



THE ROUND TABLE

The Denver Radio Club, Inc.

Since 1917

September 2020

PRESIDENT'S MESSAGE

BY GERRY VILLHAUER, W0GV

Hello DRC Members,

I hope all of you are still doing well and staying safe. We all have had to change the way we live, work and play. I wish we could see and end in sight to the COVID-19 challenges brought upon us but, I really do not see that anytime soon. Hang in there and prevail!

In the technical department, we have installed a new power switch at our Station 4 location. This new piece of equipment allows us to remotely control the electrical power to several pieces of equipment, allowing us to remotely stop and start equipment without a physical trip to the site.

I regret to make the following announcement. After much thought, we have decided to cancel our annual holiday party. Not knowing the situation with the COVID-19 virus or what restrictions the city will make on attendance at events, we see no other choice but to cancel. Let us all hope for a much better year in 2021.

Thanks to Bill, (W0SUN) for an informative presentation at our August virtual meeting on hotspots and how they interface with the different systems available to us hams.

September Meeting Announcement, By Robert White, K0RCW:

This presentation will take a look at what it takes to get your system off the grid as much as possible. I run a full time packet station, and like many hams, want to have the ability to run my station off the grid for extended periods - days, weeks, and ultimately forever. We'll look at some basic measurements to size your requirements and then briefly examine solar panels, charge controllers, LiFePo batteries as well as the distribution side from power poles to USB-C laptop and iPad/iPhone charging schemes you may want to incorporate. We won't dive into detail in each area but the talk will give you an overall view of how to setup power for a self-reliant ham station.

Amazon Smiles...for DRC. The DRC is registered as a not for profit organization for Amazon Smiles Program. If you are not familiar with this program, you can sign up on Amazon Smiles and list the Denver Radio Club as your donee. DRC will get a small portion of all your Amazon purchases. This has no effect on your purchase price, and really benefits the club financially. Just go to SmileAmazon.com to sign up. After you sign up, remember to go to "SmileAmazon.com" when you make a purchase for the club to get credit. Thanks in advance.

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?

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:

David Thomas - KF0BAK	William Hart - KF0ANM
Merial Buckwalter - KD0HLP	D. Curtis Willoughby - KA0VBA
William Buckwalter - W0SUN	Doris Willoughby - KB0HNO
Stephen Bankston - KE0QFG	Robert Campbell - W0MT
Kristoffer Blackthorn-Andersson III - KF0AVY	

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 for the Tech Committee.

DRC/TSA Aurora Site.

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

Status: This project shelved until Covid-19 is over.

Internet Failure Procedure at Station 4.

Goal: Develop a troubleshooting procedure when the Internet fails.

Status: W6OAV will research and develop a troubleshooting procedure.

Replace 220 Repeater Antennas

Goal: Improve coverage for the repeater.

Status: WW0LF is constructing the coax harness. Once completed, a work party will be scheduled.

Resolve the 220 Repeater Lockup issues.

Goal: Obtain a response from BridgeCom for troubleshooting assistance.

Status: W0GV will forward the past documentation to W6OAV who will attempt to escalate the issue.

Station 4 Remote Power Control.

Goal: Configure the Power Control to allow remote power control for various systems.

Status: W0GV will obtain help contacting APC to configure the system in their server.

Install a Remote 6 Meter Receiver

Goal: Investigate the possibility a remote receiver to resolve the high noise level at Station 4.

Status: WG0N and W0GV will check out conditions at a possible site.

Repair the Echolink Server

Goal: Investigate either repairing or rebuilding the server

Status: N0OBA will troubleshoot the server ASAP.

WIRES-X Repeater Tech Support

Goal: Create and educate a tech support team for maintaining and troubleshooting.

Status: W6OAV and KF0UV will chair this project.

LEARNING NET REPORT

BY FRED HART, AA0JK

Our group gathers here to discuss, and respond to topics aimed at enhancing a better understanding of our hobby. The net is open to all and we encourage your participation.

August Topics :

- QSO TODAY HAM EXPO – speakers and presentations
- Alpha Delta SWITCH
- <https://youtu.be/35754x0HX1c>
- Grounding
- Hotspots and other options for internet linking FT3DR
- End fed Antennas
- Windom off center dipole antennas
- Antenna feed lines, twin lead vs coax
- BAL-UN's, UN-UN's feeding in-fed, and off-center dipoles
- VE Testing
- Ferrite filters, and chokes.

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. Getting that first Technician license? Upgrading to General or Extra? We're here to help. You may also find the following helpful: Amateur Radio Licensing Guides via <https://dcasler.com/ham-radio/>

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, 100 Hz PL tone & linked to 448.625, 100 Hz PL tone.

73,

Fred
AA0JK

FYI Side Note from the ARRL: *FCC Proposes to Reinstate Amateur Radio Service Fees*: Amateur radio licensees would pay a \$50 fee for each amateur radio license application if the FCC adopts rules it proposed this week. For more information, visit: arrl.org/news/fcc-proposes-to-reinstate-amateur-radio-service-fees Comments are being accepted on the Notice of Proposed Rulemaking in MD Docket 20-270. Comments may be filed now, however, by using the FCC's Electronic Comment Filing System. <https://www.fcc.gov/ecfs/filings> , and posting to MD Docket No. 20-270. Full NPRM here: <https://docs.fcc.gov/public/attachments/FCC-20-116A1.pdf>

DRC's 2020 HOLIDAY PARTY CANCELLED

The DRC Holiday Party scheduled for December 16, 2020 has been cancelled due to the ongoing COVID situation and occupancy restrictions imposed by the City of Denver. Besides the city restrictions, the DRC Board of Directors feels it is the responsible thing to do for the wellbeing of our members.

