

The Ak-Sar-Ben Amateur Radio Club Presents...

# FLEA-ESTA



**Annual  
Ham Radio  
Flea Market**  
**September 7<sup>th</sup>, 2013**  
**8:00 a.m. to 12:00 noon**



**Sarpy County Fair Grounds  
Springfield, Nebraska**

**Breakfast on Site**  
**8 foot tables**  
**\$8 - if paid in advance**  
**\$10 at the door**



**For Details Contact**  
**Pat Joseph KØCTU**  
**402-492-9156**  
**flea@aksarbenarc.org**  
**http://www.aksarbenarc.org**



**Table Reservation Form on Page 15**

AK-SAR-BEN Amateur Radio Club, Inc.

# Ham Hum

Volume LXIII, Issue 8

August 2013

## Data Encryption



*Adam KDØMMG (June 2012 photo)*

A concern of everyone living in the 21st century is data security. Nowadays, it's possible to store the personal information of a multitude of people onto a single DVD—information that would have filled thousands of filing cabinets can be downloaded in minutes if the system containing that data is compromised. Encrypting that data, both on the storage device and during transmission, goes a long way towards protecting it. So much so that it's usually easier for a criminal to use social engineering to access the information.

For the July meeting, Adam KDØMMG, a software developer who's worked with networks and has extensively studied encryption systems, gave a talk on the technology behind data encryption and its history.

He pointed out that various forms of encryption go back thousands of years and was primarily developed and used for warfare communications. He gave several examples, such as the scytale cylinder used by the Greeks in the third century BC and the Caesar cipher used in ancient Rome. He stated that these and others were forms of substitution ciphers and could be cracked through letter frequency analysis—something that was discovered as early as 800 AD. He described the ways that were developed to improve the security and the counter-techniques that were created to break the improved algorithms. This included variable key lengths, one-time pads, how the German's Enigma machine was broken in World War II, and modern day techniques using symmetric keys and public keys.

*(Data Encryption continued on page 9.)*



### August Meeting: Emergency Radio Station



Whitney Shipley, KDØIFS, Assistant Director of the Douglas County Emergency Management Agency, will talk about the RadioSTAT Portable Emergency Advisory Radio Station from Information Station Specialists, Inc. Be sure to attend.

*Friday, August 9th, 7:00 PM, Red Cross Building, 81<sup>st</sup> & 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](mailto:hamhum@aksarbenarc.org). Please contact the editor for permission to reprint anything appearing in the Ham Hum.

### Club Officers & Board Members

President	Tomas Hood	NW7US	402-915-1771	nw7us@nw7us.us
Vice President	Adam Kavan	KD0MMG	402-598-1521	akavan@gmail.com
2013-2014 Secretary	Bill True	WA9ASD	402-426-2813	williamtrue@aol.com
2013-2014 Treasurer	Dave Rice	N0JSB	402-571-8915	davegr@netzero.net
2013 2014 Director	Mitch Saure	WB0GBI	402-455-6205	skyking195@aol.com
2013 Director	Barb Westcott	KC0HLB	402-510-0308	barbwestcott@cox.net
Immediate Past President	Mary Joseph	N0TRK	402-492-9156	n0trk@arrl.net

### Club Committees

Courtesy Committee	Bill McCollum	KE0XQ	402-690-7965	ke0xq@cox.net
Education	Mary Joseph	N0TRK	402-492-9156	n0trk@arrl.net
Field Day	Rob Buchholz	A17Q	402-964-9960	ai7q@arrl.net
Membership	Mary Joseph	N0TRK	402-492-9156	n0trk@arrl.net
Monday Night .94 Net	Rich Swig	WA0ZQG	712-256-7774	wa0zqg@yahoo.com
Prizes	Rollie Miller	AB0NN	402-333-1606	ab0nn@arrl.net
Public Service/Emergency	Jim Harper	KC0SHZ	402-659-0102	kc0shz@yahoo.com
Publications	Bill Wilkinson	KC0SVZ	402-397-8803	kc0svz@gmail.com
QSL Manager & Technical	Ed Edwards	K0IL		k0il@arrl.net
Special Events Coordinator	Pat Joseph	K0CTU	402-492-9156	ppjoseph@cox.net
Web Services	Mary Joseph	N0TRK	402-492-9156	n0trk@arrl.net

### Repeater Committee

Chairman	John Gebuhr	WB0CMC	402-932-3443	wb0cmc@cox.net
Vice Chairman	Steve Schmitz	N0UP	402-306-2972	n0up@arrl.net
Control Operator	Mary Joseph	N0TRK	402-492-9156	n0trk@arrl.net
Club Callsign Trustee	Corby Krick	K0SKW	402-540-5483	k0skw@k0skw.net

### Other Contacts

ARRL Midwest Director	Clifford Ahrens	K0CA	573-221-8618	k0ca@arrl.org
ARRL Midwest Vice-Director	Rod Blocksome	K0DAS	319-393-8022	k0das@arrl.org
EC Douglas County	Steve Schmitz	N0UP	402-306-2972	n0up@arrl.net
EC Sarpy County	Dennis Mitchell	KC0YKN		
Exams/Vol. Council	Brian Zdan	KM0Y	402-553-2610	bzdan@novia.net
NE Section Manager	Art Zygjelbaum	K0AIZ	402-421-0839	K0AIZ@arrl.org
Official Observer Coordinator	Bill McCollum	KE0XQ	402-690-7965	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 N0TRK (Membership) or Bill KC0SVZ (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/>

## AARC Flea-Esta Table Reservation Form



Mail Completed Form to:

**Ak-Sar-Ben Amateur Radio Club  
C/O Pat Joseph  
1821 Robertson Drive  
Omaha, NE 68114**

\_\_\_\_\_ **Advanced Flea Market Tables at \$8.00 each \* .....** \$ \_\_\_\_\_  
 \_\_\_\_\_ **Additional admission Tickets at \$4.00 each .....** \$ \_\_\_\_\_  
**Total enclosed .....** \$ \_\_\_\_\_

**Name:** \_\_\_\_\_ **Call Sign:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **eMail:** \_\_\_\_\_

Flea-esta is considered a family friendly event.

