



Membership Form 2012

This form may be used for any of the following purposes (check all that apply):

- Pay Dues (New Renew)
- Change of Mailing Address
- Update personal information (new callsign, upgrade, etc.)

Personal Information

Call Sign _____ License Class _____ Name _____

Address: _____ City: _____ State _____ Zip _____

Email Address: _____ ARRL Member? Yes No

Home Phone: _____ Cell Phone: _____

Ham Hum Delivery: Mail Email

Spouse Information (complete only for spouse applying at same time)

Call Sign _____ License Class _____ Name _____

Email Address: _____ ARRL Member? Yes No

Minor Dependent (complete only for minors applying at the same time)

Call Sign _____ License Class _____ Name _____ ARRL Member? _____

Yes No

Yes No

Yes No

New Member Application Signature

I agree to conduct my activities in accord with the Articles of Incorporation and Bylaws of the AK-SAR-BEN Amateur Radio Club, Inc.

Signature _____

Date _____

Annual Dues (January thru December)		
For Club Use Only – DO NOT WRITE IN THIS AREA		
<input type="checkbox"/> Full Member	\$20.00 year	Amount: _____
<input type="checkbox"/> Accompanying Spouse	\$ 4.00 year	Amount: _____
<input type="checkbox"/> Accompanying Minor Dependent	\$ 4.00 year times number of minors renewing	Amount: _____
<input type="checkbox"/> Student Member (full time student)	\$ 8.00 year	Amount: _____
		Total Paid: _____

Make sure your information is correct and return this form to the Club with your dues. Dues are payable at any time and are considered in arrears if not received by Feb 28. Club members renewing within two years of their last year of paid membership must still pay the the full years dues. After two years, members must reapply for membership.

Ham Hum

Volume LXII, Issue 2

February 2012

The Last Big Field Day



The originally scheduled topic for the January Meeting, *Android Programming* by Scott KA4ZZQ, was canceled due to an overriding commitment. Instead, the Club viewed *The Last BIG Field Day*, which turned out to be both educational and entertaining.

The 41-minute program is about the set up and operation of Station W3AO during Field Day, 2004 near Baltimore, Maryland, and how they went from a 9A category to 50A. It was the last year they were able to do that, hence the title of the video. (Hint: In 2005, the ARRL modified Rule 4 of *The ARRL Field Day Handbook For Radio Amateurs*.) In comparison, the AKSARBEN Amateur Radio Club—with help from the Heartland DX Association—operated at 8A in 2004.

(Last Big Field Day continued on page 3.)

February Meeting: Android Programming

Presented by Scott Avery KA4ZZQ.

Friday, February 10, 7:00 PM, Red Cross Building, 81st & Spring Streets, Omaha, NE.

HAM HUM is the official newsletter of the AK-SAR-BEN Amateur Radio Club, Inc. in Omaha, Nebraska. It is printed monthly and is distributed to members of the club, local disaster officials, local electronics outlets, and editors of other ham radio newsletters.

Articles about activities of members are solicited. The subject matter must be of general interest to radio amateurs and be understandable to a significant portion of the membership. No payment will be made to contributors and submissions will be subject to the usual editorial review. Articles containing statements that could be construed as libel or slander will not be accepted. No guarantee can be made that an accepted article will be published by a certain date. Send your contributions to Ham Hum, P.O. Box 24551, Omaha, NE 68124-0551 or email hamhum@aksarbenarc.org. Please contact the editor for permission to reprint anything appearing in the Ham Hum.