AUGUST MEETING - WHAT'D I MISS?

BY BILL RINKER, W6OAV

There were 56 attendees at our monthly video meeting. Gerry, W0GV, gave a short overview of issues with the 220 MHz repeater and the uncertainty of the Christmas party due to the pandemic. The meeting was then turned over to our guest speaker Bill, W0SUN. His presentation was titled "Having Fun with Hotspots using Fusion". Bill covered the following topics:

- How analog voice is converted to digital.
- Talk Groups, Rooms, and Reflectors.
- FCS reflectors, YSF reflectors and WIRES-x.
- Different types of hotspots and their advantages / disadvantages.
- Getting into the digital world on a budget.
- Cross mode operating with a hotspot.
- Comparison of the various hotspots.
- Useful URLs.

A pdf copy of Bill's presentation can be downloaded from https://drive.google.com/file/d/1xrppB_zFmq_bmk7L2c5CGtzmZrtrwH0K/view?usp=sharing

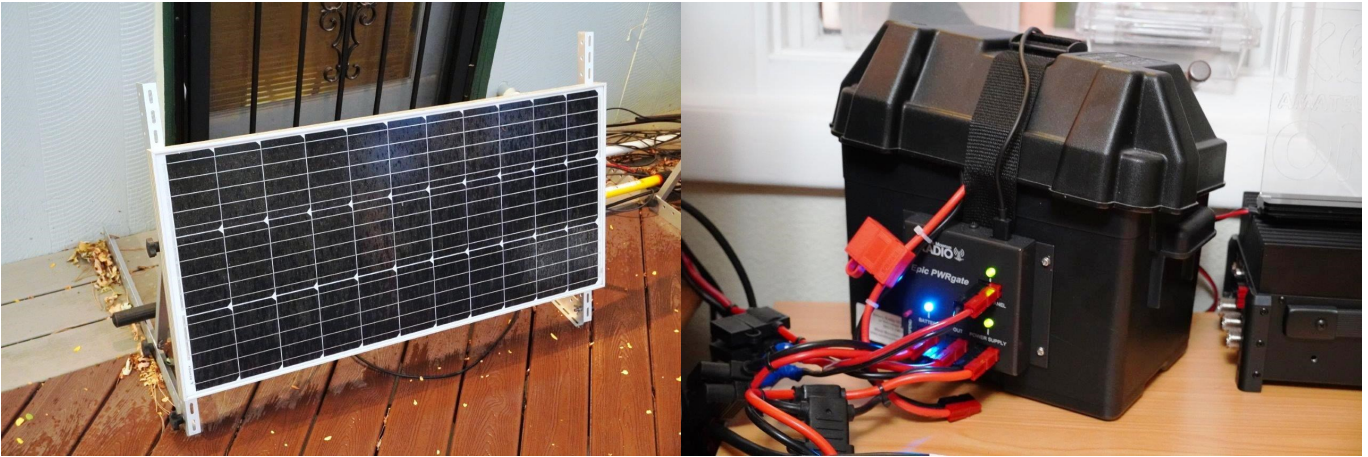
Useful Links – W0SUN Favorites

- ▶ Parker Radio Association, Colorado Mega Transcoder
<https://www.parkerradio.org/on-the-air/>
- ▶ Denver Skyhub Link – Society of Broadcast Engineers
<https://skyhublink.com/connections/>
- ▶ WiRES-X Rooms and Nodes
<https://www.hamoperator.com/rw/>
http://www.yaesu.com/jp/en/wires-x/id/id_active.php
- ▶ Pi-Star
<https://www.pistar.uk>
- ▶ FCS – FCS002
<http://fcs002.xreflector.net>
- ▶ Brandmeister Last Heard
<https://app.brandmeisteractivity.live/>
<https://hose.brandmeister.network/>
<https://brandmeister.network/?page=lh&DestinationID=310759>

SEPTEMBER MEETING ANNOUNCEMENT

BY ROBERT WHITE, K0RCW

This presentation will take a look at what it takes to get your system off the grid as much as possible. I run a full time packet station, and like many hams, want to have the ability to run my station off the grid for extended periods - days, weeks, and ultimately forever. We'll look at some basic measurements to size your requirements and then briefly examine solar panels, charge controllers, LiFePo batteries as well as the distribution side from power poles to USB-C laptop and iPad/iPhone charging schemes you may want to incorporate. We won't dive into detail in each area but the talk will give you an overall view of how to setup power for a self-reliant ham station.



PERRY CLARK, K0AJM - SK

PROVIDED BY GLENN CASCINO, WN0EHE

Last week I received a call from Perry's daughter to let me know that Perry is now a silent key. He was 94.

He passed quietly while taking a nap at home in his favorite easy chair. Perry was a long-time member of the Denver Radio Club. I have no other information concerning services.



QUESTION OF THE MONTH

BY BILL RINKER, W6OAV

Question

I am considering building either a 2 meter J-Pole or a Slim Jim. Some web sites say that the Slim Jim has gain over a J-Pole while other web sites say there is no difference in performance between the two antennas. What are your thoughts?

