THE ROUND TABLE
Monthly Newsletter Of The Denver Radio Club
Since 1917 November 2025

President's Message

By Kevin Schmidt, K0KPS

Greetings and Salutations,

The leaves on the trees are turning and the weather will soon turn too. Now is the time to get outside and perform some preventive maintenance on your antennas before it's too late.

A small work crew went up to Mestaa'ehehe Mountain (fka Squaw) on Saturday, October 18th to relocate the 449.350 repeater to a more ideal location for many reasons. The repeater was off the air for two days and after the work was completed is back on the air. You shouldn't see any changes in reception at the new site, but any reports would greatly be appreciated.

I know many of you attended the HamConColorado convention in Grand Junction. Let us know how it went and what you learned while attending.

The 285 Tech Connect Radio Club is holding their 2025 TechFest on November 8th at the Bridge Church near Hampton and Kipling. It includes five technical presentations on amateur radio topics and has demos and giveaways. More information can be found at https://na0tc.org/doku.php?id-techfests.

The club is initiating a Groups.io page for communication about events, questions, or other concerns regarding ham radio. See the information from Pete, AB8WN, on how to subscribe to the group. You can choose how you receive any messages when you sign up.

The annual holiday party has been finalized and will be held on Sunday, December 14th at 4:00 p.m. Mark it that date down on your calendar. Details will follow in another article. It's always good to gather and make those face-to-face contacts. I am hoping to see many of you there.

As always, I want to hear from you on any concerns, comments, questions, suggestions, or where you'd like to see where the club should go in the future. Please reach out to me at President@W0TX.org.

Until then, 73.

Kevin
KØKPS

Who's New In The DRC?

BY KELLY SOBANSKI, KB8OGP

The DRC is a very active club in the Denver metro area and we'd like to have all of our members listen for these new calls and welcome them to the club and repeaters. Welcome to our newest members:

Roderick Obrien - KF0KFW

We have a number of activities throughout the year and we'd like very much for you to participate in serving your community. If you have questions please feel free to ask on any of the repeaters or see the contact information on the last page of this publication.

Also, please join us once a month at the regular club meeting on the 3rd Wednesday at 7:00 p.m. For new hams we have the Elmer session which starts at 6:00 p.m. before the regular meeting.

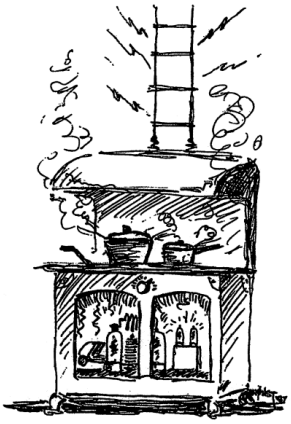
Lastly, please share any license upgrades or vanity calls via membership@w0tx.org!

DRC Recipes - 1988

PROVIDED BY CATHY VILLHAUER, N0CRZ

COOKIN' OVER THE AIRWAYS

The Denver Radio Club, Inc.



ONE-STEP LASAGNA

Jean Scheuch
xyl of KAØHPJ

1 lb. ground beef
8 oz. lasagna noodles, uncooked
32 oz. spaghetti sauce
1/2 c. water
3 c. (12 oz.) shredded mozzarella cheese
2 c. sm. curd cottage cheese
1/2 c. (4 oz.) grated Parmesan

Brown and drain beef. Combine with spaghetti sauce and water. In 9 x 13-inch pan, layer 1/3 of meat mixture, 1/2 of uncooked noodles, 1/2 of cottage cheese, 1/2 of mozzarella. Repeat layers, ending with sauce. Sprinkle Parmesan on top. Bake, covered with foil, at 350° for 2 hours.

DRC - Blast From the Past

Provided By Woody Linwood, W0UI

Woody Linwood, W0UI, sent over some photos from various DRC events in the past. This one is from the 1982 Christmas banquet.

