AERO AMATEUR RADIO CLUB
MIDDLE RIVER MARYLAND

THE AERO AERIAL

The newsletter of the Aero Amateur Radio Club

Volume 1 Issue 7

July 2004

Editor   Frank Stone AC3P

Officers

Al Alexander	K3ROJ	President
Bob Landis	WA3SWA	Vice-President
Joe Miko	WB3FMT	Recording Secretary
Pat Stone	AC3F	Corresponding Secretary
Warren Hartman	W3JDF	Treasurer

Committees

Repeater/Trustee	Phil Hock	W3VRD
VE Testing	Pat Stone	AC3F
Public Service	Frank Stone	AC3P
RACES/ARES	Joe Miko	WB3FMT
Artful Dodger	Ron Distler	W3JEH
Field Day	Bob Landis	WA3SWA

ABOUT THE AERO AMATUER 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 (223.24 MHz -)

WEBSITE: http://mywebpages.comcast.net/w3pga/

LOCAL AREA NETS

Day	Time	Frequency (MHz)	NET NAME
Daily	9 – 10 am	147.03	ORIOLE Net
Daily	6 – 6:30 pm	3.920	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
Daily	8:15 – 8:30	146.505	AERO Code Practice Net
1st Tues	7:30 pm	145.330	Baltimore ARES Net
2nd Tues	7:30 pm	146.670	Baltimore County RACES Net
2nd Wed.	8 pm	28.445	AERO ARC Net
4th Wed	8 pm	147.240	AERO ARC Net
5th Wed.	8 pm	449.575	AERO ARC Net

Station Activities

KB3KRV reported experimenting with lightning on his 2 meter antenna. AC3F holding code class on the air. W3JEH finding new members on the family tree. WB3FMT finds nephew he never knew. AC3P honing "dfing" skills to identify unmodulated carriers on 147.84 Mhz. K3ROJ is testing bug recipes.

Public Service

There are two events needing our services over the next month. Please consider helping with one or both of them.

July 4: Towson Fourth of July Parade Contact BRATS n3cva@hotmail.com
July 12/13: MS Bike Tour Gettysburg, Contact Keystone VHF Club w3fjd@blazenet.net

Aero Net Reports

Two Meter Net   - Check-ins: WB3FMT (NCS), AC3P, K3ROJ, K3TEL, KB3KRV, W3JEH

Ten Meter Net - Check-ins: WB3FMT (NCS), W3JEH, K3ROJ, AC3P

COMING EVENTS

June 16   AERO Meeting Coffmans 7:30 pm
June 20   Frederick Hamfest http://www.qsl.net/k3erm
June 23   2 meter net 8 pm
June 25/27 FIELD DAY – CAMP GENYARA
June 30   70 cm Net. 8 p.m.
July 7   AERO Meeting Coffmans 7:30 p.m.
July 14   10 meter net 8 p.m.
July 21   Aero Meeting Coffmans 7:30 p.m.
July 28   2 meter net 8 p.m.
July 25   BRATS Hamfest Timonium Fairgrounds
July 31   License Testing 1 p.m. Essex Library

Election Report

Elections for officers for 2004/2005 were held at the May 19th meeting per the club constitution. Party Chairman Ron Distler, W3JEH, convened the election at the end of the regular business meeting. Also attending were Al, K3ROJ, Phil W3VRD, Warren, W3JDF, Joe, WB3FMT, Dave, KB3KRV, Eric, KB3JDE, Bob WA3SWA, and Frank AC3P.

Nominated for President were Al Alexander K3ROJ and Bob Landis WA3SWA. Al was re-elected on a second ballot (5-4) when it was discovered after a tie on the first ballot that there was a missing "chad".

Nominated for Vice President were Bob Landis WA3SWA and Eric Carl KB3JDE. In another 5-4 decision Bob won re-election.

Nominated for Treasurer were Frank Stone AC3P and Warren Hartman W3JDF. Frank quickly declined the nomination and Warren was unanimously re-elected.

Joe Miko WB3FMT was the sole nominee for Recording Secretary and Pat Stone AC3F was the sole nominee for Corresponding Secretary and both were unanimously re-elected.

The final result was that the sitting slate of officers was re-elected for another term.
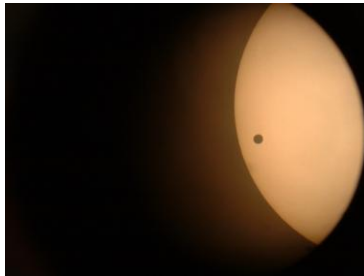
VE TESTING

A test session was held at the library on May 29th. There were five applicants. One passed the code test. There were two new hams, one Tech and one General and two upgrades to General. Congratulations to all who passed. Thank you WB3FMT, WA3G, WA3WRT, AC3P and AC3F for conducting the testing.

