

**Northern Colorado Amateur Radio Club**

P.O. Box 272956

Fort Collins, CO 80527-2956

Peace on  
Earth

# The Tribander

**The monthly Newsletter of the Northern Colorado Amateur Radio Club**

**Club Meetings are held on the 3<sup>rd</sup> 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

<b>President</b>	<b>Steve Henry</b>	<b>N7GN</b>	<b>(970)226-2817</b>	<a href="mailto:n7gn@arrl.net">n7gn@arrl.net</a>
<b>Vice President</b>	<b>Bill Beach</b>	<b>K0UT</b>	<b>(970)224-1958</b>	<a href="mailto:k0ut@earthlink.net">k0ut@earthlink.net</a>
<b>Secretary</b>	<b>Dave Langenberg</b>	<b>KC9FOO</b>	<b>(773)612-8435</b>	<a href="mailto:dave@thelangenbergs.com">dave@thelangenbergs.com</a>
<b>Treasurer Membership Chair</b>	<b>Willis Whatley</b>	<b>WA5VRL</b>	<b>(970)407-6599</b>	<a href="mailto:whatley@frii.com">whatley@frii.com</a>
<b>Interference Coordinator</b>	<b>Mike Bates</b>	<b>N7DQ</b>	<b>(970)219-3225</b>	<a href="mailto:n7dq@comcast.net">n7dq@comcast.net</a>
<b>Newsletter</b>	<b>Willis Whatley</b>	<b>WA5VRL</b>	<b>(970)407-6599</b>	<a href="mailto:whatley@frii.com">whatley@frii.com</a>
<b>Technical Chair</b>	<b>Dan Magro</b>	<b>W7RF</b>	<b>(970)295-4200</b>	<a href="mailto:w7rf@radiodan.com">w7rf@radiodan.com</a>
<b>Hamfest Chair</b>	<b>Matt Kassawara</b>	<b>KG0W</b>	<b>(970)232-5215</b>	<a href="mailto:battery@writeme.com">battery@writeme.com</a>

## NCARC Repeaters

<b>W0UPS: 145.115 MHz</b> – (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
<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 IRLP 3902 (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 (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

## Nets

<b>ARES District 10 Information Net</b>	<b>Wednesday</b>	<b>9:00 pm</b>	<b>145.115 MHz</b>
<b>ARES Statewide Net</b>	<b>Sunday</b>	<b>8:30 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>

## Web Page

<http://www.ncarc.net>

**TECH NET**

This is a reminder that the 145.115 TECH NET has been **changed back to Wednesday evening at 07:00 PM.** It is hosted by **N0WIK, 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:** KC9FOO - Dave N0WGM – Jim WA9FBO – Bob KC0WZV – Wayne N0WIK – Kerry KB0ZKI – M. Lewis **The NCARC thanks you for your support.**

**220 MHz Net**

There is an informal net that is being held every Thursday evening at 7:00 pm on the 224.520 Repeater.

This is the newest **W0UPS** machine

located at the Horsetooth Mountain site along with the 145.115 and 447.275 NCARC Repeaters.

This repeater uses the standard offset for the 220 MHz band (input on 222.920) and a 100 Hz CTCSS.

Hosted by **KG6TDB**, the topics will change each week and all licensed operators are invited to check in.

For those who are interested, it also features IRLP capability (it is node 3902).

**Upcoming NCARC Meeting Presentations:**

**December 15:** Jim Wilson KC0RBT will be doing a presentation on Echolink.

**TBD:** Virgil Leenerts will be doing a presentation on Switch Mode Power Supplies.



## NCARC Silent Auction Results

The list of equipment below was donated to the NCARC from the estate of Jim Starkey (W0KJY). The condition of the equipment is unknown and was put up for auction "AS IS".

Bids were accepted by e-mail to whatley@frii.com or by regular mail to NCARC, P.O. Box 272956, Fort Collins, CO 80527-2956. Chris Howard won items 1, 2, 3, 9, 15 and 16. Matt Kassawara won item 11.

The bidding was closed on November 30 and the high bid on each item has been contacted using the method by which the bid was received. The individual(s) will have 10 calendar days (December 2 through December 13) to complete the transaction by making payment and taking possession of the item(s). Any items remaining in the possession of the NCARC following the 10-day transaction period will be placed on one or more area swap lists for sale.

