



ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

September 2016

PRESIDENT'S MESSAGE

By Gerry Villhauer, W0GV

Hello All DRC Members,

I hope your summer is going well. Fall is right on our doorstep and time is running out to complete those antenna projects before the white stuff flies. I sure don't like the sound of that because I still need to relocate my HF receiving loop antenna to a better location in the yard.

Another DRC Hamfest is in the history books. I don't have the numbers yet but we did have good attendance and I saw lots of treasures going in and out of the door. We owe a big THANK YOU to Jason (AC0UA) for taking over the chairmanship of the Hamfest. He did a remarkable job of organizing it and for the most part, it came off without a hitch. Thanks also to all of you, (too many to try to name) who helped with the tasks required to accomplish a big event like this.

September is our annual meeting and election of officers. Don't let that scare you off...we will still have a program. Each year four of the eight board members are up for election along with the President, Vice President, Treasurer and Secretary. Come cast your vote and then enjoy a great program.

Thanks to Steve Manion (KDOMFT) for our August program on test equipment. We received several positive comments on Steve's presentation. His knowledge on test equipment is amazing. I am sure we will have him back for another session. This month's program will be another very interesting one.

Our September program will be presented by Darryl Hedges (KD9AUK). Darryl recently move to Colorado and is continuing his hobby of high altitude ballooning. When I say high altitude I mean 100,000 feet high at the edge of space. Darryl designs, builds, launches and recovers his own balloon projects which carry cameras, flight data recorders, APRS trackers and other equipment. This promises to be a very interesting and informative presentation...mark your calendars, don't miss it.

Thanks to all of you who have recently joined the DRC. Please remain active by attending meetings and events. Your names will be listed in this edition of the Round Table.

73,
Gerry Villhauer (W0GV)
President



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W0TX

<http://www.w0tx.org>



AUGUST MEETING – WHAT'D I MISS?

By Brennan Pate, AD0UZ

There were 51 attendees. President Gerry Villhauer (W0GV) greeted everyone and had Jason Smallwood (AC0UA) update everyone on the DRC's Hamfest. Then, Darryl Hedges (KD9AUK), who is speaking at the September meeting introduced himself and encouraged anyone who is interested in high altitude balloon flight, and the requisite ham related activity, to contact him if they are interested in joining in on projects that he does on his own.

Next, Steve Manion (KD0MFT) presented an overview of topics related to equipment testing instruments. He will break out the presentation into separate parts and present those over the next few months. He touched on DMM (digital multimeters), oscilloscopes and spectrum analyzers. Among other topics he discussed what to look for in each piece of equipment you buy; compared modern and older oscilloscope styles and features; discussed harmonics and frequency drift analysis; and gave some recommendations where to find good used equipment.

Also, he encouraged anyone who needs a manual for some piece of testing equipment to contact him and he will be glad to look through his database and send over a PDF version of what you need. It was clear his depth of knowledge is vast and far exceeds the brief points made and we look forward to his future presentations.



DRC President Gerry Villhauer (W0GV) on the left and Steve Manion (KD0MFT) on the right.

EAA AirVENTURE 2016 OSHKOSH, WISCONSIN

Provided By Fred Hart, AA0JK



AirVenture

It's the annual gathering at a place that rings magically in the ears of anyone who loves to fly and for many more who wish they could. It's Oshkosh, where for a couple of weeks Wittman Regional Airport becomes the busiest airport in the world as the Experimental Aircraft Association hosts the world's largest air show at Oshkosh, Wisconsin.

What you ask, does the greatest International aviation convention and amateur radio have in common??? Let me count the ways. History, from the beginning of avia-

tion and radio communications, to the technologies we have and enjoy today. Camaraderie you will find nowhere else. Many evenings were spent chatting with fellow aviators over dinner. Germany, England, South Africa, Australia, New Zealand, and our neighboring Canada just to name a few.

On the "To Do List", for my EAA convention trip, was to touch bases with the amateur radio special event stations. Every year the local Hams make it a point to make a presence during the convention. The EAA provides them with facilities that enhanced the importance that radio communications has made in the history of aviation. Additional emphasis is to introduce to the younger generations to the aviation and communications technology and the importance that their participation can make now and in the future.

Here at Oshkosh, WI, this week long event brings together a family of aviators from around the world. Like what the ARRL does for radio technology, the EAA, provides representation for all that enjoy the world of aviation. During my stay, amateur radio was well represented. Special event stations were on-the air, promoting the activities and providing help and information. The special event stations were setup to demonstrate Amateur radio to all and witness the amateurs as they made their contacts. Displays were there that showed how technology has evolved over the decades. Amateurs' made their stations available to all, young and old, to talk on the airwaves. Special event certificates were offered to those making contact with the event stations.

I was well received by the local club, W9ZL, as the club was setting up and operating the Pioneer Special Event Station.



AA0JK at W9ZL Special Event station Pioneer Museum, Contrasting the old and the new in radio communications.



W9ZL Special Event Station EAA Pioneer Airport Museum.

(Continued on page 4)

(Continued from page 3)

I arrived as the station installation was being assembled. The bugs were still being worked out. High SWR antenna problems. My assistance was welcomed as we narrowed the issue down to a PL-259 connector fitting. We lowered the dipole and replaced the coax feed line. Once raised back up to its lofty position, the radio came to life, now at a one to one SWR.

The station was set-up in two areas. One under a canopy outside to attract the attention of those visiting the area, and to introduce them to amateur radio. The other portion of the station was inside a communications and weather station once used in the earlier days of aviation. This made for a great contrast in the then and now of communications technology. They did an outstanding job of representing the amateur radio and aviation communities.

When I logged in and introduced myself as a Ham, and a member of the Denver Radio Club, I noted that I would be reporting my visit with them when I returned home. Well, to my surprise, they too were interviewing those visiting their station. I was introduced to their interviewer, Emma, KC9YGJ. The holder of a General Class license. She had a lot of great questions concerning amateur radio and aviation. The relevance of the two and its impact on today's missions and visions for the future.

The photo on the right is of Emma Schaefer (KC9YGJ). She got her amateur radio license at age 12. She now holds a General class license. She also participates in local ARES / RACES group and has written articles for W9ZL club and the ARRL ARES E-Letter. (SimCom 2015: Wisconsin Hosts Major Interoperability Exercise) <http://www.arrl.org/ares-el?issue=2015-09-16>



Emma Schaefer (KC9YGJ)

We had a great interview, and she is doing a great job promoting our shared interests to our local communities. Quite an inspiration to us all. Keep up the great work Emma.



Above and Below: W9ZL on the air.



W9ZL Special Event Station antennas. A dipole, a trap vertical, and a six meter Discone.



