



# THE ROUND TABLE

Monthly Newsletter Of The Denver Radio Club

Since 1917

December 2025

---

## **PRESIDENT'S MESSAGE**

BY KEVIN SCHMIDT, KØKPS

Holiday Greetings and Salutations,

At this time of the year we all are thankful for friends, family, the feast, and maybe that rare DX QSO. Our family was blessed to receive our granddaughter two days before Thanksgiving. She is so precious. I hope you and your family and friends enjoyed your holiday also.

The club held its November meeting on the 19th of November. It was a hybrid meeting with Bob Mesenbrink, NBØBN, who spoke on restoring a Swan 500C Transceiver. The talk was highly informative with many photos of the steps he took in the restoration and some helpful hints. It just might pique some interest in others on taking on a project like this. The in person meeting was well attended. It was the last Wednesday night meeting this year as our December club meeting will be held on Sunday, December 14th, from 4:00 to 7:00 p.m., at the Old Spaghetti Factory in Westminster. If you haven't made your reservations, don't wait as time is quickly running out. I hope to see many of you there for the holiday get together.

I haven't heard whether the Learning Net will go ahead and have their net on December 17th. When I hear either way I will let everyone know.

My wife and I would like to wish all of you a happy holiday season. Make time for you to enjoy the season as well.

Happy Holidays,

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:

Ronald Ebert - AJ0T

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.

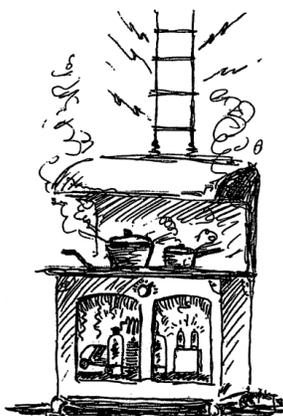
Lastly, please share any license upgrades or vanity calls via [membership@w0tx.org](mailto:membership@w0tx.org)!

## DRC RECIPES - 1988

PROVIDED BY CATHY VILLHAUER, N0CRZ

## COOKIN' OVER THE AIRWAYS

The Denver Radio Club, Inc.



### OLD-FASHIONED PEANUT BRITTLE

Virginia Carey  
xyl of KØPGM

**3 c. white sugar**  
**1 1/2 c. white corn syrup**  
**1 1/3 c. water**  
**1/4 tsp. salt**

**1-lb. pkg. RAW peanuts**  
**2 T. butter**  
**2 tsp. soda**  
**Optional: 2 c. coconut**

Stir sugar, syrup and water together and boil until it forms a soft ball, 238°. Add salt and peanuts and stir mixture on stove until it becomes a light yellow color (hard-crack stage, 290°). Remove from stove and stir in butter and soda. Mixture will bubble. Pour on greased platter or cookie sheet and cool partially by lifting around edges with spatula. Keep spatula moving under candy so it won't stick. When candy is firm, but still warm, turn over. Break into pieces when cold. Use candy thermometer for best results.

---

## DRC - BLAST FROM THE PAST

PROVIDED BY WOODY LINWOOD, W0UI



Summer, 1983 - Bob Swanlund's house atop Squaw Mountain

---

## QUESTION OF THE MONTH

BY BILL RINKER, W6OAV

What is a "Traveler's Dual Band J Pole"?

The answer can be found on page 3 of the January 2008 issue of the *Roundtable*:  
[https://w0tx.org/RoundtableArchive/2008-RoundTables/RT200801\(JAN\).pdf](https://w0tx.org/RoundtableArchive/2008-RoundTables/RT200801(JAN).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](mailto: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](mailto:membership@w0tx.org) to make arrangements. Checks must be received by December 11th.

---

## GROUPS.IO UPDATE

BY PETE SOBANSKI, AB8WN

Last month I mentioned that our Groups.io page (<https://groups.io/g/W0TX>) was setup and available for members to start using. An invite went out to all of our members including an easy sign up link. We had an amazing response! Currently, 87 hams registered, and we racked up 23 messages and several learning threads in the first week!

We're eager to see all our interested members post. Rather than focus on what not to put on public forums, here is a list of topics and ideas we'd love to hear about:

- Questions:
  - Do you have an amateur radio related question? Please post!
  - Examples are anything from what others think of a radio (we have one there already!), antenna suggestions (including dealing with HOA's or local laws), how to use our repeaters...
- Help:
  - We'd love to hear about issues with club repeaters you've noticed...
  - Need help with antennas, radio tech, etc. Post a request!
  - Have some ideas about meetings, website etc. We're ready for you!
- Mentorship:
  - Need a conversation with an Elmer to advance or get your license? Post an Elmer request.
  - Be an Elmer! Respond to questions!
- Hobby Work:
  - Are you working on a radio project? Post it!
  - New POTA/ SOTA or home station set ups? Post It!

