



Falmouth (Mass.) Amateur Radio Assn. Graphic

The Aero Aerial

The Newsletter of the Aero Amateur Radio Club
Middle River, MD
Volume 15, Issue 6
June 2019

Editor Georgeann Vleck KB3PGN

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Resource Coordinator	Ron Distler W3JEH	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 Examination Schedule

Time:		12 noon
Dates:		Saturday, June 22
Where:		Essex SkyPark, FBO Bldg.

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	28.445	Aero ARC Net
4 th Wed	8 pm	147.240	Aero ARC Net
5 th Wed	8 pm	449.575	Aero ARC Net
Fridays	7:30 pm	145.330	Back in the Day Net
When activated by NOAA		147.030	SkyWarn (primary)

From the President's Desk

QST ALL AERO ARC MEMBERS QST: New club net schedule

Please be advised the 10 meter net is moving from the 2nd Wednesday to the 5th Wednesday of the month. In its 2nd Wednesday's place will be the 440 net (449.575 PL 123.0). The 2 meter net will remain at the 4th Wednesday (147.24 PL 123.0)

OLD Net

2 nd Wed 10 meters	2 nd Wed 440 Net
4 th Wed 2 meter net	4 th Wed 2 meter net
5 th Wed 440 net	5 th wed 10 meter net

New Net

Any questions pls give me a call. 443-956-0197
Joe Miko 443-956-0197

Upcoming Aero Club Events

Sun 6/2 the **American Diabetes Association** is having its annual **Tour de Cure**, bike riding event. This year it will be hosted by Goucher College. There are three bike routes, all starting and ending at the college. It is about the same as last year's course, with some minor course changes. We are looking for volunteers to help provide communications at the rest areas and with Support and Gear vehicles. If any other people want to help, please contact me at 443-956-0197.

Wed 6/5 Aero ARC First Wednesday monthly meeting at the Essex Skypark 19:30 to 20:30. Code practice starts at 19:00. **IMPORTANT: Keon KE3HAY will be giving an important presentation on updates for Field Day. Please attend to learn and discuss the new information.**

Sat 6/8 The Scouts of America Chesapeake Aviation Days at Essex Skypark 2019. The event runs from 10am to 4pm. The Aero ARC has been asked to provide a radio demonstration and prove help with Radio and other merit badge help. This is a rain or shine event. There will be approximately 400 scouts at the Airpark.

Wed 6/19 Aero ARC Third Wednesday monthly meeting at the Essex Skypark 19:30 to 20:30. Code practice starts at 19:00. **Last Meeting before FD19.**

Fri 6/21 thru Sun 6/23 ARRL Field Day 2019 This year as in the past we will be set up in the community hanger for the weekend. Setup on Friday the 21. Sat the 22nd we do VE testing in the FBO, and remember this is the last of the old General test. The new General test starts on 7/1/19. FD19 starts at 14:00 local and runs for 24 hrs. Need help for setup, operating, and breakdown. On any support you can provide.

Hamfests

06/15/2019, 6:30 am -1 pm, W4OVH Manassas Hamfest

Location: Manassas Park Community Center, 99 Adams Street, Manassas Park, VA

Website: <http://manassashamfest.org>

Sponsor: W4OVH, Ole Virginia Hams

Type: ARRL Hamfest

Talk-In: 146.97 (-0.6), PL:100

Contact: Don Meyerhoff , WA2SWX, 14014 Betsy Ross Lane, Centreville, VA 20121, Phone: 1-703-597-3211, chairman@manassashamfest.org

06/16/2019, 8 am – 2 pm Father's Day Hamfest at Arcadia, \$5

Location: Arcadia Fairgrounds, 16920 Carnival Avenue, Upperco, MD 21155

Website: <http://w3ft.com>

Sponsor: Baltimore Amateur Radio Club

Type: ARRL Hamfest

Talk-In: n/a

Public Contact: Dave Shadwell , AB3TE, PO Box 120 Reisterstown, MD 21136, Phone: 410-252-2878, Email: summerentrepreneur@yahoo.com

10/06/2019, 6 am – 2 pm, CARAFest 2019

Location: Howard County Fairgrounds, 2210 Fairgrounds Road, West Friendship, MD 21794

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

Sponsor: Columbia Amateur Radio Association

Type: ARRL Hamfest

Talk-In: 147.390/R+ (PL 156.7)

Public Contact: David Parkison , KB3VDY

P.O. Box 911 Columbia , MD 21044

Phone: 410-977-1249

Email: vendorsales@carafest.org

10/27/2019, Mason Dixon Hamfest/Convention

Location: Sportsman's Hall Roller Skating Center, 15500 Hanover Pike, Upperco, MD 21155

Website: <https://k3pzn.net/hamfest/>

Sponsor: Carroll County Amateur Radio Club

Type: ARRL Hamfest

Talk-In: 145.410 (PL 114.8)

Public Contact: Rich Mitchell , N3III

1722 Brooks Road Freeland, MD 21053

Phone: 443-280-1871

Email: n3iiipa@gmail.com

For further information go to:

<http://www.arrl.org/hamfests-and-conventions-calendar>

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>

<http://www.arrl.org/find-an-amateur-radio-license-class>

NET REPORTS

5-8-19: 449.575r, 20:00 to 20:43 local.