1982 DRC Christmas Banquet

November Club Meeting

Provided By Jeff Irvin, KB0CHT

Please join us for the DRC meeting on November 19th. Bob Mesenbrink, NB0BN, will present on *Restoring a 60 Year-Old Swan 500C Transceiver*.

Elmer Session: 1800 - 1845MT
Presentation: 1800 - 2000MT (or end)
https://meet.google.com/bsq-zrpv-jpj
Or dial: (US) +1 442-600-4594 PIN: 616 926 296#

Question of the Month

By Bill Rinker, W6OAV

What are the advantages of HF Inverted Vees over Dipoles?

The answer can be found on page 3 of the December 2010 issue of the Roundtable: https://w0tx.org/RoundtableArchive/2010-RoundTables/RT201012(DEC).pdf

DRC 2025 Holiday Party

By Kelly Sobanski, KB8OGP

Please Save the Date and RSVP to attend the December Holiday Dinner Meeting!

This year, DRC will host a December Holiday Dinner Meeting at the Old Spaghetti Factory at 9145 Sheridan Blvd. Westminster, CO 80031 on Sunday the 14th of December from 4pm-7pm.

Join us for a three course sit down meal, fellowship, raffles and some holiday ham radio trivia. Cost is $30 per person and includes a beverage (tea, coffee, milk, soft drink or lemonade), salad, bread, a choice of three entrees (Lasagna, Chicken marsala or Mizithra Cheese and Browned Butter pasta) and signature spumoni ice cream for dessert. If you have dietary restrictions, please let us know at membership@w0tx.org.

Visit our webpage at https://w0tx.org/holiday to RSVP by December 11th. Club members who would like to pay by check e-mail Kelly/ KB8OGP at membership@w0tx.org to make arrangements. Checks must be received by December 10th.

Groups.io for the Denver Radio Club

By Pete Sobanski, AB8WN

Hello W0TX members!

The Denver Radio Club is launching a Groups.io page at https://groups.io/g/W0TX!

Special thanks to Bill (WT0DX) who shared a lot of information on Groups.io and how it's used so it was a lot easier to setup!

What is Groups.io?

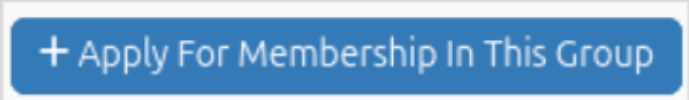
Groups.io is a website and email reflector that the club can use to share information and communicate with each other. This can be done via the website or through your email client. It also provides a place to share photos, files and other useful information, and create special interest groups There are many radio clubs that also use the platform.

How do I join?

You will recieve an e-mail to the address you've provided to DRC. Please note: this is an invi-

tation to join groups.io/g/W0TX. You are welcome to ignore the invitation.

If you already have a groups.io account:
- Go to https://groups.io/g/W0TX and select the "Apply For Membership In This Group" button:



If you DO NOT already have an account on Groups.io:
- After you click the "Apply For Membership In This Group" button you can enter an email address you would like to sign up with.

Members new to groups.io and existing members:
We will be manually approving all new members. Expect this to take a couple days. To speed up this process, please set your Display Name as First Name Call Letters (such as Denver W0TX), if no call letters, use Last Name.

Now What?
After you have been accepted into the DRC group, you can customize settings, view message or search by interest within groups.io.

Customize settings:
Customize your settings by going to the home page https://groups.io/g/W0TX and selecting the left side menu tabs Subscription / Settings or Group Profile.

Messages:
You can post messages on any ham radio topic that is of interest to the club. This includes questions about equipment, antennas, software, for sale, wanted… Relevant event information can also be posted, as well as updates to club repeaters. We will be lightly moderating the site, if we see any messages or responses that are off topic.

Message archive:
To view the message archive, use this link: https://groups.io/g/W0TX/topics. Note that messages are threaded under individual Topics (Subject of original message and any responses).

Sending Messages:
To send a new message to the group you have two options…
1) you can select New Topic on the left side menu bar if you are on the website:

2) You can email a message to: W0TX@groups.io

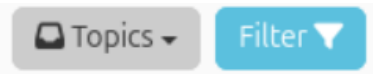
Messages can have attachments, such as files or images, but please consider the size before you send.

