



ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

July 2018

PRESIDENT'S MESSAGE

BY GERRY VILLHAUER, W0GV

Hello DRC Members,

I hope you are enjoying the very warm summer weather. I was recently in Austin, TX where it was 100 degrees and about 50 percent humidity. On return to Colorado it was 90 degrees and low humidity...not too bad!

Our Field Day event has come and gone. The last I looked at the count of contacts, we were over 500. That will not win us any place at the top, but, that is not why we do it anyway. We go to have fun and enjoy the experience with our members and visitors and promote ham radio. Every member or visitor I talked with had very positive comments about our site location and the event. The Big Thank You goes out to Dave (K0HTX) for being the chairman. Putting on a successful Field Day event takes a lot of planning, coordination and preparation. Great Job Dave! And, thank you to all who helped Dave setup and tear down. Your assistance with these tasks was Very Much appreciated.

Our June program was presented by Will Perkins (W1ZRV) and the subject was FEMA. How the agency works, his real life experiences and the changes that have been made since the lessons learned from Hurricane Katrina. A very interesting and informative presentation, Thank You Will!

Our July Program --- **PLEASE PAY SPECIAL ATTENTION TO THIS** --- We will be meeting at Rocky Mountain Metro Airport (Formally Jeffco Airport) at Broomfield. For your GPS if needed, 11705 Airport Way, Broomfield, CO 80021. That is the address of Signature Flight Support. Go to the South end of Airport Way, around the circle and look for Signature's sign to the East. Park in the visitor area and enter into Signature's building. We will have people to guide you from inside their lobby. We will have talk in set up on our 449.350 repeater. The program will be hosted by Paul Deeth (WA2YZT) who is the transmitter engineer for CBS Channel 4. The news Helicopter will be on display for us, complete with pilots and photographers. They will explain the helicopter operation and how the news is gathered for all the major Denver TV stations and KOA radio from one, yes one, helicopter. This will be an experience that few get the opportunity to experience. I almost forgot the date, Wednesday July 18th at 7 p.m. In addition there will be no Elmer Session on that date. Paul also plans to have water and some munchies available. **PLEASE remember the location change for this meeting!**

We recently got the internet service restored at our Station 4 repeater site. We hope to have the Yaesu Fusion repeater WIRES feature online soon.

Thanks to our new members for making the DRC "Your Club". Please come to meetings and other events and stay active. Your name and call will be listed in this issue of the Round Table.

73 for now, and please help inform the uninformed about our July meeting location at Broomfield.

Gerry (W0GV)
President



WHO'S NEW IN THE DRC?

BY BOB WILLSON, KC0CZ

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 personally to make them feel welcome. Welcome to our newest members:

| | | |
|------------------------|----------------------|------------------------|
| Grant Thatcher - K7GWT | Terry Roper - KD0MNT | Chris Lockwood - W0CKL |
| Ann Roper - KD0ZUY | Paul Wolaver | Koko Olsen - WN0KAL |

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.

TECHNICAL COMMITTEE REPORT

BY BILL RINKER, W6OAV

The following is an overview of current issues.

DRC/TSA Aurora Site (WW0LF)

Goal: Maintain contact with TSA relative to establishing a "communications room" for the DRC.

Status: WW0LF has sent a letter to the TSA describing the services that the DRC can provide and recommendations for the communications equipment and antennas. Orlen has submitted an MOU that the salvation army is reviewing.

Station 4 Remote Power Control (WG0N)

Goal: Install Internet controlled power outlets.

Status: WG0N has installed an Internet controlled outlet power strip at Station 4. The internet is working now and the remote control should be operational soon.

Centennial Cone Remote Power Control (W0GV)

Goal: Document equipment to be controlled by the Internet controlled power outlets. Install the outlets.

Status: Orlen will set up the control through the 7330 controller that is in the rack for the other two repeaters.

Fusion Repeater Move (W0GV)

Goal: Discuss the feasibility of moving the Fusion repeater to a better coverage location.

Status: Feasibility study is in progress.

Fusion Repeater WIRES Interface (W0GV)

Goal: Get the WIRES Interface on line.

Status: Pending.

Fusion Repeater WIRES Interface (W0GV)

Goal: Train several club members how to program and maintain the Fusion Repeater system.

Status: Pending

Additional Notes:

Dave (WG0N) will check antennas on the tower at station 4.

JULY MEETING PRESENTATION

PROVIDED BY PAUL DEETH, WA2YZT

The Denver TV Media, channels 2,4,7,9,20,31 and KOA radio now share a single helicopter for news gathering and weekday traffic reports. The copter is leased from Helicopters Incorporated, (Heli Inc), in St. Louis. They provide about 80 ships nationwide for TV and Radio news gathering and traffic reports.

The copter is loaded with a camera controlled by the photographer in the back seat, along with several VHF and UHF radios for communications to the TV stations and KOA radio. There is a 2ghz microwave system to link the camera video to the TV stations. The copter is located at Signature Flight Support at the Rocky Mt. Metro Airport (Jeffco Airport) at 11705 Airport way Broomfield, CO 80021. It is west of Wadsworth just before the 36 expressway off Interlocken Loop Rd. Take Airport way to the end and go around the circle and park in the lot in front of the Signature Flight building. There will be some DRC members at the door to get you into the hanger.

Talk in will be on 449.350 100hz Tone.



LEARNING NET REPORT

BY FRED HART, AA0JK

Thanks goes out to our net controllers: Doron (K1DBC), Jim (AD0ZM) and Steve (KD0WMO). The following topics were discussed this past month:



- Antennas: Do you have a favorite antenna that you are using? Let us know.
- QRP
- "Mighty Woof" 2m/440 Dual Band Fan Dipole (DBFD): WB0TGE, http://wb0tge.com/?page_id=33
- The Super Antenna MP1DXMAX: <http://newsuperantenna.com/>
- Tarheel Antennas: <http://tarheelantennas.com/>
- Project in the works up-date by AD0ZM and KE0QOD
- µBITX is a general coverage HF SSB/CW transceiver kit: <http://www.hfsignals.com/index.php/ubitx/>
- Baluns: Choosing the Correct Balun
- Grounding your antennas and shack
- Heathkit oscilloscope manual and Heathkit Diagrams, Schematics, Service Manuals: <http://www.schematicsunlimited.com/h/heathkit/>
<https://www.vintage-radio.info/heathkit/>
<http://www.vintagemanuals.com/manuals.php?manufacturer=Heathkit&page=5>
- Heathkit IO 102 Manual - Internet Archive: <https://archive.org/details/HeathkitIO102Manual>
- Assembly and operation manual for Heathkit IO-102 Oscilloscope (ca 1971 - 1974)
- Field Day activities



We are always looking for additional net control operators. If you would like to participate we can help you with the basics of becoming a net controller. This is a great opportunity to learn and get experience running a net.