W3PGN NCS Joe Essex, KB3JVP Ken Middle River, AC3F Pat Middle River,
KC3FBM Franklin Parkville, KC3IPK Dave Baltimore City, WA3QLY Tom Joppatowne

6 members on the net.

Also On Monday Pat AC3f and myself attended a SKYWARN class about Tropical Storms, it was held at the PG Co. Office of Emergent Mgt, in Landover.MD.

5-22-19: 147.24r, 20:00 to 20:52 local.

W3PGA NCS Joe Essex, AC3EO Dave Balto City (new call, old KC3IPK, and upgrade to Extra),
AC3F Patricia Middle River, WA3QLY Tom Joppatowne, KC3FBM Franklin Parkville, W3JEH
Ron Perry Hall, KB3JVP Ken Middle River, KC3CMS Dan Balto City, KC3MMN Jim Essex,
KB3VAE Richard Middle River, WA3TJP Bob Middle River, N3VBJ Jerry (Remote Dallas, TX)

12 participants on the net.

5-29-19: 28.445 MHz, 20:00 to 20:35 local.

W3PGA NCS Joe Essex, KB3VAE Richard Middle River, AC3F Pat Middle River, AC3EK Harry, KC3FBL Jim Parkville, AC3EO Dave Baltimore City phoned Pat could not get on the air, the storm took down his antenna.

6 members on the net



VE CORNER

by Pat Stone, AC3F

Our next test session will be held on Saturday, June 22, at 12:00 noon in the Essex SkyPark FBO Building. Hope to see you then.

For New Hams

WWV celebrating 100 Years

Discussion in '[Amateur Radio News](#)' started by [K0UO, May 3, 2019](#).

The National Institute of Standards and Technology Radio Station WWV will be celebrating its 100-year anniversary in October 2019. The oldest continuously operating radio station in the world deserves a grand celebration.

The National Institute of Standards and Technology (NIST) and the Northern Colorado Amateur Radio Club (NCARC) have reached an agreement and are working together to organize the event.

NIST will focus on the plans for Tuesday, October 1, when they will host a recognition ceremony and an open house at the radio station north of Fort Collins.

NCARC will operate a special event amateur radio station, call sign **WW0WWV**, on the WWV property starting September 28 and going 24-hours a day through October 2. The goal is to make as many U.S. and world-wide contacts during the 120-hour period as possible, using

multiple bands and multiple modes on at least 4 simultaneous transmitters. The effort will require hundreds of volunteer operators.

Information on the Special Events Station visit: <http://wwv100.com>

<https://www.nist.gov/news-events/events/2019/10/nist-radio-station-wwv-100-year-anniversary>

Source: <http://forums.qrz.com/index.php?threads/wwv-celebrating-100-years.656747/>

HAM RADIO AND YOUTUBE

by Lou Smith KC3NMT

If you've been around the computer, smart device, and/or the Internet, you've probably discovered YouTube. I don't think there's a subject out there that doesn't have a video of some sort on that site. There are some really good sites that deal with Amateur Radio. I'll try and give you a few to start investigating. If you know of others, please share. If you want to explore, go to YouTube.com. In the search box, type in "amateur radio" or "Ham Radio" without the quotes.

HAM RADIO CONCEPTS

Eric's motivation for creating this channel is to help others as he has been helped over the years. He got his start in CB at age 9. You can find all sorts of information on this channel from equipment reviews to opinion pieces, to demonstration of operating techniques. In his demonstration of how to call CQ, he clearly states that while there are good ways to do so, there is no "one way".

RADIO PREPPER

This site is run by a gentleman who has lived both in the United States and France. He has reviews of equipment, and discussion of ham projects. The primary emphasis is on emergency communications. He also features low-power equipment use.

HAM NATION

Ham Nation is developed by a gentleman who produces several podcasts. One of his most famous is TWiT, (This Week in Tech.) His call is W6TWT. His podcasts cover all things from computers to broadcasting to ham radio. Ham Nation provides information about anything from what hams do in general, to how they help in times of disaster.

HAM RADIO CRASH COURSE

This site was created by an amateur, engineer, and family man living in Southern California. His goals are to get people involved in ham radio, and to keep them learning about the hobby. A brief look at some of the videos revealed a lot about the Dayton Hamvention, equipment reviews and comparisons, and some opinion pieces.

