

THE AERO AERIAL



KB3KRV de SQ1RLL

The newsletter of the Aero Amateur Radio Club

Volume 2 Issue 6
June 2005

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
Field Day	Bob Landis WA3SWA
Election Judge	Ron Distler W3JEH

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 -)

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	7 pm	146.505	AERO Code Practice Net
1 st Tues	7:30 pm	145.330	Baltimore ARES Net
2 nd Tues	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

Polls Show Distler in Lead

With the 2005 AERO Election Campaign underway, the Gottcha Poll Co. survey shows Ron Distler, W3JEH, leading all contenders for all club offices. A break out by license class revealed the Ron leads all comers among Novices by 75%, Technicians by 80%, Generals by 83% Advanced by 90%, Extras by 95% and Silent Keys by 100%. Ron appears unbeatable at this point in the election cycle.

Field Day 2005

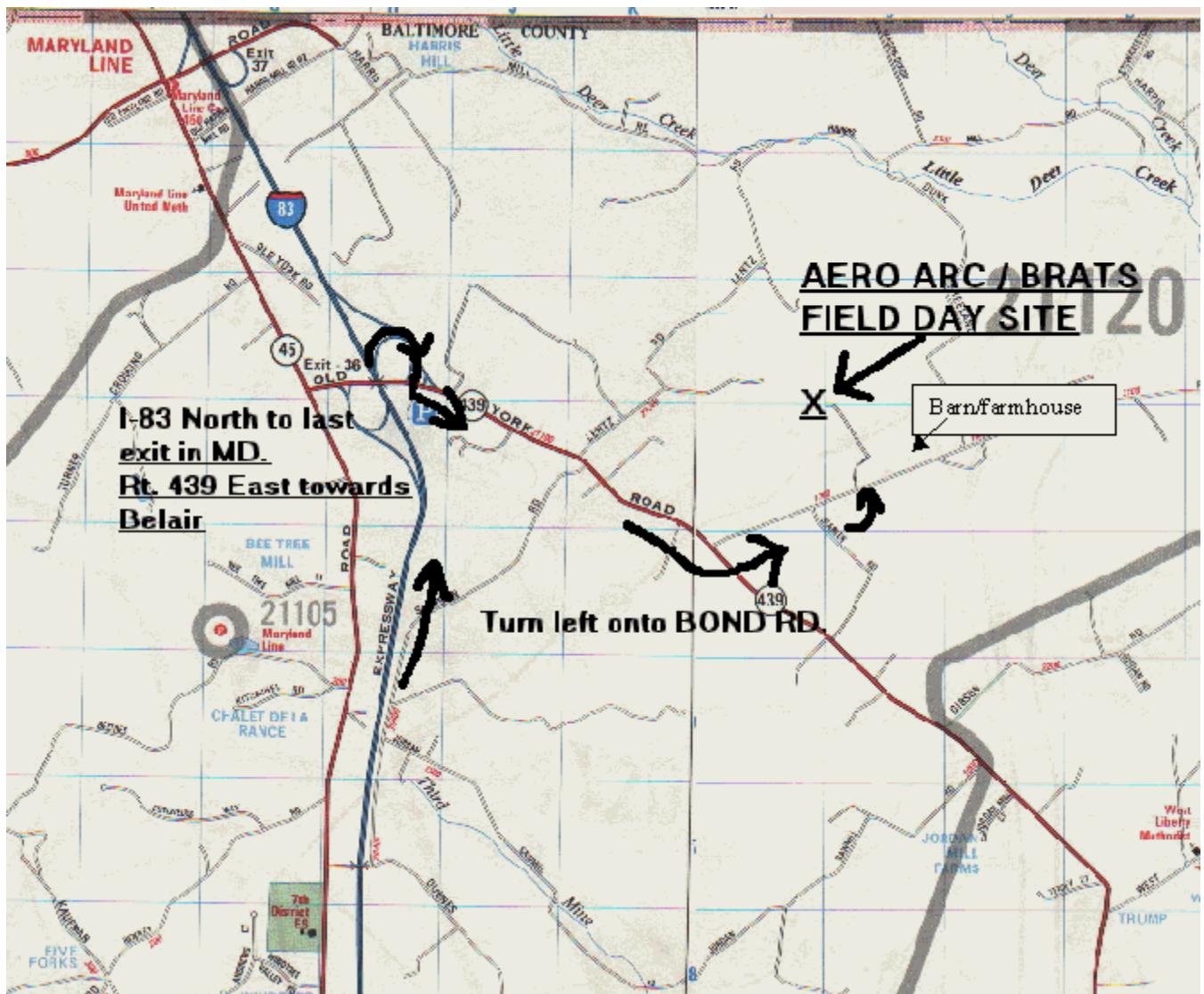
Time to get out the No-Doze and the bug repellent. Field Day 2005 is June 24-26 this year. Once again AERO will be teaming up with the Baltimore Radio Amateur Television Society and traveling to Camp Genyara for 24 hours of on the air mayhem and fun.