The Ak-Sar-Ben ARC reserves the right to eject any items from the premises that it deems inappropriate or that do not conform to FCC Regulations.

The Ak-Sar-Ben ARC is not responsible for theft or accidents occurring at the Flea-esta site.

\*Table price includes 1 admission per table (up to 2 admissions per table order)

Kids 10 and under free, when accompanied by an adult.

**Event Details on Page 16**

# Contest Calendar

## August 2013

ARS Spartan Sprint	0100Z-0300Z, Aug 6
QRP Fox Hunt	0100Z-0230Z, Aug 9
NCCC Sprint Ladder	0230Z-0300Z, Aug 9
WAE DX Contest, CW	0000Z, Aug 10 to 2359Z, Aug 11
SKCC Weekend Sprintathon	1200Z, Aug 10 to 2400Z, Aug 11
Maryland-DC QSO Party	1600Z, Aug 10 to 2400Z, Aug 11
NAQCC Straight Key/Bug Sprint	0030Z-0230Z, Aug 14
CWops Mini-CWT Test	1300Z-1400Z, 1900Z-2000Z, Aug 14 and 0300Z-0400Z, Aug 15
QRP Fox Hunt	0100Z-0230Z, Aug 16
NCCC Sprint Ladder	0230Z-0300Z, Aug 16
SARTG WW RTTY Contest	0000Z, Aug 17 to 1600Z, Aug 18
ARRL 10 GHz and Up Contest	0600 local, Aug 17 to 2400 local, Aug 18
North American QSO Party, SSB	1800Z, Aug 17 to 0559Z, Aug 18
Feld Hell Sprint	2000Z-2200Z, Aug 17
SARL HF Digital Contest	1300Z-1630Z, Aug 18
ARRL Rookie Roundup, RTTY	1800Z-2359Z, Aug 18
Run for the Bacon QRP Contest	0100Z-0300Z, Aug 19
NAQCC-EU Monthly Sprint	1800Z-2000Z, Aug 19
QRP Fox Hunt	0100Z-0230Z, Aug 23
NCCC Sprint Ladder	0230Z-0300Z, Aug 23
Hawaii QSO Party	0700Z, Aug 24 to 2200Z, Aug 25
YO DX HF Contest	1200Z, Aug 24 to 1200Z, Aug 25
SCC RTTY Championship	1200Z, Aug 24 to 1159Z, Aug 25
Ohio QSO Party	1600Z, Aug 24 to 0400Z, Aug 25
SARL HF CW Contest	1300Z-1630Z, Aug 25
SKCC Sprint	0000Z-0200Z, Aug 28
CWops Mini-CWT Test	1300Z-1400Z, Aug 28 and
1900Z-2000Z, Aug 28 and	
0300Z-0400Z, Aug 29	
QRP Fox Hunt	0100Z-0230Z, Aug 30
NCCC Sprint Ladder	0230Z-0300Z, Aug 30
Feld Hell Sprint	0000Z-2359Z, Aug 31
CWops CW Open	0000Z-0359Z, 1200Z-1559Z, 2000Z-2359Z, Aug 31
Colorado QSO Party	1200Z, Aug 31 to 0400Z, Sep 1

## September 2013

MI QRP Labor Day CW Sprint	2300Z, Sep 2 to 0300Z, Sep 3
ARS Spartan Sprint	0100Z-0300Z, Sep 3
NRAU 10m Activity Contest	1700Z-1800Z (CW), 1800Z-1900Z (SSB), 1900Z-2000Z (FM), 2000Z-2100Z (Dig), Sep 5
QRP Fox Hunt	0100Z-0230Z, Sep 6
NCCC RTTY Sprint Ladder	0130Z-0200Z, Sep 6
PODXS 070 Club Jay Hudak Memorial 80m Sprint	2000 local, Sep 6 to 0200 local, Sep 7
All Asian DX Contest, Phone	0000Z, Sep 7 to 2400Z, Sep 8
Wake-Up! QRP Sprint	0600Z-0800Z, Sep 7
SKCC Weekend Sprintathon	1200Z, Sep 7 to 2400Z, Sep 8
AGCW Straight Key Party	1300Z-1600Z, Sep 7
QCWA Fall QSO Party	1800Z, Sep 7 to 1800Z, Sep 8
North American Sprint, CW	0000Z-0400Z, Sep 8
DARC 10-Meter Digital Contest	1100Z-1700Z, Sep 8
Swiss HTC QRP Sprint	1300Z-1900Z, Sep 8

Sources: <http://www.hornucopia.com/contestcal/index.html> & <http://www.aksarbenarc.org>

# Two Meter Repeaters in Omaha

This is the 2M repeater list (as compiled by Ed NØLJD) from our SWIARC website (<http://swiradio.org/>). You might want to put these in your rigs memory along with a couple of simplex frequencies.