So there you have it. Feel free to write me with any other YouTube channels you know of, or that you might find. I can be reached at loumsmith58@gmail.com

From the Skies over Mt. Essex

SKY Events for June 2019

Jun 3rd – New Moon

Jun 4th – Double shadow transit on Jupiter 20:29 EDT

Jun 5th – Mars is 1.6° N of Moon 11:00 EDT

Jun 10th – First Quarter Moon

Jun 11th – Double transit on Jupiter 23:33 EDT

Jun 14th – Earliest sunrise

Jun 17th – Full “Strawberry” Moon, for Traditional and the “Moon When June Berries are Ripe” for the Dakota Sioux American Indian.

Jun 19th – Saturn is 0.4° N of Moon 00:00 EDT

Jun 21st – Summer Solstice 11:54 EDT, Longest day 15h 1m

Jun 22nd – ARRL Field Day 2019 begins at 14:00 EDT, 18UT

Jun 25th – Last Quarter Moon

Jun 27th – Latest Sunset

Jun 30th – Tunguska, Siberia meteor airburst in 1908

Planet Lookout at mid-Month

Sunrise 05:41 EDT and Sunset 20:24 EDT

Mercury Evening Rise 07:22 EDT, Sets 22:07 EDT; Mag 0.0 and 6.8 arc seconds.

Venus Morning Rise 04:43 EDT, Sets 19:04 EDT, Mag -3.9, Arc Sec 10.3

Mars Evening Rises 07:34 EDT Sets 22:11 EDT, Mag 1.8 and 3.7 arc seconds wide.

Jupiter Evening, rises 19:47 EDT, Sets 05:31 EDT; Mag-2.5 size 4.8 arc seconds.

Saturn Evening. Rises 21:54 EDT Sets 07:43 EDT; Mag 0.2 size 18.3 seconds.

Uranus Morning Rises 02:59 EDT Sets 16:22 EDT; Mag 5.9 size 3.3 arc seconds.

Neptune Morning Rises 01:03 EDT Sets 12:34 EDT; Mag +7.9 size 2.4 arc seconds

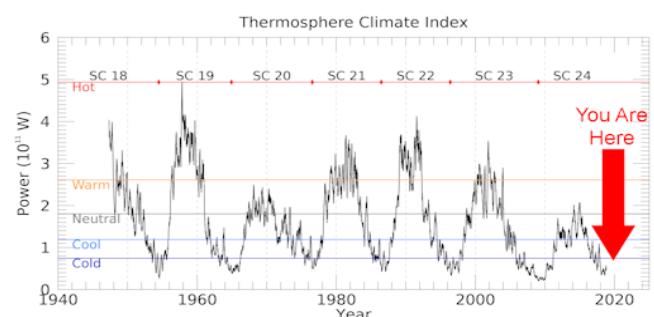
Thermosphere Climate Index (TCI)

10/26/18 Spaceweather.com

A NEW SPACE WEATHER METRIC: The daily Thermosphere Climate Index (TCI) is now on Spaceweather.com. TCI is a relatively new space weather metric that tells us how the top of Earth's atmosphere (or "thermosphere") is responding to solar activity. During Solar Maximum, the top of our atmosphere heats up and expands. Right now, the opposite is happening. Solar Minimum conditions are in effect, and this is causing the upper atmosphere to cool off:

The **thermosphere** is the layer of the Earth's atmosphere directly above the mesosphere and below the exosphere. Within this layer of the atmosphere, ultraviolet radiation causes photoionization/photodissociation of molecules, creating ions in the ionosphere. Taking its name from the Greek θερμός (pronounced *thermos*) meaning heat, the thermosphere begins at about 80 km (**50 mi**) above sea level.^[1] At these high altitudes, the residual atmospheric gases sort into strata according to molecular mass (see turbosphere).

Thermospheric temperatures increase with altitude due to absorption of highly energetic solar radiation. Temperatures are highly dependent on solar activity and can rise to 1,700 °C (3,100 °F) or more. Radiation causes the atmosphere particles in this layer to become electrically charged (see ionosphere), enabling radio waves to be refracted and thus be received beyond the horizon. In the exosphere, beginning at about 600 km (**375 mi**) above sea level, the atmosphere turns into space, although by the criteria set for the definition of the Kármán line, the thermosphere itself is part of space. (Wikipedia)



TCI was invented by Martin Mlynczak of the Langley Research Center along with other NASA and university colleagues. For the past 17 years they have been using the SABER instrument onboard NASA's TIMED satellite to monitor the wattage of infrared emissions from the top of the atmosphere.

The Sounding of the Atmosphere using Broadband Emission Radiometry (SABER) instrument is one of four instruments on NASA's TIMED (Thermosphere Ionosphere Mesosphere Energetics Dynamics) satellite.