Club Officers & Board Members

President	Mary Joseph	NØTRK	402-492-9156	n0trk@arrl.net
Vice President	Scott Avery	KA4ZZQ	402-880-9246	scott@averysgk.com
2011-2012 Secretary	Bill True	WA9ASD	402-426-2813	williamtrue@aol.com
2011-2012 Treasurer	Marvin Taylor	AEØEG	402-556-3668	AE0EG@arrl.net
2012 Director	Adam Kavan	KDØMMG	402-598-1521	akavan@gmail.com
2012 Director	Dave Rice	NØJSB	402-571-8915	davegr@netzero.net
Immediate Past President	John Gebuhr	WBØCMC	402-932-3443	wb0cmc@cox.net

Club Committees

Courtesy Committee	(Open)			
Education	Mary Joseph	NØTRK	402-492-9156	n0trk@arrl.net
Field Day	(Open)			
Membership	Mary Joseph	NØTRK	402-492-9156	n0trk@arrl.net
Monday Night .94 Net	Rich Swig	WAØZQG	712-256-7774	wa0zqg@yahoo.com
Prizes	Rollie Miller	ABØNN	402-333-1606	ab0nn@arrl.net
Public Service/Emergency	Jim Harper	KCØSHZ	402-659-0102	kc0shz@yahoo.com
Publications	Bill Wilkinson	KCØSVZ	402-397-8803	kc0svz@yahoo.com
QSL Manager & Technical	Ed Edwards	KØIL		k0il@arrl.net
Special Events Coordinator	Pat Joseph	KØCTU	402-492-9156	ppjoseph@cox.net
Web Services	Mary Joseph	NØTRK	402-492-9156	n0trk@arrl.net

Repeater Committee

Chairman	John Gebuhr	WBØCMC	402-932-3443	wb0cmc@cox.net
Vice Chairman	Steve Schmitz	NØUP	402-306-2972	n0up@arrl.net
Control Operator	Mary Joseph	NØTRK	402-492-9156	n0trk@arrl.net
Club Callsign Trustee	Corby Krick	KØSKW	402-540-5483	k0skw@k0skw.net

Other Contacts

ARRL Midwest Director	Clifford Ahrens	KØCA	573-221-8618	k0ca@arrl.org
ARRL Midwest Vice-Director	Rod Blocksome	KØDAS		
EC Douglas County	Steve Schmitz	NØUP	402-306-2972	n0up@arrl.net
EC Sary County	Dennis Mitchell	KCØYKN		
Exams/Vol. Council	Brian Zdan	KMØY	402-553-2610	bzdan@novia.net
NE Section Manager	Art Zygielbaum	KØAIZ	402-421-0839	K0AIZ@arrl.org
Official Observer Coordinator	Bill McCollum	KEØXQ		ke0xq@cox.net

Address Change?

If you've changed your mailing address, or would prefer to receive the Ham Hum via email, please contact Mary NØTRK (Membership) or Bill KCØSVZ (Publications) with your new information.

AARC on the Web

Club Web Site: <http://www.aksarbenarc.org/>

Facebook: <https://www.facebook.com/aksarbenarc>

Yahoo! Groups: <http://groups.yahoo.com/group/AKSARBENtalk/>

(HAM TECH continued from page 10.)

For PSK-31 which digitally implements a 60 Hz bandwidth the (S/N)_{50%} is 6 dB greater or + 23.7 dB because the noise is one fourth that of the 240 Hz CW receiver.

The 17.7 dB value for CW is almost 3 S units above noise and more than adequate for reliable copy. The PSK-31 signal is almost 4 S units above noise and should produce very reliable copy. The 7.7 dB SSB voice S/N is really marginal. But let's hold off declaring it non usable until we understand just what the (S/N)_{50%} term really means.

Equation 3 above lists the propagation loss as L_{Prop} (dB)_{50%}. This loss is the mean value of the propagation loss measured ever second for a year and then averaged. It is the mother of all mean values. Within that year are all types of fading with the slowest varying with the seasons and the fastest varying over one second of time. Different phenomena are responsible for the variations including the weather. We do know from much observing that the mean loss in the summer months is about 10 dB less than the calculated yearly average. Likewise in the dead of winter, typically February, the loss increases by approximately 8 dB. These are rule of thumb values but they are useful. In the summer the 7.7 dB mean on SSB voice increases to almost 18 dB or 3 S units, a very useful mode. In February, work PSK-31 or one of Joe Taylor's (K1JT) very narrow band digital modes.

Fast fading is due to multiple signal paths in the troposphere creating varying addition and subtraction of the signals. To improve a signal from 50% to 99% reliability requires about another 8 to 10 dB of S/N. There are diversity techniques, both frequency and spatial, that can nearly eliminate this fast fading loss, but they are not too practical for the average ham.