Answer

Figure 1 shows both antennas. They are good performers and very easy to build. Both antennas are end-fed omni directional half-wave antennas that are matched to the feed line by a quarter wave parallel transmission line stub. Over the years I've built quite a few of these antennas for VHF and UHF. I did not notice any difference in performance between them when built out of twin lead or copper tubing. Testing with other hams indicated the same equal performances at their end of the circuit.

Figure 2 shows the 4NEC2 (antenna analyzer program) elevation patterns of the J Pole and Slim Jim antennas at 10' above ground. Note that they are identical. Figure 3 shows the 3D 4NEC2 azimuth pattern of both antennas which again are identical.

So, let's look at articles from experts that provide both the theoretical and the lab measured performances of the two antennas.

L. B. Cebik, W4RNL (SK), was an ARRL Technical Adviser and a well known antenna authority. He wrote many articles on antennas and antenna modeling. One of his articles was titled "Some J-Poles That I Have Known". This article analyzes the J-Pole and Slim Jim antennas and contains many figures and graphs. Cebik used the EZNEC antenna analyzer program in his article. The article shows that the azimuth and elevation patterns of both antennas have equal gains of 5.1 dBi at 6 degrees when the base height is 10' above ground. The patterns are circular within about 0.1 dB. As shown by EZNEC, and by 4NEC2 above, theoretically there is no difference in performance between the two antennas. The article can be accessed at <http://www.on5au.be/content/a10/vhf/jp2.html>.

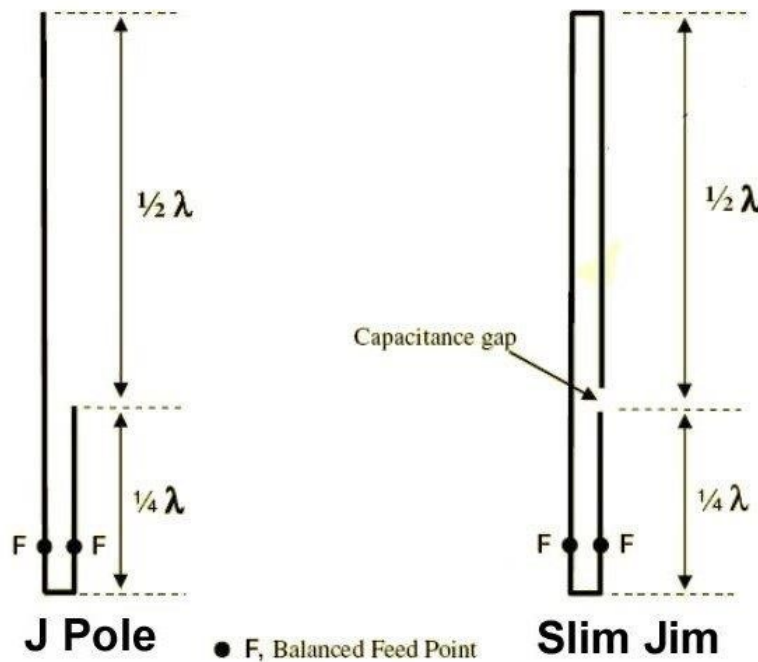


Figure 1 - J Pole and Slim Jim Antennas

Now, let's look at a real world test. An extremely good article written by John Huggins compares the J-Pole and Slim Jim performances as measured in a [real test chamber](#). Again, these tests showed equal antenna performance. This article can be accessed at <https://www.hamradio.me/antennas/slimjim-vs-traditional-j-pole-antenna.html>.

For those wanting to read a very technical abstract contrasting the J-Pole and Slim Jim antennas can access the abstract at http://www.arnjournals.com/jeas/research_papers/rp_2014/jeas_1014_1276.pdf. This abstract was written by K. Ch. Sri Kavya, Sarat K Kotamraju and Sekuri Sukumar, Department of ECE, K L University (Koneru Lakshmaiah Education Foundation), A.P., India. Again, the abstract shows equal performance between the two antennas.

Should you want to build either antenna, a nice J-Pole and Slim Jim design calculator can be accessed at <https://m0ukd.com/calculators/slim-jim-and-j-pole-calculator/comment-page-3/>. This website also contains a nice tutorial on how to build these antennas.

