



ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

May 2018

PRESIDENT'S MESSAGE

BY GERRY VILLHAUER, W0GV

Hello DRC Members,

It sure is nice to see spring here. I am enjoying the longer daylight hours. The fire danger continues, hopefully we will get more needed moisture throughout the state.

We have made progress with our internet problem at our Lakewood Repeater site. We are now connected to Comcast internet, which will save the club a considerable amount of internet fees. Good news for our members interested in the Yaesu Fusion repeater and the Wires-X system. Now that we have better internet, we will be re-connecting the Wires-X system very soon. We will make that announcement on the Sunday net when it is completed. Having reliable, faster internet will enable us to do some other projects requiring internet connectivity. We would appreciate coverage reports on the Fusion Digital System as members use it in the various areas. These reports will enable us to make determinations if any changes are needed in the Fusion system.

Our next major event will be the annual ARRL Field Day on June 23-24. Mark these dates in your calendar, come join in the fun and operate on the air. This is a great time to bring a non-ham and get them exposed to the fun and service ham radio provides. Our Field Day Chairman, Dave (K0HTX) will have more information upcoming as we get closer to the event. Another day to put in your calendar is August 26. That is our DRC Hamfest at the Jefferson County Fairgrounds. Now is a good time to get your tables ordered; especially if you require electrical power, which is on a first come basis. Information and the reservation form is on the DRC website, W0TX.org.

Thanks to Paul (WA2YZT) and Bill (N0PDB) for their very interesting presentation and demonstration of the equipment used in their jobs as Television Engineers at CBS 4 in Denver. The development in the technology used in today's television broadcasting used in the field is amazing and the stories they told made the presentation very enjoyable.

Our May presentation will be a two-part program. First, our Vice President Dave (K0HTX) will be giving a preview of our Field Day activity. Dave will explain what goes into the planning and the site set-up to make a successful field day event. He will explain what to expect when you come to help set up, tear down and operate for this two-day event.

The second part of the program will be presented by Orlen (WW0LF) our club Secretary and Repeater Trustee. Orlen's presentation is titled: Fox Hunting with a Mission. The story of FCC mobile direction finding – WWII to the '60s. The presentation will cover equipment and techniques used, stories of the hunt and a display of some of the equipment they used. Orlen will also show and revile his "Mystery Box" and its use. Orlen has had an interesting career in military and civilian life. You can read more about him and a picture of the "Mystery Box" in this edition of the Roundtable.

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 Roundtable.

73 for now,
Gerry (W0GV)
President



APRIL MEETING – WHAT’D I MISS?

BY BRENNAN PATE, AD0UZ. PHOTOS PROVIDED BY DAVE GILLESPIE, KOHTX.

The following are visual proofs an April meeting did occur. See the President’s Message for textual proofs.



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:

R. Dennis Petersen - WA0DP	Chris Moore - KE0OIC
Thomas Webster - KE0OSI	Howard E Taylor - KE0O
Myron K Howitt, II - KE0QOF	Brad Ramsey - K0BJR
Doran Ben Chaim - K1DBC	

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 is working on getting TSA the additional info that they requested.

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. We are hoping to get the new internet operational April 24th.

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 April 24th weather permitting.

MAY MEETING PRESENTATION

BY ORLEN WOLF, WWOLF

May's presentation, "Fox Hunting With a Mission" will tell the story of the FCC's mobile direction finding service, from WWII to the '60s. Orlen will cover equipment and techniques used, stories of the hunt and a display of some of the equipment they used.

Orlen Wolf, WWOLF, has held both amateur and commercial FCC licenses since 1966. Initially licensed as WN9TVH, he has also held callsigns WA9TVH (for 45 years) and DA1QD while stationed in Berlin, Germany. He also holds a commercial General Radiotelephone License. While in high school and college Orlen worked at an AM broadcast station, a Motorola service center and the St. Louis marine radio station. He joined the Air Force in 1969 and served at various times in Air Force Communications Command, Strategic Air Command and Electronic Security Command. Orlen received a degree in Electronics Systems Technology from the Community College of the Air Force in 1989. He retired from the Air Force in 1991 after returning from a deployment to Desert Storm. After working for a couple of years in the engineering department of a satellite television systems manufacturer he accepted a position with the physics department of the Colorado School of Mines. He is now semi-retired but still holds a part time position as a research associate at CSM. Orlen is a life member of the ARRL and a long time member of the Denver Radio Club. He has served on the board of the DRC since 1992 and was the club president in 1994-1995.



