



The Aero Aerial

The Newsletter of the Aero Amateur Radio Club
Middle River, MD
Volume 15, Issue 11
November 2019

Editor Georgeann Vleck KB3PGN

Officers

President	Joe Miko WB3FMT
Vice-President	Rob Ballou KC3ROB
Recording Secretary	Larry Hill KB3QWC
Corresponding Secretary	Pat Stone AC3F
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VE Testing	Pat Stone AC3F
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Club Nets	Joe Miko WB3FMT
Contests	Bob Venanzi ND3D

Website: <http://w3pga.org>

Facebook: <https://www.facebook.com/pages/Aero-Amateur-Radio-Club/719248141439348>

About the Aero Amateur Radio Club

Meetings

The Aero Amateur Radio Club meets at 7:30 pm on the first and third Wednesdays of the month at Essex SkyPark, 1401 Diffendall Road, Essex. Meetings begin at 7:30 p.m. local time. Meetings are canceled if Baltimore County Public Schools are closed or dismiss early.

Repeaters

W3PGA 2 M : INPUT : 147.84 MHz, OUTPUT : 147.24 MHz, PL 123.0
W3PGA 70 Cm: INPUT : 444.575 MHz, OUTPUT : 449.575 MHz, PL123.0
W3JEH 1.25 M: INPUT : 222.24 MHz, OUTPUT : 223.84 MHz

Club Nets

Second Wednesday Net – 70 Centimeters (449.575 MHz Repeater) @ 8 p.m. Local Time

Fourth Wednesday Net – 2 Meters (147.24 MHz Repeater) @ 8 p.m. Local Time

Fifth Wednesday Net – 10 Meters (28.445 MHz) @ 8 p.m. Local Time

Radio License Exams

The Aero Amateur Radio Club sponsors Amateur Radio License Exams with the ARRL VEC. Examination sessions are throughout the year. Walk-ins are welcome; arrive no later than 30 minutes after start time. \$15 charge.

2019-2020 Examination Schedule

Time:	1:15 pm	1:15 pm	
Dates:	Sunday, Nov. 10	Sunday, Jan. 26, 2020	
Where:	White Marsh Library	White Marsh Library	

White Marsh Library, 8133 Sandpiper Circle, White Marsh, MD

Contact: Patricia Stone AC3F, email: ac3f@juno.com, landline: 410-687-7209

LOCAL AREA NETS

Day	Time	Freq. (MHz)	Net Name
Daily	9 – 10 am	145.330	Oriole Net
Daily	6 pm	3.820	Maryland Emergency Phone Net
Daily	6:30 – 7 pm	145.330 no PL	Balto. Traffic Net (b/u 146.670 PL 107.2)
Daily	7 pm & 10 pm	3.643	MD/DC/DE Traffic Net
2 nd Tue	7:30 pm	146.670	Baltimore County RACES Net
2 nd Wed	8 pm	449.575	Aero ARC Net
4 th Wed	8 pm	147.240	Aero ARC Net
5 th Wed	8 pm	28.445	Aero ARC Net
Fridays	7:30 pm	145.330	Back in the Day Net
When activated by NOAA		147.030	SkyWarn (primary)



*Charles J. (Chuck) Whittaker, KB3EK
October 25, 1938 – September 30, 2019*

The Aero Amateur Radio Club members join the family in mourning the passing of long-time member Chuck Whittaker. He is survived by wife Mary Sallese Whittaker, children Joseph (Dawn), Steven (Laura), and David (Ginger), six grandchildren, and three great grandchildren.

A Memorial Gathering and Funeral Service was held at Kaczorowski Funeral Home, on Sunday, October 20, 2019. Interment and Committal Services were to be on a later date. In lieu of flowers the family asks that donations to St. Jude's Children's Hospital be made in Charles' honor.

Requiescat in pace, Chuck.

Joe Miko, WB3FMT, Club President

NET REPORTS

9-11-19: 449.675r, 20:00 to 20:50 local.

W3PGA NCS Joe Essex, KC3FBM Franklin Parkville, AC3EO Dave Balto City, KB3JVP Ken Middle River, W3JEH Ron Perry Hall, K3TEL Arnold Towson

6 participants on the net

9-25-19: 147.240r, 20:00 to 20:32 local.

