

# ROUNDTABLE

The Denver Radio Club Newsletter

Since 1917

April 2015

#### PRESIDENT'S MESSAGE By Gerry Villhauer – W0GV

<ul> <li>I hope you all are doing well and ready for the coming of spring weather. There has been very little club activity other than our March meeting, so, not much to inform you about this month.</li> <li>Speaking about our March meeting; it was a great success. Thanks to Skyler, (KD0WHB), for his presentation on AllStar Link. This young man gave an impressive presentation of AllStar which included a live demonstration. To me this not only showed Skyler's interest in</li> </ul>	V0GV)
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## The History of Sparky



The club logo was originated by Miriam Juza, xyl of Marvin, W6FGD (SK), ex WØFYY. Miriam was looking for something to put on Marv's letterheads, and as a surprise for him, she drew "Sparky". Possibly in 1956, during the presidency of Carl Smith, WØBWJ (SK), permission was given to the club for its use as that was the year it first appeared on the club's publication, The Round Table. The original design of Sparky riding a lightning bolt, and holding a code key, has not been changed - but other alterations have been made in past years, namely the addition of "Denver Radio Club" encircling him and a coat of arms by Roy Raney, KØOVQ (SK).

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#### Denver Radio Club



#### MARCH MEETING - WHAT'D I MISS?

By Bill, W6OAV

There were 50 attendees this month. After introductions Gerry (W0GV) reminded everyone to put our field day on their calendars. Orlen (WW0LF) then announced that a large quantity of equipment has been donated to the club. The equipment will be evaluated and priced. As soon as possible, the equipment will be listed on the web site with sale prices. What is not sold before the DRC Hamfest will be for sale at the DRC Hamfest. DRC members will be given a discount when bought from the website.

One attendee announced that Colorado's PRB-1 Senate Bill15-041 passed House and Senate Government committees unanimously without amendments. This should help hams considering a tower installation. State adoption of PRB-1 preempts local city and county antenna rulings.

The meeting was then turned over to the guest speaker, Skyler (KDØWHB), who presented a PowerPoint on AllStar and discussed the following:

What is AllStar.

- Features provided by AllStar.
- The pros and cons of IRLP, Echolink and AllStar.
  - A typical AllStar system.

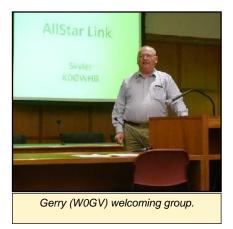
- Different ways to access AllStar.
- Overview of Eldorado Mountain AllStar repeater system.

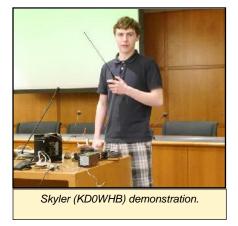
Skyler ended his presentation with a demo of the AllStar system. Using a VHF HT, he setup a 3 node conference connection. He also had his AllStar repeater on display.

Skyler's AllStar node is active on 449.875 (-) 103.5hz PL. Should a reader wish to experiment with the node, they should first learn the commands by going to "amsatnet.info". Once there, click on "Node" on the sidebar. Also, Skyler has a YouTube video on how to set up AllStar. His channel is Skyler F. After accessing his channel, search for "AllStar tutorial".

Skyler will be glad to answer questions about AllStar. He can be reached at: electricity440@gmail.com.

Information about the AllStar network can be found at: https://allstarlink.org/about.html





## 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.

James Leahy	KE0DED
Joseph Radtke	AD0NK
Simon Jones	KE0ABH
Becky Besendorfer	KE0DMG
Jacob Besendorfer	KE0DMH
Newell Besendorfer	W4PRG
Zoe Besendorfer	<b>KE0DMI</b>
Darwin Boyle	KE0AFA
Dave Logan	KD0WDD

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 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.

### MARCH TECH COMMITTEE REPORT

By Bill, W6OAV

The following is an overview of the items discussed during the March Tech Committee meeting. The project coordinator's callsign is in **RED**.

#### TS-940 Repair (K0TOR)

<u>Goal</u>: Determine if re-soldering and cleaning connectors will fix radio: K0TOR has completed the many repairs. The TS-940 has been successfully "cooking" on the bench for the past month.