May Board Meeting Date Change

BY GERRY VILLHAUER, W0GV

Due to scheduling conflicts, the May DRC board meeting will be on May 30th.

LEARNING NET REPORT

BY FRED HART, AA0JK



Thanks goes out to our net controllers: Larry (K0LAI), Alex (KS0E) and Fred (AA0JK). The following topics were discussed this past month:

- Propagation and recent DX stations worked.
- Growth in the amateur radio community and activity. Concerns as to frequency allocation. More than 30,000 new licensees joined the Amateur Radio ranks.
- ARRL Volunteer Examiner Coordinator's, (VEC), conducted more than 7,000 Amateur Radio exam sessions, serving some 35,350 candidates for a new or upgraded license.
- Despite the optimistic influx of 32,196 newcomers last year, the net growth of 5,349 — about 0.72% over December 2016 — reflects some 27,000 expired or canceled licenses in the FCC database (arrl.org/news/more-than-30-000-new-ham-licensees-and-7-000-amateur-radio-exam-sessions-in-2017)
- Availability of classes:
General Class, May 26th
Contact: Will Perkins W1ZRV, (770) 508-9520, W1ZRV@ARRL.net
Location: LDS Church @ 13206 Green Mountain Drive, Lakewood, CO 80228
Additional Information: Preregistration Required Details will be emailed in response to registration. VE team session will provide testing after the class session.
- Question Pools:
Tech Question Pool: New vs Old: 2018-2022 Technician Question Pool Release (ncvec.org/page.php?id=369)
General: 2015-2019 General Class Pool (ncvec.org/page.php?id=364)
Extra: 2016-2020 Extra Class Question Pool (ncvec.org/page.php?id=365)
License Renewal: Two year grace period after expiration date.
ARRL Operating Hand Book: Recommended for all amateur radio operators.
- Maldol HVU-8 Comet Antennas
- Wolf Coil Antenna - <http://www.wolfrivercoils.com/>
- Special Event Stations
- Installing a New mobile antenna

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

ELMER SESSION START TIME
The Elmer Session Starts at 6 p.m. before the regular 3rd Wednesday DRC Meeting! All are welcome. Meet in Hearing Room # 2.
Come join in on the sharing of information.

EMCOMM NOTE

PROVIDED BY BRENNAN PATE, AD0UZ

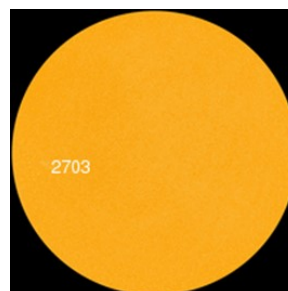
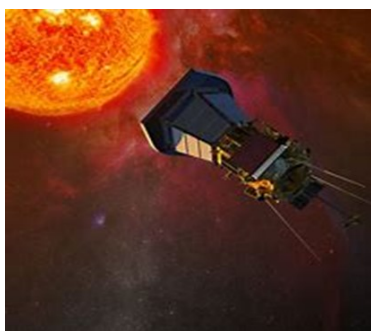
The Lakewood siren test was successfully completed on May 1st. According to reports from Jim (K0TOR) test was a success despite some initial confusion from various parties on the siren sequencing. However, the thirty hams that participated were gracious, were able to cover all the sites and called in their results to the two net control operators. Many reported that they really enjoyed participating in the event. Thanks to the following people for their help with the Lakewood test: KD0SYD, KD0NRO, N0BED, AD0ZM, KE0CNP, WW0LF, KE0CNU, KC2CAG, N5CMK, AA0JK, KD0WMO, AD0WB, AA0DH, WG0N, WB0HWP, K0LJW, K0HRT, W0BBR, WZ0S, AD0GX, KD0DUJ, KD0YMG, AC0T, N0PQV, K6HJV, KA0BBQ, KE0CNS, K0HTX, K0TOR, and K0WSU. Apologies to KD0DUJ for having to be at a site with no siren, due to the hawk...

On May 9th the Wheatridge siren test will be taking place. If you would like to participate in the test and we have not contacted you please let us know. Contact Jim (K0TOR) or Brennan (AD0UZ). See the last page of the Roundtable for contact info, or email emcomm@w0tx.org.