What I have presented in these two issues of Ham Tech are some simple charts that allow you to forecast the propagation losses of VHF / UHF tropo scatter communication and some simple equations that allow you to evaluate a station. There is a lot I didn't cover due to lack of space but you can ask questions and I will answer them.

Next month I am going to digress from propagation and focus on some antenna basics including patterns and antenna interaction with the earth. I will answer the question of why I used free space antenna gain in the calculations for Tropo Scatter at 70 cm.

Reference No. 1: *Reference Data For Engineers* ITT, Fifth Edition 1972 Chapter 27.

John WY2J

Awards Paperchasers

For anyone interested in chasing ham radio awards, I got a QSL card and nice note from Bob-KO6LU. I was Bob's last state for WAS-CW!

Bob provides awards to hams who send him applications for 28 different awards. There's bound to be one that's interesting to you. I found the College & University Radio clubs award page interesting since I have lots of QSLs in that category already—and didn't even know about his awards.

Check it out at <http://www.ko6lu.com/>

HAM TECH v2n1: Tropospheric Scattering 70 cm Over- the- Horizon Stations

By John Fogleboch Sr. WY2J
Email: wy2j@arrl.net

*(Reprinted from the South Jersey Radio Association <<http://www.sjra.org/>>
newsletter, Harmonics, Ted Groke, W2TAG, Editor.)*

Last month we explored some of the fundamentals of propagation by Tropospheric Scattering of VHF & UHF signals. Using a chart method developed by Collins Radio Co. in the early 1970's we were able to calculate the median propagation loss on a 200 mile path, with 50 ft. high antennas, at 2 M, 70 cm, and 23 cm. The propagation losses (L_{Prop})_{50%} were 226.8, 220.1, and 223.4 dB, respectively. Since 70 cm gave the lowest loss we will pick that band to construct and analyze our two stations this month.

Let's pick some basic components for our stations with a focus on being practical and keeping costs reasonable. Mode wise we will start with good old CW and then extrapolate to SSB voice and PSK-31. Here are my major component picks.

1. A single long Yagi antenna such as the M² model 32-9WL, 28 elements on a 21 ft boom. Free Space Gain (G_A) = 19.45 dBi. Noise Temperature (T_A) = 290° K.
2. A 100 watt (PT = +20 dBw) power amp located at the top of the tower.
3. A 0.8 dB NF (TR = 58.7° K) low noise preamp with built in duplexer located at the antenna feed point.
4. Coax from the power amp to duplexer is 15 ft of 9913. Loss (L_T) = 0.5 dB
5. Coax from shack to duplexer and shack to power amplifier is 100 ft of 9913. Loss = 3.3 dB maximum
6. A 70 cm transceiver with +/- 0.01 ppm or better frequency stability that supports CW, SSB, and AFSK digital modes.

Our evaluation criteria will be the signal-to-noise ratio (S/N)_{50%} on CW with a 240 Hz BW receiver.

1. $S/N_{50\%} = P_R / P_N$
2. $S/N \text{ (dB)}_{50\%} = 10 \log P_R \text{ (dBw)} - 10 \log P_N \text{ (dBw)}$
3. $P_R \text{ (dBw)} = P_T \text{ (dBw)} + 2 G_A \text{ (dBi)} - L_T \text{ (dB)} - L_{\text{Prop}} \text{ (dB)}_{50\%}$
 $= + 20 + 38.9 - 0.5 - 220.1$
 $P_R = - 161.7 \text{ (dBw)}$
4. $T_S = T_A + T_R = 290 + 58.7 = 348.7^\circ \text{ K}$ (See Ref. No. 1)
5. $P_N = 10 \log (K T_S \text{ BW}_{\text{Hz}})$
where: K = Boltzman's Constant = 1.38 (10-23)
 $\text{BW}_{\text{Hz}} = 240 \text{ Hz for CW}$
 $P_N = 10 \log ((1.38)(10^{-23})(348.7)(240))$
 $= -179.4 \text{ dBw}$ (See Ref No. 1)
6. $(S/N)_{50\%} = - 161.7 - (-179.4) = 17.7 \text{ dB CW}$

For SSB voice with a 2400 Hz receiver bandwidth the (S/N)_{50%} = + 7.7 dB since the BW and the receiver noise power is 10 times greater.

