

# ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

October 2015

## PRESIDENT'S MESSAGE

By Gerry Villhauer – W0GV

Hello DRC Members,

WOW! Can you believe it; it is fall already! Where did the summer go? Hopefully we will get some of that wonderful Colorado Indian Summer weather before we see any significant amount of the "white stuff". I still have a home antenna project I would like to finish, but, I guess I have to start it first.

The big news this month is the results of our elections for board members and club officers. Each year we elect four of our eight board members for a two year term. Two of our four board members choose not to seek reelection. So first I want to thank Jack (W0JMC) and Art (K0BAT) for their service for the past two years.

This year we had six candidates toss their hat in for a board position: Gerry Villhauer (W0GV), Dave Gillespie (K0HTX), Bryan Steinberg (KB0A), Kevin Schmidt (AD0GX), Jan Dickover (WY0J) and Barb Stuart (KD0SYD). Drum Roll Please...The elected members were, Gerry (W0GV), Dave (K0HTX), Bryan, (KB0A) and Kevin, (AD0GX). Thanks to all of you who stepped up to seek one of these important club positions.

Following the board election, there were elections for the four principle officers. There were no changes to the officer line up. President, Gerry (W0GV), Vice President, Dave (K0HTX), Treasurer, Jim (K0TOR) and Secretary, Orlen (WW0LF). I would like to give my personal "Thank You" to the members for having confidence to reelect me as your President. And I am sure the other board members thank you for selecting them as well.

As announced, we did not have a program for September. We did have some good discussion and I brought the members up to date on club happenings and plans. This month's program is one you will not want to miss for sure. Rob Steenburgh (ADOIU) from NOAA, will be telling us about "Solar Weather". He will explain how solar weather affects radio propagation and our ability to communicate and transmit RF energy around the world. NOAA monitors solar activity and gives us a means to react to the many solar events that happen daily. Mark your calendar for our meeting and program on October 21st. More details on the program in this issue of the RT. Thanks to all of you who recently joined and made the DRC "Your Club". Please stay active on the air, come to meetings, programs and events. Your name and call will be listed in the body of the Round Table.

73 for now, Gerry (W0GV) President



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#### Denver Radio Club - W0TX



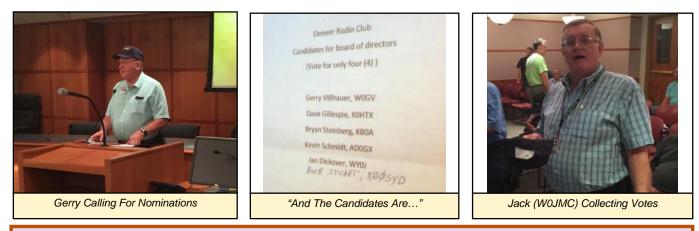
#### SEPTEMBER MEETING - WHAT'D I MISS? By Bill, W6OAV

There were 37 attendees. This meeting was devoted to club officer elections. After introductions, Gerry (WOGV) explained the board members' duties and requirements. With one nomination from the floor, there were five candidates. After the votes were tallied, Gerry announced the election results which are detailed in his president's message at the beginning of this issue.

Gerry then covered the following items:

- The DRC will be celebrating its 100<sup>th</sup> anniversary next year. The board is looking for a chairman to setup activities for the anniversary, such as a special events station. Volunteers should contact a board member.
- The membership roster will go electronic to save printing and mailing costs. This will save Bob (KC0CZ), our membership chairman, a lot of work. Also, this will enable the roster to be easily kept up to date.
- The technical committee is studying the feasibility of building an AllStar Link voter system.
- Overview of the upcoming improvements scheduled for the Centennial Cone repeaters.

The meeting ended with drawings for club Fusion radio tee shirts.



## ~ Get Published ~

We welcome and encourage all members to share their experiences and stories so that we can all learn from one another. It can be long or short. If we can't fit it into one newsletter, we can split it across multiple issues. Not a writer? We have volunteers that will listen to your story and put it into an article, and of course you will have the opportunity to review and approve prior to publication. Your contribution to the club is welcomed and appreciated. ~Editor

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## Who's New IN THE DRC?

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.

Brennan Pate	KE0FBK
Richard "Rich" Brackle	N0FAK
Rita Pilger	KE0EUS

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.

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 http://www.w0tx.org.

## **TECHNICAL COMMITTEE REPORT**

By Bill, W6OAV

The following is an overview of the subjects discussed



September Technical Committee Meeting

at the September Technical Committee meeting. The project coordinators' call signs are in red.