SOLAR UPDATE

PROVIDED BY FRED HART, AA0JK

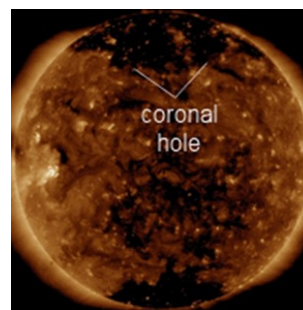
April 1st: April started out with a small sunspot turning into view. The active region numbered AR2703 was the source of a minor C4.6 flare.



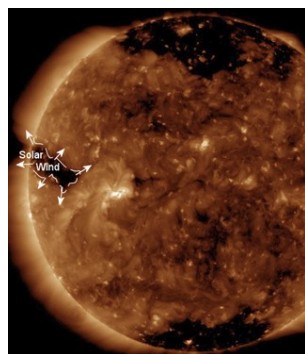
Credit: SDO/HMI

Sunspot AR2703 was crackling with minor B-Class solar flares. Solar wind flowing from this northern coronal hole was expected to brush against Earth's magnetic field on April 3rd and 4th.

Eruptions were looking to be fast enough to drive shockwaves ahead of the solar storms! Solar flux was still low, so the amateur radio bands were barely at marginal levels for radio propagation.



Credit: SDO/AIA



Credit: SDO/AIA

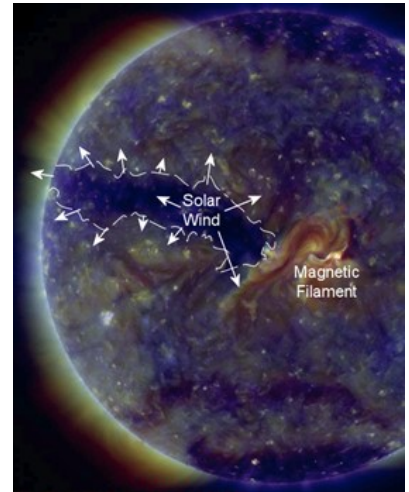
April 3rd: As depicted in the SDO/AIA image to the left, a recurrent hole from mid-March, was again turning to face our planet after a two-week transit around the far-side of the Sun. As this coronal hole emerged over the Sun's eastern limb, it was producing a blast of high-speed solar wind.

Unlike similar holes near the sun's poles, this hole was particularly geoeffective because it straddled the Sun's equator, allowing it to squarely target Earth with a stream of solar plasma. The last time its gaseous material interacted with our planet's magnetic field, amateur radio band conditions were seriously degraded.

April 7th: The week ended with a wide hole in the Sun's atmosphere as it was facing Earth and spewing a stream of solar wind.

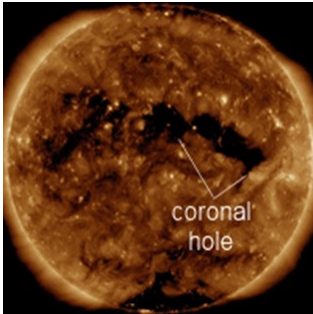
In the extreme ultraviolet image shown to the right, from NASA's Solar Dynamics Observatory, you can see not only the hole, but also the bushy filament of magnetic filaments leading edge.

The canyon-shaped hole was remarkably wide, stretching more than 700,000 km from end to end. As a result, Earth was under the influence of its gaseous emissions for days. Polar geomagnetic unrest and minor G1-class magnetic storms were active from April 9th through 13th.