- Make an antenna out of Christmas lights? Post It!
- Share Accomplishments:
  - Have you gotten an award lately? We would love to hear!
  - Place high in a contest? We'd love to congratulate you!
  - Did you make a cool contact? (DXpedition, new DX) Brag to us!
- Companionship;
  - Have a great conversation on a repeater? Tell us about it!
  - Want company on a POTA or SOTA? Tell us when and where, so we can connect!

Just keep everything “on air appropriate” and Ham Radio related. It’s been fun to read and respond to people.

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](https://groups.io/helpcenter/manual/membersmanual/gs_members/mem_gs_intro.htm) which has a lot of useful information.

---

## BEST SIMPLE ANTENNAS FOR EACH HF HAM BAND

BY BILL RINKER, W6OAV



Many new hams, or hams with newly acquired HF privileges, often wonder where to begin when it comes to building or buying a simple HF antenna. Selecting the right antenna for HF operation depends on available space, budget, and operating goals. This article provides suggestions for the various ham bands between 160 and 6 meters.

### 160 Meters (1.8 to 2.0 MHz)

Best Options: Vertical Monopole or Full Wave Loop

The 160 meter band presents significant challenges due to the wavelength, a half wave dipole

---

requires approximately 256 feet of wire and ideally should be mounted 128+ feet high for optimal performance. For most operators, these options work best:

- Quarter Wave Vertical with Radials: A 128 foot vertical (or a shortened version using loading coils) with 16+ radials provides competitive performance to a low dipole. The vertical excels at low radiation angles needed for DX.
- Full Wave Loop: A large horizontal loop (approximately 525 feet total perimeter) fed with open wire line can work across all HF bands including 160m. This provides surprisingly good reception with low noise.
- Inverted L: Uses a vertical section with horizontal top loading, requiring fewer radials than a standard vertical while maintaining good efficiency.

### 80 Meters (3.5 to 4.0 MHz)

Best Option: Wire Dipole or End Fed Half Wave

An 80 meter  $\frac{1}{2}\lambda$  antenna is approximately 135 feet long, making it manageable for many stations.

- Center Fed Dipole: The classic choice. Can be installed as a horizontal wire, inverted V, or even with bent ends to fit available space. Works well at heights as low as 30 to 40 feet.
- End Fed Half Wave (EFHW): Approximately 135 feet of wire with a 49:1 transformer. Requires only one elevated support point and works on multiple bands (80m through 6m).
- Fan Dipole: Add an 80m element to a multiband fan dipole for excellent efficiency on the band while maintaining other band coverage.

### 60 Meters (5.3 to 5.4 MHz)

Best Option: Tuned Doublet or Multiband Antenna

Since 60 meters is a narrow channelized band in many countries, most operators use multiband antennas with tuners rather than dedicated antennas.

- Tuned Doublet: A dipole cut for a nearby band (80m or 40m) fed with ladder line and antenna tuner handles 60m effectively and works well on all bands.

### 40 Meters (7.0 to 7.3 MHz)

Best Option: Dipole or Vertical

A 40 meter half wave dipole is approximately 66.70 feet long, a very practical size for many installations.

- Center Fed Dipole: The gold standard. Can be horizontal, inverted V, or even with ends drooped down. Extremely efficient and easy to build.
- End Fed Half Wave: Approximately 66 feet of wire. It is easier to deploy than a dipole as it only needs one elevated point.
- 33 Foot Vertical: A quarter wave vertical with radials. Omnidirectional and works well for DX with proper radial system (minimum 16 to 20 radials).

### 30 Meters (10.1 to 10.15 MHz)

Best Option: Dipole or Vertical

At approximately 46 feet, a 30 meter dipole is very manageable.

- Half Wave Dipole: Simple and efficient. Can be horizontal or inverted V. The narrow bandwidth of this band (50 kHz) means a resonant dipole covers the entire band without retun-

ing.

- Quarter Wave Vertical: About 23 feet tall with radials. Excellent for DX with proper ground plane.
- Fan Dipole Element: Add a 30m element to an existing multiband fan dipole.

