

BARC's BARK

January, 2010

Repeaters: 2 m 146.70 MHz (-)
70cm 448.90 MHz (-)

Web Site: www.qsl.net/w0dk/

Officers:

Pres. Jack Ciaccia ----- WMØG
V.Pres. Gary Carroll ----- WØQN
Secy. John Reilly ----- NØTA
Treas. Mike Derr ----- W3DIF
Trustee Rip VanWinkle -- NVØM
BARC Jrs Ellie VanWinkle - NØQCX
Newsletter Mike Stutzer ----- KDØFDJ

Coming Events

Tues. Jan.19, 6:30 pm: BARC meeting and \$26 dinner, at Carrabbas Restaurant on McCaslin Blvd. in Loveland. We will congregate around 6:30 PM in that room. See the Prez Sez column in this newsletter for more info.

Mon., Jan.25, 6:30pm: BCARES Annual Meeting, at the Houston Room in the back of the Boulder County Clerk and Records Office Building (across from the Police Station and old Comm. Center) on 33rd St. in Boulder. See the Prez Sez column in this newsletter for more info.

December Meeting

Brian Woods WØDZ, maker of DZKITs, presented wonderful slides about the evolution of the legendary Heathkit enterprise, and then described his Heathkit-inspired company and kits from Loveland, <http://www.dzkit.com/>



Brian WØDZ, Demos His Nifty Sienna Rig

The Awards Corner

In the interest of continuous process improvement -- a popular buzz-phrase in B-Schools -- perhaps it is time to issue some creative new awards. Oh sure, there will always be plenty of folks who want to chase the DX Century Club Award, which according to the ARRL, is the "premier operating award in all of amateur radio". But what is there for those of us who think that quantity is not everything? I humbly submit the following proposed awards, in the hope that some organization (BARC?) will take the initiative to evaluate HAM logs and send-out duly-authorized cheap certificates suitable for WalMart frames. Here are my proposals, in no particular order.

WAZ Award

To qualify for this award, you have to work everybody in the BARC who has the letter "z" in their real names. I considered using call-signs rather than names, but some people change their call signs nearly as often as the FCC stonewalls people who complain about what is happening on 14.275 Mhz. In any event, be advised that if I get tired of responding to hails intended to earn this award, I may have trouble hearing your calls without added inducements.

WAS Award

Worked All Shmucks. To qualify for this award, you have to log at least 50 people who, during a major contest weekend (e.g. the ARRL Sweepstakes), refuse to move 3 Khz away from 14.300Mhz, the frequency used by the daily Maritime Mobile Service Net. Anyone moving less than 3Khz is eligible. If the response to this award is insufficient, other criteria for Shmuckhood will be considered.

Triple Play WAS Award

To qualify for this award, you have to log at least 5 people who, during a major contest weekend (e.g. the ARRL Sweepstakes), ignore at least 3 requests to move 3 Khz away from 14.300Mhz, the frequency used by the daily Maritime Mobile Service Net.

The Prez Sez

Dear BARC Barkers,



Well, here we are at the beginning of yet another year. First, I would like to thank the membership for entrusting this present group of BARC officers and the Board of Directors to continue on this year. We have many unfinished projects that we need to complete as a club and some new endeavors we need to embark on as well.

Last year was a good one for the club. We ended the year with 187 members on the books! I think that may be our highest level of membership ever. Thank you all for your continued support. Make sure you welcome any new member that you may meet at any BARC function.

Speaking of functions... This month is the annual dinner meeting and once again, it will be held at the Private Dining room at the rear of Carrabbas Restaurant on McCaslin Blvd. in Louisville. We will congregate around 6:30 PM in that room. For the menu, just go to their web page at www.carrabbas.com, go to the Private Dining drop down and find the Louisville, CO section. We will be eating from the "Dorsa" Menu. Cost is \$26 inclusive with entrée, salad, dessert, beverage and gratuity. Should be fun! Hope to see many of you there.