(Continued on page 5)

(Continued from page 4)



Pioneer Airport EAA Aviation Museum



Pioneer Airport EAA Aviation Museum



WOSH News Talk AM radio / National Parks On-The-Air Special Event Station.



Dipole antenna for the National Parks 2016 special event station.

WOSH, News talk AM radio, was having their 75th Year Anniversary. Joining with the Centennial National Parks - On - The - Air -2016 Celebrations, they set up an amateur radio special event station. I introduced myself as a Ham, and was invited to participate in the festive activities.

AirVenture 2016 Stats numbers:

Attendance: Approximately 563,000. **Total Aircraft:** More than 10,000. **Total Show Planes:** 2,855. **Forums and Workshops:** A total of 1,050 sessions attended by more than 75,000 people. **Social Media, Internet and Mobile:** More than 35 million people were reached by EAA's social media channels during AirVenture. **Media:** 750 media representatives on-site from six continents. What an event!!!

Randy's (K7AAGE) 2015 video gives a good overview of the EAA AirVenture annual event in 2015:

AirVenture video: [CLICK HERE](#)

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. We have a number of activities throughout the year and we'd like very much for you to participate in serving your community.

Michael F. Warner KC0BMC

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.

More information can be found on the Denver Radio Club website at w0tx.org.

Technical Committee Report

By Bill Rinker, W6OAV

The following is an overview of the subjects discussed at the August Technical Committee meeting. The project coordinators' call signs are in red.

AllStar Link Voter System (W0GV)

Goal: Establish an AllStar Link Voter network.
Status: KD0WHB has left for college. W0GV is looking for volunteers to assist him. One voter is in test mode. Three remote receivers are built but not tested. The server is installed at Station 4 and on the net. It is not yet connected to a radio.

AllStar Link Voter System (W0GV)

Goal: Locate possible remote sites.
Status: W0GV has located some possible sites. W6OAV will develop propagation coverage maps to determine if the possible sites will fill in the 147.33 transmitter's "dead spots". Several possibilities are being studied.

DRC/TSA Aurora Site (W0GV)

Goal: Maintain contact with TSA relative to establishing a "communications room" for the DRC.
Status: W0GV is attempting to meet with the new TSA contact. K0TOR worked with Burnie and did locate some of our equipment stored there. The site is still being remodeled.

Redesign Packet Gateway (W6OAV)

Goal: Replace the KAM and the TS-430 which has an intermittent HF transmitter failure.
Status: AC0UA has given the DRC a long-term loan of a

FT-950 transceiver. W6OAV has drawn the schematic for the FT-950 to PK900 interface cable. AC0UA will wire the interface, time permitting. The DSP filtering in the FT-950 and the PK900 should improve the gateway's performance.

Fusion Repeater Upgrade (AC0UA)

Goal: Equip the Fusion repeater with a Wires-X Link unit to connect it to the Wires network.
Status: AC0UA has the Wires X plugged into a computer at his house and is getting a new node number for the DRC.

DRC TRBO Move (K0HTX)

Goal: Move the TRBO repeater to Centennial Cone to provide better coverage.
Status: Awaiting coordination approval for the move from CCARC.

DRC TRBO Access to Station 4's Internet (KE0HFH)

Goal: Investigate the possibility of a microwave shot from St. Anthony's to Station 4 and to Centennial Cone.
Status: Investigation is in progress.

~ Editor's Note: The Technical Committee meeting is open to members of the DRC. It is held in the Arvada room, starting at 6:00 p.m. on the evening of the DRC monthly meeting.



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.

HAM SITE OF THE MONTH

[N4UAH Ham Radio Humor](http://www.n4uah.com)

FOR THE SECOND YEAR IN A ROW, A YOUNG COLORADO HAM WINS THE 2016 AR-Newsline Young Ham of the Year

Skyler Fennell, KD0WHB, who recently graduated The Denver School of Fine Arts, and has been a member of the STEM Academy AB0BX amateur radio program since June of 2014, has just been announced the Amateur Radio Newline Young Ham of the Year. Skyler was nominated by the AB0BX amateur radio club for his accomplishments in internet radio linking project and node technologies, payload design with edge of space sciences flights, his promotion of amateur radio via his YouTube account, Skyler F., his accolades as a concert pianist, and his community service as an Eagle Scout with a Presidential GPA of 4.20. This fall, Skyler will be attending New Mexico Technology University, one of the top 10 engineering schools in the country. He is already in the process of helping reenergizing their amateur radio program.

Bryon "Paul" Veal - NOAH
ARRL Rocky Mountain Division - Assistant Director,
STEM Development
STEM School and Academy AB0BX Club Trustee
n0ah@arrl.net text 303.703.8448

EmComm Note

By Brennan Pate, AD0UZ

An email was recently sent out to DRC members who had expressed an interest in being involved with DRC's EmComm activities. The email came from em-comm@w0tx.org so please check your junk mail if you have not yet seen it.

One of our goals, as the EmComm coordinators, is to act as liaisons between the Club and those DRC members who are involved with other groups that are strictly focused on EmComm related activities (i.e. ARES, RACES). Ultimately we'd like to have a core group, with a certain level of training, that would be available for those EmComm focused groups that could use some extra help during an event.

For anyone else who is interested in helping out with the DRC's EmComm activities, please shoot us an email and we will get back to you with a short "questionnaire." emcomm@w0tx.org



The Denver Radio Club
Is an ARRL
Special Service Club
Support your hobby
Join the ARRL TODAY



WHAT IF THE WEATHER CHANGES?

If we should experience a turn in the weather on the day of our monthly DRC meeting it may be necessary to cancel the meeting. If this should happen listen for meeting status reports on 145.49 or 448.625 MHz repeaters during the afternoon on the day of the meeting.

ATTENTION

Just a note.

I have been receiving email from club members, with an attached link requesting to click "here". I have no idea as to where the "here" link will lead, not going there...

I've been in contact with one of the call's, of which the email's had purportedly originated from, a known ham in the area, and he states that he indeed did not send the email. As of this, I've just received yet another!

Just trying to cover the bases here, as each of the email's have been local (Denver area), and have been using a call as an email address, with now two different network providers. They could possibly be using the club email list as a source, as each of the email's received by me, so far, have been club members.

As for myself, I don't use my call for email. Suggested that the included link not be opened!