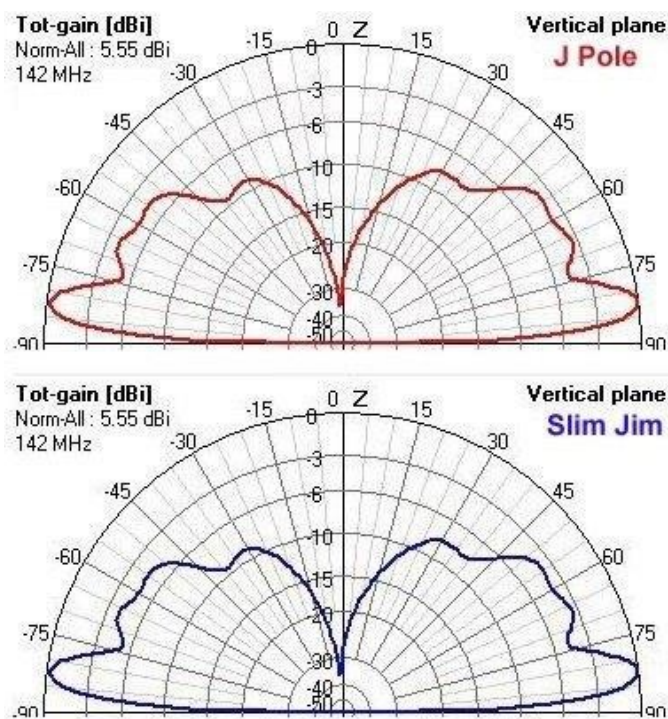


Figure 2 - 4NEC2 Patterns of a J Pole vs a Slim Jim

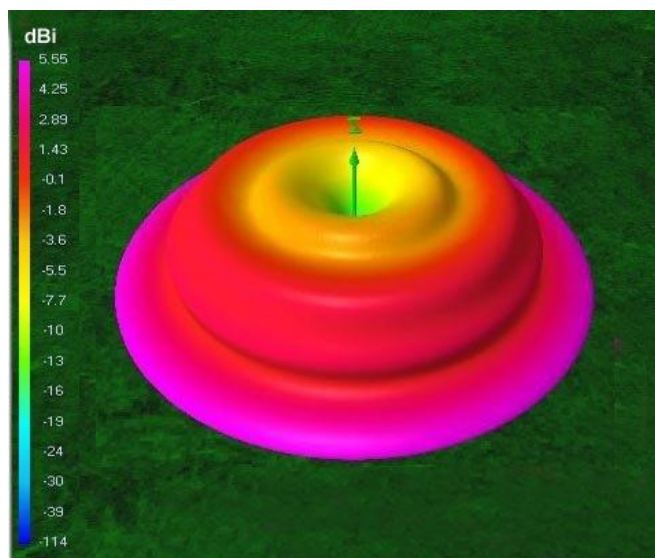


Figure 3 - Azimuth patterns of J Pole and Slim Jim

PAST ROUND TABLE PAGES

PROVIDED BY WOODY LINWOOD, W0UI

This copy of the September 1956 multi-page edition is the second oldest known remaining Round Table.



COVID-19 AND THE DENVER RADIO CLUB

BY FRED HART, AA0JK

What a year this is turning out to be. All the activities we look forward to each year, canceled. Monthly group meetings at the Jeffco Taj Mahal canceled, swap-fests canceled, our Christmas party, canceled. We are really missing the camaraderie that all these events provide.

These are the cornerstones of our club and hobby. Events where we prefer to hangout with all those who understand the language and wonders of our hobby.

The COVID pandemic has made it very difficult for the amateur radio, and other organizations, to prepare for these events. A process that essentially takes all year, and involves hundreds of individuals to put together.

Frustrating as it is, we're in a holding pattern right now. The best thing we can do is keep a watchful eye on the conditions, and make the best decisions as factual information becomes available, to ensure the health and safety of everyone attending our events. As HAM's, we know that this, like all storms, "It Will Pass", and whatever transpires over the next few months, the Denver Radio Club will see it through, with the mutual support and fellowship that has been the cornerstone of our organization for the past 101 years.

We will all be following closely the advice of the Centers for Disease Control and Prevention, as well as other government entities.

Hopefully this will all be resolved soon. Looking forward to once again being able to have that next "Eye-Ball QSO with you all.



YAESU FT-70DR HANDY TALKIE UPDATE

BY DAVE BAYSINGER, WG0N

I just upgraded my 70D to a much improved battery handling system with the purchase of the SBH-28 Rapid Charger base. First tests show a "dead" battery to full charge takes about 3 hours. This is much faster than the 6 hour "forever" charge cycle with the wall charger that comes with the HT.

The interesting thing about this system is that you use the same wall charger to accomplish both charging cycles. Also of note, if your battery is in need of a charge and you put the turned off HT in the charger base, all is well and your battery comes out full of electrons. However, if you turn the radio on so you can monitor the local repeater while charging, the charger shuts down and the radio drains whatever power is left in your battery.

Don't turn it on! If you have a spare full battery, put that on the radio and listen while you charge the depleted battery.

Another hint: If you want to check the voltage on your battery, call up the menu to item #12, DC VLT and punch the "F" key to read the Lith-Ion voltage.

The cost of the [SBH-28 locally is \\$29.95](#). The Amazon price seems to be no lower than \$41.



Figure 1 - The SBH-28 Rapid Charger

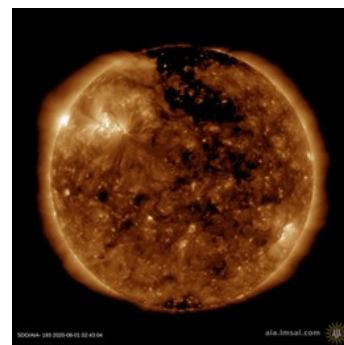
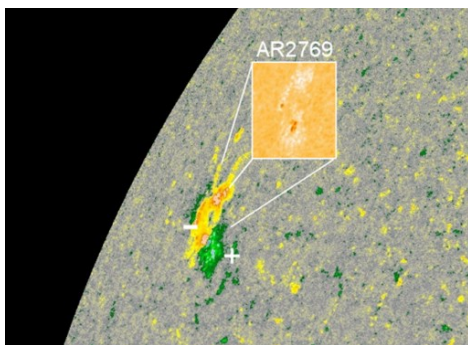
SOLAR GEOPHYSICAL ACTIVITY REPORT

PROVIDED BY FRED HART, AA0JK



August 1st - The Sun may seem calm and unchanging, but it's a dynamic star, constantly releasing solar material, and radiation that affect not just us, but the entire solar system.