This past month, BARC and BARC members were in the ham radio news rags. First, Andy Przedpelski, KØABP wrote a nice updated article for QST magazine on a 2-meter beam he had built from plans in the ARRL handbook. The same issue's "Years Past" section mentioned one of our SK members, Yardley Beers, WØJF under his old call (W2AWH), noting that he had an article in QST in January 1960. Then, in WorldRadio, a splendid article was written by Carole Perry, WB2MGP who had visited the BARC Jrs. at Rip and Ellie's QTH back in October. This was about her reunion with many of the BARC Jrs. who had been speakers at past Dayton Hamvention Youth

in Amateur Radio Forums. BARC Jrs. have been presenting at that forum for the past 17 years continuously. They will be there again in 2010 too.

We received some very good news on the year-end financial report of our Yardley Beers & Larry Amann Scholarship Fund. Our investments last year, with the generous contributions from BARC, the BARC membership, the BARC Juniors and some corporate donations from companies our members work for, gave the fund a handsome return overall (despite the lousy economy). This year, we implore you to contribute again in order to get this fund up to a point where we can increase the scholarship amount given per year, as well as get to a point where that amount becomes endowed. So, when you send in your BARC dues renewal, please add on another amount for this wonderful fund and be proud to be a BARC member that does so much for the young hams in our community.

If you are a member of BCARES, we will see you at the annual meeting on January 25th at the Boulder County Clerk and Records Office Building (across from the Police Station and old Comm. Center) on 33rd St. in Boulder. We will meet in the Houston Room at the back of rear of the building at 6:30 PM. There will be demos of lots of brand new equipment, much of it digital, and new ATV equipment, too. There will also be a few guest speakers. Do not miss this once a year important meeting. BCARES and emergency communications expectations are both changing, as you will discover at this meeting.

The recent devastating earthquake in Haiti reminds us of just how much ham radio is needed "When All Else Fails". Nothing was heard from the island right after the quake as the entire infrastructure for telephone and cell phones was extensively damaged. Within twelve hours though, ham radio signals were heard on the nets set up to assist the disaster. There just are not too many Haitian Ham operators and not much will be heard from them until the hams from the Dominican Republic show up to assist. The group there in the Caribbean is well-organized and well setup to assist in these disasters. The Cubans, the Dominicans, Puerto Ricans, Venezuelans and others from the Islands there will handle whatever

emergency traffic they need to have passed. They are a well-experienced bunch. As of this writing, Father John Henault. HH6JH in Port Au Prince, Haiti seems to be the only active station on the nets. This tragic disaster should serve as a reminder that the cell phone, telephone and Internet modes (Echolink & IRLP) can be taken down immediately, just as happened in New Orleans with Hurricane Katrina. Ham radio's independent stations, independent from either the infrastructure of traditional communications and power grids, are the best way to get the early messages out. Be prepared, stay vigilant, and keep trained as to how you can help if such an emergency arises locally

Unique ham radio communication modes are much needed "When All Else Fails". When disaster strikes, BARC and BCARES members are able to communicate in modes such as our VHF/UHF FM with assist from local repeaters, VHF/UHF Packet, D-STAR, APRS, HF PACTOR, WinLink 2000 and ATV all can bring the word and pictures of what is going on in our communities to the proper authorities and whoever else may have the need to know. So if you do not belong to BCARES, or if you have been somewhat inactive in BCARES, please attend the annual meeting. BCARES affords you an unprecedented opportunity to learn about all the new modes, and to practice on their state of the art equipment. The solo ham who shows up at an emergency with a little handy-talky is a relic of the past.

73 ES GUD DX DE JACK WMØG

From the Desk of the ARRL

The K7RA Solar Update: Not Just Yae su, But Yaeyyyy, Sun!

