

THE RADIO HILL GAZETTE

Volume XXXIII Issue III

March 2008

Celebrating Our 33rd Year in Publication

Club Calendar of Events



March 2008

Sat	1	8:00 AM	Official Saturday Morning Breakfast – Maxfields
Sat	1	9:00 AM	VE Testing Session - CRC
Wed	5	7:00 PM	Board of Directors meeting – Schaumburg Airport
Thu	6	9:00 PM	SARC Net 145.230 kHz NCS: Dave KC9EHQ
Sat	8	8:00 AM	Construction Project - Schaumburg Tennis Plus
Thu	13	9:00 PM	SARC Net 145.230 kHz NCS: Rob N9MVO
Thu	20	7:00 PM	Monthly Club Meeting – CRC & Business Meeting
Sat	22	8:00 AM	Construction Project - Schaumburg Tennis Plus
Wed	26	9:00 PM	Cook Co. ARES Net – 146.880 – SARA repeater
Thu	27	9:00 PM	SARC Net 145.230 kHz NCS: John AJ9ON

APRIL 2008

Wed	2	7:00 PM	Board of Directors meeting – Schaumburg Airport
Thu	3	9:00 PM	SARC Net 145.230 kHz NCS: Dave KC9EHQ
Sat	5	8:00 AM	Official Saturday Morning Breakfast – Maxfields
Sat	5	9:00 AM	VE Testing Session - CRC
Thu	10	9:00 PM	SARC Net 145.230 kHz NCS: Rob N9MVO
Sat	12	8:00 AM	Construction Project - Schaumburg Tennis Plus
Thu	17	7:00 PM	Monthly Club Meeting – CRC & Business Meeting
Wed	23	9:00 PM	Cook Co. ARES Net – 146.880 – SARA repeater
Thu	24	9:00 PM	SARC Net 145.230 kHz NCS: John AJ9ON
Wed	30	7:00 PM	Board of Directors meeting – Schaumburg Airport

SSB Net Every Tuesday at 7:30 pm. 144.2095

CLUB MEETINGS ARE HELD AT THE SCHAUMBURG RECREATION CENTER ON THE SOUTHEAST CORNER OF SPRINGINSGUTH AND BODE ROADS. OUR NETS ARE HELD EVERY THURSDAY (except Meeting nights) AT 9PM ON THE K9IIK REPEATER; 145.23 MHz.-600 kHz WITH 107.2 Hz PL

President with traffic

Last month I mentioned in this column if anyone has never received a name tag and would like one to let me know, the cost is free because you paid it when you became a new member. If you had a name tag at one time and would like a new one the cost will be \$5.75.

I mentioned at January's membership meeting about the HAARP Lunar moon bounce experiment. I hope you participated and was fortunate to hear something. I heard the up-link signal but not the returned one. Using my computer's sound card, rig to computer interface, and a program called Spectrum Lab. I was able to visually see both the transmitted signal and the echo. The return signal was Doppler shifted about 1/2 Hz. Interesting experiment. The HAARP received approximately 1500 signal reports and are sifting through them now. Their website has some neat pictures of their facility with pictures of the antenna farm and info about the experiment. There is so much other neat stuff going on in Amateur Radio these days, with Amsat, DSTAR, HF Digital, just to name a few. If you haven't looked at something different lately this could be the time to step out of your shell. The ARRL's website has numerous links to different operating modes, new trends and developments that could peak your interest.

Speaking of trying something new, it's almost spring so get your Fox Hunting gear ready.

Bruce, KB9JEJ will be setting up the dates soon so get yourself ready. If you have never tried Fox Hunting ask around in the club, someone would be glad to let you ride in their auto and show you how it's done. The only equipment that you will need is a VHF receiver or transceiver, attenuator, and Yagi antenna. The last two can even be made at our regular construction meeting, check calendar for dates.

Hope to see you at the next club meeting, 73, AJ9ON

Mini Dxpediton Notice

I'd like to let everyone know I'm doing a Mini Dxpediton from March 23-28 on Fripp Island, SC (IOTA NA-110, 4-land) operating CW on or around 7.040MHz and on 10.116MHz. I'll QSL every contact and welcome reception reports for anyone listening. I'll be using simple dipole antennas and power levels around 1W. I don't have an operating schedule but will try to work every day in the morning and evenings and sporadically in the afternoon as time permits. I'll write something up for the next newsletter to let you all know my experiences.