145.115 - WBØQQK 179.9 Bellevue NE Sarpy County EMA  
145.235 - WBØEMU Papillion NE Sarpy County EMA  
145.290 - NØWKF Glenwood IA Heartland Hams  
145.310 - KØASH Ashland NE Ashand Amateur Radio Club  
145.370 - NØOFQ Omaha NE Linked to Lincoln 145.19  
145.390 - WBØYLA 136.5 Thurman/Tabor IA  
145.390 WBØYLA Thurman IA EchoLink  
145.450 - KØBOY 131.8 Bellevue NE Chandler & Ceader Island Rd  
146.670 - KDØEFC Fremont NE  
146.715 - WBØEMU Papillion NE P25  
146.730 - KJØZ 103.5 Nebraska City NE  
146.820 - KØSWI Council Bluffs IA SWIARC 3mi NE of dwntn  
146.940 - KØUSA 131.8 Omaha NE Ak-Sar-Ben ARC on Ch 7 tower

*ALL 147 RPTRS ARE PLUS (R+) OFFSET –  
EXCEPT 147.00 HAS BOTH + AND – INPUTS*  
147.000 +/- WBØCMC Omaha NE +/- 64th & Maple  
147.060 + WØJJK 131.8 Bellevue NE Hwy 370 & Galvin Rd  
147.210 + KAØIJY 103.5 Murray NE Great Plains Amateur Radio Assn  
147.300 + Omaha NE  
147.360 + KØBOY Omaha NE 156th & Maple  
147.390 + WØWYV Bellevue NE Bellevue Amateur Radio Club

*Rich WAØZQG*

## Taking a dose of my own medicine

*Dan Romanchik, KB6NU*

Last week, I wrote a blog post on preventive maintenance for one of my writing clients.

Afterwards, I decided to take a dose of my own medicine and do a little preventive maintenance around the shack. I started with the Astron RS-35M, which provides the DC power that runs HF transceiver and my VHF/UHF transceiver in my shack. I had started noticing a few little things, such as the voltage adjustment being a little fussy, that I wanted to correct before the supply failed on me.

After removing the cover, I vacuumed all the dust out of the supply. The RS-35M wasn't very dirty, but even so, getting the dirt out of a piece of equipment is probably the first thing you'll want to do when performing preventive maintenance. Dirt impedes air flow. That can lead to higher operating temperatures, and as the lab manager that I interviewed for my blog post said, "Heat kills."

Not only should you vacuum any dust out of a cabinet, you should also clean the fan filters, if your gear has them. Dusty filters prevent air from flowing smoothly through equipment, and that means the fans don't cool as well as they should.

*(Taking Medicine continued on page 11.)*

# Club Meeting Minutes – July 12, 2013

Bill WA9ASD, Secretary AARC

The meeting was called to order at 7:10 PM by Adam, KDØMMG in the absence of Tomas, NW7US and with introductions by name and call followed by saying the Pledge of Allegiance. There were 21 attendees.

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

Secretary's Report - Bill, WA9ASD - The minutes of the May meeting were published in *Ham Hum*. A motion was made by Mary, NØTRK, seconded by Pat, KØCTU, to accept the May Club meeting minutes as published in *Ham Hum*. There were no corrections required and the motion passed unanimously.

Treasurer's Report - There were deposits of \$160 from payments for license class books. There were payments totaling \$359.79 including \$21.39 for *Ham Hum* supplies; Field Day expenses of \$335.40 including \$50.68 for gasoline, \$101.66 for Port-A-John, \$153.70 for food and \$29.36 for a water cooler plus a monthly bank fee of \$3. The balance of all accounts is \$21,516.76.

President's Report - Tomas, NW7US - not available.

Vice President's Report - Adam, KDØMMG - Adam reported that tonight's program will be on cryptography by himself and a contact in a satellite pass by Pat, KØCTU.

ARES - Steve, NØUP - not present - no report

SATERN - Jim, KCØSHZ - not present - no report

OMMRS - Mary, NØTRK - There will probably be a mid-week drill in October.

COMMUNITY EVENTS - Pat, KØCTU - There are no events on the near future and Pat reminded the members that if they know of an event that could use communications assistance, get the details and contact Pat.

- The Omaha Marathon and the Market to Market Relay are coming up.
- On Saturday, July 13 the OWL ride for bicyclists will start at 10 PM.

Education Committee - Mary, NØTRK - The Technician License Class is going OK.

Membership Committee - Mary, NØTRK - Pay your dues today. After today they're \$1,000,000.

Ham Hum - Bill, KCØSVZ - *Ham Hum* is out.

Web Site - Mary, NØTRK - It's there. New Club member Sean, KDØRMX will be assisting.

Repeater Committee - John, WBØCMC - It's works.

Field Day - Rob, AI7Q - Mary, NØTRK reported that Corby, KØSKW made 83 PSK31 contacts that count for two points each and the SSB/FM efforts made 462 contacts; totaling 628 contact points times two for emergency power giving the Club 1,256 contact points. The addition of bonus points for medium power, media coverage,

(Meeting Minutes continued on page 5.)