73 (Name & Call Redacted)

SEPTEMBER MEETING PRESENTATION

By Darryl Hedges, KD9AUK

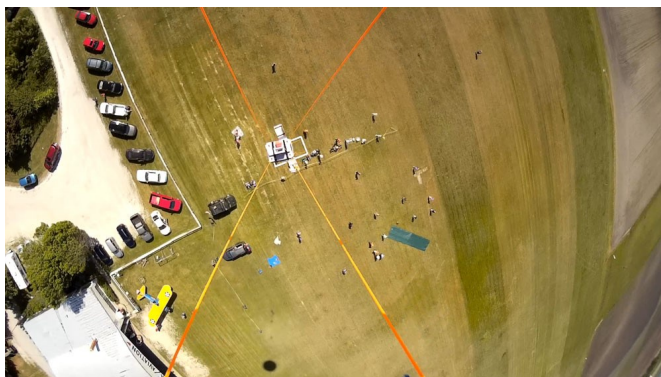
Have you ever wondered what it takes to send a weather balloon up to 100,000-feet and then find it when it comes back to Earth? It's called "High Altitude Ballooning" or HAB for short, and it's one of the most exciting ways for young and old alike to venture into the upper reaches of our atmosphere to bring back some amazing videos, pictures, and environmental data.

Never before, in the history of mankind, has "Near Space" — that area of the stratosphere between 60,000 and 120,000 feet — been more accessible to the average person. And our featured speaker in September is going to tell — and show you — how it's done!

Darryl Hedges has just recently moved to the Denver area from Bartlett, Illinois — a small suburb about 35 miles west of Chicago. Darryl and his wife Pam arrived at their new home in Morrison on July 25th, Darryl's 65th birthday. While in Bartlett, Darryl partnered with the Kankakee Area Radio Society (KARS) to launch 10+ high altitude balloon missions over the past 2 years. Darryl will be discussing what it takes to design, build, launch, and recover a HAB mission, and he'll be showing us some amazing videos and pictures from his various missions. He'll also tell you how he uses HAM radio technology to track and recover his payloads packages when they return to Earth under parachute.

You won't want to miss his presentation. Darryl is currently preparing to start launching missions here in the Denver area, and he's looking to assemble a team of enthusiastic HAMS to help him — either with the launch or the chase and recovery, or both. Members of the KARS group back in Chicago can attest to the great time they had tracking Darryl's balloons with APRS and trying to predict where they would land in time to actually be there to see them touch down.

It sounds like great fun!



DAYTON AMATEUR RADIO ASSOCIATION

Provided By Fred Hart, AA0JK

News Releases: August 02, 2016

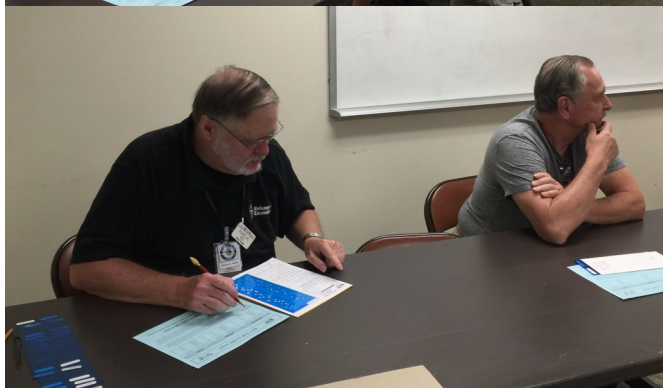
The Dayton Amateur Radio Association announced that it will be moving to the Greene County Fairgrounds and Exposition Center in Xenia, Ohio, after 52 years at Hara Arena. This move comes after Hara Arena announced last week that it would be closing.

Since 1952 Hamvention has been sponsored by Dayton Amateur Radio Association (DARA). For many years it has been the world's largest amateur radio gathering, attracting hams from throughout the globe. Over 25,000 amateur radio operators and their families will descend upon Greene County and the entire Miami Valley for three days of camaraderie, education and exhibits. In 2017, the Dayton Hamvention will be held May 19-21.

City of Xenia, Greene County, Ohio, Officials Ready to Welcome Hamvention in 2017

<http://www.arrl.org/news/view/city-of-xenia-greene-county-ohio-officials-ready-to-welcome-hamvention-in-2017>

<http://www.greencountyfairgrounds.com/index>



Above & below, the VE team in action.

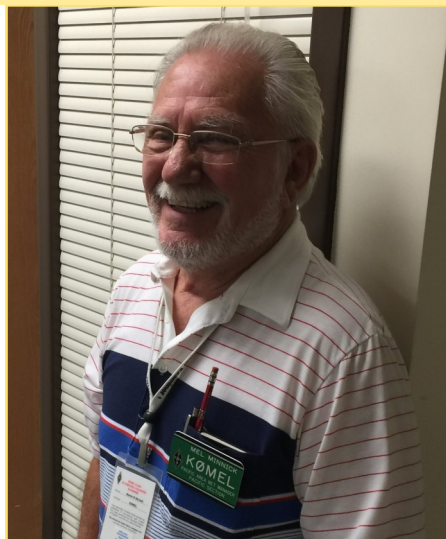
DRC HAMFEST VE SESSION

Provided By Tom Kocialski, KC2CAG

We had our usual flock of candidates at the DRC Hamfest VE session, and a typical basket of results. Out of 18 candidates, we had successful results for 6 new Technician class licensees; four new General class licensees (two of whom also passed their tech test at this session); and one new Extra class licensee, who also passed the General exam at the session. Congratulations to all!



Testing is under way.



I'd like to thank my team mates, Mel (K0MEL), Calvin (AD0HU), Dave (K0HTX), Fred (AA0JK), and Wally (AC0T), who gave up an hour and 45 minutes of valuable "hamfest time" to staff this session. I'd also like to thank Jack (W0JMC) who loaned Jocelyn (KD0ZVA) to me to manage my hamfest table. She sold more than I did during her time at my table!

LEARNING NET REPORT

By Fred Hart, AA0JK

Topics and activities this past month:

Antennas seem to always be a focal point of our group discussions. Most seem to center around limited space, and local restrictions. During Wednesdays Elmer secession, we tried to address some of the most common questions that come up during the Wednesday night nets.



For those in attendance, we hope that we helped to answer some of those issues you may have. Any questions that may arise from the presentation are welcome and you can reach us via <http://elmer@w0tx.org>.

Denver Radio Club Hamfest.

The Denver Radio Club had their annual Hamfest this month. We had a great turnout and the Elmer session during the event was well attended. This was a great opportunity for a face-to-face gathering. We used the time to answer your amateur radio questions, and expand on past areas of interest.

The YAHOO Learning Net web page <https://groups.yahoo.com> is a good resource for your questions. Note also that the American Radio Relay League is the best source for information on all topics related to amateur radio. There is a wealth of information available from past articles in QST. Publications are available on all aspects of the hobby. Some even come with software. If you are not already a member of the ARRL, its highly recommended. <http://www.arrl.org/home>

We certainly enjoy, and appreciate everyone's participation. Thanks to all.

