

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

**Club Meetings are held on the 3rd Saturday of each month
At the Golden Corral, 901 E. Harmony Rd, Fort Collins, CO.**

All 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

Club Officers

President	Steve Henry	N7GN	(970)226-2817	n7gn@arrl.net
Vice President	Bill Beach	K0UT	(970)224-1958	k0ut@earthlink.net
Secretary	Dave Langenberg	KC9FOO	(773)612-8435	dave@thelangenbergs.com
Treasurer Membership Chair	Willis Whatley	WA5VRL	(970)407-6599	whatley@frii.com
Interference Coordinator	Mike Bates	N7DQ	(970)219-3225	n7dq@comcast.net
Newsletter	Willis Whatley	WA5VRL	(970)407-6599	whatley@frii.com
Technical Chair	Eric Slutz	N0EAS	(970)282-3752	eric@redginger.com
Hamfest Chair	Michael Robinson	N7MR	(970)225-7501	michael@frii.com

NCARC Repeaters

W0UPS: 145.115 MHz – (144.515 MHz Input) 100 Hz CTCSS Subtone (1* on, 0* off) Autopatch (40-32.926N, 105-11.898W, 7229 ft) Horsetooth Mountain, west of Fort Collins, CO
W0UPS: 447.275 MHz – (442.275 MHz input) 100 Hz CTCSS Subtone Autopatch (40-32.926N, 105-11.898W, 7229 ft) Horsetooth Mountain, west of Fort Collins, CO
W0UPS: 146.625 MHz – (146.025 MHz Input) 100 Hz CTCSS Subtone (40-50.266N, 105-3.017W, 5600 ft) SW of the Rawhide Power Plant, 17.5 miles north of Fort Collins, CO
W0UPS: 146.850 MHz – (146.250 MHz Input) 100 Hz CTCSS Subtone (1* on, 0* off) (40-25.341N, 104-44.182 W) Greeley, CO
W0UPS-5: 144.390 MHz – APRS Digital Repeater (40-32.926N, 105-11.898W, about 7229 ft) Horsetooth Mountain, west of Fort Collins, CO

Nets

ARES District 10 Information Net	Wednesday	9:00 pm	145.115 MHz
ARES Statewide Net	Sunday	8:30 pm	145.310 MHz
Central Colorado Traffic Net	Daily	7:30 pm	145.310 MHz
Tech Net	Tuesday	7:00 pm	145.115 MHz

Web Page

<http://www.ncarc.net>

TECH NET Announcement!

This is a reminder that the 145.115 TECH NET is held Tuesday evening 07:00 PM.
It is hosted by N0WIQ, Kerry. All amateur radio operators (with 2M privileges) are welcome to check in.
It is an open forum net with Questions, Answers and Topics of interest.

If the 145.115 repeater is not available, the net will be held on the 447.275 repeater

Local Area Swaplists:

For those who can not wait or can not attend the area swapmeets, below are the websites for some of the regional swaplists found on the internet. These are updated weekly.

Aurora Repeater Assn. Swaplist: <http://www.qsl.net/n0ara/swaplist.html>

Colorado Repeater Assn. Swaplist: <http://www.w0cra.org/swap/craswaplist.htm>

Wyoming Swap Shop: <http://www.qsl.net/n0ara/wss.htm>

New Mexico Swaplist: <http://bc-ares.org/swapnet/listings.html>

New and renewing members for the current month:

N0WGM – James N0MCR – Roger WA0EYJ – Bob KC0ZVB – David N0IHB – Edwin K0JEF – Jeffrey W0GMJ – John
KG6TDB – Jay AB0SF – George W0RCY – Rick N0MFW – Alan KC0ZCE – David KC0ZCF – Tim KC0ZBT – Charles
K7YJ – Minor

The NCARC thanks you for your support.

Aurora Repeater Association – SWAPFEST**02/11/2007**

Adams County Fairgrounds in Brighton at 9 AM

Table Cost: \$10.00 Admission: \$4.00

For more information contact: Wayne Heinen, N0POH, at 303-699-6335 or email to n0poh@arrl.net

Mail reservations to Aurora Repeater Association, P.O. Box 471802, Aurora, CO 80047-1802

Congratulations!

to **Jonathan Troup, K0DE** – Berthoud, CO

Winner of the QCWA Jacobson-Kelleher Memorial Scholarship

Jonathan is a 19-year old Amateur Extra currently attending CSU as a sophomore Mathematics and Computer Science major. He heard about Amateur Radio through his family and shortly after receiving his novice license, discovered the BARC Jr. Amateur Radio Club for kids in sponsored by the Boulder Amateur Radio Club. The BARC Jr. club helped him earn his Extra Class license within the year, when he was 12 years old. Jonathan now Elmers kids with the BARC Jr. club during the summer. He also enjoys contests and Morse code operation.

