



The St. Cloud Amateur Radio Club

www.w0sv.org



NOVEMBER ANNUAL MEETING, MEAL & AUCTION

FRIDAY, NOVEMBER 18TH

**WoSV Clubhouse, Meeting at 6:00 p.m.,
then Dinner (\$10 per plate) and Auction to follow!**

**Please RSVP for the meal to Art, WA0NJR by email to
wa0njr@hotmail.com by November 14th.**

Bring your Family and Friends with too, all are welcome!

**Please bring items to donate to the club for the auction,
remember some cash so you can get some great deals too!**

Dates to Remember:

November:

Annual Meeting 18th

Dec Gen Meeting 15th

Message from the President - The Prez Sez...

The great pumpkin rides again. This will be the 2nd season in a row where we have had no little ghosts or goblins knock at the door of the WA0NJR QTH. Boy when I was a kid we brought grocery bags full home on such a night.

The HF bands are looking very very good. Even 10 meters has been open. Sunday, I took down my random loop antenna from the attic crawl space and I replaced it with a G5RV 105 Ft with 33 foot twin lead feeder. 1st contact was east coast and second was an Italian station who came back to me on my first try, this was on 20 meters ssb, next try was on 15meter and that was 2

more east coast stations.

The G5RV was made up of 5 strand electric horse fence ribbon just stapled up to the wood rafters with a common paper stapler. Also the wire is anything but straight. It zig-zags all over without crossing over itself. It tunes up with my built in tuner even on 75 Mtrs. It is so much better than my random loop. I got the itch for the G5RV after I heard that Jack W0MBD has one in his attic. I'm also experimenting with building a small magnetic tunable loop using 5/8 copper coil tubing. Heard some good reports on the MFJ tunable fanbox and super loop but thought about building one 1st before buying.

I found the repair materials for the clubhouse beam and will try to get it put back together and tuned. The Echolink is again working at the clubhouse. Try the link via 147.420 when you get the chance, it is really a fun addition to Ham Radio.

Hope to see everyone at the annual dinner and auction. Bring in an item or two, need not be ham radio related or even new, just something that you think others might like to bid on. Come ready to have a good time!

*CUL & 73,
Your Pres,
Art Carlson, WA0NJR*

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October General Meeting Minutes

The October 20th meeting was called to order by President Art Carlson, WAONJR at 7:00 p.m.

The Treasurer's report was as follows:

Checking	3,100.30
Savings	1,211.37
Rest. Savings	238.98
CD	<u>1,033.84</u>
Total Balance of	\$5,584.49

The Treasurer's report was approved.

The September minutes were approved as written in the October Newsletter.

Work continues on the beam antenna repair, Art and Dave Leigh, WODZW had done some repair work on the antenna, but the new insulator has already been stressed just in the process of re-assembling it. Discussion took place as to modifications/improvements to the antenna preventing the insulator from breaking again in the future. It was also discussed if another antenna model may be better.

**Annual Meeting
is Friday,
November 18th**

The Annual meeting is in November, it will consist of a catered meal at the club building at 6:00 p.m., \$10 per plate, then a meeting and auction fundraiser. Please bring items for the fundraiser, ham related or not, new or used.

Nominations were taken to be placed on the ballot for the trustee position

to be voted on at the annual meeting. This year the only position for voting is 1 trustee position, Larry Snodgrass, KCOSMM 3 year term is up. Larry requested nomination and there were no others interested. Normally the November newsletter is mail through the postal service and includes the voting ballot, since there is only 1 nomination, voting will not take place and therefore November newsletter will only be distributed through the club email reflector.

**Echolink station
improvements**

Art reported that he turned in some old computer CRT monitors from the club to Best Buy and with the proceeds purchased a headset for the operating station. Mike Parker, KCOUEA donated a lawn mower to the club.

Recently Art has been working on the Echolink station at the club house, he made some repairs and improvements and the audio is better. Lenny Hopkins, KCONZF has is donating a computer to the club to replace the existing echolink computer. The old computer screen is posing a problem with the newer computer, we are in need of a flat panel screen to update the computer.