Recent sunspot activity is increasing, and the numbers bear this out. The average daily sunspot number for 2009 was 5 and the average for 2008 was 4.7. There's not much difference in those numbers, but those are for calendar years; the trend toward the end of 2009 was increasing sunspot activity. The average daily sunspot numbers for 1999-2009 were 136.3, 173, 170.3, 176.6, 109.2, 68.6, 48.9, 26.1, 12.8, 4.7 and 5. Sunspot numbers for December 31-January 6 were 16, 16, 22, 20, 15, 13 and 0, with a mean of 14.6. The 10.7 cm flux was 79.9, 75.2, 78, 76.4, 73, 76.8 and 77.3, with a mean of 76.7. The estimated planetary A indices were 1, 1, 0, 3, 2, 1 and 1, with a mean of 1.3. The estimated mid-latitude A indices were 0, 2, 1, 3, 1, 1 and 0, with a mean of 1.1. and the latest prediction is for geomagnetic conditions to remain quiet, with the anticipated planetary A index at 5.

Tom Russell, N4KG, of Harvest, Alabama, lives for 160 and 80 meters. He has an impressive array of antenna arrays at his place in the woods west of Huntsville, including large ground plane antennas for 80 and 160, an inverted-L for 160 and dipoles on 80. For those of you who made New Years' resolutions to improve US-Russian relations, Tom reported that on January 2 "RZ0AF has been camping out on 160 and 80 meters (3521), morning and night, around 1200 to 1300 UTC and Friday evening from 2300-0400 UTC, well past his sunrise which is around 0200 UTC. He is located in Krasnoyarsk, about 300 miles north of the northwest border with Mongolia, in Zone 18. Is there a Big 160 meter station in UA0Y (Zone 23 -- my last needed Zone on 160 meters)? UA9MA has also been active on 160 and 80 meters from Omsk in the southeastern corner of Zone 17, peaking 569 on 3524 at 0342 UTC last night (January 2 in GMT). UA9KAA was running NA on 1823 (up 1) from 0500-0600 UTC, peaking 569 at times. He is in Northern Siberia in Zone 17. RX4HZ was 599+ on 40 meters with a little help from his 4L Quad at 30 meters high at 0600 UTC."

2009 Sees Surge of New Amateur Radio Licensees

This past year was a banner year for new Amateur Radio licensees. According to ARRL VEC Manager Maria Somma, AB1FM, the FCC issued more than 30,000 new ham radio licenses. "In 2009, the demand for Amateur Radio exam sessions remained elevated and is still running at a higher rate than before the FCC's restructuring of the license requirements in 2007," Somma said. "This high level of exam session activity has produced an elevated influx of new applications, far outpacing recent years."

NCVEC Releases New Technician Class Question Pool

The Question Pool Committee ([QPC](#)) of the National Conference of Volunteer Examiner Coordinators ([NCVEC](#)) released the [new Technician class \(Element 2\) question pool](#) on Monday, January 4. This new question pool will become effective for all examinations administered on or after July 1, 2010; it will remain valid until June 30, 2014. The current Technician question pool that became effective July 1, 2006 will expire June 30, 2010. The new Technician pool contains approximately 400 questions, from which 35 are

selected for an Element 2 examination; it will contain graphics and diagrams, something new for this element. The [current General class question pool](#) was effective July 1, 2007 and is valid through June 30, 2011. The [current Amateur Extra class pool](#) was effective July 1, 2008 and is valid until June 30, 2012.