#### Voter System (W0GV)

<u>Goal</u>: Develop a network configuration based on location of main transmitter: KF0RW will investigate a possible central transmitter site downtown. Paper work has been submitted for a possible tower site east of town. If approval is obtained for the site east of town, Bill (W6OAV) will run coverage plots of that site and Station 4 to determine the resulting weak signal areas.

#### Voter System Expansion (W0GV)

<u>Goal</u>: Locate additional sites: North Site may have been located. Still looking for a South Site.

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

<u>Goal</u>: Replace the S Com 7k with a preprogrammed S Com 7330 and replace the Sytnors with Kenwood's: The controller is programmed and ready for installation. The tech committee will schedule a work party when the weather turns nice to accomplish this project and the grounding of the hard line as listed below.

#### 145.49/448.625 Repeater – Grounding (W0GV)

<u>Goal</u>: Ground DRC & Intermountain Repeater Association hard lines: This will be done when the controller upgrade takes place.

#### DRC/TSA Aurora Site (W0GV)

<u>Goal</u>: Maintain contact with TSA relative to establishing a "communications room 'for the DRC: The move-in phase is going very slowly. No prospects yet.

#### DRC Fusion Repeater (W0GV)

<u>Goal</u>: Once received, program and install a new Yaesu Fusion repeater: Fusion has been ordered and expected to arrive in several months.

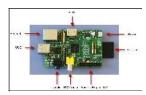
#### **MOTOTRBO** Repeater

meeting.

<u>Goal</u>: Troubleshoot the DRM-Marc to determine why the Shamburg, IL repeater is on the local timeslot: K0HTX has received the code plug from KB0A and will verify the programming in our repeater.

#### APRIL MEETING PRESENTATION By Bill, W6OAV

Interested in learning about a powerful low cost credit card sized computer, called the Raspberry Pi, that outputs to a computer monitor or TV, and uses a standard keyboard and mouse? If so, plan to attend the April



Robert (K0RCW), will have bring and demonstrate the latest Raspberry Pi Version 2 Model B, with 1 GB of Ram and running at 900 MHz. Previous versions of the Pi were not powerful enough to run many ham radio applications. He will also give an overview of the rapid advancements of the Raspberry Pi phenomenon from its inception.

Robert will also give an update on some of the various ham radio applications available to run on the Pi under Debian "Raspbian" Linux as well as demonstrate the boot up and basic layout of the Pi through the HDMI video connection at the DRC meeting room.

#### How Do I GET A PAPER COPY OF MY LICENSE? By Tom, KC2CAG

As you may have heard by now, the FCC is no longer automatically issuing paper copies of amateur radio licenses, effective 17 February 2015. This means that if you are a newly licensed ham, a ham who has upgraded to a new license class, or a ham who has renewed a license, changed and address, etc. you will no longer routinely get a paper copy of your license. So, let's say you want a copy to post prominently at your operating location, to carry in your wallet, to use at a Volunteer Examiner session as part of the paperwork to be submitted, or for any other reason you can think of.

There are three ways you can get a paper copy of your license.

First, if all you need is a "reference copy" of a license (your own license, or the license of any other ham radio operator), you start by going to the FCC's Universal Licensing System (ULS) search page:

http://wireless2.fcc.gov/UIsApp/UIsSearch/searchLicense.jsp

Once there, type in the call sign for the license of interest and click on "search. The search results page will yield some basic data for the licensee. On that page, click on the highlighted call sign to get to a page with even greater detail. Near the top of the page is a link to "Reference Copy." Clicking on that link will get you a .pdf file of the reference copy which can be printed out easily, though with a watermark stating that it is a reference copy.

If you need an official copy of your license, and not a reference copy, you will need to go to the License Manager login page:

#### https://wireless2.fcc.gov/UIsEntry/licManager/login.jsp

Once there, fill in the FRN number from your license and your password. Oops! No password? Forgot your password? No problem. This is the page you also use to log in and establish a password or retrieve an existing one. Once you are on that page, you can click on the link to obtain a duplicate copy of your license. Note that you will be walked through multiple bureaucratic steps before you can finally complete your "application" to receive a duplicate license!

If, however, you wish to indicate a preference to receive paper copies of your license in the future, go to the License Manager login page as above. Once you log in, you will be able to indicate a preference to receive a paper copy. I did this and in a couple of days I received an email from the FCC with a link, good for 30 days, that took me directly to a web page that automatically downloaded a .pdf file of an official copy of my license.