### **20 Meters (14.0 to 14.35 MHz)**

Best Option: Dipole

The 20 meter band is the most popular HF band, and a dipole is approximately 33 feet total length, easily manageable.

- Half Wave Dipole: Can be horizontal, inverted V, or even bent to fit available space. Works excellent even at relatively low heights (20 to 30 feet).
- End Fed Half Wave: Approximately 33 feet of wire. Popular for portable operations.
- Vertical Quarter Wave: About 16.5 feet with radials. Omnidirectional coverage.

### **17 Meters (18.068 to 18.168 MHz)**

Best Option: Dipole or Dual Band Antenna

A 17 meter dipole is approximately 24 feet total length.

- Half Wave Dipole: Simple and efficient for this WARC band.
- Dual Band 20m/17m EFHW: Uses a loading coil to create resonance on both 20m and 17m in a single vertical antenna.
- Fan Dipole: Combine with 12m for a dual WARC band antenna.

### **15 Meters (21.0 to 21.45 MHz)**

Best Option: Dipole

A 15 meter dipole is approximately 22 feet total length, very compact.

- Half Wave Dipole: Can be horizontal or vertical. Performs excellently during high sunspot cycle years.
- Fan Dipole: Often combined with 40m since 15m is the third harmonic of 40m.
- Vertical Half Wave: Simple to construct and deploy, especially for portable operations.

### **12 Meters (24.89 to 24.99 MHz)**

Best Option: Dipole

A 12 meter dipole is approximately 19 feet total length.

- Half Wave Dipole: Simple and efficient for this narrow WARC band.
- Fan Dipole with 17m: Combines two WARC bands in one antenna using a common feedpoint.

### **10 Meters (28.0 to 29.7 MHz)**

Best Option: Dipole or Vertical

A 10 meter dipole is only about 16.17 feet total length—very compact and easy to deploy.

- Half Wave Dipole: Can be horizontal or vertical. Excellent for taking advantage of current Solar Cycle 25 openings.
- Quarter Wave Ground Plane: Approximately 8 feet vertical element with four radials angled down at 45 degrees. Omnidirectional.

- 
- End Fed Half Wave: About 16 feet of wire. Extremely portable.

### 6 Meters (50 to 54 MHz)

Best Option: Dipole, J Pole, or Moxon

At 6 meters, antennas become very manageable in size.

- Half Wave Dipole: Approximately 9 feet total length. Can be horizontal for SSB/CW or vertical for FM repeaters.
- Coaxial Dipole: Made entirely from RG 58 coax—simple and effective.
- Moxon Beam: Small directional antenna (approximately 6 foot boom) offering gain for weak signal work.
- J Pole: Vertical antenna popular for local FM operations.

### Multiband Antenna Recommendations

For All Band Coverage:

- G5RV: 102 feet of wire with 34 feet of ladder line. Works reasonably well on 80m, 40m, 20m, 15m, and 12m with a tuner, though it's a compromise antenna.
- Doublet with Ladder Line: Any length dipole (80m or longer) fed with open wire ladder line and antenna tuner. Works on all bands with a good tuner. (*This is the author's favorite all band antenna*).
- End Fed Half Wave (80m version): 135 feet of wire covers 80m through 6m with built in matching transformer.
- Fan/Parallel Dipole: Multiple dipoles sharing a common feed point. Build for your most used bands (e.g., 40m/20m/10m).

### Antenna Type Comparison

Dipole vs. Vertical:

- Dipoles are horizontally polarized, have efficient radiation at resonant frequency, require two support points, and typically produce higher angle radiation suitable for moderate distances.
- Verticals are omnidirectional, produce low angle radiation excellent for DX, require only one support (but need radials), and tend to pick up more electrical noise.
- Magnetic Loops: Small magnetic loops work across HF bands but are limited to QRP/low power (typically 25 to 60 watts maximum). They work best on higher bands (20m to 10m) where loop efficiency improves. Performance is comparable to a dipole on upper bands but significantly reduced on 80m and 40m.

### Key Points

1. The simple half wave dipole remains the best all around choice for any single HF band, affordable, efficient, and easy to build.
2. For multiband operation with one feedline, consider a fan dipole (multiple resonant elements), or a low band doublet fed with open wire, or an EFHW antenna with a tuner.
3. Space limited operators should consider end fed antennas, verticals with shortened elements and loading coils, or inverted V configurations that reduce horizontal footprint.
4. Lower bands (160m to 40m) benefit from verticals for DX work, while upper bands (20m to 6m) work excellently with simple dipoles even at modest heights.
5. Always cut antennas 3 - 5% longer than calculated and trim to resonance using an antenna analyzer, it's easier to shorten than lengthen.