An RF Power Problem:

Your rig (having a 50-ohm output) is connected through a VSWR indicator to your manual antenna tuner with about 50 feet of good RG-8 coax running out to the 40 meter Inverted Vee antenna in your back yard. You have adjusted the tuner to allow operation on one of the Amateur bands other than 40 meters and the VSWR indicator is showing about 1.3 to 1 (not a problem even for solid state rigs). After numerous failed attempts to contact stations that you can hear and getting only poor reports from a few of the strongest ones, you conclude that you must be radiating only a small portion of the RF power at the antenna. Checking all of the individual parts of your system reveals that the rig, the SWR indicator, the tuner, the coax, the antenna and all connections are all without defects. What is the cause of this mysterious problem? Look elsewhere in this newsletter for further information regarding this issue...

Remember: Teamwork means never having to take all of the blame yourself.

Codeless Amateur Radio Testing is set to begin on 23 February 2007

Effective that date, applicants for a General or Amateur Extra class Amateur Radio license no longer will have to demonstrate proficiency in Morse code. They'll just have to pass the applicable written examination. Federal Register publication January 24 of the FCC's Report and Order (R&O) in the "Morse code proceeding," WT Docket 05-235, started a 30-day countdown for the new rules to become effective.

"The overall effect of this action is to further the public interest by encouraging individuals who are interested in communications technology or who are able to contribute to the advancement of the radio art, to become Amateur Radio operators and eliminating a requirement that is now unnecessary and may discourage Amateur Service licensees from advancing their skills in the communications and technical phases of Amateur Radio," the FCC remarked in the Federal Register version of the "Morse code" R&O. The League had asked the FCC to retain the 5-WPM for Amateur Extra class applicants, but the Commission held to its decision to eliminate the requirement across the board.

The new rules also mean that starting February 23 all Technician licensees, whether or not they've passed a Morse code examination, will have CW privileges on 80, 40 and 15 meters and CW, RTTY, data and SSB privileges on 10 meters. Once the new rules go into effect Technicians may begin using their new privileges without any further action.

An applicant holding a valid Certificate of Successful Completion of Examination (CSCE) for Element 3 (General) or Element 4 (Amateur Extra) credit may redeem it for an upgrade at a Volunteer Examiner Coordinator (VEC) exam session. A CSCE is good for 365 days from the date of issuance, no exceptions. For example, a Technician licensee holding a valid CSCE for Element 3 credit would have to apply at a VEC test session and pay the application fee, which most VECs charge, in order to receive an instant upgrade to General.

ARRL Regulatory Information Specialist Dan Henderson, N1ND, cautions that a license upgrade is **not** automatic for those holding valid CSCEs for element credit. "You must apply for the upgrade at a VEC test session, and you may not operate as /AG or /AE until you have upgraded and have been issued a CSCE marked for upgrade," he stresses. "A valid CSCE for element credit only does not confer any operating privileges." Henderson also advises all radio amateurs to know and fully understand their operating privileges before taking to the airwaves. Some Technician licensees reportedly started showing up on 75 meters December 15 in the mistaken belief that they had gained phone privileges there.

The FCC R&O includes an Order on Reconsideration in WT Docket 04-140 – the so-called "omnibus" proceeding. It will modify Part 97 in response to ARRL's request to accommodate automatically controlled narrowband digital stations on 80 meters in the wake of other rule changes that became effective last December 15. The Commission designated 3585 to 3600 KHz for such operations, although that segment will remain available for CW, RTTY and data. The ARRL had requested that the upper limit of the CW/RTTY/data subband be set at 3635 KHz so there would be no change in the existing 3620 to 3635 KHz subband.

The ARRL has posted all relevant information on these important Part 97 rule revisions on its "FCC's Morse Code Report and Order WT Docket 05-235" Web page.

More on the ciphered zero (and other special characters) in documents

In last month's newsletter, Clyde Glass (NØCG) provided a method to insert a ciphered letter O for use with Amateur callsigns. This character is created by holding down the Control key and the Forward Slash key, releasing those two keys and typing a capital letter O.

John Dubler (WØDDX) has now provided this additional information:

There is a way to insert the slash-zero in Microsoft Outlook e-mail messages. Make sure that the "Num Lock" is active on the keyboard and then, while holding down the "alt" key, enter the numbers 0216 using the "calculator" keys. Ø is the result in MS Word and Outlook. This works for "HTML," "Plain Text," or "Rich Text" formats. The "alt 0216" method also works for Excel spreadsheets.

Thanks to Clyde and John for the information regarding these methods.

Several other methods for inserting the ciphered zero as well as numerous other special characters MS Word are detailed in the Help menu under Characters – Special. Be aware that the available "Character Table" changes with your font selection.

Be one of the first ones in your neighborhood to take the new "Codeless" Amateur Radio Exam!

A test session will be held in Greeley on February 24th, the day after the requirement for Morse Code testing is officially eliminated.

Contact K00J at (970) 353-7094 for further information regarding the location and time.

Congratulations!

To all of the 22 individuals who passed the VE testing
held at the NCARC Winter Swapmeet, 20 January 2007

Among those 22 individuals are the following newly licensed hams that passed their exams at the Swapmeet:

Richard Coate KC0ZIH Steve Cathcart KC0ZIG Brian Murphy KC0ZIF Darren Kalmbach KC0ZIE
Valerie Wilson KC0ZID Ray Tate KC0ZIC James Halkgren KC0ZIB

Charitable Contribution Received by NCARC

Thanks are hereby given to **James K. Blazier, W0JIM, and the Anheuser-Busch Company** for a charitable contribution of \$240.00 to the NCARC. This contribution was made in conjunction with the company's matching grant program for employees (AB-PAC). A formal letter of thanks has been sent to Jim at his company's address.