1. Yaesu FT-726R SN:6J420039 with Yaesu YM-48 Mic, modules for 15/12/10m, 144 and 432 MHz.
2. Yaesu FT-726R SN:3K070242 with modules for 144 and 432 MHz
3. Yaesu FT-726R SN:3L080198 with module for 144 MHz
4. Yaesu FT-101ZD SN:9E040673
5. Hammarlund HC-10 Converter
6. TrippLite PR-7B Power Supply
7. G.E. 0-15V adjustable Power Supply
8. Clegg 22'er VHF rig with xtal for 144.350
9. Icom IC-245 Two Meter all mode transceiver
10. Icom IC-3PA Power Supply SN: 7176
11. Timewave DSP 59+
12. Heathkit TC-2 Tube Checker
13. ARR P28VD 10m Preamp
14. HP 340B Noise Figure Meter SN:229-01021
15. HP 5245L Frequency Counter with HP 5254 Frequency Converter 0.2 – 3.0 GHz
16. HP 5245L Frequency Counter with HP 5255 Frequency Converter 3.0 – 12.4 GHz
17. Singer Metrics SPA-10 Spectrum Analyzer SN: 08-281-147 with RF-10 (10 MHz – 43 KMHz Tuning Head)
18. AST Bravo 4/33 MHz Computer with IBM Monitor
19. H.V. Power Transformer Pri: 115/230vac Sec: 4730/2365vac 1.66KVA
20. H.V. Filter Capacitor 100uF at 4KV



If you can identify the item shown in this image, then you are qualified to be called an "OM" in more ways than one.

...and no, it is not a "Wouff Hong".

## Installing a PL-259 on RG-58 or RG-59 Coax (an easy way)

One of the most common coax connectors used in Amateur Radio is the PL-259. Two of the most common types of coax used in Amateur radio are the RG-58 and RG-59. Installing the PL-259 on these either of these types of coax normally requires the use of the UG-175/U or UG-176/U adapters. Many texts have instructions on installing these connectors and adapters that were taken directly from the connector manufacturer's drawings. What is described below is a method that has been in use for many years by Radio Amateurs but is not being passed on to more recently licensed operators (probably due to a decline in Elmer activity over the last several decades).

The images below are NOT to scale and dimensions are approximate. This method requires only a minimal amount of practice to become proficient.

The first and most important step in this process is to slide both the Coupling Ring and Adapter over the coax before doing anything else. Even experienced Amateurs often forget this step and end up having to remove a soldered connector to correct this oversight.



1. Slide the Coupling Ring and Adapter over the end of the coax.
2. Trim the Outer Jacket of the coax back at least one-inch from the end.



3. Fold the Braid back and trim it to one-quarter inch in length.  
(If the coax is double braided, cut off the outer braid flush with the end of the outer jacket of the cable.)



4. Push the Adapter up to end of the Outer Jacket and fold the Braid tightly over the Adapter.  
It needs to be as flat as possible against the outside surface of the Adapter.

Now for a significant deviation from the standard method...

5. Place the assembly on a flat surface in a straight position where there are no physical forces pushing on it. If needed, place a small shim support (about 7/32 inch thick) under the coax an inch or so behind the Adapter to keep the cable in good alignment with the Adapter.

6. Using a large-tip (1/4 inch wide) soldering iron or a soldering gun with a similarly wide tip, apply heat and an initial amount of solder to the top area of the Adapter covered by the Braid. Keep applying the heat and touching the side of the Adapter with the solder until it flows smoothly around the circumference between the Adapter and Braid. Do not apply more solder than is needed to flow around the majority of the circumference. This step usually requires several minutes to get the Adapter hot enough for the solder to flow completely around it.

7. This is a very important step. Put down the soldering device and walk away. Go occupy yourself with some other entertaining activity and do not return for at least 10 to 15 minutes allowing the Adapter to cool to near room temperature. This prevents the coax in the heated Adapter from being pushed off-center in the assembly.

The method described in the previous three steps actually requires less heating than trying to solder the Braid (at a later point in time) through the four small holes in the PL-259 connector. When using the “manufacturer’s recommended method” where the Adapter is inserted into the PL-259, most assemblers will fail to heat the assembly enough to get proper flow of the solder into the coax Braid. About the only thing that the four holes in a PL-259 are really good for is being able to see that the center conductor of the coax is proceeding straight toward the Center Pin of the PL-259 as the coax is inserted into the connector.



8. Trim the insulation covering the center conductor back seven-eighths inch from the end.



9. Screw the PL-259 onto the Adapter and use pliers to gently tighten it.

10. Solder the center conductor to the Center Pin of the PL-259.

If some solder is interfering with screwing the PL-259 onto the Adapter, use a flat file to remove the excess solder. Be sure to clean off any filings before threading the PL-259 onto the Adapter. The center conductor should protrude from the PL-259 Center Pin by about one quarter inch.