Hamfest is set for February 18th 2012. Scott Hall, NOUV indicated that he and his wife Mary would like someone else to head up the kitchen. They have done it for a number of years and it's time for someone else to take the lead.

**Need lead person
for Hamfest
Kitchen operations**

Phil Jorgensen, NIARM asked for help once he is moved to get his antenna moved from his old place to his new place. Mike, KCOUEA and Phil have been working on a method of members having access to up to date contact information for club members on the club website, the information will be password protected and only accessible by club members.

Jack Maus, WOMBD may hold a class and test in December, depending on amount of interest.

Bryant Julstrom, KCOZNG indicated he is Electric Radio magazine and he is going to help document some radio equipment that dates back to the 30's.

Chris shared about a problem he had with a new 857 Yaesu radio and the DTMF mic he purchased together, turns out the DTMF mic was the wrong one or defective and caused problems with his radio.

Rich Josephson, WOELT showed his portable antenna with a versatile mount made from the clamp portion of a small vice sold at Menards, it provides a ball type pivot for the mount, this antenna he can take with him on his motorcycle and mount it in various ways as needed.

Gary Loomis, WBOPJE won the \$5 door prize.

At 8:06 the meeting adjourned.

Respectfully submitted by Mike Parker, KCOUEA.



**Brass Racer EK-1 (w/built-in keyer)
1982-1996**

From Vibroplex.com

“Key” members of the Month!

Thank You to Lenny Hopkins, KCONZF for donating another computer to the club and setting it up to replace the Echolink station computer! Thank You to Art for repairing and improving the audio of the echolink radio!

Thank You to Mike Parker, KCOUEA for the donation of a lawn mower to the club!

Thank You to Art Carlson, WAONJR and Dave Leigh, WODZW for working on the beam antenna repair at the club building!

If you have suggestions or additions to the monthly newsletter or to join the club's email reflector, please email Mike, KCOUEA, the newsletter editor at kc0uea@gmail.com



Volunteer Opportunities

Tasks at our Club Building

Install Loop Antenna
Outdoor Maintenance

Understanding the Repeaters

Art would like to educate more people about the repeater equipment and the troubleshooting and repair of repeater equipment so that others in the club have more technical knowledge and abilities.

Weblinks of Interest

www.echolink.org

With our recent discussion and focus on the Echolink station at the club building, here is the official website for your reference.

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<http://groups.yahoo.com/group/echolink>

If the official Echolink doesn't provide answers to your questions or echolink troubles, then your answer can most likely be found here.

Current Board Members

President

Art Carlson—WAONJR

Vice President

Dave Leigh - WODZW

Treasurer

Jerry Dahlager - KCOWCF

Secretary

Mike Parker - KCOUEA

Trustees

Tom Weyhrauch - KD0DOS (2011 - 13)

Harold Hoffman - KCOFAX (2010 - 12)

Larry Snodgrass - KCOSMM (2009 - 11)

Past President

Scott Hall - N0UV

Webmaster

Phil Jorgensen - N1ARM



Mike, Dave, Art, Jerry

October Board Meeting Minutes

The October 13th board meeting was called to order by President Art Carlson, WAONJR at 7:00 p.m.

The Treasurer's report was as follows:

Checking	3,100.30
Savings	1,211.37
Rest. Savings	238.98
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The Treasurer's report was approved.

Art reported that he turned in some old computer CRT monitors from the club to Best Buy and with the proceeds purchased a headset for the operating station.

Art has recently been working on the echolink station, he replaced the receiver and cleaned up some wiring. Art also has provided a pizza oven to have at the club building.

Art and Dave Leigh, WODZW reported that they had done some repair work on the antenna, but the new insulator has already been stressed

just in the process of re-assembling it. They are recommending modifying the antenna to prevent problems in the future. It was also discussed if another antenna model may be better.

