



The Orion Nebula (courtesy Frank Stone)

The Aero Aerial

The Newsletter of the Aero Amateur Radio Club
Middle River, MD
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February 2015

Editor Frank Stone AC3P
Editor Pro Tem Georgeann Vleck KB3PGN

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		Contests	Bob Venanzi ND3D	

Committees

Website: <http://home.comcast.net/~frank-stone/Aero%20ARC/aero.htm>
Facebook: <https://www.facebook.com/pages/Aero-Amateur-Radio-Club/719248141439348>

About the Aero Amateur Radio Club

Meetings

The Aero Amateur Radio Club meets on the first and third Wednesdays of the month at Essex SkyPark, 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
W3PGA **70 Cm:** INPUT : 444.575 MHz, OUTPUT : 449.575 MHz
W3JEH **1.25 M:** INPUT : 222.24 MHz, OUTPUT : 223.84 MHz

Club Nets

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

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

Fifth Wednesday Net – 70 Centimeters (449.575 MHz Repeater) @ 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.

2015 Examination Schedule

Where: White Marsh Branch
 Baltimore County Public Library
 8133 Sandpiper Circle, White Marsh, Md. 21236

Time: 1 p.m.

Dates: January 24, March 14, May 23, August 22, October 24

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	146.670	Baltimore Traffic Net
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
When activated by NOAA		147.030	SkyWarn (primary)

From the Editor:
Thanks to Frank Stone for doing the calendar this month.

NET REPORTS

1-7-15: AERO SNOW NET, 2 meter/440 net, 20:00 to 20:26 local

Due to the conditions at the airport (snow-covered parking lot) and impending wind and low temperatures, the meeting scheduled for 1/7/15 was canceled and a “snow net” was held. Since the 2 meter repeater at Kenwood is under repair, a standby configuration was set up by Frank and Joe using two YAESU 8900 and using the 440 repeater as a control link.

W3PGA NCS Joe Essex, KB3VAE Richard Middle River, AC3P Frank Middle River, AC3F Pat Middle River, KC3AID Marty Rosedale, KA3SNY Dave Essex, KB3PGN Georgeann Essex

Weather from the NCS was listed as 17° F with winds W at 12 mph winds.

1/14/15: 28.445 MHz, 8 pm - 8:30 pm

AC3P (NCS) Frank, W3JEH Ron, KA3SNY Dave, N3VBJ Jerry, KC3ANJ Charles, NE3A Ken, AC3F Pat

1/21/15: Aero Snow Net, 147.24 MHz from 20:00 to 21:05 local.

Baltimore County Schools had early dismissal, so the Aero Meeting for 1-21-15 was canceled.

W3PGA NCS Joe Essex, K3TEL Arnold Towson, KB3JVP Ken Middle River, W3VRD Phil Essex, N3VBJ Jerry Dundalk, KB3VAE Rich Middle River, KA3SNY Dave Essex, KB3PGN Georgeann Essex, K3ROJ Al Essex, AC3P Frank Middle River, AC3F Pat Middle River, W3JEH Ron Perry Hall

Repeater repairs by Phil and Jerry, thanks, guys, 2 meter running about 40 watts and 440 running about 50 watts. Weather from the NCS Mt. Essex Weather Station was listed as 35° F with 0 mph winds and 3 inches of snow. Phil’s presentation on repeaters will be at the Feb. 18 meeting. It was suggested that we read the article on repeaters in the Feb. QST as preparation.

Station Activities

By Frank Stone, AC3P

KA3SNY has left the salt-mine. Congratulations, Dave. Many thanks to **W3VRD** and **N3VBJ** for getting

the .24 repeater back on the air. **KB3PGN** is back at the Annapolis asylum, though for the most part working from home this year. Speedy recovery to **W3JDF** and Margaret Holy. **K3ROJ** was heard on the 2 meter "Snow Net". **AC3F** was heard by **W3JEH** during Straight Key Night. Ron is waiting for that SWL QSL Card. **AC3P** was pounding brass too but the signal seems to be down in the mud until Pat gets on the air.

What's On The WEB?

By Frank Stone, AC3P

It's been a while since there has been an article listing various Amateur Radio Websites. Some sites have gone away or changed addresses. New sites may have appeared. Here is a list of web pages that may be of interest to our readers.

