



ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

October 2018

PRESIDENT'S MESSAGE

BY GERRY VILLHAUER, W0GV

Hello DRC Members,

Fall is here! A big swing in the temperature this week but, it looks like a comeback for the 80s in the next few days. I am not ready for snow...Are You!

There is not much to report on our annual meeting and election of officers. All positions remained unchanged for the ensuing year. I am sure all the officers appreciate your vote of confidence.

I've heard numerous rave reports on the September meeting at JEFFCOM. A big DRC Thank You to Jeff Irvin (KB0CHT) for arranging the tour. What an opportunity it was for our members to see this Ultra-Modern Communications Facility. In addition, thanks to West Metro Fire Rescue and Captain Rick Ihnken, for the excellent presentation on the Advanced Resource Medic (ARM). What a great resource for the community served by West Metro Fire.

Our October meeting presentation will be given by Bill Thomas (WT0DX) and is titled: Introduction to FT8 and MSK144. These digital modes of ham radio are growing at an exponential rate. The presentation will include an overview of FT8, including the software, hardware and operating techniques, and how to get started at the very popular mode. Meteor Scatter using MSK144 will also be covered. MSK144 uses similar software and protocols as FT8.

Bill (WT0DX) is located in Evergreen, CO and has made over 2500 FT8 contacts since the mode was introduced and has worked all 50 states and over 100 countries from his modest station. Mark your calendar for October 17; so you won't miss this exciting and informative program.

Another date for your calendar is our annual DRC Holliday/Christmas Party on December 5, 2018. You will find the registration form and other details in the Roundtable (see page 14) and on our webpage at <https://www.w0tx.org/holidaydinner.htm>. It will be a big help if you get your reservations in early. There will be a great dinner, prize drawings, a program and fellowship. Put it on your calendar NOW!

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:

Kurt Shepard - KE0SVA	Paul Fields	Kenneth Lloyd - KD0RLR
Novak Greenlee - N0VK	- . . . -- -- . -- -... . .- . . .	Mark Hasseman - KE0P

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.

LEARNING NET REPORT

BY FRED HART, AA0JK

Thanks go out to our net controllers: Doron (K1DBC), Larry (K0LAI) and Jim (AD0ZM). The following topics were discussed this past month:

- Eliminating LED-generated noise: <https://electronics.stackexchange.com/questions/16609/need-help-with-eliminating-led-generated-noise>
- LED Radio Interference Issues: <http://www.ledbenchmark.com/faq/LED-interference-issues.html>
- LED Radio Interference: <https://youtu.be/p0tjqw-1HgQ>
- Amateur Radio vs. Cheap Chinese LED Lights: <https://youtu.be/S16w0hk685w>
- LED lightbulb RFI test: <https://youtu.be/Grim9y80jYw>
- *Grounding and Bonding for the Radio Amateur* By Ward Silver, NØAX: <https://www.arrl.org/shop/Grounding-and-Bonding-for-the-Radio-Amateur> Proper Station Grounding is Important!
- SWR: <https://youtu.be/qSea5FjcTDE>
- <https://www.electronics-notes.com/articles/antennas-propagation/vswr-return-loss/how-to-use-vswr-meter.php>
- HF Mag-loop antennas: <http://www.magloop.com/>
- The Underestimated Magnetic Loop HF Antenna: http://adam.curry.com/enc/20150119092647_article-antenna-mag-loop-2.pdf
- *Magnetic Loop Antenna* by Burger & Dvorsky: <https://www.arrl.org/shop/Magnetic-Loop-Antenna>
- Great antenna resource for HOA / Apartments: http://www.k4vrc.com/uploads/1/0/1/5/10156032/2015_tvarc_antenna_guide.pdf (Thanks Alex, W2PBR)
- Travel outside the U.S. and use of Amateur Radio

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.

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 Coordinator: Mike Vespoli (KE0HFH) at em-comm@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.)

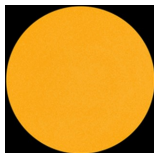
73,

Fred
AA0JK

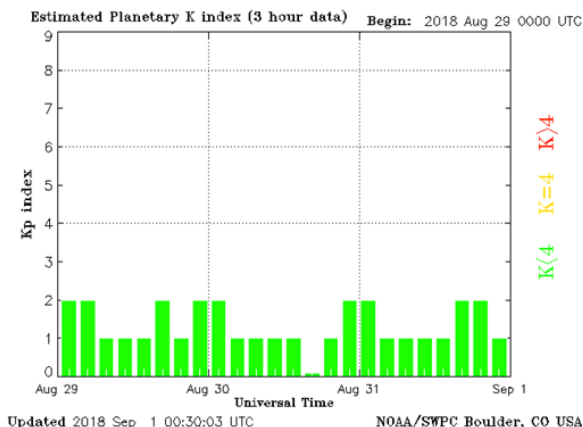
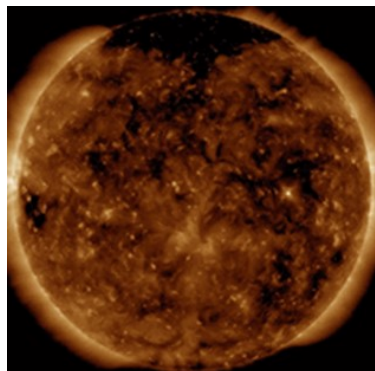
SOLAR UPDATE