## AllStar Link Voter System (W6OAV)

Goal: Discuss the feasibility of establishing an AllStar Link Voter system.

Status: W0GV will use his computer to test and become familiar with the AllStar Link Asterisk software. W0GV will also investigate developing a very small inexpensive package for the remote receiver sites. The results will be used to determine the feasibility of establishing

an AllStar Link voter system.

#### Voter System Expansion - East (W0GV)

Goal: Locate additional remote sites. Status: Project on hold as the tech committee investigates the feasibility of building an AllStar Link voter system.

#### 145.49/448.625 Repeater - Controller and Radio Upgrade (ACOUA)

Goal: Replace the S Com 7k with a preprogrammed S Com 7330 and replace the Sytnors with Kenwoods. Status: ACOUA installed the equipment in the rack provided by WW0LF. AC0UA has been wiring, configuring and testing the controller/radios for proper operation. An installation work party has been scheduled for September 26<sup>th</sup>.

## DRC/TSA Aurora Site (W0GV)

Goal: Maintain contact with TSA relative to establishing a "communications room 'for the DRC. Status: The TSA has assigned a contact person for the DRC. W0GV is working on meeting with him as soon as

## Packet Gateway (W6OAV)

possible.

Goal: Re-design the gateway for more reliability. Status: Kantronics sent a new firmware upgrade which W6OAV installed in the KAM XL TNC. However, the firmware tests can't be performed since the gateway is shut down (See next item below). The club has a Timewave PK900 to replace the KAM should future tests show that the new firmware is not reliable.

## Noise at Station 4 (WW0LF)

Goal: Locate, document the power line noise source(s) and contact Xcel to correct.

Status: WW0LF is gathering the equipment and will coordinate the tests. In the meantime, the HF side of the gateway is disabled as the gateway is "deaf" due to the extreme HF power line noise level.

## Establish a DRC YouTube Channel (KB0A)

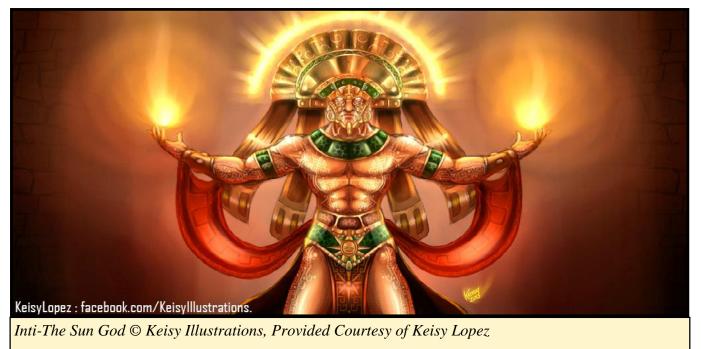
Goal: Provide access to various DRC videos. Status: KB0A has obtained a channel. He will forward log-in info to W6OAV and to others.

~ 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.

## NOAA OUTREACH TIME IS HERE

BY FRED, AA0JK

Are you ready? Robert "Rob" Steenburgh (ADOIU), will be visiting from the *National Oceanic and Atmospheric Administration* (NOAA) to give the DRC members a presentation on Solar Weather and how it affects propagation. Our ability to communicate, transmitting RF around the globe.



Time to brush-up on your Solar vocabulary, and get those questions you may have answered. As far back in recorded history the sun and earth relationship has been of major interest. Records characterized ancient civilizations as sun worshipers. But is that the proper term?

They knew the importance of their star. They studied, and recorded, solar events. Calendars were made showing the seasonal solar equinox. Crops were planted and harvested by these calendars. Social events were celebrated according to the solar time table.

Today solar activity is much more critical. We depend on technology that is subject to Geomagnetic storms, solar mass ejections, X-Ray, and Gamma radiation. NOAA monitors solar activity giving us some means of reacting to these events.

Critical communication networks are dependent on satellites that can be rendered inoperative due to solar mass ejections and solar wind. Amateur radio operators see daily, the effects of solar activity, and propagation on their ability to communicate. Join the DRC, as Rob visits us from NOAA on October 21st.

## QST, QST, QST.....

The club is looking to add Sunday Net Control Operators. We would like to have several operators trained, so there can be a rotation of operators to relieve one person from net control duty every Sunday. If you would like to fill one of these important club roles, please contact either Jim (K0TOR), or Gerry (W0GV). Contact information can be found on the DRC webpage. You must have a reliable base type station to serve as Net Control Operator.