The Joplin Amateur Radio Club, Inc.  
INVITES YOU TO ATTEND OUR 24TH ANNUAL

## JOPLIN HAMFEST

Friday & Saturday August 23-24, 2013  
Joplin, Missouri

Don't miss this one! 30,000 sq-ft, over 285 tables  
LARGEST HAMFEST IN SOUTHWEST MISSOURI



Talk In: 147.210+ (Open)

Holiday Inn Convention Center, I-44 at Exit 8-B; Next to the Holiday Inn

The Holiday Inn of Joplin is the host hotel for this event. Book now and save! (Special rates apply - see back for details!)

### FRIDAY EVENING OUTDOOR COOKOUT FROM 5-7 PM

\$5 BUYS YOU A HOME GRILLED BURGER OR BRAT AND SIDES! REFRESHMENTS ARE AVAILABLE SEPARATELY.

HAMFEST ADMISSION: \$6 advance / \$8 at the door

Price includes both days! Children under 14 admitted FREE with and adult. Tables: Regular - \$10; Commercial - \$30 (w/pwr)

Event opens Friday 3 p.m. till 9 p.m. & Saturday 8 a.m. till 2 p.m.

The convention center will be open for table setup: Friday noon & Saturday 6 a.m. (North Side Entry)

#### PRESENTATIONS & FORUMS

Randy Schulze KDØHKD - "Satellites on a limited budget & Handheld Radio"  
Phil Anderson WXØ1 - "CW Regen Receivers You Can Build"  
Dale Bagley KØKY - ARRL Section Manager's Report  
Cliff Ahrens KØCA - ARRL Midwest Director's Report  
Frank Rutter K3AW (SK) - "Everything You wanted to know about Antennas"  
Cecil Higgins ACØHA - ARES District-D Meeting

#### DXCC/VUCC/WAS/ CARD CHECKING,

VE Exams, Forums, Free Parking, Lots of prize drawings,  
The whole convention center, over 285 tables in 30,000 Sq-Ft,  
Dealers, and Lots of deals at this huge indoor Flea Market!

ARRL Sanctioned event, AIR CONDITIONED FACILITY

#### COMMERCIAL VENDORS (pre-registered to attend this event)

• Associated Radio • Amateur Accessories • Bud's Engraving  
• B-Squared • Coaxman • DC Ace Electronics • D&L Antenna  
• FlexRadio Systems • Main Trading Company • Ozark Threadworks  
Vintage Productions • MicroLog by W8BH • W8WB • XTAL SET Society

#### ARRL/VEC EXAMS

Two sessions offered - Friday 7 PM & Saturday 1:00 PM

- Pre-registration is required for the Friday night session.
- Saturday registration starts at 12:30 pm at the hotel.
- We need: Original & two copies of all certificates or licenses, and two forms of ID (one photo) plus \$15 exam fee (cash only).
- No special accommodations can be made at these sessions.

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

#### ARRL/VEC PRE-REGISTRATION

EXAM FEES will be collected at the test session. Hamfest admission is not required for testing. Below, please indicate all of the elements that you plan to test.

ELEMENT 2: TECHNICIAN   
ELEMENT 3: GENERAL   
ELEMENT 4: EXTRA

**ADVANCE TICKET INFORMATION**  
If you don't want to register online, this is the fastest way into the Hamfest! Send this coupon by August 14th along with a self addressed stamped envelope, or include \$1 to cover our mailing costs. After the cutoff date, your tickets will be held at the MAIN ENTRANCE for you.  
-----Information about Drawings-----  
Drawings will be held throughout the event. Tickets must be presented to collect ALL prizes. The final drawing will be at 12:15 p.m. Saturday.

Nights you will be spending in Joplin:   
Adv. Admission (w/6 drawing tkts) \_\_\_\_\_ @ \$6.00 \_\_\_\_\_  
Additional Drawing Tickets . . . . . @ \$1.00 \_\_\_\_\_  
Indoor Flea Market Tables . . . . . @ \$10.00 \_\_\_\_\_  
Commercial 8' Tables (w/power) \_\_\_\_\_ @ \$30.00 \_\_\_\_\_

Note: Commercial tables include two entry passes, but no drawing tickets. **Total Amount enclosed (Checks only, NO CASH)**

Mail this form with payment to: JARC, PO Box 2983, Joplin, MO 64803-2983

The Joplin Amateur Radio Club is a 501c4 not for profit incorporated organization. For more information: <http://www.joplin-arc.org>

2013/01 3052Salts11.0.0b - jds

## Free Joplin Admission

AARC has received from the Joplin ARC two special fliers and a letter stating 'Enclosed are some "special" fliers that when filled out and presented in person, will get you into the event for free.'

If you're going to Joplin and would like to have one of these fliers, please attend the AARC meeting August 9th and let us know. If more than two people show up wanting the fliers, we'll work something out.

## Want Ads

Wanted: Linksys Router Did you upgrade your router? Still have your old one in the closet? I am looking for Wireless Linksys Router Models WRT54G (version 1 – 4), WRT54GS (version 1- 4), and WRT54GL (any version). If you aren't sure of the version, email me the first 4 characters of the serial number and I can tell you if I can use it. This is for a ham radio project. Willing to pay \$10 for complete and working units, Will still take them off your hands if they aren't working. Contact: Mary NØTRK at the next AARC meeting, or email [n0trk@arrl.net](mailto:n0trk@arrl.net)

For Sale: SKYWARN Signs I have a pair of SKYWARN signs in good condition. I no longer do storm spotting due to personal reasons. I am asking \$15.00 and you arrange for pickup. Contact: Bill KEØXQ at [ke0xq@cox.net](mailto:ke0xq@cox.net), or 402-690-7965.