August brought in another solar cycle 25 sunspot emerging around the Sun's northeast limb. The fast-growing spot was designated AR2769, and it was crackling with B-class solar flares.



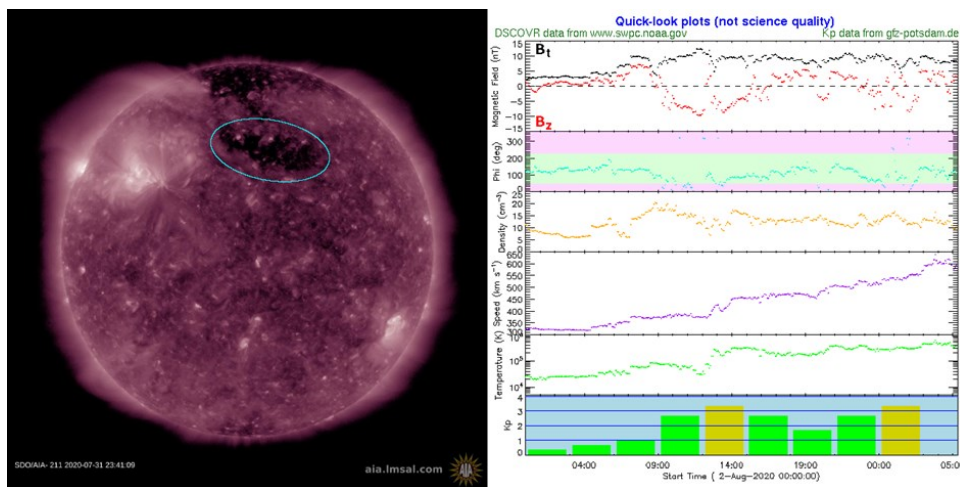
NASA's Solar Dynamics Observatory: This is the 12th time this year that a sunspot from the new cycle has appeared. Image Credit (above right): SDO/AIA

The Earth facing side of the Sun was covered with dancing plasma filament activity. Three bright active regions, two incoming at the top of the solar disc, and one departing in the lower southern region.

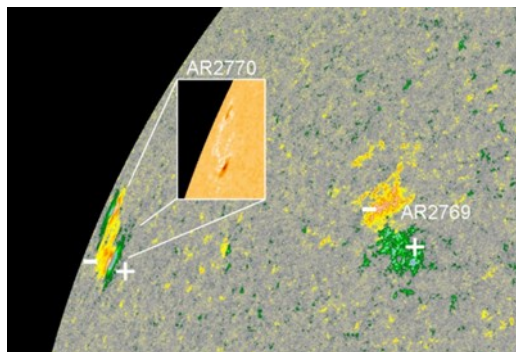
Solar wind plasma was streaming from the northern coronal hole, but was holding in the low intensity range.

Active geomagnetic conditions were at Kp4 levels.

August 3rd - We were in unsettled to storming conditions due to high speed solar wind streams.

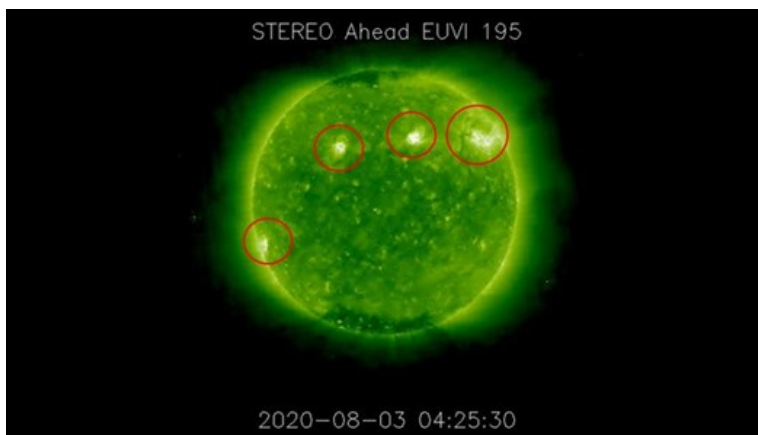


August 4th - Solar wind sparked geomagnetic unrest: Earth was inside a fast-moving (~600 km/s) stream of solar wind, and this was causing geomagnetic unrest around the Earth's poles. The gaseous material was flowing from a northern hole in the Sun's atmosphere.



New sunspot AR2770 entered around the Sun's north-east limb, and had two dark cores (each about the size of Mars), and was crackling with minor B-class solar flares. Its potential for even stronger flares was becoming clear in the following days, as it was turning toward Earth, and more fully revealing its magnetic complexity.

Active regions from Solar Cycle 25 were seen strewn across the Sun's northern hemisphere. These were areas where magnetic fields were intensifying, creating islands of magnetism on the Sun's surface.



