Amateur Radio High Altitude Ballooning Presentation – April 14, 2012

By Rick Brennan KØBR

I was licensed in February 2004 so I’m relatively new to the hobby. In 2008, I became president of the Stillwater Amateur Radio association. During that time I tried to find an activity to get younger people interested in the hobby. I found Amateur Radio High Altitude Ballooning and was very intrigued by the pictures from Near Space. I started looking for an amateur radio group in Minnesota or western Wisconsin that was performing this activity. After months of unsuccessful searching I was put in contact with James Flaten PhD. at the University of Minnesota. I asked to go along on one of their flights and was invited to watch but was swiftly put to work. I quickly realized they were not using their amateur radio equipment to the fullest extent which made tracking and recovery of the Near Space experiments not as easy as it could be. On the next flight I attended, I used SARA club equipment to track the capsules and had quite an adventure.

Announcements

Monthly Meeting
Saturday 14 April 2012
Boutwells Landing
Auditorium A

- Pre-meeting Breakfast & Coffee - 7:30 at Joseph’s Restaurant.
- Meeting - 9:00am
- Rick, KØBR presents a program on ARHAB (Amateur Radio high altitude ballooning).

SARA Nets & Roundtables

HF Phone Roundtable Daily except
Tuesday & Thursday @ 20:00 Local on
1.903 MHz with alternate 1.955 MHz.

SARA Repeater Weekly Net Wednesday
21:00 Local WØJH Repeater
147.060 MHz + 114.8 Hz tone

HF RVSSN CW Tuesday 19:00 Local
3.572 MHz +/- QRM

Handiham Nets

VHF/UHF Daily 11:00 Local on the NØBVE Repeater 145.450- & 444.65- (114.8),
Echolink HANDIHAM Node 494492.
IRLP Node 9008 & WIRES #1427.
NCS varies. Sunday session is trivia net.

HF CW Friday 08:00 CST, 7.112 MHz
informal slow speed CW Net.
W8IRT NCS. Email: w8irt@aol.com
Letter from the Prez
April 2012

As I write this, we’re going into the last week of March. What fine weather we’ve had! I only hope it’s not indicative of what might be coming this summer: extremely hot weather (accompanied by violent storms). If you’re still suffering from being ‘cooped up’ this past winter, pick one or more of the Hamfests that are listed on our website that will be coming up during the next few months. They’re guaranteed to offer you good conversation, a ‘day away from the normal ‘digs’, and quite possibly a new ‘addition’ to your shack!

This month, we’re going to have Rick Brennan KØBR present a program to us on High Altitude Ballooning. He and the group known as the ‘WMARC’ (Wild Midwest Amateur Radio Club) have been assisting U of M Professor Dr. James Flaten and his students with their launches of high altitude weather balloons during the past two years. Rick has designed and built the payloads for many of the balloon launches. Last summer, Rick and the WMARC financed their own balloon launch that was successful. APRS was used to track the balloons from Minnesota across Wisconsin. Rick will bring one or more of the payloads he has designed that have been used and successfully recovered. He also plans on showing a power point presentation that will include photos captured by cameras that have been carried in the payloads (pods) of the balloons. All in all, it will prove to be an interesting program and one you won’t want to miss.

There is much to look forward to this year. We’re planning a special program for the May meeting and have Field Day coming up in June. (volunteers can speak up now hihi). Dave Glas WØOXB is planning a Special Event to White Rock for the second week of July and that’s just the half of this year!

We are unable to repeat our Foxhunts this year as Ron Harshberger K3PID will not have the time due to work constraints. If there are any other members who would like to step forward and chair a Foxhunt, we would welcome the challenge!

My 160 meter antenna came almost all the way down on one end due to the ice storm. The weight of the ice broke off many branches, some of which fell across one end. I’ve got to say that the 13 gauge steel clad copper wire (insulated) I used held up well and didn’t break on the weight of the branches. I was able to take the broken branches off the wire and then reposition the wire higher up in the tree. Sometime later this week, I’ll have to shoot another line over the upper part of the tree to re-position the front yard portion of my inverted vee.

Enjoy the weather and I hope to see you at

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No fooling, it’s April already. I didn’t hit the lucky numbers on the mega-lottery drawing. I’m not surprised cuz I didn’t buy a lotto ticket! I guess my chances weren’t much worse than those who did. I don’t want to turn my newsletter contribution into an “Ask Dave”, a “Q & A” or “Dear Blabby” column but I decided this month to answer a few commonly asked questions I’ve received over recent years (club members' names disguised to protect identities). So, here goes:

Dear OXB: My wife doesn’t respect me cuz she thinks I hang out with weird people. What should I do? – QRP Esteem

Dear QRP: First things first, you must realize it’s only correct and proper to call her YOUR XYL. If you’ve been married less than ~3 years you may want to use YL – just in case you’re ever asked to explain the abbreviation/ acronym. Man-up OM, bite the bullet and understand you indeed hang with weird folks. And, like it or not, YOU probably are just as weird as your fellow hams! I strongly suggest you convince your XYL to get her license and join the club.