The next session will be on July 31 at 1 p.m. at the Essex Library.

Venus in Rare Show

Many of our club members have hobbies in addition to ham radio. Joe WB3FMT and Frank, AC3P have been doing amateur astronomy before they got their ham tickets. In that regard the have been receiving signals on the ultra-high end of the electromagnetic spectrum for over 40 years.

June 8th 2004 provided an opportunity to put their equipment to use to record the first transit of the planet Venus across the sun in 128 years.

Venus silhouette against the Sun

AC3P with the receiving equipment

Photos by WB3FMT

WORKING THE ISS

Most of us have read about the SAREX/ARISS program in which the astronauts and cosmonauts speak from space to students at schools around the world. This program requires a schedule be set at least two years in advance.

There is another was to enjoy the excitement of communicating with spacecraft without going through the red tape of setting schedules and waiting approvals. One can work the International Space Station (ISS) using the minimal equipment and software.

In addition to the voice schedules that the ISS crew has with the school, the ISS also carries a packet digitpeater on the 2 meter band. An amateur with a mobile radio, simple antenna and computer with soundcard software or a TNC can send packets to other amateurs using APRS.

To work through the ISS I have used my ICOM 706 running 10 watts to a Cushcraft Ringo with and MFJ 1270C TNC with the standard packet software and with WINAPRS. I have found that satellite tracking software such as STSPLUS is helpful in predicting the times when the space station is in best "view" for radio contact.

The frequencies used by the ISS are 145.99 MHz packet uplink (voice is 145.49 MHz) and 145.80 MHz for the downlink. With the radio side setup for half-duplex operation, the packet software is configured. First the TNC is send and UNPROTO command. For the MFJ, it is unproto cq via RS0ISS-3,fm19sh,yourname,town state. This command is automatically sent with each packet. Adding the six character grid square allows your location to be displayed on the internet when not using the APRS software.

After setting the unproto command the TNC is then place in converse mode. This allows the sending of any text after the data in the unproto command. During the ISS pass the transmitter is keyed via the keyboard and with a bit of luck the signal is digipeated to all within the ISS footprint.

There are two ways to find out if your signal was digipeated during the pass. The first is to get a response from other stations hearing you on the pass. The second is to look for your call sign to appear in the ISS Stations Heard list on the internet. To use the latter just logon on to http://www.findu.com/cgi-bin/ariss/index.cgi.

There a display like this appears.

Call	Messages	lat	lon	Age (dd:hh:mm:ss)
ISS	*	-1.41911	175.91161	00:00:00:03

⚐ISS-10	.	28.44255	-160.11458	00:00:00:04
⚐ISS-5	.	13.86765	-172.96509	00:00:00:04
✈RS0ISS-3	*	0.00000	0.00067	00:00:08:21
◿VK5AH-3	*	-34.87117	138.64833	00:00:13:28
🏠SP6RYP	*	51.12950	17.03617	00:00:43:11
🏠KB1GVR	*	44.60300	-68.44867	00:01:03:47
🚒KA3DLD	*	40.49517	-80.23467	00:01:07:33

Then click on messages to view what you sent and what was sent to you.

KA3DLD messages

from	to	time	message
KB1GVR	KA3DLD	06/01 01:05:19z	qsl v iss de mark{72
W1JMC	KA3DLD	06/01 01:03:32z	got u via iss,john
KA3DLD	KA3DLD	05/25 15:53:36z	test{2

However, to count as a QSO you must have the two-way contact on your packet station, not the internet.

One tip on operating. Best results are obtained operating during times of low usage such as the midnight to dawn hours. The fewer stations competing on the uplink the better the chance of being heard by the ISS.

For Sale

Radio Shack HTX-10 Ten Meter Transceiver ……..$50
ADI 446 440 Mhz FM Mobile 35 Watts……………$50
10 meter all mode HT 5 Watts………………………$50

Contact Frank Lipieko KB3CYX 410-687-4835 or Frank AC3P 410-687-7209

Contributions Appreciated

The Aero Aerial is always looking for material to put in this newsletter. If anyone has an article or news item that they could submit it will be appreciated.

Submissions can be e-mailed to Frank AC3P at ac3p21220@yahoo.net.