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 Fireside Inn, 1163 W Main St. Windsor Colorado

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	Matt Kassawara	KG0W	(970)433-2123	kg0w@arrl.net
Vice President	Willis Whatley	WA5VRL	970-407-6599	Whatley@frii.com
Secretary	Jerry Williams	KE5IMP	970-454-3821	jcwillie@mywdo.com
Treasurer/Membership Chair	Paul Rulon	KD0BER	970-232-4011	paulrulon@comcast.net
Interference Coordinator	Chris McNair	KD0EGE	970-282-4876	kd0ege@gmx.com
Newsletter	Maurice Mines	KD0IKO	970-378-7065	minesm@me.com
Technical Chair	Eric Slutz	N0EAS	970-282-3752	eric@redginger.com
Control Op	Tom Jungmeyer	K1TJ	970-484-8329	k1tj@earthlink.net
Hamfest Chair	TBA			

NCARC Repeaters

W0UPS: 145.115 MHz – (144.515 MHz Input) 100 Hz CTCSS Subtone (1* on, 0* off) Autopatch **Echolink Node 4236**
(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: 224.520 MHz – (222.920 MHz input) 100 Hz CTCSS Subtone **IRLP Node 3902**
(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)
(40-18.310N, 104-35.884 W, about 4985 ft) SE of Greeley, CO **New location**

W0UPS-5: 144.390 MHz – APRS Digital Repeater
(40-32.926N, 105-11.898W, about 7229 ft) Horsetooth Mountain, west of Fort Collins, CO

W0UPS: 448.025 MHz – (443.025 MHz Input) 100 Hz CTCSS Subtone **ARES Rptr**
(40-26.650N, 104-59.370W, about 5192 ft) Budweiser Event Center on I-25 at MM259

Nets

ARES District 10 Information Net	**Thursday**	**7:00 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**
220 MHz Informal Net	**Tuesday**	**7:00 pm**	**224.520 MHz**
Tech Net	**Wednesday**	**7:00 pm**	**145.115 MHz**

Web Page

http://www.ncarc.net

Editor's Notes

by Maurice Mines KD0IKO

Hi, My name is Maurice (KD0IKO) and I am the new NCARC newsletter editor. Robert (KC0VQE) is helping me out a little as I work myself into this new position.

A little about myself: I am currently a masters student majoring in Education Technology at the University of Northern Colorado in Greeley. Born in Los Angeles, CA, I grew up in Vancouver WA and attended The Washington State School for the Blind. I earned my call in July of 2009, passing my Technician class test. I am a member of HandiHam (http://www.handiham.org), an organization dedicated to Ham Radio & technology for people with disabilities. I am partially blind and deaf with asthma and type II diabetes. I tell you this not to give you a medical report, but just so you'll have some insight into who is currently editing our newsletter. You can find my name on Facebook by doing a search.

My current projects are: 1 – getting echolink working at home, 2 – upgrading to a general.

I am usually on 447.275 around 7:30-8:30am Monday, Wednesday, Thursday and Friday and at 7:30/8:30 in the evenings. Give me a call if you'd like to talk or make newsletter suggestions.

If you would like to submit a story for the newsletter, please submit it in MSWord, MAC RTF, text, or PDF format. I like finding resources of news about ham radio so please send them along to me. If you have a good idea for the newsletter, you should email me with “NCARC newsletter” in the subject line.

You might find it interesting to know how a blind person takes an Amateur Radio test. As is common in the world of Amateur radio, with lots of help. It starts with studying material in audio format and the electronic study material provided by the Handy Hams. I also used a braille note-taker that I normally use for school. On the test day, I arrived at the test site where the VEC team is ready to help. One VE reads the question and each of the available answers. I then choose which answer I believe is correct and inform a different VE who marks my answer sheet. Once I've finished the questions, the answer sheet is graded as normal.

If you send me something, please remember that I must pay for my non-school related Readers out of my own pocket, so I would much rather get your emails. Let's make 2010 a very good one for Hams in Northern Colorado. Your help is appreciated. You can email me at any time or call me at 970-378-7065. Maurice, this is a good point to tell people which band you have access to and what times you are usually on. For example, “I'm on 145.115 on Tuesday and Thursday evenings if you would like to make suggestions about the newsletter”.

Please submit all articles in MSWord format using Arial size 12 font. Graphics should be saved in .png format if possible. JPEG or GIF is acceptable if PNG is not available to you. However, any other formats will need to be reviewed

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Dummy Load

by Robert Weant KC0VQE

If I've learned anything about Ham Radio, it's that questions are a big part of the hobby. You study the test questions so you can pass the licensing exam. Tech Nets are held on a regular basis to help answer questions from just about any skill level. Most hams love to have a newbie ask questions. Amateur Radio and questions go hand in hand. But there comes a time in the life of every Ham when you are forced to ask yourself the mother of all questions:

"Did I just do something really stupid?"

