

**Northern Colorado Amateur Radio Club**  
P.O. Box 272956  
Fort Collins, CO 80527-2956

# **The Tribander**

The monthly Newsletter of the Northern Colorado Amateur Radio Club  
For MARCH 2012

Club Meetings are held on the 3<sup>rd</sup> Saturday of each month

**\* LOCATION for MARCH 17\***

**Golden Corral**  
1360 Sculptor Drive  
Loveland, Colorado

**Across the parking lot from Kohl's on East Eisenhower**

All (Friends, family& kids) are welcome and encouraged to attend.

Bring yourself and your appetite at 8:00 am.  
The Meeting begins at 9:00 am.

# NCARC Club Information

## ELECTED & VOTING OFFICERS and OFFICIALS

POSITION	NAME	CALL SIGN	PHONE	E-MAIL
President*	Chris McNair	KDØEGE	970-372-9842	president@ncarc.net
Vice President*	Willie Williams	W5WIW	970-454-3821	vp@ncarc.net
Secretary*	Jerry Williams	KE5INP	970-454-3821	secretary@ncarc.net
Treasurer*	Tim Cottam	WØTJC	970-225-6566	treasurer@ncarc.net
Station Trustee*	Tom Jungmeyer	K1TJ	970-484-8329	controlop@ncarc.net
Technical Committee	John Wells	KBØNE	970-214-1653	techchair@ncarc.net
Public Affairs Officer	Eugene Bentz	KI6MPA	970-371-2446	pao@ncarc.net
Member at Large	Bill Abbott	WBØZVE	970-232-8033	wb0zve@hotmail.com
Former President	Willis Whatley	WA5VRL		whatley@frii.com

\*Members of The Executive Committee

### Comittee contacts:

Newsletter Coordinator***	John Wells	KBØNE	970-568-7646	newsletter@ncarc.net
Hamfest Chair***	Charles Hess	KDØGMW	970-667-4357	hamfest@ncarc.net
Web Coordinator***	Eugene Bentz	KI6MPA	970-371-2446	Webadmin@ncarc.net
Interference Coordinator***	Justin King	NØAOL	970-290-9045	interference@ncarc.net

\*\*\*Appointed Non-Voting Club Official

## NCARC Repeaters

<b>W0UPS: 145.115 MHz</b> – (144.515 MHz Input) 100 Hz CTCSS Subtone (1* on, 0* off) Autopatch <b>Echolink Node 4236</b> (40-32.926N, 105-11.898W, 7229 ft) Horsetooth Mountain, west of Fort Collins, CO <b>ARES &amp; Skywarn nets.</b>
<b>W0UPS: 447.700 MHz</b> – (442.700 MHz input) 100 Hz CTCSS Subtone Located on Buckhorn Mountain. (GPS: 40.6169, -105.3274) , west of Fort Collins, CO
<b>W0UPS: 447.275 MHz</b> – (442.275 MHz input) 100 Hz CTCSS Subtone Autopatch (40-32.926N, 105-11.898W, 7229 ft) Horsetooth Mountain, west of Fort Collins, CO
<b>W0UPS: 224.520 MHz</b> – (222.920 MHz input) 100 Hz CTCSS Subtone (40-32.926N, 105-11.898W, 7229 ft) Horsetooth Mountain, west of Fort Collins, CO
<b>W0UPS: 146.625 MHz</b> – (146.025 MHz Input) 100 Hz CTCSS Subtone <b>[Will be relocated at some time... details as they become relevant]</b> (40-50.266N, 105-3.017W, 5600 ft) SW of the Rawhide Power Plant, 17.5 miles north of Fort Collins, CO
<b>W0UPS: 146.850 MHz</b> – (146.250 MHz Input) 100 Hz CTCSS Subtone (1* on, 0* off) (40-25.341N, 104-44.182 W) Greeley, CO
<b>W0UPS-5: 144.390 MHz</b> – APRS Digital Repeater (40-32.926N, 105-11.898W, about 7229 ft) Horsetooth Mountain, west of Fort Collins, CO
<b>W0UPS: 448.025 MHz</b> – (443.025 MHz Input) 100 Hz CTCSS Subtone <b>ARES Repeater</b> (40-26.650N, 104-59.370W, about 5192 ft) Budweiser Event Center on I-25 at MM259
<b>W0UPS: 145.205 MHz</b> – (144.605 MHz Input) 100 Hz CTCSS Located on Buckhorn Mountain. (GPS: 40.6169, -105.3274) Link to 224.840 by touch tone 10* - unlink with 11*
<b>W0UPS: 224.840 MHz</b> – (223.240 MHz Input) 100 Hz CTCSS Located on Buckhorn Mountain. (GPS: 40.6169, -105.3274) Link to 145.205 by touch tone 10* - unlink with 11*

