

THE AERO AERIAL

Our Tenth Year of Publication



The newsletter of the Aero Amateur Radio Club
Middle River, Md
Volume 10 Issue 9
September 2013

Editor Frank Stone AC3P

Officers

Joe Miko	WB3FMT	President
Bob Landis	WA3SWA	Vice-President
Lou Kordek	AB3QK	Recording Secretary
Frank Stone	AC3P	Corresponding Secretary
Warren Hartman	W3JDF	Treasurer
Ron Distler	W3JEH	Resource Coordinator

Committees

Repeater	Phil Hock W3VRD
VE Testing	Pat Stone AC3F
Public Service	Bob Landis WA3SWA
Webmaster	Al Alexander K3ROJ
Trustee	Frank Stone AC3P
Club Nets	Joe Miko WB3FMT
Contests	Bob Venanzi ND3D
FAR Representative	Charles Ester III KC3ANJ

ABOUT THE AERO AMATEUR RADIO CLUB

Meetings: First and Third Wednesdays at 7:30 pm at Coffman's Diner
(Middle River and Orem's Rd.)

Nets: See Local Area Net Schedule

Repeaters: W3PGA (147.24 MHz - / 449.575 MHz -)
W3JEH (223.84 MHz -)

LOCAL AREA NETS

Day	Time	Frequency (MHz)	NET NAME
Daily	9 – 10 am	147.33	ORIOLE Net
Daily	6 pm	3.820	Maryland Emergency Phone Net
Daily	6:30 – 7 pm	146.670	Baltimore Traffic Net
Daily	7 pm and 10 pm	3.643	Maryland/DC/Delaware Traffic Net
2 nd Tues	7:30 pm	146.670	Baltimore County <u>RACES</u> 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

AERO NET REPORT

28.445 MHz: WB3FMT(NCS) AC3P KA3SNY KA3VAE

147.24 MHz: WB3FMT(NCS) W3JEH AC3P

449.575 MHz: WB3FMT(NCS) W3JEH AC3P KA3VAE

Station Activities

WB3FMT was featured in an article in *The Avenue*. **W3JEH** is working on his new vertical. **WA3RVR** finally got that QSL card from 1973. **ND3D** uses a nom du plume during contests. “This Bud’s for you”.

Blue Moon Net

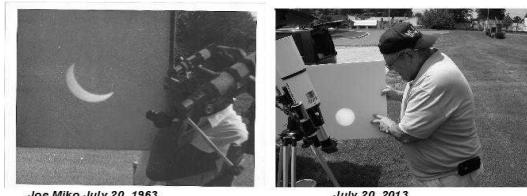


According to the “*Old Farmer’s Almanac*”, the Full Moon occurring on Wednesday, August 21st will be a “Blue Moon”. To celebrate the occasion, there will be a Blue Moon Net at 2 p.m. on 50.24 MHz.

The reason for the afternoon timing is that there will be a club meeting that evening also.

Mt. Essex Returns to Mt. Carmel

Commemorating The Essex Solar Eclipse
Of 1963



President Joe WB3FMT and Frank AC3P took The Mt. Essex Observatory on the road to the parking lot of Our Lady of Mt. Carmel Church for some solar observations on Saturday July 20th. Fifty years to the day earlier they were at the same location to observe a partial eclipse of the Sun.

While at the parking lot Joe and Frank who were assisted by Pat, AC3F, noted several sunspots and solar prominences on the active solar sphere.

After an hour of observing, the Mt. Essex staff packed up their gear and left.

Frank submitted an article to *The Avenue News* with photos which appeared in the July 24th issue.

Public Service Opportunities

The Essex Skypark Association has asked the Aero Amateur Radio Club to staff a booth at the annual fly-in event. The fly-in will take place on Saturday September 21st. We have been requested to set up a “field day” operation on the grounds from 10 am to 5 pm.

Anyone interested in helping with this event, please contact Joe WB3FMT.

If you are unable to be at the skypark, please check into the club repeater during the event.

The Glenn L. Martin Aviation Museum has requested the club's help in providing communications for their monthly Open Cockpit tours. These tours take place on the last Saturday of the month. Communications are needed between the museum and mobile units escorting visitors to Strawberry Point.

More details will be forthcoming at a later date.

VE Testing Resumes



After a summer recess, Amateur Radio License examinations will return to the White Marsh Library.

The schedule is as follows:

September 28th

November 23rd

January 25th

March 22nd

May 31st

Registration begins at 1 p.m.

W3PGA Moonshot Status

Phil Hock, W3VRD, reports that the 2 meter yagis are completed. The next step will be to assemble a harness and structure to mount them to one of the masts used during field day.