I hope to work you,
John, AJ9ON

Know Your FCC Rulemaking Process

By Dan Romanchik, KB6NU

Around Christmastime, a furor arose over a petition to change the rules regarding the use of digital modes. The petition number is RM-11392. You can find it on the FCC website by going to http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi and entering the petition number in the Proceeding text box. The petition will be the highest numbered document returned.

While the petition is interesting in and of itself, what's more interesting is how some hams got all excited about this petition. Many thought that rules changes were imminent, and they urged everyone to rush right over to the FCC website and comment. While it's a good thing for hams to be vigilant about proposed rule changes, this petition was nowhere near being turned into a rule.

On the Web page, "FCC Rulemaking Process" (<http://www.fcc.gov/rules.html>), the FCC describes the four steps that occur before a petition is translated into rules changes:

1. Notice of Inquiry (NOI). During this phase, they gather comments on the petition.
2. Notice of Proposed Rulemaking (NPRM). If they determine that a petition has merit, they move to this stage. These are the rules changes that the FCC itself proposes to make, based on the petition and the comments received.
3. Further Notice of Proposed Rulemaking (FNPRM). Changes may be made to the NPRM after receiving comments on the NPRM.
4. Report & Order (R&O). The R&O is the document containing the rules changes or an explanation of why no rules changes are being made at this time.

At the time when everyone was getting excited about this, there was no NPRM in the list of documents relating to RM-11392. The petition was filed on 3/27/07, released for comments on 8/28/07, and the first comment wasn't entered until 11/20/07. Only two other comments were entered until all the recent publicity. This particular petition is still a long way from becoming a Part 97 rule, and if I had to guess, I'd say that it will never even get to the NPRM stage.

Don't get me wrong. I am not saying that it isn't important to read and comment on petitions. But before you get your knickers in a twist over

a particular petition or proposal, you need to know where it is in the process. This process can be excruciatingly slow sometimes, but slow is not always a bad thing. By not rushing petitions through the rulemaking process, the FCC ensures that it gets comments from all concerned and that all those who are interested in an issue can take their time to draft a really cogent comment.

When he's not scanning the FCC website or eHam.net for the latest ham radio controversy, KB6NU works CW and PSK on the HF bands and blogs about ham radio at www.kb6nu.com. You can reach him by e-mail at cwgeek@kb6nu.com.

Minutes of the Regular Meeting Schaumburg Amateur Radio Club, Inc Thursday, February 21, 2008

President John Bettasso , AJ9ON called the meeting to order at 7:05PM. Introductions were given by each member and the question for the evening was: "How many working ham radios do you have?"

OLD BUSINESS

Treasurer's report – Cliff Sowka, K9QD reported that the club has a balance of \$1,498.00 as of the meeting and all bills are paid. There appears to be a surplus of \$75.00.

APPROVAL OF MINUTES AND TREASURER'S REPORT

John Bettasso asked for a motion to accept Treasurer's and Secretary's report as printed in the January RHG . Motion was made by Mark Deelsnyder KB9JEJ and second by Roger Ryan W9RDR. Motion carried by unanimous vote.

COMMITTEE REPORTS

Net Control –Rob has been working to fill the 2008 list for net control operators. The list is complete except for 1 or 2 special guest days left. If you are interested please contact Rob, N9MVO.

Membership – David Dietrich, KC9EHQ – Still working on new membership packet. He will print a prototype and copy a small number of these for the club to start with.

Repeater – No report tonight. Repeater is operational.

Public Service Events – There will be upcoming public service events in April or May. The MS Walk may be at Harper College again.

Education Chair – Harry K9DHT is now the club chairperson.

Em-Comm – David KC9EHQ and John AJ9ON. No report at this time. Hopefully will be able to get the committee going again this year.

Program Chair – Annie, KC9CUN is collecting ideas for programs. Send her an email with any ideas or interests you have for future programs.

Fund Raising - No report. The club is looking for someone to fulfill this role

VE Testing – No report tonight.

Website – John Bettasso gave a brief report for Bruce Warrington.

Construction Project – No report tonight.

RHG – Mark Deelsnyder KB9VHA reported that we saved \$25.00 by not stapling the middle of the RHG document when sending it out. Send in your ads for items for sale if you have them. Mark is also looking for ham radio related articles, pictures of your shack. Club members may write a short profile article on their ham radio activities or how they got started in the hobby.

Social Chairman – Kim Betasso suggested that everyone volunteer to bring snacks for the

evening. She is also looking for ideas on ham radio and social events.

Fox Hunting – Bruce Widenhoeffer - Bruce indicated that fox hunts will be coming up this April.