PROVIDED BY FRED HART, AA0JK

September 1st - The Sun was blank--no sunspots. Credit: SDO/HMI



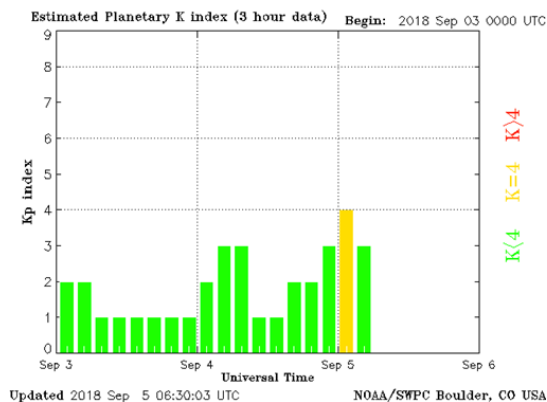
An equatorial coronal hole was emerging over the Sun's eastern limb. Solar wind flowing from this hole was expected to reach Earth later in the week. Credit: SDO/AIA



Solar sector boundary crossing: On September 3rd, Earth crossed a fold in the heliospheric current sheet, a vast wavy structure in interplanetary space separating regions of opposite magnetic polarity. This would trigger geomagnetic activity around Earth's poles. Disruption of the HF bands could occur when crossing the active area.

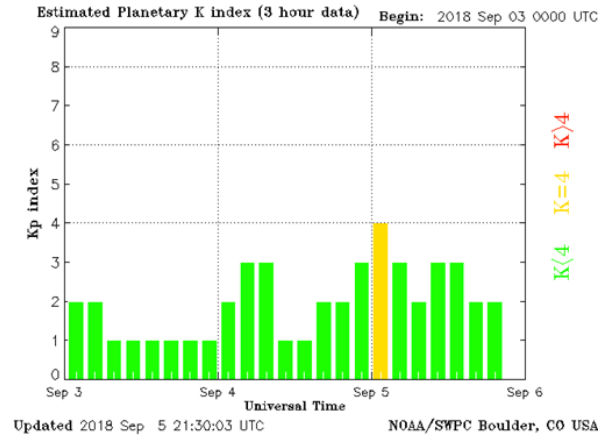
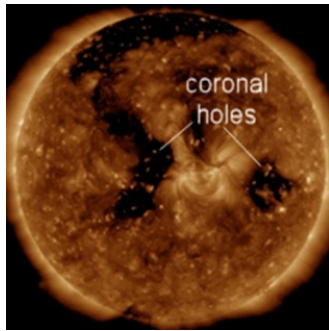
September 3rd - A coronal hole was facing Earth and was spewing a stream of solar wind toward our planet. Solar wind flowing from this coronal hole was expected to reach Earth on September 7th. (Credit: SDO/AIA) The Coronal hole looks dark in extreme UV images of the Sun because the hot glowing plasma normally contained there is missing. In this case, the gaseous material was en route to Earth.

September 4th - The Sun was spotless and quiet, but it wouldn't last. Two coronal holes were expected to rotate into the Earth's strike-zone. Amateur radio operators and emergency responders would have another week to wait for decent radio propagation.



September 5th - Reverse polarity sunspot group AR2720 observed in late August belongs to the current solar cycle Cycle 24, and does not represent the start of Cycle 25. http://www.arrl.org/news/view/reverse-polarity-sunspot-group-does-not-belong-to-cycle-25-observatory-says?utm_source=dlvr.it&utm_medium=twitter

September 7th - The Sun was blank - no sunspots. Credit: SDO/HMI. Poor HF propagation was expected throughout the following ten days.



These two coronal holes were sending two solar wind streams toward Earth. The first was expected to arrive on September 7-8th. The second was expected September 11-12th. Credit: SDO/AIA.

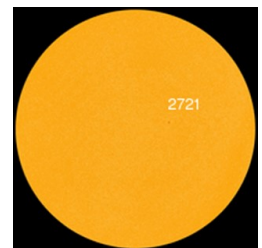
EQUINOX CRACKS ARE OPENING IN EARTH'S MAGNETIC FIELD: The northern autumnal equinox was only 2 weeks away. That means one thing: Cracks are opening in Earth's magnetic field. Researchers have long known that during weeks around equinoxes, fissures form in Earth's magnetosphere. Solar wind can pour through the gaps to fuel bright displays of Northern Lights and disrupt HF communications.

During the displays, a weak stream of solar wind would be blowing around Earth. At this time of year, that's all it takes. Even a gentle gust can breach our planet's magnetic defenses.