If you are listening and don't yet have your license, you can contact us at the W0TX web-site w0tx@w0tx.org. Also 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.

(Note: The third Wednesday of the month is devoted to the DRC club meeting. See the [w0tx](http://w0tx.org) web site for additional information. w0tx@w0tx.org).

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 smile.amazon.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.

SOLAR UPDATE

Provided By Fred Hart, AA0JK

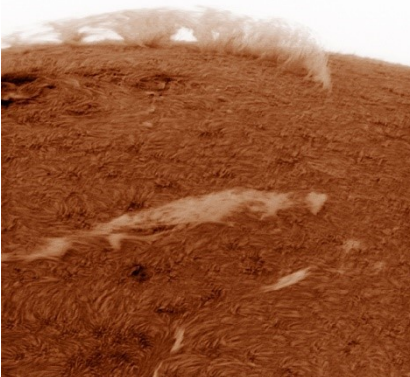
Week One

August started out with Geomagnetic Storm Warnings. NOAA expected a 65% chance of a CME striking Earth's magnetic field. A solar wind stream was following close on the heels of the CME boosting storm levels to G2 storms. August 2nd, A CME embedded in a high-speed solar wind stream hit Earth's magnetic field. The resulting G1-class geomagnetic storm spilled into August 3rd.

SDO Off Line: Unexpectedly, however, the spacecraft did not return to normal science mode after the transit.

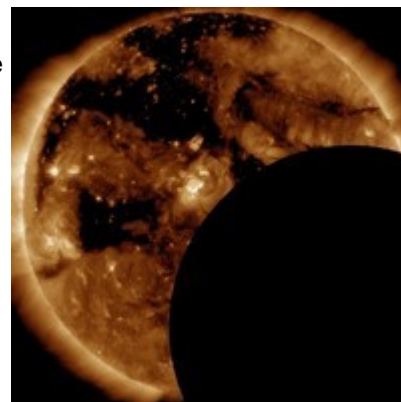
WHAT HAPPENED TO SDO?

NASA's Solar Dynamics Observatory (SDO) is in a geosynchronous orbit high above Earth with a 24/7 view of the sun. Occasionally, however, the Moon gets in the way. August 2nd, SDO observed a beautiful eclipse as the dark lunar disk moved in front of the



"Hedgerow Prominence." Hot glowing plasma held aloft by unstable solar magnetic fields.

sun.



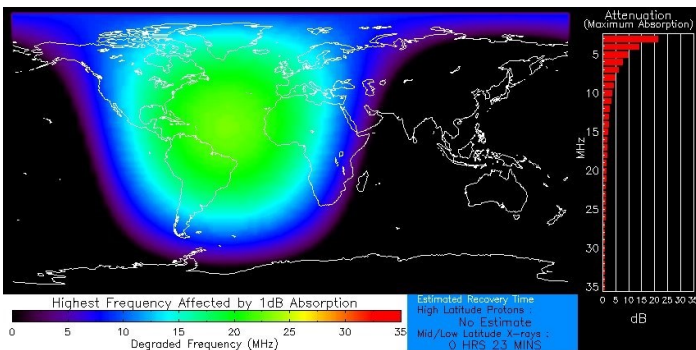
NASA's Solar Dynamics Observatory, (SDO), observed the Moon passing in front of the sun on August 2nd.

SDO has recorded many lunar transits like this one since the observatory was launched in 2010. This one was different from the others in one important way: "The spacecraft did not go back into Science mode at the end of the transit." Since the transit no new data has appeared on SDO public websites.

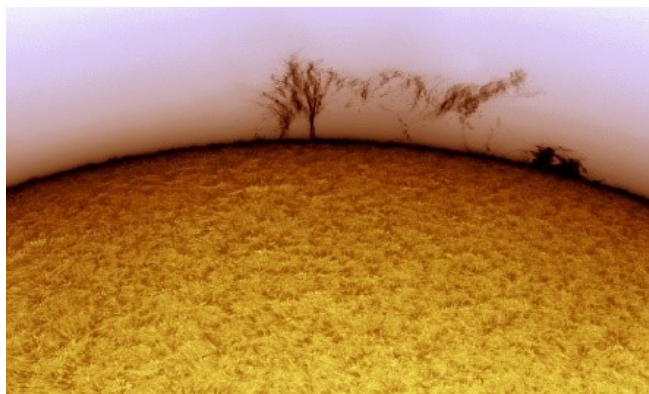
Week Two

August 7th saw Earth-orbiting satellites detecting a M1 class solar flare along with general increases in flare activity. The Solar Dynamics Observatory was still recovering from its triggered safe-mode due to the lunar transit of August 2nd. The source of the increased flare activity was not known at the time.

Radio Blackout August 7, 2016



Elevated X-ray flux
Product Valid At : 2016-08-07 14:43 UTC
Normal Proton Background
NOAA/SWPC Boulder, CO USA



LIFT OFF: For several days, astronomers were monitoring a Great filament of magnetism hovering above the sun's eastern limb. Then, it was lift-off. The structure defying the sun's gravity on August 11th. This unstable prominence continued to rise above the sun, exploding and forming a CME.

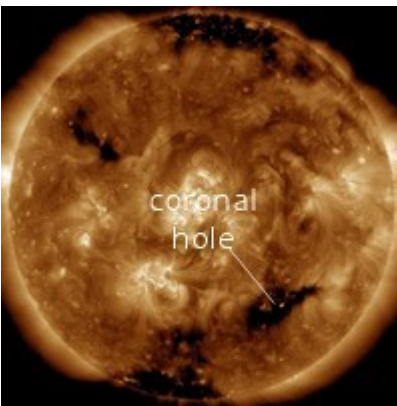
The resulting storm cloud would miss Earth because the blast site was too far off the Sun-Earth line for a geoeffective impact.