Replying to messages:
You can reply to any message by simply responding to the received email message or using

the Reply feature on the website (located below the message you are reading). Note that for emails you will have several additional options at the bottom of the message such as muting the topic to stop receiving emails on that topic.

Searching Messages:
You can also Search the message archive by using the search bar in the upper right corner of this page.

To view by Topics, make sure that your message screen has this setting:



Questions?

Feel free to create a new topic with your question to the Groups.io page so anyone else with the same question can find it on the site.

There is also a user manual (albeit long and verbose) on the Groups.io page here: https://groups.io/helpcenter/manual/membersmanual/gs_members/mem_gs_intro.htm which has a lot of useful information.

ANTENNA TUNING SIMPLIFIED

BY BILL RINKER, W6OAV

When building a half wave dipole, most hams begin with the familiar formula: “Length (feet) = 468 / frequency (MHz).” While this provides a good starting point, variations in wire type, insulation, height above ground, and the surrounding environment often cause the actual resonant frequency to shift lower from the calculated frequency. (Figure 1). This article presents a practical procedure to fine tune antenna length using real measurements, reducing the need for multiple trial and error trimming adjustments.

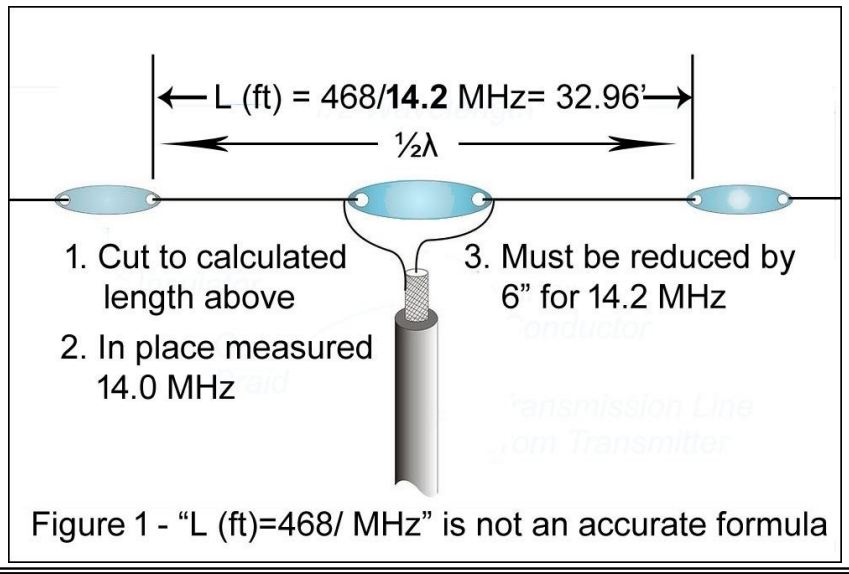


Figure 1 - “L (ft)=468/ MHz” is not an accurate formula

The procedure below determines how much wire to remove from an off frequency dipole (or an inverted V antenna) to reach the desired resonant frequency. It uses a correction factor based on the ratio between the dipole's measured resonant frequency after installation and the desired frequency, providing the amount to trim for accurate final tuning.

The Procedure

Step 1: Calculate theoretical ½λ length:

- Use the standard formula to calculate the theoretical ½λ wire length. For this procedure example, assume 14.2 MHz:
  - ½λ = 468 / 14.2 = 32.96 ft (32'11.5").

Step 2: Build the dipole to the theoretical length and install it in its actual location:

- To allow trimming, add a few extra inches of wire to each leg and configure the excess as described in either notes {1} or {2} below.

Step 3: Measure the Actual Resonant Frequency:

- Connect an antenna analyzer (or SWR bridge) to the feedline and sweep the band to locate the lowest SWR (resonant) point.
- Normally the resonant frequency will be lower than the calculated frequency in step 1. Assume for this example that resonance appears at 14.0 MHz instead of the intended 14.2 MHz, meaning that the antenna is slightly too long.