Field Day – Kim Betasso won't be able to run Field Day this year. At the meeting Geoff Stevens KA9QGH stepped forward and volunteered. Kim has a packet of notes from last year.

NEW BUSINESS

Janet Nesbitt, KA9ZDT, will be leaving the area and said a special goodbye and thanks to the club members for helping her with ham radio.

John, AJ9ON, said to let him know if you have never received a club badge. The new ones cost \$5.75 but if you've never received one the club provides your first one without charge.

Hamfest - Fox Lake at 23 South Street. Starts at 9:00 am. Presented by Welcars. If interested we will meet at the White Alps restaurant at 8:00 am.

Kent Ochs announced that on Saturday, February 23, there will be an Adler Planetarium high altitude balloon launch. The balloon will carry an APRS radio.

David Dietrich said that Bill Zapel said we need to get dates together for the IDOT tour. Kent Ochs suggested perhaps we could meet after the club breakfast.

For tonight's program - Mel, W9FRT volunteered to give a short talk on gas tube protection after the meeting.

Motion to close the meeting was given and seconded. The motion carried by unanimous

vote.

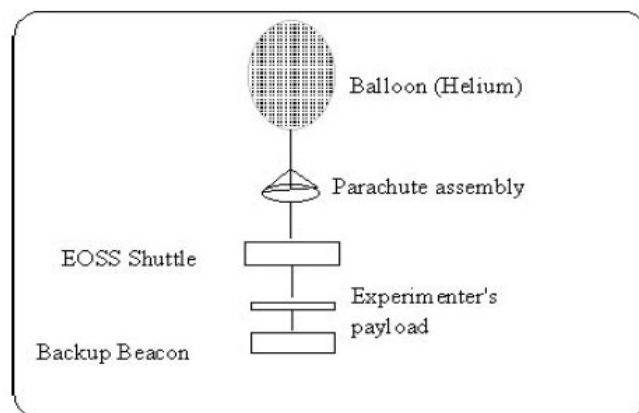
Respectfully submitted by Bob McIntyre, AF9U, Club secretary

Up, Up, and Away

The many different aspects of amateur radio never fail to amaze me. I recently discovered Amateur Radio High Altitude Balloon. This aspect of the hobby uses everyday weather balloons to lift amateur radio payloads into the stratosphere. If you have ever dreamed of going into space, this may be the closest you will ever get. This article will explore the many different aspects of launching an Amateur Radio High Altitude Balloon (ARHAB).

Basic Flight Configuration and Parameters

The basic configuration of an ARHAB consists of a weather balloon, parachute, and payload(s).



Credit: Edge of Space Sciences Handbook, PG 32.

The weather balloons are filled with helium or hydrogen, which is cheaper, but can suffer from the "Hindenburg Effect". For this reason, helium is usually preferred over hydrogen.

When released, the balloon lifts the parachute and payload. As the balloon ascends, it expands due to a loss of external pressure. Upon reaching its rated altitude, the balloon bursts releasing the parachute and payload for the return trip. Some times a radio activated "cut down" device is used to release the parachute and payload before the balloon bursts to avoid the possibility of parachute entanglement.

Depending on the balloons rating and the amount of helium used, these balloons can achieve altitudes of over 100,000 ft. The view at this height is quite impressive as seen in the photograph below.



At just over 100,000 feet over south-central Iowa, looking southeast. Photo was taken during [NSTAR Flight O2-F](#) on November 2, 2002.

Credit: Nebraska Stratospheric Amateur Radio website

A typical flight last approximately two hours and covers 50 to 100 miles depending on the wind. There have been recorded much longer flights such as one that started in Nebraska and ended in Fort Wayne, Indiana. In a normal flight profile, the balloon will take approximately one hour to reach maximum altitude and an hour to return under chute.

Balloons

There are two manufacturers of latex weather balloons, Kaysam and Kaymont. Most launches use one of two common balloon sizes, 800 gram or 1200 gram. An 800-gram balloon will lift a 3lb to 4lb payload to 100,000 ft. A 1200-gram balloon will carry a 6lb payload to the same altitude. The cost of a 1200-gram balloon costs around \$50.

The going rate for a tank of helium is around \$40 to \$80. One K or T sized tank of helium will fill a 1200-gram balloon. The combined cost of the helium and the balloon puts the total expendable cost of a launch in the area of \$90 to \$130 range.

Regulations

Balloon launches are subject to regulation under Part 101, Sub chapter F, Air Traffic and General Operating Rules, of Title 14 of the Code of Federal Regulations. For balloon launches containing payloads under four pounds some basic rules need to be followed. However, commonsense dictates that it would not be a good idea to launch a balloon containing a four-pound payload anywhere around O'Hare.