This looks exactly like the "reference copy" except that the watermark reads "official copy." I could then print it myself using any paper stock I might choose. About a week and a half later, however, an official paper copy of my FCC-issued license arrived in the mail, also with the "official" watermark! It was printed on some plain, white, lightweight paper stock.

Given that I had indicated a preference for a paper copy of my license, I am assuming that the next time I change my address, renew my license, etc. I will also automatically receive a real paper copy. I can only hope so, right?

## WOTX LEARNING NET

By Fred, AA0JK

Another great turnout this past month for the DRC learning net. The group is growing and we appreciate all those that participate. We have been having a great time discussing the areas of interest set forth by our check-ins.

This net is driven by new and seasoned amateurs alike. For those not yet licensed, there is an e-mail site available to submit your questions. (elmer@w0tx.org).

We are here to support you. If we do not have an answer, the group will draw on the seasoned members of the DRC to get the amateur radio related information you request.

A big thanks goes out to those who volunteer and carry out the duties of net control. You all are doing a great job.

The group has been having lively discussions on topics such as radios being used, (pros and cons), antennas such as the G5rv dipole, fan-dipoles, OFC dipoles, and end-fed Zepps. Group members share their experiences with installation and operation using these inexpensive antennas. Some have limited space issues. This has been a common subject and we strive to help those confronted with this situation, trying to keep it in the K.I.S arena. (Keep-It-Simple) As with all topics discussed we strive to keep it understandable to the novice and seasoned alike.

What topics would you like to discuss? Join us Wednesday nights, 7:30 PM, 145.490. Can't wait? Send us a note at Yahoo Learning Net.com.

#### (https://groups.yahoo.com/neo/groups/ HamLearningNet/files)

(Note: The third Wednesday of the month is devoted to the DRC club meeting.)

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#### **OPERATION RUMBLE IN THE ROCKIES**

By Jack, W0JMC

Historically, earthquakes in the Denver area have been rare, but not unheard of. One person described the 6.6 magnitude quake on Election Day 1882 as "probably nature's protest uttered at the time of closing the polls Tuesday evening when the polls were closed, and it became evident that the party was finally to take control of our state government, she could no longer control her feelings, but uttered a groan of anguish which caused the very mountains to tremble." It's even rarer to be able to "schedule" an earthquake, but that's just what the O.M.E.G.A. team is doing for "Operation Rumble in the Rockies."

#### Save this date!

Operation Rumble in the Rockies is a North Central Region Citizen Corps full scale exercise, staged at the Metro Fire Training Center, 2301 W Chenango Street, Littleton. The goal of the Saturday, April 11, 2015 exercise is to support the training of volunteer responders so ARES, CAP, CERT, MRC, SAR responders are all invited. Other volunteers are needed, as well, to simulate the injured in this scenario.

Starting at 07:30, role players will be "injured" via moulage and placed in the disaster scenario. Responders will assemble at 08:30 and, after a briefing, start assessing the scope of the damage and the resources available with the goal of doing the greatest good for the greatest number of victims. The pool of responders may include newlyminted Littleton CERTs as Littleton's annual Community Emergency Response Team training winds up on the previous weekend.

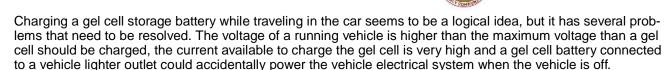
Response to the disaster will organize around FEMA's National Incident Management System principles using the Incident Command System. The purpose of the NIMS is to provide a common approach for managing incidents. For training, a Plan > Exercise > Evaluate > Repeat approach is used. Dulcie Long and Kevin Erickson are organizing the event for O.M.E.G.A.

Visit http://goo.gl/4lpiit to sign up for Operation Rumble in the Rockies.