W3PGA NCS Joe Essex, AC3EO Dave Baltimore City, KC3FBM Franklin Parkville, N3RES Ray Lutherville, AC3DX Bill Rosedale, AC3F Patricia Middle river, W3JEH Ron Perry Hall, KB3JVP Ken Middle River, KC3FBL James Parkville

9 participants on the net

10-30-19: 28.445 MHz, 20:00 local to 20:25 local.

W3PGA NCS Joe Essex, W3JEH Ron Perry Hall, W3VRD Phil Essex, KB3VAE Rich Middle River

4 operators on the net.



VE CORNER by Pat Stone, AC3F

The AERO VE Team held its first fall session of 2019 on September 22nd. We served 5 applicants. Congratulations to new Extra: Billy Renick W8BLR, new General: KC3ODW Alex Miklos and new Techs: David Goldman KC3ODU, Francis Simms KC3ODT and Robert Satterfield KC3ODV.

Many thanks to VEs Joe WB3FMT, Richard KB3VAE, Bill AC3DX, Jim KC3FBL Frank KC3FBM, as well as N3RES Ray and Harry AC3EK who served their first session with us. It's always a pleasure working with all of you. We can't do this without you folks.

Our next test session will be held on Sunday, November 10, at 1:15pm at the White Marsh Library. Hope to see you then. The first session of 2020 is scheduled for Sunday, January 26.

For New Hams

So Now What? Podcast



"Ham Lingo" was the focus of the October 17 episode of the [So Now What?](#) podcast for Amateur Radio newcomers.

If you're a newly licensed Amateur Radio operator, chances are you have lots of questions. This biweekly podcast has answers! *So Now What?* offers insights from those who've been just where you are now. New episodes will be posted every other Thursday,

alternating new-episode weeks with the [ARRL The Doctor is In](#) podcast.

So Now What? is sponsored by [LDG Electronics](#), a family owned and operated business with laboratories in southern Maryland that offers a wide array of antenna tuners and other Amateur Radio products. ARRL Communications Content Producer Michelle Patnode, W3MVP, and ARRL Station Manager Joe Carcia, NJ1Q, co-host the podcast. Presented as a lively conversation, with Patnode representing newer hams and Carcia the veteran operators, the podcast will explore questions that newer hams may have and the issues that keep participants from staying active in the hobby. Some episodes will feature guests to answer questions on specific topic areas.

Listeners can find *So Now What?* on [Apple iTunes](#), [Blubrry](#), [Stitcher](#) (free registration required, or browse the site as a guest), and through the free Stitcher app for iOS, Kindle, or Android devices. Episodes will be archived on the ARRL website.

Source: www.ARRL.org

GIVE A GIFT TO A HAM FOR THE HOLIDAYS

by Lou Smith, KC3NMT



What follows are some low-cost, and, in some cases, free gift ideas you can give a ham or prospective ham. You might even drop some hints to family, friends, and other hams in the event there's something here in which you are interested.

Let's start with books. ARRL is one source of several books that would enhance a ham's library, including license study guides, various handbooks, and project-building and antenna books. Check out computer stores for books also. There are always the usual online suspects like Amazon. Don't forget to check out Ham Radio Outlet or Gigaparts.



There are always tools. These can be as inexpensive or costly as desired ranging from a pair of wire cutters to an antenna analyzer.



Almost all our equipment requires power. How about a large pack of conventional batteries, or a rechargeable battery pack that can power a cellphone, or recharge the power in other electronics?

Still not sure what to get that ham who has everything? There are always gift certificates from online merchants of books or electronics, as well as those with a brick and mortar presence like Best Buy or Microcenter.



There is always clothing. No well-dressed ham's wardrobe is complete without a W3PGA hat. (I've received no payoff for this mention.)

I mentioned FREE! The gift of your time is worth more than anything you could purchase. Help a ham with an antenna. Spend some time encouraging or studying with a ham for his or her license. Help him or her build something. You might find you get more out of those projects than you give.



Training and Practice

A General Class Licensing Course will be conducted at the National Electronics Museum, starting Thursday, November 1, 2019, 6:30 to 9:30 pm, running for 10 weeks. No charge for attendance. Attendees should obtain a copy of the ARRL General Class License Manual, *Ninth Edition*. The museum is located at 1745 West Nursery Road Linthicum, MD 21090. Those interested should contact Rol Anders, K3RA, 410-796-4792, roland.anders@comcast.net.

Upcoming SKYWARN® Classes --These classes are free and open to the public!

