



Ham Hum

Sep 2019 Volume LXIX, Issue 9

The August program was presented by Mr. Steve Narans, WBOVNF from the Pioneer Amateur Radio Club (PARC) out of Fremont, NE and how PARC provided communication support and coordination between Flood relief agencies during the 2019 Flooding of Fremont and Winslow, NE. Levies and dams were overwhelmed causing extensive road closures which isolated these towns (including Columbus) leaving residents stranded. PARC provided over 500 hrs. of support by 12 Hams assisting in the coordination of feeding 1500 meals per day, setting up 5 shelters for 300 people, and a 35,000 SF warehouse as donations arrived from areas as far as Texas .



To understand the extent of this catastrophe see numerous photos and videos on you tube. Also google for drone footage of Fremont Flooding 2019.



The Program for Sep 13, 2019

Matt Anderson on Amateur Radio and Astronomy.

AKSARBEN ARC Club Meeting – Aug 9, 2019

The meeting was called to order at 7:02 PM by saying the Pledge of Allegiance followed by introductions by name and call. There were 34 attendees.

Officers and Board members present included: Sean, ADOQG; Brian, KEOGKB; Dave, NOJSB; Dan, NOPOT;

Secretary's Report - Brian, KEOGKB - The minutes of the previous meeting as published in Ham Hum are accepted with no corrections.

Treasurer's Report - Dave, NOJSB - As of July 31 the club accounts had balances of: Main Checking \$2,926.99 Repeater Checking \$550.62 Savings \$6,983.20, CD Life Member one \$6,454.77, CD Life Member two \$6,701.43, and CD Repeater \$1,106.41 This leaves the balance of all the club accounts at \$24,723.42.

In the month of July there were deposits of \$133.00 Consisting of: \$30.00 from Refreshments, \$80.00 from membership, and \$23.00 from equipment sold at North Bend.

Monthly expenses of \$23.24 for meeting treats.

President's Report - Kevin, KA0VNY - No report

Vice President's Report - Sean, ADOQG - Tonight's program will be Presentation by Steve Narans WB0VNF about the flooding in Fremont and the role amateur radio played in disaster services

ARES/Disaster Preparedness/

ARES Steve NOUP - No report.

SATERN - Mary, NOTRK - Satern will be having a meeting on Saturday August 17 and right now it will be at the EDS building. If you would like to attend but are not signed up let me know because there may be a change of venue. I am talking to Captain Gantner out at

Continued on Page 3

Kroc center and there are some potential opportunities out there for the Aksarben Radio club to help with some STEM activities for the kids.

Community Service - Pat KOCTU Corporate Cup run is coming up on September 8, the day after the Flea-Esta, starting at 8AM. I will be reaching out to those that have helped in the past, if you would like to help an HT is about all you will need so, send me an email at my call sign at cox.net.

Then on October 12 will be the Market to Market Relay but we don't have any additional information at this time.

Education Committee - Rea NOREA- No report

Membership Committee - Mary, NOTRK - We have three new member applications, Michael Wieger KE0WKP, and John Fifer KE0UMQ are both newly licensed Ham and Steve Naran WB0VNF who will be giving our presentation tonight. A motion to accept these applications was made by Pat KOCTU with a second by Bill KD0FJR, after a brief discussion all applications were confirmed by a unanimous vote.

The club is transitioning to an online membership system called HAM Club Online. This system will update member information automatically such as address changes, Call Sign Changes from the FCC Database and many other features like online voting, generating mailing list ETC. If you get an email from ham club online, it is legit.

Publications/Web Services Ham Hum - Brian, WE0BEP -

This time of year I do not have any problems finding stories with all the community events going on but, if you would like to have a little story about something you are doing let me know.

Continued on Page 4

Web Services - Mary, N0TRK/Adam, K0OMMG - The website is working.