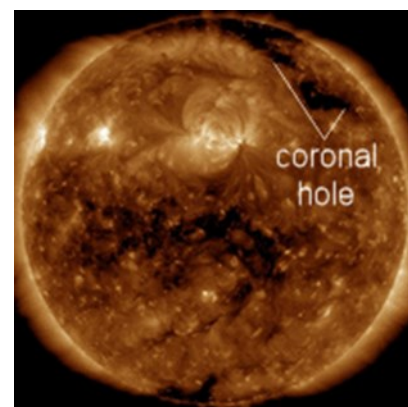
STEREO Ahead EUVI 195 - In the cases of AR2769 and AR2770, the fields had intensified enough to form dark cores, that is, sunspots. A few days earlier, AR2768 also had visible sunspots. It was a target-rich environment. The appearance of so many active regions at once was a clear sign that Solar Cycle 25 is gaining steam. However, that doesn't mean Solar Minimum is finished. These are just "starter sunspots," pipsqueaks compared to the behemoths expected when Solar Cycle 25 reaches its peak a few years from now. Solar activity should remain generally low despite this uptick in sunspot counts.

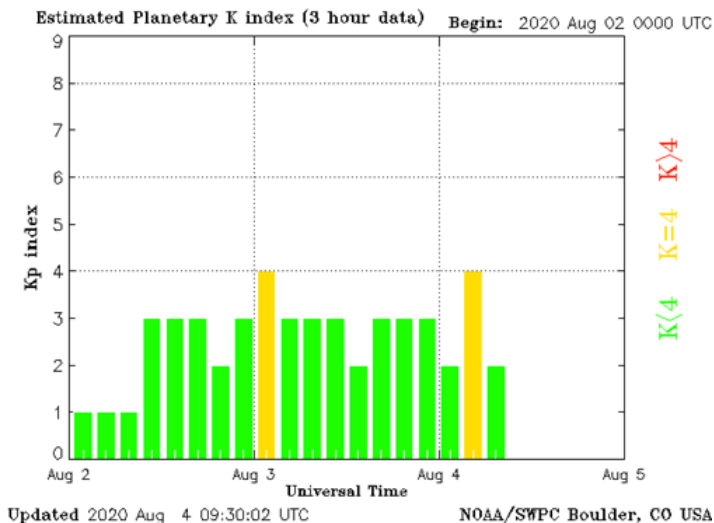
But be forewarned, even a starter sunspot can occasionally cause a very big solar storm.

Earth was inside a stream of solar wind flowing from this northern coronal hole. Credit (image to right): SDO/AIA

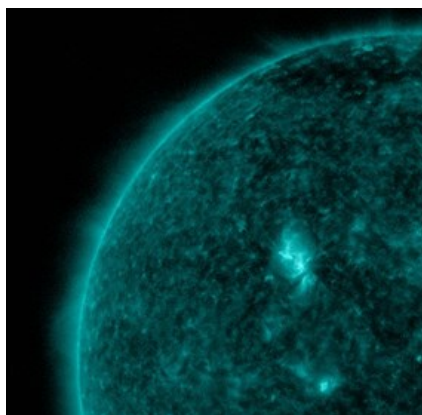
Planetary K-indexes were at Kp= 4 levels and unsettled.

Solar Flux was hovering at around 73, putting HF conditions in the fair to good range.





Week Two - A new-cycle solar flare. Week two began with a bang. The magnetic canopy of new-cycle sunspot AR2770 erupted, producing a C1-class solar flare. NASA's Solar Dynamics Observatory captured the explosion's extreme ultraviolet flash:

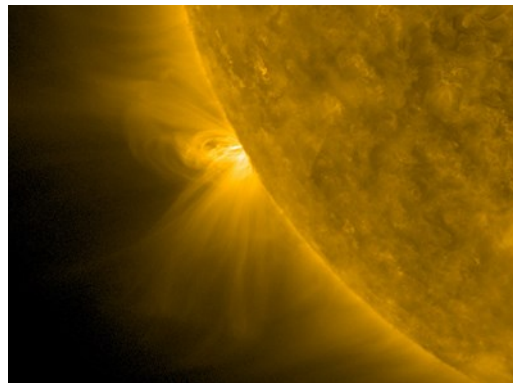


Radiation from the flare ionized Earth's upper atmosphere, briefly disturbing shortwave radio propagation across the western Pacific Ocean. Mariners, and amateur radio operators, might have noticed the effects, which were confined to frequencies below 10 MHz.

This flare did not hurl a CME toward Earth, so no geomagnetic storms were expected to result from the blast. AR2770 would be facing Earth, more or less, through out the following week.

Solar-Terrestrial Data - http://www.n0nbh.com			
89 Aug 2020 1527 GMT	VHF Conditions	HF Conditions	Condition
SFI 73 SN 11	Item Status	Band Day Night	Quiet 0-2 0-7
A 5 K 1/Plntry	Aurora Band Closed	80n-40n Fair Good	Unsettled 3 8-15
X-Ray n/a	6n EsEU 50MHz ES	30n-20n Fair Fair	Active 4 16-29
304A 97.8@ SEM	4n EsEU Band Closed	17n-15n Poor Poor	Minor storm 5 30-49
Ptn Flx No Rpt	2n EsEU Band Closed	12n-10n Poor Poor	Major storm 6 50-99
Elc Flx No Rpt	2n EsNA Band Closed	Geonag Field VR QUIET	Severe storm 7-9 >100
Aurora 1/n=1.99	EME Deg Fair	Sig Noise Lvl S0-S1	SFI A-In K-In Prop Opng
Aur Lat 67.5°	HUF	MUF US Boulder NoRpt	>180 <8 <3 E-W open
Bz 0.0 SW 343.9	HS	Solar Flare Prb 9%	>180 <8 >3 N-S open
		(C) Paul L Herrman 2013	>250 >30 >3 Aurora

August 11th - The magnetic loops shown in this image were thought to be the magnetic canopy of an active sunspot. Its high southern latitude suggested it was a new Solar Cycle 25 active region.