O.M.E.G.A. is an all-volunteer non-profit 501(c)(3) multidisciplinary team supporting emergency response agencies in the North Central Region, the State of Colorado and beyond. <u>http://www.omegaresponders.org</u>

#### **GEL CELL CHARGING ON THE GO**

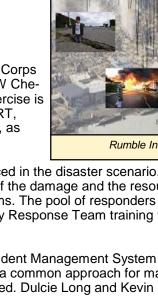
By Arnold, KQ6DI Reprinted with permission of the Livermore Amateur Radio Klub (LARK), Livermore, CA

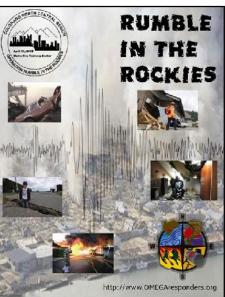


Considering the batteries that I would charge in the vehicle, I would like to keep the charging current below 1.5 amps. With a nearly fully discharged battery and the vehicle electrical system at full output I would need a 2.5 ohm resistor at a minimum of 6 watts. In reality, I would rarely discharge a battery below 12 volts, so I could use a 1.7 ohm 5 watt resistor, but that doesn't work for a more discharged battery. When the battery is closer to fully charged, I need a lower resistance. What I needed is a self-adjusting variable resistor, and they are readily available at automotive stores.

I decided to use a 1156 automotive bulb. A 1156 lamp is a 12 volt 32 Candle Power (approx 27 watts) automotive lamp. A 1156 lamp has the added benefit, that while its hot resistance is about 6.0 ohms (when the lamp is illuminated brightly), its cold resistance is only 0.5 ohm. This makes it a variable resistance resistor, with a range of 0.5 ohm to 6.0 ohms. These aren't the ideal resistance values, but the non-complexity is perfect.

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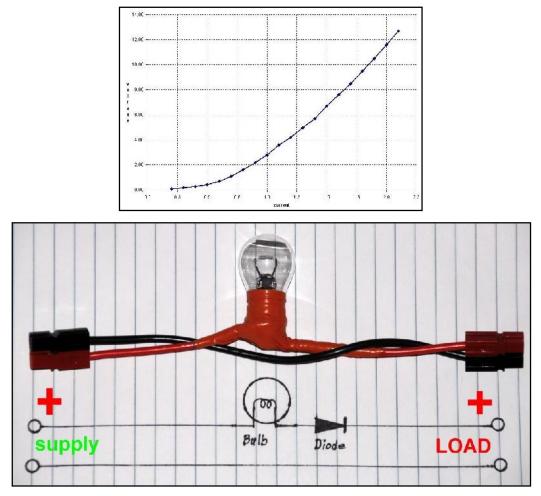




Rumble In The Rockies

Worst case with a 1156 bulb would be a shorted load, but that's what a 12 volt bulb is designed to work with, so nothing bad happens except for some heat and an indicator glowing (the light is on). Full current for a 1156 bulb is 2.1 amps at 12.7 volts.

To make sure that my battery wouldn't accidently power the vehicle, and to prevent excessive battery voltage, I inserted a 3A Schottky diode in series with the positive lead (1N5822). This drops the vehicle to gel cell battery voltage by 0.3 volts and combined with the lamp resistance protects the gel cell from overcharging. If a little higher voltage drop is desired, a 1N5408 silicon diode could be used (0.7V).



Although the possibility of a short circuit is unlikely with this arrangement, the accessory plug that I use has a fuse in it. It's always better to be safe than to have a fire.

#### Other options:

Using a 1157, a two filament lamp, with both filaments being used will provide a higher maximum current of about 2.5 amps at 12 volts and using two 1156s in parallel will increase the maximum current to 4.2 amps. Smaller lamps could be used for smaller batteries.

This works well for my uses. Not only can a battery be charged while mobile, but a smaller battery can be charged and power a radio at the same time.

#### Arnold (KQ6DI)

~ Thanks to Arnold (KQ6DI) and the Livermore Amateur Radio Klub (LARK).

#### VE SESSION RESULTS

By Tom, KC2CAG

Will (W1ZRV), conducted an all day training session for hams upgrading to General in Lakewood on February 28th. The DRC VE Team supported this by conducting an exam session at the conclusion of the training.

In addition to Will's students, the session was open to any other hams (or potential hams!) trying for an upgrade or a new license. Fourteen candidates were tested and thirteen were successful...a pretty good result! The session resulted in ten hams upgrading to General, two new hams passing the Tech and General exams, and one new ham, Karl Nelson, passing the Tech, General and Extra all in this same session!

Congratulations to all!