## Nets

<b>ARES HF Net</b>	<b>Sunday</b>	<b>8:00 am</b>	<b>~3.81 MHZ LSB</b>
<b>Pine Beetle Net</b>	<b>Sunday</b>	<b>~9:00 am</b>	<b>145.205 MHz 447.700 MHz</b>
<b>ARES Statewide VHF Net</b>	<b>Sunday</b>	<b>8:00 PM</b>	<b>145.310 MHz</b>
<b>Central Colorado Traffic Net</b>	<b>Daily</b>	<b>7:30 pm</b>	<b>145.310 MHz</b>
<b>Tech Net</b>	<b>Wednesday</b>	<b>7:00 pm</b>	<b>145.115 MHz</b>
<b>ARES District 10 Information Net</b>	<b>Thursday</b>	<b>7:00 pm</b>	<b>145.115 MHz</b>

## Web Page

<http://www.ncarc.net>

## **NCARC Meeting Minutes**

February 18, 2012

The meeting was held at the Golden Corral Restaurant in Loveland. It was called to order at 9:00 by President Chris, KD0EGE. Introductions were done all around, with call letters, and dates of when their license was issued. There were 37 members present and 1 visitor.

**Secretary's Report:** There was no report - last month most of us were involved in putting on the Hamfest. Charles was asked to present his report of how things went. He said we did well, and everyone who came seemed to be having a good time. He also reminded us that he would not be chairing the committee next year, but would be glad to help whomever had that office next.

**Treasurer's Report:** Balance given as of February 3 was \$11,146.14. This included the checks paid and income received from the Hamfest. The change from last month was \$2394.78. There were 22 members who renewed their membership there at the Hamfest. Tim reminded us that we should renew before April 1.

**Technical Committee:** The linking project is still pending. Horsetooth location needs the Motorola, which will improve the reception.

**Interference Coordinator:** - We have yet to hear back from the FCC. The sign company has had workers grounding the signs, which has helped, but the problem is still present.

**PAO:** The KCOL project went well. Charles got some air time - he was interviewed by Al. Discussed the ½ Marathon and the full Marathon coming up this spring, and also the Ft. Collins Cycling event like last year. They are asking for volunteers to man the aid stations. Mention was made of the Boy Scouts organization, and that some of the adult leaders are interested in learning about ham activities, with having some programs on Ham Radio for their boys.

Eugene said he still has some ARES badges to hand out.

**Hamfest:** Charles said the hamfest went fine. He thanked all who did such a good job. He will not be running it next year, and has some information to give the next one to take over. He said we had 400 people come to see us, and Jerry Reynolds said there were several people who asked what to do to become hams. He had a couple of families ask about the tests. He recommended we expand the kid's table, and also asked for more materials to pass out. This might be a project for the Boy Scouts to participate in, something to work on a badge.

**Old Business:**

**Club Insurance:** Willie said this should be finalized soon.

**Clothing:** Willie showed the yellow (green) vest with the new lettering on it. The black shows up much better. We all agreed that future vests would have the black lettering on it.

**Field day:** Mention was made of the food table from last year. The food was well received, and a suggestion was made to have another table with stuff on it like at a swap meet.

Charles said we need to get the new hams together and describe our groups like ARES, etc. He said it might help them know a little more about what they are getting into.

**Program:** we watched the first half of a video by Frank Rutter K3AW, titled "Everything You Wanted To Know About Antennas But Were Afraid To Ask". He had some unusual things on his table, and it was very informative. The remaining section of the video will be presented at a future meeting.

Meeting was adjourned at 10:25 AM.

Submitted by Jerry Williams, Secretary

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Here is an interesting hardware/ operating tip from the work bench of KB0NE:

I recently investigated the failure of a Yaesu FT-8900, a dual channel, dual volume control, multiband rig, which had no audio on the "right" channel. After checking both left and right channels for low level audio though the audio path up to the squelch gate IC and also checking the voltage and signal levels coming from the right and left FM discriminator chips I surmised that the most likely suspect was the VLSI chip that handles squelch vs noise level detection. This is also the CPU for this radio that handles memory functions and all the other radio functions that this radio has.

I decided that as a last chance effort that I would remove the memory contents and do an "ALL RESET" which SHOULD reinitialize the CPU. Upon removing the memory contents and looking at some of the entries I found a number of very suspicious looking characters for names in the frequency list.....