Credit: NASA's Solar Dynamics Observatory

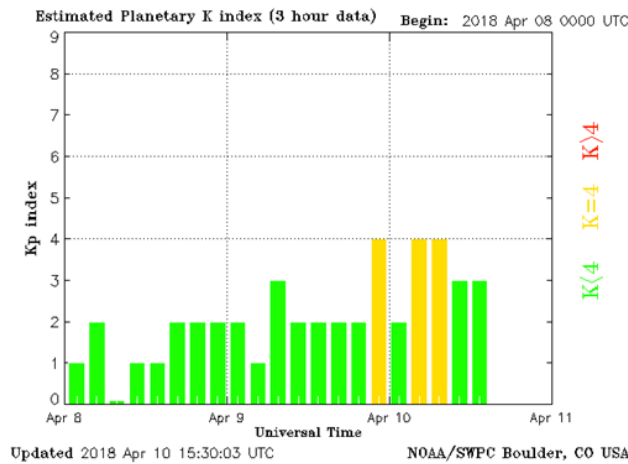
Week Two



Credit: SDO / AIA

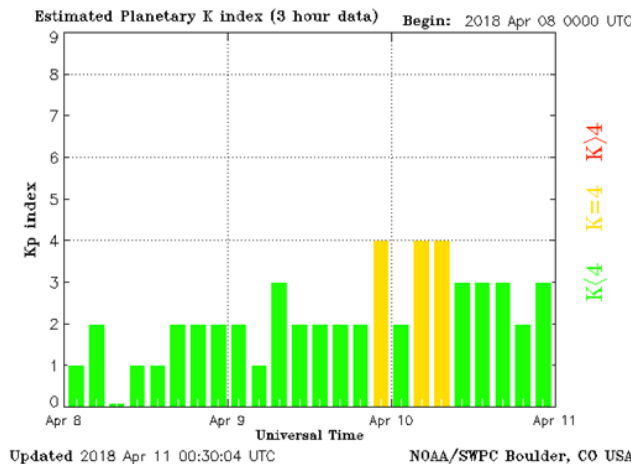
April 9th: THE SOLAR WIND ARRIVED - Arriving some hours earlier than expected, a stream of fast-moving solar wind reached Earth. The gaseous material was flowing from a wide hole in the Sun's atmosphere, and resulted in engulf our planet for several days. NOAA forecasters estimate a 55% chance of G1-class geomagnetic storms April 10th and 11th, as Earth moved deeper into the stream.

Spotless Days: An 8 day stretch.

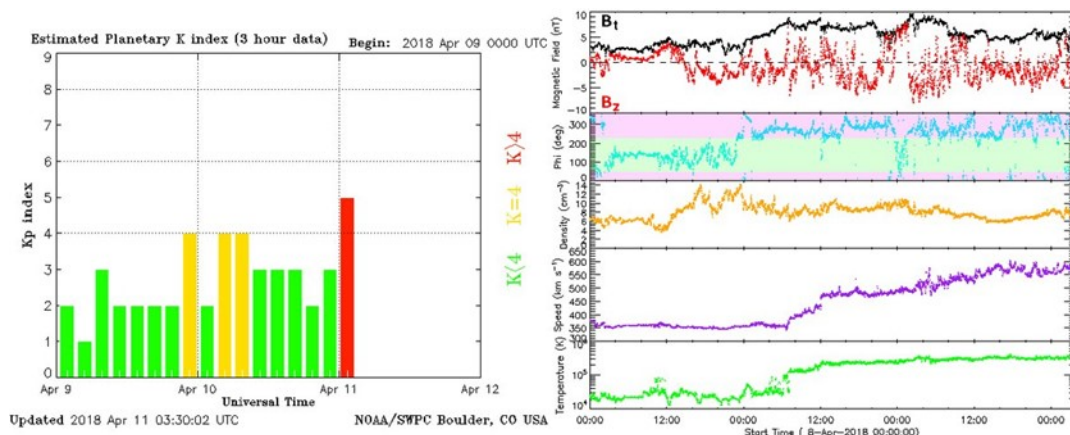


As expected, solar wind was moving past Earth. At a speed of 500 km/s, a G1 minor storming watch was in effect.

The massive "hole" on the Sun's surface, was unleashing strong solar wind, ramping up disruption of satellite, and HF communications for the following several days.

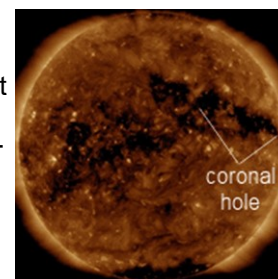


April 11th: Minor G1 geomagnetic storm (Kp5) Threshold Reached: 02:59 UTC



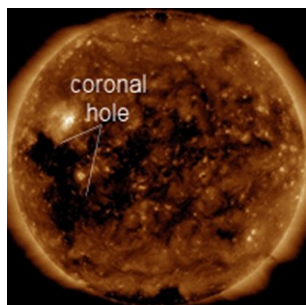
NOAA/SWPC, posted a G1 (Kp=5) G2- storm watch, based on existing solar wind conditions, for the following 24 hours.

April 12th: We have a Sunspot. The new spotted region located in the northeast quadrant was assigned AR2704, but the small sunspot was not expected to produce much in the way of fireworks. Earth was inside a stream of solar wind flowing from the indicated coronal hole.