APPLE & Digital Ham Radio **Jim Andrews, KH6HTV**

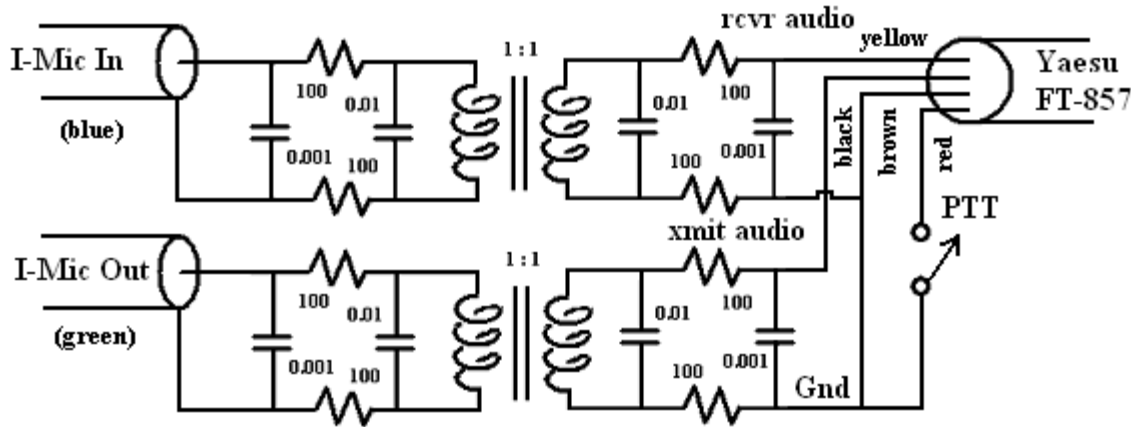
I transitioned from a Windows-based PC computer to a new Apple MacBook Pro laptop. Part of my hesitancy in switching to Apple was the fact that most ham radio application software has been written for Windows PCs. Now that Windows apps can be run on newer (since 2006) Apple Macs, that is no longer an issue.

Are you thinking about trying out the relatively new digital mode, PSK-31? The January issue of QST has an excellent article for beginners on pp. 30-31, "PSK31 This Weekend".

For Apple users, the QST article mentioned a free, shareware PSK program for Apples. It is called *cocoaModem 2.0*. I downloaded it from Kok Chen's, W7AY web site: <http://homepage.mac.com/chen/w7ay/cocoaModem/index.html>. I gave it a test run, finding that it is as nice and easy to run as *DigiPan* (www.digipan.net) was on the old Dell PC. My first PSK-31 contacts with it were with VK4CY, Bribie Island, Queensland and UAØFO, Sakhalin Island, Russia, as usual these were on a "dead" 20m band when absolutely no other signals could be heard. W7AY has put more useful features into his *cocoaModem* than are found in *DigiPan*. *DigiPan* runs BPSK31 (by far and away the most common PSK mode) and its closely related cousins of BPSK63, QPSK31 & FSK31. *cocoaModem* runs all of these, plus a whole lot more, including RTTY, CW, synchronous AM detection and lots of the more exotic modes: Hellschreiber, Feld Hell, Sitor, HF-FAX, Domino, etc. The only shortcoming to *cocoaModem* is that it doesn't key your transmitter. However, I was never able to figure out how to configure *DigiPan* to do this either. I thus use a separate hard-wired PTT toggle switch. No big deal.

But in making my PC to Apple transition, I ran into some hardware issues with RFI. When I first hooked everything up to my new Apple, things seemed to work OK and I was able to work some PSK-31 stations. Then something changed !! Suddenly, I was faced with RFI issues. Whenever I keyed my transmitter, the RF was getting back into the computer and causing very distorted audio tones to be generated that often locked up the program. There are warnings in the literature and on the web about the need for computer/ham rig interface boxes. With the Apple, it looked like I would also need one, unlike my experience with my Yaesu FT-817 and the Dell PC's soundcard I/O. However, I was unwilling to pay \$100+ for a simple interface box.

I tried several approaches, at first unsuccessful. First, I tried adding clamp-on ferrite chokes on the audio I/O cables for the I-Mic, external, USB sound card. No luck. Next, I bought a pair of 1:1 audio isolation transformers from Radio Shack, (p/n 273-1374, \$5 each) -- still, no luck. The final solution was a combo of the ferrite chokes, audio isolation transformers, plus R-C, low-pass filters on the differential inputs and outputs of both transformers. In addition, there is no common ground between the Yaesu and the I-Mic, USB sound card (*see the circuit diagram that follows the text*). I packaged all of this, along with a PTT switch, into a Radio Shack, 4"x2"x1", plastic box. The only drawback was the added attenuation to the Yaesu's audio line level output. Instead of going directly into the I-Mic line level input, I needed to switch in the I-Mic's mike preamp. Then there was plenty of gain control to compensate for the added attenuation.