Net controllers are always needed to perform Emergency Communications services. In the event of emergencies such as floods, fires, or other public service, the amateur radio community is always ready to help. If you have an interest in participating, when the need arises, learn and train now to be prepared. For additional information contact our EmComm Coordinators: Mike Vespoli (KE0HFH) or Brennan Pate (AD0UZ), at emcomm@w0tx.org.

Great topics from our group. We certainly enjoy everyone’s participation. Thanks to all.

If you are listening and don’t yet have your license, you can contact us via w0tx@w0tx.org or elmer@w0tx.org.

If we don’t have the answer here on the net, we have a lot of experienced hams in the club that can help. Questions can also be submitted on the YAHOO Learning Net web page <https://groups.yahoo.com>. Here you will also find information from past activity that you might find of interest.

Getting that first Technician license? Upgrading to General or Extra? We’re here to help. We would encourage those who have been Hams for several years to also join us. Your experience and input is welcomed. What topics would you like to discuss? Join us Wednesday nights, 7:30 PM, 145.490 / 448.625.

(Note: The third Wednesday of the month is devoted to the DRC club meeting. See the [W0TX web site](#) for additional information.)

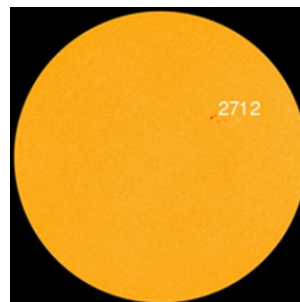
73,

Fred
AA0JK

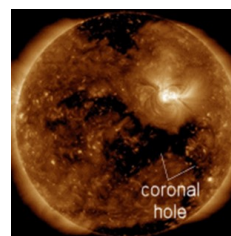
SOLAR UPDATE

PROVIDED BY FRED HART, AA0JK

The first week of June had a boost in solar flux from AR2712 and provided improved propagation for the Amateur Radio bands.

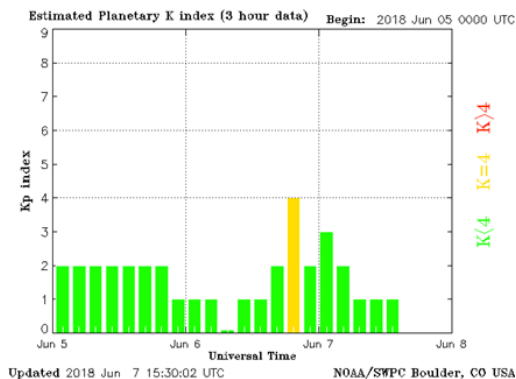


Geomagnetic storms: Minor G1-class geomagnetic storms were disturbing Earth's polar magnetic field, as a fast-moving stream of solar wind swirled around our planet. The gaseous material was flowing from an equatorial hole in the Sun's atmosphere.



Credit: SDO/AIA

June 7th



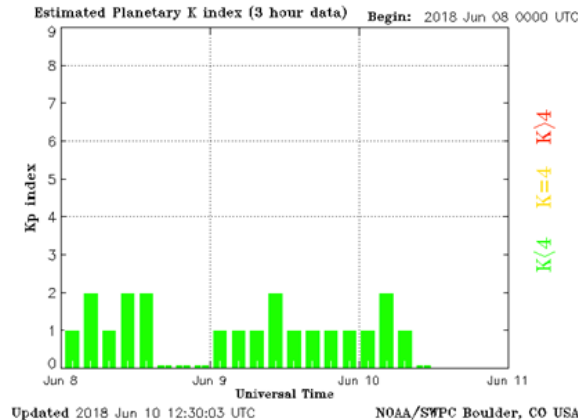
(Note: Understanding Solar Indices, Ian Poole, G3YWX, QST September 2002 P. 38. <https://www.arri.org/files/file/Technology/tis/info/pdf/0209038.pdf>)

June 8th - A lull in the solar wind: Earth was passing through a broad gulf between streams of high-speed solar wind. This was expected to keep geomagnetic activity low until the solar wind was to quicken again on June 12th or 13th. The Sun was blank--no sunspots.

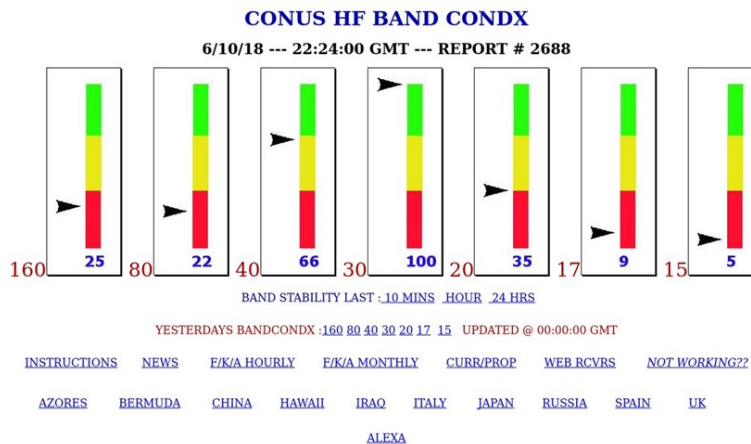
Solar activity quieted down as region AR2712 rotated off the Sun's west limb. That meant that solar flux had taken a nose-dive and Amateur Radio propagation would drop to poor conditions. Luckily, this dimming of the Sun's brightness would only last a few days until a new active region rotated into Earth's view.

Week Two

Second week of June starts out quiet. No Sun spots.