(HAM TECH continued on page 11.)

(Last Big Field Day continued from page 1.)

In addition, the video shows the ten-tower array being set up. (Or "rocket launchers," as some people called it.) At 50-feet high, the towers used custom parts and, due to their height, assembly had to wait until wind speeds were below 20 mph. Once guyed, however, the towers could withstand 70 mph winds.

Electricity was supplied by a generator and batteries. These fed a 4 kW sine wave inverter to provide uninterrupted power to the computers and transceivers. The system briefly failed during the event due to overload, but was quickly restored and didn't significantly impact operations.

The video also demonstrates W3LPL's techniques for making over 2000 contacts on 20-meter phone during the event. Enunciation was concise and no unnecessary words were spoken.

If you'd like a copy of the DVD, you can order it for \$20 plus shipping from the Amateur Radio Video News (ARVN) web site at:

<http://www.arvideonews.com/lbfd/index.html>

Besides the W3AO documentary, the DVD contains several bonus features:

- Additional interviews with W3AO Field Day participants.
- News coverage of the Raleigh Amateur Radio Society. (The home club of KN4AQ, who produced the DVD.)
- *The 1971 Pacific Palisades ARC Field Day Movie*, a vintage video converted from Super-8 film to DVD.

The above URL provides ordering information and links to previews to the contents of the DVD.

In all, the presentation made for an interesting evening at the Club.

Bill KCØSVZ

January Door Prizes

After the Club announcements and before the main presentation, Prize Committee Chair Rollie, ABØNN conducted the drawing for the monthly door prizes. Prizes included a crimping/wire-cutting tool, a Cen-Tech Cable Tracker, the Mr. Reeh Door Prize, and the Brown

Bag Prize.

Rollie drew the tickets and announced the winners: The crimping tool went to Dave NØJSB, while Bill WA9ASD won the cable tracker. The Mr. Reeh Door Prize was awarded to Dick KBØKJV, which turned out to be a home-brew SWR meter...or something. (One can never be sure when it comes from Anton Reeh's vast collection of exotic hardware. One can only assume that it once proved useful—and likely helped him out of a tight spot in one of his adventures around the world.)

The Brown Bag prize, which turned out to be a power strip, went to Adam KDØMMG.

Note that the proceeds for each month's tickets go for buying next month's prizes. Each month's tickets are kept and included in the Grand Prize(s) drawing in December. The more tickets you buy each month, the better your chances of winning at the end of the year. See the Club Meeting Minutes for more information.

Bill KCØSVZ



Veep Speaks

I hope everyone enjoyed last month's video. This month I'll try the Android app again.

And though it's still a few months away, start thinking about what role you will fill for this year's Field Day.

Shack captains, operators, cooks, and strong backs will definitely be needed.

Now...do I venture out to shovel the drive or will it melt soon enough?

73 -ZZQ
[/veepspeak]

Saturday Night Coffee

Beginning at 6 PM, AARC members met at Perkins Restaurant on 108th & L Streets in Omaha. Present were Pat KØCTU, Claudia K1AUD, Dick KBØKJV, Bill KCØSVZ, Mary NØTRK, and Steve NØUP. Christina NØRIS arrived somewhat late as she was returning from attending a Geocaching contest. (Treasure hunting using GPS, see <http://www.geocaching.com/>) We all agreed that takes a bit of fanaticism, considering the Winter temperatures.

There were several discussions going on during and after dinner, and weren't limited to amateur radio. (Though many topics overlapped into ham activities.) These included politics, OMMRS, antenna height, phone bandwidth requirements, and database writing. Also covered was the Novice exam, Jacob's Ladder design, linear amplifier repair, CB radio, and eyeglass making.