Now solder the center conductor to the Center Pin of the connector being careful to keep the solder from flowing on the outside of the Pin. Cut the center conductor flush with the end of the PL-259 Center Pin and remove any solder from the outside of the Center Pin using a small flat file or small knife. Leaving any solder material on the outside of the Center Pin will cause distortion of the female mating Pin in the SO-239 receptacle when the PL-259 is inserted into it.



11. Thread the Coupling Ring onto the completed PL-259 assembly.

Another advantage to the above method is the ease of removal when salvaging the connector assembly for reuse on another project. Just heat the Center Pin and knock the solder out. Then use the pliers to unscrew the Adapter from the assembly. Cut the coax about 2 inches behind the Adapter. Then thoroughly heat the Adapter on your workbench until the coax cable can be pulled out of the Adapter from the back end. Knock any remaining solder off of the Adapter while it is still hot. Allow the Adapter to cool and use an appropriate size twist drill (held with pliers) to remove any remnants of the Outer Jacket that remain inside the Adapter.



The image shown at the bottom of page 4 is a roller-skate key. Most of the skates back then had a metal frame, four metal ball-bearing wheels and were strapped onto the bottom of a regular shoe.

The image shown here is the real Wouff-Hong.

Northern Colorado Amateur Radio Club (NCARC) Presents

# WINTER HAMFEST 2008

Admission \$5 (children under 12 free)  
6 ft Tables \$5 ea. (includes 1 admission)

Talk in: 145.115 (-offset 100 Hz CTCSS)  
146.520 Simplex

<http://www.ncarc.net>

**On-site ARRL VEC EXAMS 9:30 am Prompt !**

**Saturday, January 12, 2008**  
**Open to public 8:00 am to 2:00 pm!**

**Vendors Setup beginning at 6:00 am**  
**The Lincoln Center – Canyon West Room**  
**417 W. Magnolia, Ft. Collins, Co.**

**Coffee, donuts and catered lunch !**



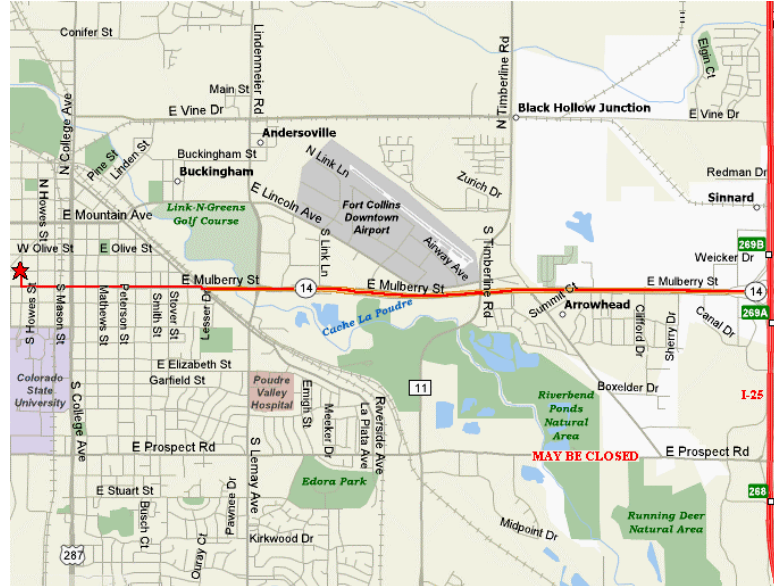
**1<sup>st</sup> Prize: Icom IC-7000 !!!**



**2<sup>nd</sup> Prize: Yaesu FT-7800 !!**



**3<sup>rd</sup> Prize: Yaesu VX-6R !**



From I-25, take the CO Hwy 14 Exit (exit 269) west into Fort Collins. **After crossing Riverside Avenue, CO Hwy 14 becomes Mulberry Street.** Continue west on Mulberry Street three blocks past College Avenue. Turn right onto Meldrum Street. The Lincoln Center is on the west side of Meldrum between Mulberry and Magnolia. **The formal address is 417 West Magnolia Street.**

**GPS: 40.34.94N 105.04.99W**

**Hourly door prizes...**  
**Main Drawing at NOON**  
**You MUST be present to win.**

**See you there !**  
**73, NCARC**

**For Advance Table Reservations contact:**

**--- Willis Whatley, WA5VRL**  
**(970) 407-6599**

**Make checks payable to NCARC**  
**P.O. Box 272956 Fort Collins, CO 80527-2956**