"The 'quiet Sun' is turning active!"

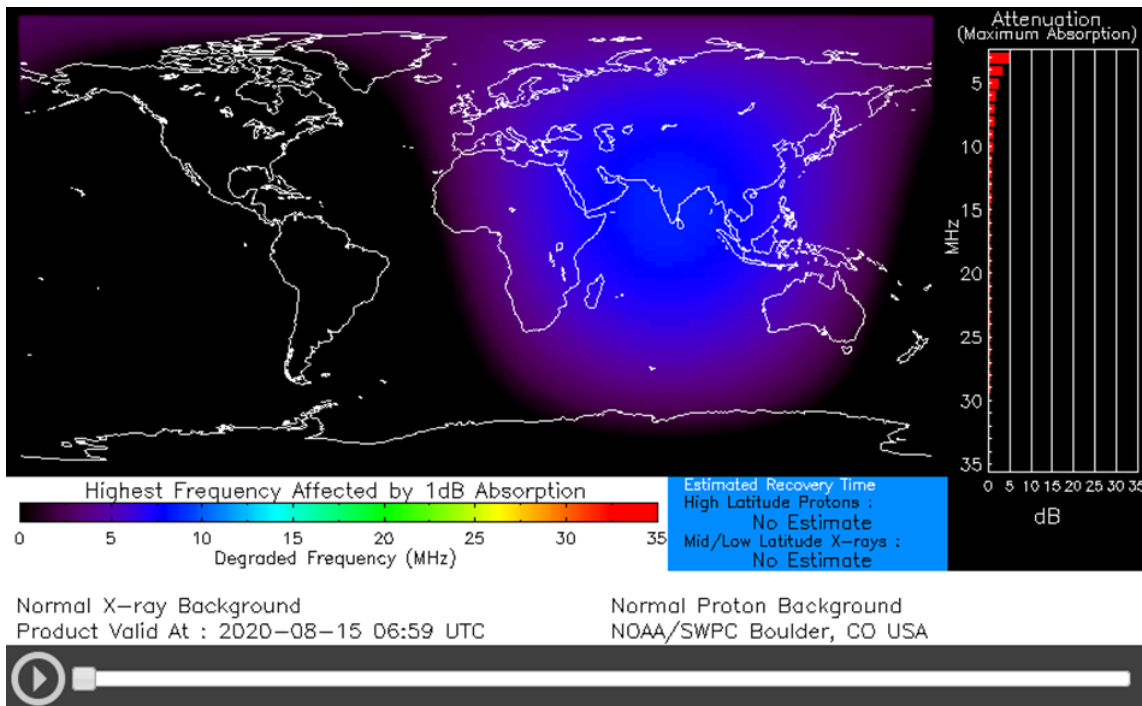
Solar Cycle 25 is coming to life. New-cycle sunspot AR2770 was seething with magnetic activity.

Magnetic froth, a bubbly, turbulent sea of magnetism that surrounds many active sunspot groups was surrounding AR2770.

AR2770 produced a C1.5-class solar flare, followed by a minor wave of ionization in Earth's upper atmosphere. C-class flares are not considered to be major events. In the context of the Sun's recent deep quiet, however, the eruption was noteworthy. AR2770 was now in decay, but more sunspots were in the offing.

As week two wound down, we saw plasma filaments dancing around the limbs. The southeastern hemisphere was showing multiple active regions as those in the northern hemisphere were departing. No major flaring was expected until getting further into the new cycle development. Solar wind was very quiet.

As the solar flux index hovered around 72, HF Band conditions were, 80m-40m fair during the day, good at night. 30m-20m fair. Higher frequencies were showing poor conditions.



August 15th - C-CLASS SOLAR FLARE: The corpse of decayed sunspot AR2770 erupted the morning of August 15th at 0647 UT, producing a C2-class solar flare. A pulse of X-rays briefly ionized the top of Earth's atmosphere, causing a shortwave radio brownout over Asia, the Middle East, and eastern Africa. (See image previous page.)

Week Three

August 17th - A slow-motion solar flare: You know an explosion is powerful when it lasts for two hours. August 16th (1726 UT), a B1-class solar flare took even longer to unfold. The 2.5 hr blast sent a powerful shock wave rippling through the Sun's atmosphere.

No sunspot was involved. The explosion occurred in a spotless region of the Sun's southern hemisphere. A magnetic filament snapped, hurling debris far and wide. Some of that debris formed the core of a coronal mass ejection (CME), which had escaped the Sun, and was billowing off into the Solar System. Coronagraphs on-board the Solar and Heliospheric Observatory (SOHO) were tracking the CME:

Will the storm cloud hit Earth? The jury was still out. The CME could deliver a glancing blow to Earth's magnetic field during the following few days. There's was also a chance it would miss. NOAA analysts were modeling the CME's trajectory.

Similar conditions resulted in the Carrington Event in 1859. Such an event could happen again within our lifetimes.