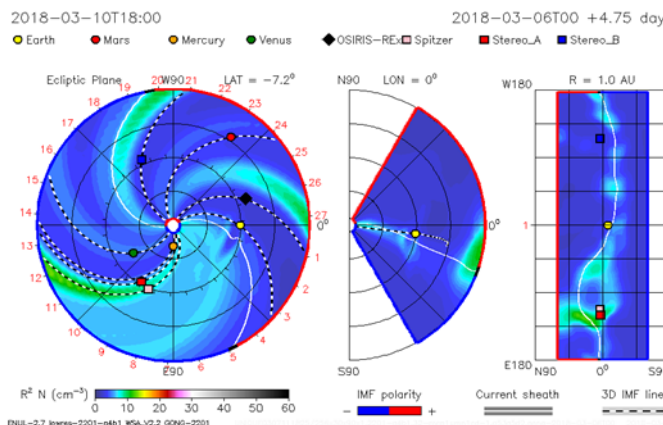


Credit: SDO/AIA

April 14th: ANOTHER HOLE IN THE SUN'S ATMOSPHERE: A new hole was opening in the sun's atmosphere, and it was spewing a stream of solar wind into space. This extreme ultraviolet image from NASA's Solar Dynamics Observatory shows the opening, which stretched more than 600,000 km from top to bottom:



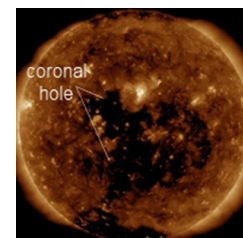
Solar wind flowing from the indicated coronal hole was expected to reach Earth on April 20th. Credit: SDO/AIA



Sunspot AR2704 was tiny and posed no threat of strong solar flares. Upper right image: WSA-ENLIL CME, Solar Wind Prediction Model.

Week Three

April 17th @ 00:00 UTC: Another Coronal Hole Stream Incoming. The coronal hole was beginning to face Earth. A solar wind stream flowing from CH# 90, was expected to reach us beginning April 19th. G1- storm levels possible.



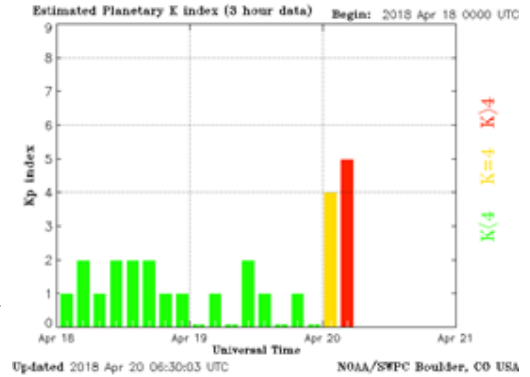
Credit: SDO/AIA

April 20th: INTERPLANETARY SHOCK WAVE: An interplanetary shock wave hit Earth's magnetic field on April 19th around 23:50 UT. When the shock arrived, the density of the solar wind flowing around our planet abruptly quadrupled. Moreover, magnetic fields in the

solar wind near Earth were intensified 10-fold. These developments set the stage for possible geomagnetic storms in the following hours.