## AMATEUR RADIO PARITY ACT OF 2015

Submitted By Fred, AA0JK

ARRL President Kay Craigie, N3KN, has taken strong exception to certain claims being made by community association organizations about the **Amateur Radio Parity Act of 2015** — H.R. 1301 and S. 1685.

http://www.arrl.org/news/opponents-representations-ofparity-act-s-purpose-just-not-true-arrl-president-says

http://www.arrl.org/amateur-radio-parity-act

#### Amateur Radio Parity Act of 2015

Directs the Federal Communications Commission to

amend regulations concerning the height and dimensions of station antenna structures to prohibit a private land use restriction from applying to amateur service communications if the restriction precludes such communications, fails to accommodate such communications, or does not constitute the minimum practicable restriction to



accomplish the legitimate purpose of the private entity seeking to enforce the restriction.

https://www.congress.gov/bill/114th-congress/housebill/1301

#### **Contacting Your Congressional Representatives**

Rep. Ed Perlmutter (D-CO) 1410 Longworth HOB Washington, DC 20515 **Phone:** 202-225-2645

Sen. Michael Bennett (D-CO) 458 Russell Senate Office Building Washington, DC 20510 **Phone:** 202-224-5852

Sen. Cory Gardner (R-CO) B40B Dirksen Senate Office Building Washington, DC 20510 **Phone:** 202-224-5941

## WHAT IF THE WEATHER CHANGES?

As every Coloradoan knows our weather can take a sudden change for the worse. 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. DRC BYLAWS Submitted By DRC Board



At the September 23<sup>rd</sup> Denver Radio Club Board meeting the seven Board members present voted to petition the membership to amend the By-Laws of the Denver Radio Club at the next membership meeting as follows:

#### ARTICLE II Section 2. Meetings.

Regular monthly meetings of the Club shall normally be held on the third Wednesday of each month at 7:30 P.M.

**Amend to read:** Regular monthly meetings of the Club shall normally be held on the third Wednesday of each month.

## ARTICLE II Section 2 A.

Annual meeting. The annual meeting of the members shall be held on the third Wednesday in September of each year at 7:30 P.M. ...

Amend to read: Annual meeting. The annual meeting of the members shall be held on the third Wednesday in September of each year. ...

## ARTICLE II Section 3.

Notice of meetings. Notice of meetings of the members shall be given by mail at least two days prior to such meeting. Mailing of the Club bulletin shall be considered sufficient notice.

**Amend to read:** Notice of meetings. Notice of meetings of the members shall be given by mail at least two days prior to such meeting. Mailing or electronic delivery of the Club bulletin shall be considered sufficient notice.

#### ARTICLE III Section 7.

Notice of Directors Meetings. Notice of meetings of the Directors must be made at least 24 hours prior to such meeting.

**Amend to read:** Notice of Directors Meetings. Notice of meetings of the Directors must be made at least 24 hours prior to such meeting by mail or electronic means.

## ARTICLE VI. SEAL.

The Club shall have a seal which shall be in the form of a circle and shall bear the name of the club and the date of incorporation.

Amend to read: The Club shall have a seal which shall be in the form of a circle and shall bear the name of the club.

Gerry Villhauer (W0GV), Dave Gillespie (K0HTX), Jim Beall (K0TOR), Orlen Wolf (WW0LF), Jason Smallwood (AC0UA), Larry Irons (K0LAI), Kevin Schmitt (AD0GX)

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## OCTOBER MEETING PRESENTATION

By Bill, W6OAV

#### Questions:

Where are we in the solar cycle? What is space weather and how does it affect the ionosphere? How do I make the most of the ionosphere we have? What is the Space Weather Prediction Center and how can it help me do more with my radios? If you are interested in learning answers to these questions, plan to attend the October club meeting. Rob Steenburgh (AD0IU), space scientist and radio amateur, will answer these questions and more.

# **Rob's Biography**

I earned my license as a high school freshman in 1980. My call was KA8JBY (Ohio). I was off the air from 1985-2007. Since I've returned, I operate exclusively QRP CW using an HW-8, a Wilderness Sierra, or an ATS-4B. My antenna is a Butternut HF6V-X and occasionally I fire up a home brew 50W amp. On rare occasionally I fire up a home brew 50W amp. On rare occasions I operate a BC-458A I restored with my son Daniel (KD0BMG). I enjoy home brewing equipment, restoring radios and oscilloscopes, and learning. I'm an inert member of the Boulder and Longmont amateur radio clubs, BCARES, ARRL, QRPARCI, CWOps, NAQCC, and FPQRP clubs. I was an active elmer in the Boulder Amateur Radio Club Juniors from 2007-2009.