Note: The Club meets for coffee on the third Saturday of the month. See the *Club Calendar* in this issue for details.

Bill KCØSVZ

SWIARC Hamfest in McClelland, IA

SWIARC presents our annual spring Hamfest in McClelland, Iowa, half a dozen miles east of the Council Bluffs city limits. As in recent years, Les WBØKFK of D&L Antenna will make our event worthwhile by showing up with his multi-table display of antennae and Amateur accessories.

We've also figured out the dilemma presented by people buying door prize tickets and then leaving before the final award. The "contract" is between SWIARC and the ticket holder. No matter who bought it. (Give your tickets to a friend. You decide the distribution between yourselves.)

Saturday 03 March 2012, 8 AM to Noon

Admission \$4, Tables \$5

Table price incl one admission. Tables are FREE to members.

Directions: From I-80 Exit 8 in IA, go 5.5 miles East on Hwy 6. Turn left (North) on 270th, then go 3.5 miles North. Turn left twice and you're there. For more details, see <http://www.swiarc.org/>.

Rich WAØZQG

Contest Calendar

February 2012

ARS Spartan Sprint	0200Z-0400Z, Feb 7
QRP Fox Hunt	0200Z-0330Z, Feb 8
NAQCC-EU Monthly Sprint	1800Z-2000Z, Feb 8
QRP Fox Hunt	0200Z-0330Z, Feb 10
NCCC Sprint Ladder	0230Z-0300Z, Feb 10
CQ WW RTTY WPX Contest	0000Z, Feb 11 to 2400Z, Feb 12
SARL Field Day Contest	1000Z, Feb 11 to 1000Z, Feb 12
Asia-Pacific Spring Sprint, CW	1100Z-1300Z, Feb 11
Dutch PACC Contest	1200Z, Feb 11 to 1200Z, Feb 12
Louisiana QSO Party	1500Z, Feb 11 to 0300Z, Feb 12
New Hampshire QSO Party	1600Z, Feb 11 to 0400Z, Feb 12 and 200Z-2200Z, Feb 12
FISTS Winter Sprint	1700Z-2100Z, Feb 11
North American Sprint, SSB	0000Z-0400Z, Feb 12
SKCC Weekend Sprint	0000Z-2400Z, Feb 12
Classic Exchange, Phone	1400Z, Feb 12 to 0800Z, Feb 13
ARRL School Club Roundup	1300Z, Feb 13 to 2400Z, Feb 17
PODXS 070 Club Valentine Sprint	2000 local, Feb 14 to 0200 local, Feb 15
NAQCC Straight Key/Bug Sprint	0130Z-0330Z, Feb 15
QRP Fox Hunt	0200Z-0330Z, Feb 15
AGCW Semi-Automatic Key Evening	1900Z-2030Z, Feb 15
QRP Fox Hunt	0200Z-0330Z, Feb 17
NCCC Sprint Ladder	0230Z-0300Z, Feb 17
ARRL Inter. DX Contest, CW	0000Z, Feb 18 to 2400Z, Feb 19
Feld Hell Sprint	2000Z-2200Z, Feb 18
AWA Amplitude Modulation QSO Party	2300Z, Feb 18 to 2300Z, Feb 19
Run for the Bacon QRP Contest	0200Z-0400Z, Feb 20
SKCC Sprint	0000Z-0200Z, Feb 22
QRP Fox Hunt	0200Z-0330Z, Feb 22
QRP Fox Hunt	0200Z-0330Z, Feb 24
NCCC Sprint Ladder	0230Z-0300Z, Feb 24
CQ 160-Meter Contest, SSB	2200Z, Feb 24 to 2159Z, Feb 26
REF Contest, SSB	0600Z, Feb 25 to 1800Z, Feb 26
UBA DX Contest, CW	1300Z, Feb 25 to 1300Z, Feb 26
Mississippi QSO Party	1500Z, Feb 25 to 0300Z, Feb 26
North American QSO Party, RTTY	1800Z, Feb 25 to 0600Z, Feb 26
High Speed Club CW Contest	0900Z-1700Z, Feb 26
North Carolina QSO Party	1700Z, Feb 26 to 0300Z, Feb 27
QRP Fox Hunt	0200Z-0330Z, Feb 29

