

The Bolt

The Official Publication of the Ford Amateur Radio League

President's Note

I hope you are all staying warm through the depths of the Michigan winter! Perhaps this is the perfect excuse to fire up the tube radio or amplifier to bask in the heat of older radio technology! I personally do not have any tube radios, but I am still using a cathode ray tube monitor for my station computer set up! I have not been able to warm up the antenna much this month, as I have been spending a good part of it nursing a cold! However, my antennas are still up after some pretty nasty winter weather, so I am happy about that!

Many thanks for the decent turnout we have had at recent club meetings. It is difficult to get out in the dark and cold to attend club meetings. It is nice to join together, though. I enjoyed Bill's (WA8HEA) presentation on AMSAT during the January meeting. We could have used a bit better video/audio, but we got through it. I really enjoyed the reference to the Orbitron program. It is fun to see when various satellites are going to be overhead, but the day/night indicator is what is really impressing me. I love to see who is in daylight, and who I may be able to talk to using the higher bands, who on the lower bands, and who is in the gray line propagation! Just Yahoo! Or Google the word Orbitron and you can download it.

For the February meeting, please join Bill WA8HEA as our meeting officiate, and Roger, KD8CSE, for his presentation on the BuddiPole antenna. I will be "suffering" through terrible Honolulu weather on the club meeting night, as my wife and I will be celebrating her 50th birthday in Hawaii. It will be the first warm weather birthday I have yet to celebrate with her. As a reminder, the club meeting is on Valentine's Day, February 14th. We hope that you can both take your sweetie out to dinner and still make our club meeting. I will be back for the March meeting, so see you then.

A thank you to Bill Boyke, N8OZV, for leading our club again this year in the sales of Auto Show tickets. Several club members have been selling them, and Bill Boyke gets the award for handling the most buildings in the Ford complex. With personnel moves and Ford staff reductions, the number of potential sales per building has fallen. Bill has been parading around multiple buildings with his ticket sales. The club earns \$1 for each ticket sold, so they are a great money maker. Bill, WA8HEA, and myself have also been selling tickets. The tickets are \$3 off from list price at the door, so our fellow employees appreciate our efforts. I hope you were able to see the cars at the show this year. It is always a special event.

73,
Dave
N8HKU
FARL Club President

FARL Club Meeting Minutes - January 10, 2008

Prepared by Roger Reini, KD8CSE, Secretary

Meeting called to order at 7:03 PM by Dave, N8HKU, President. 10 attendees present.

MINUTES: Minutes from the November meeting were approved (N8OZV moved, N8JUH seconded)

TREASURER'S REPORT: Treasurer Bill, WA8HEA, read the treasurer's report. Major expenditures this month were the phone bill and the backup 2m repeater.

MEMBER DUES: Bill, WA8HEA, pointed out that current membership lists don't indicate who

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paid what dues for when, which makes it difficult to determine the status of a member. Going forward, the roster will track this information more closely. A suggestion for denoting up-to-date paid status is to resume the practice of handing out membership cards upon receipt of this year's dues.

MEMBERSHIP: The number of active members is around 20 to 22. Some 55 newsletters are mailed out every month, including duplicates sent to home with more than one member

NEWSLETTER MAILING: Bill, N8OZV, has heard reports that FERA club use of the Ford mailroom to process mailings may be curtailed, which would adversely impact the distribution of our newsletter. This may prompt a shift to more e-mailing of the newsletter, so members should give their e-mail addresses to one of the club officers or to N8OZV.

BOARD OF DIRECTORS: Upcoming Swaps -- is there interest in obtaining a table for the Hazel Park and Livonia swaps? After it was pointed out that we could sell auto show tickets at a Hazel Park table, the attendees voted to authorize buying a table for Hazel Park (Jan. 20). A decision on a table for Livonia was deferred to next meeting.

REPEATER: N8JUH reports the 220 repeater is up but is not linking to the 2m repeater.

PHONE PATCH: Cards with the phone patch information were distributed again for those who did not pick one up in November. This information is not to be given to non-club members.

TRAINING: Bill, N8OZV, is planning another Technician class beginning in March or April. It will be on Sundays at 10 AM, most likely at the Fairlane food court. Bill mentioned other presentations he has or will be doing, including one on Jan. 8 for the Birmingham Power Squadron and a future one for Ford Yacht Club. A session for Penguicon is still in the works. Al, W8AMH, asked about Henry Ford Community College, which had an active club at one time. That club is now inactive, said Bill, but the equipment may still be over there (whether it's set up is another matter).

NEWSLETTER: Bill, WA8HEA, volunteered to put together the February Bolt.

WEBSITE: Yahoo changed the allowable access for the club website; for our type of account, Front Page access is no longer available. If we were to get our own domain through Yahoo, Front Page access would be restored. FTP access is still available via standalone programs. A decision on whether to upgrade was deferred to a later date.