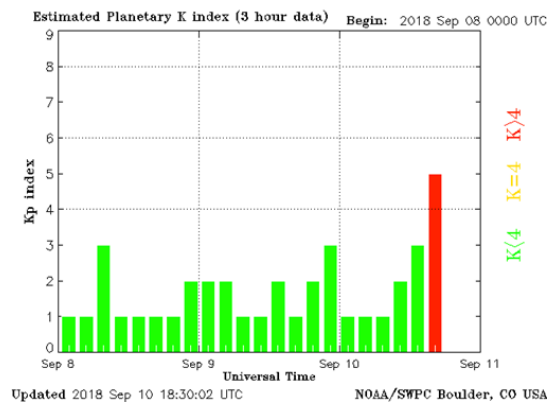
This is called the "Russell-McPherron effect," named after the researchers who first explained it. The cracks are opened by the solar wind itself. South pointing magnetic fields inside the solar wind oppose Earth's north-pointing magnetic field. North and South partially cancel one another, opening a crack. This cancellation can happen at any time of year, but it happens with greatest effect around the equinoxes. A 75 year study has shown that September is one of the most geomagnetically active months of the year, a direct result of "equinox cracks."

September 9th - Radio propagation remained poor due to the spotless Sun, but active regions on the Sun's backside hinted that a reprieve would be coming in two weeks.

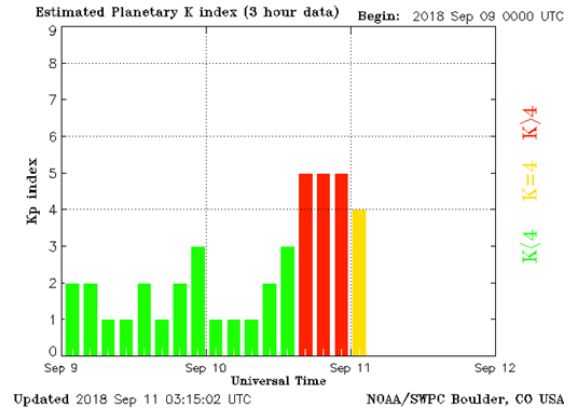
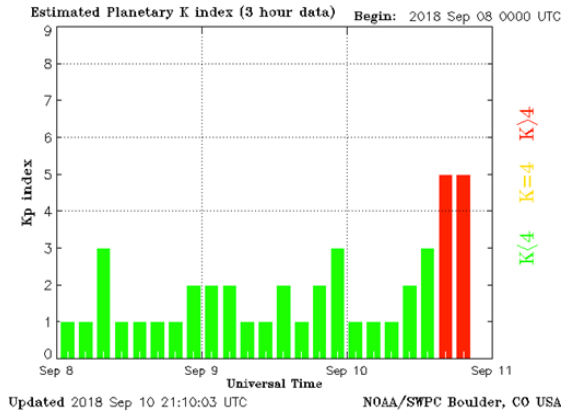
Sunspot AR2721 was very quiet--typical of solar minimum sunspots. Credit: SDO/HMI



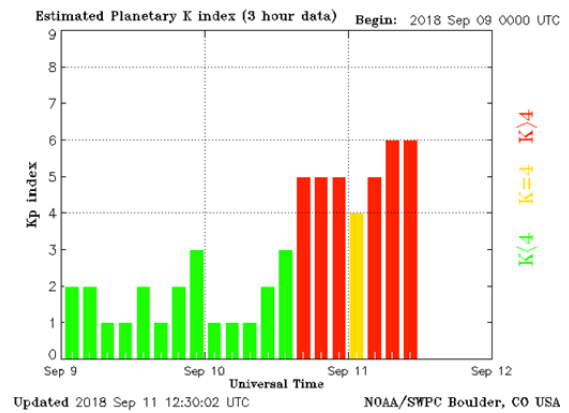
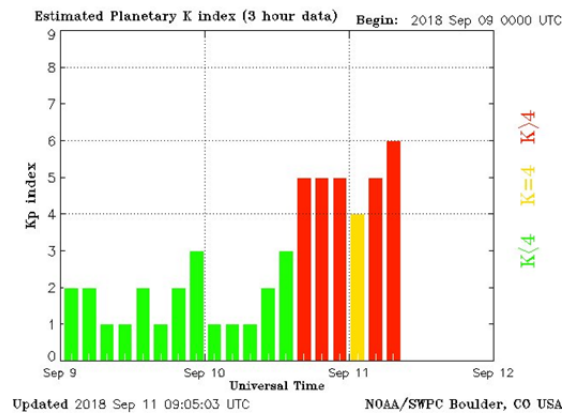
September 10th -



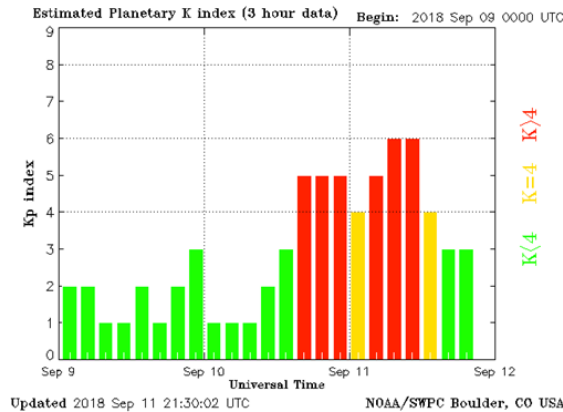
20:10 UTC The anticipated coronal hole stream was moving past Earth. The interplanetary magnetic field (Bz) component being carried past our planet via the solar wind was pointing south, a condition that favors elevated geomagnetic conditions. Minor (G1) to isolated Moderate (G2) storming were expected at higher latitudes during the following 24-48 hours.