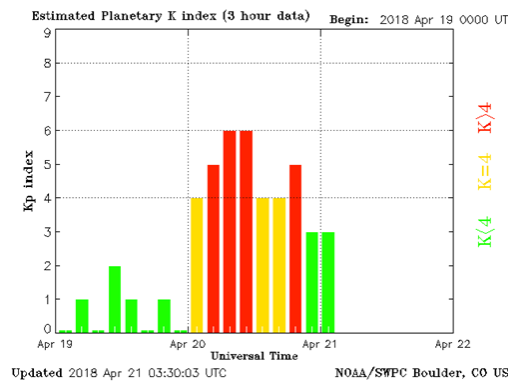
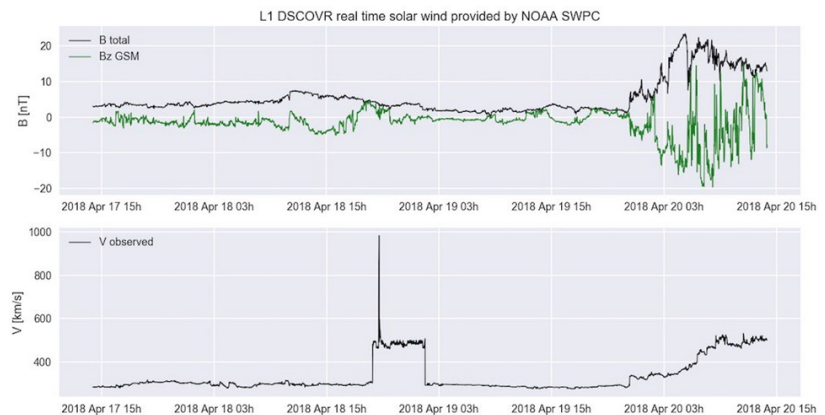
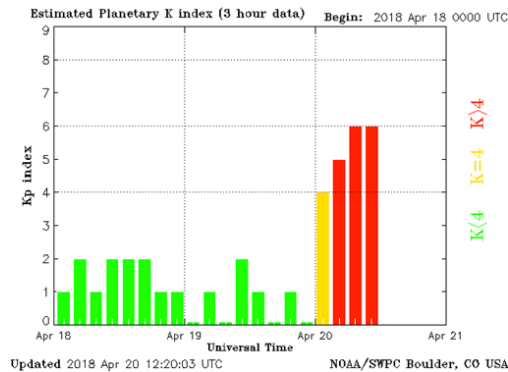
NOAA/SWPC posted a G1 (Kp=5) storm. It was expected to become stronger. The solar wind was getting faster. This storm seemed to be due to a HSS-assisted ICME or ICME-enhanced HSS.

What is an interplanetary shock wave? It is a supersonic disturbance in the gaseous material of the solar wind. These waves are frequently delivered by coronal mass ejections (CMEs). This one might have been a minor CME that left the Sun unrecognized earlier this week. Or it might have been an unusually sharp co-rotating interaction region (CIR). CIRs are transition zones between slow- and fast-moving streams of solar wind. They contain plasma density gradients that often do a good job of disrupting HF communications.



Geomagnetic K-index of 6 Threshold Reached: April 20th @1044 UTC

A high speed solar wind stream reached us with a moderate G2 geomagnetic storm. HF communications were expected to be unsettled. Lower right image credit: NWSSWPC.



A slow solar storm with favorable southward pointing fields (green lines in upper panel), were swept up by a high speed solar wind stream (bottom panel).

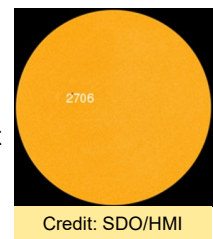
A minor (G1) geomagnetic storm watch was expected to remain in effect for the following 12 hours while a high speed solar wind stream continued to move past our planet.

Week Four

April 22nd: Subsiding storms: Geomagnetic activity was subsiding as Earth made its exit from the gaseous wake of an interplanetary shock wave that rattled our planet's magnetic field on April 20th . NOAA forecasters said there was a 35% chance of minor geomagnetic storms, dropping to only 10% April 23rd.

April 23rd: Sunspot AR2706 had a stable magnetic field that poses no threat for strong solar flares.

AR 2706 had a primary core almost twice as wide as Earth It had not produced any flares at that time.



Forecast: Solar activity is expected to be very low, with a slight chance for C-class flare activity, over the next three days.

Solar Wind Summary: The solar wind environment was at background levels. Solar wind speed was generally less than 350 km/s throughout the reporting period. Total field ranged from 1 to 5 nT and Bz was variable. Phi angle rotated between positive and negative sectors.

Forecast: Solar wind parameters are expected to remain at background levels, then becoming elevated with the onset of a recurrent, positive polarity CH HSS. Credit: U.S. Dept. of Commerce, NOAA, Space Weather Prediction Center.

73,

Fred
AA0JK

MAY GENERAL LICENSE CLASS AND EXAM

PROVIDED BY WILL PERKINS, W1ZRV

A General class license class will be offered on Saturday, May 26th. The class will run from 08:00 - 17:00, with testing following the class.

Location:
LDS Church
13206 Green Mountain Drive
Lakewood, CO 80228

Contact W1ZRV@ARRL.net for more information or to register. Pre-registration and pre-class work are required.

For more information, visit: <http://www.arrl.org/courses/lakewood-co-80228-4>.