The NCARC Winter Hamfest 2007

The NCARC Winter HamFest was held on 20 January 2007 as scheduled. The WX was cooperative and all of the feedback thus far has been very positive, such as the example below:

"I just wanted to let you know that the hamfest on Saturday was one of the best I have experienced in quite a while. Not only were your table rentals reasonable (+ a raffle ticket with each) but the space itself was great. Attendance was great as well. I hope the club made a little money too. Please consider a biannual fest. - 73 Lawrence N0XAD"

There were about 75 tables available for vendors and the final count shows 66 of them were occupied at the event. The public attendance, which began at 8 am, was indeed great. Even with five to six foot isles between the tables, the Canyon West room was comfortably full for a good part of the morning. Mike Hickerson (W0MBH) and the VE team had a very successful test session in the adjoining Ludlow room. There were 7 new technicians, 2 generals and 3 extras along with a number of CSCE's earned at the VE testing. The NCARC gained six new members at the event and significant quantities of food-like substances were submitted to destructive analysis throughout the morning without the need for any medical intervention.

Mike Robinson (N7MR) put together a very successful event and thanks go out to him as well as all of the volunteers who provided the necessary support throughout the day.

A formal report on the event will be presented at the February NCARC club meeting and based on the results of this event, it seems likely that any future NCARC HamFests will most likely be scheduled in the same location.



The Canyon West Room at 06:30 AM



The Canyon West Room at 09:30 AM

The World above 50 MHz is not all FM and repeater operation in Colorado

Rocky Mountain VHF+ Activities

Monday 7 PM local Colorado Front Range ARES SSB Net 144.220 MHz USB

Monday 8 PM local Rocky Mountain VHF+ Net 144.220 MHz USB

Tuesday 8 PM local 1.35 M Activity Night 222.1 MHz USB

Wednesday 8 PM local 70 cm Activity Night 432.1 MHz USB

Wednesday 7:30 PM local 6M Net 50.130 MHz USB

Thursday 8 PM local 23 cm Activity Night 1296.1 MHz USB

Friday 8 PM local 33 cm Activity Night 902.1 MHz USB

The RF Power Problem issue:

This is an interesting problem that occurs more often than one would think because the use of this type system to allow operation over multiple Amateur bands quite common. It can be an elusive problem when operating with a low power rig but is less difficult to find when running higher power because of the overheated condition that occurs in the tuner. What happened is that an unfortunate adjustment of the tuner has enabled it to operate as an absorption wavemeter. In this mode, the RF power is largely dissipated in the resonant circuits of the tuner and very little is released through the coax to the antenna. This is an easy situation to encounter if you have not taken the time to test and record the optimal tuner settings on each band for the system that you are using. With most tuner configurations, there can be several combinations of settings for each band that will produce acceptable readings on the VSWR indicator.

One way to find the optimal setting combination is to insert a RF ammeter in the line following the tuner. In this application, the RF ammeter is not required to provide an accurate reading of the RF current in the line. It is only used to indicate the relative difference in RF current between one tuner setting combination and the next. The goal is to choose the tuner setting combination that produces the highest RF current in the line. In most situations, this will be the tuner setting that uses the least inductance and it will most likely coincide with the minimum reflected power indicated by the VSWR meter.

When you find these optimal tuner settings for each band, it would be wise to record and post them near your operating position in the shack. It will make band changes quick and easy and it will also alert you to any changes in your antenna system or feedline. Changes can be caused by numerous things such as accumulation of snow or ice, deterioration of the feedline or connections as well as contact with trees, pets or children (bummer). With antenna systems where grounding is important, the RF ammeter can also signal a degradation of the ground system. The RF ammeter can also be used on antenna systems without tuners operating at a resonant frequency. On a system using a grounded antenna with no tuner, the VSWR at the rig can actually show improvement as the ground resistance increases and the radiating efficiency of the antenna goes down. This would be detected quite easily by the change in RF current in the line.



Northern Colorado
Amateur Radio Club
Information/Application Form



I would like more information on Amateur Radio.

I want to join the NCARC. My payment is enclosed.

I want to renew my membership. My payment is enclosed.

Annual Dues:

Family Membership: \$25.00

Full Time Students: \$5.00

BEFORE FILLING THIS OUT, READ THIS MESSAGE -----



Name: _____

Callsign: _____

Street: _____

City: _____

State: _____

Zip: _____

Telephone: _____

License Class: _____

E-mail Address: _____

Receive Newsletter by E-mail? YES NO

Student? YES NO

ARRL Member? YES NO

You only need to fill in your name or callsign and anything that has changed. Any items left blank will be assumed to be correct in the NCARC database.

If you would like to receive the newsletter by E-mail, please indicate so here.



Please mail this form to: NCARC
P.O. Box 272956
Fort Collins, CO 80527-2956