March 2012

QRP Fox Hunt	0200Z-0330Z, Mar 2
ARRL Inter. DX Contest, SSB	0000Z, Mar 3 to 2400Z, Mar 4
Wake-Up! QRP Sprint	0600Z-0800Z, Mar 3
DARC 10-Meter Digital Contest	1100Z-1700Z, Mar 4
SARL Hamnet 40m Simulated Emerg Contest	1200Z-1400Z, Mar 4
ARS Spartan Sprint	0200Z-0400Z, Mar 6
AGCW YL-CW Party	1900Z-2100Z, Mar 6
AWA John Rollins Memorial DX Contest	2300Z, Mar 7 to 2300Z, Mar 8 and 2300Z, Mar 10 to 2300Z, Mar 11

For details, check: <http://www.hornucopia.com/contestcal/index.html>

You may be a ham radio operator if: You have gotten an RF burn from your own antenna.

Amateur Radio Finally Jumps on the Maker Bandwagon

by Dan Romanchik, KB6NU

Over three years ago, I wrote that amateur radio should do more to associate itself with the Maker, or "do it yourself" (DIY) movement (www.kb6nu.com/lets-get-on-the-maker-bandwagon/). Well, it finally looks like it is going to do just that.

Just before the first of the year, the ARRL unveiled its DIY campaign (www.arrl.org/news/arrl-launches-new-diy-campaign). The most visible part of the campaign is a video (www.youtube.com/ARRLHQ), but there are also some other bits, including:

- a flier to be handed out to interested persons,
- buttons that say "Ask Why I DIY with Ham Radio," and
- a PowerPoint presentation and speaker's notes that you can use to give a presentation to an amateur radio club or other non-ham group.

These items are available from the ARRL website, www.arrl.org/DIY.

CQ also on board

CQ magazine is also jumping on the bandwagon. They recently announced that they will run a quarterly "Maker" column, written by Matt Stultz, KB3TAN. Stultz is the founder of HackPittsburgh, a "hackerspace" or community workshop for makers in Pittsburgh, Pennsylvania. He has been a ham since 2009 and has integrated amateur radio into many of HackPittsburgh's activities.

Stultz's first column, titled "We Are Makers," will appear in the March issue of CQ. It provides a general introduction to the maker/hacker community for hams, as well as a description of a high-altitude balloon project that brought the two groups together in Pittsburgh.

Hams at the Maker Faire

In 2006, Make: magazine hosted the first Maker Faire (www.makerfaire.com) in San Mateo, CA. Since then, Maker Faires have also been held in Austin, TX, New York, NY; and Detroit, MI. Maker Faires are showcases for all kinds of crazy projects that people are working on.

Hams usually have a presence at these events. This year, the theme for one of the amateur radio groups participating in the California Maker Faire, which is the flagship event, is Arduino (www.arduino.cc) applications in amateur radio. Michael, NE6RD, who is organizing this group has lined up several very cool projects. One of them is an Arduino-controlled satellite antenna system.

A project I proposed is an Arduino-controlled keyer. On the face of it, this is not a real exciting project, but my twist on this is that instead of directly keying a transmitter, I plan to have the Arduino actuate a solenoid that will press a straight key. That should make the project a little more visual.

Hams sometimes like to claim that we were the original makers and hackers. We certainly have a long tradition of DIYing. Let's show these upstarts exactly what ham radio is capable of. Perhaps, in the process, we'll even entice a few of them to join us.

When he's not "making" things, Dan, KB6NU, teaches ham radio classes and works a lot of CW. You can contact him about some of the things you're making by e-mailing cwgeek@kb6nu.com.

Club Meeting Minutes – January 13, 2012

Bill WA9ASD, Secretary AARC

The meeting was called to order at 7:09 PM by saying the Pledge of Allegiance. There were 17 attendees. Introductions by name and call.

Officers and Board members present included: Mary, NØTRK; Bill, WA9ASD; Adam, KDØMMG and Dave, NØJSB.