Repeater Committee - John, WBOCMC -If you have been between here and Lincoln and can't get in to 94 We have a new satellite receiver for 94 located on the channel 12 tower about 800 feet up. This does require PL Tone of 131.8 to get in. It is counter intuitive but if you are between Lincoln and Omaha and the main receiver hears you first it will activate first because PL tone on the satellite will cause a slight delay, go to low power so only the satellite hears you then it will be full quieting.

Field Day - Adam, K0OMMG - No report

QSL and Technical Committee - Eddy, K0IL - No report

Courtesy Committee - Bill Snyder K00FJR - no cards sent out this month.

Trailer/Equipment Committee - Mary, N0TRK - No Report

Public Awareness -KA0KCV No Report.

Transmitter Hunt - Dave, N0JSB - This Sunday at 3 pm at Memorial Park

Flea-Esta - Chris - Flea-Esta is September 7 at Sarpy County Fair Grounds, I have the forms for tables they are \$8 in advance and \$10 the day of. D&L is coming back. We have ordered the last prize. This year's grand prize is a 1000-watt inverter generator we also have other prizes that can be used on Field Day. We are still looking for volunteers so let me know if you can help

Old Business - No Old Business

New Business - No New Business

Continued on Page 5

Announcements This Saturday we will be at Chalco Hills starting at 5 PM for Parks on The Air. Please come out and join us.

The ATV repeater is back online.

Door Prizes - We are looking for a volunteer to take over the duties of the Door Prize coordinator, if you would be interested, please see Kevin.

Coffee and cookies are available in the break room before the program. Please donate to help offset the cost of these treats.

Also, support your local repeater. The club accepts donations for any area repeater and forwards the money to the appropriate owner.

There being no more business before the club a motion to adjourn was made by John KE0UMQ with a second by Mary N0TRK, the meeting was adjourned at 7:32 PM.

AARC New Club Members

John, **KE0UMQ** (left) Mike, **KE0WKP** (center) Steve, **WB0VNF** (right)

Were voted into the AARC membership 9 Aug 2019.



Area Nets

Monday

7:00 PM 145.290 South-West Iowa ARES Glenwood, IA.

8:00 PM 144.250 NE Missouri SWOT.

9:00 PM 146.940 AARC Chat Net. Ak-Sar-Ben ARC Omaha, NE.

Tuesday

9:00 PM 145.310 Washington Co. ARES Washington Co, NE.

Wednesday

7:00 PM 146.670 Dodge Co. ARES Dodge Co, NE.

7:30 PM 7.122 CW Four State QRP Comfortable Net.

8:00 PM 3.564 CW Four State QRP Comfortable Net.

8:00 PM 145.310 Saunders Co. ARES Saunders Co, NE.

8:30 PM 7.122 CW Four State QRP Comfortable Net.

9:00 PM 3.580.5 PSK Four State QRP Comfortable Net.

9:00 PM 146.820 Pottawattamie County ARES Council Bluffs, IA.

Thursday

8:30 AM 7.122 CW Four State QRP 40M Morning Net.

7:30 PM 145.310- Lincoln/Omaha SATERN Net. Ashland, NE.

8:00 PM 28.350 SSB 10-Meter Net.

8:00 PM 144.250 2-Meter SSB Net.

8:00 PM 146.360 Heartland DX Association.

Friday

10:00 PM 224.760- Tone 146.2 Promote the Band Net

Saturday

12:00 PM 146.82 Swap Net Council Bluffs, IA.

8:30 PM 3.921.000 QCWA Chapter 20.

Sunday

8:00 AM 3.902.500 Swap Net.

8:30 AM 3.896.500 3900 Club.

8:30 PM 443.925+ (103.5 tone) IRLP Net.

2:00 PM 50.200 6 Meter Net

9:00 PM 146.940- Douglas Co. ARES net, KØUSA repeater.

BOARD MEETING NOTICE

The next AARC Board Meeting is scheduled for **24 Sep 2019 at 6:30PM**, Peony Park Hy -Vee on Cass Street, Omaha. Board meetings are held on the fourth **Tuesday** of each month.

