



April 2017 Board Member Reports

NORTHERN COLORADO AMATEUR RADIO CLUB

Board member reports are distributed at the general membership meeting and posted on the club website under the Newsletter tab. Not all content will be discussed during the meeting. If there are questions or comments, please raise them with board members or when invited during the general meeting. Not all board members will have a report each month.

President (Darren Kalmbach KC0ZIE)

No Report

Vice President (Gerry Mitchell)

No Report

Treasurer (Joe Hawley KD0TYU)

March Finance Report:

- Current cash balance: \$13,941.
- Expenses: Horsetooth Upgrades, Equipment Insurance
- Revenue: Equipment Sales, Membership
- Total Membership: 121, 41 renewals, no new members

A copy of the full treasurer report is posted on the club website in the member's only area.

Secretary (Tim Cottam W0TJC)

Both board and general meeting agendas and minutes are posted on the club website in the member's only area.

Station Trustee (Jeff Ford K0JEF)

Our license is current.

Public Affairs Officer (Kevin Utter N7GES)

Our tour of WWV is set for Saturday, June 3rd. The time is still to be announced, but will probably be in the morning. Last meeting, I took a count of interested people. Today, I need a list of names to submit to WWV. The tour takes about an hour. If people are also interested in seeing the WWVB (LF station), that also takes an hour. I will ask about



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interest in this today also. We are limited to about 12 people because the spaces we visit are small. If we end up with more than that, we can split up into two groups, but this will mean groups will be waiting on each other for the length of the tour.

We are planning to combine with the WARS club for field day this year. It will be held at the park in Nunn (north of Greeley). This may be a bit distant for some of us, but will still be a great combination of a quiet space to operate, and a chance to interface with the public. Steve Jackson, KD0UJK, has made arrangements for the facilities. I'm sure assistance will be needed for setup and other things to accommodate the larger group. Please consider how you can help so we can be ready when it's time to make final plans.

Your ideas for other activities are always appreciated. Please contact me either on air or via email at pao@ncarc.net. Your creative ideas help keep the club alive and interesting for all, and provide inspiration for people to become new hams.

Technical Committee Chair (James Cizek KI0KN)

Horsetooth-

A work party visited Horsetooth on Friday, April 7th. Many things were successfully accomplished. The new hard-line jumpers were installed on the tower for both the 447.275 and 145.115 repeaters.

The 447.275 repeater was returned to service using the new tower mounted antenna. One issue was discovered. The customer with the antenna closest to the 447.275 antenna is putting out a very high power signal on what might possibly be harmonically related (or close) to our frequency. This was causing a LOT of energy to be injected into our antenna system and causing problems. Since we didn't have the option of moving the antenna to an entirely new spot on the tower, the best compromise was to rotate the new antenna and place the offending signal in as much of a null as possible. The new antenna is an omni-directional antenna, but it does have a slight null directly behind it (because of the main support shaft that holds the dipoles). The null in the antenna is pointed basically directly at Longs Peak. All other compass directions are not shadowed and all main population areas should be covered very well.

The 3ghz link antennas connecting NCARC to the RMHAM Horsetooth site (and thus allowing the repeater linking with others in the state) were replaced with a new set of radios and antennas.

The Diamond X50 antenna that was previously assigned to the APRS (and temporarily used as the 447.275 antenna) was removed, disassembled, cleaned, tightened, replaced, and re-weather-sealed. It is now the antenna for the Buckhorn voting receivers located on Horsetooth.



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A new Laird 2Meter omni-directional antenna was installed for APRS as well as it's coax and a new lightning arrestor. The new stack of equipment (radio and TNC) was installed for the APRS Digipeater/iGate. There is a little bit of software configuration to finish but we are very close to having W0UPS-10 back on the air.

The Buckhorn voting receivers were re-programmed with a single channel each so that anyone either bumping the channel button or maliciously pushing it will no longer shift them to an incorrect frequency (this was the cause of the 145.115 repeater audio coming out on the 146.625 Buckhorn repeater).

The 224.520 repeater had all the tower-side feedline/jumpers removed and checked. Although that repeater was working great, these pieces were the only remaining pieces not early confirmed to be in good shape. That has been done now and everything re-weather-sealed.

The Horsetooth site contains a whole-site generator backup-power system. The generator has been in a state of ill-repair for years and not able to run. The generator was placed there by another tenant of the site who deemed it "abandoned in place" and quit servicing it. With the site owner's permission, we've take on the job of investigating what it would need to put it back into service. The first round of service was done Friday. It received a new water pump and gaskets. The immense amount of mouse nests present were also removed from it. It's wiring was repaired (as well as the building wiring that provides lights in the room). Its coolant was flushed and replaced, it's exhaust rain covers were repaired. The generator is running nicely now. It will not provide power to the site just yet, it needs a new starting battery and one last leak was found in the propane vaporizer jacket. We are investigating the cost/difficulty in replacing that now.

Finally, all the antenna feed-lines were labeled as well as the lightning suppressor panel so there is no question about what goes where. All documents were updated with new information relating to the site.

I would appreciate reports (both good and bad) on coverage on both the 447.275 and 145.115 now.

Buckhorn-

2 meter power amplifier that was donated to the club will be placed on the 146.625 repeater soon. Between its sensitive receiver and the voters, it's coverage is really good. It's only putting out about 7 watts at the antenna today so the amplifier will help bolster its transmit coverage prior to storm season.

Everything else at site is working great

UNC-



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The trouble we have had with the microwaves paths to UNC from both Horsetooth and Buckhorn are solved! Both paths are rock solid and we have excellent connectivity to UNC now. This will allow reliable linking to that repeater from other repeaters (in the past we've linked it to Buckhorn for Skywarn coverage).

146.850 repeater now requires CTCSS. It was operating with carrier squelch for quite a while. This was changed and now requires the 100hz input tone (as it always used to). This has also solved some local noise keying the repeater up at random times.

Budweiser Event Center-

The microwave link to Namaqua Hill above Loveland (in collaboration with the Loveland Repeater Association) is in place and operational. LRA is partially complete is setting up alternate access for us through their internet link to get into our system if both CSU and RMHAM internet access is unavailable.

The never-ending saga of WIRES-X is actually many steps closer to reality! We were finally able to track down 2 major problems with their software / windows networking and have gotten the majority of the software stack working! The only remaining problem is a USB sound device problem that I am working with Yaesu on. They only return about 1 in 20 of my phone calls, but they are calling back here and there.... So if we can get through this issue, WIRES-X will likely work on the 448.025 repeater for those of you interested in using Fusion.

Member at Large (Greg Ella AD0JP)

No report this month