Jim's Nifty Circuit Saved His \$\$\$

Put Your Thoughts on the Keyboard

There are many stories waiting to be told about hams from all walks of life who spent their hobby time contributing to their communities, their radio clubs, or just enjoying being a part of ham radio history. Try writing something about your favorite ham or Elmer. You don't have to write a novel, or a technical treatise like the previous article... just send something to me! <mailto:michael.stutzer@colorado.edu>

1 Boulder Amateur Radio Club (BARC)

A 501(c)(4) Non-profit Public Service and Educational Corporation

- **Open 2 meter repeater with autopatch** – and periodic club announcements (146.70 MHz, no tone).
- **Open 70 cm repeater** – operational since 2004 (448.90 MHz, no tone).
- **IRLP & Echolink simplex repeater** – 144.355 MHz (100 Hz tone). More info at BARC70@arrl.net.
- **D-Star Repeaters** – currently under development on 1.2 GHz, 70 cm and 2 meters.
- **Remote HF stations** – remotely operated stations at a north Boulder tower and at the Boulder airport.
- **BARC's Bark newsletter** -- interesting news, features, projects, and club announcements.
- **Monthly meetings with programs** -- third Tuesday of each month (except January & July), 7:00 p.m., at
BARC Clubroom, Boulder Municipal Airport, Building J (lower level, enter by northwest door).
- **Annual picnic and dinner** -- July picnic at Valmont Presbyterian Church & January dinner at a local restaurant.
- **BARC Juniors** -- serving the community by helping ("Elmering") young people to spread the hobby to the next generation. More than 190 young hams have been licensed.

- **Scholarship award** -- given annually to a university student radio amateur. Donations welcome.
- **Weekly nets** -- every Sunday at 7:00 p.m. on the BARC 2 meter repeater.
- **Monthly VE testing** -- first Thursday of each month, 7:00 p.m., at the Church of Jesus Christ of Latter-day Saints, 701 W. South Boulder Road (at Washington Street), Louisville. See BARC web site.
- **Technician & General classes** – held periodically to help new hams get licensed.
- **BARCfest** -- awesome, annual swapmeet, on the fourth Sunday of September, every year.
- **Field Day** – premier Club event, on the last full weekend in June, which typically earns contest scores in the top 10%, while also taking time to help new hams get on the air.
- **Public service activities** -- providing communications assistance for special events and emergency response in coordination with Boulder County Amateur Radio Emergency Services (BCARES).
- **BARC website** -- <http://www.qsl.net/w0dk/> **BARC e-mail address** -- BARC70@arrl.net

BARC New Member & Renewal Invitation

Regular Membership -- \$20/year. Includes all family member hams in the same household.

Name: _____	Date: _____
Call Sign: _____ License Class: _____	
Phone: _____ Email: _____	ARRL Member: Y / N
Address: _____	
City: _____ State: _____ Zip: _____	

Additional Family Members (continue on back if needed)

Name: _____	Relationship: _____
Call Sign: _____ License Class: _____	ARRL Member: Y/N

Please consider making a donation to the Larry Amman and Yardley Beers
 Memorial Scholarship Fund

Donation: _____

Make check payable to BARC and mail to:

BARC Membership
 P.O. Box 17362
 Boulder, CO 80308-0362

For Sale

Alinco DJ-X10 handheld scanner; VHF,UHF+*HFSSB!* (make an offer, I hate Alinco)

<http://www.universal-radio.com/catalog/widerxvr/3610.html>

WinRadio Planar Log-Periodic Amplified VHF/UHF Receive Antenna: \$65 sort-of firm

<http://www.winradio.com/home/ax31b.htm>

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