Club Officers & Board Members

President	Kevin Hill	KAØVNY	president@aksarbenarc.org
Vice President	Sean Edwards	ADØQG	vicepresident@aksarbenarc.org
2018 Secretary	Brian Sohl	KEØGKB	secretary@aksarbenarc.org
2018 Treasurer	Dave Rice	NØJSB	treasurer@aksarbenarc.org
2019-2021 Director	Dave Rice	NØJSB	board@aksarbenarc.org
2019-2021 Director	Dan Buchholz	NØPOT	board@aksarbenarc.org
2018-2019 Director	Brian Sohl	KEØGKB	board@aksarbenarc.org
2018-2019 Director	Barb Westcott	KCØHLB	board@aksarbenarc.org
Immediate Past President	Bill True	WA9ASD	board@aksarbenarc.org

Club Committees

Courtesy Committee	Bill Snyder	KDØFJR	courtesy@aksarbenarc.org
Education	Ray Blackburn	NØREA	education@aksarbenarc.org
Field Day	Adam Kavan	KDØMMM	fieldday@aksarbenarc.org
Flea-Esta	Chris Rice		flea@aksarbenarc.org
Membership	Mary Joseph	NØTRK	membership@aksarbenarc.org
Monday Night .94 Net	Rich Swig	WAØZQG	wa0zqg@hotmail.com
P.I.M.P.	Jim Westcott	KAØKCV	pr@aksarbenarc.org
Prizes	Adam Kavan	KDØMMM	prizes@aksarbenarc.org
A.R.E.S.	Steve Schmitz	NØUP	n0up@arrl.net
Publications	Brian Pitchanau	WEØBEP	hamhum@aksarbenarc.org
QSL Manager & Technical	Ed Edwards	KØIL	qslmanager@aksarbenarc.org
Special Events Coordinator	Pat Joseph	KØCTU	community_service@aksarbenarc.org

Technical Assistance	Ed Edwards	KØIL	technical@aksarbenarc.org
Web Services	Mary Joseph	NØTRK	web_master@aksarbenarc.org

Repeater Committee

Chairman	John Gebuhr	WBØCMC	repeater@aksarbenarc.org
Vice Chairman	Steve Schmitz	NØUP	repeater@aksarbenarc.org
Control Operator	Mary Joseph	NØTRK	repeater@aksarbenarc.org
Club Call sign Trustee	Corby Krick	KØSKW	trustee@aksarbenarc.org
Member	Russ Hilton	ADØQH	repeater@aksarbenarc.org

Other Contacts

ARRL Midwest Director	Rod Blocksome	KØDAS	k0das@arrl.org
ARRL Midwest Vice-Dir.	Art Zygielbaum	KØAIZ	k0aiz@arrl.org
EC Douglas County	Steve Schmitz	NØUP	dcares@aksarbenarc.org
EC Sarpy County	Dennis Mitchell	KCØYKN	
Exams/Vol. Council	Brian Zdan	KMØY	testing@aksarbenarc.org
NE Section Manager	Matt Anderson	KAØBOJ	ka0boj@arrl.org

AARC Ham Hum Post Office Box 24551, Omaha, NE 68124-0551

EQUIPMENT ADS

Items are sold by the Aksarben ARC and inquiries should be directed to

equipment@aksardenarc.org

Home Brew Amplifier

A superb construction of a full legal limit HF amp. by the book. Needs only a 3-1000Z tube and HV P.S. needs to be reassembled. See Aksarben eSwap for more details. just reduced to \$500. We deliver.

Sinclair SRL-229 Base Station Antenna. Gain 6.1 dB (8.3 dBi). Bandwidth 6 MHz (centered @ 144-148 MHz). (Also works 440) Power rating: 300 watts, polarization: vertical. omni-directional. Lightning protection: DC ground. Termination: N-male. Length: 258". Weight 25 Lbs. Rated wind velocity: 125 MPH. Rated wind with 1/2" radial ice: 105 MPH. Horizontal thrust @ rated wind and ice load: 190 Lbs. New price: \$1,338.75 + S&H. Your price: only \$500 (OBO) The antenna has had a minor repair and is in good working order.