Step 4: Determine the Antenna's Constant Correction (CF) factor:

- Divide measured frequency in step 3 by desired frequency to find the dipole's correction factor:
  - CF = 14.0 /14.2 = 0.9859

Step 5: Using the CF recalculate the correct length:

- Multiply the length from step 1 by the correction factor:
  - L = 32.96' x 0.9859 = 32.50'
  - 32.96' – 32.50' = 0.5'
  - 0.5' = 6"
  - Trim = 6" total (3" off each leg of the dipole).

Step 6: Raise dipole and remeasure:

- The resonance should be very close to 14.2 MHz.

Step 7: Lock It In:

- Once resonance is at the desired frequency, solder the connections, secure the wire ends, and enjoy a well tuned dipole built on the exact characteristics of the installation, not just the "textbook" constant.

The dipole lengths developed in the procedure above were entered into 4NEC2, a well known antenna analyzer program. The resultant SWR curves shown in Figure 2 validate the procedure described above.

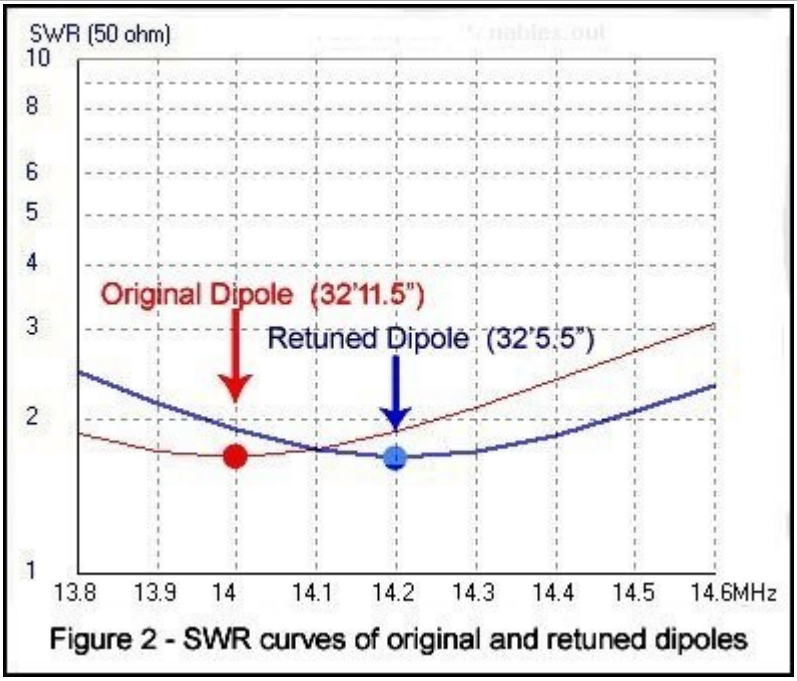


Figure 2 - SWR curves of original and retuned dipoles

Notes:

{1}Trim Without Cutting Methods

The methods below combine ease of adjustment during the tuning process with secure mechanical connections and the possibility to finalize the length with a clean cut once the correct resonance is achieved. This reduces hassle and repeated retuning steps while protecting the antenna wire and support system:

1. Leave Extra Wire Length at the Ends:
   When initially cutting a dipole wire, leave each leg a bit longer than calculated (e.g., 6 to 12 inches extra). This gives room to trim later without needing to replace or extend the wire.
2. Use Insulators with Loops or Rings:
   Attach the wires to the center insulator and end insulators leaving some slack or extra length beyond the support ropes or tie points. This way, one can trim or fold the extra wire back without untying or rehanging the entire antenna.
3. Folding Back Method for Initial Tuning:
   Instead of cutting wire right away, fold the extra wire back along itself toward the center of the dipole. This temporarily shortens the antenna without permanent trimming, allowing quick adjustments by unfolding or refolding. Once tuned, one can cut off the excess.
4. Wrapping Back and Securing:
   For a stronger and more secure temporary adjustment, bend the wire back through the insulator or use a small wrap to hold the folded portion in place. This prevents the wire from slipping or loosening.
5. Final Trimming:
   After tuning the antenna with an analyzer and achieving resonance at the desired frequency, trim the excess wire permanently for a clean installation.
6. Strain Relief:
   When tying off at the ends, leave a small loop or knot for strain relief on the support ropes or insulators, preventing wire damage and making future adjustments easier.