ARRL – www.arrl.org Everything related to the American Radio Relay League

QRZ – www.qrz.com Callsign look-up, Amateur Radio Discussion Boards, Practice Exams

Hamnet – www.hamradio.net Call-sign lookup, Discussion Boards

EQSL – www.eqsl.cc Electronic QSLs

CQ Magazine – www.cq-amateur-radio.com All things related to ham radio

WM7D Call Sign Lookup – www.wm7d.net Call sign database

FCC Licensing - <http://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>
Call sign database and online FCC transactions

AMSAT – www.amsat.org Amateur Radio Satellites

ARISS – www.ariss.org Amateur Radio on the International Space Station

T-MARC- www.tmarc.org Mid-Atlantic Repeater Coordination

Aero ARC - <http://home.comcast.net/~frank-stone/Aero%20ARC/aero.htm> The club website

Baltimore Amateur Radio Club – www.w3ft.com BARC's Webpage

Baltimore Radio Amateur Television Society – www.bratsatv.org BRATS Webpage

On Facebook:

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

BARC - <https://www.facebook.com/pages/Baltimore-Amateur-Radio-Club/155318857812039>

DUES ARE DUE

Weather permitting, dues will be collected at the Feb. 4 meeting. The yearly dues per individual member are \$24.00, or \$24.00 plus \$2.00 per each additional member for the family membership. If you have not paid for 2014 you owe that amount plus the \$24 for 2015.

If you have any question you can contact Warren at W3JDF@arrl.com or see him at the February 4th meeting (weather permitting).

Upcoming Second Wednesday Presentations

These presentations will be given at the Essex SkyPark FBO building following a short business meeting.

Date	Topic	Presenter
2/18/15	Repeaters How-Why & New	Phil W3VRD
3/18/15	A SkyWarn Presentation	Jerry N3VBJ
4/15/15	EME Prep/Astronomy	Joe WB3FMT
5/20/15	ISS Sighting and Contacting	Frank AC3P
6/17/15	Field Day Best Operating Practices	Bob ND3D
7/15/15	Contest Logging w/N1MM+	Bob ND3D

February 18, 2015 Presentation -- Radio Repeaters by Phil Hock, W3VRD

The presentation is about what a repeater consists of, different types and ham bands, and our club repeaters.

March 18 2015 Presentation – SKYWARN by Jerry Cimildora N3VBJ

How Does Skywarn Work?

When hazardous weather occurs, Skywarn volunteers report what is happening at their location. They are asked to report conditions such as rain and snow amounts, hail, flooding, tornadoes, or damage to trees or property.

Reports arrive at the NWS office via telephone, email, social media, and the Skywarn amateur radio net. The reports are combined with radar, lightning, satellite and

computer model data to determine what the storms will do next. Spotters provide the "ground truth" to NWS forecasters: important information that radar won't always show. The reports are used by forecasters to issue public statements, watches, warnings, advisories, and short-term forecasts. These products reach the public through the Internet, NOAA weather radio, the media and other means.

Skywarn reports also go into Storm Data, which is an official publication that documents severe weather across the country. Storm Data can be used to create a severe weather climatologic (or history) of the local county and city.

How Does The Skywarn Amateur Radio Net Work?

Many Skywarn volunteers are also licensed amateur radio operators. The ability of many amateur radio operators to operate during power outages is an asset to the NWS. During severe weather, amateur radio volunteers staff the radio station at the NWS office, using the call sign WX4LWX. They talk to spotters in the area where a storm is hitting, and request information needed by forecasters, such as hail size or rainfall accumulation. As many of you saw on June 29th, 2012, large storms such as hurricanes and derechos can knock out phone service. Skywarn amateur radio volunteers help when there are communications outages so that NWS can continue to receive weather reports and feed warnings and other critical information out to communities. The WX4LWX station can also communicate with the National Hurricane Center, if needed.

Jerry N3VBJ Northeastern Coordinator for SKYWARN. For further information contact him at n3vbj1@gmail.com

Presenters who wish to submit a description of their talk may email it to Georgeann at KB3PGN@reagan.com for inclusion in the Aerial.

SKYWARN CLASSES

Thursday, April 2, 2015, SKYWARN BASIC TRAINING

6:30 – 9:00 pm

Robinson Nature Center, 6692 Cedar Lane, Columbia, MD 21044

You will be trained by NWS personal to recognize features associated with rapidly developing, mature, and dissipating thunderstorms which cause hazardous weather such as lightning, flooding, hail, tornadoes and downbursts. We will also review the basic organization of the National Weather Service and our Watch/Warning/Advisory system.