September 11th - G2 storming level: Moderate G2 geomagnetic storm (Kp6) Threshold Reached: 08:17 UTC



Geomagnetic storm subsides: As forecast, a moderately strong G2-class geomagnetic storm occurred during the early hours of September 11th as a stream of high-speed solar wind buffeted Earth's magnetic field. The G2-level storm conditions remained at this level for over six hours. This resulted in emergency communication over the amateur radio bands to be non-existent. Solar-winds were ongoing and it would be several days for the amateur radio bands to fully recover.

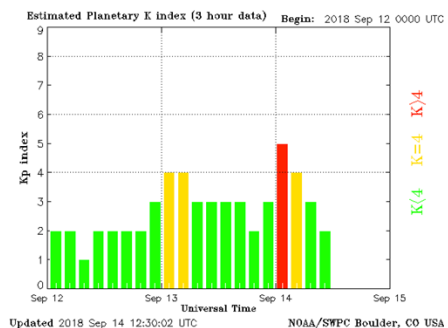
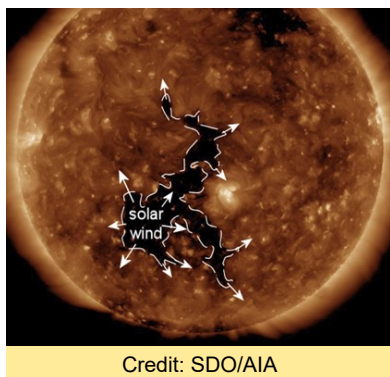


G2 storm could cause HF fading at higher latitudes.

September 14th - No geomagnetic storming was predicted for September 14th. Unexpectedly, the day began with a minor G1-class storm that sparked midnight disturbances as far south as Michigan and Illinois. The disruption was caused by solar wind flowing through a crack that opened unexpectedly in Earth's magnetic field.

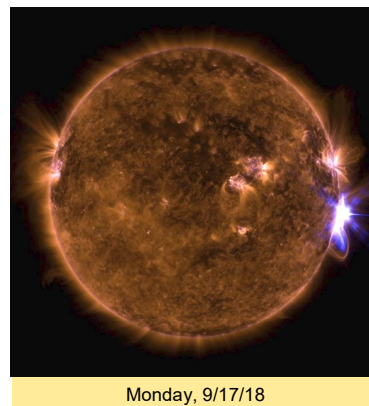
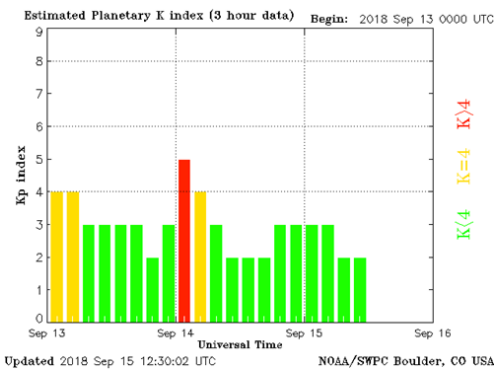
With North Carolina's statewide power outage of 185,312 (as of 2:20am) this meant emergency responders, would be busy! Solar storm conditions had calmed slightly but amateur radio and GPS would have issues throughout the night as Hurricane Florence moved in.

A new hole in the Sun's atmosphere: A new hole in the Sun's atmosphere was turning toward Earth. NASA's Solar Dynamics Observatory photographed the structure, shown here in a false-color UV image taken on September 13th.



Minor G1- class geomagnetic storms were possible when the gaseous material arrived on September 17th.

NOAA Issued a Moderate (G2) Geomagnetic Storm Watch for September 11th: 09/11/2018 - Just as Hurricane Florence approaches the US mainland and Hurricane Olivia was poised to affect Hawaii, NOAA issued a G2 (moderate) geomagnetic storm watch for September 11th . The G2 storm would exacerbate already modest propagation on the HF bands as the planetary K index rose to an estimated value of 6. The G2 forecast stemmed from a fast-moving stream of coronal hole solar wind that was expected to hit Earth's magnetic field. G2 storms would cause HF fading at higher latitudes.



Amateur Radio operators on Guam were active, supporting response to Typhoon Mangkhut.