Bob, WA3SWA will again serve as FD Chairman and we will run two HF phone, one CW, and six and two meter stations.

The real challenge will be to try to best last year's performance record. So plan to come to Camp Genyara. Contact Bob for more information.

Directions

- From Baltimore, take I 83 North to Exit 36, Route 439 East.
- Take 439 east approximately 1 mile to BOND RD.
- Turn left onto BOND RD.
- Take BOND RD. approximately 1/2 mile to a dirt road on the left. (If you come to a barn and farmhouse on the left, you have gone too far.)
- Turn left onto the dirt road; follow it through the field and through a grove of tall pine trees. The pine trees have created a tunnel over the road. The Field Day site is at the end of the pine trees.



Station Activities

Congrats to WA3SWA on joining the quinquegenarian crowd. KB3KRV reports that he is not in an RF black hole after putting up a 20 meter inverted vee. There was a rare K3CXC sighting at Coffman's.

Net Reports

Two Meter Net: Check-ins: WB3FMT (NCS), K3ROJ, KB3KRW, KB3JDE, AC3P, KB3KRV, AC3F, K3TEL

10 Meter net: Check-ins: WB3FMT (NCS), W3VRD, AC3P, K3YGC, AC3F

Public Service

Bob, WA3SWA and Bob, ND3D helped BRATS with the annual Multiple Sclerosis Walks in Baltimore and Towson in April.

Joe, WB3FMT and Frank, AC3P helped BARC with the March of Dimes Walk America in Baltimore. Joe did bus monitor duty while Frank held the fort at a rest stops. Both report the crab cakes were excellent.

Upcoming opportunities:

June 11-12 MS 150 Bike Tour Salisbury coordinated by BRATS. Contact Ian N3CVA. Email n3cva@erols.com

July 4 Towson Parade coordinated by BRATS contact Bill KA3IDF email: pest001@msn.com

Ten Meter Net 15 Years Old

In the history column of this issue is a short entry that says on June 6, 1980 Walt Dixon WA3LAW suggested a ten meter net be started on the second Wednesday of the month At 8 p.m. on 28.440 KHz.

This writer is not sure who the first Net Control Station was but for many years KA3VCO (SK) served in that capacity. Joe Boas would call the members on the landline before net time to be sure everyone remembered.

If the suggestion was made on June 6 then this month's net represents the 15th anniversary of the Aero Ten Meter Net.

For the June net everyone who can should check in to celebrate 15 years of on the air camaraderie.

ARES/RACES

Hurricane Hunters at Martin Airport



The Aero ARC has a long history of supporting Baltimore County RACES. Tuesday May 3rd presented a unique opportunity for the club to demonstrate that support.

It began with e-mail from Al W3YVQ, RO for Baltimore County to all the RACES members.

The National Weather Service was to sponsor a fly-in of one of its Orion P3 Hurricane Hunter aircraft at Martin St. Airport. The Baltimore County Office of Emergency Preparedness request that some RACES members put on a display during the event.

Given the history of AERO and its origins with the old Glenn L. Martin Co. the response was immediate. At first the members were prepared to support whatever operations the county had in mind. When it became evident that this event was to fall during a workday and most regular RACES members could not get away from their jobs, it appeared that the entire amateur radio project hinged on the availability of the members.

As things usually go with such events requirements changed and the volunteers were asked to do more than a simple display. Starting from the premise of a couple of stations set up to do a traffic handling display, the project evolved to include a WINLINK 2000 demonstration, a Morse Code hands-on for school children and communications between the airport and the Middle River Volunteer Fire Department where the school busses parked.