FIELD DAY 2018

PROVIDED BY DAVE GILLESPIE, K0HTX

Field Day for 2018 is on Saturday & Sunday, June 23rd & 24th. We will be at the Chief Hosa North Campground - off of the North Side of I-70, at Exit # 253. (Do not go to the regular Chief Hosa campground on the south side of the highway.) Please mark your calendars now! Talk in will be on the 145.490/448.625 repeaters, 100Hz Tone.



APRIL NEW HAM TRAINING AND VE SESSION

BY TOM KOICIALSKI, KC2CAG

Once again, Will The Wizard, W1ZRV, conducted a day long training session for new hams. The all day session on April 14th, 2018, was held at the LDS Church on West Green Mountain Drive in Lakewood. The training session was followed by licensing examinations conducted by the Denver Radio Club VE Team. The results were super, as usual with Will's training sessions. Fourteen new Technicians and five new General Class licenses were earned at the end of the day!

VE Team members supporting the exam included, in no particular order:

- AD0GX, Kevin
- N2ES, Eric
- AD0WG, Roger
- WZ0S, Bill
- AC0UV, Ron
- K0HTX, Dave
- AA0JK, Fred
- W1ZRV, Will, and
- KC2CAG, Tom

Congrats to all on the newly earned licenses, and thanks to Will and the VE Team for making this happen!



ANTENNAS

PROVIDED BY BILL RINKER, W6OAV

A good book: "Understanding Antennas for the Non-Technical Ham", by Jim Abercrombie, N4JA.

This 74 page information packed book covers antenna theory, most antenna systems, design formulas, propagation theory, and much more. It can be downloaded for free, as long as it is used for nonprofit personal use, from: <http://zs4bfm.co.za/Documents/Understanding%20Antennas%20for%20the%20Non-Technical%20Ham.pdf>

**Don't forget to join in on Wednesday nights at 7:30 p.m. for the
DRC Learning Net on the 145.49/448.625 (no PL) repeaters!**

FIRST RESPONDERS NOT SOLD ON DIGITAL RADIO SYSTEMS

FROM THE MARCH 13, 2018 HAM RADIO BLOG BY DAN, KB6NU

The story, "Years After Sept. 11, Critical Incidents Still Overload Emergency Radios" appeared on NPR's *All Things Considered* yesterday afternoon. It talks about some of the problems that police departments and other first responders are having with their digital communications systems, despite spending billions of dollars on them.

The report includes recordings of the police officers expressing their frustration with the system. "I can't transmit for some reason," says one, and "We're having trouble transmitting," says another. Of course, what's happening is that the system doesn't have enough capacity when there's a lot of traffic, as can happen in emergency situations when multiple police officers and multiple agencies are trying to use the system.

Motorola supplied the system described in the report. They contend that the system operated normally. The report notes, "Motorola Solutions wouldn't agree to an interview about the complaints heard on the air in Broward County after the Feb. 14 shooting, but in an emailed statement it says the radio system there 'did not crash and was operating as designed during very busy radio traffic.'" If they were operating as designed, it sounds to me like the design is faulty.

The story does note that user training is a big part of the system failing to meet expectations. In a digital system, continually trying to transmit when the system is already overloaded, only makes things worse. And, I would imagine, that officers probably should take a lesson from amateur radio operators in net operation.

Anyway, I'm not sure that there's much more of an amateur radio angle here. This is the way that emergency services have decided to go in meeting their communications needs. It sounds like we're spending an awful lot on these fancy digital communications systems, but I'm not sure we're getting our money's worth.

<https://www.kb6nu.com/first-responders-not-sold-on-digital-radio-systems/>

DIFFERENT SOIL TYPES

FROM THE "FOUNDATIONS OF AMATEUR RADIO" PODCAST BY ONNO, VK6FLAB IN AUSTRALIA

Recently I had the opportunity to operate mobile in 30 different locations within a 24 hour period. I'd done some preparatory work, in the way of looking closely at maps and plotting my expected route to know where I was and how far it was to the next location.

One of the things I noticed while operating was that my signal reports varied greatly. I also noticed that the local noise floor was quite variable, power lines don't really show up on a map and I can tell you that they are not your friend.

One aspect of operation that took me a little by surprise, though it probably shouldn't have, was that different soil types made a big difference. I know that when I'm playing with antenna modeling software you have the opportunity to specify the soil type, but that doesn't really translate into anything that you can personally experience.