CLASS	DATE	TIME	COUNTY	LOCATION	REGISTRATION
Basic	Monday 11/04/2019	6:30 pm - 8:30 pm	Harford County, MD	Harford County Dept of Emergency Services 2220 Ady Road Forest Hill, MD 21050	https://www.eventbrite.com/e/skywarn-basics-harford-county-md-tickets-73148309563
Basic	Tuesday 11/12/2019	6 pm - 8 pm	Spotsylvania County	Spotsylvania Fire/Rescue Station 4 4804 Bancroft Rd Fredericksburg, VA 22408	https://www.eventbrite.com/e/skywarn-basics-spotsylvania-county-tickets-67227775085
Winter	Tuesday 09/24/2019	6 pm - 8 pm	Howard County, MD	Howard Community College <i>Howard Hall, Room HW-249</i> 10901 Little Patuxent Pkwy Columbia, MD 21044	https://www.eventbrite.com/e/skywarn-winter-howard-countymd-tickets-70143076831
Winter	Thursday 10/24/2019	6 pm - 8 pm	Montgomery County, MD	Public Safety Headquarters 100 Edison Park Drive Gaithersburg, MD 20878	https://www.eventbrite.com/e/skywarn-winter-montgomery-countymd-tickets-66688943425
Further Skywarn classes will be scheduled this fall.					

Important notes:

- Some Advanced classes require SKYWARN® Basics as a prerequisite.
- You may attend a class even if it is not in the county you reside in.
- Due to the high demand of classes we cannot offer classes in every region every season.

Source: <https://www.weather.gov/lwx/skywarn>

MSN CW TRAINING NET

The net operates nightly at 1930L on 3563 kHz. Ron, N3AEA, is the Net Manager.

Source: MDC Section News, Vol. 15, No. 08, Friday, August 16, 2019

Hamfests

Saturday, Dec. 7, 2019: 4th Annual SantaFest, 8:30 am – 12 pm

American Legion Youth Camp, 9201 Surratts Rd., Cheltenham MD 20623

Sponsor: American Legion, Prince George's County Emergency Radio Association

Talk-In: K3ERA Repeater 145.230 PL 110.9

Admission: \$6

VE Exams: 9 am to 11 am (Walk-ins must sign in no later than 10:30)

Website: <http://www.pgares.org/>

For information, or to reserve table and/or tailgate space, contact: selbynet@hotmail.com

Sunday, Jan. 26, 2020: Post Holiday Hamfest

Sponsor: Maryland Mobileers Amateur Radio Club

Location: Odenton Volunteer Fire Company, 1425 Annapolis Road, Odenton, MD 21113

Website: <https://sites.google.com/site/marylandmobileers/hamfests-1/hamfest-2>

Type: ARRL Hamfest

Talk-In: 146.805 (-) (PL 107.2)

Contact: Bruce McPherson, AB3AC, 484 Peach Leaf Ct., Odenton, MD 21113, Phone: 410-456-2500,

Email: bmcpherson73@verizon.net

Club Activity Report

DX from an easy chair!

by Joe Miko, WB3FMT



Last weekend, club members were invited to the annual "CQ World-Wide DX Contest." It started Friday night, Oct. 25 at 20:00 local and ran to Sunday 19:59 local. Our plan was to setup Saturday afternoon and run to about 16:00 on Sunday. All that was required was to have a date/time, operating place, some antennas and a rig or two.

Well, it kind of came together thanks to Ron W3JEH, who provided the information about the contest run by QST. The operating place was easy, all it took was an email to the Dean and Mandy of the

Skypark Association. Both Dave AC3EO and I brought antennas, I brought my trusty Off Center Fed Dipole (OCFD) that works 80 – 10 and Dave brought his new Alpha Delta Fan Dipole also 80 – 10 meters.

The next thing was the radios. I brought my Yesui 991, and Dave brought another Yesui Rig. He boasted that you wouldn't hear static on it. Hi Hi

Dave's rig was a YAESU FT_{DX}101MP, a radio with dual SDR's, a 3-Dimensional Spectrum Stream that can view up to the last 25 seconds of band conditions in real time. It has filters for its filters. Oh it's a 200 watt rig that happens to have a Touch Screen.

I got to the Skypark about 15:00 on Saturday. Ray N3RES was already on site. Other members arrived by 16:00. Antennas were setup and we were operational by 17:00 on Saturday.