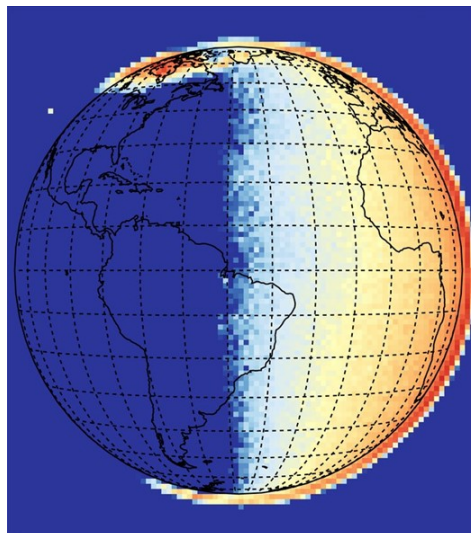
Pink auroras over Yellowknife: On September 14th, a gust of solar wind hit Earth's magnetic field. As the onrushing wind accelerated to 600+ km/s second, a bright band of pink auroras appeared over Yellowknife Canada.

Pink is a sign of nitrogen. Most auroras are green, a verdant glow caused by energetic particles from space hitting oxygen atoms 100 km to 300 km above Earth's surface. Pink appears when energetic particles descend lower than usual, striking nitrogen molecules at the 100 km level and below.

Equinox cracks in Earth's magnetic field may have helped the solar wind penetrate deeper than usual. The actual equinox was less than a week away, and a new stream of solar wind was approaching Earth. ETA: September 17-18.

September 18th - The solar wind arrived: Earth was entering a stream of solar wind flowing from a hole in the Sun's atmosphere. It was not a very fast stream, but at this time of year it would be enough to ignite disturbances in the magnetic field. Equinox cracks in Earth's magnetic field are lowering our planet's defenses against the solar winds.

Gold On Line:



This is the first full-disk ultraviolet portrait of Earth captured by our GOLD instrument.

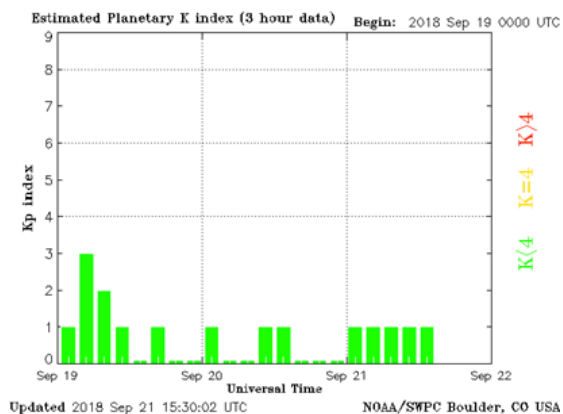
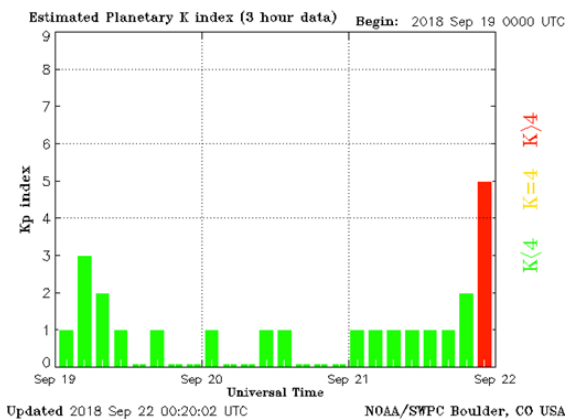
The LASP-built NASAGOLD instrument has captured its first image of the Earth from geostationary orbit: <http://bit.ly/2MFZkMD>. GOLD will improve our understanding of the Sun's impact on the Earth's upper atmosphere, as well as the effects from terrestrial weather below.

GOLD's unprecedented global view of atomic oxygen and other gases — tracked by the light they emit — will help us understand the dynamics in Earth's upper atmosphere, where changes can affect our communications and satellites. <https://twitter.com/i/status/1042101672019931138>

GOLD's commissioning phase continues through October, and then it will start its two-year science mission! Follow along here and at NASAGOLD's page: <http://nasa.gov/gold>.

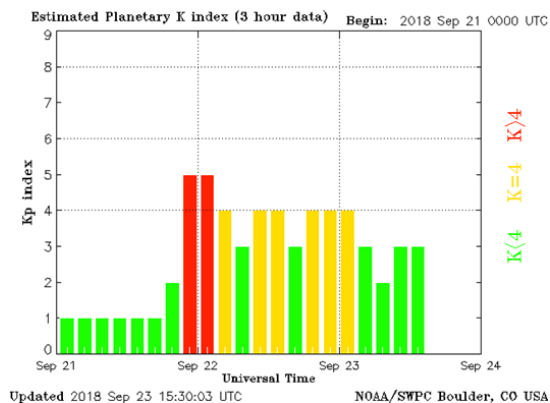
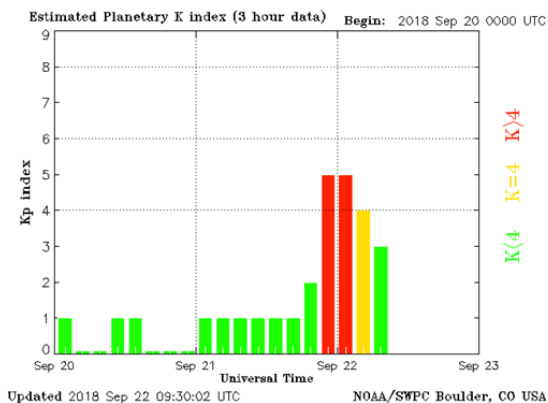
September 19th - Dipping in and out of the solar wind. Earth was exiting a stream of solar wind. Another stream was on the way. It was flowing from an equatorial hole in the Sun's atmosphere.