**References:**

Vertical vs Horizontal – HF Monopole vs Dipole:

<https://www.m0spn.co.uk/2020/09/24/vertical-vs-horizontal-hf-monopole-vs-dipole/>

Vertical or Horizontal? Choosing Your First HF Multiband Antenna on a Budget:

<https://moonrakeronline.com/eu/blog/vertical-or-horizontal-choosing-your-first-hf-multiband-antenna-on-a-budget>

HF Antennas: Vertical or Horizontal?

<https://hamwaves.com/vertical-horizontal/en/index.html>

Antenna Performance Vertical vs Horizontal Antennas:

<https://www.skywave-radio.org/wp-content/uploads/2023/01/P-Antenna-Perform-v03.pdf>

Horizontal Vs. Vertical Dipole Antenna:

<https://www.n1fd.org/forums/topic/horizontal-vs-vertical-dipole-antenna/>

What is the best HF antenna?

<https://www.alphaantenna.com/community/hints-and-kinks/technical-articles/what-hf-antenna-is-best-the-hf-vertical-dipole-or-magnetic-loop/>

Build This Multiband Dipole:

<https://www.hamuniverse.com/multidipole.html>

Theory of Full Wave Loops:

<https://practicalantennas.com/theory/loop/full-wave/>

Top 5 HF Ham Radio Antennas for Beginners:

<https://hamradioprep.com/hf-ham-radio-antennas/>

10 Types of Ham Radio Antennas:

<https://www.besthamradio.com/10-types-of-ham-radio-antennas/>

Ham Radio Antennas: Types, Differences, and Pros & Cons:

<https://strykerradios.com/ham-radios/ham-radio-antenna-types-differences-pros-HF>

HF Loop Antennas – ARRL:

<http://www.arrl.org/hf-loop-antennas>

Top 5 HF Ham Radio Antennas for Beginners:

<https://www.youtube.com/watch?v=eONL1ntJ3-c&t=63s>

The All Band HF Doublet:

<https://www.hamuniverse.com/hfdoublet.html>

Simple Doublet Antenna:

<https://practicalantennas.com/designs/dipole/doublet/>

Doublets-Ladder line Fed Antennas  
<https://palomar-engineers.com/ladder-line-fed-antennas>

The ZS6BKW Multiband HF Antenna:  
<https://www.awarc.org/the-zs6bkw-multiband-hf-antenna/>

## WHAT IS THE BEST SWR?

BY BILL RINKER, W6OAV

The best SWR target value is as close to 1:1 as possible, but values up to 1.5:1 are considered ideal for ham radio performance. SWR readings between 1.5:1 and 2:1 is generally acceptable and should provide reliable operation for most equipment. Values above 2:1 begin to impact efficiency and may risk transmitter protection circuits or, with older radios, potential damage over long use. See Chart 1.

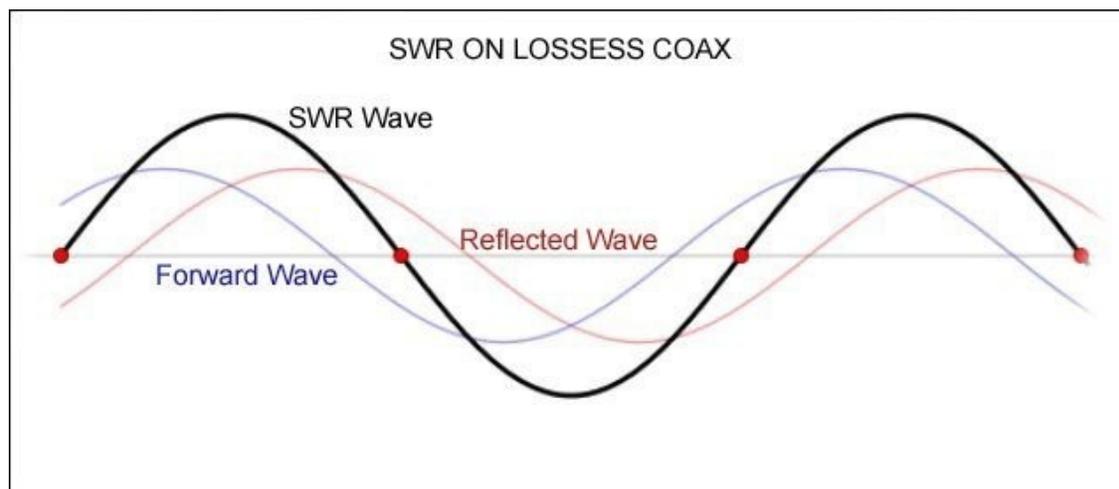
CHART 1 - SWR Values and Their Affects	
SWR	Affects
1.0:1 to 1.5:1	Ideal range; minimal reflected power; best transmission efficiency; no risk to modern transmitters.
1.5:1 to 2.0:1	Good range; some minor reflection but negligible effect on signal; safe for nearly all radios.
2.0:1 to 2.5:1	Adequate for casual operation; increased reflected power can reduce signal strength. Try to improve if possible.
2.5:1 to 3.0:1	Noticeable performance loss; increased risk to equipment; avoid sustained high-power operation.
Over 3.0:1	High reflection; significant risk of damage and strong reduction in radiated power; must correct immediately.