Using one of the club's towers the Alpha Delta Antenna was set up first, at the side of the Fix Base Operator IFBO) building, my OCFD was connected in line with the Alpha Delta, an MFJ fiber glass pole was used at center points of both antennas. The end connection was held up with 2 10-foot sections fitted to a 3 foot stand supported by my van. Two 100 feet of RG 8 were run and connected to the FT_{DX}101MP. The rig was turned on and no, I mean NO Static at all. The digital noise filters and roofing filters did their job superbly.

We got on the air about 17:00 local, Larry KB3QWC made the first contact a station in Canada, we were on our way.

The crew consisted of Larry KB3QWC, Ray N3RES, Dave AC3EO, Rob KC3ROB, Bob WA3SWA and me WB3FMT. The rig was continuously manned from then to about 03:30 when Rob left the building. I got back on the radio about 07:00, and the rig was maned till we shut down at 17:31 Sunday.

This was a great opportunity to see a new rig and to work some DX. We all had a lot of fun and are looking forwards to doing another contest in the spring. Come on, for any club activity any and of the members are welcome to attend to watch, snack out, and participate if you want.

By the way, one of the neat features of Dave's rig is that you can monitor two antennas at the same time, displaying the hearing ability of one antenna against another, same types, or mixed, dipole vs. anything. And did I mention NO Static, sorry I doubted you Dave!

We ended our DXpedition at 17:30 and everything was wrapped up, car loaded. We left the Airpark at 18:30 Sunday evening.

Below are the stats from the contest.

W3PGA's Contest Summary Report for CQ-WW

Created by N3FJP's CQ WW DX Contest Log, Version 5.7 www.n3fjp.com

Total Contacts = 100
Total Points = 18,334

Operating Period: 2019/10/26 21:04 -
2019/10/27 21:26

Total op time (breaks > 30 min
deducted): 12:43:02
Total op time (breaks > 60 min
deducted): 15:53:27

Avg Qs/Hr (breaks > 30 min deducted):
7.9

Total Contacts by Band and Mode:

Band	CW	Phone	Dig	Total	%
----	--	-----	---	-----	---
80	0	24	0	24	24
40	0	34	0	34	34
20	0	42	0	42	42
	--	-----	---	-----	---
Total	0	100	0	100	100

Total Contacts by Country:

Country	Total	%			
-----	-----	---			
USA	25	25	Antigua & Barbuda	1	1
Canada	6	6	Argentina	1	1
France	6	6	Australia	1	1
Federal Republic of Germany	5	5	Azores	1	1
Italy	5	5	Curacao	1	1
Spain	5	5	Cyprus	1	1
Canary Is.	4	4	England	1	1
Croatia	3	3	European Russia	1	1
Slovenia	3	3	French Guiana	1	1
Bonaire	2	2	Hungary	1	1
Cape Verde	2	2	Ireland	1	1
Cayman Is.	2	2	Madeira Is.	1	1
Costa Rica	2	2	Morocco	1	1
Czech Republic	2	2	Pitcairn I.	1	1
Dominican Republic	2	2	Puerto Rico	1	1
Netherlands	2	2	San Marino	1	1
Portugal	2	2	Sicily	1	1
			Slovak Republic	1	1
			St. Kitts & Nevis	1	1
			Suriname	1	1
			US Virgin Is.	1	1
			Total = 38		

Total DX Miles (QSOs in USA not counted) = 295,475
Average miles per DX QSO = 3,993

Average bearing to the entities worked in each continent.
QSOs in USA not counted.

AF = 76	NA = 106
AS = 42	OC = 247
EU = 47	SA = 135

Total Contacts by Continent:

Continent	Total	%
-----	-----	----
EU	41	41
NA	41	41
AF	8	8
SA	6	6
OC	2	2
	1	1
AS	1	1

Total = 6

Total Contacts by CQ Zone:

CQ Zone	Total	%
-----	-----	----
14	22	22
05	18	18
15	17	17
08	10	10
04	9	9
33	6	6
09	5	5
03	3	3
07	2	2

35	2	2
02	1	1
13	1	1
16	1	1
20	1	1
30	1	1
32	1	1

Total = 16



Antenna Run 340 to 160° compass bearing Bob at the FT101



Computer Logging Screen

Joe at the FT101 w Dave logging.

Thanks to all the members who were able to participate in this fun event.

Joe M.