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Week Three

Coronal Holes: 14 August 16th Solar wind flowing from the indicated coronal hole was expected to reach Earth on August 16th. Credit: NASA/SDO. Sunday, August 14, 2016



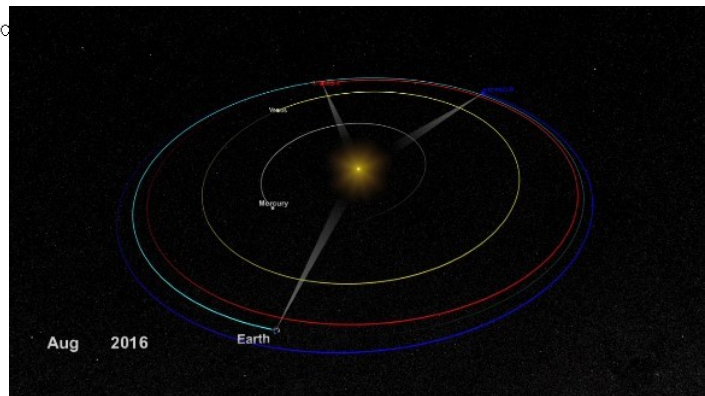
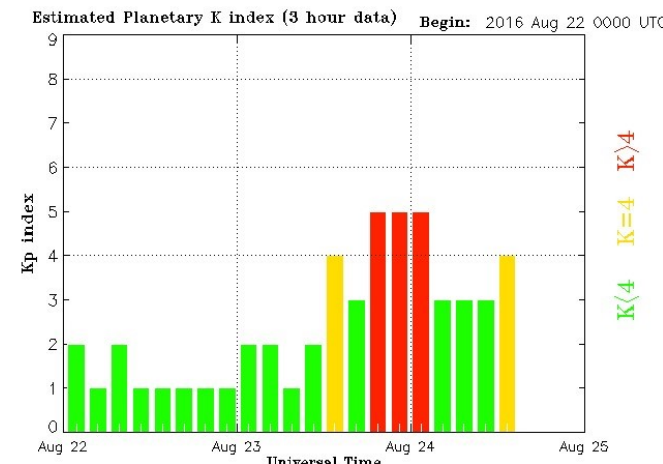
SOLAR WIND: A high-speed (700 km/s) stream of solar wind was likely to hit Earth's magnetic field on August 15-16. Its arrival could spark G1-class geomagnetic storms.

CO-ROTATING INTERACTION REGION: A co-rotating interaction region, (CIR), was expected to hit Earth's magnetic field on August 19th. CIRs are transition zones between slow and fast-moving solar wind streams. Shock waves and density gradients inside these regions often do a good job of disrupting HF communications.

NOAA forecasters said there was a 40% chance of G1-class geomagnetic storms when the CIR arrived.

Week Four Sunday, August 21, 2016

SUBSIDING CHANCE OF STORMS: A co-rotating interaction region (CIR) that was expected to hit Earth's magnetic field on August 19th did not arrive as expected. Probably, the sharp transition zone between slow and fast moving solar wind streams (i.e., the CIR) dissipated before it reached our planet. As a result, NOAA forecasters downgraded the chance of geomagnetic storms to only 15%.



Monday, August 22, 2016

Updated 2016 Aug 24 15:30:01 UTC NOAA/SWPC Boulder, CO USA

QUIET SUN: The face of the sun was almost blank, with only one small sunspot facing Earth. NOAA forecasters said the chance of flares was no more than 1%. Solar activity remained very low.

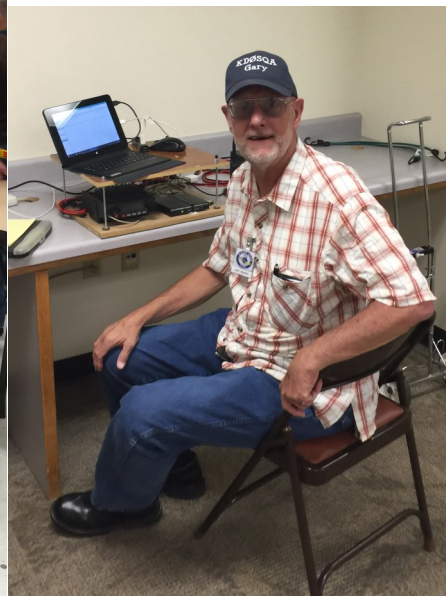
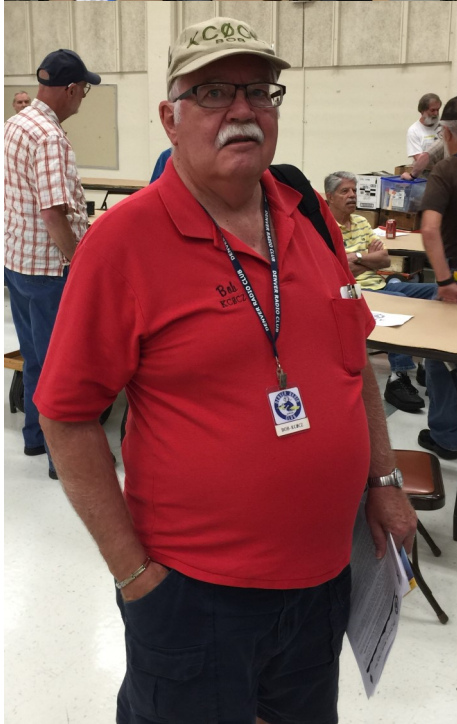
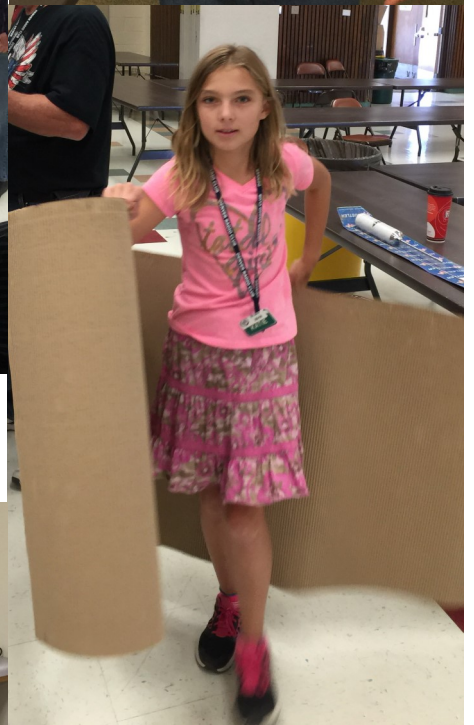
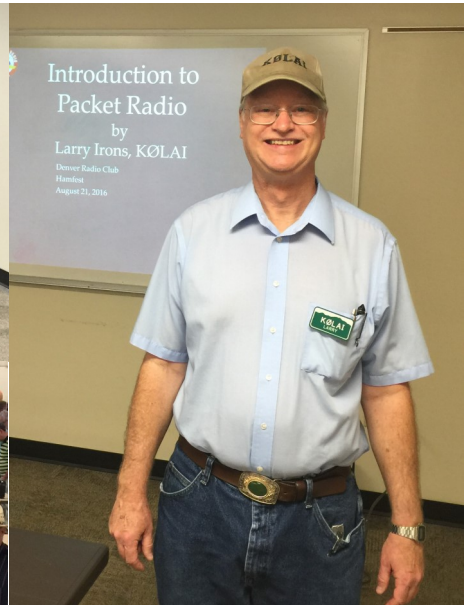
NASA REGAINS CONTACT WITH LOST SPACECRAFT: In a surprising development, NASA regained contact with the STEREO-B spacecraft after two years of silence. STEREO-B, which can see the far side of the sun, went quiet in 2014 after mission controllers tested a communications reset procedure. Unfortunately, STEREO-B failed the test. Since then, NASA has regularly attempted to regain contact using the Deep Space Network. On August 21st, they succeeded, managing to receive a downlink carrier for several hours. In the days and weeks ahead, engineers will take steps to assess the health of STEREO-B and return it to service.