For Sale: The Radio Amateur's Handbook, ARRL, 1965, 42nd edition Delivery/Carry. Used. No stains, all pages still attached. Proceeds go back to the AARC. Price: \$5.00. Email the AARC via the Club web site at <http://tinyurl.com/bajwo5e>

For Sale or Trade: TS-520S, VFO-520, HM-102, Other Equipment I have a couple radios (HF) that I need to sell in order to get a new one. Kenwood TS-520S transceiver with external Kenwood VFO-520 (unsure of condition), and Heath HM-102 SWR/Power meter. I also have the Dentron super tuner (older manual tuner), Kenwood DG-5 digital readout (not sure of condition), and Kenwood MC50 desk mic. Radio is pretty clean, but the rest needs some clean up. No reasonable offer refused May consider trading for 2M all-mode (working in good shape), depending on what it is. Can talk about \$ to make it a fair deal. Can be picked up in Bellevue, NE. If I have to ship it will be plus shipping.

I have been working on getting the rig up to 100% and then was going to look at the VFO and Digital readout, but time has not cooperated. It does work, but has some issues that somebody with time and experience could probably have a nice setup.

Also have a Kenwood TS-570D transceiver. It works great, but does have a known CW issue (adds dits on its own randomly). For all other modes it has worked flawlessly.

If you're interested, drop me an email at [wd0bfo@cox.net](mailto:wd0bfo@cox.net) and we can get together to talk about it. 73 Tom WDØBFO

### ***Want to Use KØUSA 146.940 for Community Service Events?***

The KØUSA repeater is an open repeater system and available for any licensed amateur radio operator to use. We welcome other clubs and organizations to use the repeater for providing communications support for non-profit activities.

To avoid any scheduling conflicts with the use of the repeater for these community service nets, the Club asks that you obtain permission from the Ak-Sar-Ben ARC Repeater Committee in advance of the date of the net.

To submit your request, please click the *KØUSA Use Request Form* on the AARC web site: <http://tinyurl.com/msodyvh>

**(Meeting Minutes continued from page 4.)**

operating in a public place, having an information booth, copying the Field Day Message, being visited by representatives of served agencies, making two youth contacts, and providing an online log resulted in 1,270 additional points for a total score of 2,526.

QSL and Technical Committee - Eddy, KØIL - no report

Courtesy Committee - KEØXQ - not present. It was reported that Dick d'Autremont, KBØKJV passed away.

Trailer/Equipment Committee - Mary, NØTRK - The trailer ramp has been painted with a non-skid coating and the rest of the trailer needs work.

Public Awareness - We had Field Day.

Flea-Esta - Pat, KØCTU - It's coming up and we need volunteers - contact Pat, KØCTU to sign-up. The flea market and grand prize drawing will be at noon this year.

Old Business - Mary, NØTRK reported that the Red Cross Tower Grounding Project has been resurrected with efforts proceeding on arranging the timing.

- Restoration progress on the USS Hazard at Freedom Park is proceeding and painting will be occurring in August.
- Due to health concerns, WØSMY will not be proceeding with Extra Class study sessions.

New Business - none

Announcements - John, WBØCMC reported that there will be an amateur (not radio) barbecuing contest on July 27 at the Benson Farmers Market. Preregistration is required.

- John also reported that the 147.00 repeater is off the air due to the antenna hanging upside down by the coax.
- Bill, WA9ASD announced that the Pioneer ARC flea market will be July 20 at North Bend.
- Mary, NØTRK reported that John Bruckner, WØHII will give his 6 meter antenna, 2 meter antenna and tower and rotator to anyone who will take it down.
- Mary also reported that the next VE testing session will be July 30 at the Red Cross building.
- Rollie, ABØNN announced that the door prizes for tonight's meeting include a pair of clamps, and extension cord, a hemostat, and metric and SAE hex key sets. In addition, the Brown Bag Door Prize and the dreaded Mr. Reeh Door Prize were also available. Get you tickets during the break and all tickets purchased are saved and are eligible for prizes at the December meeting. Ticket purchases fund the monthly prizes and the annual door prizes at the December meeting.

At 7:37 PM a motion was made by John, WBØCMC, seconded by Claudia, K1AUD to end the meeting. Passed unanimously.

*Bill WA9ASD, Secretary AARC*

## Saturday Night Coffee

A nice summer day, a trip to the PARC flea market in North Bend (for some), then dinner at Perkins Restaurant in the evening. Attending were Pat KØCTU, Claudia K1AUD, Bill KCØSVZ, Robin NØCALL, Christina NØRIS, Mary NØTRK, Steve NØUP, Greg WØAAI, and John WBØCMC. Later, making a surprise appearance from Sun City, Arizona was Dennis NØGPD—former AARC Door Prize Chairman and still active member.

We placed our orders; though a couple of us ordering dessert first, as it was feared that a table of twenty at the other end of the room would deplete the restaurant's supplies. (One must set priorities.)