September 21st - A Geomagnetic Storm was in progress: A minor G1- class geomagnetic storm was in progress on September 21-22. This was the result of an equinox crack forming in Earth's magnetic field, allowing solar wind to penetrate our planet's magnetosphere.



Minor G1 geomagnetic storm (Kp5) Threshold Reached: 23:59 UTC

Disruption to HF bands was expected at mid-latitudes on Earth's night-side. Propagation was expected to be sporadic.



 The Sun was blank--no sunspots. Credit: SDO/HMI

September 26th - Solar minimum conditions were in effect: So far this year, the Sun has been without sunspots for more than 155 days--including the last 13 days straight. To find a similar stretch of blank suns, you have to go back to 2009 when the sun was experiencing the deepest solar minimum in a century. Solar minimum has returned, bringing extra cosmic rays, and long-lasting holes in the Sun's atmosphere.

Prepared jointly by the U.S. Dept. of Commerce, NOAA, Space Weather Prediction Center. UPDATED 2018 September 27 0030 UTC, 24 hr Summary: Solar activity was very low, and the visible disk was spotless. No Earth-directed CMEs were observed in available satellite imagery.

Forecast: Solar activity was expected to be at very low levels through the period (27-29 Sep).

73,

Fred
AA0JK



SEPTEMBER MEETING - WHAT'D I MISS?

BY BRENNAN PATE, AD0UZ

PHOTOS BY ROBERT BAUMANN, WV0Z

The September meeting was jam-packed with content. It started off with voting for the board and officers. No position changes were voted in; everything stays the same.

After the voting was completed a couple ladies who manage the 911 call center talked about the improvements, JeffComm call center consolidation and new systems utilized. They fielded an extensive round of questions from the audience and helped everyone gain some insight into the daily operations.

The group was then given a tour of the call center and training room. It provided some good insight into the level and type of talent required to be a person that works in that environment. It is not for the faint of heart or for those who cannot multi-task. The guides explained how some of the systems work, the breakout of the call queue and described how the blending of the call center cultures has progressed. It is not easy consolidating eight different centers into one but they have been happy with the results and feel it was a successful merger.

After the tours were completed Captain Rick Ihnken, who took Kevin Schmidt's (AD0GX) place, talked about his group's work in EMS. They have a new vehicle (ARM car) that travels around the area to help people who need medical attention and take care of issues that don't require an emergency room or ambulance. It is a pilot program but they have been pleased with the general results so far and hope that it'll be a successful program.





20:12:25

Wednesday, September 19, 2018

911 Queue	EmerAdmin Queue	PrimaryAdmin Queue	Ready Agents
0	0	0	1
911 Queue Longest Duration	EmerAdmin Longest Duration	PrimaryAdmin Longest Duration	Active Calls
00:00:00	00:00:00	00:00:00	5



285 TECHCONNECT RADIO CLUB'S (NA0TC) FALL TECHFEST

By JED BAER, KD0YMG

The TechFest is an annual event with 5 hours of presentations on technical topics related to amateur radio, plus a "demo corner" where club members show off some of their operating technology. The TechFest will be held Saturday, November 3rd, at The Bridge Church at Bear Creek, 3101 S. Kipling St.

Please visit our website(s) for additional information:

Club website: <http://na0tc.org/>

TechFest page: <http://na0tc.org/doku.php?id=techfests>

Flyer: <http://tinyurl.com/Fall-TechFest-Flyer-2018>

ZUMSPOT

By BILL BUREK, AC0VC

I have been hearing about all the Hotspots available. I was talking to a friend, W0AEB, who showed me his new little hotspot. It is called a ZUMspot and is very inexpensive compared to others. I found this a plus as I only need a hotspot for certain occasions such as traveling. The ZUMspot board plugs together with a PiZero board. It runs on the Pi-Star software. It does require some work such as, plugging the boards together and building the case. The kit comes with a Micro-SD card with the software loaded. You will also need a power supply with a USB plug.

This is a link I found very helpful with the complete setup. I hope someone finds this helpful. These are available locally at HRO or as always, online.

http://papasys.com/dmr/resources/DATA/docs/ZumSpot_Pistar_KC6N_20180607.pdf



RADIO SERVICE CENTER CLOSED

By ROBERT BAUMANN, WVOZ

Radio Service Center at 918 So. Sheridan, Denver closed their doors in September after 40 years at one location. RSC once employed a staff of six, but in recent years that gradually declined to only owner Steve Mangels. Health challenges he is facing caused him to make the very difficult decision to close up shop.

INTERCONNECTING BATTERIES FOR A BALANCED BANK

By BILL RINKER, W6OAV

The most common method for constructing a higher current capacity battery bank is to wire all the single batteries in parallel. This is the worst method which produces many problems, mainly unequal individual battery current loading. The goal is to create a balanced battery bank that insures that all individual batteries supply approximately the same current, especially under high current loads.