50TH ANNIVERSARY CONTEST: Bill, N8OZV, is investigating having a commemorative patch developed

WEEKLY NET: Still Sundays at 8 PM. If no one else starts up the net, you are encouraged to do so yourself.

CLUB CALENDAR: A number of items were added to the club calendar for the year (shown elsewhere in the newsletter). February's presentation will be by Roger, KD8CSE, on the Buddipole antenna.

THIS MONTH'S PRESENTATION: Bill, WA8HEA, gave a presentation on AMSAT, amateur radio via satellite. His presentation materials are available on the club website.

ADJOURNED: 8:40 PM

FARL Name Badges

We ordered FARL name badges for our two newest members, Katie Boyke-KD8GDK and Nadine Habbal-KD8GDJ, and thought now would be a good time to see if anyone else wanted to replace a lost badge or get a new one. They are included in the \$20 initial membership fees for new members and replacements are just \$5. Please let Bill Brezina, WA8HEA, know if you want a badge and he will order them. You can see what they look like at the next club meeting.

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Club Repeater Information

The Ford Amateur Radio League operates 3 repeaters under the K8UTT call. The repeaters are located in the Dearborn, MI, area and are available for members and guests to operate. The 2 Meter and 1.25 Meter repeaters are linked together. The PL tone is also transmitted on the output of the 2 meter repeater so that you can use tone encoded squelch to reduce interference from other repeaters.

- **2 Meter Repeater Net: Every Sunday evening at 8 PM local time.**
- **2 Meter Repeater Autopatch Access: Codes are available to club members from Dave Treharne (N8HKU). Autopatch usage is restricted to the Detroit Metro area.**

Please contact the following people if there is any problem with a repeater listed below:

<u>Band</u>	<u>Output</u>	<u>Input</u>	<u>PL Freq</u>	<u>Contact</u>	<u>Phone No.</u>
2 Meters	145.270 Mhz	144.670 Mhz	100 Hz	Dave Treharne	734-476-1666
1.25 Meters	224.520 Mhz	222.920 Mhz	100 Hz	Murray Scott	248-734-1704
70 CM	443.425 Mhz	448.450 Mhz	107.2 Hz	Bob Krause	248-437-6634

2008 Calendar of Events

January	10	FARL Club Meeting, EMDO, 7 PM	(AMSAT Satellite Update)
	17	HPARC Swap, Hazel Park MI	http://www.hparc.org/
February	14	FARL Club Meeting, EMDO, 7 PM	(Using a Buddipole Antenna)
	17	LARC Swap, Livonia MI	http://www.livoniaarc.com/Swap.htm
March	13	FARL Club Meeting, EMDO, 7 PM	(Looking for a topic)
April	10	FARL Club Meeting, EMDO, 7 PM	(Election of Officers)
May	8	FARL Club Meeting, EMDO, 7 PM	(Linux for Ham Radio)
June	12	FARL Club Meeting, EMDO, 7 PM	
	25-26	Field Day Operations, Livonia Fire Dept.	
July		No Club Meeting	
August		No Club Meeting	
September	11	FARL Club Meeting, EMDO, 7 PM	
	20	PEAC Bike Ride, Hines Park	
October	9	FARL Club Meeting, EMDO, 7 PM	
November	13	FARL Club Meeting, EMDO, 7 PM	
December	11	FARL Club Meeting, EMDO, 7 PM	(FARL Christmas Party)
	TBD	Speaking With Santa, Mott Children Hospital	

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FARL Club Meetings

The Ford Amateur Radio Club meets the 2nd Thursday of each month, except for Christmas and the summer months (July & August). The meetings are held at 7 PM at the Ford Engine Manufacturing & Development Offices (EMDO) building. EMDO (located at 17000 Southfield Rd, Allen Park, MI) is south of I-94 on the east side of Southfield just north of the Allen Park Municipal offices. Park in the front of the building and come into the main lobby at the side. Knock on the inside door on the right if no one is standing there to let you in.

Conference call capability: All FARL club meetings are available via a conference call. Dial in at 7pm to 313-633-2320. When prompted, enter passcode 19153130#.

Meeting agendas start with club business items followed by a short break. Presentations on selected ham radio topics of interest are given after the break. Anyone wishing to present a topic can contact any Board member.

Free Satellite Tracking Software

I enjoyed giving the Amateur Radio Satellite Update at the last club meeting, and I am really enjoying the new free satellite tracking software I got off the internet. I only had a few minutes to go over some of the Orbitron Software features during the presentation, but I have worked with it more and appreciate the way the software works and all the information it presents. You can learn about the satellite tracking features and download the software at www.stoff.pl/. It is easy to install the program and load the keplarian Two Line Elements (TLE) from the internet. The software auto updates the TLE from any of several websites that you can select from the program and away you go.