{2} YouTube Videos
How to shorten wire antenna without cutting it:
https://www.youtube.com/watch?v=nwHelQ59p_w
Tuning a dipole:
https://www.youtube.com/shorts/a46WNfCwrUA

References:
Tuning Your Dipole Antenna Installation:
https://www.onallbands.com/tuning-your-dipole-antenna-installation%EF%BB%BF/
Tuning a Dipole:
https://mocars.org/tuning-a-dipole/?utm_source=chatgpt.com
Two-up Dipole Tuning Technique:
https://www.eham.net/article/35660?utm_source=chatgpt.com
Building and Tuning a Dipole the Easy Way:
https://www.hamuniverse.com/easydipole.html?utm_source=chatgpt.com

INVENTORY YOUR SHACK—PROTECT YOUR INVESTMENT!

BY BILL RINKER, W6OAV

Would you know exactly what's in your shack if disaster struck? Many Hams own thousands of dollars in equipment without realizing it. Take time to record what you have before it's too late!

- **Why Inventory Matters**
  - Helps you recover more quickly after fire, theft, or damage.
  - Provides proof of ownership and value for insurance.
  - Makes things easier for your family or estate later on.
- **How to Get Started**
  - Create a **simple written or digital list** of all your gear.
  - Include each item's **description, purchase date, and price**.
  - Note any important details or accessories in a "comments" column.
- **Add Photos**
  - Take clear pictures of your equipment and serial numbers.
  - Store photos safely — on a flash drive, or in the cloud.
  - Keep a copy off-site, such as in a safe-deposit box.
- **Digital Inventory Options**
  - Build a spreadsheet in **Excel or Google Sheets**.
  - Update it whenever you buy, sell, or trade items.
- **What to Include**
  - Radios, amplifiers, tuners, test gear, and power supplies.
  - Antennas, towers, and mobile installations**.**
  - Cables, parts, and accessories — even small items can be grouped together
- **Tips**
  - Start with your most valuable equipment first.
  - Keep the price as the original purchase cost, not current value.
  - Back up your list on your PC and send a copy to yourself by email.

- **Benefits**
  - Documentation to discuss with your insurance agent.
  - A ready reference if anything is lost or stolen.
  - Peace of mind knowing your gear and investment are protected.

PL-259 Loss Information

By Bill Hester, N0LAJ (SK)

Below is an excerpt from the ARRL's January 1998 issue of QST in their New Ham Companion, '*The Doctor is In'*.

The results go contrary to the widely held belief that the N type connector is vastly superior at UHF and higher frequencies.

Below is a copy of the ARRL test results:

A Alan Bloom, N1AL, used an HP8753 RF network analyzer and a test setup to contrast the losses of the lowly UHF connector to the highly respected N connector. The results are shown below:

	N	***UHF***
Frequency (MHz)	*Loss (dB)*	*Loss (dB)*
1.8	0	0
30	0	0
100	0	0
150	0	0.01
200	0	0.015
450	0	0.09
600	0	0.13
900	0	0.33
1000	0.025	0.4
1300	0.05	0.43
1600	0.025	0.25
2000	0.025	0.01

The UHF connector's insertion loss increases until about 1200 MHz, and then starts to decrease until it is almost zero for the UHF connector at 2 GHz! At this frequency, both connectors are about 1/4 wavelength long.

Bottom line: UHF connectors work fine through the VHF range, and are not too bad even on the 420 MHz band if you can stand about 0.1 dB mismatch loss per connector.