For some, that question gets asked once maybe twice in a lifetime. These are the people who can tell you the resistor value just by looking at the color bands. They've only made one cold solder joint in their life, their online orders always show up on time. Their homemade antennas work right the first time, and their favorite band is always open when they decide to work it. They never have to hide scorch marks on the ceiling from the (X)YL nor do they have to explain singed eye-brows to their co-workers. Their pets don't cower when the light goes on in the ham shack and the Fire Department doesn't have his phone number on speed dial.

That's not me. I'm not describing myself. As a matter of fact, intellectually speaking, I'm the IQ equivalent to General Motors, in desperate need of a brain bail-out. To quote that famous philosopher/rooster Foghorn Leghorn, "... about as sharp as a bowling ball". That's me. I guess that's why I ask so many questions.

Let me give you an example ... hypothetically speaking of course.

Say for example that you have a large cottonless cottonwood tree in the green space behind your house and let's say that you decided it would be a good antenna mast for a G5RV antenna that you bought at a ham fest last January. Now, applying the Universal "I saw it first, therefore it belongs to me" principal that seems to be innate for most children and anyone attending a hamfest, you decide that since it is your tree, you can do what you want with it and right now you want to make it the mast for your G5RV.

Further, let's pretend that you did everything you could to get some 20 pound test fishing line over the center of that tree, including but not limited to:

1) tying the line to bottle rockets and trying to aim, only to find out the accuracy on those is along the same lines as a SCUD missile in the hands of a drunk sailor.

2) tying the line to a basketball, duct taping the now tied line to the basketball and then drop kicking said basketball with all your might.

Now let's pretend that you've been collecting mouse balls from dead PC mice for quite some time and you knew that someday, these rubber coated balls of steel would serve some useful purpose, you just didn't know how. And that's when the Idea Fairy visits you and reminds you of your aforementioned collection of steel mice balls and gives you this great idea about how some duct tape and a slingshot would be just about right for getting that 20 pound test line over the center of your tree....

Hypothetically speaking.....

So armed with your 20 pound test line tied and taped to a 3/4" steel mouse ball and a decent little slingshot, you launch that 20 pound test line over the top of that tree just as nice and pretty as you could want, but slightly to the side. However, being greedy for the highest possible apex you decide to reel that line back in and try it again, adjusting slightly for the south wind you didn't realize was blowing and even if you had you would not have guessed that it could possible move that steel mouse ball that far off center.

I'm just sayin'.....hypothetically speaking

So you start to reel in that steel mouse ball and suddenly it snags. Not only does it snag, you hurt your hand tugging so hard on the 20 pound test fishing line only to find out that it's snagged so bad it hurts to pull and if you are going to get that end of the line back with your steel mouse ball, you will need a better pair of gloves and so you go get said gloves, put them on, wrap yourself up in that 20 pound test and put all 210 pounds of your 50 year old body into pulling backwards on that line....

Hypothetically speaking.....

So you tug and pull till finally after a great deal of oomph and effort, with line burns in your hands, you suddenly feel the line go slack ... it's at this point time slows to a crawl and your whole world is now in slow motion....

I'll be the first to admit that there's a lot to the ham radio hobby which I don't know about and a lot that I will not learn. I just don't have the motivation. And I've had more than a few people willing to tell me what they know about ham radio and I can safely say at no time did anyone ever mention the fact that Aerodynamics and Flight Physics were a part of ham radio. I'm pretty sure I would remember that if someone had told me, but no one ever did. I, however, am here to tell you that Aerodynamics and Flight Physics are probably an integral part of Ham Radio. Buried deep in the discipline of Antennas I'm sure, but it's probably there none the less.

So as I stood looking up at the apex of that 40' cottonless cottonwood antenna mast, in a time warp of slow motion, I remember asking myself these three questions:

1) Did I just do something really stupid?
2) If so, how much time do I have to react?
3) what is that tiny round sphere in the sky near the apex of my antenna mast?

In Major league baseball, there is a pitch known as the "Exploding Fast Ball". Really, you can look it up. There is such a thing. It's a phenomenon caused when a pitcher throws a ball so hard and fast that the batters eyes are unable to keep up with the rapidly changing position of the baseball and it starts out as a small sphere in the hands of the pitcher but quickly it goes at the batter so fast, his eye/brain combination will only see it once the ball is just a few inches away at which time, the ball has gone from a small sphere to a rather large sphere with no sizes in between giving the appearance that it exploded.

Well, I'm here to tell you, there is such a thing as exploding steel mouse balls and given some 20 pound test fishing line, a 40' cottonwood tree and a slingshot, I can tell you how to reproduce it. Unfortunately, I cannot tell you how to get out of the way of an exploding steel mouse ball but I can tell you this: I believe in Guardian Angels. Really, I do.