For balloon launches containing payloads that weigh between four to six pounds, the same basic rules apply and FAA notification is required. Notification is a straightforward process requiring a minimum of paper work and no specific FAA approval.

For payloads over six pounds, an FAA waiver is required. Filing a waiver is more complex, requiring a higher degree of safety, notification, and coordination with the FAA. A waiver is a grant of specific FAA approval to launch. Waivers are obtained by following very specific rules and requirements.

Payloads

An insulated payload container is necessary given the extreme temperatures of -90 degrees Fahrenheit at altitude. Durable foam containers or small nylon covered cooler are typically used.

Payload possibilities are endless, limited only by the lift capabilities of the balloon used and regulations. The low cost and small size of today's vhf and uhf electronics make it easy to keep payload weights down. Batteries that tolerate cold and provide a high power to weight ratio such as lithium ion and lithium polymer are used as payload power sources.

Given the altitude the payloads achieve, only minimal RF output power is required. Many payload use output power as low as 350mw. At maximum altitude and depending on terrain, the radio footprint can cover a radius of 300 miles.

An APRS transmitter coupled to a GPS is one of the most common payload items used today. An APRS tracking system makes it easy to locate where the balloon is in flight. One of the more interesting things I have learned is that most GPS units do not work over altitudes of 60K feet. Apparently our government is not interested in making it easy for our enemies to develop GPS guided ICBMs. A small number of GPS that do work at altitudes above 60K feet appear to limit their speed tracking capability to a level below that of a guided missile. Because of the important tracking role of APRS, many flights carry an additional APRS tracker system. Redundancy is a good thing.

In addition to an APRS tracker payload, most flights carry a beacon with a CW ID er. This can be useful for locating the payload on the ground. Can you say fox hunt?

I do not think any flight would be complete without some kind of video recording device in the payload bay to record the view from 100,000 ft. Many flights use a

simple digital camera connected to a timing device. Some of the more sophisticated system use tilting devices to alter the aim of the camera. Some of the more daring flyers send their expensive digital video recorder along for the ride.

Beyond the common payload items listed above, the sky, RFI, and weight, is the limit. Simplex repeaters, cross-band repeaters, and ATV systems have all made flights.

Organizations

Many organizations around the country sponsor balloon flights. I have not found any active organizations in Illinois but there does appear to be an active organization in Wisconsin (Near Space Sciences - www.mwt.net/~mayen1/school.html). Not surprisingly, the majority of active organizations are located in the flatlands of Iowa, Kansas, Nebraska, and the east slope of Colorado.

For the past couple of years, these organizations have gathered during the summer for the Great Plains Super Launch. This year they will gather July 1st and 2nd in Omaha, Nebraska. The first day features a seminar, followed by a balloon launch the next day. There are currently eight confirmed groups launching and six tentative groups. For more information go to: www.nstar.org/GPSL2005/index.htm. This would be a good opportunity to learn more about ARHAB balloon flying and opportunity to see and participate in a launch.

Kent Ochs W9KAO



VE TESTING RESULTS

NEXT EXAMS:

**March 1, 2008,
April 5, 2008**

Park District CRC ; Sr. Lounge.

RESULTS FOR FEBRUARY 2, 2008, TEST SESSION:

CLASS	NUMBER TESTED	NEW LICENSE or UPGRADE
Technician	3	3
General	1	1
Extra	1	1
	5	5

NEW LICENSES:

**** **TECHNICIAN** ****

Brian Walker KC9MVB
 Michael Hudec KC9MVC
 James Kristufek KC9MVD

UPGRADES:

**** **GENERAL** ****

Lyle Butler KC9MSW

**** **EXTRA** ****

Randall Fry KC9MSU

The SARC-sponsored VE exam sessions are held at 9:00 a.m. on the first Saturday of each month (unless it is a holiday or advised to the contrary by Schaumburg Park District) at **Schaumburg Community Rec Center (CRC)**; 505 N. Springinsguth Road; Schaumburg, IL. The CRC is located at the S.E. corner of Springinsguth and Bode Road. Park in the North lot and enter through the North doors. Testing will be in the Senior Lounge just inside the doors. Signs will be posted to guide the way to the room.

The fee for taking a VE exam is \$14.00.

According to the FCC, the test fee allows an examinee one attempt to pass or fail each of the four examination elements. In addition, the order in which the examination elements are taken is not restricted; they may be taken out of sequence.