The wife of a silent key who was a member of the club had asked the club to help take down the tower. The club doesn't feel it can provide the assistance due the type and construction of the tower. We don't have the equipment (gin pole, hoisting and climbing gear) necessary to do this safely.

The Annual meeting is in November, it will consist of a catered meal at the club building at 6:00 p.m., \$10 per plate, then a meeting and auction fundraiser.

Hamfest is set for February 18th 2012. Scott Hall, NOUV indicated that he and his wife Mary would like someone else to head up the kitchen. They have done it for a number of years and it's time for someone else to take the lead. Dave Leigh, WODZW will take care of notifying ARRL/QST magazine to have it published.

As an information piece, Lee Shipman, NOFTH recently had knee surgery, we hope for a good recovery for him.

Mike, KCOUEA and Phil Jorgensen, NIARM have been working on a method of members having access to up to date contact information for club members on the club website, the information will be password protected and only accessible by club members.

The November newsletter is the one newsletter each year that is mailed through the post office to members, this is because it includes the voting ballot for the Annual meeting. This newsletter will only be mailed to 2011 dues paying members of the club as they are the ones who having voting rights.

Mike Parker, KCOUEA has a lawn mower to donate to the club.

At 8:08 the meeting adjourned.

Respectfully submitted by Mike Parker, KCOUEA.

Local Ham Offering his Station for your use

I want to invite people to use my Echolink Link. It's only been on the air for about a month now. I put it on the air to encourage more Ham Radio activity.

Right now the antenna is up only 23'. I hope to get it up to 40' before winter comes back. It's also only running 20 watts cause of it's low height. No tone at this time.

Feel free to connect with it as often as you wish & join in our QSO's anytime. So far we only have a small group of users, but you're welcome to chat with us anytime on Echolink & 146.540.

On Echolink : KB0WWJ-L on 146.540

Node : 616197

73's from the KB0WWJ, Rick Houle Link in Little Falls, MN

Please email the newsletter editor at kcOuea@gmail.com if you have any information you would like published in the newsletter, such as a station you would like to offer other hams the use of. This echolink link information will be listed, beginning next month, on the last page of the newsletter with the local repeater information.

Breaking the Amateur Radio Balloon Altitude Record

11/03/2011

By Don Ferguson, KD6IRE

The challenges of pursuing and capturing the World Record for ARHAB, "Amateur Radio High Altitude Balloons."

Ron Meadows, K6RPT, has always had a fascination with flight and science. After seeing a PBS special, he became interested in high altitude ballooning and how it could be something he would enjoy doing himself. Ron is the owner of a professional pool and equipment maintenance company. His son, Lee Meadows, works with Ron to maintain a large number of pools in the San Jose, California area.

Ham radio gives Ron access to many technical contacts in the San Jose area and provides support for his balloon activities.

On September 12, 2009 Ron, with support of his son Lee and Ron's father, Frank, KA6TVU, launched the first of what would become many balloons. This one carried a payload containing a camera, a simplex repeater and an APRS tracking GPS and radio. This project was named CNSP-01, for "California Near Space Project." It is also the name of Ron's website and the large team of friends who support him and Lee.



Lee Meadows checks the floating arm scale for lift.

The pictures returned were excellent and fueled the idea to do other similar projects. Here is a link to those first pictures: <http://www.californianearspaceproject.com/photos.K6RPT-10.html>.

After the success of this launch, Ron decided to repeat the process but add a crossband 2 m x 70 cm amateur repeater and get some more great pictures from Near Space. On March 27, 2010 this second balloon was another success that traveled to 100,442 feet AGL and provided a couple of hours of excellent radio contacts covering central California from Bakersfield to Chico. Again the pictures were beautiful with views from the Pacific Coast to the Sierras.

World Record Attempt

It was at this point that Ron decided to launch a world record altitude attempt. Ron and Lee made several attempts with different sized balloons, both helium and hydrogen, and each of these flights provided additional information on the effect of neck lift (the lift needed to carry the payload) to payload weight. Also, they were able to keep track of the effectiveness of different balloon size and manufacturers from 1500 to 3000 grams.