### Key Points to Remember

- SWR is a measure of impedance matching between radio, feedline, and antenna, not of total antenna efficiency.
- Modern transceivers usually tolerate SWR up to 2:1 to 2.5:1 and may reduce power (“foldback”) to protect finals above this level.
- Low SWR ensures maximum forward power is delivered to the antenna, resulting in better signal strength and less loss in the feedline.
- A “perfect” SWR below 1.2:1 often yields little audible improvement over a 1.5:1 match; going lower is not essential for most users.
- SWR above 2.0:1 usually means additional adjustment is needed to avoid unnecessary loss or equipment stress.
- Always strive for an SWR in the 1.0 to 1.5:1 range for best performance but recognize that values up to 2:1 are generally safe and effective for amateur radio operation.

- **Know the expected SWR of the antenna and do not waste time trying to “improve” that value.** If the SWR reading is lower than the expected value, it typically indicates additional system losses caused by factors such as degraded coaxial cable, poor connector integrity, or other resistive faults in the transmission line. Chart 2 shows the typical expected SWRs of several common antennas.

CHART 2 – TYPICAL SWR OF COMMON ANTENNAS		
Antenna Type	≈ Impedance	Lowest SWR
$\frac{1}{2}\lambda$ Dipole	73 $\Omega$	1.2 to 1.5:1
$\frac{1}{2}\lambda$ Inverted Vee	45 to 50 $\Omega$	1.4:1 to 1.5:1
$\frac{1}{4}\lambda$ Vertical	36 $\Omega$	1.2 to 1.5:1



### References:

Don't Worry About High SWR! (Page 8):

[https://w0tx.org/RoundtableArchive/2016-RoundTables/RT201602\(FEB\).pdf](https://w0tx.org/RoundtableArchive/2016-RoundTables/RT201602(FEB).pdf)

SWR Demystified: Understanding the Real Impact of SWR on Your Station:

<https://shop.rf.guru/pages/swr-demystified-understanding-the-real-impact-of-sw-r-on-your-station>

How to Interpret SWR Meter Readings:

<https://www.rightchannelradios.com/blogs/installation-guides/18542155-interpreting-sw-r-meter-readings>

How to Correctly Use an SWR Meter: A Full Guide:

<https://moonrakeronline.com/blog/how-to-use-sw-r-meter>

Understanding Swr And Its Impact On Performance:

<https://fastercapital.com/topics/understanding-sw-r-and-its-impact-on-performance.html>

SWR Stuff Every Ham Radio Beginner Needs to Know:

<https://www.youtube.com/watch?v=CyYr9TiVXLY>

## QR CODES VS BARCODES

BY BILL RINKER, W6OAV

Most hams are fascinated by technological advancements, and many have noticed the increasing dominance of QR codes over traditional Barcodes. (Figure 1). Here's an explanation of this shift that may interest these hams.

Overall, while traditional Barcodes remain effective for straight forward inventory management and point of sale transactions, QR codes offer enhanced capabilities that make them increasingly popular in various applications. Examples of these applications include ordering from restaurant menus, ordering event ticketing, downloading/installing software, and more. QR codes are gaining popularity over traditional Barcodes for several key reasons:

The barcode left below only leads to the DRC website. The QR code right below not only leads to the DRC website but also allows reading or downloading an issue of a *Roundtable* newsletter.



Figure 1 - A typical Barcode and QR Code

- 1. Higher data capacity:** QR codes can store significantly more information than Barcodes. QR codes can store up to 7,089 characters including alphanumeric data and URLs while Barcodes are limited to up to 128 characters depending on the type of barcode.
- 2. Two-dimensional structure:** QR codes use a 2D grid to encode data both vertically and horizontally, allowing them to contain much more information in a compact space.
- 3. Diverse data types:** QR codes can store various types of data, including text, URLs, geolocation information, and plain text. This makes them suitable for more complex applications requiring detailed data.
- 4. Error correction capability:** QR codes have built-in error correction, allowing them to be read even when up to 30% of the code is damaged or obscured. This makes them more resilient than Barcodes in challenging environments.
- 5. Easier to scan:** QR codes can be scanned from any angle, making them more user-friendly and efficient to use compared to Barcodes that require precise alignment.
- 6. Smartphone compatibility:** Most smartphones can read QR codes using their built-in camera apps, eliminating the need for specialized scanning equipment.
- 7. Digital and print versatility:** QR codes can be used effectively in both print and digital media, while Barcodes are primarily limited to print applications.
- 8. Size flexibility:** Despite containing more information, QR codes can be made smaller than Barcodes while maintaining readability.

---

**9. Enhanced security:** QR codes offer encryption options, making them more secure for sensitive information.

These features make QR codes a more flexible and powerful tool for various applications, from inventory management to marketing and information sharing, surpassing the capabilities of traditional Barcodes in many scenarios.

The first reference below is very interesting. The video offers a comprehensive overview of information encoding's evolution, tracing the path from Morse Code through Barcodes to QR codes. It explains the mechanics behind each technology, highlighting the advantages of the newer methods over their predecessors. The video emphasizes QR codes' growing significance in modern communication and data sharing.

References:

How do QR codes work? <https://www.youtube.com/watch?v=w5ebcowAJD8>

QR Codes Vs. Barcodes <https://itemit.com/qr-codes-vs-Barcodes-which-is-best/>

QR Codes and Barcodes As Fast As Possible <youtube.com/watch?v=qYvqFV4Rf8c>

### SECURITY WARNING



To safely scan QR codes, start by verifying the source; be cautious of codes in public spaces or on unsolicited materials, as these are more likely to be tampered with. Inspect the code for signs of alteration, ensuring it has a clear, high-quality design. If your device allows, preview the link before opening it to check for a legitimate URL without unusual characters or misspellings. Once scanned, examine the website for red flags such as an unsecured connection (no "https"), poor design, excessive ads, or grammatical errors. Never provide sensitive information unless you're certain the site is secure. Additionally, keep your antivirus software updated to protect against malware and exercise caution when making payments via QR codes, ensuring they are from trusted sources. By following these best practices, you can enjoy the convenience of QR codes while minimizing your risk of scams.

How to spot a fake QR code (and stop getting scammed):

<https://www.youtube.com/watch?v=2KfnlZWvAMw>

---

## 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](http://w0tx.org/2024/06/09/denver-radio-club-lunch)

---

**FROM THE ARCHIVES**

April 1958

**Do We Want The Roundtable?**

On the very few occasions when the "Roundtable" failed to make its regular appearance, the Club reaction would indicate that it is a desirable part of the Club function. The Board of Directors have approved plans for enlarging the size and the total circulation. It is desired to improve the paper in appearance and interest to every Ham who receives it.

What makes the "Roundtable" possible? The answer is advertising. Even though the Club is a non-profit organization, sound business principles must be applied to finances. As is the case with any newspaper, the cost per issue exceeds the subscription rate — so it is with the "Roundtable". The advertising space sold for each issue must provide the cost of publication so that our dues will be available for other uses by the Club. Our advertisers are in business to make a reasonable profit; therefore, they should expect to get results from the ads placed by them. Each ad has something of value to sell — a 32V3 at Rapsco, NC-300 at Rogers, a substantial saving on your Laundry and Cleaning at Bonham's, QSL and printing at All West Sales Service. Your special attention is directed to our four new advertisers — Fistell's Electronics, Harry Groussman Inc., Sol's T. V., and Hytronics Measurements, Inc.

The private ads by Club members are for our convenience and without cost, and they provide a valuable service for each of us. Most important of all, the "Roundtable" is advertising for the Club to get new members and help it grow.

Do YOU want the "Roundtable"? If your answer is "Yes", then read the ads, look for bargains, and whenever possible, patronize the firms who advertise with us.

— By W0BWJ

**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](mailto: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](https://kingsoopers.com/i/community/community-rewards)

[citymarket.com/i/community/community-rewards](https://citymarket.com/i/community/community-rewards)



#### RANDOM SITE OF THE MONTH

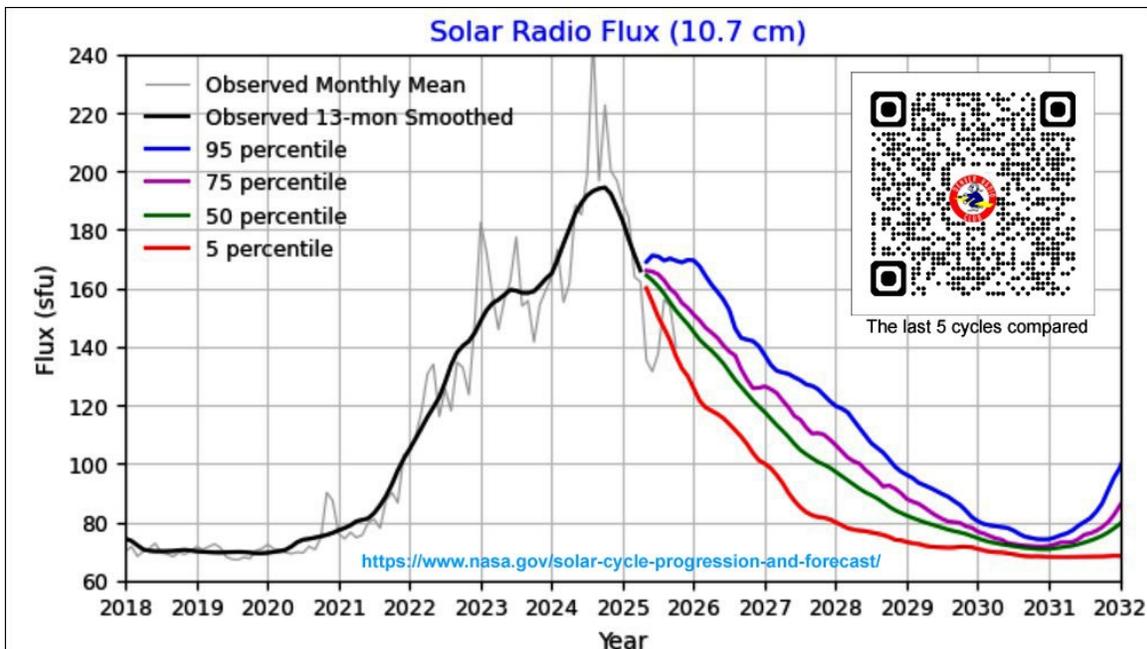
[Belarusian Federation of Radioamateurs and Radiosportsmen](#)

#### THE ROUND TABLE ARCHIVE AND ARTICLE INDEX

[w0tx.org/roundtable](https://w0tx.org/roundtable)

## PROPAGATION FORECAST

By Bill Rinker, W6OAV



**UPCOMING EVENTS**  
**HAMFESTS & CONVENTIONS**

Event	Date	Location	Sponsor Website
RMHAM Winter Swapfest	Feb 15th	Adams County Fairgrounds	<a href="http://rmham.org/the-swapfest">rmham.org/the-swapfest</a>

**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](http://qsoparty.eqth.net/index.html) See [contestcalendar.com/contestcal.html](http://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	<a href="#">Metro Denver Area Coverage</a>
2m	145.490MHz (-) 100Hz PL	<a href="#">Linked to 70cm / 448.625MHz. Primary frequency during emergency net.</a>
2m	147.330MHz (+) 100Hz PL	<a href="#">Local area. Does not TX a PL.</a>
1.25m	224.380MHz (-) 100Hz PL	
70cm	447.825MHz (-) DCS~073; NB 12.5; +/- 2.5	<a href="#">Saint Anthony's. Note: This is a narrow band repeater requiring DCS.</a>
70cm	448.625MHz (-) 100Hz PL	<a href="#">Linked to 2m / 145.490MHz. 1° disaster net freq.</a>
70cm	449.350MHz (-) 100Hz PL	<a href="#">Wide area coverage with Echolink, node # 4140. Secondary frequency during emergency net.</a>
70cm	449.775 MHz (-)	<a href="#">Yaesu digital, C4FM, Wires-X, DN, VW &amp; Data. No analog FM. W0TX Room 40931.</a>
70cm	446.7875MHz (-)	<a href="#">BrandMeister Repeater: Slot 1 – Wide Area Traffic, Slot 2 – Local Talk Group 310804</a>

**DRC's Trading Post**

Don't forget you can find **locally-sourced, ham-grown** merchandise at: [w0tx.org/trade](http://w0tx.org/trade)

**HAM RADIO OUTLET**

**NOBODY BEATS AN HRO DEAL!**

COME VISIT US AT  
**8400 E ILIFF AVE #9, DENVER, CO 80231**

TOLL FREE: 800.444.9476 | DIRECT: 303.745.7373 | EMAIL: DENVER@HAMRADIO.COM

**HAMRADIO.COM**

<b>DECEMBER 2025</b>							<i>DRC Net Sundays at 8:30 p.m. on 145.490 / 448.625 (no PL)</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
	1	2	3 <b>Learning Net</b> 7:30 p.m. 145.490 / 448.625 (No PL)	4  Full Moon	5 160 Meter	6 160 Meter	
7 160 Meter	8	9	10 <b>Learning Net</b> 7:30 p.m. 145.490 / 448.625 (No PL)	11  Last Quarter	12	13 10 Meter	
14 10 Meter	15 	16	17 <b>DRC Lunch</b> 11:30 @ Sunrise Sun- set, Lakewood  Learning Net TBD	18	19  New Moon	20	
21 Rookie Roundup	22	23	24 <b>Learning Net</b> 7:30 p.m. 145.490 / 448.625 (No PL)	25 	26	27  First Quarter	
28	29	30	31 <b>Learning Net</b> 7:30 p.m. 145.490 / 448.625 (No PL)				

See [arrl.org/contest-calendar](http://arrl.org/contest-calendar) for additional details about contests.

## DRC BOARD OF DIRECTORS

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

## DRC STAFF AND VOLUNTEERS

Benevolent		Carolyn Wolf	303-279-1328	<a href="mailto:benevolent@w0tx.org">benevolent@w0tx.org</a>
Club Librarian	WG0N	Dave Baysinger	303-987-0246	<a href="mailto:wq0n@arrl.net">wq0n@arrl.net</a>
Digital Committee	Open			<a href="mailto:digital@w0tx.org">digital@w0tx.org</a>
Education Coordinator	Open			<a href="mailto:elmer@w0tx.org">elmer@w0tx.org</a>
EmComm Coordinator	Open			<a href="mailto:emcomm@w0tx.org">emcomm@w0tx.org</a>
Field Day Chairman	N6WHV	Dick Nelson	Check Roster	<a href="mailto:fieldday@w0tx.org">fieldday@w0tx.org</a>
Membership	KB8OGP	Kelly Sobanski	Check Roster	<a href="mailto:membership@w0tx.org">membership@w0tx.org</a>
Net Control	KS0E	Alex Acerra	Check Roster	<a href="mailto:net@w0tx.org">net@w0tx.org</a>
Public Relations	K0AXP	Dave Verlinde	248-515-2371	<a href="mailto:publicrelations@w0tx.org">publicrelations@w0tx.org</a>
RT Managing Editor	AD0UZ	Brennan Pate	Check Roster	<a href="mailto:roundtable@w0tx.org">roundtable@w0tx.org</a>
RT Associate Editor	W6OAV	Bill Rinker	Check Roster	Check Roster
Hamfest Manager	KE0YKV	Bill Worthington	720-626-5485	<a href="mailto:drcfest@w0tx.org">drcfest@w0tx.org</a>
Tech. Committee Chair	N0XRX	Mark Thomas	720-438-0848	<a href="mailto:tech@w0tx.org">tech@w0tx.org</a>
Trustee	WW0LF	Orlen Wolf	303-279-6264	<a href="mailto:trustee@w0tx.org">trustee@w0tx.org</a>
VE Team	K0RAP	Robert Pickett	720-336-0114	<a href="mailto:k0rap@w0tx.org">k0rap@w0tx.org</a>
Website & YouTube	K1DBC	Doron Ben Chaim	720-254-1561	<a href="mailto:websiteadmin@w0tx.org">websiteadmin@w0tx.org</a>

### 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](mailto:roundtable@w0tx.org).

*Subject:* I'm located in...

**EDITOR'S NOTE** © Denver Radio Club. Articles in the RT may be reprinted with permission for non-commercial or educational use only.

*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](mailto:roundtable@w0tx.org). The submission deadline is the 25th of the Month. ~ Editor*