Additional information, from John, G8MNY:

“The 10 Amp 500 Volt rating of the 4mm [center] pin of the "UHF" PL259 connector, properly made & used, does take some beating. The high current & voltage rating means it is far more able to handle SWR mismatch, than say the tiny pin of a other plug systems. 50 ohm N/BNC/ TNC plugs use centre pins of only 1.3mm or 3x smaller, hence the need for good quality silver/ gold plate to keep the contact losses down compared to a rugged PL259. This fact is often ignored by the purists...

The [shell] is NOT the ground contact as many think, it is used to hold the inner ground contact shoulder firmly to socket shoulder, so it is important the [shell] is kept tight.

Moving parts like the threaded part of the [PL239 & SO239] should be greased to reduce wear, [and] to … ensure a tight snug water repellent fit (not water proof), & less chance of being cross threaded! New un-greased connectors do corrode & seize tight, even under water tight tape!

Typical plug impedance is 30 ohms for its 15mm length. This short impedance difference means the mismatch loss caused is only significant if the length is greater than 1/12 of a wavelength. So, the loss at 70cm is only just apparent on a properly made & used plug, as used by a few aerial makers!

Did you know you can get PL259 plugs & SO239 sockets for large low loss LDF550 coax? This is for things like 1km VHF radio feeder run on board large ships!

And you can even get true 50ohm versions made like the waterproof N plugs, but at 50x the price of the cheap ones!”

From the Archives

April 1958

Technical Talks, Raffle Set For April Meeting

Three talks on topics of interest will be the feature of the monthly meeting of The Denver Radio Club slated for Wednesday evening, 7:30 p. m., April 16, in Sabin Hall at the Colorado General Hospital, 9th and Colorado Boulevard.

Probable subjects for the talks will be Single Sideband, Frequency Measurement, and Antennas. A fifteen minute question and answer session will be held following the talks. Program Chairman Frank Wallace will be the moderator.

Monthly DRC Lunch - Reminder

By Pete Sobanski, AB8WN and Kevin Schmidt, K0KPS

Join us on the third Wednesday of each month at 11:30 a.m. for lunch at Sunrise Sunset. The address is 1424 S Wadsworth Blvd, Lakewood, CO 80232. No reservations are required. If you are interested in meeting and talking about radio, or other topics, don't hesitate in coming by. w0tx.org/2024/06/09/denver-radio-club-lunch

The Round Table needs you!

We are looking for an individual who can take over the editing of the Round Table. The new person will work with the current editor to transition the publishing approach away from Microsoft Publisher (Microsoft is stopping support for Publisher in 2026.). If you have questions or are interested in helping with producing the Round Table, please email roundtable@w0tx.org. Thank you!

DRC's Emergency Response Info

In the event of a disaster in the metro area, please monitor our repeaters on 145.490/448.625 (primary) and 449.350 (secondary).

The emergency Net Control Operator will provide information and/or requests to members for assistance.

W0TX Repeater Directory

Kings Soopers Reward Program - Help the DRC.