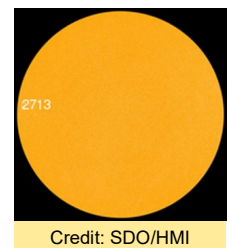
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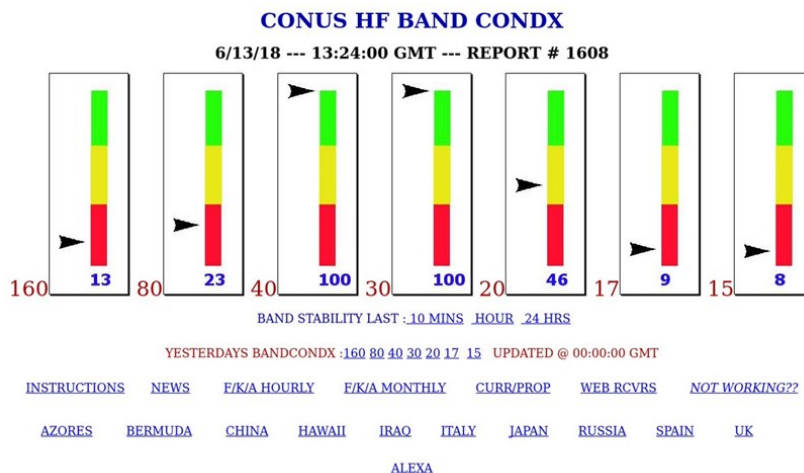
June 11th - The visible disk was void of sunspots for six days in a row. There was no chance for noteworthy solar flares on the Earth facing side of the Sun. Quiet conditions were expected over the following few days.

Quiet with a slight chance of storms: Earth's magnetic field was quiet as our planet moved through a region of calm solar wind. Activity was expected to increase on June 12th or 13th. NOAA forecasters said there was a 25% chance of minor geomagnetic storms.

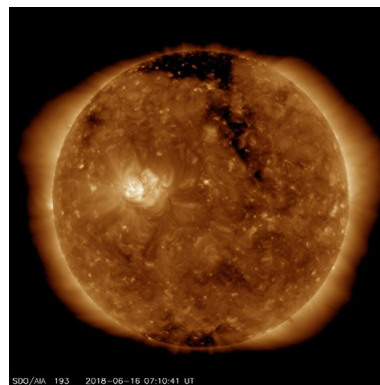
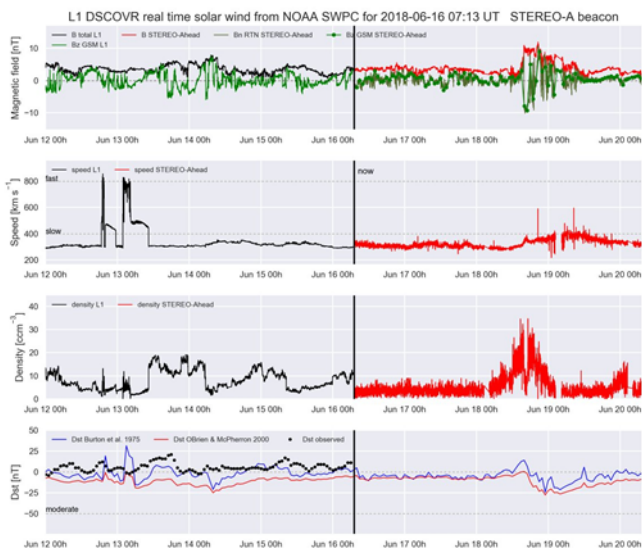
June 13th - Sunspot AR2713 posed no threat for strong solar flares.



A quiet week for solar activity.



June 16th - There was an expected uptick in propagation as AR2713 rotated into Earth's view. Increased x-ray levels would raise band conditions to moderate levels.

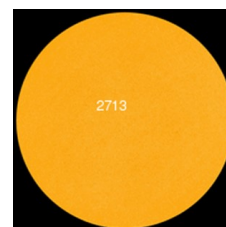


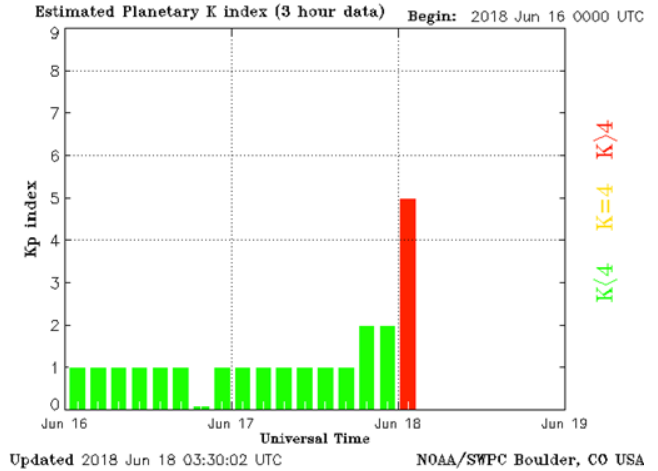
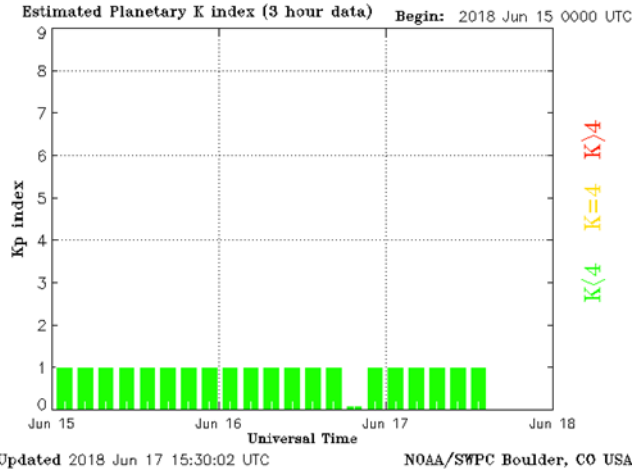
A minor geomagnetic disturbance was coming Monday or Tuesday June 18-19. Earth would graze the flanks of a solar wind high speed stream from a coronal hole on the northern solar hemisphere, Dst minimum predicted -25 nT at June 18 22:00 UT

(Dst, The disturbance storm time index is a measure in the context of space weather. It gives information about the strength of the ring current around Earth caused by solar protons and electrons. The ring current around Earth produces a magnetic field that is directly opposite Earth's magnetic field, i.e. if the difference between solar electrons and protons gets higher, then Earth's magnetic field becomes weaker. A negative Dst value means that Earth's magnetic field is weakened. This is usually the case during solar storms.)