Club Calendar

- Sep 13** AARC Meeting, 7:00 PM, Red Cross, 81st & Spring St, Omaha, NE
- Sep 18** Heartland Hams Meeting, 7:00 PM, 403 Railroad Ave, Glenwood, IA
- Sep 19** Bellevue ARC Meeting 7:30 PM, 1908 Franklin St, Bellevue, NE
- Sep 20** Heartland DX Association, 6:00 PM, Village Inn, 78th and Dodge, Omaha.
- Sep 21** AARC Coffee and Conversation, 10770 M St, Village Inn Omaha, 6:30 PM (Corner of 108th and L Streets)
- Sep 24** License Testing Omaha ARC, 6:30 PM 2912 S 80th Ave, Omaha, NE
- Sep 26** SWIARC Meeting, 7:00 PM, 705 N 16th, Council Bluffs, IA
- Sep 26** PARC Meeting, 7:30 PM, 1900 E. Military Road, Fremont, NE
- Oct 3** License Testing Lincoln ARC, 6:30 PM, 2701 N 48th St, Lincoln, NE
- Oct 9** Lincoln ARC meeting 7:30PM LI-COR (4647 Superior St, Lincoln, NE
- Oct 29** License Testing Council Bluffs, 6:30 PM, 705 N 16th St
- Nov 9** License Testing, Bellevue ARC at Midlands Hospital, Papillion, NE 1:00 PM
- Nov 26** License Testing Omaha ARC, 6:30 PM 2912 S 80th Ave, Omaha, NE

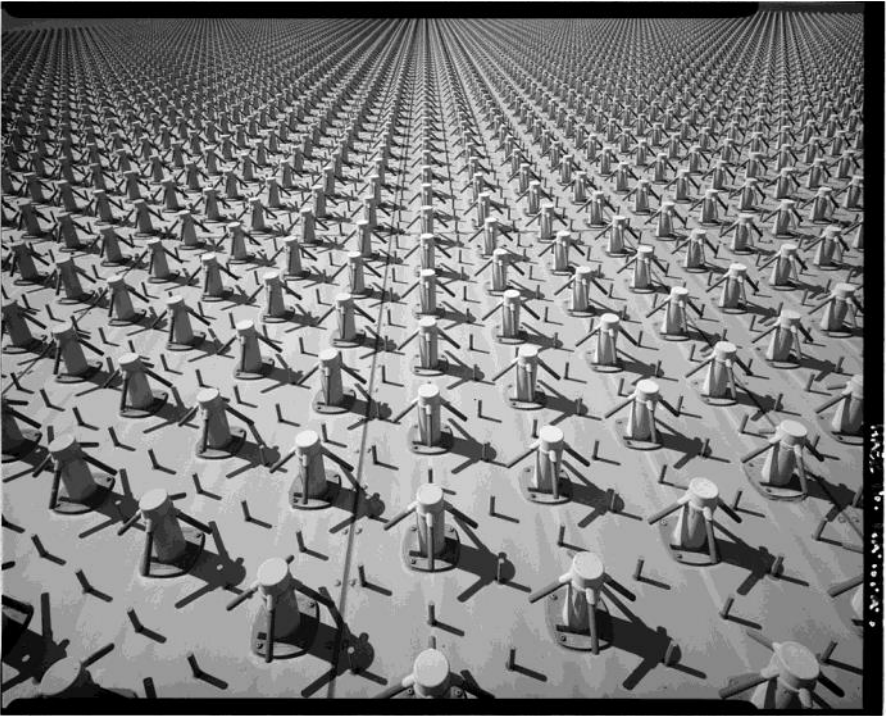
AARC is looking for Radio support for the 2019 Market to Market Relay Race scheduled for Saturday 12 October 2019



Additional race information can be found at <https://www.markettomarketrelay.com/>

The M2M is the largest day-long relay in the nation, the Market to Market® Relay Nebraska presented by OrthoNebraska takes teams from Omaha to Lincoln. Over the course of 76 miles, teams take on 19 stages, each stage varying in distance from 3 to 5 miles. AARC in conjunction with Lincoln's ARC will provide ham radio operators at each of the 20 relay points to keep track of each runner as well as radio in to the medical emergency teams located throughout the course in the event of injuries that may occur to runners. Because of the 2019 Flooding and damage to the walking bridge over the Platte River, AARC will only have to cover 8 relay locations. The running teams will use their Vehicle Transportation from points 8 to 9 which is where the Lincoln ARC will take over communication support.