I did an ALL RESET (I recommend this action only after investigating the possibility of other failures since this action can "brick" a radio if something else is seriously wrong). In this case the ALL RESET actually fixed this radio and I installed a frequency code block that I taken from my own radio and all was well. Both channels were operational again.

Here's the rub:

I had seen a very similar behavior in 2 radios that I own... An FT-7900 and FT-897D that had lost memory contents and only needed to be reprogrammed. I had guessed that the problem might be the fact that I had

1) Started the car when it was cold, with the FT-7900 turned on and this caused a power brown out

and similarly:

2) Turned off the AC power to my FT-897D without turning off the radio at the front panel switch first.

The underlying problem is not a power surge as some may suggest but rather a power brown out. Computer chips must have a certain level of voltage to be able to talk to their peripheral components. If the high or "one" voltage is too low then the signals the CPU section sends or receives may not be decoded properly and most importantly, the memory sections including the CPU secondary OS memory can be

overwritten with bad data.

So this is my operating tip of precaution for ANY radio that has a CPU (and what modern radio doesn't?) : Don't turn the radio on until the power supply is stable (eg such as starting the car or using any AC power supply, all of which take time to power up or down).

Always turn off the radio before turning off the power supply... This seems to be more important than power up BUT..... YMMV.

It stands to reason that turning off a running car engine won't put a load on the battery and won't glitch the 12 volts BUT restarting a stalled engine or operating high load current devices (with the engine off) such as window movement motors or heater fan motors could; depending on how healthy the battery and interconnecting cables are....

This scenario also holds true when turning on and off a typical HF base station... I have an external 12 volt linear power supply that needs about 1/2 second to come up to full voltage. It also has a large capacitor bank that will slowly drop power when turned off... This means that my HF rig also needs to receive this same kind of power cycling treatment.

Radios that have a built in power supply also need to be treated similarly.... always turn the radio off before removing the plug or switching the AC line voltage source off. Switching power supplies are faster starting and stopping but still have a small amount of time that they come up to voltage and will hold a voltage for a certain discharge rate/time when turned off.

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Another change in the cage:

The Buckhorn 2 meter repeater frequency should be switching to 146.625 mhz / 100 CTCSS as re-coordination proceeds. The 145.205 frequency may be dropped when this happens. This is due to some technical issues with regard to the 145.205 frequency pair. The same Buckhorn repeater unit (a Vertex VXR-7000 VHF repeater) will be used for the new frequency so coverage from Buckhorn will remain the same. This may free up the hardware that is now located at Ed's (WA5SWD) place to be used as a portable repeater. Final decisions about the use of the extra Kenwood (dragging pipes) repeater and associated resources are pending and any input from the club about this would be appreciated your technical char person... ME.

KB0NE.ARS@gmail.com

"So many hats... so little time. Nuff outta me for now!"

John KB0NE 73s and see you at the next Golden Corral NCARC meeting.

# Northern Colorado Amateur Radio Club

## Membership Application

I want to Join the NCARC.

Please Renew my membership

Date: \_\_\_\_\_

For calendar year:

2011

2012

2013

Annual Dues -- All memberships expire December 31<sup>st</sup>

Individual or Family Membership: \$25.00 per year

Full Time Students: \$ 5.00 per year

Name: \_\_\_\_\_

Callsign: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

License Class: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Newsletter by Email?            YES    NO

Student?                            YES    NO

ARRL Member?                    YES    NO

### Family Members

Name: \_\_\_\_\_

E-mail: \_\_\_\_\_

Callsign: \_\_\_\_\_            ARRL? YES NO

License Class: \_\_\_\_\_

Name: \_\_\_\_\_

E-mail: \_\_\_\_\_

Callsign: \_\_\_\_\_            ARRL? YES NO

License Class: \_\_\_\_\_

Name: \_\_\_\_\_

E-mail: \_\_\_\_\_

Callsign: \_\_\_\_\_            ARRL? YES NO

License Class: \_\_\_\_\_

*Note additional family members on reverse*

*We do not sell, trade, or rent personal identification information to others.*

See full Privacy Policy at <http://www.ncarc.net>

Please mail this form and payment to:

NCARC  
P.O. Box 272956  
Fort Collins, CO 80527-2956

Club Use:

Received: \_\_\_\_\_ Amt: \_\_\_\_\_  
Recorded: \_\_\_\_\_ Version 20111114.1

**Or Sign-up Online at [www.ncarc.net](http://www.ncarc.net)**