Phil and Warren, W3JDF plan to assemble the antenna for testing at the W3VRD QTH.

The plans are to be ready by the end of October or beginning of November for the ARRL EME Contest.

W3JEH Repeater Off Air

Ron Distler, W3JEH, reports that the 223.84 MHz. repeater is down while he makes changes to the antenna system.

From TMARC

July 2013

Applications in Process:

KI4MB / WA4HIS: Received notification that KI4MB became a silent key.

Received request to transfer coordination of 224.0600 to WA4HIS.

Sent Final Coordination to WA4HIS

Baltimore Radio Amateur Television Society: Received updated information for modification of coordination for 224.8000- and 443.3500+.

Sent modifications to neighboring coordination groups

Sent revised coordinations for 224.8000- and 443.3500+

Massanutten Amateur Radio Assoc.: Received Certificate of Operational Status

For 147.3150 in Harrisonburg, Va. Sent Final Coordination

Southern Patuxent ARC: Received updated information for modification of 147.1950+ in Hollywood, Md. Sent revised coordination.

N3JDR: Received Application for Coordination for UHF pair at Braddock Heights, Md. Sent Notice of Proposed Coordination to neighboring coordination groups.

On Air Status Requests sent to:

Coordinations Withdrawn / Cancelled:

Other:

Received 2 Notices of Proposed Coordinations for 2 meter pair from Western Pa. Repeater Council.

Received 2 Notices of Proposed Coordinations for 440 pair from Western Pa. Repeater Council.

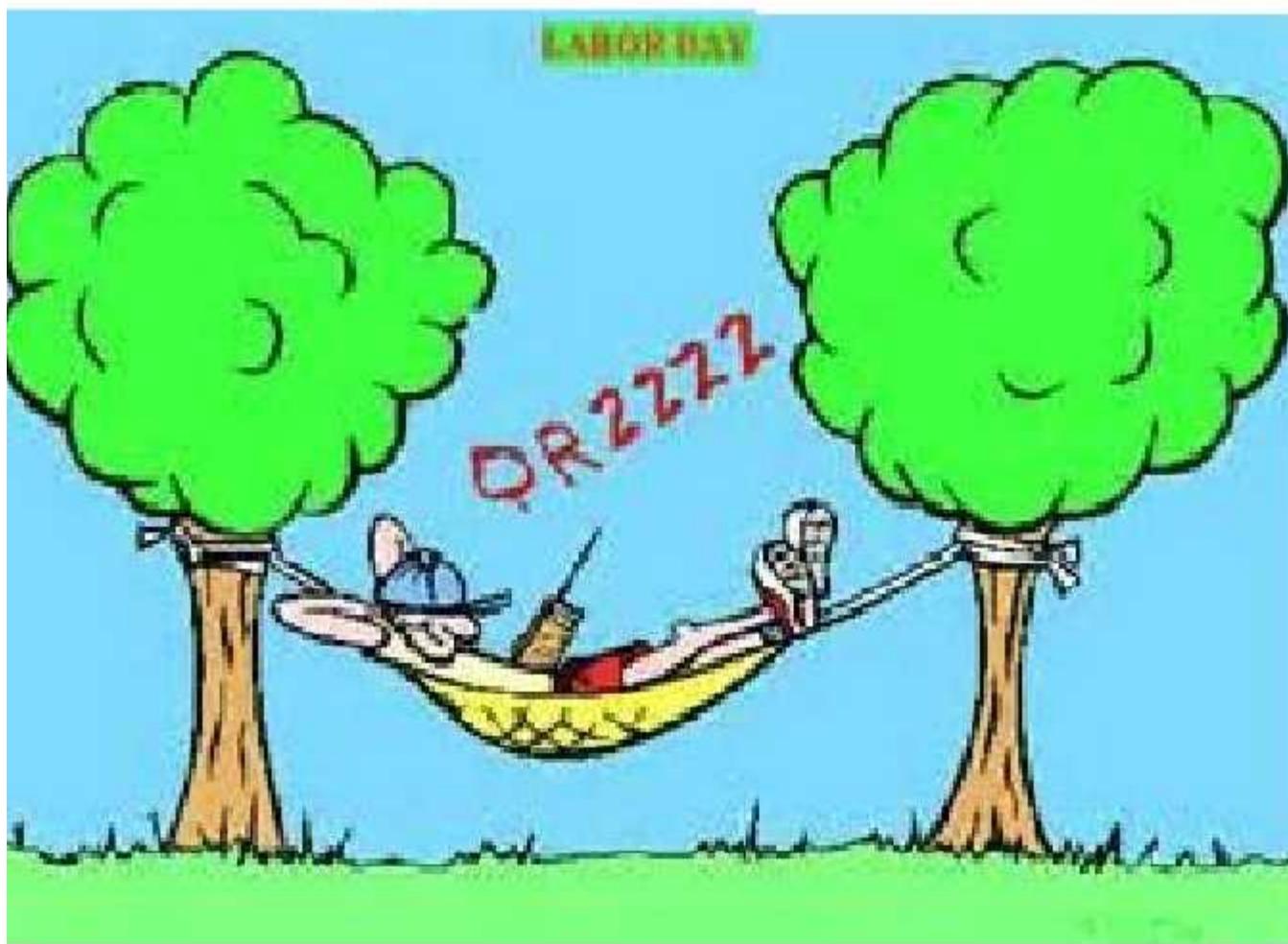
Received 1 Notice of Proposed Coordination for 2 meter pair from Area Repeater Coordination Council.