The on-site team setup voice and digital stations along with an information booth in one of the buildings at the airport and an outdoor post near the school bus drop-off point. Meanwhile Al, W3YVQ and Doc, N3FBQ from BARC, were standing by in Lutherville to handle any traffic and inject emails as needed.

At about 9:30a.m. the aircraft arrived. There was a briefing on the tarmac for local officials and the media. At about 11:00 student from Aberdeen Middle Schools arrived and began to tour the exhibits. The kids were treated to a short film by NOAA, displays by MEMA the Air National Guard, Baltimore County Fire and, of course ARES/RACES, before taking the tour of the Orion Aircraft. These activities were punctuated by a lunch break. By 1:00 p.m. the school children departed.



For the remainder of the day the exhibit was open to the general public.

While all this was going on there was a flurry of communications on two meters. W3PGA acted as net control for school bus coordination. Joe WB3FMT acted as NC with Frank AC3P as ANC, Phil W3VRD and Myles K3VTT from BARC covered the outdoor post to contact the school bus parking area covered by Doug, KB3KRW and Al K3ROJ. Pat, AC3F covered the information booth and demonstrated Morse code to the students.

The station equipment consisted of an IC-706mgIIG, an FT-8900 for voice and an IC02AT with MFJ-1270C TNC and laptop for WINKINK. The antennas were a 5/8 wave mobile and a homebrew square loop.

The group quickly discovered that communications on 146.67 MHz was impossible due to a local RF noise blanking out that frequency. The AERO Repeater on 147.24 MHz was difficult for ht use at the fire station. So the local net was set up in 146.55 Mhz. simplex. The .24 repeater was used to maintain communication with the stations in Lutherville. A PACKLINK connection was set up with the AC3F-10 TELPAC Node on 145.75 Mhz.

All in all, the event went well. About 150 students were introduced to Amateur Radio. The coordination of the teachers and school bus drivers via Amateur Radio went smoothly. We had visitors from NOAA, the Air National Guard, and John Collins from WBAL-TV. A piece of formal NTS third party traffic was originated on behalf on two of the visitors. Finally the team was treated to a tour of the Orion Aircraft.

Thanks to all the AERO and BARC members who came out to help with this unique challenge.

WB3FMT ACTING EC

Baltimore County ARES Emergency Coordinator, Jim Cundiff, KB3GFC, has asked Joe, WB3FMT to fill in as acting EC for 2 months, while Jim tends to personal matters.

Joe, who is an Assistant EC with ARES, will be the primary contact for all ARES matters for Baltimore County and City.

Hurricane Hunter Visit - May 3, 2005 Martin State Airport - Middle River, MD.



"Miss Piggy" N43RF

Miss Piggy was the NOAA aircraft on display at the Martin State Airport on May 3, 2005. It was a Public Relation stop number 2 on a 5-stop East Coast tour from Maine to its Florida base. The Aircraft Operations Center (AOC) is located at MacDill Air Force Base located near Tampa, Florida. The pilots and crewmembers are part of the NOAA Corps the 7th and smallest of the Uniform Services. The P-3 holds a compliment of up to 20 people, 8 crewmembers and 10 -12 Scientist/Observers. By the way the crew does not wear parachutes, the plane does however have 2, 20 man life rafts.

The Miss Piggy "N43RF" P3-ORION started her first weather service duties in 1977. The NOAA procured the aircraft in 1976 and it took over a year to modify the aircraft for weather research. The other P3-Orion aircraft is known as "Kermit the Frog" "N42RF"

The **WP-3Ds**, [**N42RF**](#) and [**N43RF**](#), have been the primary airborne platforms for meteorological research in NOAA since the mid to late 1970s. They provide access to the lower and middle troposphere with large payload, large fuselage volume, long duration, and long range. Aircraft instrumentation includes [flight-level data sensors](#), [airborne radars](#) with Doppler wind finding, [cloud physics](#) instrumentation (including electric field measurements), [remote sensors](#) for surface wind and rainfall estimation, [expendables](#) (e.g.; dropsondes, AXBTs, AXCPs, and drifting buoys), and an [aircraft-satellite data link \(ASDL\)](#) to transmit data back to the ground. Some equipment, such as that for remote sensing of sea-surface conditions or for atmospheric electricity measurements, is unique to one airframe or the other. In addition to the hurricane research mission, for which they were originally procured, these aircraft support diverse programs throughout NOAA, outside the agency, and internationally.