The way I mainly noticed the effect is that for any given frequency, my ATU was unable to tune for some soil types, wet was good, rock wasn't.

This was the first time that I'd actually experienced that in such a way that I managed to notice what was going on, rather than a theoretical experiment, this was a practical exercise and well worth the effort of moving around.

Next time you go out portable, or mobile, have a look at what is happening around you, one of the actual variables is the ground beneath your antenna.

I'm Onno, VK6FLAB

Podcast: podcasts.itmaze.com.au/foundations. Amazon: amazon.com/author/owh. Facebook group: facebook.com/groups/foundations.itmaze. Email: onno@itmaze.com.au. Twitter: @vk6flab Weekly net <http://ftroop.vk6.net>.

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

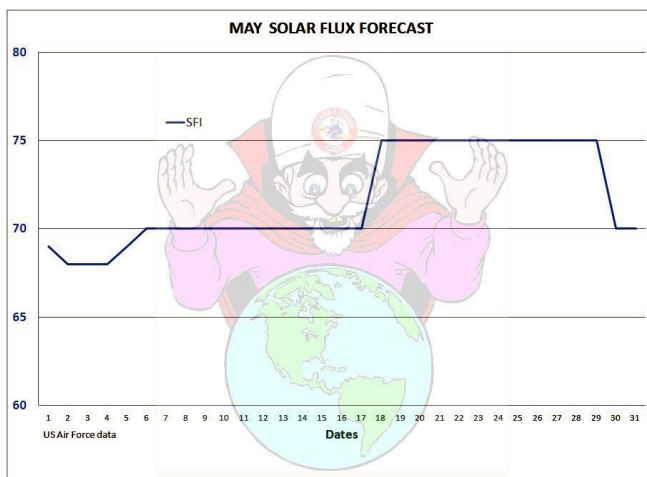
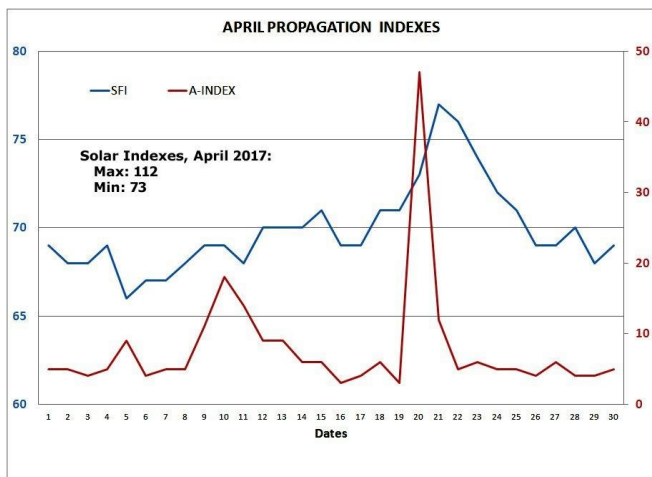
Go to: <http://www.w0tx.org/RoundtableArchive/-RoundTables-Index.pdf>

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
MARC Tailgate Party	06/02/18	Lions Club Pavillion (Delta, CO)	Montrose 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
Montana	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Washington	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Vermont	05/05/2018	05/06/2018	New England QSO Party	
Utah	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Rhode Island	05/05/2018	05/06/2018	New England QSO Party	
Oregon	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Connecticut	05/05/2018	05/06/2018	New England QSO Party	
Delaware	05/05/2018	05/06/2018	First State Amateur Radio Club	
Wyoming	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
New Hampshire	05/05/2018	05/06/2018	New England QSO Party	
Nevada	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Arizona	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Idaho	05/05/2018	05/06/2018	Central Oregon DX Club	7QP
Massachusetts	05/05/2018	05/06/2018	New England QSO Party	
Indiana	05/05/2018	05/06/2018	Hoosier DX and Contest Club	
Maine	05/05/2018	05/06/2018	New England QSO Party	
Arkansas	05/12/2018	05/13/2018	Amateur Radio Klub of the Arkansas North-west	

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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MAY 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 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	3	4	5
6	7  Last Quarter	8	9 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	10	11	12
13	14	15  New Moon	16 DRC Meeting Elmer 6 PM General 7 PM	17	18	19
20	21  First Quarter	22	23 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	24	25	26
27	28	29  Full Moon	30	31		

DRC BOARD OF DIRECTORS

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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