The VE's assisting in this session were:

The VE's were: Robert (K0RCW), Jack (W0JMC), Fred (AA0JK), Wally (AC0T), Bill (WZ0S), Gerry (W0GV), Will (W1ZRV), and Tom (KC2CAG), VE Team Liaison. Thank you to all.



February 28, 2015 VE exam and Karl Nelson.

#### ROUND 2

Will (W1ZRV) had another Teaching Session in Lakewood, with 100% of the students getting their Technician's Ticket on March 14th. There were 23 candidates and 3 walk-ins. One upgraded to General Class.

Thanks to the VE team of Wally (AC0T), Frank (N3PQ), Warren (NV7R), Bill (WZ0S), and Pete (WM0P).



March 14, 2015 Teaching Session and VE exam.

#### WHEAT RIDGE AND LAKEWOOD SIREN TESTS By Jim, K0TOR

The Denver Radio Club will be supporting the City of Wheat Ridge siren test at 11:00 AM on Wednesday, April 8<sup>th</sup>.

Wheat Ridge has 15 sirens, plus 5 (tentative) other listening sites to evaluate siren coverage. If you covered a Wheat Ridge siren on last years siren test you will be contacted to cover this same site this year. If you did not participate last year and would like to this year please call Jim Beall k0tor@arrl.net, or telephone me at 303-798-2351. If I am unavailable please leave me a message.

We need additional radio operators to replace those that worked last year and are not available this year and we have several new monitoring sites to cover this year. We request that you be on site by 10:30 AM and the test is completed by 11:30 AM.

For those who are available, we will meet for pizza and soft drinks following the siren test at the Wheat Ridge Police Department training room. This is a great public service and a fun exercise. If you would like to help, please call. Thank you.

We will also be supporting the Lakewood Siren test on Wednesday, May 13<sup>th</sup>. So please mark this date on your calendars.

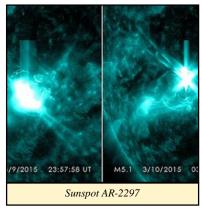
## THE ROUNDTABLE ARCHIVE

Have you been looking for a back issue of the Roundtable? Many are available on the DRC web site. Access http:// www.w0tx.org/RoundtableAccessPage.htm.

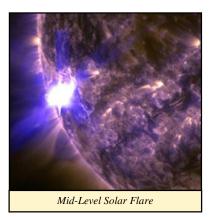
#### SOLAR UPDATE AR2297 – SPORADIC RADIO BLACKOUTS BY GEORGE, AG0S

The sun emitted two mid-level solar flares on March 9, 2015: The first peaked at 7:54 pm EDT and the second at 11:24 pm EDT. NASA's Solar Dynamics Observatory captured images of the flares, which were classified as an M5.8-class and an M5.1-class, respectively.

These were the second and third flares from the same active region - AR-2297 - after it rotated over the left side of the sun on March 7.

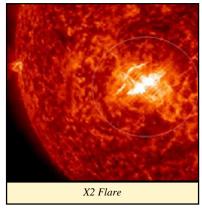


NASA's Solar Dynamics Observatory, or SDO, captured images of three mid-level solar flares March 7-9, 2015, all from the same active region on the surface of the sun, sunspot AR2297. These images of the flares shows a wavelength of EUV light that highlights the intense heat of a solar flare and that is typically colorized in teal. Credit: NASA/SDO

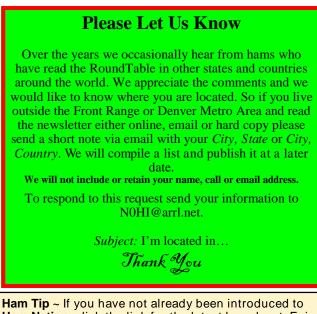


NASA's Solar Dynamics Observatory captured an image of a mid-level solar flare on March 7, 2015, seen as a bright flash of light on the left side of the sun. This image is a blend of two wavelengths of light -- 171 and 131 Angstroms - typically colorized in gold and teal, respectively. Image Credit: NASA/SDO

The result of these "Mid-Level Flares" was an X2-FLARE which caused sporadic radio blackouts across the Americas. All week long, sunspot AR2297 has been crackling with solar flares, on March 11 at 16:22 UT (09:22 PDT), produced a really big one. Earth orbitingsatellites detected an X2-class flare, shown in the image below from NASA's Solar Dynamics Observatory:



Extreme ultraviolet radiation from the explosion ionized the upper layers of Earth's atmosphere, causing HF radio fade-outs and other propagation effects on the dayside of our planet. Across North and South America, ham radio operators and mariners may have noticed brief but complete blackout conditions at frequencies below 10 MHz. These natural radio emissions from the sun, which are produced by shock waves in the sun's atmosphere, suggest that a CME is emerging from the blast site at speeds exceeding 1.400 km/s (3.1 million mph).