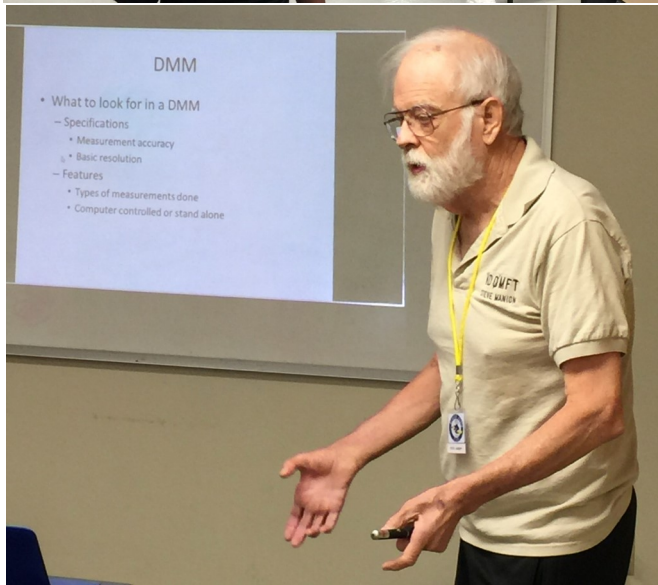
<http://www.nasa.gov/feature/goddard/2016/nasa-establishes-contact-with-stereo-mission>
August 25, 2016

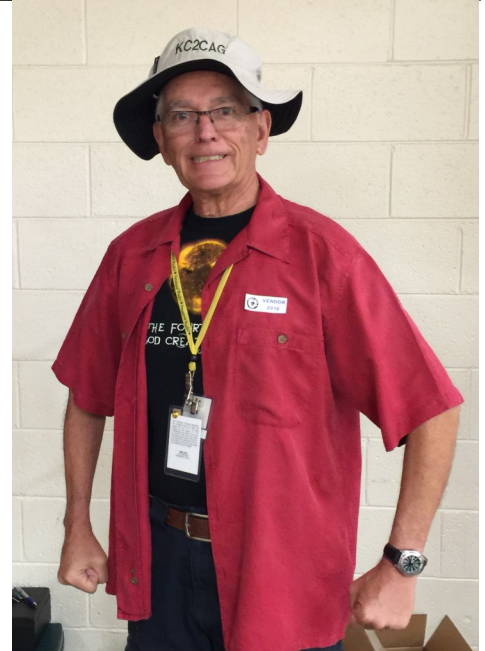
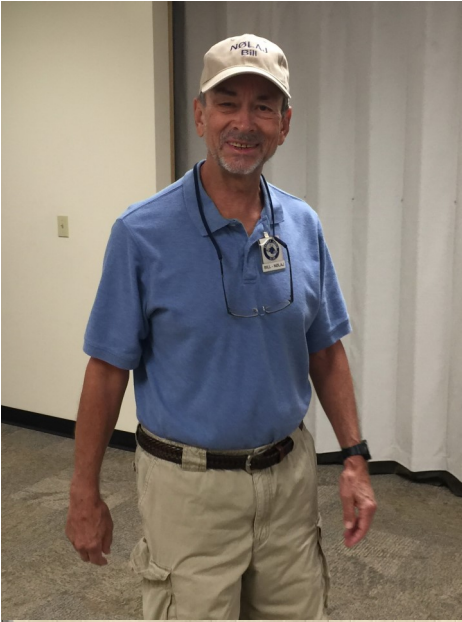
Solar activity remains at very low levels. Region 2579, which formed rapidly near center disk on Tuesday, is already starting to decay and is not considered a threat for noteworthy solar flares. Elsewhere, a new sunspot (2581) is forming in the northeast quadrant and will be monitored. The two other numbered regions were quieter or in a state of decay. Geomagnetic activity returned to quieter levels following a period of minor storming late on August 23rd. A quieter trend is expected during the next few days. With no sunspots actively flaring, the sun's X-ray output is flat lining. The quiet is likely to persist.

DRC HamFest Photos









VE Testing For September

Provided By Fred Hart, AA0JK

Amateur Radio License Exam in Your Area

http://www.arrl.org/exam_sessions/search/page:1/Location.state:CO/model:Event**EXAM SESSION**09/03/2016 | [Englewood CO 80110-2373](#)

Sponsor: South Metro VE Team

Location: Englewood Public Library

Time: 10:00 AM (Walk-ins allowed)

Contact: David L. Avery

(303) 795-5718

Email: kaf9292@gmail.com**EXAM SESSION**09/03/2016 | [Woodland Park CO 80863-3101](#)

Sponsor: Mountain ARC

Location: Woodland Park Library

Time: 10:00 AM (Walk-ins allowed)

Contact: Dean F. Buckhouse

(719) 748-3848

EXAM SESSION09/08/2016 | [Louisville CO 80027-1130](#)

Sponsor: Boulder ARC

Location: Church of Latter Day Saints (Room 20)

Time: 7:00 PM (Walk-ins allowed)

Contact: Philip E. OKunewick

(303) 273-5956

EXAM SESSION09/10/2016 | [Denver CO 80202-9999](#)

Sponsor: Mile Hi VE Team

Location: St. Luke's Episcopal Church (Parish Hall)

Time: 9:00 AM (Walk-ins allowed)

Contact: Karen K. Schultz

(303) 437-9689

Email: jadiscats@earthlink.net**EXAM SESSION**09/10/2016 | [Loveland CO 80538-7018](#)

Sponsor: NCARC, LRA & W0BFD

Location: All Saints Episcopal Church

Time: 9:00 AM (Walk-ins allowed)

Contact: Michael B. Hickerson

(970) 988-9459

Email: w0mbh@hotmail.com**EXAM SESSION**09/17/2016 | [Denver CO 80202](#)

Sponsor: Patriot VE Team

Location: Red Cross

Time: 3:00 PM (Walk-ins allowed)

Contact: Nicholas J. Meacher

(717) 965-5187

Email: nick.meacher@gmail.com**EXAM SESSION**09/17/2016 | [Monument CO 80132-9999](#)

Sponsor: Un-sponsored

Location: LDS Church

Time: 2:00 PM (Walk-ins allowed)

Contact: Donna E. Peterson

(719) 481-3807

Email: DonnaPeterson9@earthlink.net**EXAM SESSION**09/21/2016 | [Northglenn CO 80233-2011](#)

Sponsor: Denver W5YI VE Team

Location: LDS Church-Denver North Stake Ctr (across from Boondocks)

Time: 7:00 PM (Walk-ins allowed)

Contact: Philip E. OKunewick

(303) 273-5956

Email: [none](#)

Alt Contact:

Angee, 303-452-1680

EXAM SESSION10/01/2016 | [Englewood CO 80110-2373](#)

Sponsor: South Metro VE Team

Location: Englewood Public Library

Time: 10:00 AM (Walk-ins allowed)

Contact: David L. Avery

(303) 795-5718

Email: kaf9292@gmail.com73,
AAØJK
Fred**~ Ham Tip ~**

If you have knowledge of a **GREAT** ham radio related website or just a general tip, let us know and we will share it with the rest of the DRC membership here in the RoundTable. Send to drc.editor@gmail.com.