At the end of the course, you will be assigned a SKYWARN spotter number which we will maintain in our official database. You will also be directed how to report this vital weather information. For those who have attended in the past but want a refresher, please feel free to attend.

Sponsored by the Howard County Office of Emergency Management.

To sign up, visit skywarnhoward.eventbrite.com

For more classes, check weather.gov/lwx/skywarn

Thursday, 29 January 2015, WINTER WEATHER

6:30 - 8:30 pm

Prince George's Fire Services Building, 6820 Webster Street, Lanham, MD.

Basics 1 is a prerequisite of the class.

Prince George's Office of Emergency Management and Prince George's County REACT are sponsoring a Skywarn Class on Winter Storms to be conducted by the National Weather Service, Skywarn Program.

To register, click on:

<www.eventbrite.com/e/skywarn-winter-storm-15-02-tickets-14679293161?aff=Email> or

<www.PGCountyREACT.org>.

Questions may be addressed to Paul Bowling via e-mail at: Paul@W4ATN.com



VE CORNER

by Pat Stone, AC3F

Aero ARC VE 2015 Test Schedule

Where: White Marsh Library, 8133 Sandpiper Circle, White Marsh Md. 21236

Time: 1 P.M.

Dates: March 14, May 23, August 22, October 24

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

The VE test session on January 24 had 8 candidates, 7 of whom were successful in passing their respective tests. Due to the storm conditions in the northeast, the mail has been delayed. Names of the new hams will be published in the Marc issue.

EXTRA LICENSE CLASS BY CARA

Tuesday, March 10, 2015 through June 9

Calvert County Services Bldg, 150 Main St, Prince Frederick, MD 20678

Sponsored by the Calvert Amateur Radio Association (CARA).

The class will meet once a week on Tuesday's from 7 – 10 pm EXCEPT the third Tuesday of the month, which is our monthly ARES meeting.

Location is the same location where monthly CARA meetings are held.

There is no fee for the class but you must purchase study books/manuals. Attendees are responsible for procuring their own study guides. Either the W5YI Extra Class study guides (<http://www.w5yi.org/catalog.php?sort=4>) or the ARRL Extra Class Manual (<http://www.arrl.org/shop/ARRL-Extra-Class-License-Manual-10th-Edition/>) are suitable, but the class presentations will more closely follow the topic sequence of the ARRL manual.

Students may wish to consider augmenting license manuals with an on-line service such as <http://www.hamradiolicenseexam.com/>

There is a possibility that after the course a local test session may be offered.

If you plan to attend the class, please RSVP Shawn, n3ae@comcast.net

WEBSITE for UPCOMING LICENSE CLASSES

<<http://www.arrl.org/find-an-amateur-radio-license-class>> you will find information on clubs or other groups who are holding a licensing class.

UPCOMING HAMFESTS

Saturday, February 7, 2015, Virginia State Convention (Richmond Frostfest)

Richmond Raceway Complex, 600 E. Laburnum Ave., Richmond, VA 23218

Richmond Amateur Telecommunications Society

<www.frostfest.com>

Talk-In: 146.88 -600 (PL 74.4)

Contact: DeeDee Farrell, KK4AVC, PO Box 14828, Richmond, VA 23221

Phone: 804-657-7038, Email: <info@frostfest.com>

June 21, 2015: BARC Hamfest, Arcadia VFC, Uppero, MD.

Baltimore Amateur Radio Club Father's Day Hamfest will be held on Sunday, June 21st 2015 at the Arcadia Volunteer Fire Company Grounds. The address is 16020 Carnival Ave, Uperco, MD 21155. It is just a few miles north on Route 30 from the top of I-795. The show will be from 8 am until 12 noon and it will be a TAILGATE hamfest. The prices will be \$5 admission and \$10 per tailgate spot. More information will follow soon. Bill Dobson, N3WD

Monday, March 16, 2015, INDOOR TAILGATING EXPO

The Frederick Amateur Radio Club will be sponsoring an "Indoor Tailgating Expo" on, Monday, March 16, 6-9 PM (setup at 5 PM), at Independent Hose Company, 310 Baughmans Ln., Frederick. VE testing, MESH demonstrations, etc., and 2 large tailgating tables will be available for \$20 for the pair. Admission is free.



From the Skies over Mt. Essex

SKY Events for February 2015

Feb. 1st Venus is 0.8° South of Neptune at 06:00 (11 UT)

Feb 3rd - Full Moon “**Storm Moon**” for the English Medieval and the “**Trapper Moon**” for the Colonial American.

Feb. 6th – Zodiacal Light visible N Latin Western evening twilight for next two weeks.