kingsoopers.com/i/community/community-rewards

citymarket.com/i/community/community-rewards

Random Site Of The Month

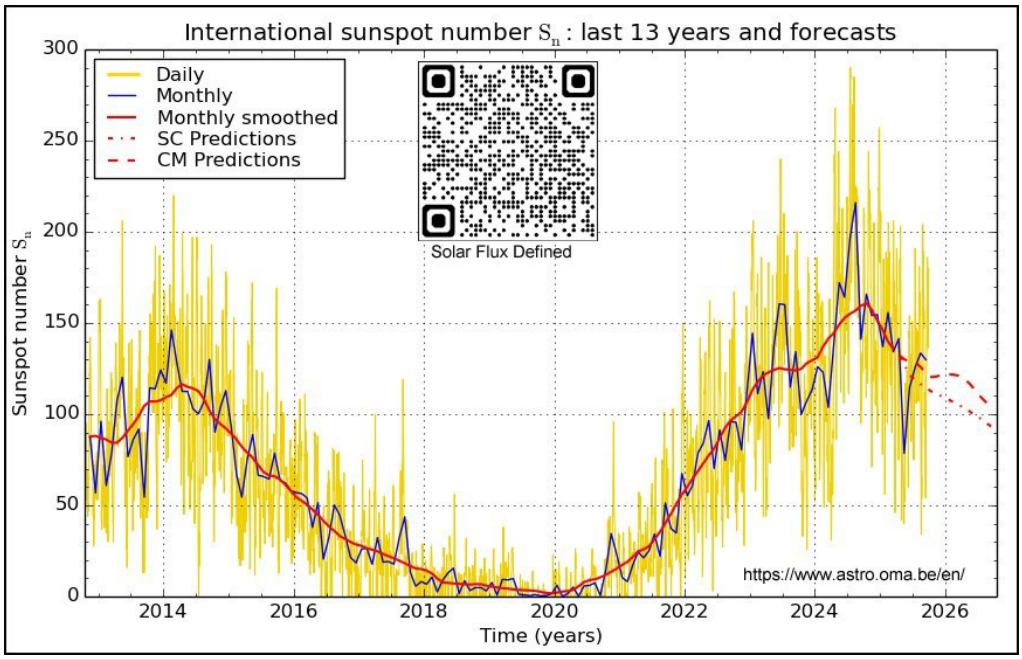
Fauquier Amateur Radio Association

The Round Table Archive and Article Index

w0tx.org/roundtable

Propagation Forecast

By Bill Rinker, W6OAV



Upcoming Events

Hamfests & Conventions

Event	Date	Location	Sponsor Website
285 TechConnect Tech Fest	Nov 8th	Bridge Church	Flyer

Upcoming QSO Parties

The following are the Contests not sponsored by the ARRL. Please submit additions for future issues.

State/Province	Start Date	End Date	Sponsor Website	Notes
None listed				

Source: qsoparty.eqth.net/index.html See contestcalendar.com/contestcal.html for a larger QSO parties list.

Attention

The DRC Board of Directors meetings are held on the 4th Wednesday of each month via Google Meet and are open to any member. If you wish to attend, please contact a board member prior to the meeting night for specific information.

DRC Repeaters

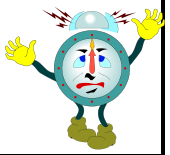
BAND	Freq / Shift / PL Tone	Additional Information
6m	53.090MHz (-1MHz) 107.2Hz PL	
Packet	145.05MHz	**Metro Denver Area Coverage**
2m	145.490MHz (-) 100Hz PL	**Linked to 70cm / 448.625MHz. Primary frequency during emergency net.**
2m	147.330MHz (+) 100Hz PL	**Local area. Does not TX a PL.**
1.25m	224.380MHz (-) 100Hz PL	
70cm	447.825MHz (-) DCS~073; NB 12.5; +/- 2.5	**Saint Anthony's. Note: This is a narrow band repeater requiring DCS.**
70cm	448.625MHz (-) 100Hz PL	**Linked to 2m / 145.490MHz. 1° disaster net freq.**
70cm	449.350MHz (-) 100Hz PL	**Wide area coverage with Echolink, node # 4140. Secondary frequency during emergency net.**
70cm	449.775 MHz (-)	**Yaesu digital, C4FM, Wires-X, DN, VW & Data. No analog FM. W0TX Room 40931.**
70cm	446.7875MHz (-)	**BrandMeister Repeater: Slot 1 – Wide Area Traffic, Slot 2 – Local Talk Group 310804**

DRC's Trading Post

Don't forget you can find locally-sourced, ham-grown merchandise at: w0tx.org/trade