The a normal work shift for a typical hurricane flight is about 9 hours and the aircraft holds approximately 7,000 gallons of fuel. During a hurricane mission the aircraft drops between 40 to 70 dropsondes per flight.

Q. What is a dropsonde?

A. It's a small tube with instruments in it that has a parachute attached. It also has a radio transmitter to send data back up to the airplane. When we get to the center of a hurricane at 10,000 feet, the dropsonde operator will release the "done" into the exact center of the eye. Just before it splashes into the water, it sends us its most important data: the pressure in millibars. This is the information the hurricane forecasters use to decide if the storm is getting stronger or weaker.

These sensors are expendable and transmit data back to the aircraft in the 400 MHz frequency range. Each sensor package cost about \$700.00.

While commercial type aircraft have been used in the past to penetrate hurricanes, NOAA and the US Air Force Reserves use sturdier P-3 Orion and C-130Hs for their research and reconnaissance missions. Both aircraft are safe and reliable and take the punishment that hurricanes up through Category 5 can dish out.

NOAA also used the two Gulfstream Aero Commanders, the Gulfstream Turbo Commander, a Cessna Citation II, two DeHavilland Twin Otters, one Bell 212 and one MD 369 (Hughes 500) helicopter and two Aerofab Lake amphibian aircraft.

WP-3D ORION – Manufactured by Lockheed

Performance Characteristics:

Ceiling:

25,000 ft (7.6 km)

Range:

2,225 nm (4,100 km) *low altitude (<18,000 ft or 4.8 km)*

3,300 nm (6,100km) *high altitude (>18,000 ft or 4.8 km)*

Endurance:

8.5 h *low altitude*

10.5 h *high altitude*

True air speed:

325 kt (170 m/s).

Aircraft dimensions:

length: 111' 2" (34.2 m)

wing span: 99' 7" (30.6 m)

height: 33' 8" (10.4 m)

Scientific Payload:

9000 lb (4090 kg)

Crew:

18 (9 scientists/observers)

Information provided the Flight Crew of Miss Piggy and NOAA.

June in Aero Club History

By WB3FMT

55 Years Ago

1950

6-14-1950 Treasure Report \$51.52. (*No Change*)

53 Years Ago

1952

6-25-1952 Don Rogers W3QQO was voted into the Aero Radio Club.
Field Day report the club had 417 contact points.

50 Years Ago

1955

6-29-1955 The Club's Field Day score was 397 points.

40 Years Ago

1965

6-2-1965 Club election results: Pres - Sparks, VP – Schools, Tres – Hartman, Cor Sec- Distler, Rec Sec – Bosak.

<u>35 Years Ago</u>	1970	
6-3-1970	Discussion about “Wired wireless” Warren had 200 watts of RF on power lines in Essex ... it could be heard in Fredrick, MD.	
<u>30 Years Ago</u>	1975	
6-18-1975	Club dues reduced to \$1.00 per month.	
<u>25 Years Ago</u>	1980	
6-25-1980	Essex Times published an article on 6-19-1980. Titled “W3VRD What ? “Amateur Radio Club is out of this world”	
<u>15 Years Ago</u>	1990	
6-6-1990	Dixon proposed that the club have a 10 meter net on the 2 nd Wed of the month. The frequency suggested is 28.440 MHz and starts at 8 pm.	

COMING EVENTS

May 25: 2 meter Net 147.24 MHz. Repeater 8 p.m.
May 27-29: CQ WPX CW Contest
May 28: VE Testing White Marsh 1 p.m.
May 29: Memorial Day Hamfest Howard County Fairgrounds
Md. FM Assoc. <http://www.marylandfm.org>
Jun 1: Meeting Coffmans 7:30 p.m.
Jun 8: 10 meter Net 28.445 Mhz. 8 p.m. HAPPY 15th ANNIVERSARY!
Jun 15: Meeting Coffmans 7:30 p.m.
Jun 21: TAKE YOUR HANDHELD TO WORK DAY (See June 2005 QST)
Jun 22: 2 meter Net 147.24 Mhz Rpt. 8 p.m.
Jun:24-26 FIELD DAY Camp Genyara
Jun 29: 70 cm. Net 449.575 Mhz Rpt. 8 p.m.