There are four methods for interconnecting multiple batteries to form a balanced battery bank. Each method has its pros and cons.

Click the following link for an interesting discussion about the four methods and the best method for creating a balanced battery bank. This site analyzes the four methods, describes their pros and cons and also provides a mathematical analysis of each method.

http://www.smartgauge.co.uk/batt_con.html



HAM RADIO IN THE 21ST CENTURY

By BILL RINKER, W6OAV

A great 3 part article appeared in the November 3, 2011 web edition of Electronics Design News (EDN). EDN is a comprehensive information source for original equipment manufacturers (OEM's) and provides in-depth technical information for electronics design engineers and business executives.

The 3 part article is titled "Ham Radio in the 21st Century". It was authored by staff writer Doug Grant, K1DG, and provides a very comprehensive timeline of the early days of ham radio before official licensing, to the formalization of the hobby by the FCC all the way to current trends and the possible future of radio and our hobby.

Click on the following links to read the article:

Part 1

https://www.edn.com/design/communications-networking/4368553/Ham-radio-in-the-21st-century-4368553?utm_source=Aspencore&utm_medium=EDN

Part 2

<https://www.edn.com/design/communications-networking/4368553/2/Ham-radio-in-the-21st-century-4368553>

Part 3

<https://www.edn.com/design/communications-networking/4368553/3/Ham-radio-in-the-21st-century-4368553>

**THE 2018 DRC Holiday Party
is on Wednesday, December 5th, 2018.**

**HIGHLANDS MASONIC CENTER
3550 North Federal Blvd.
Denver, CO
(park and enter on the south side)**

DOORS OPEN AT 5:15 - DINNER AT 6:00

FELLOWSHIP - PRIZE DRAWINGS - PROGRAM

**CATERED DINNER IS \$18.00 PER PERSON,
YOUR CHOICE OF ENTREE: ROTISSERIE CHICKEN OR MEATLOAF
MEAL INCLUDES: TWO SIDES - SALAD - BREAD - DESSERT - BEVERAGE**

**>>> THE DINNER IS BY PRE-PAID ADVANCE RESERVATION ONLY <<<
Reservations must be mailed by November 28th!**

Please help us by making your reservation early. Thanks!



DENVER RADIO CLUB
2018 HOLIDAY DINNER MEETING
RESERVATION FORM

Please print out this form, fill it in, and mail it with your check.

THE DEADLINE TO MAIL RESERVATIONS IS NOV. 28TH, 2018 !
(Please help us by making your reservation early. Thanks!)

Name: _____ Call: _____

Address: _____

City: _____ Zip: _____

Phone #: _____ E-mail: _____

Total # of Persons Attending at \$18.00 Each: _____

Entrée Choices: # of Rotisserie Chicken: _____ , # of Meatloaf: _____
(there is only one entrée per person)

Please make your check payable to: The Denver Radio Club

My check is in the amount of: \$_____

Please mail this Reservation Form with your Check to:

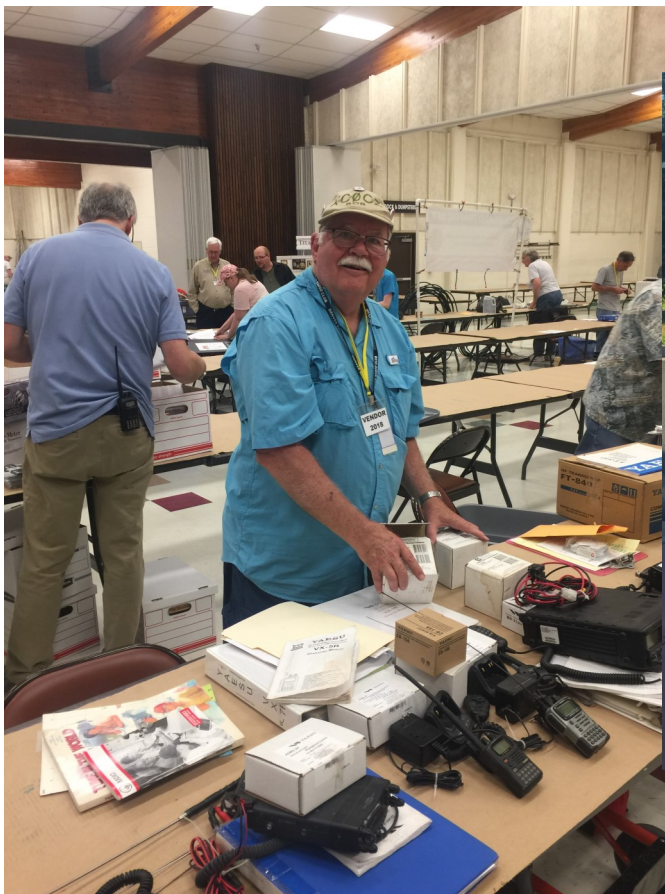
Gerry Villhauer
6511 West 74th Ave.
Westminster, CO 80003 – 3129

Thanks for making your reservation. We appreciate your support!