Week Three

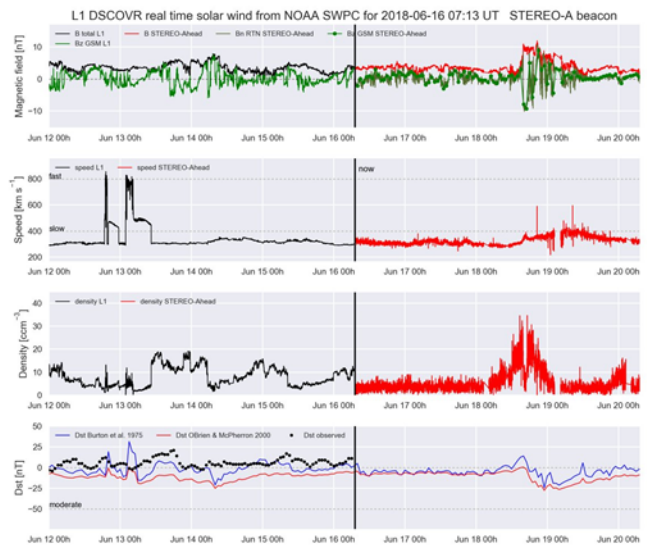
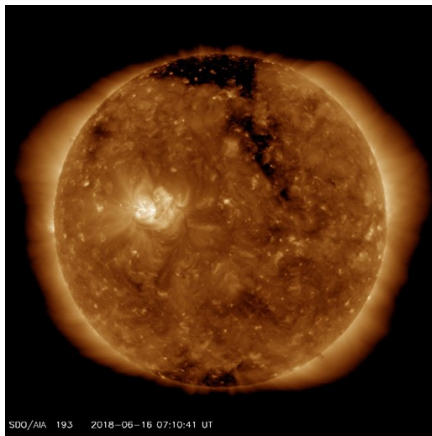
June 17th - Almost-invisible sunspot AR2713 poses no threat for strong solar flares. Credit: SDO/HMI.





June 18th - Sudden G1 storm. Solar wind speed was only ~400 km/s, but the magnetic field ~20 nT.

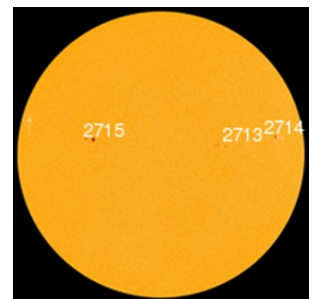
Minor geomagnetic storm: A relatively dense stream of solar wind was grazing Earth's magnetosphere, causing minor G1- class geomagnetic storms. The gaseous material was flowing from a jagged hole in the Sun's atmosphere.



June 19th - Solar wind quickens: Earth was moving deeper into a stream of solar wind that arrived during the early hours of June 18th. This was causing the solar wind near our planet to quicken, blowing faster than 500 km/s (1.1 million mph).

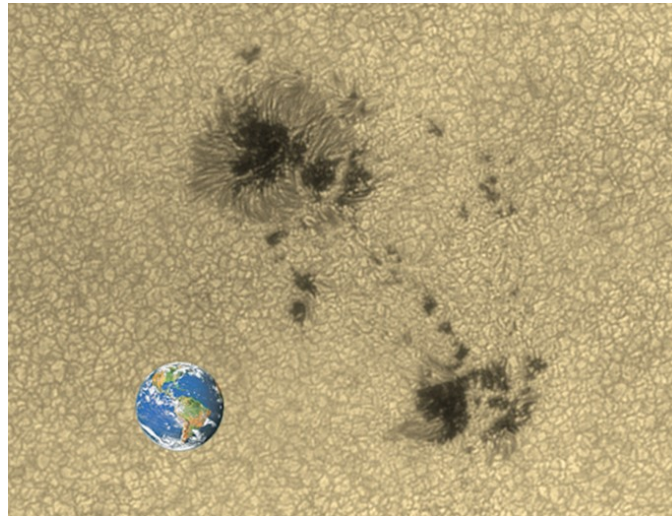
June 20th - New sunspot AR2715 was growing rapidly and posed a threat for C-class solar flares. Credit: SDO/HMI

Fast-growing sunspot: On Tuesday, June 19th, Sunspot AR2715 did not exist. Then, it sprawled across more than 60,000 km of the solar surface with a primary dark core twice as wide as Earth. The dimensions of the fast-growing sunspot group made it a potential source for solar flares.



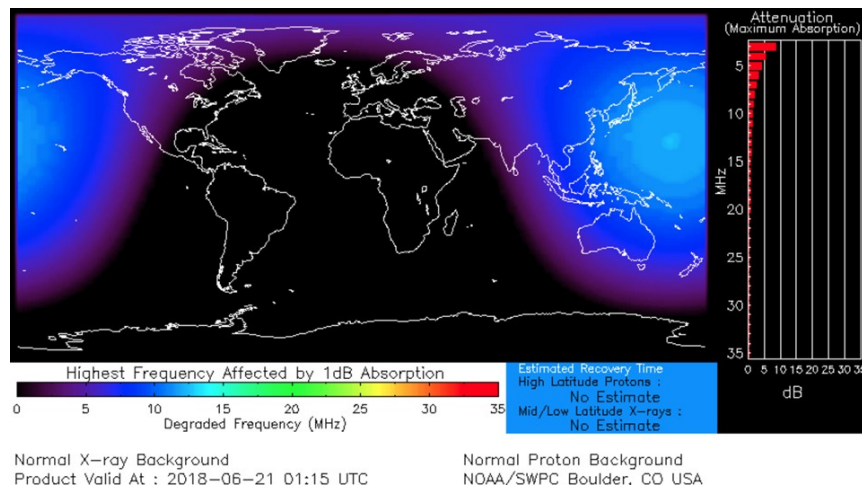
HAPPY SOLSTICE: The seasons are changing. At 6:07 a.m. EDT on Thursday, June 21st, the Sun would reach its highest point on the celestial sphere, marking the beginning of summer in the northern hemisphere and winter in the southern hemisphere.

This is a "Solar Minimum sunspot." In recent months, sunspot numbers have plummeted as the solar cycle shifts toward a deep minimum. On more than half of the days so far in 2018, the face of the Sun has been completely blank without any sunspots at all. Even during Solar Minimum, however, big sunspots pop up from time--hence, AR2715.

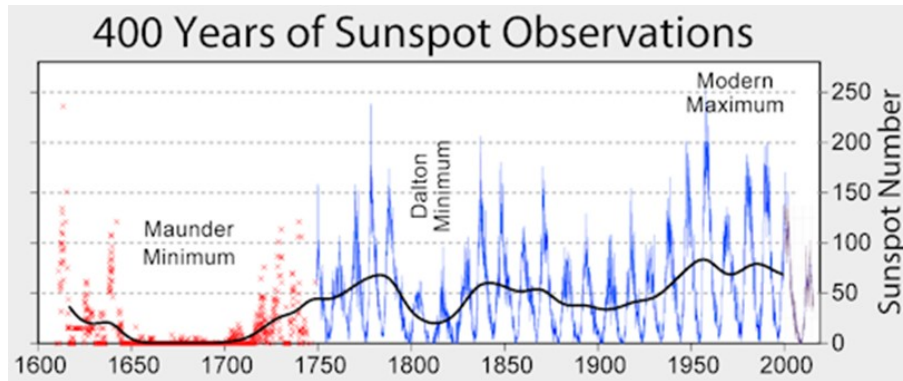


Solar minimum sunspot: During a 24 hour period, sunspot AR2715 had almost quadrupled in size, growing two dark cores larger than Earth. The active region was crackling with low-level solar flares recorded by NASA's Solar Dynamics Observatory at 01:15 UT on June 21st.

A pulse of extreme ultraviolet radiation from a flare, briefly ionized the top of Earth's atmosphere above the Pacific Ocean, causing a shortwave radio brownout at frequencies below 10 MHz. People who might have noticed the disturbance include mariners and Ham Radio operators.

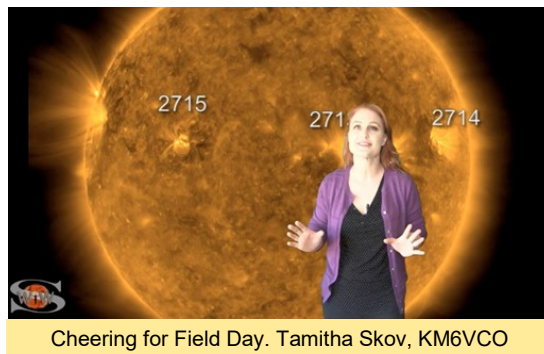


It's important to note that solar minimum is a normal part of the sunspot cycle. Sunspots have been disappearing (or nearly so) every ~11 years since 1843 when German astronomer Samuel Heinrich Schwabe discovered the periodic nature of solar activity. Sometimes they go away for decades, as happened during the Maunder Minimum of the 17th century. We've seen it all before. Or have we....?

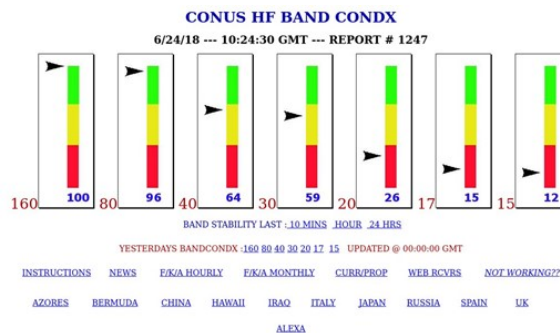


Researchers are keeping a wary eye on the Sun now because of what happened the last time sunspots disappeared. The solar minimum of 2008-2009 was unusually deep. The Sun set Space Age records for low sunspot numbers, weak solar wind, and depressed solar radiance. When the Sun finally woke up a few years later, it seemed to have “solar minimum hangover.” The bounce-back Solar Max of 2012-2015 was the weakest solar maximum of the Space Age, prompting some to wonder if solar activity is entering a phase of sustained quiet. The faster-than-expected decline of the sunspot cycle now may support that idea.

Four Bright Active Regions for Field Day

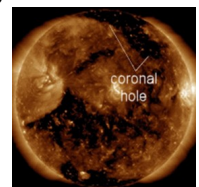


June 24th



Solar wind flowing from this northern coronal hole was expected to graze Earth's magnetic field on June 24th. Credit: SDO/AIA

Forecast: Issued: 2018 June 24 1230 UTC, Prepared by the U.S. Dept. of Commerce, NOAA, Space Weather Prediction Center. A. NOAA Geomagnetic Activity Observation and Forecast: The greatest observed 3 hr Kp over the past 24 hours was 4 (below NOAA Scale levels). The greatest expected 3 hr Kp for June 24-June 26 2018 was 3 (below NOAA Scale levels). No G1 (Minor) or greater geomagnetic storms were expected. No significant transient or recurrent solar wind features were forecast.



73,
Fred
AA0JK

GOOD HAM PR FOR DISASTER SUPPORT

PROVIDED BY PAUL DEETH, WA2YZT

Emergency preparedness isn't the reason everyone in the "ham" operator hobby gets involved, but it is a major component, and it's one of the ways the community benefits from having these volunteers around. Recently, members of the Ottumwa Amateur Radio Club participated in the national Amateur Radio Field Day exercise at the Wapello County 4-H Expo grounds, reported the Ottumwa Courier.

After simulating an emergency, a challenge offered annually by the American Radio Relay League, the association released a statement stating, "Field Day demonstrates ham radio's ability to work reliably under any conditions from almost any location and create an independent communications network."

According to the League, 35,000 people around the world got involved last year. "Ham radio functions completely independent of the internet or cell phone infrastructure...and can be set up almost anywhere in minutes. That's the beauty of amateur radio during a communications outage," said Paul Cartwright, spokesman for the Ottumwa club.

When a disaster slams into a community and knocks down phone lines and power to cell towers, they may be the only people who can get the word out. "We work on it because we think it's fun. To me, there's got to be another reason to do it besides being prepared; we give back to the community," said Cartwright.

FIELD DAY 2018

FIELD DAY 2018

PROVIDED BY FRED HART, AA0JK

We had another great Field Day this year at Chief Hosea camp grounds. A good turn out that provided an excellent cross-section of operations, giving those attending, the opportunities to experience Amateur Radio at its Best. Thank you all that made our gathering an outstanding success.





Katy and Tori, Dave's personal support team

Dave, K0HTX, did a great job for us this year, 2018, setting up and organizing our annual Field Day. Thanks Dave !!! Great Job and we thank you for your contributions to the Denver Radio Club.

73,

Fred
AA0JK

Editor's Note: Per Dave Gillespie (K0HTX), the DRC made a total of 509 Phone contacts and 187 CW contacts.

FIELD DAY 2018 PHOTOS
PROVIDED BY BILL BUREK, AC0VC





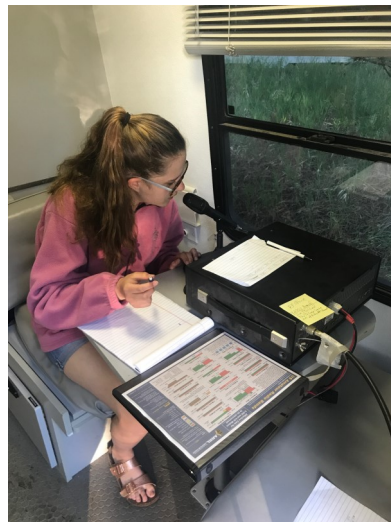
FIELD DAY 2018 PHOTOS

PROVIDED BY DAVE BAYSINGER, WG0N



FIELD DAY 2018 PHOTOS

PROVIDED BY MIKE SULLIVAN, KOGRG



70 YEARS AND 220

PROVIDED BY DEAN LARSON, W6HAB

Thought you might like to see the newsletter of the club I belong to in California. For the last 75 years or so?? I got a 70 year pin from the ARRL last week - !!!!!!! This is the club that has 220 repeater tied in with all the other repeaters. I also noticed in looking at the list of repeaters in the Denver area other organizations have their 220 repeater tied to the others. (The newsletter can be found here: http://kj6art.com/wp-content/uploads/April-May_2018Arcover.pdf)



ARC-OVER

Hello all! Here is the ARC-OVER for April and May. Please click the ARC-OVER logo below to read or save.



Thanks for reading!
 de Spencer Boyd, KJ6ART
 TARC Webmaster

2 METER HT ANTENNA SHOOTOUT

By BILL RINKER, W6OAV

We all have probably wondered how well the various VHF HT antennas work. G4ILO performed an “antenna shootout” to answer this question. So, what is an antenna shootout? An antenna shootout is a process where a calibrated signal strength measuring receiver is placed several wavelengths from a transmitter. Various antennas are connected to the transmitter and the resultant signal strengths at the receiver are recorded.

Figure 1 shows the various antennas that G4ILO measured. His documentation is online at: <https://www.amateurradio.com/2m-ht-antenna-shootout/>



Figure 1 - Antennas tested by G4ILO

COAX VERSUS LADDER LINE

PROVIDED BY BILL RINKER, W6OAV

The following article illustrates the advantages of using ladder line on HF antennas. Unlike coax, ladder line:

- Is cheaper than coax.
- Has extremely low loss at any SWR.
- Is not prone to flash over at high power.
- Allows efficient all band operation with a tuner.
- Refer to the February 2016 Roundtable article "Don't Worry about High SWR!"

The following is from the Bits Newsletter published by the [Flying Pigs QRP Club, International](#)

SQUEEZING OUT EVERY MILLIWATT ECONOMICALLY AND GAINING MULTI BAND OPERATION TO BOOT!

By: RICK McKEE, KC8AON

The last time I sat down to the keyboard to do my part for the newsletter, I explained why low power works so good - you did read it didn't you? Well, now I'm going to tell you a few inexpensive ways to squeeze every bit of power possible out of your system and put in where it belongs - into the wild blue yonder! And the easiest and cheapest way that I know to do this is to eliminate as much loss as possible from your antenna system and therefore boosting its efficiency.

OK, I know what you're thinking, you're thinking, "if I can get my SWR down to a 1 to 1, my antenna is doing all it can". Well, are you sure? Don't get me wrong, a low SWR "is" what you want your rig looking into but is not the only way to guarantee that as much of your power is getting to your antenna as possible. Remember, a 50-ohm dummy load has a low SWR anywhere you stop your dial but it sure doesn't radiate much power into the atmosphere!

To show you what I mean, let's say you put up a dipole for 75 meters, you trim it till you get a 1.1 match at 3.972 MHz and you hang it about 35 feet high. Well, that dipole is a good antenna and in fact is one that I would recommend if you only want to work one band, but it's not the best you can do. A dipole is only about 77% efficient, and that's only at its design frequency. If you stray from 3.972 MHz down to say 3.830 MHz your efficiency drops to 64% and your SWR rises to about a 3:1. With most solid state rigs, the final protection circuit will begin to cut your power back long before you reach such a mismatch, so now you are losing almost half your power!

Ok, now let's say you want to work 40 meters, but you only want to put up one antenna, so you buy an antenna tuner and use it to force feed your 75 meter antenna on 40 meters. With this combo, you will get out, but not too well! When you use a tuner, your rig does see a near perfect match, but that coax fed dipole still has an SWR of about a 10 to 1 and your efficiency has dropped to 11%, so starting with 100 watts, you are now radiating somewhere around the equivalent of 10 watts - that's a BIG loss! I used a computer program to figure these statistics, so to save space and time; I won't even try to explain how to figure this out.

Well, by now you're wondering how to get around all this loss, and there are a couple of easy ways to do this. One way is to put multiple dipoles, one for each band of interest on one common coax feed line. But the one that I like to use, and the one that I think is easiest is to just install 450 ohm ladder line between the antenna and the tuner. This stuff is very low loss even when there is a very high SWR on it - nuf said.

And I'll show you what I mean. Remember the 75-meter dipole with coax feed line and it's 77% efficiency? Well, just by switching to the 450 ohm ladder line, the efficiency jumps to 82%, now the feed line will show a whopping SWR of 50 to 1 but you tune out that reactance with the tuner so that your rig will still see a 50 ohm match. OK, now switch to 40 meters, and the same antenna that shows 11% efficiency with coax, jumps to a very respectable 94% just by using the ladder line! And the efficiency stays around 94 to 95 % all the way to 10 meters too!

Ladder line is cheap to buy folks, so it's one way to work multi band and still not spend a fortune doing so! And you get a very neat bonus in doing so - MORE POWER OUT

73 & Don't get on a power trip!
Rick McKee, KC8AON Ω

Sunday August 26th - Jefferson County Fairgrounds **DENVER HAMFEST**

Denver Radio Club, W0TX

2018

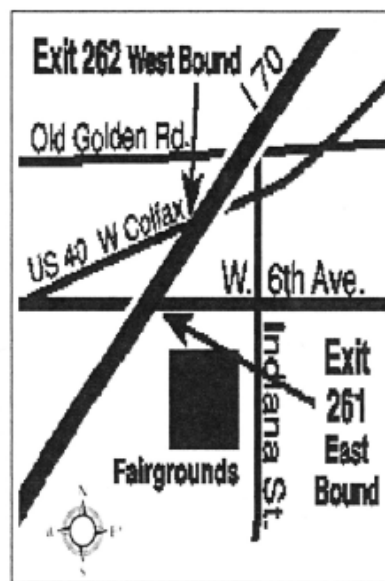


DEALERS - FLEA MARKET - PRIZES - FORUMS - FOOD FCC EXAMS

More Tables & Less Crowding

INDOORS

- Admission: \$6 (Children under 13 free w/adult)
Exact change appreciated
- Tables: Advance Purchase: \$12 (Paid by Aug 22)
At the Door \$16
- Hourly Door Prizes - Main Drawing at Noon
(Must be present to win)
- Vendor Set-Up Starts at 7:30 AM
- Doors Open: 8:30 AM - 1:00 PM
- License Testing/VE Exams at 10 AM
Talk-In: 145.490-/448.625- PL 100.0Hz
GPS: Lat 39d 43' 19"N Lon 105d 10' 15"W
- Handicapped Parking & Access Available



Jefferson County Fairgrounds

WWW.W0TX.ORG

15200 West 6th Avenue Golden, CO

For more info visit our website or contact:
Cathy Villhauer, NØCRZ 303-467-0223 E-Mail: drcfest@w0tx.org

Advance Table Reservation Form

Make checks payable to: Denver Radio Club, do not mail cash!

Payment is required with reservation and must be received by August 22, 2018 to obtain the \$12 per table advance registration price
AC Power is limited, available on a FCFS basis. Reservation confirmations will be emailed. Vendor badges & tickets will be
provided at the Hamfest. Tables must be claimed by 8:30 AM or they will be subject to resale - no refunds

FACT OF THE DAY

Lightning Surge Transmission Modes

Most homes have three incoming power lines. One is grounded (usually at both ends). It connects to the center-tap of a secondary winding in a power transformer located on a nearby power pole in aerial transmission systems or inside a nearby ground-level cabinet in underground transmission systems. The other two lines connect to opposite ends of the secondary. Lightning may strike lines connected to either side of the primary, or both, to a line connected to either side of the secondary, or both, to the secondary ground line, the ground and either side, or any other combination. As a result, lightning surges may arrive in transmission mode, common-mode, on the ground line, or in any combination. The best protection against ground-line surges is a good home-side ground. Some surge protectors do not protect against all the other possibilities. Look for protectors designated both L-L (line-to-line) and L-G (line-to-ground).

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Note to DRC Members:

Our club depends on the involvement and participation of YOU, our members. Do you have a skill or interest that could help the club. Maybe you want to volunteer to be on a committee? Like to write? Have ideas for improving what we do? Speak up and let someone know, all ideas are welcomed and participation is always helpful. ~Editor

HAM SITE OF THE MONTH

SEND SITE SUGGESTIONS: DRC.EDITOR@GMAIL.COM ;)

THE ROUNDTABLE ARCHIVE

Go to: <http://www.wotx.org/roundtables.htm>

THE ROUNDTABLE ARTICLE INDEX

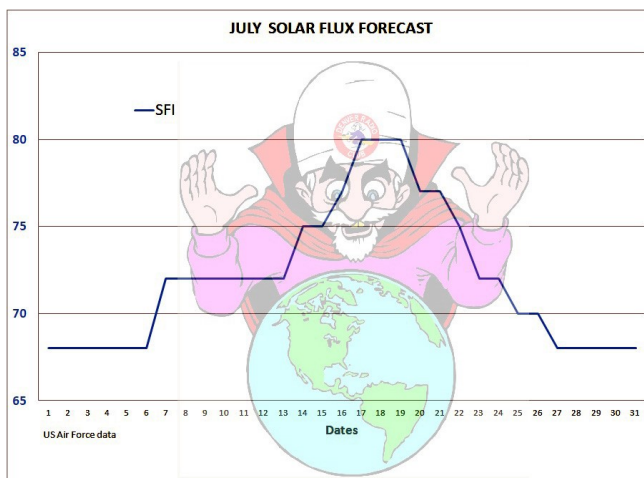
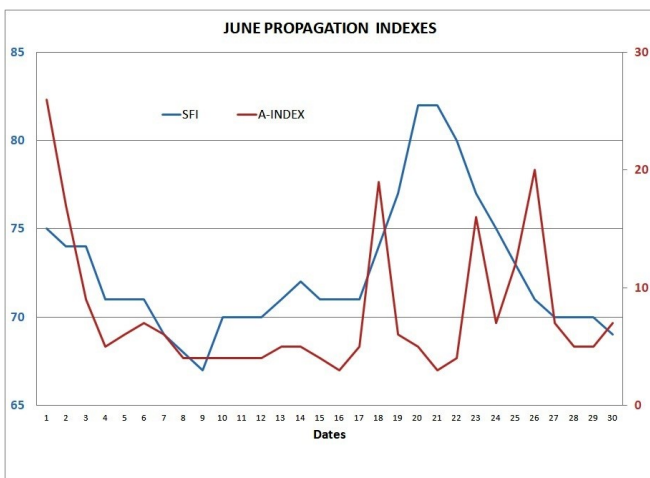
Go to: <http://www.w0tx.org/RoundtableArchive/-RoundTables-Index.pdf>

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 *Roundtable* 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 |
|---------------------------------------|----------|--|--|
| Pikes Peak RAA's 48th Annual Megafest | 07/07/18 | Lewis-Palmer High School | Pikes Peak Radio Amateur Association |
| Western CO ARC Swapmeet & Hamfest | 08/04/18 | First Christian Church, Grand Junction | Western CO ARC |

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 |
|----------------|------------|------------|--|---------------------|
| Maryland-DC | 08/11/2018 | 08/12/2018 | Anne Arundel Radio Club | |
| Kansas | 08/25/2018 | 08/26/2018 | Kansas QSO Party | |
| Ohio | 08/25/2018 | 08/26/2018 | Ohio QSO Party | |
| Hawaii | 08/25/2018 | 08/27/2018 | Hawaii QSO Party | Based on 2017 date. |
| Colorado | 09/01/2018 | 09/02/2018 | Pikes Peak Radio Amateur Association | Based on 2017 date. |
| Alabama | 09/01/2018 | 09/02/2018 | Alabama QSO Party | |
| Tennessee | 09/02/2018 | 09/03/2018 | Tennessee QSO Party | Based on 2017 date. |
| Iowa | 09/15/2018 | 09/16/2018 | Story County ARC | |
| New Hampshire | 09/15/2018 | 09/16/2018 | Port City Amateur Radio Club | Based on 2017 date. |
| New Jersey | 09/15/2018 | 09/16/2018 | New Jersey QSO Party | Based on 2017 date. |
| Washington | 09/15/2018 | 09/16/2018 | Western Washington DX Club | |
| Maine | 09/22/2018 | 09/23/2018 | Wireless Society of Southern Maine | |
| Texas | 09/29/2018 | 09/30/2018 | Texas QSO Party | |
| California | 10/06/2018 | 10/07/2018 | California QSO Party | |

ATTENTION

SUPPORT THE DRC FROM YOUR AMAZON PURCHASES

You can now support your Denver Radio Club when you make purchases from Amazon.com. Amazon Smile donates 0.5% of your purchase to the non-profit (501.c.3) organization of your choice. This is at no additional cost to you. To support the DRC just visit smileamazon.com. Select Denver Radio Club, Inc. as the organization you want to support and proceed with your order as usual. Amazon Smile will credit the DRC automatically. Thank you for your support.

DRC REPEATERS

| BAND | Freq / Shift / PL Tone | Additional Information |
|--------|--|--|
| 6m | 53.090MHz (-1MHz) 107.2Hz PL | |
| Packet | 145.05MHz<>14.105MHz | 2 meter / 20 meter gateway. Useable by Technicians on 2 meters. See January 2015 RT. |
| 2m | 145.490MHz (-) 100Hz PL | Linked to the 70cm / 448.625MHz machine. |
| 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 the 2m / 145.490MHz machine. |
| 70cm | 449.350MHz (-) 100Hz PL | Wide area coverage with Echolink, node # 4140. |
| 70cm | 449.775 MHz (-) 100Hz PL | Yaesu Fusion Digital, Wires-X and analog. 100 Hz tone required for analog. |
| 70cm | 446.7875MHz (-) | BrandMeister Repeater: Slot 1 – Wide Area Traffic, Slot 2 – Local Talk Group 310804 |



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| JULY 2018 | | | | | | | <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 | 4 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL) | 5 | 6  Last Quarter | 7 | |
| 8 | 9 | 10 | 11 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL) | 12  New Moon | 13 | 14 IARU HF - Begins 1200 UTC | |
| 15 IARU HF - Ends 1159 UTC | 16 | 17 | 18 DRC Meeting @ Rocky Mt. Metro Airport (Jeffco Airport) (No Elmer session) General 7 PM | 19  First Quarter | 20 | 21 | |
| 22 | 23 | 24 | 25 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL) | 26 | 27  Full Moon | 28 | |
| 29 | 30 | 31 | | | | | |

DRC BOARD OF DIRECTORS

| | | | | |
|----------------|-------|-------------------|--------------|--|
| President | W0GV | Gerry Villhauer | 303-467-0223 | w0gv@hotmail.com |
| Vice-President | K0HTX | Dave Gillespie | 303-795-8225 | k0htx@comcast.net |
| Secretary | WW0LF | Orlen Wolf | 303-279-6264 | owolf@mines.edu |
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| Board Member | K0WSU | Paul Olson | 303-885-7275 | 66cadillac@wispertel.net |

DRC STAFF AND VOLUNTEERS

| | | | | |
|-----------------------|--------|-----------------|--------------|--|
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| EmComm Coordinator | AD0UZ | Brennan Pate | 303-578-6283 | emcomm@w0tx.org |
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| Hamfest Manager | N0CRZ | Cathy Villhauer | 303-467-0223 | drcfest@w0tx.org |
| Tech. Committee Chair | W6OAV | Bill Rinker | Check Roster | Check Roster |
| Trustee | WW0LF | Orlen Wolf | 303-279-6264 | owolf@mines.edu |
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| VE Team | KC2CAG | Tom Kocialski | 720-284-1911 | kc2cag@arrl.net |
| Web Master | N0LAJ | Bill Hester | Check Roster | Check Roster |

Please Let Us Know

Over the years we occasionally hear from hams who have read the RoundTable 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 RoundTable RoundWorld.

To respond to this request send your information to drc.editor@gmail.com.

Subject: I'm located in...

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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 drc.editor@gmail.com. The submission deadline is the 20th of the Month. ~ Editor