LOOKING BACK AT THE DRC PROVIDED BY WOODY LINWOOD (W0UI) - ROUNDTABLE, JUNE 1960

July 1960 - DRC Field Day and Transmitter Hunts

FIELD DAY 1960

Field Day 1960 has come and gone for another year. WØOUI, your club station, has again been counted among the ranks of the participants.

To all those who contributed to the success of the operation, a well deserved "TNX."

Sorry to say, I did not get all the names of those who helped or we could have mentioned them individually but there were more than forty people around to help us surpass our score of last year. It is quite likely we will not lead the zero call area again, as we did last year, even though our score was better. Many other clubs also were out to better theirs. It's very likely they did!

Fontaine, WØRQI, brought up a side-band station this year and did real well. This was an addition to last year's effort and they made nearly 200 contacts on 20 meter SSB.

Maj and Merle, A A, and SBE, put up an inverted V on forty C.W. and again made better use of this band than last year.

Bill, GVT, had a dipole on eighty phone for awhile and also did better.

But on 20 C.W. we didn't do so well (Need more hot C.W. operators). Ten meters had only a small opening Sunday morning so we lost out there.

The fellows on six meters had only a small opening this year but made the best of it with 74 contacts, a few less than last.

Our final score was 6336 points, with the ranger topping our lone challenger, WØANA.

Ø Ø Ø

TRANSMITTER HUNTS

Friday the first brought out a record number of hunters. At the present time the largest group of participants has

numbered nine. We are sure this is just a beginning. When asked why some of the new prospective mobilers aren't turning out, we get the feeble excuse that they don't have a loop.

Following are the instructions for building a bi-directional loop. Procure a piece of ¼" copper tubing. Bend it into a 9" loop and fasten it to a broomstick or any similar material. At the top leave about a half-inch gap. Here you will mount a 50mmfd. capacitor, (fixed variety). In parallel with this attach a 3-30mmfd. capacitor, (small ceramic types are good). All that is left is the soldering of a 4 or 5 ft. piece of coaxial cable and you are in business. This plugs into your converter in place of the whip. Set the knob on 26.624mc., locate the gang and come on out. See you there.

73,

Bill.

Ø Ø Ø

DID U KNOW?

That KØWLR was recently pink-slipped by Friendly Cousin Charley for TVI? And Bob did it all with a clean little Sixer?

That the total value of the Hamfest prizes will probably total over \$1,000? All you need to win your prize is a ticket.

That KØTNS won two trophies for tooling his speed boat in recent races?

That the Club needs your correct address in order to deliver your Round Table?

WE PAY CASH or TRADE

**FOR: ★ COMMUNICATION RECEIVERS
★ TEST EQUIPMENT ★ TRANSMITTERS
Need Gear? Better come in -- may have it!**

**PAT'S CAMERA & LOAN OFFICE
(Next Door to RAPSCO)**

1610 Larimer

CH 4-0155

This puzzle is provide courtesy of Chris Codella - W2PA. The URL for his website is w2pa.com. The solution for the puzzle is on page 20.

12/16/2009

Fine Businesses

Across

- 1. CA company, started in AZ*
- 5. Sens., IMD, selectivity, e.g.
- 9. With 20, 61 and 76 across, the theme of this puzzle, and the * clues
- 14. PJ6 place
- 15. Inductor
- 16. Put out
- 17. Tester type
- 18. Magazine contents
- 19. G-land elevators
- 20. See 9 across
- 23. Animate
- 25. Porcelain, etc.
- 29. Kind of code
- 30. TN company, with 53 across*
- 32. Windows predecessor
- 33. Immediately
- 34. GM Gaelic
- 36. Hi-__
- 38. Crunch maker
- 40. 5N currency
- 42. Tower ring
- 44. Lifted, so to speak
- 45. Coastal features
- 47. Browning, ham, or Grissom, not
- 49. ____ of measure
- 50. However, on CW
- 51. Part of NIB, on eBay, say
- 53. See 30 across
- 55. Lt.'s inferior, in the Navy
- 56. Passings on
- 59. NORs' cousins
- 61. See 9 across
- 63. Transplant, in a way
- 66. Operates, as in a multi-multi
- 67. Wise men
- 71. Kind of pad

- 72. Xmtd, opp.
 - 73. Hammer part
 - 74. __ pole
 - 75. GM island
 - 76. See 9 across
- Down**
- 1. Bal. mod. prod.
 - 2. QTC test
 - 3. Pertaining to, on CW
 - 4. Civil rights org.
 - 5. Quickly run
 - 6. Partner of circumstance
 - 7. CA company*
 - 8. Replicated
 - 9. FCC does it, to a 2-year vacant call sign
 - 10. OT discrimination?
 - 11. ABC followers
 - 12. Professional suffix

- 13. Older OMs, or YLs for that matter
- 21. Connector label, often
- 22. Soldering implement
- 23. Toothy fish
- 24. Permittivity symbol
- 26. Performed a canticle, e.g.
- 27. IA company*
- 28. Candies
- 29. IL company*
- 31. On-air group
- 35. "___ he drove out of sight..."
- 37. "599 HR - FB ___ OM"
- 39. QR followers
- 41. Where most verticals are fed
- 43. ENN, for example, with "numbers"
- 46. Horizontal location, during a contest off-time, perhaps
- 48. What a ham does before identifying
- 52. Hi-Z low-Z interfaces, say
- 54. Subway alternative
- 57. Prefix for a Seoul man, or YL for that matter
- 58. Four over four, for example
- 60. Mythological SV YL
- 62. Little pistol view of a big gun?
- 63. Rprpt.
- 64. CO company*
- 65. 70's rock?
- 68. CA company, originally in WA*
- 69. SK company*
- 70. Keyboard key