NOVEMBER 2025

DRC Net Sundays at 8:30 p.m. on 145.490 / 448.625 (no PL)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Nov Sweepstakes - CW 
2 Nov Sweepstakes - CW	**3** Nov Sweepstakes - CW	**4**	**5** **Learning Net** 7:30 p.m. 145.490 / 448.625 (No PL) Full Moon	**6**	**7**	**8** EME - 50 to 1296 MHz
9 EME - 50 to 1296 MHz	**10**	**11** Last Quarter 	**12** **Learning Net** 7:30 p.m. 145.490 / 448.625 (No PL)	**13**	**14**	**15** Nov Sweepstakes - Phone
16 Nov Sweepstakes - Phone	**17** Nov Sweepstakes - Phone	**18**	**19** DRC Lunch 11:30 @ Sunrise Sunset, Lakewood DRC Meeting Elmer 6 p.m. General 7 p.m. New Moon	**20**	**21**	**22**
23 **30**	**23**	**25**	**26** **Learning Net** 7:30 p.m. 145.490 / 448.625 (No PL)	**27** First Quarter 	**28**	**29**

See arrl.org/contest-calendar for additional details about contests.

DRC Board of Directors

President	K0KPS	Kevin Schmidt	303-475-9234	president@w0tx.org
Vice-President	N6WHV	Dick Nelson	Check Roster	n6whv@w0tx.org
Secretary	WW0LF	Orlen Wolf	303-279-6264	secretary@w0tx.org
Treasurer	WW0LF	Orlen Wolf	303-279-6264	treasurer@w0tx.org
Board Member	KF0AWC	Brian Diem	970-218-5543	kf0awc@w0tx.org
Board Member	K1DBC	Doron Ben Chaim	720-254-1561	k1dbc@w0tx.org
Board Member	AB8WN	Peter Sobanski	720-884-7470	ab8wn@w0tx.org
Board Member	K4RNY	Ronnie Bock	303-519-8510	k4rny@w0tx.org
Board Member	KB0CHT	Jeff Irvin	Check Roster	Check Roster

DRC Staff and Volunteers

Benevolent		Carolyn Wolf	303-279-1328	benevolent@w0tx.org
Club Librarian	WG0N	Dave Baysinger	303-987-0246	wg0n@arrl.net
Digital Committee	Open			digital@w0tx.org
Education Coordinator	Open			elmer@w0tx.org
EmComm Coordinator	Open			emcomm@w0tx.org
Field Day Chairman	N6WHV	Dick Nelson	Check Roster	fieldday@w0tx.org
Membership	KB8OGP	Kelly Sobanski	Check Roster	membership@w0tx.org
Net Control	KS0E	Alex Acerra	Check Roster	net@w0tx.org
Public Relations	K0AXP	Dave Verlinde	248-515-2371	publicrelations@w0tx.org
RT Managing Editor	AD0UZ	Brennan Pate	Check Roster	roundtable@w0tx.org
RT Associate Editor	W6OAV	Bill Rinker	Check Roster	Check Roster
Hamfest Manager	KE0YKV	Bill Worthington	720-626-5485	drcfest@w0tx.org
Tech. Committee Chair	N0XRX	Mark Thomas	720-438-0848	tech@w0tx.org
Trustee	WW0LF	Orlen Wolf	303-279-6264	trustee@w0tx.org
VE Team	K0RAP	Robert Pickett	720-336-0114	k0rap@w0tx.org
Website & YouTube	K1DBC	Doron Ben Chaim	720-254-1561	websiteadmin@w0tx.org

Please Let Us Know

Over the years we occasionally hear from hams who have read the Round Table in other states and countries around the world. We appreciate the comments and we would like to know where you are located. So if you live outside the Front Range or Denver Metro Area and read the newsletter either online, email or hard copy please send a short note via email with your *City, State* or *City, Country*.
We will publish it at a later date in our new regular feature called Round Table Round World.
To respond to this request send your information to roundtable@w0tx.org.

Subject: I'm located in…

Editor's Note

DRC members - this is your newsletter. Please email your club or amateur radio related suggestions to the editor. Members are the heart of The Denver Radio Club, so if you have an expertise or an interest in a particular segment of ham radio that you 'd like to write about, you may email your submissions to roundtable@w0tx.org. The submission deadline is the 25th of the Month. ~ Editor