I've been a meat cutter's apprentice (1981-1983), a volunteer firefighter (1983-1985), a 911 dispatcher (1984-85), an Air Force weather forecaster (1985-2009), and a space weather forecaster (2007-present). I served for 17 months in NASAs Space Radiation Analysis Group at Johnson Space Center (2009-2010) and was the Radiation Mission Manager for STS-130. I was promoted to Space Scientist in 2014, and my duties now involve facilitating Research to Operations (R2O) and Operations to Research (O2R) efforts, accomplishing validation and verification of models and forecast products, designing and implementing training, and engaging in public outreach activities.



#### W0TX LEARNING NET REPORT By Fred, AA0JK

Thanks to all that joined us this month for the Learning Net and W0TX group question and answer session at the club meeting.



The interaction is great and we are learning a great deal from our fellow amateurs. Some of the subjects discussed this month:

- RF Radiation and Electromagnetic Field Safety
- Using the ARRL QSL Bureau Service
- Station Grounding for Amateur Radio
- Magnetic Loop Antennas
- Should I fuse the negative lead of the transmitter wiring on my mobile station?
- Learning CW.
- Contest activities and getting those coveted QSL cards.

Need help with my antenna. This subject always brings out the amateur radio spirit in the group. Along with other help topics. Thanks to all that make this net a great and informative gathering. If you are listening and don't yet have your license, you can contact us at the WOTX web-site w0tx@w0tx.org. Also <u>elmer@w0tx.org</u>. 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. (<u>https://groups.yahoo.com/neo/groups/</u> <u>HamLearningNet/conversations/topics/376</u>)

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. w0tx@w0tx.org)

## THE ROUNDTABLE ARCHIVE



Scan the QR code or go to http:// www.w0tx.org/ RoundtableAccessPage.htm

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## DRC REPEATER COVERAGE MAPS

BY BILL, W6OAV

Bill (N0LAJ), our webmaster, has added DRC repeater coverage maps to the DRC website. These maps were prepared by me using the freeware software *Radio Mobile* by Roger Coude (VE2DBE). The maps show the expected coverage that a mobile should experience around the repeater. A base station can expect slightly better coverage depending on antenna height, gain, etc.

The statistical reliability of these maps is better than 80%. The maps are based on the very accurate Longley Rice Irregular Terrain Model which is useful over the frequency range of 20MHz to 20GHz. Elevation data from the Space Shuttle Radar Terrain Mapping Mission (SRTM) at the USGS site is used to generate accurate elevation maps of any area.

The assumptions used for the DRC coverage map calculations are based on the repeater equipment configuration and a mobile unit with the following minimum specifications:

- 25 watt FM transmitter using a standard 1/4 wave vertical on the vehicle roof.
- Receiver sensitivity of 0.5 microvolt input to achieve a 10 dB (S+N)/N ratio.
- Coax with 0.5dB loss.

Your coverage may vary slightly, depending on the mobile radio, antenna gain/installation and the vehicle. Please contact me should you find any major discrepancies with the theoretical coverages.

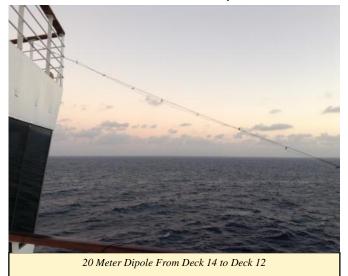
The coverage maps are available on the W0TX web site at: <u>http://www.w0tx.org/repeater\_maps.htm</u>. The *Radio Mobile* software is available at: <u>http://www.cplus.org/rmw/english1.html</u>.

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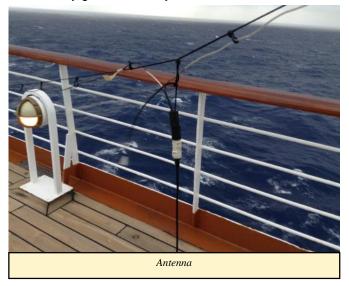
#### MY MARITIME MOBILE ANTENNA EXPERIENCE BY JOHN, KD6VKW OR "SAL M. O'NELLA"

Wife and I just got back from a cruise to French Polynesia that first made three stops in Hawaii. In March, I asked our travel agent if I could use my ham radio on Holland America ships, so he checked and said I could.

I had first bought an MFJ-9420 but it didn't seem to be doing the job. The tuning wandered a bit and other stations said my audio sounded muddy, etc. Two days before the cruise, I returned the 9420 to HRO and upgraded to a Yeasu FT-817ND. I made sure the new radio would go on the air but never really got to play with it. The 9420 and 817 are both nominally 5W PEP on SSB.



In the process of learning various requirements for maritime mobile, I found advice that the ship's master also needs to give his permission, so I sent him a note about me and my gear. He said yes, too.



I carried my 20m HamStick & counterpoise but I also packed a bunch of wire, cable, fittings and ferrites for making dipoles. As things turned out, I could never really use the HamStick much because the wind over the deck was so strong, the HamStick wouldn't stand up. Tying it meant either having it on the open deck, where I could trip people or having it near the rail, which detuned it.



Dipoles to the rescue. First, I tried 10m, on the theory that when it's working, it's wonderful. However, the sun was not cooperating and 10 was quiet. Although I had a great match between 28.300 and 28.500, I heard nothing but a few chirps and squawks, probably from onboard. (I verified the absence of bungles by tuning 15 MHz; WWV/WWVH blasted in.)

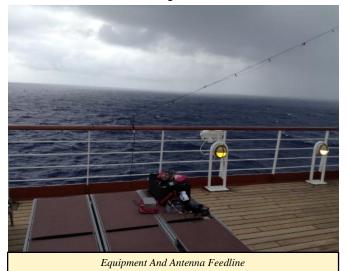
Next, I hung a premade 20m dipole on deck 12 amidships about 100 feet above the waterline and the world came streaming in. I put my RigExpert AA-54 on it and tuned it for resonance near mid-band. I knew I'd have a guaranteed QSO or two on the Pacific Seafarers' Net (http://www.pacseanet.com/) at 0300Z on 14.300. All the stations in Hawaii could hear me as well as most of the stations along the West Coast. I volunteered as a relay station for the net and was used several times. They understood I could not join the net everyday. They are a great bunch, by the way.

Making a dipole a little longer than necessary is standard practice; it can always be trimmed to resonance and you're good. But, what of a temporary dipole that never goes in exactly the same place twice? After I discovered that I needed to regain some lost element length, I abandoned the trimming process, altogether. I added back some length to both dipole elements and all future "trimming" was done by simply rolling the ends into tight little circles and securing them with tape, ef-

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fectively shortening the elements.

Yes, I considered making the dipole elements easily adjustable by attaching telescoping whip elements at the ends. Too bad I forgot to pack them. :-( When 20m was really good, I was able to work Hawaii, California and New Zealand all during the same session.



One time, Ed (ZL4IR) said he had me 5-9 and asked if I could reduce power from the nominal 5 watts. I said yes and I hit POWER once and announced "LOW THREE." He responded that I was fine, so then LOW TWO and finally LOW ONE, which I said was 1 watt. He reported me as 5-7. He was on South Island, which my ancient Garmin GPS-III told me was about 2800 miles away. Not bad for 1 watt. Oh, but there's more: LOW ONE isn't 1 watt. It's a half watt. I was jazzed! (If I hadn't had the experience, myself, I would throw the B-S flag on this story.)



Best QSO distance: Polynesia to "Mike" in Maine, logged as N1RPP but might be N1RPH. It's about 5005 miles from where I was to the center of the state of Maine. I haven't taken the time to exactly geo-locate him. He had local noise, so it took some work to get him my callsign.



#### LESSONS LEARNED

With a structure nearby, get a dipole as nearly perpendicular as possible to that structure. Also, a continuous flat surface is better than a broken surface, like a bulkhead with a window in it. Supporting a dipole with antenna rope seemed better than just stretching it out, self -supporting. I will probably re-do my home dipoles. The FT-817ND is a wonderful radio. I have just scratched the surface of its capabilities. More fun to come. There are more hams on a cruise ship than you'd guess and they're ready to talk. ~ "Sal" (really KD6VKW)

~ Editor's Note: The above article was found on the USENET by Bill (NOLAJ). He thought this would be a great article for those club members that may be planning a cruise. A quick contact to John (KD6VKW) resulted in him giving permission for the reprint and him providing the related photos and a few that did not get in the newsletter. If you would like to see those images, send me an email and I will send them to you via email. Jessie (N0HI) n0hi@arrl.net. Thanks John and Bill.



## SOLAR UPDATE

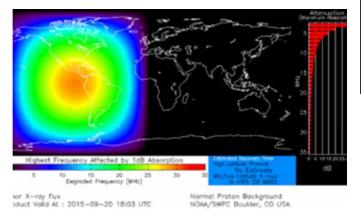
BY FRED, AA0JK



Solar Activity Report September 26, 2015 Space Weather Highlights

September brings the Autumnal equinox. This should be a good time for HF propagation between the Northern and Southern Hemispheres.

But what's this?



Horseshoe filament eruption flares on September 4<sup>th</sup> and 5<sup>th</sup> slammed us with huge solar storms that raged for several days. These storms kept us at moderate storm level conditions nearly continuously through mid-Septembern K-index levels September 7<sup>th</sup> and 8<sup>th</sup>, were in the red at K-6 levels and again on the September 10<sup>th</sup>. So much for HF propagation and chasing DX in September.

Moderate storm conditions have been nearly continuously since.

NOAA has had some trouble of late getting the daily 45 day forecast of solar flux and planetary A index from the Air Force. This is because of some issues with moving to new servers. Thanks to Robert Steenburgh, AD0IU, who is a space scientist at NOAA for keeping us up to date with missing data.

We are also looking forward to Rob's presentation October 21<sup>st</sup> at the DRC club meeting. Our thanks go out to the NO-AAs Outreach Program. It's been a pleasure working with them.

#### Space Weather Outlook 21 September - 17 October 2015

Solar activity is expected to be at low to moderate levels from 21 Sep - 02 Oct as Region 2420 makes its way across the visible disk. Low levels are anticipated from 03-05 Oct. Low to moderate levels are likely to return on 06 Oct when Region 2415 is expected to rotate back into view and remain elevated through the end of the forecast period (17 Oct).



Please help the Denver Radio Club by submitting your favorite Ham Radio websites, including those related to contests.

Have you stumbled upon a Ham's personal website that has lots of interesting content? Let us know, we will share it with the members of the DRC. Plus, if the site has material suitable for publication, we will contact the site owner to request publishing the material in our RoundTable.

## Don't forget to join in Wednesday nights at 7:30 p.m. for the DRC Learning Net !

## 145.490 / 448.625 Repeaters

Watch the RoundTable for any changes to the Learning Net Schedule.

## LOOKING BACK AT THE DRC PROVIDED BY WOODY (WOUI)

## **ROUNDTABLE, SEPTEMBER 1960**



# ELECTION MEETING SET FOR SEPT. 21

The following eight members of the Denver Radio Club have been named by the Nominating Committee as candidates for the four openings on the board of Directors:

> Chic Cotterell, WØSIN Tillie Currington, KØRGU Russ Hendrickson, KØEPD Bernie Jacobs, WØMYB Fontaine LaRue, WØRQI Chet Lewis, KØKZJ Roy Raney, KØOVQ Norv Sample, KØIYC

## NEW CODE OSCILLATOR AVAILABLE TO GROUPS

The Denver Radio Club has acquired a large code practice machine which uses inked tapes. Designed for large group instruction, the machine is being made available to any group of five or more people who wish to learn or practice the code.

Frank Vail, KØHFO, has offered to organize the first group. Sessions will be held at his home at 1472 Madison St. at any time convenient to the participants. Interested parties are invited to call Frank at FR. 7-1534. The September meeting of the Denver Radio Club will be headlined by the annual election of the Board of Directors. In accordance with the by-laws of the club, four new directors must be selected for the eight-man board. Directors serve two-year terms, which are staggered so that only four memberships expire each year.

A nominating committee appointed by the president has presented a list of eight nominees for the four openings. Selection will be made by plurality vote of the members present at the September meeting. The list of candidates appears in the box at left. After selection of four members, officers will be elected.

Traditionally, the names of the out-going board members appear in the list of nominees. However, two of the out-going members have declined re-nomination. Mike Lyons, WØPG, and Ralph Asbury, WØVDY, both expressed a desire to step aside to allow room for "new blood" on the board.

Members of this year's nominating committee were Carl Smith, WØBWJ, Larry Hodgson, WØLO, and Frank Wallace, KØEBV.

Date of the meeting is September 21 at 7:30 p.m. Meeting place is Sabin Hall of Colorado General Hospital as usual. Refreshments will be served after the meeting.

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## Vintage Beginnings

#### Across

1. Diploma word 6. Tiny PCB parts 10. Junkbox item, say 14. Like a nerd 15. Grid resistor 16. All over again 17. Irish prefix 18. -VOX 19. '60s Novice transmitter maker 20. Heathkit Novice rig 22. VU4 island 24. Azimuth 90 26. What a lid is, for example 27. Best Yagi spacing 31. Pick up, on the bands, say 34. OE peaks 35. 4S7 group 40. This puzzle's theme 43. "Get lost!" 44. What a poor CV does 45. SU river 46. Beams, towers, amplifier - to a DX 48. You feed an ant it, very generally sp 52. VU royal YL 54. ER land 57. Popular Novice (and tube) of the 50 62. Like Darth Vad 63. 2006 contest he PY 65. Label on a watt 66. Give up 67. Unlucky number Rome

1	2	3	4	5		6	7	8	9		10	11	12	13
14			$\vdash$	+		15	$\vdash$	$\vdash$		-	16	$\vdash$	$\vdash$	┢
17		$\vdash$	┢	+	1	18	┢	$\vdash$			19	$\vdash$	┢	┢
20		$\vdash$	┢	+	21			22		23	┡	$\vdash$	┢	┢
				24			25			26	┢	┢	┢	┢
27	28	29	30				31	32	33					
34		┢	┢			35		$\vdash$		$\vdash$	36	37	38	39
40			┢	41	42		┢	┢		┢	┢	$\vdash$	$\square$	┢
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48	49	50	51				52	53						
54	t			+	55	56		57		$\vdash$	58	59	60	61
62			┢		63		64			65	┢		F	┢
66			$\vdash$		67			$\vdash$		68	$\vdash$	$\vdash$	$\vdash$	$\vdash$
69					70		┢	$\vdash$		71			$\vdash$	$\vdash$

	69. New Englander hams	<b>21.</b> Tit for	<b>48.</b> AC-1 maker
W filter	70Uda	23. Physicist Paul	<b>49.</b> Group of 13
	<b>71.</b> Hex	25. Ponderous one	<b>50.</b> Trombone part
, Ker, say nt. with peaking	<ol> <li>Down</li> <li>Took to court</li> <li>Windows alternative</li> <li>Amps per Volt</li> <li>Cooper maker</li> </ol>	<ul> <li>27. Drift, as an odor</li> <li>28. Hip bones</li> <li>29. P5-land (abbr.)</li> <li>30. To be, in old Rome</li> <li>32. Duck: (in DL)</li> <li>33. "Got it!"</li> </ul>	<ul> <li>51. What an amplifier in standby does</li> <li>53. Char. code</li> <li>55. Z lead-ins</li> <li>56. Opera solo</li> <li>58. Quad element</li> </ul>
e rig 0's der eld in tmeter	<ol> <li>5. High points</li> <li>6. Kills, as a dragon</li> <li>7. Restroom sign</li> <li>8. Packet payload</li> <li>9. RF effect</li> <li>10. Song of praise</li> </ol>	<ul> <li>35. Natural ground system</li> <li>36. FIGS partner</li> <li>37. VE3 lake</li> <li>38. PJ title</li> <li>39. Ceramic insulators, sa</li> </ul>	<ul> <li>60. Part of IARU (abbr.)</li> <li>61. Controlled a Novice's freq., once</li> <li>64. Welding type - was</li> </ul>
er, in	<ul><li>11. JA cartoon art</li><li>12. Restore a PS, say</li><li>13. Drake Novice transmitter</li></ul>	42. Phi follower Co	is puzzle is provide courtesy of Chris della - W2PA. The URL for his website is p://www.w2pa.com. The solution for the zzle is on page 13.

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68. Plantain lily

October 2015

## FACT OF THE DAY

#### **Solar Flares**

Solar flares are incredibly powerful solar explosions that release a force equal to 100 hurricanes or so within a period of tens of minutes. The process is not fully understood, but it is believed that strong and wildly-twisted magnetic-flux that is known to exist near sunspots is the power source. Depending on the direction of a flare discharge, high-amplitude x-ray energy and ultraviolet photons may strike Earth about eight minutes later, followed by large quantities of highenergy particles several hours later. These radiations increase ionospheric ionization, increasing the absorption of signals in the lower part of the high-frequency spectrum and creating unusual DX opportunities at higher frequencies.

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## THE ROUNDTABLE ARCHIVE

Have you been looking for a back issue of the Roundtable? Many are available on the DRC web site.

http://www.w0tx.org/RoundtableAccessPage.htm

S	U	М	М	Α		S	М	D	S		Ρ	Α	R	Т
U	Ν	н	1	Ρ		L	Е	Α	К		Α	Ν	Е	W
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D	Х	S	I	Х	Т	Υ		А	Ν	D	А	М	А	Ν
				Е	А	S	Т			I.	Ν	Е	Ρ	Т
W	Τ	D	Е	S	Т		Н	Е	Α	R				
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F	1	R	S	Т	С	0	Ν	Т	Α	С	Т	R	T	G
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## **ELMER SESSION START TIME**

The Elmer Session Starts at 6 p.m. before the regular 3rd Wednesday DRC Meeting!

