabal	10 N3LBP, K3KH, WB3ABH, KC3SZB, KC3SMW, NY3J, K3FKW, WA3DX, KB3GJT, WA3QVU	KB3GJT Opened Rollcall net at 1100Z on K3DN/R 147.090 10 stations participated in the net. After rollcall was completed, Go Kit information was requested. The repeater failed at about 1115Z, so we moved the net to W3SK/R 146.790. Due to antenna and atmospheric conditions, KB3GJT was unable to get a clear copy from stations, so NY3J took over as net control. The net concluded at 1140Z. Upper: N3LBP/P Chuck - Available 5W output with magmount and hamstick antennas on HF/VHF/UHF, for as many hours as needed. Central: K3KH Karl - Available 100 watts HF, 50 watts VHF, 24 hours of backup power, antenna for HF and VHF WB3ABH John - Available Could not QSY KC3SZB Tom - Available Could not QSY KC3SMW Greg - Available 50 watts HF, VHF, UHF, 20 hours batter power Lower: NY3J Ron - Available K3FKW Ken - Available 50 watts VHF, 24 hours of backup power, antenna dual band FM WA3DX Earl - Available 100 watts HF, portable dipole for HF, 24 hours battery power KB3GJT Mike - Available Kenwood TS-2000, Yaesu FT-817, Alinco DR-135TMark3, Yaesu FT-8800, Max power 100W, Comet magmount & Diamond vertical at disposal, plus an array of premade HF dipoles for NVIS. 2 10Ah LiPO batteries, plus vehicle power & 2 HT batteries. Can only stay until midnight, have other obligations. Outside: WA3QVU Mark - Already deployed with another group
Chester	N3MEL Glenn Allison	16 KB3FCJ, N3FLL, KC3TMT, KE3HG, W3JFS, K3EUI, WB3GCK, KB3PCY, N4SEN, W3OMV, WA2VEE, K5HAL, W3JBS, KA2DDO, N3MEL, WA3NOA	Total 15 Check ins 6 Digital Winlink Vara FM direct connection to the EOC 2 Digital via the Chester Co. Vara FM Network 7 Voice Check ins via the Chester Co. UHF repeater system to the EOC Deployment Capabilities. 14 available to deploy Deployment: evenings to 72 hrs 15 UHF/VHF HT 12 UHF/VHF mobile 7 HF mobile + antenna 7 Extended battery backup 5 Antenna Mast