Ham Nation, click the link for the latest broadcast. Enjoy and help spread the word to others who might enjoy it also. 73, Fred (AA0JK) https://www.youtube.com/watch?v=rlizalKylps

This puzzle is provide courtesy of Chris Codella - W2PA. The URL for his website is http://www.w2pa.com. The solution for the puzzle is on page 10.

#### Across

1. Radiation pattern part 5. Contest off-time ender, possibly 10. The "Olympics" of contests 14. IOTA item 15. Unusual object " (DX) 16. "Long 17. VE8 mobile? 18. Hammerin' Hank 19. 1091 using 44-across 20. An advantage of being weak? 23. In early radio, some rotated and some didn't 24. Foot part 25. Wayward circuit paths 28. Knight neighbor 30. 3W holiday 33. QTH on the range 34. 160 meter Stew 35. The one with OTC 36. Sheltered, when /MM 37. They don't count, and may count against you 38. CW parts 39. Plating material 40. Typewriters (in ham speak) 41. Military cap 42. The only CW many people know 43. One way to stand by 44. Abbreviated figs. (abbr.) 45. AMSAT launch partner 46. Currency used by 45across, mostly 47. Predatory contesting? 55. EI-land, in EI-speak 56. VO9 first name 57. They make the 45, sometimes for big guns 58. Western competing org. 59. 3:1 dash to dot ratio, say 60. "Yikes!"

## CQ Contest

1	2	3	4		5	6	7	8	9		10	11	12	13
14		$\vdash$	$\vdash$		15	$\vdash$	$\vdash$		+		16		$\vdash$	+
17	$\vdash$	$\vdash$	$\vdash$		18	┢	$\vdash$	+	⊢		19		┢	┢
20	$\vdash$	$\vdash$	$\vdash$	21		$\vdash$	+	╞	⊢	22		╞	┢	┢
			23	$\vdash$	-	$\vdash$			24	+	⊢			
25	26	27			┢		28	29		+		30	31	32
33				$\vdash$		34		┢	$\vdash$		1	35	⊢	t
36	$\vdash$		$\vdash$		37			┢	$\vdash$		38		┢	t
39				40		+		┢		41			┢	┢
42				43	┢	$\vdash$	$\vdash$		44		⊢	1	┢	┢
			45		1			46		-	⊢			
47	48	49		$\vdash$		50	51		$\vdash$		┢	52	53	54
55	$\vdash$	$\vdash$	$\vdash$		56	+	$\vdash$	$\vdash$	$\vdash$		57	┢	+	┢
58			⊢		59	$\vdash$	$\vdash$	$\vdash$	$\vdash$		60	$\vdash$	┢	+
61	+	$\vdash$	$\vdash$		62	+	+	+	+		63	+	⊢	┢

- 61. Biblical verb62. Prefix with -cotta
- 63. Xtal filter replacements

#### Down

- Daffy Duck's programming language?
   LA city
   A fuse maybe did this
   Many hams also have one
   Bidirectional flow
   KH6-fests
   June VHF QSO Party sponsor
   Funny one
   Non-op hams at 10-across stations
   Large cetacean
   Suffix with glitte- or lite-
- 12. Twiddle the big knob

13. Yaesu front panel marking 21. Contesters try to maximize it 22. 21-down, for a first-time contester? 25. 'Test results figs. 26. Prefix with centric or sphere 27. A band sometimes does it at dawn 28. CQ answer **29.** Valuable minerals 30. Region net for NNJ and others 31. Gourmand 32. NAQP, CQWW and others, briefly 34. Push-

37. Response to a contest

exchange, say

**38.** Took an alternate route

- 40. Catchall abbr.
- 41. QSL handler, slangily
- 44. Vaulted roof
- **45.** Construct, as a tower **46.** "Nevermore" quote
- quoter, informally

47. Transmit

- 48. Kit maker, once
- 49. Ominous noises from
- the amp, maybe

50. Assistant

- 51. At no time, poetically
- 52. Holiday drinks
- 53. OM in G-land

**54.** High V points on a dipole

April 2015

## ELMER SESSION START TIME

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

Come out and join in on the sharing of information.