MORE DRC 2018 HAMFEST PHOTOS

PROVIDED BY JESSIE KING, N0HI







BUT WAIT, THERE'S MORE... DRC 2018 HAMFEST PHOTOS

BY ROBERT BAUMANN, WVOZ

Paul Thompson, W00D visits Don Andrus, K4DWB's Titanic Wireless display at the 2018 DRC Hamfest. Don manufactured the replica instruments himself and has expanded the display over a period of years. He splits his time between Florida and Colorado and has shared the display with the public any number of times in both places. He has said the DRC Hamfest will be the final presentation of this display.



FACT OF THE DAY

Nickel-Cadmium Battery Discharging

Nickel-cadmium (NiCd) batteries should be discharged to 1-volt per cell before they are recharged to avoid reduced runtime following the next charge. The runtime of nickel-cadmium batteries that have been recharged before being discharged to 1-volt per cell can be restored by discharging them to 1-volt per cell, recharging them, and then repeating that deep discharge/recharge cycle two more times. It is easy to design nickel-cadmium battery-life restoration circuits that perform that deep discharge/recharge cycle three times automatically.

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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

[DMR-MARC](#)

THE ROUNDTABLE ARCHIVE

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

THE ROUNDTABLE ARTICLE INDEX

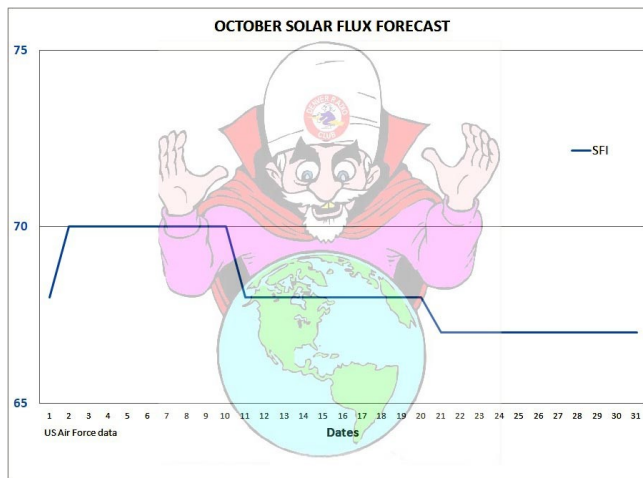
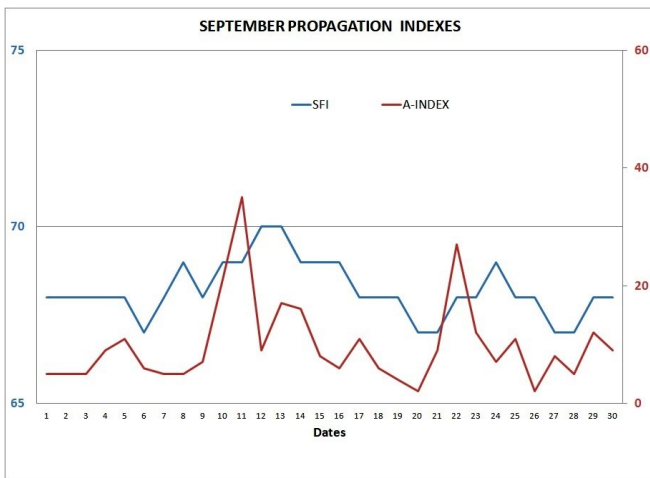
Go to: <http://www.w0tx.org/RoundtableArchive/-RoundTables-Index.pdf>

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
BARCfest	10/07/18	Boulder County Fairgrounds Exhibit Building, Longmont	BARC
Fall TechFest	11/03/18	Bridge Church at Bear Creek	285 TechConnect

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
California	10/06/2018	10/07/2018	California QSO Party	
Nevada	10/12/2018	10/14/2018	Sierra Nevada Amateur Radio Society	
South Dakota	10/13/2018	10/14/2018	South Dakota QSO Party	
Arizona	10/13/2018	10/14/2018	Radio Society of Tucson (RST)	
Pennsylvania	10/13/2018	10/14/2018	The PA QSO Party Association	
New York	10/20/2018	10/21/2018	Rochester DX Association	
Illinois	10/21/2018	10/22/2018	Western Illinois Amateur Radio Club	

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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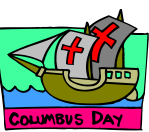


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OCTOBER 2018							<i>DRC Net Sundays at 8:30 p.m. on 145.490 / 448.625 (no PL)</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
	1	2  Last Quarter	3 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	4	5	6	
7	8  COLUMBUS DAY  New Moon	9	10 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	11	12	13	
14	15 School Club Roundup - Starts 1300 UTC	16  First Quarter	17 DRC Meeting - Elmer 6 PM General 7 PM	18	19 School Club Roundup - Ends 2359 UTC	20	
21	22	23	24 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)  Full Moon	25	26	27 EME Contest 50 - 1296 MHz - Starts 0000 UTC	
28 EME Contest 50 - 1296 MHz - Ends 2359 UTC	29	30	31 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 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