1	2	3	4		5	6	7	8		9	10	11	12	13
14					15					16				
17					18					19				
			20	21					22					
	23	24					25					26	27	28
29				30		31		32				33		
34			35		36		37		38		39			
40				41		42		43		44				
45					46		47		48		49			
50				51		52		53		54		55		
56			57				58		59		60			
				61					62					
63	64	65				66					67	68	69	70
71						72					73			
74						75					76			

FACT OF THE DAY

LED Advantages

Light Emitting Diodes (LED's) have many advantages compared to incandescent lamps. They are much more rugged mechanically, because light is produced by a solid state chip that usually is encapsulated in solid epoxy. There is no filament to break or burn out. LED's typically last about 30 times longer than incandescent lamps of similar size and brightness. They are very energy efficient and typically require only 10 to 20 percent of the power required by incandescent lamps of similar brightness. They produce very little heat, because of their high efficiency. LED's can be physically smaller than incandescent lamps with similar brightness. They emit light much faster after power is applied and they stop emitting light much sooner after power is interrupted, which is especially important in some applications. ©2005 Martek International All rights reserved



THE ROUNDTABLE ARCHIVE

Go to: <http://www.w0tx.org/RoundtableAccessPage.htm>

THE ROUNDTABLE ARTICLE INDEX

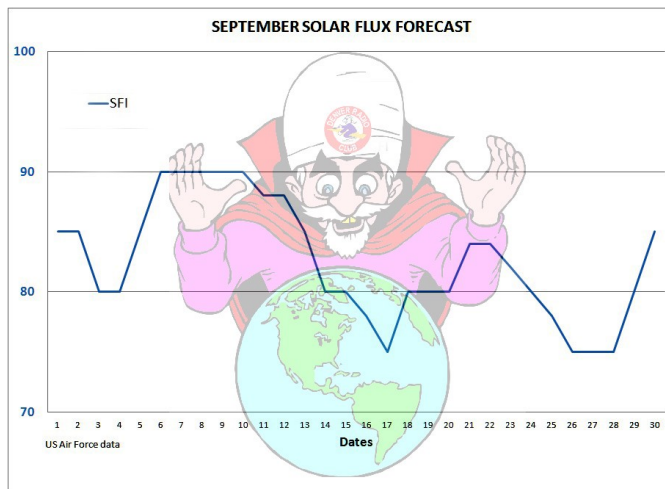
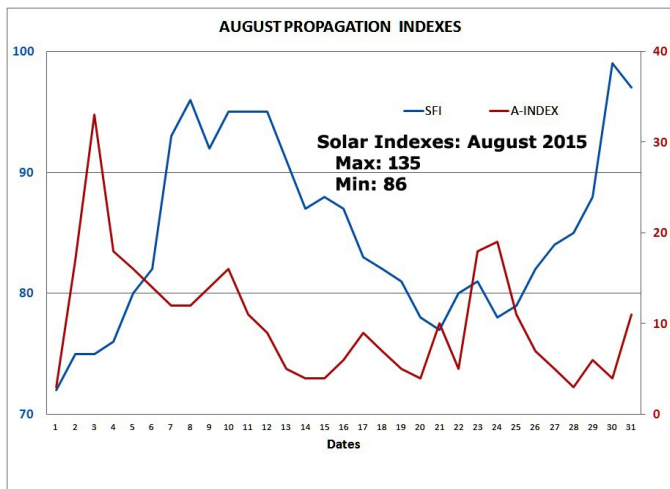
Go to: <http://www.w0tx.org/RoundtableArchive/RoundTables-Index.pdf>

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. Issues of the *RoundTable* are 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	10/02/16	Longmont, CO	Boulder Amateur Radio Club (BARC)
TechFest	10/05/16	Lakewood, CO	285 TechConnect Radio Club

UPCOMING ARRL CONTESTS

[ARRL CONTEST CALENDAR](#)

Contest	Start Date	Start Time	End Date	Stop Time	Notes
September VHF	09/10/2016	1800 UTC	09/12/2016	0259 UTC	
10 GHz & Up - Round 2	9/17/2016	0600 Local	9/18/2016	2359 Local	
EME - 2.3 GHz & Up	9/25/2016	0000 UTC	9/26/2016	2359 UTC	
School Club Roundup	10/17/2016	1300 UTC	10/21/2016	2359 UTC	
EME - 50 to 1296 MHz	10/22/2016	0000 UTC	10/23/2016	2359 UTC	

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	09/03/2016	09/04/2016	Pikes Peak Radio Amateur Association	
Tennessee	09/04/2016	09/05/2016	Tennessee QSO Party	
New Jersey	09/17/2016	09/18/2016	New Jersey QSO Party	
Washington	09/17/2016	09/18/2016	Western Washington DX Club	
New Hampshire	09/17/2016	09/18/2016	Port City Amateur Radio Club	
Maine	09/24/2016	09/25/2016	Wireless Society of Southern Maine	
Texas	09/24/2016	09/25/2016	Texas QSO Party	
California	10/01/2016	10/02/2016	California QSO Party	
Pennsylvania	10/08/2016	10/09/2016	Nittany Amateur Radio Club	
Arizona	10/09/2016	10/10/2016	ARRL Arizona Section & Catalina Radio Club	
Iowa	10/15/2016	10/16/2016	Ottumwa ARC	Based on 2015 date.
South Dakota	10/15/2016	10/16/2016	South Dakota QSO Party	
New York	10/15/2016	10/16/2016	Rochester DX Association	
Illinois	10/16/2016	10/17/2016	Western Illinois Amateur Radio Club	

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, Members Auto-Patch 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 / Analog, 100 Hz Tone Required for Analog.
70cm	446.7875MHz (-)	MotoTRBO Repeater Slot 1 – DMR-MARC WW, Slot 2 – Local



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

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303-745-7373 800-444-9476

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e-mail: denver@hamradio.com

SEPTEMBER 2016							<i>DRC Net Sunday's at 8:30 p.m. on 145.490 / 448.625 (No PL)</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
				1  New Moon	2	3	
4	5	6	7 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	8	9  First Quarter	10 ARRL September VHF Begins 1800 UTC	
11	12 ARRL September VHF Ends 0259 UTC	13	14 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	15	16  Full Moon	17 ARRL 10 GHz & Up Begins 0600 Local	
18 ARRL 10 GHz & Up Ends 2359 Local	19	20	21 DRC Meeting Elmer 6:00 p.m. General 7:00 p.m.	22	23  Last Quarter	24	
25 ARRL EME 2.3 GHz & Up Begins 0000 UTC	26 ARRL EME 2.3 GHz & Up Ends 2359 UTC	27	28 Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	29	30		

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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