Secretary's Report - A motion was made by Pat, KØCTU, seconded by Norm, WAØJYD, to accept the December club meeting minutes as published in *Ham Hum*. There were no corrections required and the motion passed unanimously.

Treasurer's Report - none

President's Report - Mary, NØTRK - Confirmation that current committee chairpersons want to continue in their positions is proceeding with no changes so far. Persons interested in chairing a committee are encouraged to contact Mary.

Vice President's Report - The program for tonight's meeting will be the video, "The Last Big Field Day."

Public Service: ARES/SATERN/Community Events

ARES - Steve, NØUP: The Douglas County Emergency Management Social will be held January 24 at DJ's Dugout at 10th and Capitol. Contact Eric at Douglas County or NØUP if you plan to attend.

- On February 1 at 6:30 PM there will be Net Control Training at a location to be determined.
- On February 22 the ICS Study Group will meet for preparation for the EMA courses required to participate in drills and emergencies. Courses 100B and 700 are required. Courses 200 and 800 are highly recommended. Taking Spotter Training is also highly regarded.
- On March 21 Spotter Training will be conducted at 7 PM at Boys Town.
- On March 24 the Douglas County siren test will be conducted. Contact Steve, NØUP to participate.

SATERN - no report

Community Events - Pat, KØCTU: The MS Walk will be April 14th. Please contact Pat to sign up. The State Track Meet will be May 18 and 19. Volunteers need to contact Pat before the end of January.

Education Committee - Mary, NØTRK

The Technician license class starts at Methodist Hospital January 14, 21 with a review and demonstrations on the 28th. Eleven to 13 people have signed up. The next VE test is January 31.

Membership Committee - Mary, NØTRK

Don't forget to pay your 2012 dues. Reminder cards have been sent to all 2011 members. Membership cards should be available next month.

(Meeting Minutes continued on page 6.)

(Meeting Minutes continued from page 5.)

Publications/Web Services

Ham Hum - Bill, KCØSVZ - It's on time.

Web Services - Mary, NØTRK - Still looking for active assistance with the Club website.

Repeater Committee - John, WBØCMC - The repeater is still working.

Field Day Committee - One person is considering being the chairperson - we should know soon.

QSL Committee - no report

Technical Committee - no report

Courtesy Committee - We need a volunteer for this position for this year.

Public Awareness - The people organizing OSFEST want us to participate in their convention in July. Are there other events we should participate in?

Old Business - There was a motion by John, WBØCMC, seconded by Norm, WAØJYD to vote on the amendment to the club bylaws to add the Equipment Committee as a standing committee in the Club. There were no proxies presented. The vote on the amendment was unanimous in favor of the change.

New Business - A new member application was received from Greg Gade, KGØS, a broadcast engineer. A motion was made by Norm, WAØJYD, seconded by Pat, KØCTU to accept Greg as a new member. Motion passed unanimously.

Announcements - On Monday, WARC 12 begins. There is the possibility of a new band allocation, elimination of a channel on 60 meters and new rules on the 480 kHz to 500 kHz allocation.

Rich, WAØZQG will have a mini-hamfest on Saturday, January 14 starting at 8 AM at his house.

The next VE exam session will be Tuesday, January 31 at the Red Cross starting at 6:30 PM.

Door Prize Committee - Rollie, ABØNN

Tonight's door prizes are a wire stripper and a cable tester. In addition, there is a Brown Bag Door Prize and The Mr. Reeh Door Prize, with the theme of "What Is It?" or "Who Would Want It?" This prize is from the extensive collection of ham artifacts amassed by the world famous DXer Anton Reeh, UNIQUE from Kazakhstan.

At 7:44 PM a motion was made by Steve, NØUP, seconded by John, WBØCMC to end the meeting. Passed by unanimous vote.

Bill WA9ASD, Secretary AARC

You may be a ham radio operator if: You have intentionally confused Non-Hams by telling them that the only things you talk about on the air are pork products.