Received 4 Notices of Proposed Coordinations for 440 pairs from South East Repeater Association.

T-MARC

The Mid-Atlantic Repeater Council

www.tmarc.org



September 2013

Shelby NC Hamfest	 Labor Day			Meeting Coffman's 7:30 pm			
1	2	3	4	28.445 Mhz Net 8 pm	5	6	7
8	9	10	11	Meeting Coffman's 7:30 pm	12	13	14
ARRL VHF Contest							Essex Skypark Fly-in 10 am - 5 pm
15	16	17	18		19	20	21
 Fall Equinox				147.24 Mhz Net 8 pm			VE Testing White Marsh 1 pm ARRL EME test
22	23	24	25		26	27	28
ARRL EME Contest							
29	30						

From the Skies over Mt. Essex

SKY Events for September 2013

Sept 3 – 17 – Zodiacal light is visible in N. latitudes in the East before morning twilight.

Sept 5th -- New Moon.

Sept. 8th- Venus is 0.4° N of the Moon at 17:10 EDT

Sept. 9th – Mars is in the Beehive (M44) cluster.

Sept. 12th -- First Quarter Moon

Sept. 16 – 19th – Venus and Saturn appear closer together at dusk look WSW.

Sept. 19th -- Full Moon “Papaw” for the Shawnee American Indian tribe and the “Corn” Traditional Full Moon Names.

Sept. 22nd – Fall begins at 16:44 EDT

Sept 24th – Spica is 0.7° S of Mercury at 15:00 EDT

Sept. 26th - Last Quarter Moon.

Sept 27th – Double shadow transit of Jupiter at 19:46 EDT

Planet Lookout at mid-Month

Sunrise 06:48 EDT and Sunset 19:12 EDT

Mercury - Dusk in the West, Mag -0.2, size 5.4 arc sec.

Venus - Western Sky, Mag -4.2 Size 17.0 Arc sec.

Mars – Dawn ENE . Mag +1.6, size 4.3 arc sec

Jupiter - Dawn ENE . Mag -2.1, size 36.6 arc sec

Saturn - WSW in evening sky Mag +0.7 size 15.7 arc sec.

Uranus – Dawn in the East . Mag +5.7 size 3.5 arc seconds.

Neptune - Visible all night. Mag +7.8 size 2.5arc seconds.

Go Figure!

And you thought that all that math stopped at high school. We some did, but there are a number of formulas that are helpful in every day astronomy. The most common ones are: eyepiece power, focal lengths, field of view, useful magnification and horizontal distances.

Eyepiece Power = Telescope FL mm / Eyepiece mm
51x = 2032 mm (8"CAT F/10) / 40 mm eyepiece

Focal Lengths = F value x diameter of the objective lens FL of a 8 inch F/8 lens = 8 x 8 = 64 inches

Apparent field of view and true or actual field of view is when you look through your telescope, the area of the sky you can see is known as the true (or actual) field of view (FoV).

Apparent Field (AF= 46° (Manufacture's Spec).
Actual Field (TF) in Degrees = AF/magnification
40mm Plossl w/46°AF 46/51 power = 0.9° Actual Field

Field of View in minutes = TF *60 The Full Moon is about 31 arc minutes wide about 1/2°.

Convert degrees to feet at 1,000 yards = Actual Field * 52.5

TF 0.9 * 52.5 = 47.25 feet at 1,000 yards (3,000 feet)

Useful Magnification is 50x per inch (25.4mm) or 2 x the diameter of the objective lens in mm. (203.2 mm x 2 = 406.4x). Not always what it says in the advertisement!

Horizontal Distance using the “rule of 4”
Horizon in miles = $\sqrt{7 \times \text{height in feet}} / 4$
= $\sqrt{7 \times 5 \text{ feet}} / 4$
= $\sqrt{8.75}$
2.95 miles

Hope this is helpful.