While waiting for the eats to arrive, we discussed various topics, both ham-related and general: Morse code, Grill Wars at the Farmers Market in Benson, linking repeaters in the 80s, taking the Extra practice test at <http://www.hamradioexam.org/>, FCC petition RM-11699 (encryption rules change), the BaoFeng UV-3R dual-band handy-talky ("a flashlight with a radio attached"), bicycling, geocaching, flyball dog racing, and the Pioneer ARC flea market. Incidentally, CTU won the Grand Prize at that event: 100 feet of Cable Experts' LMR 400 equivalent RG-8 coax with silver PL-259 connectors.

The AARC Coffee get-together is held at Perkins restaurant at the corner of 108th and L Streets in Omaha on the third Saturday of the month, starting at 6 PM. Everyone is invited.

*Bill KCØSVZ*

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*You may be a ham radio operator if...you look at a barbecue grill, it creates ideas about ground plane antennas.*

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## July Door Prizes

He-Who-Dispenses-Prizes-And-Surprises Rollie ABØNN had a number of items in his Big Box of Things You Never Wanted But Could Afford: A hemostat, two large clamps for holding large items, two small clamps for surface mount work, a 25 foot extension cord, a set of SAE and metric hex keys, the Brown Bag Prize, and the inerasible Mr. Reeh Door Prize. This time around, the rules allowed multiple prizes to go to the same person. Pat KØCTU drew the tickets.

The first winner was Ron WDØGCN, who was awarded the hemostat. Claudia K1AUD and Mitch WBØGBI won the small and large clamps, respectively. Mitch was also the winner of the extension cord. The Brown Bag Prize, an indoor lighting timer, went to Cam W7CAM. Lastly, the much feared Mr. Reeh Door Prize went to Don WBØVGB. It was a heavy box which turned out to contain a Morrow Radio Model 22, a 75/10 meter converter to the broadcast band.

Note that the proceeds for each month's tickets go for buying next month's prizes. Also, all tickets are kept and included in the Grand Prize drawing in December. The more tickets you buy, the better your chances of winning at the end of the year.

*Bill KCØSVZ*

**(Taking Medicine** *continued from page 3.*)

Once that was done, I did a visual inspection. One thing that you want to look for are components that look like they're getting too hot. Another thing to look for is evidence of arcing. Whatever is causing the overheating or arcing will eventually cause a unit to fail. Fortunately, I found neither.

Next, I checked to see that the components mounted to the enclosure were securely screwed down. In the RS-35M, the transformer, the bridge rectifier, and an electrolytic are mounted to the enclosure. Oddly enough, the bridge rectifier was quite loose, so I tightened it down. Also loose were the output terminals. I tightened these down as well.

Finally, I squirted a little cleaner and lube into the voltage adjustment pot and worked it back and forth. That seemed to do the job. That pot now works smoothly and cleanly.

I put the cover back on, reconnected the power cable, and got back to making QSOs. It should be good for another couple of years.

*When he's not keeping the gear in his shack in tip-top shape, Dan, KB6NU enjoys working CW on the HF bands and teaching ham radio classes. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to KB6NU.Com or e-mail [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).*

## Club Calendar

<b>Aug 9</b>	7:00 PM AARC Meeting. Red Cross Building, 81 <sup>st</sup> & Spring St, Omaha, NE.
<b>Aug 10</b>	11:00 AM HBQRP, Bredeaux Pizza, 1425 Silver St., Ashland, NE.
<b>Aug 10</b>	1:00 PM BARC VE Session, 11111 S. 84th St., Papillion, NE.
<b>Aug 14</b>	7:30 PM LARC Meeting, 4647 Superior St., Lincoln, NE.
<b>Aug 15</b>	7:30 PM BARC Meeting. Masonic Hall, 1908 Franklin St, Bellevue, NE.
<b>Aug 17</b>	6:00 PM AARC Coffee. Perkins Restaurant, 108 <sup>th</sup> & L Streets, Omaha, NE.
<b>Aug 21</b>	7:00 PM Heartland Hams, 403 Railroad Ave., Glenwood, IA.
<b>Aug 22</b>	11:00 AM QCWA Meeting. Old Country Buffet, 14525 W. Center Rd., Omaha, NE.
<b>Aug 22</b>	7:30 PM PARC Meeting. 1900 E. Military Ave, Fremont, NE.
<b>Aug 22</b>	7:30 PM SWIARC Meeting. 705 N 16 <sup>th</sup> , Council Bluffs, IA.
<b>Aug 23</b>	3:00 PM Joplin Ham Fest, Holiday Inn, I-44, Exit 8-B. Joplin, MO.
<b>Aug 24</b>	8:00 AM Joplin Ham Fest, Holiday Inn, I-44, Exit 8-B. Joplin, MO.
<b>Aug 26</b>	6:30 PM AARC Directors' Meeting. Village Inn, 78th & Dodge Streets, Omaha, NE.
<b>Sep 7</b>	<b>8:00 AM AARC Flea-esta. Sarpy County Fairgrounds, Springfield, NE.</b>
<b>Sep 11</b>	7:30 PM LARC Meeting, 4647 Superior St., Lincoln, NE.
<b>Sep 13</b>	7:00 PM AARC Meeting. Red Cross Building, 81 <sup>st</sup> & Spring St, Omaha, NE.
<b>Sep 14</b>	11:00 AM HBQRP, Bredeaux Pizza, 1425 Silver St., Ashland, NE.
<b>Sep 18</b>	7:00 PM Heartland Hams, 403 Railroad Ave., Glenwood, IA.
<b>Sep 19</b>	7:30 PM BARC Meeting. Masonic Hall, 1908 Franklin St, Bellevue, NE.
<b>Sep 21</b>	6:00 PM AARC Coffee. Perkins Restaurant, 108 <sup>th</sup> & L Streets, Omaha, NE.
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For more details and the latest updates, see the *Calendar* section of the AARC web site (<http://www.aksarbenarc.org/>).