County	EC	Ops	Report
Cumberland	NC30 Jack Himes	9 KC3RTP, KC3UBZ, N3UTN, AB3X, W3ETO, W3AND, WE3H, N3EPY, NC30	Total 8 check-ins for Cumberland County 6 by WinLink VARA HF 2 by WinLink Telnet Deployment Capabilities 1 Vara HF and VHF Packet for 6 hours, 2m vertical, HF 80/40 m 1 Vara HF and VHF for 8 hours, HF wire, 2m 3/4 wave 1 Vara HF and VHF for 12 hours, vertical HF, Slim-Jim 2m 1 Vara HF and VHF Telnet for 8 hours, VHF J-pole, Wire for HF 1 Vara HF for 5 days, end fed wire or vertical or vertical, batteries and solar 1 Vara HF and VHF for 8 hours, HF wire 100 w, VHF 1/4 whip 2 Winlink Telnet for Zero hours
Dauphin	K3RTS Bob Saber	18 KA1YSR, K3CWP, KI0EH, KD3MAD, KZ3KBD, KC3LYV, KC3RHR, K3URT, KC3POP, KC3OPJ, K3FXA, KC3TGO, K3RTS, N4ZHG, KB3KLG, KB3FGB, K3EJB, KC3RYH	18 BY VHF REPEATER, 0 BY VHF SIMPLEX CHECK-INS INCLUDED: BLAIR (1), CENTRE (2), CUMBERLAND (1), DAUPHIN (11), LANCASTER (1), LEBANON (1) AND YORK (1) COUNTIES. DEPLOYMENT CAPABILITIES: 16 VHF HT, 4-48 HRS 12 VHF MOBILE, 8-48 HRS 12 HF PORTABLE, 4-48 HRS 11 WINLINK CAPABLE - 4-48 HRS
Delaware	W3CTK Chris Kelleher	11 KC3PQT, KC3VTF, K3RMC, KC3MTT, KB3UGI, KC3USB, KC3KIB, KC3GAG, K3RF, N3QB, W3CTK	KC3PQT / Nate / Havertown / ICOM 880H Go Kit with dual band antenna / Can deploy for 8-12 hours KC3VTF / Micheal / Folson @ 911 Center / VHF/UHF Mobile & 10m Mobile with tri-band and 10m antenna / Can deploy for 8 hours K3RMC / Rich / Brookhaven @ 911 Center / Mutiple Mobile radios with various antenna / Can deploy for 12 hours KC3MTT / Tammi / Glen Mills @ 911 Center / ICOM 4100 Go Kit with dual band antenna & Winlink / Can deploy for 12 hours KB3UGI / Sonya / Morton / ICOM 4100 Go Kit with dual band antenna & Winlink / Can deploy for 8 hours KC3USB / Dave / Upper Darby @ 911 Center / ICOM 4100 Go Kit with dual band antenna & Winlink / Can deploy with generator for 12 hours KC3KIB / Tom / Aston / ICOM 5100 Go Kit with dual band antenna / Can NOT deploy KC3GAG / Nadine / Springfield / ICOM 4100 Go Kit with dual band antenna & Winlink / Can deploy for 8 hours K3RF / Bob / Media / Mutiple radios with various antenna / Could deploy N3QB / Matt / Springfield / ICOM 4100 Go Kit with dual band antenna & Winlink, handhelds, HF / Can deploy for 12+ hours

County	EC	Ops	Report
Lancaster	W3COB Doug Rice	10 KB3SCA, KC3LAV, KB3SCB, N3PRG, W3NY, KB3ZMB, W3NHW, N3EJG. W3PC, W3COB	OPERATORS AVAILABLE FOR IMMEDIATE DEPLOYMENT FROM LANCASTER COUNTY A.R.E.S. : 3 OPS FOR 12 HOURS WITH HF/VHF/UHF GO-KIT (2 FULL WINLINK CAPABLE) OFF-GRID POWER 2 OPS FOR 8 HOURS WITH VHF/UHF MOBILE (VEHICLE MOUNTED) AND VHF/UHF HT 5 OPS FOR 6 HOURS WIHT VHF/UHF HT (ONE RESTRICTED TO DAYLIGHT HOURS ONLY) TOTAL OF 10 OPERATORS RESPONDED TO THIS EXERCISE FROM LANCASTER COUNTY ARES SENT THROUGH WINLINK RMS GATEWAY W3COB-10 IN LANCASTER, PA
Luzerne	N3SRO David Kirby	5 WA2EXI, K3EAM, N3RN, NWEXI, N3SRO	4 operators on HF Portable on SSB, digital, winlink 5 Operators with vhf/uhf portable/mobile capabilities. FM/digital/winlink 5 Mobile antennas, 4 VHF/UHF masts, 4 EMCOMM end fed wire and portable vertical HF 5 lifepo batteries Available for rotating shifts for 48 hours
Lycoming	N3RPB Bob Brown	11 KB3UWB, WJ3OM, KC8T, KC3SQO, N3RPB, KC3CAJ, N3LEQ, WB3DOC, KC3QHY, N3ZIO, N3RPB	1 ABLE TO DEPLOY hf VOICE & DIGITAL 80-10M 100 WATTS / VHF & UHF VOICE & DIGITAL 2M, 70CM 50 WATTS / 15' MAST WITH VHF/UHF VERT & HF DIPOLE / BATTERY POWER KC3UWB 1 ABLE TO DEPLY HF VOICE & DIGITAL 80-10M 100 WATTS / VHF / UHF VOICE & DIGITAL 2M, 70CM 50 WATTS / 15' MAST WITH VHF / UHF J-POLE & HF WIRE DIPOLE / BATTERY POWER N3RPB 1 ABLE TO DEPLOY VHF ONLY & TELNET WINLINK CAPABILITY - (** MONTOUR COUNTY PA) KC3SQO - ARC GPA REG GOV OPS LEAD. CHECKED IN VIA 2M REPEATER AND SENT TELNET WINLINK MESSAGE WHICH WAS FORWARDED. 1 ABLE TO DEPLOY INDEFINITELY - HF VOICE &DIGITAL 80-10M / VHF & UHF VOICE & DIGITAL 50 WATTS / BATTERY POWER 1 ABLE TO DEPLOY 24 HOURS VHF/UHF phone, 75/25 watts, vert antenna at 25 ft Capable 24 hours HF Winlink 50 watts, 80/40 NVIS / BATTERY POWER 5 UNABLE TO DEPLOY
Mongomery	W3AFV Chuck Farrell	8 W3AFV, N3EI, W3ZQN, N3FKR, N2ADD, W3EX, KA3NUV, WA3JZN	TOTAL 8 CHECK-INS FOR MONTGOMERY COUNTY DEPLOYMENT CAPABILITIES 4 VHF/UHF GO KIT 10 - 25 WATTS, MOBILE ANTENNAS, 8 HOURS BATTERY POWER 1 HF SIMPLEX EFHW ANTENNA 8 HOURS BATTERY POWER 4 VHF /UHF MOBILE MAG MOUNT / CAR ANTENNA, 8 - 24 HOURS CAR POWER ALL WITH PHONE, 4 WITH FLDIGI, 3 WITH WINLINK