<https://www.markettomarketrelay.com/locations/nebraska/>



This was in last months Ham Hum. A close up picture of the hundreds of crossed-dipole elements on the sides of the early warning system developed in 1980 to detect and characterize a sea-launched ballistic missile attack against the United States.

Official title: Precision Acquisition Vehicle Entry Phased Array Warning system or **PAVE PAWS** for short.



A phased array was used because a conventional mechanically-rotated radar antenna cannot turn fast enough to track multiple ballistic missiles. The beam of the phased array radar is steered electronically without moving the fixed antenna, so it can be pointed in a different direction in milliseconds, allowing it to track many incoming missiles at the same time. Each array is a circle 72.5 ft (22.1 m) in diameter consisting of 2,677 crossed dipole antenna elements, of which 1,792 are powered and serve as both transmitting and receiving antennas, with the rest functioning as receiving antennas. The radar operates in the UHF band between 420 - 450 MHz, just below the UHF television broadcast band, that is a wavelength of 71–67 cm, with circular polarization. It is an active array (AESA); each of the 1,792 transmitting elements has its own solid-state transmitter/receiver module, and radiates a peak power of 320 W, so the peak power of each array is 580 kW. It operates in a repeating 54 millisecond cycle in which it transmits a series of pulses, then listens for echoes. It is reported to have a range of about 3,000 nautical miles (3,452 statute miles, 5,555 km); at that range it can detect an object the size of a small car, and smaller objects at closer ranges. In 2007, 100 owners/trustees of amateur radio repeaters in the 420 to 450 MHz band near AN/FPS-123 radars were notified to lower their power output to mitigate interference, and AN/FPS-123s were part of the Air Force Space Surveillance System by 2009. The Beale AN/FPS-123 was upgraded to a Raytheon AN/FPS-132 Upgraded Early Warning Radar (UEWR), circa 2012, with capabilities to operate in the Ground-based Midcourse Defense (GMD) ABM system—the Beale UEWR included Avionics, Transmit-Receive modules, Receiver Exciter / Test Target Generator, Beam Steering Generator, Signal Processor, and other changes.

**The next Coffee and Conversation is September 21 at the Village Inn —
10770 M St, Omaha, NE**

**This is an Unofficial gathering of AARC members and other
area ham radio operators to enjoy great food and talk about
whatever. Come on out... 6:30 PM — 9:30 PM.**



The 146.340 Repeater

The .34 remote receiver is in and working at the channel 12 site, sharing an antenna with the Ashland repeater. It was installed a couple of weeks ago and works well. It did need a bit more sensitivity to get the best coverage in the Platte valley. Today, the 16th I got down to the site and put in a band-pass cavity and preamp. Pre-amps usually require good filtering at their inputs. Original sensitivity prior to adding the cavity and preamp was about .15 microvolts. Not too bad but not state of the art today. After installing the preamp the sensitivity is now .016 microvolts. In terms of dB, that's a 14 dB improvement. It sounds counter intuitive but if you have your PL on and you are in the Platte valley, probably on I 80, and are noisy into 94, drop your power. Since the remote site needs PL to operate it takes several milliseconds longer to respond than the main receiver at crown point and votes. At lower power the main won't hear you but the remote will and you'll be full quieting. The PL frequency required is 131.8. Wide shot is the .31 Ashland repeater and PS with the remote .34 receiver, link TX, combiner (copper cans) and the "new" cavity and preamp on the bottom. My weenie on the right. Close up is the cavity and preamp on its left. The power supply runs .31.

// John, WBOCMC //