Dear OXB: Every time I want to go to Radio City to buy some new radio gear, my wife says “No way José!” – Sol

Dear José, Sol or QRZ: Read my response to QRP Esteem. Next, explain to your XYL that the sunspot cycle (cycle #24) will soon be here and you must do all you can to prepare for it. Make sure you mention it’s our civilian duty to do our part to usher in these naturally occurring, eleven year events. Some hobbyists have even gone as far as saying the FCC mandates our support and participation in global sunspot recognition. You wouldn’t want to break the law, would you?!

Dear OXB: It seems like my XYL always calls me to dinner about the time I’m ready to pounce on some rare DX. Why does she do this and what should I do? – Listening Up

Dear Listening: This happens, OM. But as SARA’s notable ARRL DXCC Honor Role “DX Master” Marv Mahre (WØMGI) says, “There’s very little that’s as important as working those rare ones; except maybe making a SARA sked.” Marv has even been known to skip eating for days on end when he’s in hot pursuit of his prey! I guess you’ll have to ask yourself how important is food when a P5 station is operating? Like most normal hams, you can and probably should, skip a meal or two every once in awhile. Furthermore, if you ask the XYL for permission to get your dinner delivered into the shack, be forewarned it could be “served up” all over your Heil® Pro headset! (IOW: You may be better off pretending you never hear the call to dinner – and pay the price later! Some have found a little begging for forgiveness afterward helps! YMMV)

Dear OXB: I’ve got a tower with an old tri-band beam but can only operate on 20m, 15m and 10m. How can I get a good, multi-band antenna that really “honks” on QRP? – Non-ferrous Al

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the General Meeting this Saturday. As usual, it will be held in auditorium ‘A’ of Boutwells Landing (‘north’ building complex). Don’t forget to take an ‘early detour’ and join us at Joseph’s Restaurant for the pre-meeting breakfast.

73,
Keith Miller - AGØH  SARA President

New “OXB Special™” Available!

A new, portable WØOXB multi-band antenna comes twenty years after the introduction of the very popular OXB center-fed Zepp antenna. As most SARA members and others have come to know, the “OXB Special™” has been a great performer on 160 – 6m. But because it requires a large area and exhibits a rather large/long footprint, not everyone can install one at their QTH. (If you don’t have ~180’ of airspace available, the antenna’s bandwidth is reduced.)

With an appetite for portable operation and the encouragement of friends, OXB Dave has put his antenna design skills to work to produce a world class, all-band, portable/mobile antenna capable of full-legal power output! The “OXB Compact Special™” (OXB CS™) antenna as it’s called, will be unveiled April 14 at SARA’s Monthly Saturday meeting. According to Dave Glas (WØOXB), “Patents are pending and a manufacturing agreement has been reached with the recently reestablished Heath Corporation from Benton Harbor, Michigan. The design is unique and I can’t talk much about the antenna’s construction. Thru a proprietary method of micro-miniature surface enhancement (MMSE), titanium rods are machined to resonate at 1.903 MHz. Between Heath’s manufacturing capabilities and my OXB brand recognition, we expect this to be a hot-selling item.” According to news on the ARRL’s web site, the “OXB Compact Special™” antenna will be on display at Dayton Hamvention® 2012.

Made of machined titanium, this unique antenna’s matching network uses flux capacitance to achieve 50Ω impedance.

The single antenna element exhibits the same effective radiation area as a 250’ dipole!
Center-fed Zepp Antenna Installation Basics

Survey the area to find a good spot for your antenna.

After you find a high location (like a tree or tower); raise the antenna elements and feedline.

A balun connects the BALanced to the UNbalanced feedlines.

It’s always safer to work with a buddy than by yourself. Important: NEVER locate the antenna near overhead power lines!!

One of our novice assistants was stripping wire insulation when his knife slipped and cut his hand. If your First Aid Kit isn't enough; a trip to the E.R. may be in order! Call 911 for serious injury!!

After the antenna is up and tuning is underway, it’s time to celebrate with a beer – or three!

The U of MN had a mid-air failure and the entire system fell from over 65,000 feet up. Using my mobile radio and an HT for RDF, I found the APRS transponder in a swamp. The U of MN had no idea where it had fallen. Since that time, SARA has worked with and assisted the U of MN on many of their Near Space flights. The U of MN has allowed us to fly our own transponder and experiments on their balloons and we in turn help them recover their experiments. We have helped them learn how to use their equipment to reduce the risk of lost experiments.