From the Skies over Mt. Essex

SKY Events for November 2019

Nov 2nd Saturn 0.6° N of the Moon 03:00 EDT

Nov 3rd - DST Ends, Starts again on March 20, 2020

Nov 4th - First Quarter Moon

Nov 9th – First NASA Saturn V launched with Apollo 4 1967

Nov 12th - “Full Beaver” Moon, for Traditional and the “Moon when Horns are broken off” for the Dakota Sioux American Indian.

Nov 15th - Moon is 1.5° S of M35 OC in Gemini

Nov 18th – Moon is 0.9° N of Beehive M44 at 06:00 EST

Nov 19th - Last Quarter Moon

Nov 26th - New Moon

Nov 28th – Jupiter 0.7° S of Moon & Mercury greatest elongation W 20° at 06:00 EST, Venus 1.9° S of Moon 14:00 EST

Planet Lookout at mid-Month

Sunrise 06:40 EST and Sunset 16:52 EST

Mercury Morning Rise 05:57 EST, Sets 16:23 EST;
Mag 2.3 and 9.5 arc seconds.

Venus Evening Rise 08:42 EST, Sets 18:15 EST,
Mag -3.9, Arc Sec 11.2

Mars Morning Rise 04:35 EST, Sets 15:40 EST,
Mag 1.8, Arc Sec 3.6

Jupiter Evening, rises 09:18 EST, Sets 18:52 EST;
Mag -1.9 size 32.6 arc seconds.

Saturn Evening. Rises 10:41 EST Sets 20:22 EST;
Mag 0.4 size 16.5 seconds.

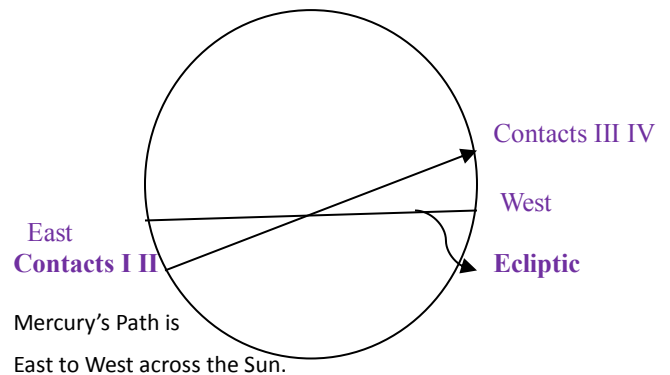
Uranus Evening 15:45 EST Sets 05:09 EST;
Mag 5.7 size 3.6 arc seconds.

Neptune Morning Rises 13:46 EST Sets 01:15 EST;
Mag 7.8 size 2.5 arc seconds

Transits of Mercury - November 11, 2019

The planet Mercury can also transit the Sun. Since Mercury orbit the Sun more quickly than does Venus, it undergoes transits much more frequency. There are about 13 or 14 transits of Mercury each century. All of the Mercury transits fall within several days of May 8th and November 10th. During November transits, Mercury is near perihelion and exhibits a disk of only 10 arc-seconds in diameter.

By comparison, the planet is near aphelion during May transits and appears 12 arc-seconds across. However, the probability of a May transit is smaller by a factor of almost two. Mercury's slower orbital motion at aphelion makes it less likely to cross the node during the critical period. November transits recur at intervals of 7, 13, or 33 years while May transits recur only over the latter two intervals. The next two transits of Mercury are on Nov. 11, 2019 and Nov. 13, 2032.



Contact I at 07:35 EST. 1st contact of Mercury at E limb

Contact II at 07:37 EST. Entire planet on Sun's surface

07:37 to 13:02 Mercury crosses the Sun's surface

Contact III 13:02 EST. Mercury touches the W limb of the Sun

Contact IV at 13:04 EST. Mercury leaves the surface of the Sun

Observing the Transit

Since the apparent diameter of Mercury is nearly 10 arc-seconds for the November 2019 transit, it is not possible to see without optical magnification (but using solar filter protection) as it crosses the Sun. Nevertheless, the planet appears to be only 1/192 the size of the Sun's apparent diameter (the sun's apparent diameter in arc-seconds is 1,920) so a small telescope at modest power will offer a much more satisfying view. Any telescope must be suitably equipped with a solar filter to ensure solar viewing. The visual and photographic requirements for observing a transit are identical to those for solar **You need a Solar Filter or a Number 14 Arc-Welder's filter (Don't use a lower number, or any type of photographic or X-Ray film).**