You can choose from any number of space objects to track, including the ISS and amateur satellites. The software displays the location of the moon (how about some EME communications), sun and shows the day/night boundary as it moves across the earth. It allows you to choose the closest city to where you live (Detroit), or you can enter in GPS coordinates to be even more precise. The menus allow for many tracking options including the ground path of each satellite and the cone of communications, or footprint, as it moves along the path or track.

One menu tab has a database with all the information about the satellite you are currently tracking. Another tab gives antenna rotor azimuth and elevation information for pointing an antenna, and the software can link with your hardware to point the antennas automatically. You can operate the tracking function in a real time mode, or move the satellite to any position on its track to see where other satellites will be in relation to it. This helps to determine what might be the best time to operate in order to access successive satellites and maximize your communication time.

I really like the radar screen in the lower right of the screen that signals you when any satellites are within communications range and tracks them as they move relative to your location (the center of the radar screen). You can tell where they are and how close they will be to passing overhead.

I used to print 24 hours worth of predictions from the <http://heavens-above.com/> website to try to operate the amateur satellites on Field Day. Orbitron allows me to have several days

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worth of satellite tracking information in a laptop with real time information on where a satellite is and how to access it. And it looks really cool on the screen when someone else walks by. Try it and I know you will like it. *—Bill Brezina, WA8HEA—*

ARISS Team Looking For Ground Stations

Do you want to be part of the international network of ground stations that help support Amateur Radio on the International Space Station (ARISS) operations? ARISS is looking to add numerous ground stations capable of relaying ISS Amateur Radio sessions with schools and also serve as back-up communications relays should they be needed. Locations all over the world will be considered, but the greatest need for stations is in Central America, South America, Falkland Islands, Western Australia, Canada and Alaska.

The following are guidelines for stations wanting to be considered: Third Party agreement with United States or waiver from their telecom agency; ability to speak and understand English; minimal horizon obstructions; 24/7 access and availability of station; operator(s) willing to support scheduled contacts at various times; phone patch; AZ/EL tracking satellite system, preferably an auto tracking system with the capability for manual override; multi-element Yagis for 2 meters and 70 cm (circular polarization preferred); pre-amps and transmit output greater than 70 W. If you can specify your station's EIRP and receive sensitivity (thereby taking into account cable losses, pre-amps and antenna gain), it would be greatly appreciated.

Stations that can support the following will be given special consideration, but these items are not required: Auto Doppler adjustment of frequencies; ability to speak and understand languages other than English; 1.2 and 2.4 GHz satellite hardware; Packet; SSTV; Digital ATV; redundant power system, and high-speed Internet.

If you or your club would like to be considered for selection as one of the new ARISS ground stations, send an e-mail <ARISS-telebridge@amsat.org> to ARISS with details about your station and contact information. -- Information provided by Frank Bauer, KA3HDO, ARISS International Chairman. *—ARRL Bulletin--*

Satellite Serves As Voice Repeater – Uplinks On Fm & Downlinks On Sideband

Launched in January 1990, AMSAT-OSCAR 16 (AO-16) -- a digital satellite -- has been unavailable for use while the command team dealt with a serious computer problem. The satellite has since been recovered, and is now a voice repeater, at least for an unspecified "test period" using FM voice on the uplink, but transmits DSB voice on the downlink (best received on SSB).

Since AO-16 was recovered approximately six months ago, the command team -- Bruce Rahn, WB9ANQ, Jim White, WDOE, and Mark Hammond, N8MH -- attempted to reload the satellite software almost a dozen times without success. The team performed a series of memory tests that pointed toward a hardware failure that prevented the spacecraft software from restarting successfully.

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AMSAT Vice President of Operations Drew Glasbrenner, KO4MA, said, "After concluding that the spacecraft computer system was damaged, and as discussions about decommissioning were taking place, Jim recalled a series of low-level commands that Tom Clark, K3IO, included in the spacecraft design during construction. One of these commands allows an uplink receiver to be directly tied to a downlink transmitter. The twist is that the uplink is regular FM, but the downlink via the BPSK transmitter is DSB (Double Sideband). Mark placed the satellite in this mode early this week and did some testing."

Glasbrenner said the satellite hears very well; the reduced bandwidth by using either USB or LSB on the ground station receiver "allows for a very robust downlink. Tuning the downlink is just like on a linear transponder, meaning it is tight and with fast Doppler. Uplink tuning is not required, just as with the FM mode V/U satellites. My personal observations include being able to access and hear the satellite within one degree of the horizon, much lower than any other current bird for my location [in Florida]. This should be an easy satellite with omni antennas and a 70 cm preamp."

Glasbrenner said that he would like to open the satellite to general use for a test period. The uplink is 145.920 FM, and the downlink is 437.026 SSB +/- Doppler shift. He asks that users restrict their uplink power to a reasonable power level, and do not transmit without being able to hear the downlink; all general single-channel guidelines apply. Please submit reports via e-mail <ao16@amsat.org>. "Enjoy this bird's new life!" Glasbrenner said. *--ARRL Bulletin--*

Potential Topics for Future Presentations

We are always looking for new and interesting topics for the club meetings, so if you have anything you would like to present, or would like to hear presented, please contact Dave Treharne, N8HKU, or any of the board officers. Some topics suggested for future meetings include the following:

- FIRST Robotics
- Digital Voice on HF
- Sky Command and/or D-Link
- Fox Hunting techniques
- Mobile Installation
- Software Defined Radios

You don't have to be a great presenter or an expert on the subject. If you have an interest in a topic, chances are that others will too. Paraphrasing Dale Carnegie – "If you've done it, you've earned the right to talk about it!"

Please suggest more topics for our club meetings!

Local VHF/UHF Radio Nets

Here is a list of local vhf/uhf repeater nets that are active in our area:

<u>Day</u>	<u>Time</u>	<u>Club</u>	<u>Input Freq</u>	<u>Day</u>	<u>Time</u>	<u>Club</u>	<u>Input Freq</u>
Daily	2215	S.E. MI Traffic Net	145.330	Tue	2100	Motor City RC	147.240
Sun	2000	Ford ARL	145.270	Wed	2100	ARPSC/Info	145.490
Sun	2100	Garden City ARC	146.860	Thu	2000	RACES/ARES	147.200
Mon	2000	GM ARC (PL 123)	443.075	Thu	2000	Stu Rock ARC	146.920

--The GCARC Wireless--

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New Membership Cards and Dues Reminder

You may have noticed the address labels now show the expiration date that we have on record. If your address label shows your membership is past the expiration date, please send your membership dues (\$15 annually) to the P.O. Box. You can also pay your dues at any club meeting. We try to keep the records up-to-date but if you find an error, contact Bill Brezina, WA8HEA, and he will correct your membership information. **It is really important to let us know about address changes so we can keep in touch with you.**

We are issuing new membership cards starting with the receipt of the 2008 dues. They will be attached to the club newsletter for those who have already paid, or pay by mail, and will also be available at club meetings for anyone who pays their dues then. It is your receipt for your dues payment, and your newsletter label and club roster will also be updated with your latest membership information. Please check them to make sure they are correct.

We will stop sending newsletters to members who are more than a year past their membership expiration dates so please keep current. While you're at it, drop us a line and let us know what you're doing if you haven't been able to make it to a club meeting recently...especially those who live out of the area. We enjoy getting your checks and enjoy hearing from club members even more.

Internet E-mail Addresses of Club Members

There have been some rumors about a reduction in some of the services Ford offers to FERA clubs including the mailing of FERA club materials. Some FERA clubs are preparing to become more self-sufficient if these cuts should occur.

We need to consider a greater use of the Internet for club communications. We already have a website for club information and presentations, but we may be sending the newsletter via e-mail in the near future. The newsletter is prepared electronically and sent via e-mail for review, so sending the newsletter as an e-mail attachment is a logical next step. We discussed this at a prior club meeting and decided to maintain the mailing option for the time being since some club members do not have ready access to a computer.

We presently do not have e-mail address for all of the club members that do have computers and need to include member e-mail addresses in our membership information. Please take a moment at the next club meeting to update the membership roster with your e-mail address, give Bill Brezina, WA8HEA, a call or send a note to the P.O. Box.

Support Local Swaps and Radio Clubs

The FARL got a club table at the Hazel Park ARC Swap in January and several club members took advantage of the opportunity to get rid of some excess equipment. We may also get a table at the upcoming **LARC Swap** on Feb. 17th. The LARC swap will be held at the Civic Park Senior Center, 15218 Farmington Rd (SE corner of Farmington & 5 Mile). We will vote on getting a club table at the next club meeting, Feb. 14th. Come to the swap to buy, sell, look around or just socialize and support the local radio clubs hosting these events.

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2007-2008 Club Officers

Please contact any of the officers for information regarding the Ford Amateur Radio League, or go to the club website at www.geocities.com/capecanaveral/hall/2183/ for current events and activities.

President	Dave Treharne	N8HKU	734-476-1666
Vice President	Pat Quinn	WD8JDZ	734-729-1993
Treasurer	Bill Brezina	WA8HEA	313-563-2905
Secretary	Roger Reini	KD8CSE	734-728-1509
Repeater Chair	Murray Scott	KE8UM	248-743-1704
K8UTT Trustee	Dave Treharne	N8HKU	734-476-1666

Next Club Meeting: Thursday, Feb. 14th @ 7pm
Presentation: Using a Buddipole Antenna

The Ford Amateur Radio League
PO Box 2711
Dearborn, MI 48123