If for no other reason than the mere fact that despite my confused state and despite the fact that I was still working on the answer to question #1 and was a long way from answering #'s 2 and 3, and despite the fact that the steel mouse ball was moving faster than my eye and brain could comprehend, somehow, someway, I managed to move my head slightly to the side just in time to have that exploding mouse ball zoom past my head and go *THUNK* into the ground.

Hypothetically speaking, of course....

Yeah, I'm learning. Questions and Ham Radio go together like a 40' tree and a G5RV. Just be sure you leave yourself enough time to react.

An experience I had as an Amateur Radio Operator.
What Standing Waves Can Do

by Kerry Miller N0WIQ

First my name: Kerry Miller.

I am a amateur radio operator, my FCC call sign is: N0WIQ. I have been licensed since 1993.

I have worked for wages as an Electronic Technician.

Early in my experience as an Amateur Radio Operator I had gotten code accreditation for my code-less Technician license. I bought a used KENWOOD TS-140S. This transceiver came with a matching 20A power supply. I didn't receive an Operators Manual with this transceiver so from my perspective I was flying blind. I installed the transceiver into my radio shack. I connected it to something that resembled an antenna. I could hear some things (stations). This was good. In my ignorance of the time I activated the transmitter at full power output. A short time later the radio went dark. Oh my gosh what have I done. Having been an Electronic Technician I quickly discovered the power supply output had vanished, instead of 12.xx Volts it had 0 volts coming out. At this time I removed the cabinet from the power supply and found a melted fuse holder.

Seeing this melted fuse holder I realized the power of reflected waves. For this recognition I followed the power. The power supply was plugged into the wall socket. The output of the power supply was connected to the power amplifier of the transmitter. I connected the transmitter to a conductor resembling an antenna. The power amplifier received standing waves from the “antenna” and had to absorb the power of the standing waves as well as transmit an incident wave of ~100 Watts. This caused excessive power to be drawn from the power supply causing the fuse holder to melt.

Further observation: The fuse holder was a 5 Ampere fuse holder holding a 20 Ampere fuse. In my mind this should have never been. I replaced the fuse holder with a 20 Ampere fuse holder and I replaced the fuse with an auto resetting circuit breaker. Needless to say this power supply has never failed again for that reason.

Local Ham Spotlight
Tom Jungmeyer K1TJ

I have been a licensed ham since 1990 with a novice license (original call KBØGAE) and held that for 17 years and took the technician and general about two weeks apart in early 2007. I took the extra exam and passed in 2008. I wasn't a very active ham until I started upgrading. My wife Linda also holds a novice class license (KBØGAD) and tested at the same time that I did in late 1989.

Since becoming more active, I have gotten involved with the NCARC, WARS and building repeaters of my own. I learned more than I thought one could know about repeaters helping to solve problems with the NCARC machines. We have a great technical crew that all work well together but do sometimes lack the time to get things done. I have built a 1.2 GHz machine and a 900 MHz machine to expand these bands to Northern Colorado and enjoy doing this.

I am also very active with KØMLM, the High Plains DX Club and the Rocky Mountain VHF + group. I usually can be found on SSB at 144.220 MHz on Mondays at 8:00 pm, 222.100 MHz on Tuesdays at 8:00 pm and 432.100 on Wednesdays at 8:00 pm. I am looking forward to getting on 1.2 GHz and 900 MHz side band in the future.

I'm not big on dx and contesting, but enjoy occasional rag chew session on HF. I also normally try to make the Columbine net at 8:00 pm nightly on 3989 KHz and the Cowboy net on 3923.5 KHz weeknights at 00:45 UTC. The long skip has me not checking in to these as I should, but I look forward to listening to the lightning crashes in the spring.

Aside from my main amateur radio hobby, I like building street rods or driving them as I don't like to work on cars as much as I used to. We run a local towing company which has me out at all hours and I usually have at least three bands going at once in the trucks.

Organizational Spotlight – The HandiHams
http://handiham.org

The Courage HANDI-HAM System was "born" in Rochester, Minnesota in 1967; the idea of Ned Carman, W0ZSW. Ned worked for a clinic, and, in the course of his work, would visit people with severe physical disabilities. As he spoke with his clients, who often had few opportunities to leave their homes, he realized that Amateur Radio would be the perfect hobby for them. Here was a hobby that could open a window to the world! A person with the most severe disabilities could stand as an equal with fellow hams in the world of Amateur Radio!

The Courage Handi-Ham System provides tools for people with disabilities to learn Amateur Radio and technology skills, and to earn their Amateur Radio licenses.

We are Courage Center's HANDI-HAM System. We teach technology to people with physical disabilities and sensory impairments. Ham radio, computing and more can be learned at home through the use of cassette tape books, or at one of our residential camps. Perhaps you are teaching a class in amateur radio to blind students. We have books on tape!

One question that is often asked is, "Do I qualify for membership?"

That depends on your disability. In general, we serve people with physical disabilities and/or sensory impairments, such as blindness. Please contact us if you have any question about whether you can benefit from our services.

For more info: visit http://handiham.org

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 ----------

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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.
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