Feb. 6th – Jupiter at opposition- visible all night!

Feb 12th-- Last Quarter Moon

Feb 17th – Mercury 3° S of the Moon 01:00 (6 UT)

Feb 18th – New Moon

Feb 20st- Venus 2° S of Moon & Mars is 1.5° S of Moon at 20:00 (01 UT 2/21/15)

Feb 21st- Venus 0.5° S of, Mars at 15:00 (20 UT) and Uranus is 0.3° S of Moon at 17:00 (22 UT)

Feb 24th – Mercury greatest elongation West 27° 11:00 (16UT)

Feb 25th – First Quarter Moon

Feb 26th – Jupiter Double shadow transit 14:36 (19:36)

Planet Lookout at mid-Month

Planet Lookout at mid-Month

Sunrise 06:58 EST and Sunset 17:43 EST

Mercury in the East at sunrise, magnitude 0.7; 9.0 arc seconds

Venus in the West at Dusk magnitude -3.9 and 11.4 arc seconds.

Mars In the West at Dusk, magnitude +1.2 and 4.3 arc seconds wide.

Jupiter Visible all night, magnitude -2.6 size 45.3 arc seconds.

Saturn *Morning sky. Magnitude +0.5 size 16.4 arc seconds.*

Uranus In the West sets by 21:30EST. Magnitude +5.8 size 3.4 arc seconds.

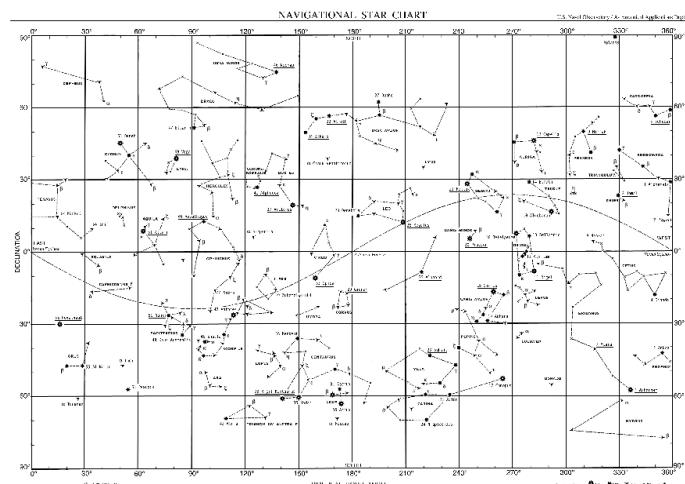
Neptune Also in the West sets by 18:30 EST. Magnitude +8.0 size 2.4 arc seconds.

High Noon - Low Moon

If you go outside at night in the winter you will notice that the Moon is high in the sky, but during the day the Sun just seems to glide above the roof tops from mid morning till early afternoon. And in during the summer time this is reversed, the Sun on June 21st is almost directly over head, with a low evening Moon.

This is really happening, due to the geometry of the Earth's orbit around the Sun and the Moon's orbit around the Earth. The Sun and planets follow an apparent path in the sky called the ecliptic, this is an arc that travels 23.4 degrees north and south of the celestial equator. During the spring equinox the Sun is on the equator 0 Hrs Right Ascension (near Pegasus) and begins to travel northwards, in the fall it moves southwards. The high point is at summer and low at winter solstices. The Sun moves slowly against the background sky at 1.01° per day. The moon on the other hand moves around the Earth at about 12° per day.

All new moons' start out within a few degrees of the Sun and then moves eastwards at $1/2^\circ$ per hour following the ecliptic, high or low. At least once per month some phase of the moon will be at the highest declination in Taurus the Bull which located at 6 hr Right Ascension. But back to the Full Moon, the full moon occurs when the moon is opposite the Sun, thus being moon is half way around its orbit of the Earth the Sun has moved about 15° being opposite when Sun at Noon is high in the sky in the Summer it is located near Taurus the Full Moon at the same time would be located near Scorpius the lowest part of the sky. It works just the opposites in the winter when the Sun is low the Moon is high.





February 2015

1	2	3	MEETING SKYPARK 7:30 PM 28.445 MHZ NET 8 PM	4	5	6	RICHMOND FROSTFEST www.frostfest.com
8	9	10	11	12	13	14	
15	16	17	MEETING SKYPARK 7:30 PM 146.24 MHZ NET 8 PM	18	19	20	ARRL DX CONTEST CW
22	23	24	25	26	27	28	