They have even started building copies of the SARA APRS transponder they have nicknamed SARApod (Saurapod) as in the large long neck dinosaurs. Every flight is an adventure. We learn something new, get incredible photos, and most importantly, we get to use our radios. It’s geocaching and fox hunting to space and back. In fall of 2011, a group of us sent our own balloon up and had quite an adventure. On our flight was a new pod called the CUBE and 2m/70cm cross band repeater.
Dear Non-ferrous: Sorry to hear you only run 100 watts, OM. But, it’s really too bad you didn’t ask me about this before you spent thousands of dollars on your antenna system! If you ask me (well, I guess you did!), the infamous “Center-fed Zepp” (aka “OXB Special™”) is the only way to go. If you can spread at least 180’ of antenna wire across your yard (NOT under, over or near overhead power lines!), you should be able to efficiently radiate RF on 160 – 6m. The complete antenna system should cost less than $300; including snacks, beer, trip to the E.R., etc. for the SARA installation crew! Contact one of SARA’s officers or the Activities and Events Chair to make arrangements for your very own, officially-endorsed “OXB Special™” antenna! It’s not too late to join dozens of happy club members with this classic antenna. (Note: Do not expect yours to exceed 300’ in length.) Heck, you might even decide to sell your tower and beam so you can buy a new Icom HF transceiver with the extra $$!

Dear OXB: Every time I operate CW, my wrist and arm get tired; they begin to hurt after an hour. What am I doing wrong? – CW Über Alles

Dear Avery: So like the doctor said, “If it hurts when you do that; DON’T do that anymore!” But seriously, it could be your technique. You must have good posture and enough room to rest your arm completely on the desk/table. Keep your wrist flexible and try not to tense up. Take rest breaks and stretch whenever possible. I would be remiss if I didn’t suggest you GET A DARN MICROPHONE! Then, put your key/paddle in a nice safe place in your desk or storage shelf and leave it there!

OK, that’s about all the advice I can muster up this month. I wonder if you learned anything. If you have questions about operating, setting up your station, raising antennas, emergency operation or anything else, send ‘em in. If I can’t respond, I’m sure I can find someone in the club who will.

73 es CUL,
Dave (WØOXB)

OXBism: Miniaturization can lead to big breakthroughs in radio science!

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COMING ATTRACTIONS

April 14 - Regular meeting
April 26 - VE testing
April 30 - Deadline for SIGNALS articles
May 12 - Regular meeting
June 7 - VE testing at radio camp
June 23-24 - Field Day weekend
The 80 meter frequency is working out well. Everyone can hear everyone else and there isn’t any QRN to speak of. The noise level might pick up as summer moves in, but we probably won’t run through the summer months since there is way too much out door stuff to occupy hams in the summer. We have had as many as 5 check-ins and everyone gets a turn or two (no administrative turns here!)

Come on in; the water is fine! Tuesdays at 19:00 Local, 3.572 MHz +/- QRN (There hasn’t been any QRN yet!)

Also, Check out these CW sites:

◇ www.fists.org (The FISTS CW club)
◇ www.fpqrp.org (Flying Pigs QRP CW Club)
◇ www.skccgroup.com (Straight Key Century Club)

73 & GUD CW K3PID

License Testing April 26

A SARA VE testing session is scheduled to be held at Boutwells Landing, with registration and check-in to begin at 5:30pm with exams to begin at 6pm.

Pre-registration is encouraged to aid us in knowing how many examinees to expect, but is not required. Please park and enter via the north (Gables) side of the building.

The address is:

13575 58th St N
Oak Park Heights, MN 55082

There is an information desk on the right side of the lobby as you enter the building, and a nearby stairway that will take you down one floor to the exam room.

Please contact me with questions you may have regarding the exam process. Shel NØDRX 651-439-1272 n0drx@hotmail.com

Pick the best caption!

1. I was hoping there was a ham sandwich in that box. All I found was some wires and stuff.
2. Let’s see... Red 9 on the black 10...
3. Dang computers!
To All Dakota Division Amateurs,

Many of you are already aware that a recently enacted law requires the FCC to study impediments to Amateur Radio’s role in emergency and disaster communications. The ARRL is putting together a response on behalf of US amateurs, and has asked for input from all hams.

The areas of concern here are the limitations that are placed on a property when it is purchased, either as part of the deed of sale or by restrictions imposed by the neighborhood/homeowner’s association. A web site has been set up specifically to accept your information on:

www.arrl.org/ccr-study-information

Note that a respondent need not be a League member.

There is a very short time period in which to respond. **You are requested to respond no later than April 25, 2012.** This short deadline is the result of the timeline imposed by FCC in response to the deadline in the new law.

If you have additional questions or concerns, you can contact me at k0gw@arrl.org

Thanks in advance for whatever you are able to do, and 73,

Greg Widin, KØGW
ARRL Dakota Division Director

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**SARA Needs YOU!**

Get involved,
Make a Difference,
Have fun!