## Area Nets

### Monday

7:00 PM 145.290 South-West Iowa ARES Glenwood, IA.  
8:00 PM 144.250 NE Missouri SWOT.  
9:00 PM 146.940 AARC Chat Net. Ak-Sar-Ben ARC Omaha, NE.

### Tuesday

7:00 PM 147.360 QCWA Hams who have been hams for at least 25 years.  
8:00 PM 50.200 6m SSB Net.  
9:00 PM 145.310 Washington Co. ARES Washington Co, NE.

### Wednesday

7:00 PM 146.670 Dodge Co. ARES Dodge Co, NE.  
7:30 PM 7.122 CW Four State QRP Comfortable Net.  
8:00 PM 3.564 CW Four State QRP Comfortable Net.  
8:00 PM 145.310 Saunders Co. ARES Saunders Co, NE.  
8:30 PM 7.122 CW Four State QRP Comfortable Net.  
9:00 PM 3.580.5 PSK Four State QRP Comfortable Net.  
9:00 PM 146.820 Pottawattamie County ARES Council Bluffs, IA.

### Thursday

8:00 PM 28.350 10-Meter Net.  
8:00 PM 144.250 2-Meter SSB Net.  
8:00 PM 146.360 Heartland DX Association.  
9:00 PM 28.305 10-Meter Net.

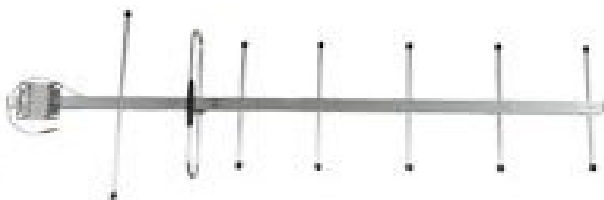
### Saturday

12:00 PM 146.82 Swap Net Council Bluffs, IA.  
8:30 PM 3.921.000 QCWA Chapter 20.

### Sunday

8:00 AM 3.902.500 Swap Net.  
8:30 AM 3.896.000 3900 Club.  
8:30 PM 443.925+ (103.5 tone) IRLP Net.  
9:00 PM 146.940- Douglas Co. ARES net, KØUSA repeater.

Please let us know of any updates or corrections to the above.



## BOARD MEETING NOTICE

The next AARC Board Meeting is scheduled for August 26, 2013, 6:30 PM at the Village Inn on 78th and Dodge Streets. Unless noted otherwise, Board meetings take place at that time and location on the fourth Monday of the month. For any changes to this schedule, check for an announcement at the next Club meeting, or on the AARC web page at <http://www.aksarbenarc.org/>.

## Update from USS Hazard

*[In 2012, Peter Daliere, KE7RDM gave a talk at the November AARC meeting about restoring the radio room on the USS Hazard at Freedom Park (see the Dec. 2012 Ham Hum, pg 11). Shortly afterwards, the Club contributed \$1500 towards the purchase of a TBS-7 radio for the project (Jan. 2013 Hum, pg. 3). In the February issue, KE7RDM wrote a status report of the project (pg 7). Following is his second status report, sent to the Club in early July.]*

Ahoy Ak-Sar-Ben Amateur Radio Club! It has been a while since I last wrote and I sincerely apologize for that! It has been crazy dealing with the mayoral change and new policies, procedures, and uncertainty. That said, now that the election is over and the Parks Director has been appointed, we are hoping to begin to move forward again! We are still waiting on electricity, though we hope that is coming soon.

The code room is looking good, all the wood has been stripped, the walls scraped and fixed, and the whole thing is ready to be painted. The radio room restoration in entirety has begun! The walls have been scraped, the TBL transmitter secured and wrapped (so as to keep it safe,) and the other equipment carefully labeled and removed. Wall scraping has begun though given the overhead wires, the room is far more difficult to move quickly on when compared to the code room.

Next, the desks will come out. We will be scraping the desks, fitting new wood as well as new dark green laminate to the desk tops. When the desks are removed, the whole room will be repainted with navy pale green and the deck will be painted red. Then re-assembly. The re-assembly process will be done much more slowly, to ensure 100% accuracy and safety! We do hope to return much of the radio room to full operation.

The RAK receiver will need to be fitted with new capacitors though the tubes have been collected. New antennas will need to be fitted as well. The TBS radio that this club so generously donated is safe and secure, stored at the 24th Street Parks Department Office. It is a beautiful piece of artwork I look forward to sharing with all of you, and I hope some will be willing to lend help when it comes time to install.

Later this summer we hope to paint the exterior of the ship to further refute the incorrect news articles talking about the park. Rest assured, the park will reopen, it will just take some time.