As in the past, an identical fee will be assessed to any applicant who fails an exam and wants to retest at the same session. The only condition is that the same exam (identical set of questions) cannot be given to the applicant. Since all our exams are unique, this is not a problem at our sessions.

Larry Carr NO9A
 W5YI-VEC CVE & Test Session Manager
 847-593-8658
 E mail: NO9A@ARRL.NET



**Schaumburg Amateur Radio Club
Monthly Treasurer's Report
February 2008**

Beginning Balance	\$1,706.13
Expenses	
RHG Printing	\$41.60
RHG Postage 3 months	\$150.00
Repeater Phone (\$27.85 & \$6.53)	\$ 34.38
Total Expenses	\$225.98
Deposits	
Dues Receipts	\$75.00
50/50 Event	\$18.00
Total Receipts	\$93.00
Total Cash On Hand; All Bills Paid	\$1,573.15

You might be a ham if.....

1. Your wife said "Lets go see Aunt Anna."
And you thought she said, "Antenna!"
2. Your wife said "Could you cut the grass?"
And you thought she said, "Pound the brass!"
3. Your wife said "We've been invited to breakfast."
And you thought she said, "Ham Fest!"
4. Your wife said "Something is wrong with the check book."
And you thought she said, "Log Book!"
5. Your wife said "Is my seam straight?"
And you thought she said, "Is my beam straight?"

HOW TO COOK A HAM

Ingredients:

- 1 Ham, fully seasoned, (Tech, General or Higher)
- 1 Parabolic Reflector (100ft Diameter)
- 1 Megawatt Transmitter
- 1 FCC (Experimental Permit)
- 1 Pound Brown Sugar

Procedure:

- Place ham into main lobe of dish.
- Cover with brown sugar; move back.
- Tune transmitter to 100GHz CW.
- Apply full power until eyes of ham start glowing green or any other color for that matter.
- Continue roasting until he yells I'M QRT!

2008 SARC OFFICERS

President: John Bettasso	AJ9ON 224 805-0342
Vice Pres.: Phil Sawicki	N9IQ
Secretary: Bob McIntyre	AF9U
Treasurer: Cliff Sowka	K9QD
Director: Bill Smead	K9IIM 847 934-1817
Director: Cliff Sowka	K9QD
Director: Jim Kempe	KC9LWO
Director: Bruce Widenhoefer	KB9JEJ
Director: Mark Deelsnyder	KB9VHA 847 885-3157

Schaumburg Amateur Radio Club
P.O. Box 68251
Schaumburg, IL. 60168-0251



Deliver To:



Thursday Night 9:00 Net

S.A.R.C. Repeater

**145.230 MHz - 600 kHz
PL=107.2**

**442.275 MHz +5 MHz
PL=114.8 Hz**

Don't forget to check into the net! It will only take a minute and will let other club members know how you sound on the club repeater. The net features current club news, weekly NEWSLINE, news from other clubs and (of course) the swap-and-shop. Encourage your friends who are not yet members to check in with as well. Keep in mind that this is an open net and we encourage everyone to check in. See you Thursday at 9p.m.

The Schaumburg Amateur Radio Club, Inc., is organized as a general not-for-profit corporation in the State of Illinois to

render public service whenever applicable to the needs of the community and further various pursuits of amateur radio as a hobby. Meetings are generally held on the third Thursday of each month. Visitors are **always** welcome.

Please send all submissions for the Radio Hill Gazette to the following address:
SCHAUMBURG AMATEUR RADIO CLUB, INC. 790 Washington Blvd. Hoffman Estates, IL 60169-3077

Or E-mail to: sarc-rhg@comcast.net

We solicit letters, articles, news items, quizzes, advertisements, suggestions, and criticism -- plus anything else you can think of, including ideas to improve the RHG!

The editor reserves the right to edit submissions due to size or formatting limitations. S.A.R.C. shares newsletters with a number of other clubs. We scrutinize their publications very closely to make sure that we do not infringe on any copyrights. As a matter of form, we try to acknowledge all prior sources. Unless otherwise clearly identified as copyright protected, all material in the RHG may be used when due credit is given to the author and to SARC.

SARC is a recognized ARRL Special Services Organization.

The Schaumburg Amateur Radio Club publishes the Radio Hill Gazette monthly.

Opinions expressed herein are those of the contributors and not necessarily those of the Schaumburg Amateur Radio Club. All contents of the Radio Hill Gazette, except where noted, are ©2007 of the Schaumburg Amateur Radio Club Inc. Articles and other material may only be copied when proper credit is given to both the author and to SARC

SARC Home Page URL

<http://n9rjv.org>