County	EC	Ops	Report
Philadelphia	KC3PGT Cliff Hotchkiss	9 KC3PGT, KC3CEW, N3PEG, KC3IJN, W2AFE, K3FZT, KC3UPK, KC3SZB, KA3TTT	1. KC3PGT - Ready to deploy VHF/UHF HT & mobile Go-Kit and HF 48 hours at 10w. Portable mast and antennas. 2. KC3CEW - VHF/UHF Ready to deploy Mobile whip 48hrs 3. N3PEG - Ready to deploy 2 go-kits VHF/UHF Digital/voice 6hrs Solar recharging- half wave mag mounts 4. KC3IJN - Ready to deploy- Mobile 12 hrs and HT. HF capable 6 and 10m, Roll-up jpole and dipoles 5. W2AFE - Ready to deploy tri band HT 4hrs HF 10w 8hrs. 30' mast and antennas 6. K3FZT - Capable of operating hardened VARA gateway for 24-48hrs on battery. Able to assist from home VHF/UHF and HF, Masts and antennas 7. KC3UPK - Able to operate winlink and assist from home on VHF/UHF 8. KC3SZb - Ready to deploy HT and mobile go-kit VHF/UHF 24hrs + 6m. Roll up antennas 9. KA3TTT - E-power able to asst from home with VHF/UHF and HF. Loaded whip antennas.
Schuykill	N3RZI Robert Mcclintock	8 N3RZI, KC3RMV, W3DFX, KB3FET, AB3WX, KA3AJB, KC3KGW, KC3RWX,	Total 8 check-ins for Schuylkill County as of 10:45 AM 7 by VHF repeater, 5 by VHF simplex, 3 by HF 40M, 4 by Winlink FM VARA Deployment capabilities: N3RZI-HT, 40 w VHF with portable base antenna, 100 W HF with NVIS, winlink, 8 hours KC3RMV- HT, 40W VHF with whip antenna, 100 W HF with NVIS, 8 hours W3DFX- HT, 40W VHF with hi gain antenna, 100 w HF with NVIS, winlink, 8 hours KB3FET- HT, 40 W VHF with whip antenna, 8 hours AB3WX, KA3AJB, KC3KGW- HT, base VHF, Base HF, winlink, unlimited at regional EOC with backup power KC3RWX- HT, 40w VHF with whip antenna, winlink, 8 hours
Wayne	KC3POC Peter Marcano	7 KC3POC, KC3NDU, KB2UQW, KC3QPC, KC3SAQ, N2KJW, WA3ZCR	Group was Alerted by email and by radio. Met 7 Oct at 9AM on the Tafton repeater. KC3POC Peter Marcano KC3NDU Keith Lynn KB2UQW Bruce Gould KC3QPC Robert Wolff KC3SAQ Greg Barra N2KJW Kevin Whitehead WA3ZCR Craig Seelig Regular nets are Thursdays, 8pm on the Tafton repeater.