Week Four

No sunspots. A blank solar disc. A bright area at the North-East limb was coming into Earth view but not showing any signs of surfacing to produce a sunspot.

August 23 2020 1230 UTC. Prepared by the U.S. Department of Commerce, NOAA, Space Weather Prediction Center

Summary:

Solar activity was very low. No Earth-directed CMEs were observed.

Forecast:

Very low solar activity was expected thru August 23-25th.

73,

Fred
AA0JK

~Editor's Note: We would love to publish a monthly column profiling DRC members' stories about how they got into the ham radio hobby, their interests and backgrounds. The purpose of the column is to introduce DRC members to each other and to find commonalities between them. Please use Microsoft Word set to Arial and 10 point, and submit your story to drc.editor@gmail.com.

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](#)



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

RANDOM SITE OF THE MONTH
[PC Perspective](#)

THE ROUND TABLE ARCHIVE

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

THE ROUND TABLE ARTICLE INDEX

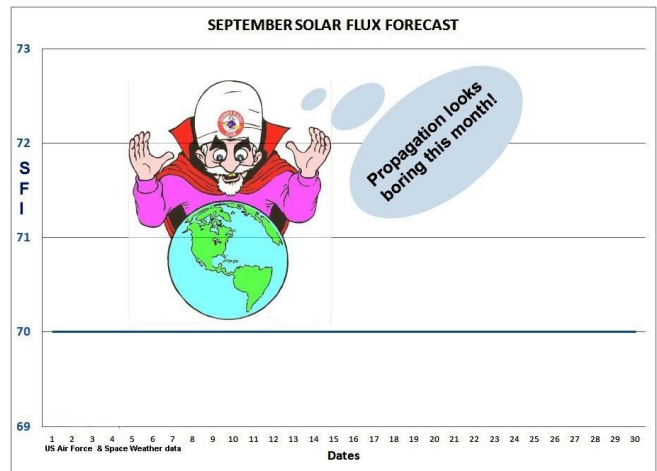
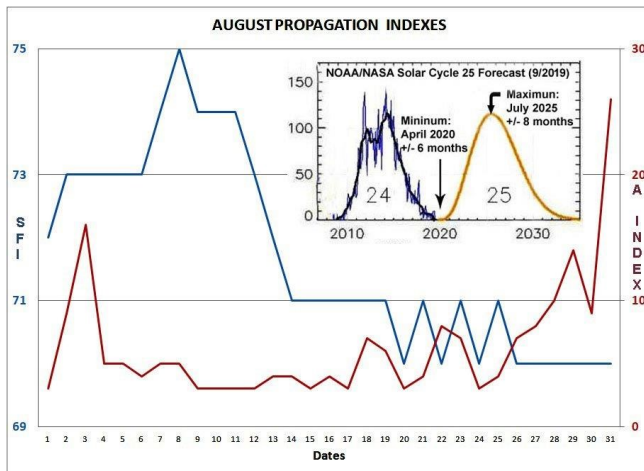
Go to: <http://www.w0tx.org/RoundtableArchive/-RoundTables-Index.pdf>

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 *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
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All cancelled.

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
Colorado	09/05/2020	09/06/2020	Pikes Peak Radio Amateur Association	
Tennessee	09/06/2020	09/07/2020	Tennessee QSO Party	
Alabama	09/12/2020	09/13/2020	Alabama QSO Party	
Texas	09/12/2020	09/13/2020	Texas QSO Party	
Iowa	09/19/2020	09/20/2020	Story County ARC	
New Jersey	09/19/2020	09/20/2020	New Jersey QSO Party	
Washington	09/19/2020	09/20/2020	Western Washington DX Club	
Maine	09/26/2020	09/27/2020	Wireless Society of Southern Maine	
California	10/03/2020	10/04/2020	California QSO Party	
Nevada	10/09/2020	10/11/2020	Sierra Nevada Amateur Radio Society	
Arizona	10/10/2020	10/11/2020	Arizona QSO Party	
Pennsylvania	10/10/2020	10/11/2020	The PA QSO Party Association	
South Dakota	10/10/2020	10/11/2020	South Dakota QSO Party	
New York	10/17/2020	10/18/2020	Rochester DX Association	
Illinois	10/18/2020	10/19/2020	Western Illinois Amateur Radio Club	

ATTENTION

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DRC REPEATERS

BAND	Freq / Shift / PL Tone	Additional Information
6m	53.090MHz (-1MHz) 107.2Hz PL	
Packet	145.05MHz<>14.105MHz	2m / 20m gateway. Useable by Technicians on 2m.
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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




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SEPTEMBER 2020							<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  Full Moon	2 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	3	4	5	
6	7 	8	9 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	10  Last Quarter	11	12 September VHF - Starts 1800 UTC EME Contest - 2.3 GHz & Up Starts 0000 UTC	
13 September VHF - continued EME Contest - 2.3 GHz & Up Ends 2359 UTC	14 September VHF - Ends 0259 UTC	15	16 DRC Online Meeting Elmer 6 p.m. Meeting 7 p.m.	17  New Moon	18	19 10 GHz & Up - Starts 6AM local	
20 10 GHz & Up - Ends mid-night local	21	22	23 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)  First Quarter	24	25	26	
27	28	29	30 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)				

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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 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 25th of the Month. ~ Editor