

The MODULATOR

The Baltimore Amateur Radio Club, Inc.
P.O. Box 120
Reisterstown, MD 21136-0120

The Baltimore Amateur Radio Club
Repeater System **W3FT**

Frequency	PL
146.07/146.67	107.2
222.64/224.24	107.2
444.625/449.625	107.2

simplex: 146.55

web: <http://www.baltarc.com>

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The MODULATOR

March 2005 Vol. 59, No. 3

Newsletter of the Baltimore Amateur Radio Club

Volunteer to Work

APRIL 1-3 THE GREATER BALTIMORE
2005 HAMBOREE AND COMPUTERFEST

Call 410-247-0578

If you don't work, we have to pay a non-club member to do so.

The MODULATOR

published by *The Baltimore Amateur Radio Club*
P.O. Box 120
Reisterstown, MD 21136

For Information, dial **410-HAM-TALK**
Club website: <http://www.baltarc.com>
Hamboree website: <http://www.gbhc.org>

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Items for *The Modulator* should be sent by the 5th of the previous month, to:

Editor
The Modulator
3607 Klausmier Rd
Baltimore, MD 21236
or email to modulator@baltarc.com.

The club meets at 7:30 pm. the first and third Wednesday of every month in the club facility at 12360 Owings Mills Blvd., 3/10 mile south of Bond Ave. See ADC map page 16-D8. Complete directions web page <http://www.baltarc.com/directions.htm> or call the Club Facility at 410-526-4263.

VE Testing: First weekend of each month. Contact Rusty, N3WKE at arrl.net

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VE Report - February 2005

Happy New Year!

A Laurel ARC Volunteer Examiner Coordinator (LARC VEC) affiliated testing session was held at the BARC Meeting and Training Facility in Owings Mills, MD, on Saturday, February 5. Seven people took exams for either their initial ham license or to upgrade their license.

The examinees achieved the following:

Became new Technician Class licensee

- Joshua Duvall KB3LXL
- Howard Zuckerman KB3LXX

Upgraded to General Class licensee

- Nathan King W3ADX
- Derrick Roberts KB3IVS

Overall, five tests were passed out of eighteen administered:

- Element 1 (5 WPM CW): 100%
- Element 2 (Technician Written): 60%
- Element 3 (General Written): 75%
- Element 4 (Extra Written): 50%

Thanks to the Volunteer Examiners who made the session possible:

Lee Benson W3FQE	Ed Kriston K3CAV
Robin Schaefer AA3SB	Bill Dobson N3WD
Jerry Matthews N3XWT	Rusty Schaefer N3WKE
Don Friedmann W3QYL	Doc Sanders W3FYA
Doug Wittich N3VEJ	Tom Hendricks KB3CVS

Next testing session at the BARC facility is Saturday, March 5, 2004. Registration opens at 1:00 PM and testing starts at 2:00 PM. For information about the exam session, please send email to n3wke@arrl.net (or call Rusty Schaefer 410-247-0578).

73, Rusty N3WKE

VE Team Leader

Richmond FrostFest Report

At 5 AM, **Doug N3VEJ** and **Jim WA3RYT** set out from Lutherville for Richmond, to visit the FrostFest, to sell tables and tickets and get people interested in GBH&C. After a stop at the Iron Skillet for the breakfast buffet (memo to self, next time, order off the menu), we arrived at about 8:15. **Hale, N3NYC** arrived right behind us to also work on selling GBH&C tickets and info.

The FrostFest is held in the Showplace, a converted Ames department store. This venue hosts some sort of show almost every weekend, be it guns, antiques, beanie babies, dolls, toys, trains, books, car parts, civil war stuff,....

There were about 100 people in line. The line steadily grew as the 8:30 opening time neared. We managed to sell a few GBH&C tickets in the line, and gave out a lot of flyers. I would rather give them to someone that asks than set a stack on a table.

It was nice to hear some good comments on our Minifest held in January. A lot of people had a good time.

Once inside, the first thing we noticed was one less ring of tables. Not bad, considering that this schedule conflicts with the Florida hamfest circuit, which lures all the dealers. There was a fairly good set of stuff on the flea market tables. We did see several of our smaller dealers, and collected table fees for GBH&C. There was a dealer from Austin, Texas who had the full range of radio gear. We also learned that **Communication Headquarters** of Wilmington NC went out of business late in 2004, so we hope to recruit the Austin dealer. We talked with a dealer that provides domain hosting for hams. You can get yourcall.com as a domain name for \$3.95 a month. My email address from such a service could be *dw@n3vej.net!* We're hoping he'll come to our show as well.

There was only one coax dealer, **The Wireman**. They have a very nice exhibit, and they were quite busy through much of the day. We also talked with the editor of the SERA Journal. We're hoping to get some attention from them at GBH&C as well!

So FrostFest was a lot like it was in the last couple years, but with a couple nice dealer additions, and one sad missing dealer. I'm already looking forward to going back next year, in part for the hamfest, in part for the company on the ride, and of course, we get to eat breakfast out!

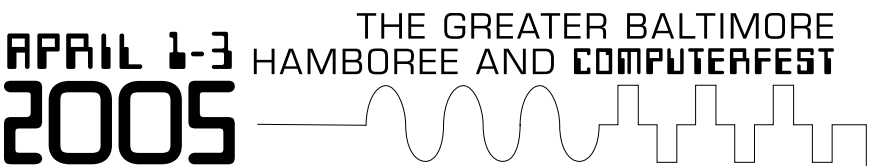
73 de N3VEJ

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GBH&C Hits the Big Times

APRIL 1-3 THE GREATER BALTIMORE
2005 HAMBOREE AND COMPUTERFEST



GBH&C Hits the Big Times in the BBQ Directory. See <http://bbq.resourcepage.info/tailgating/>, where we are listed because we have tailgating! We do have the Ham-bo-Ree beef and ham sandwich, but there are no pigs at the hamboree. See you at Timonium, April 1st-3rd.

The President's Corner

We are less than one month away from the **Greater Baltimore Hamboree and Computer Fest**, and as I stated in my previous letters, every club member who volunteers, even if it is only for a few hours, is one less person that we have to pay to perform a task. Remember, the Hamfest is our primary source of revenue. It supports our public service activities, the scholarship fund, field day, training classes and the repeater network. It subsidizes your membership, publishes the Modulator and keeps our dues at the lowest level of any club in the area. So please support the club, come out, lend a hand, and have fun. Contact Robin, *aa3sb at arrl.net* and volunteer for an assignment.

The club's Internet connection was to be operational on January 31, a week after I wrote last month's letter. On January 28, Verizon notified us that the installation was cancelled because the Reisterstown central office is at capacity and cannot support additional DSL lines. We are looking into alternatives, including the acquisition of an existing DSL line that is no longer in use. We will keep you informed and hope to have a solution in place prior to April's Echolink program meeting.

The club's big legislative effort so far this year is at the state level. The Maryland Senate approved *Senate Joint Resolution 2, "Amateur Radio - Support and Encouragement,"* 46-0. The bill has been referred to the House. With the assistance of Senator Klausmeier and her staff, we are watching it closely to ensure that it keeps moving. SJ2 will not produce immediate changes in local regulations, but will lay the foundation for future legislation. Maryland Amateurs should expect to be in Annapolis every year for the foreseeable future. On the Federal level, we're planning strategy while we await the re-introduction of last session's Amateur Radio legislation.

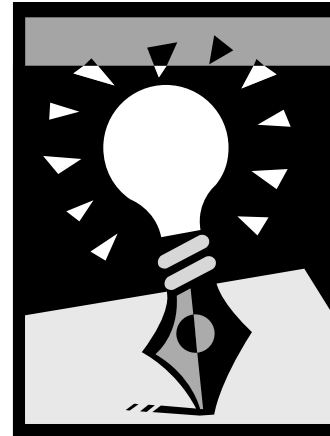
Our next big event for 2005 is Field Day, scheduled for the weekend of June 24. If you have any suggestions for operating or want to help contact **Ed, K3CAV**, our primary Field Day chair.

Once again, I want to thank all those members who have contacted me expressing their support for our initiatives.

That is all for now, and I hope to see you at the March 2nd business meeting, the March 16th program meeting, or at this month's Lunch with the President on March 19th, until then...

Remember, this club exists because of you and it cannot exist without you!

Joe Krysztoforski, AJ3X, President BARC
AJ3X at arrl.net



How to Submit to *The Modulator* (Again!)

We are always looking for original works by club members about some aspect of amateur radio. You may decide to write an opinion article, or even send us something that you perhaps wrote for an email list or bulletin board someplace. Email submissions are best,

but handwritten or typed copy is ok too. I confess, however, that sometimes between my mailbox and the computer, some letters just don't get typed in before they are lost in the shuffle. If you submit something, it is certainly a good idea to call me in a day or two to be sure that I have it.

Your submission does not have to be lengthy. As you can see in this issue, there are some interesting articles that are only two or three sentences. Also, if you wish for us to write it for you, then you may so indicate, and simply send us a note of thoughts. We can organize it into an article for you.

As you may have guessed by now, I wrote this at the last minute to fill this page that would have otherwise been blank. We look forward to hearing about your thoughts on amateur radio. What do you like to do best in this hobby and service?

Refer to the calendar for submission deadlines. Generally, short items can be added at the last minute (not too last-minute). Longer items should try to adhere to the deadlines set on the calendar. If you have photos, please include them in your submission as attachments. Please do not incorporate them into a Microsoft Word or other document.

If you have any questions, please contact me (my info is on page 2) or **Tom Henry, KB3JQP** at 410-882-0515 or email at *KB3JQP at arrl.net*

Doug N3VEJ

Classified

Needed: Operation Manual for Kenwood TW-4100A dual band radio. Will copy and return original ASAP. **Kurt Fritsch WA3TOY** 410-360-6894 *k.fritsch2 at verizon.net*

I was given this radio, and it seems to work well, at least on 2. I do not have a spare UHF antenna outside at the house to play with the UHF side, but it looks good on the service monitor.

Thanks and 73 - Kurt WA3TOY

Wanted: Old Callbooks I am in need of old US Callbooks between 1977 and 2000. I am doing a project of identifying holders of some old call signs for the 3905 Century Club, where I am the Awards Secretary. Anybody who has Old US Callbooks that would like to get rid of them, I would appreciate it. At the end of this project, I will place all the Callbook's into the BARC Library. Anybody having these can either bring them to the BARC facility or contact me via e-mail at *n3wd at arrl.net* or phone at 410-526-2154 to arrange a pick-up.

Bill Dobson, N3WD

Tubes Available: I have a bunch of vacuum tubes that I no longer need and wanted to know if anyone in your club is interested in them. I have about a thousand of them in many different sizes and a lot of them are in individual boxes. Someone can make me an offer for all of them. I am located south of DC in Southern Maryland.

Thanks, Rick Clarkson
301-475-5204

March BARC Lunch

Saturday, March 19 at 11:30 AM at Jade Garden Buffet, Loch Raven and Taylor, NE corner in the strip shopping center. email *lunch at baltarc.com* or phone 443-794-0735 to let us know you're coming so we can plan the size of the table. *Families are welcome, too!*

Battery? Did You Say Battery?

Be sure to check the manufacture date code, sometimes hidden somewhere on the battery. This tells you when the battery was made. You don't want a battery that has been on the shelf longer than 6 months because they begin to sulfate. Hopefully they are not clearing out last season's dead stock in preparation of new shipments.

Most batteries will have a date code with a letter and number, like J4. Usually it is on a small sticker on the side of the battery. Some like Delco reverse the number and letter. 4J instead of J4.

The letter designates the month; A for January, B for February, etc. The number designates the year; 4 would be 2004 (or 1994 if it's really crusty)

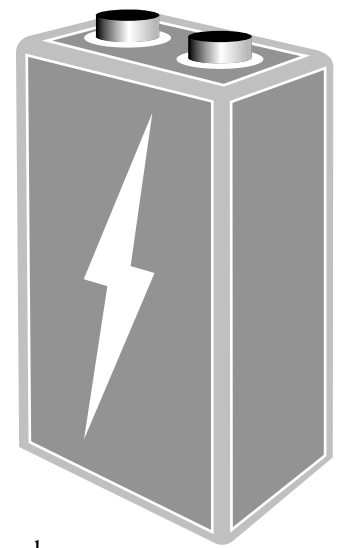
I used to sell Exide batteries. Sometimes we would receive batteries that were dated ahead of time; if it was March, the battery had an April date code. Imagine that!

So - the newer the battery date code, the fresher the battery is. An "A5" date code would be best but you want a code at least H4 or better (higher letter). Anything older should be rejected. You might even spot a B5 code way back on the shelf behind the older stock.

Don't forget about feeding and caring for the deep cycle battery. Look for a 3 stage automatic charger that does bulk, equalization and float. The battery will live a long and happy life with such a charger! Check the water level every once in a while. Sometimes brand new batteries may come a little low (I've seen it several times) so it helps to check right away to protect your investment. Use distilled water only, eye protection, etc.

Regular automotive chargers are bulk, which dumps a maximum amount of amperage into the battery for as long as it's hooked up. If left on continuously, it will boil the water out until you got a crispy critter.

Dave KB3KAI





Anderson Power Pole Universal Adapter Kit

(for the ham who has everything!)

EmComm nationwide has adapted Anderson Power Pole (APP) connectors universally for all power related cabling. You'll find them in commercial, amateur, military and avionics systems – for good reason.

With all loads and power supplies having APPs wired to the EmComm standard, theoretically everything can plug into anything, and you don't have to worry about polarity, sex or pinout. See other documents in the Files section of this group for a discussion, photos and sources.

A well equipped ham will have an assortment of APP adapter cables in his ready kit. This will let him adapt his APP-equipped equipment to various other sources of power found in the industry which uses different connectors. A list, which is *not* all-inclusive, was developed during a discussion on the topic during the Harford EmComm net on Tuesday, Feb 2, 2005. Here are suggestions for adapters and accessories to make for your APP kit:

- 1) APP to stripped and tinned wire leads
- 2) Red and black banana plugs to APP
- 3) APP Y cable. One in, two out, for adding in a device
- 4) APP extension cords – several, in different lengths and gauges. Different lengths can be placed in series to make an extra long cord
- 5) Male cigarette lighter plug to APP
- 6) Female cigarette lighter plug to APP
- 7) APP to coaxial power connectors in several sizes, especially the ICOM

Public Service Needs

Hamborees and Field Days feed us, and keep us happy as hams. But it is the Public Service that helps us explain to the state and federal governments why we have frequencies allocated to us that could as easily be sold to the highest commercial bidder. We have a few public service opportunities coming up in April, May and June. Last year, we came up short for a few events, and could not provide all the service our client agencies asked for. Please do not let a resource-rich organization such as The Baltimore Amateur Radio Club be in such an embarrassing predicament again. We're still looking for a public service coordinator, so until we have one, please contact Doug at 410-256-0257 if you can help at any of these events.

April 9, 10 AM: MS Walk, Inner Harbor

May 1st, 8 AM: March of Dimes Walk America, Fort Ave

May 29th 7 AM: Veteran's Run 5k & 10k, War Memorial Plaza

June 11 & 12: MS 150, Eastern Shore (overnight accommodations provided)

If you would like to train for a leadership role in any of these events, please contact Doug as well. The MS Events are run by BRATS, but we provide additional manpower.

Mid-Atlantic QSO Party

The 2nd Annual Mid-Atlantic QSO Party, May 14-15, 2005. Full details are at www.qsl.net/maqso/ We hope W3FT will be on the air for this and that several other BARC members will participate from their home stations or their mobiles.

Last Year's MAQP was a huge success for a first time contest with a higher participation level than several other area qso parties. It's Maryland's Other Contest—The Mid-Atlantic QSO Party...with emphasis on Maryland, PA, DE, NY, NJ, WV, DC, and VA.

73,

Page WA3EOP

(A Former Chairman of The MDC QSO Party)


Secretary - MAQP Committee

Scams Abound

Shipping Agent Involved

It seems that **Dave KB3KAI** posted an ad in the ARRL classified, and got a response from someone overseas that wanted to buy the item. According to reports from Dave, and web links such as <http://astronomy-mall.com/scam.shtml>, it works like this. They have someone that will send you the money in the form of a check, then someone else will come to pick up the item. In one version, the check is for too much, so they want you to send them money along with the item. Of course, the check is no good, but they have gotten your address and phone number and full name already. So you send your item, have no money, and are likely set up for identity theft.

Not Comcast Phishing

The next one is a “phishing” scam to Comcast.Net users. You may get an email saying your account will be terminated if you don’t respond soon. While this sounds like so many other scams, the interesting twist is the web address this one takes you to. Instead of the usual numbered address such as 212.111.68.159, this one directs you to a site called “manage-comcast.com”. To look at the site, it sure looks like a comcast site. The FIRST defense against these “phishing” attacks is to ignore them, of course. But if you feel it may be a real notice, then when you go to the web page it gives you, the first thing it wants is your ID and password. Fill in bogus information, and see if you get an error message. If you put in an obviously invalid password, and it still takes you to a page to ask for your name and address or whatever, you know it’s a fake. Beware out there, for there are too many people after our hard-earned money. 

Thanks to Dave KB3KAI, Steve WA3SWS and Doug N3VEJ for this info.


Just a thought...

“If your number one goal is to make sure that everyone likes and approves of you, then you risk sacrificing progress, your uniqueness and, therefore, your excellence.”

and other industry standard 2.1mm/5.5mm center pin positive connector. Much portable equipment uses this for power, both communications and automotive.

- 8) A **REVERSE** APP cable, 3 inches long so it’s obviously a special cable, *visible tagged as reverse polarity*, for fixing problems because someone wired their APPs backwards. A reverse cable can save the day. I tied a long red plastic flag to mine, with REVERSE marked on it.
- 9) APP to power cord terminated in alligator clips large enough to clip onto car battery terminals, like battery charger-sized clips.
- 10) ICOM/Kenwood/Yaesu or other brand weirdo Molex connectors to APP. Some of these manufacturers use nonstandard connectors, and if you’re caught in the field without one, you have a chore ahead of you cutting it off.
- 11) APP to DVM-style female pinleads, so you can plug your DVM probes into an APP system or a distribution panel, to keep a constant read on the voltage. Alternatively, a dedicated analog meter to APPs.
- 12) APP to whatever power connector your handheld VHF radio uses. Be sure to watch polarity.
- 13) Radio Shack universal power connector kit to APP. Lets you power nearly anything from APPs by using the proper connector in the Radio Shack kit.
- 14) Quick disconnect tabs such as are used on gelcell batteries, to APP. I recommend using the wider of the two standard disconnect tabs as the wider will fit both wide and narrow, where the narrow fits only narrow. Note emergency lights on walls in commercial buildings use gelcells with these quick disconnect tabs. Keep them in mind for emergency power if needed. They’re 6 volts, so you will need 2 in series.
- 15) An automotive fuse adapter kit to APP. A fuse adapter slides under one of the blade fuses and gives you a quick disconnect tab for accessory equipment. This would allow you to rob power from a rental vehicle, government vehicle or other not wired in advance for communications equipment power.
- 16) A popular automotive power connector is pictured in the Files section of the Harford EmComm Yahooogroups. If you see these in your vehicle, you might make an adapter from them to APP. If you do, *watch polarity!* as that connector can be wired two different ways.
- 17) Some sort of 12VDC light source to APP. You never know when you’ll need a light source mobile or portable at night. All the power in the world won’t do you much good if you don’t have a light to run from it.

18) APP Field Expedient Repair Kit. A bag of shells, pins, an instruction sheet showing color coding and polarity, a crimping tool or soldering kit, and some quantity of preferably 14 gauge red/black zip cord stranded wire. Use for making cables on the spot if all else fails.

Additions, corrections or comments should be addressed to **Steve WA3SWS**
Steve at sussec.com 


List by WA3SWS 3 Feb 2005 for Harford County (MD) ARES. Distribution with attribution unrestricted for EmComm applications.

BARC to Hold Weekend Licensing Class

BARC will hold a class for new Technician Licenses. The class will be held in the Bel Air area. There will be a charge of \$15.75 for the book, and there may be a nominal charge of \$5 to \$10 for the class. Everyone will meet for two hours on Saturday, April 16th for an introduction session, and to get the book and reading assignments. The class will then run on April 30 from 9 to 5 and May 1st from 9 until approximately 2:30 or 3. The afternoon will be devoted to the test session.

What we need are:

1. **Instructors.** We'll hold an instructor's meeting in Late March for anyone that has expressed an interest. We will be using video tapes, and the instructor will prepare by viewing the tape, and will only have to answer questions on that portion of the material. Replies can be sent to *training at baltarc.com* with a subject of *instructor for ham radio class*.
2. **Students.** Obviously!

Anyone interested in either of these roles can drop us a note to "Training Class", Baltimore Am Radio Club, PO Box 120, Reisterstown, MD 21136-0120. 

ARES Mutual Aid Drill

Baltimore and Harford ARES will be having a joint training exercise on Saturday, March 19 from 1000 till 1200/1300. This will require an actual field deployment with personnel setting up portable stations. For this drill, stations will pass message traffic using simplex freqs. only NO REPEATERS!

The Library Corner

by Henry Lee III KB1PE

Welcome to the Library Corner, a new periodical feature for the Modulator. In this column, I will try to inform you what is new, and selections of existing items in the BARC club library. Come and enjoy all the great material we have!

What's New: a series of seven construction articles I am archiving which were written by **Walter F. Stortz, K3QKO:**

A Portable Automatic Keyer (Cathode keyer using discrete transistors)
-73 Magazine, December, 1966)

Do It With Wire (All-Band wire antenna) -73 Magazine, May, 1968)

Convert 4CX1000A Into a Lamp -73 Magazine, January, 1970)

Automatic Transmission Line Tuner (Uses four transistors)
-73 Magazine, February, 1972)

Portable House Power (90- and 200-watt transistor 12vdc-110vac inverters)
-73 Magazine, October, 1972)

A Logical Keyer? (A keyer circuit based on TTL IC's)
-73 Magazine, December, 1974)

Breadboard Signal Generator (6.2-12.1 Mhz Signal Generator)
-73 Magazine, November, 1980)

What we have: *CQ, Ham Radio, Ham Radio Horizons, QST*, and 73 magazines dating back to the 1950's and before, Modulator newsletters back to the 1970's, excellent reference material like the *Radio Engineering Handbook* by F.E. Terman, and many ARRL Handbooks.

In future columns, I will cover these in more detail. Meanwhile, happy reading! Also, we can always use more donations, especially of technical books and reference material. By the way, we have plenty of QST magazines at this time!

Henry Lee III, KB1PE
Librarian

Silent Keys

Ned Lewy, K3EFR became a silent key on 2/16/2005.
Ned was born May 12, 1922 and was a life member of BARC.

“Deep Cycle” from page 9

A four ball shows 25%, 50%, 75% and 100% charge by number of balls floating. A five ball one shows 125% charge which can tip you off to inadvertent overcharging. Keep an eye on charge level with the hygrometer. More reliable than a voltmeter and takes only seconds. You can store the hygrometer right in the battery box.

With all deep cycle, standard automotive, gelcell and similar batteries, the shallower the discharge the happier the battery will be and the longer it will last. The deep cycle ones can withstand a deeper discharge than standard automotive, but it still puts wear on the thing. Discharge as shallowly as possible, recharge as soon after use as is practical, and keep the thing charged. A deep cycle, or any lead acid battery, will lose charge significantly over time in warm weather, so you especially want to keep it topped off then. They also can freeze if not kept charged in the winter.

Wet lead acid can produce a lot more current steadily than gelcell, which is good if you're punching a large HF radio. Gelcells are nice too, but the electrolyte up against the plates, being a jelly and not able to move readily, gets depleted under heavy current drains where liquid electrolyte in a wet cell will have thermals and such and replenish electrolyte near the plates. Also gelcells can NOT take rapid charge as the gasses developed during charging can't dissipate quickly. Pop the overpressure vent in the gelcell and that's the beginning of the end.

A good deep cycle marine battery with a good charger (not an automotive charger or a power supply) can be a reliable backup power source for your entire station. As most amateur gear can operate from 12 volts, you can be on the air when everyone else is down waiting for the power company to respond.

And can be used for Field Day...



Steve, WA3SWS

and if that's not enough...

Here's a cool website submitted by Tom McGough KB3IPN

batteryuniversity.com



The Care and Feeding of Deep Cycle Batteries

by Steve Uhrig

My company buys deep cycle batteries for portable law enforcement applications.

I've found the most rugged one to be the plain old Sears Die Hard marine battery. Get the largest physical size you can use. They have rope handles for transport and both side and top terminals. Tessco makes a nice quick connect cam-action battery terminal which I find useful on top terminals. Use the red and green impregnated anticorrosion felt washers, too, and you'll never have a problem with corrosion. If you can, when you buy the battery get the guys out in the shop to give you a pair of washers out of their can. They'll be dripping with whatever anticorrosive chemical they use. Ones you buy on a bubble card are dried out comparatively speaking.

Remember you really should have a special charger to get the most life out of these batteries. Using a charger designed for a deep cycle battery will triple the life of the things over a standard lead acid automotive-type charger or, worse, a power supply. The battery is one part of a system. Don't overlook the other components. A good charger is not cheap, but neither are batteries, and the battery will last considerably longer with a good charger.

Get one of those plastic marine molded trays to transport and use the battery in, in case things get nasty. A gallon of distilled water for topping off will last you years. Pour some into a restaurant ketchup plastic squeeze bottle thing with a spout to make filling the battery neater. Or use a plastic squeeze honey bear after you've eaten all the honey. Keep an eye on the level. 'Sealed' batteries are a marketing lie designed to require you to buy batteries more often. Sealed ones generally have plates or caps which can, and should, be pried up to check the electrolyte level.

A FIVE (*not* four) ball cheap hygrometer is good for checking charge state.

“Deep Cycle” continued on page 12

Upcoming Public Service & Events

Apr 2-3, 2005 - Greater Baltimore Hamboree and Computerfest
Apr 23 - May 1 - Passover

March 2005

Upcoming Contests

Mar 5-6 - ♦ Int'l DX Contest (Phone)
Jun 11-13 - ♦ June VHF QSO Party
Jun 25-26 - ♦ Field Day

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 Club Meeting 7:30 p.m.	3	4	5 VE Testing— Registration: 1 p.m. Testing begins: 2 p.m. Int'l DX Contest (Phone) ♦ 0000 UTC Sat - 2400 UTC Sun
6 Int'l DX Contest (Phone) ♦ 0000 UTC Sat - 2400 UTC Sun	7	8	9 Hamboree Committee 7:30 p.m.	10	11	12
13	14 Deadline— Apr. Issue of <i>The Modulator</i>	15	16 Program Meeting - Steve, WA3SWS “Enemy of the State”	17	18	19 BARC lunch at Jade Garden Buffet—11:30 am ARES Mutual Aid Drill - 1000 to 1200/1300 AERO Testing - Essex Library, ARRL VEC
20	21	22	23 Hamboree Committee 7:30 p.m.	24	25	26
27 Easter	28 Deadline— Feature Articles for May Issue of <i>The Modulator</i>	29	30	31		Phases of the Moon 03/03 Last Quarter 03/10 New Moon 03/17 First Quarter 03/25 Full Moon