APPENDIX – EXAMPLE ARC-213

 American Red Cross		ARC 213 General Message	
DR#: 23-0101	Incident Name: FALL 23 PA SET	Message#: 001	
Precedence: Routine			
To (Name/Position): Chris Drake, Director Shelter Operations			
From (Name/Position): Steve Frederick K3KIC			
Subject: K3KIC Arrival at Bucks County Shelter		Date: 2023-10-07	Time: 12:06
<p>Message</p> <p>DRILL DRILL DRILL</p> <p>Arrived at shelter at 100 York Road, Bucks County PA Connecting via FM, KC3SMW-10, 145.610 Capable of 72 hours operation VHF/UHF phone 5 watts, 6" antenna Capable of 72 hours operation VHF/UHF phone 50 W, 5 meter vert antenna Capable of 72 hours operation VHF/UHF winlink 50 W, 5 meter vert antenna Capable of 72 hours of operation HF phone or winlink10 thru 80 meters, 100 W, 33 foot antenna</p> <p>DRILL DRILL DRILL</p>			
Approved by: SF		Position / Title: local operator	
Reply:			
Replied By (Name):		Position / Title:	Date / Time:

APPENDIX – EXAMPLE EC ICS-213

General Message (ICS 213)		
** THIS IS AN EXERCISE **		
1. Incident Name: FALL 23 PA SET		
2. To (Name/Position): W3BIG		
3. From (Name/Position): KB3GJT		
4. Subject: Bucks County October 2023 SET Report	5. Date: 2023-10-07	6. Time: 12:07
7. Message		
<p>KB3GJT Opened Rollcall net at 1100Z on K3DN/R 147.090 10 stations participated in the net. After rollcall was completed, Go Kit information was requested. The repeater failed at about 1115Z, so we moved the net to W3SK/R 146.790. Due to antenna and atmospheric conditions, KB3GJT was unable to get a clear copy from stations, so NY3J took over as net control. The net concluded at 1140Z.</p> <p>Upper: N3LBP/P Chuck - Available 5W output with magmount and hamstick antennas on HF/VHF/UHF, for as many hours as needed.</p> <p>Central: K3KH Karl - Available 100 watts HF, 50 watts VHF, 24 hours of backup power, antenna for HF and VHF WB3ABH John - Available Could not QSY KC3Szb Tom - Available Could not QSY KC3SMW Greg - Available 50 watts HF, VHF, UHF, 20 hours batter power</p> <p>Lower: NY3J Ron - Available K3FKW Ken - Available 50 watts VHF, 24 hours of backup power, antenna dual band FM WA3DX Earl - Available 100 watts HF, portable dipole for HF, 24 hours battery power KB3GJT Mike - Available Kenwood TS-2000, Yaesu FT-817, Alinco DR-135TMark3, Yaesu FT-8800, Max power 100W, Comet magmount & Diamond vertical at disposal, plus an array of premade HF dipoles for NVIS. 2 10Ah LiPO batteries, plus vehicle power & 2 HT batteries. Can only stay until midnight, have other obligations.</p> <p>Outside: WA3QVU Mark - Already deployed with another group</p>		
8. Approved by: Michael Sabal, KB3GJT 8b. Position / Title: EC Bucks County, PA		
[Express Sender: KB3GJT Lat: 40.1458, Lon:-74.9583, MGRS:]		
9. Reply:		
10. Replied By:	Position / Title:	Date / Time: