



THE ROUND TABLE

Monthly Newsletter Of The Denver Radio Club

Since 1917

December 2023

PRESIDENT'S MESSAGE

BY GERRY VILLHAUER, W0GV

Hello DRC Members.

The big event upcoming is our annual DRC Holiday Party. I have been announcing this on the net for a few weeks but, I know not everyone checks in on the DRC nets. The date is Dec 20, 2023 and the location is a new venue, The Rocky Mountain Metro Airport in Broomfield in the Mount Evans Room. That is in the main terminal building. You will enjoy a great catered meal, prepared on site with two choices of entrees and all the trimmings including drinks and desert.

The program will be on Amateur Radio Ballooning (and More!) Presented by Jim Langsted, KC0RPS. Jim has been ballooning with the Edge of Space Sciences since 2003 and has been on approximately 280 balloon launches and recoveries. These balloon launches carry experiments from students ranging from grade school to college seniors. The program's mission is to encourage interest in a large range of the sciences; and is very successful. The balloons with experiments attached are launched to altitudes of 100,000 feet, then parachuted back to earth and recovered. The tracking of the balloons is all accomplished using ham radio frequencies and tracked with APRS, ADS-B and other very interesting technology including landing prediction software, all written by hams and surprisingly accurate. Jim will also be talking about Weather Balloons, Pico Balloons that are tracked, sometimes circling the earth several times and of course, Chinese Spy Balloons.

Don't miss this opportunity to enjoy a great meal, fellowship, a very interesting program and of course, several drawings for great prizes.

This event is by reservation only and seating is limited. Please go to our DRC website, w0tx.org and click on the events tab, print off the reservation form and mail with your check to the address on the form. **Dec 12, 2023 is the DEADLINE for us to receive your registration.** Don't miss this annual event.

As you drive into the airport, heading South, you will come to a circle drive. The building on your right (West) is the main terminal building. As you continue around the drive you will be heading East right into the parking area.

A Big Thanks to Dan Grady, N2SRK our ARRL RM Division Vice Director for bringing us up to date on what is happening at the League at our November meeting.

Thanks to all of our new members who have recently joined the DRC. Your support is very much appreciated. Please come to meetings and events and stay active. Your name and call will be posted in this edition of the Round Table.

73 for now,

Gerry
W0GV
President



WHO'S NEW IN THE DRC?

FROM CATHY VILLHAUER, N0CRZ, DRC MEMBERSHIP

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:

Chet Rebman - KFØOAV	Bryan Hoylman - KFØMUO
Derec Shuler - KDØWTQ	Nick Lyon - KFØJIE

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.

QUESTION OF THE MONTH

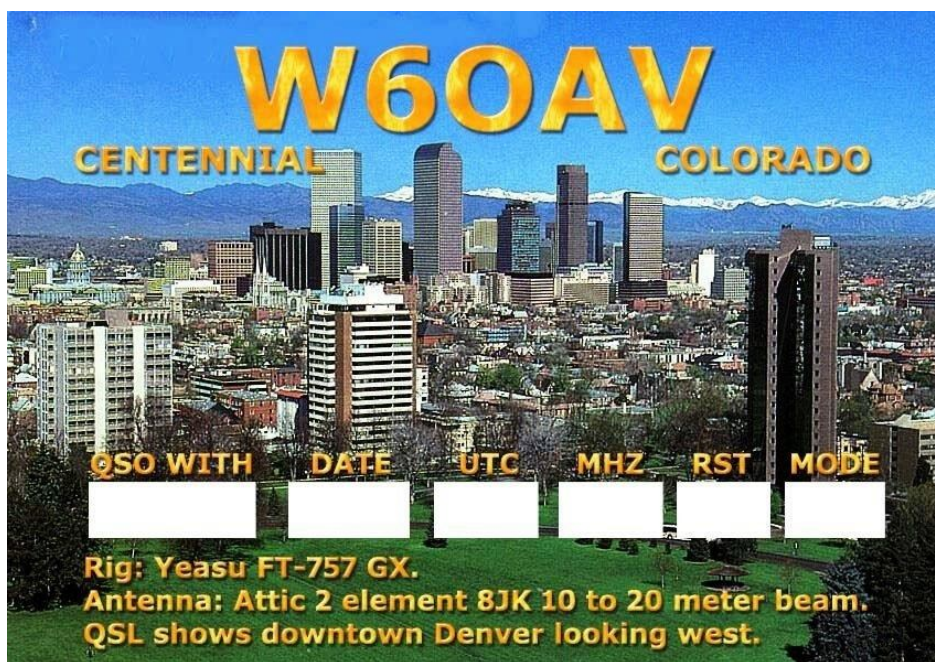
BY BILL RINKER, W6OAV

How do you calculate VHF/UHF antenna lengths for insertion into a PVC tube?

The answer can be found on page 5 of the May 2009 issue of the *Roundtable*:

[https://w0tx.org/RoundtableArchive/2009-RoundTables/RT200905\(MAY\).pdf](https://w0tx.org/RoundtableArchive/2009-RoundTables/RT200905(MAY).pdf)

QSL CARD



SWPC CHANGES SOLAR CYCLE 25 FORECAST

BY BILL RINKER, W6OAV

Solar Cycle 25, the sun's current cycle, began in early 2019. At the time, a panel of experts from NOAA and NASA predicted that the cycle would peak in 2025 and be weaker than average, like the Solar Cycle 24, with a sunspot number of 95 to 130.

But other scientists soon realized that the sun was not behaving as expected. In June 2023 scientists realized that solar activity was increasing faster than expected. Several experts predicted that the solar maximum would arrive before the end of 2024.

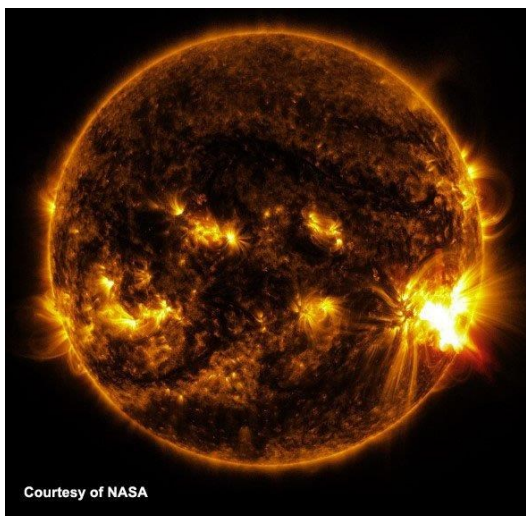
On October 25, 2023, the NOAA's Space Weather Prediction Center (SWPC) issued a revised prediction for Solar Cycle 25. The SWPC acknowledged that its initial predictions were no longer reliable and that, based on the latest data and the best available models, solar activity would increase more quickly and peak at a higher level than initially predicted. The SWPC now predicts that solar maximum will likely begin between January and October 2024 with a maximum sunspot number between 137 and 173.

It appears that HF operators can expect exciting and, at times, strange propagation conditions during Solar Cycle 25!

[https://skyandtelescope.org/astronomy-news/new-forecast-resets-solar-cycle-expectations/#:~:text=The%20new%2C%20updated%20prediction%20now,2019%20\(pink%20shaded%20areas\).](https://skyandtelescope.org/astronomy-news/new-forecast-resets-solar-cycle-expectations/#:~:text=The%20new%2C%20updated%20prediction%20now,2019%20(pink%20shaded%20areas).)

<https://mynews13.com/fl/orlando/weather/2023/10/31/solar-activity-may-peak-in-2024-in-latest-noaa-forecast#:~:text=The%20panel%20also%20forecast%20a,first%2010%20months%20of%202024.>

<https://www.livescience.com/space/the-sun/scientists-finally-acknowledge-that-they-got-their-solar-cycle-predictions-wrong-and-that-we-are-fast-approaching-the-suns-explosive-peak#:~:text=On%20Oct.%2025%2C%20NOAA's%20Space.space%20exploration%20and%20satellite%20companies.>



VHF/UHF DIGITAL HAM RADIO

BY BILL RINKER, W6OAV

Digital VHF/UHF ham radio is becoming extremely popular. Digital radio offers the following advantages:

- Less battery consumption (30%) compared to an equivalent analog radio.
- Uses noise-canceling technology producing less background noise.
- Can carry additional digital information such as GPS info, texts, name, callsign, pictures, etc.
- Has extended noise free range due to digital error detection and correction.
- Allows worldwide communications with just an HT (and a technician license minimum).
- Most VHF/UHF digital radios will also support analog.

The many digital modes have their own pros and cons. Interested in learning which of the many digital modes might be best for you?

The URLs listed below should help deciding which digital mode would be of interest to you. Once you decide on a particular digital mode, search YouTube for that mode to learn more about it.

Analog VS Digital Radio: A Beginner's Guide to Radio Modes

<https://www.youtube.com/watch?v=YI5ezrw7T1c>

Ham Radio Digital Modes: Which Will Survive The Test of Time?

<https://www.youtube.com/watch?v=GDAu3YR7mKl>

My Thoughts on the Amateur Radio Digital Voice Modes

<https://www.youtube.com/watch?v=tOjg7k6Hxwc>

Ham Radio Digital Modes Comparison - DMR, DSTAR or YSF? P25 or NXDN?

<https://www.youtube.com/watch?v=oBYjPkXJFa8>

What Is the Best Ham Digital Voice Mode For VHF/UHF

<https://www.linkedin.com/pulse/what-best-ham-digital-voice-mode-vhfuhf-kerry-james/>



RADIO SHACK MEMORIES

BY BILL RINKER, W6OAV

Through the past decades, many of us bought a lot of radio gear, computers, parts etc. from Radio Shack. Would you like to stroll down Radio Shack memory lane? If so, check out the URL listed below. This site contains every Radio Shack catalog from 1939 to 1992. The catalogs are in page flipping format which means that they do not have to be downloaded. It is interesting to look at all the equipment and parts sold in the "old days"!

This site also contains a detailed history of Tandy, Radio Shack. Also, there are also many miscellaneous other computer catalogs available.

<https://www.radioshackcatalogs.com/>



The DRC needs you!
Please contact W0GV (president@w0tx.org) if you are interested in helping with the open positions.
See the list at the end of the newsletter.

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

PAST ROUND TABLE PAGES

PROVIDED BY WOODY LINWOOD, W0UI

From the October 1960 edition.

SIX METERS AND UP

By GLENN, W0JR

The September Eyeball QSO was held up on top of Squaw Mountain, 11,500 ft. at the QTH of Bob & Margaret Swankind, otherwise known as W0WYX, the only two mile high, Mile High Hi-Bander. Thirty two were present and all enjoyed the fine hamburgers and goodies that go with a meal of that type. We certainly enjoyed your hospitality.

Our six meter mobileers had an opportunity of doing a good deed on the highway again. Involved for the second time were K0RRC, Earl and K0BTO, Dennis. The first incidence involved a mail truck that was forced off the road by another car and the information was passed on very ably by K0YJG, Clair (BTO's XYL). The most recent was one involving a drunk passed out at a railroad crossing waiting for a train to pass thru. Shortly after the train passed and the police called via W0JR, the mans foot slipped off the brake onto the gas pedal ending up fortunately in a ditch a little down the road still sleeping. Good hunting, fellows.

No DX reported in during Sept., and local activity is on an increase.

A mobile transmitter hunt is planned for Oct. 16.

That's all for this month, hope to cu on 6.



Item of Interest

The following was taken from reprint appearing in the Navships Electronics Information bulletin.

A TELETYPE RECEPTION BY W0AJL

1. Beware the lightning that lurketh in an undischarged condenser lest it cause thee to bounce upon thy buttocks in a most unseamanlike manner.
2. Cause thou the switch that cuppleth large quantities of juice be opened and thusly tagged that thy days may be long in this earthly vale of tears.
3. Prove to thyself that all circuitz that radiateth and upon which thou worketh are grounded and thusly tagged lest they lift thee to radio-frequency potential and causeth thee to make like a radiation too.
4. Tarry not amongst those foolz that engage in intentional shocks for they are

(Continued on Page 9)

Letters to the Editor

Sir:

History is never made in the abstract. Always it is something that some one or some group has done. Moreover, history is never some solid mass achievement but a circuit composed of many components each perfected by some particular person or a specific group. Thus as we look upon history we discover a similarity to amateur radio and us 'Hamus Americanus'.

Today it is almost impossible for one to stand as a lone individual. This is especially true for 'Hamus Americanus' who has to fight constantly the onrushing stream of currents ever trying to curb his privileges or even absorb the minute particle of spectrum that has remained for the pursuit of his hobby. To survive he must choose to become a component part of a determined group that will espouse his cause for the good of all and combined, stem these currents from engulfing us all.

The amateur radio club is that group, and the Denver Radio Club is our own local champion. However, "for the good of all" means just that; for while there is quantity in numbers only unity can exert force. Restrictions or curtailment placed on Sideband's Donald Duck" will have eventually the same repercussions on the Brass Pounder's "CW" and Ancient Modulator's "AM." Divided among ourselves—we shall destroy ourselves and the same dust will cover the gear of all 'Hamus Americanus' be he Novice, Advanced, General, or Technician.

We are united by a common bond of Ham Radio. "Live and let live" to make this bond stronger and for a fuller enjoyment give a little time and effort to the Denver Radio Club and become an integral component of the greatest bunch in the world, "Hamus Americanus."

Dennis Boruchin, K0BTO

(Continued on Page 10)

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DRC'S EMERGENCY RESPONSES

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
[Anchorage ARC](#)

THE ROUND TABLE ARCHIVE

Go to: w0tx.org/roundtable

THE ROUND TABLE ARTICLE INDEX

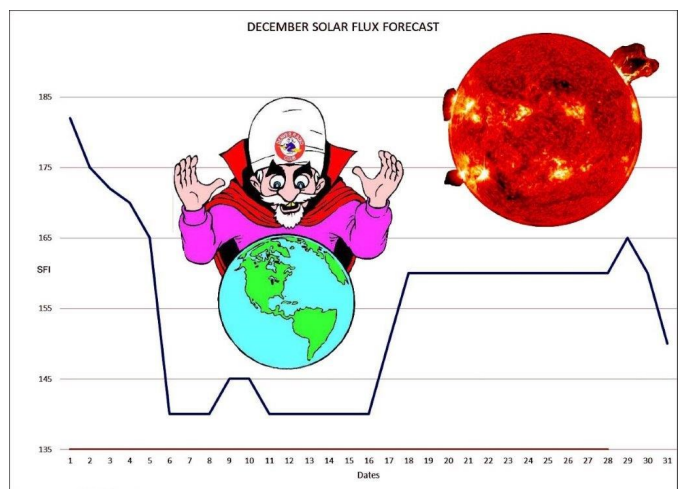
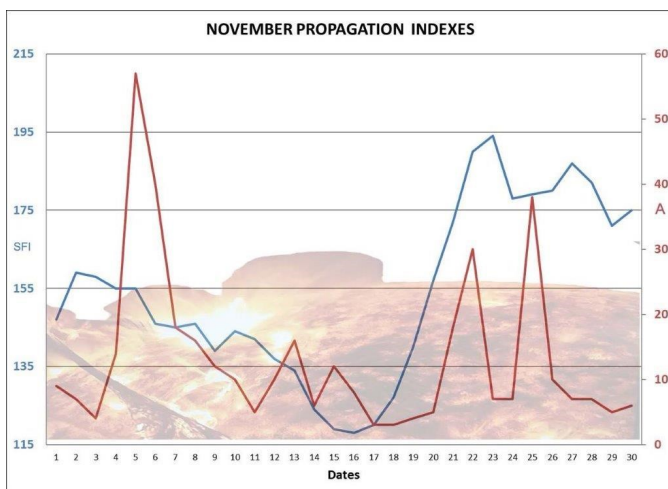
Go to: w0tx.org/RoundtableArchive/-RoundTables-Index.pdf

PAST & FUTURE PROPAGATION CONDITIONS

By Bill Rinker, W6OAV

The charts below show the Solar Flux and “A” indexes for last month and the forecast for this month’s Solar Flux index.

Refer to the September 2010 *Round Table* for more complete information on interpreting these charts, which is available at: [http://www.w0tx.org/RoundtableArchive/2010-RoundTables/RT201009\(SEP\).pdf](http://www.w0tx.org/RoundtableArchive/2010-RoundTables/RT201009(SEP).pdf)



UPCOMING EVENTS
HAMFESTS & CONVENTIONS

Event	Date	Location	Sponsor Website
The Swapfest	2/18/24	Adams County Fairgrounds	rmham.org

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
Idaho	03/09/2024	03/10/2024	Idaho QSO Party	

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 the month and are open to any member. Due to scheduling of meeting space, the board does not always meet at the same location and on occasion meetings are held via Skype. Anyone wishing to attend, please contact a board member prior to 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. Has voting receivers. Does not TX a PL.
2m	147.330MHz (+) 131.8Hz PL	Test mode operation. Send signal reports to Tech Committee.
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






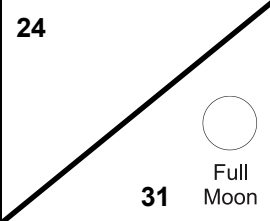

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DECEMBER 2023							<i>DRC Net Sundays at 8:30 p.m. on 145.490 / 448.625 (no PL)</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
					1 160 Meter Contest - Begins 2200 UTC	2  Last Quarter	
3 160 Meter Contest - Ends 1559 UTC	4	5	6 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	7	8 	9 10 Meter Contest - Begins 0000 UTC	
10 10 Meter Contest - Ends 2359 UTC  New Moon	11	12	13 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	14	15	16	
17 Rookie Roundup - 1800 – 2359 UTC   First Quarter	18	19	20 DRC Holiday Dinner Doors open at 5:15 pm Dinner at 6:00 pm Additional Info	21	22	23	
24  31 Full Moon	25 	26	27 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	28	29	30	

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

DRC BOARD OF DIRECTORS

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Board Member	WG0N	Dave Baysinger	303-987-0246	wg0n@arri.net
Board Member	KB0CHT	Jeff Irvin	Check Roster	Check Roster

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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 © 2023 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. The submission deadline is the 25th of the Month. ~ Editor