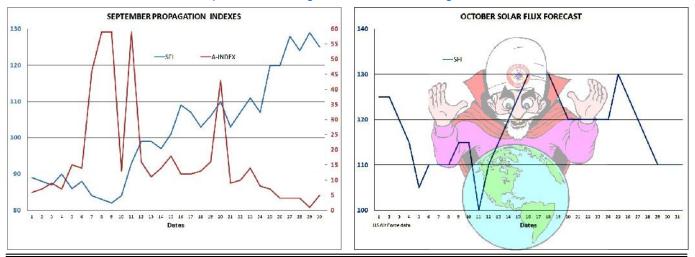
Come out and join in on the sharing of information.

## **PAST & FUTURE PROPAGATION CONDITIONS**

By Bill, 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 <a href="http://www.w0tx.org/RoundtableAccessPage.htm">http://www.w0tx.org/RoundtableAccessPage.htm</a>.



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## UP COMING EVENTS HAMFESTS & CONVENTIONS

The following are the HAMfests & Conventions which have been registered with the ARRL so far. More information can be found on <u>www.arrl.org/hamfests</u>.

## 2015

11/07/2015 | 2015 Fall TechFest

Location: Lakewood, CO Sponsor: 285 TechConnect Radio Club Website: <u>http://na0tc.org</u>

## UP COMING CONTESTS

The following are the Contests not sponsored by the ARRL. Please submit information for inclusion in future issues.

## 2015

## **California QSO Party**

Starts: October 3, 2015 - 1600 UTC Ends: October 4, 2015 2200 UTC Sponsor: Northern California Contest Club Website: http://www.cqp.org/index.html

## Pennsylvania QSO Party

Starts: October 10, 2015 - 1600 UTC Ends: October 11, 2015 2200 UTC Sponsor: Nittany Amateur Radio Club Website: http://www.nittany-arc.net/PAQSO.html

## Arizona QSO Party

Starts: October 10, 2015 - 1600 UTC Ends: October 11, 2015 2200 UTC Sponsor: ARRL Arizona Section / Catalina Radio Club Website: <u>http://www.azqsoparty.org/rules.html</u>

## Iowa QSO Party

Starts: October 17, 2015 - 1400 UTC Ends: October 17, 2015 2300 UTC Sponsor: Ottumwa Website: http://www.wa0dx.org/IAQSO/

#### 2016

## 02/07/2016 | The Swapfest

Location: Brighton, CO Sponsor: Aurora Repeater Assn., Cherry Creek Young ARC, & Rocky Mountain Ham Radio Website: <u>http://www.n0ara.org</u>

#### 05/13/2016 | <u>Rocky Mountain Division Convention</u> (HamCon Colorado)

Location: Keystone, CO Sponsor: HamCon Colorado Website: http://www.hamconcolorado.org

## South Dakota QSO Party

Starts: October 17, 2015 - 1800 UTC Ends: October 18, 2015 1800 UTC Sponsor: South Dakota QSO Party Website: http://www.kb0wsw.com/SDQP/

## New York State QSO Party

Starts: October 17, 2015 - 1400 UTC Ends: October 18, 2015 0200 UTC Sponsor: Rochester DX Association Website: http://rdxa.com/ny-gso-party/

## **Illinois QSO Party**

Starts: October 18, 2015 - 1700 UTC Ends: October 19, 2015 0100 UTC Sponsor: Western Illinois Amateur Radio Club Website: http://www.w9awe.org/ILQP2015.html

## Contest Websites

ARRL Contest Calendar http://www.arrl.org/contest-calendar

WA7BNM Contest Calendar http://www.hornucopia.com/contestcal/

SM3SER Contest Service http://www.sk3bg.se/contest/

Contesting Dot Com http://www.contesting.com/

OCTOBER 201	15		DR	C Net Sunday's at 8	3:30 p.m. on 145.49	0 / 448.625 (No PL)
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	<b>7</b> Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	8	9	10
11	12 Columbus Day	13	<b>14</b> Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	15	16	17
18	<b>19</b> ARRL School Club Roundup Begins 1300 UTC	20 Fistquarter	21 DRC Meeting Elmer 6:00 p.m. General 7:00 p.m.	22	23	24 ARRL School Club Roundup Ends 2359 UTC
25	26	27 Full mor	<b>28</b> Learning Net 7:30 p.m. 145.490 / 448.625 (No PL)	29	30	31 ARRL EME 50 - 1296 MHz Begins 1300 UTC

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## **DRC REPEATERS**

BAND	Freq / Shift / PL Tone	Additional Information
6m	53.090MHz (-1MHz) 107.2Hz PL	
Packet	145.05MHz<>14.105MHz	Usable by Technicians on 2 meters. See January 2015 RoundTable.
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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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 n0hi@arrl.net. The submission deadline is the 20th of the Month. ~ Editor