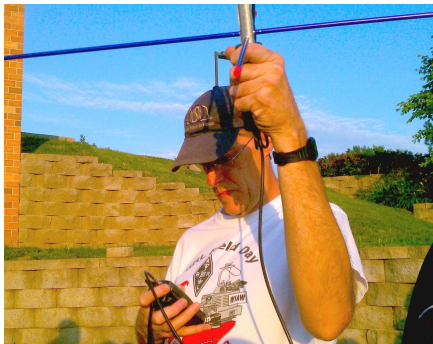
I want to apologize about not being able to accommodate you for the "Museum Ships on the Air" event. It unfortunately fell at a time when City political tensions were at the highest (election time)! I will be in touch soon about the upcoming projects! Fair Seas!

73s

Peter Daliere, KE7RDM  
Assistant Director of Projects-Freedom Park



# Satellite Communications



Pat KØCTU Working SO-50 (photo: NØTRK)

Adam KDØMMG's talk (see page 1) was briefly interrupted when Pat KØCTU announced that OSCAR satellite SO-50 was about to go overhead and he was going outside to try to contact it. Everybody (including MMG) crowded outside to watch the event.

Using a Kenwood TH-D7A dual-band radio, Pat aimed his hand-held Arrow II Satellite Antenna in the general direction of the bird, while Claudia K1AUD used her Android to help pinpoint and track its location. He was able to pick up KBØRZD

(EM29), KF5WGB (EM79), and a successful contact with K8YSE (EN91).<sup>\*</sup> Pat mentioned that this is the second time he's done this.

The SO-50 (Saudi OSCAR 50) was launched in 2002 and carries a number of experiments including a J FM amateur repeater operating on 145.850 MHz (uplink) and 436.800 MHz downlink. Hams can access it for on-demand activation by using a 67.0 Hertz PL tone on the uplink. It also has a 10-minute timer that must be armed before use. Transmit a two-second carrier with a 74.4 Hz PL tone to arm the timer.

For more information, see the following URLs:

## SO-50 Specifications

[http://www.amsat.org/amsat-new/satellites/sat\\_summary/so50.php](http://www.amsat.org/amsat-new/satellites/sat_summary/so50.php)

[http://ww2.amsat.org/?page\\_id=1015](http://ww2.amsat.org/?page_id=1015)

## SO-50 Current Location

<http://www.amsat.org/amsat-new/tools/predict/satloc.php?lang=en&satellite=SO-50>

## Grid Squares

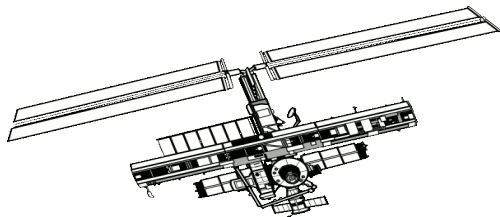
<http://www.arrl.org/grid-squares>

[http://www.levinecentral.com/ham/grid\\_square.php](http://www.levinecentral.com/ham/grid_square.php)

## AARC on Facebook

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

(Scroll down to the July 13, 2013 area for photos and video.)



Bill KCØSVZ

<sup>\*</sup> Blame any call sign and grid square errors on the author.

## (Data Encryption continued from page 1.)

Adam said that public key cryptography is a system where the computer generates a public key and a private key that are mathematically related. The owner of the keys publishes the public key for all to see, but keeps the private key secret. When someone sends a message using the public key, no one can decrypt it but the possessor of the private key. This system is inherently more secure than a system using a symmetric key, which is used for both encryption and decryption. Nevertheless, symmetric key cryptography is still highly secure and faster when it comes to encoding and decoding data—something that's necessary when decoding movies on DVDs, for example.

Adam provided examples of both public and symmetric key systems: The original DES (Data Encryption Standard) is a symmetric system that was developed in the 1970s but can now be broken in under two hours. (However, a variant called Triple DES is still secure and is used by Microsoft.) Another symmetric system is the Advanced Encryption Standard (AES), which is used in Blu-ray systems and is an option on most wireless routers. Public key systems include RSA (after their inventors, Rivest, Shamir, and Adleman), SSL (Secure Socket Layer—designed by Netscape and used for browser security), and PGP. (Pretty Good Privacy—designed by Phil Zimmerman in 1991 and originally used for encrypting text, email, and files.)

Adam concluded by briefly describing related topics such as web site certificates, DNS poisoning, public key management, and cryptographic hashes.

During the Q&A session that followed, the subject tied back into ham radio with a general discussion of RM-11699, a petition before the FCC permitting encryption of data on the ham bands during an emergency. Some people (including the ARRL) are against it, others (including Adam) are in favor, and others have mixed feelings. The latter concerned HIPAA rules and whether or not the hams operating on site were considered to be part of the hospital staff.

In summary, Adam's talk was very interesting and educational. He covered a lot more than what was summarized in this article and provided a clear overview of the subject.

Bill KCØSVZ

## Obscure Q Codes

QOK - Your last transmission was Okie Dokie / Was my last transmission OK?

QPM - Your signal is purr modulated / Is my signal purr modulated?

QRC - Warning, rag chewer on frequency / Are you a rag chewer?

QRL - This frequency is in use / Is this frequency on use?

QRC - Quit Rag Chewing, for those who speak on 2 meters like they do on 75 meters, long, long, monologues and perhaps strong ADULT (?) Language:)

QSD - Your keying is defective / Is my keying defective?

QSJ - It cost (\$) / How much did it cost? ("What is the charge to be collected to ... including your internal charge?")

QSW/QSX - Shall I increase/decrease my spark frequency?

QTF - Traffic is bad / Is traffic bad?

QTO - On the way to breakfast / Are you on the way to breakfast?

de Anton UNIQUE