Other lessons learned are related to the fill process and how to eliminate the effect of the hose weight from the lift measurement. Ron constructed a balanced fill fixture that allows very accurate lift measurements while filling the balloon.

On some early flights radio performance was an issue due to traffic collisions and antenna effectiveness. The antenna was redesigned to a half-wave center-fed dipole and the TNC was reprogrammed to transmit every 31 seconds. The antenna design significantly increased the gain and signal strength and the RF field was measured before each flight. The TNC timing gives much better altitude resolution and eliminates recurring collisions with APRS stations transmitting at regular minute intervals. There is no receiver onboard to see if the frequency is clear before transmitting, so this timing causes each packet to occur at a one second time differential within the minute.

Other considerations include the size and number of batteries and the cold voltage performance of the battery. Ron measures the battery at subzero temperatures to ensure it will last longer than the expected flight and recovery.

Probably the most significant part of the prelaunch process is the calculation of initial fill/lift to successfully carry the payload to maximum altitude before bursting and without stalling at some altitude before bursting. For the October 23, 2011 record-breaking flight, Lee made all the decisions related to fill and led the team during the launch process. Ron and the team supported all his decisions and deserve significant credit for the success and the world record. CNSP-10 reached 136,545 feet, or 25.86 miles, AGL.

I know everyone on the team understands this accomplishment is a total team effort and all of the people involved in past flights have contributed to the team's success in achieving the ARHAB World Record. This includes all of the people who tracked and recovered earlier flights, specifically the Stratofox Team, to allow reuse of equipment and analysis of failures.

More flights are planned for different experiments so keep track by following the updates on the California Near Space Project web site, <http://www.californianearspaceproject.com/>.

Article shared from ARRL Wbeepage: <http://www.arrl.org/news/breaking-the-amateur-radio-balloon-altitude-record>

Local Area Repeater Details

<u>Repeater</u>	<u>Offset</u>	<u>Tone</u>	<u>Location</u>	<u>Information</u>
147.015	+	PL 100.0	Collegeville, (St Johns)	WOSV—Superlink Access w/Remote Rx at Cold Spring
146.940	—	No Tone (Soon 100 Hz)	Sauk Rapids	WOSV—Autopatch
147.420	Simplex	No Tone	Echolink	KCOEQF—See DTMF commands at www.echolink.org
146.835	—	PL 85.4	St. Cloud	
147.105	+	PL 85.4	Avon	
224.800	-	No Tone	St. Joseph	
444.350	+	No Tone	St. Cloud	
442.225	+	No Tone	St. Cloud Hospital	
443.650	+	PL 85.4	Avon	
145.270	-	No Tone	Paynesville,	
147.255	+	No Tone	Sauk Centre	
146.520	Simplex	No Tone	Nationwide Simplex	
146.640	Simplex	No Tone	Nationwide Simplex	

Temporarily Offline

Please contact the
kc0uea@gmail.com if you
 have more repeater
 information to publish here!



St. Cloud Amateur Radio Club

401 4th Street North
 Waite Park, MN 56387

Clubhouse Phone:
 320-255-1410

E-mail:
webinfo@w0sv.org

E-mail Reflector:
[http://groups.yahoo.com/
 group/scarcmn/](http://groups.yahoo.com/group/scarcmn/)

To send to the
 reflector and all those
 signed up for the reflector,
 send your email to:
scarcmn@yahoo.com

About the St. Cloud Amateur Radio Club

The St. Cloud Amateur Radio Club is 89 years strong! It all started back in 1921 with Robert "Bob" Witchen, WØSV, licensed as 9SV. The St. Cloud Radio Club call is registered as WØSV in honor of Bob Witchen, first licensed ham in the area. Since then, the club has grown by leaps and bounds serving in many useful ways among the surrounding tri-county area. For a more detailed history visit our website at: www.w0sv.org