Club Calendar

Feb 10	7:00 PM AARC Meeting. Red Cross Building, 81 st and Spring St, Omaha, NE.
Feb 11	11:00 AM HBQRP Meeting. Bredeaux Pizza, 1425 Silver Street, Ashland, NE.
Feb 14	7:30 PM Lincoln Amateur Radio Club Meeting. 4647 Superior St, Lincoln, NE.
Feb 16	7:30 PM Bellevue ARC Meeting. 1908 Franklin St, Bellevue, NE.
Feb 18	6:00 PM AARC Coffee. Perkins Restaurant, 108 th & L Streets, Omaha, NE.
Feb 22	6:30 PM Incident Command training (ICS), EOC City County building, Omaha.
Feb 23	7:30 PM Southwest Iowa ARC Meeting. 705 N 16 th , Council Bluffs, IA.
Feb 24	7:30 AM PARC Meeting. 1900 E. Military Ave, Fremont, NE.
Feb 28	6:30 PM AARC Board Meeting. Village Inn, 7837 Dodge, Omaha, NE.
Mar 3	8:00 AM-Noon SWIARC Hamfest. McClelland, IA.
Mar 9	7:00 PM AARC Meeting. Red Cross Building, 81 st and Spring St, Omaha, NE.
Mar 10	11:00 AM HBQRP Meeting. Bredeaux Pizza, 1425 Silver Street, Ashland, NE.
Mar 13	7:30 PM Lincoln Amateur Radio Club Meeting. 4647 Superior St, Lincoln, NE.
Mar 15	7:30 PM Bellevue ARC Meeting. 1908 Franklin St, Bellevue, NE.
Mar 16	7:00 PM SACMARC, Wendy's 610 Galvin Road, Bellevue, NE.
Mar 17	8:30 AM Lincoln Hamfest, Lancaster Events Center, 84 th & Havelock, Lincoln, NE.
Mar 17	6:00 PM AARC Coffee. Perkins Restaurant, 108 th & L Streets, Omaha, NE.
Mar 21	7:00 PM Spotter Training, Boys Town Music Hall, Omaha.
Mar 22	7:30 PM Southwest Iowa ARC Meeting. 705 N 16 th , Council Bluffs, IA.
Mar 23	7:30 AM PARC Meeting. 1900 E. Military Ave, Fremont, NE.
Mar 24	Siren Test. Contact Steve, NØUP to participate.
Mar 24	1:00 PM Spotter Training. UNL Hardin Hall, 33 rd St. & Holdrege, Lincoln, NE.
Mar 27	6:30 PM AARC Board Meeting. Village Inn, 7837 Dodge, Omaha, NE.
Mar 27	6:30 PM License Exams, VE Team, Red Cross Bldg, 81 st & Spring, Omaha, NE.
Mar 29	7:00 AM Spotter Training. Fire Training Site, 3100 Cornhusker Rd, Bellevue, NE.
Apr 14	MS Walk. Contact Pat KØCTU to sign up.
Apr 18	6:30 PM Skywarn net training, EOC City County building, Omaha.
May 18-19	State Track Meet.

For the latest updates and new events, see the *Upcoming Events* section of the AARC web site (<http://www.aksarbenarc.org/main/>).

Lincoln Hamfest 2012

The 2012 ARRL Nebraska State Convention will be held on March 17th at the Lancaster Events Center, 84th Street and Havelock Avenue in Lincoln, Nebraska.

Hours: 8:30 AM to 3:00 PM. Flea market setup at 7:30 AM.

FREE PARKING. (RV Parking is also available for a small fee.)

There will be vendors, forums, FCC testing, CW certification, and more.

Door prizes awarded throughout the day (must be present to win).

Sponsored by the Lincoln Amateur Radio Club.

(For more details, see <http://lincolnhemfest.org/>)

For Sale

EIP 545A freq counter ranges to 18 GHz. 12 dig display (Showed 146.519837 when someone keyed their H/T.) Ask'g \$1400

ETON (Grundig) AM/FM/Wx band portable w/hand crank gen. Incl. wall wart AC. Ask'g \$35 — Call Rich WAØZQG, 712) 256.7774, or WA0ZQG @ Yahoo.com