## FACT OF THE DAY

#### **Grounding Steel Towers**

Steel towers obviously should be grounded for lightning protection whether or not grounding is needed for efficient antenna operation. Steel is a difficult metal to electrically bond to. Satisfactory connections can be made using exothermically welded lugs, compression lugs, or crimp lugs, but only if these rules are followed: 1) Never use a single-hole ground lug, because it is apt to come lose if jarred. Ground lugs should be secured by at least two bolts. 2) Tinned-copper ground lugs should be used, because tin reduces corrosion between copper and steel. 3) Use the nuts and bolts supplied by the lug manufacturer. 4) Torque them according to lug manufacturer recommendations. Insufficient torque increases resistance because no surfaces are perfectly smooth. Excess torque increases resistance because of lug warping. 5) Carefully clean and dry both lug and steel before attachment, because tin and steel both corrode when exposed to air and corrosion increases contact resistance. ©2005 Martek International, All rights reserved.

L	0	В	Е		А	L	А	R	М		W	R	Т	С
Τ	S	L	Е		С	U	R	1	0		Н	А	U	L
S	L	Е	D		А	А	R	0	Ν		А	Т	Ν	А
Ρ	0	W	Е	R	М	U	L	Т	T	Ρ	L	1	Е	R
			G	А	Ρ	S			Т	0	Е			
S	Н	0	R	Т	S		R	0	0	Κ		Т	Е	Т
Т	Е	Ρ	Е	Е		Ρ	Е	R	R	Υ		W	А	Е
А	L	Е	Е		D	U	Ρ	Е	S		D	0	Т	S
Т	Τ	Ν		М	T	L	L	S		В	Е	R	Е	Т
S	0	S		Ĩ	D	L	Y		С	U	Т	Ν	R	S
			Е	S	А			Е	U	R	0			
S	Е	А	R	С	Н	А	Ν	D	Ρ	0	U	Ν	С	Е
Е	1	R	Е		D	T	Е	G	0		R	0	Н	Ν
Ν	С	С	С		Τ	D	Е	А	L		Е	G	А	D
D	0	S	Т		Т	Е	R	R	А		D	S	Ρ	S

## WHAT IF THE WEATHER CHANGES?

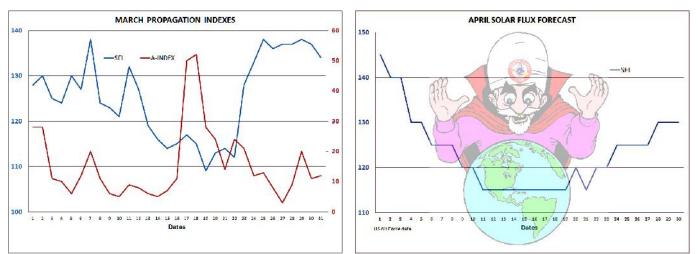
As every Coloradoan knows our winter weather can take a sudden change for the worse. If we should experience a turn in the weather on the day of our monthly DRC meeting it may be necessary to cancel the meeting. If this should happen listen for meeting status reports on 145.49 or 448.625 MHz repeaters during the afternoon on the day of the meeting.

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



# 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 www.arrl.org/hamfests.

## 2015

- April 4 LARCFest Longmont, CO Boulder County Fairgrounds http://www.w0eno.org
- June 6 Montrose ARC Tail Gate Party Delta, CO Delta Lions Club Pavilion http://www.montrosehamradio.org

July 11 – PPRAA MegaFest Monument, CO Lewis-Palmer High School

http://ppraa.org/megafest

- July 23 Central States VHF Society Conf. Westminster, CO Denver Marriott Westminster <u>http://csvhfs.org/</u>
- August 16 DRC Hamfest Jefferson County Fairgrounds http://www.w0tx.org
- Sept. 28 PHC Pueblo HamFest First United Methodist South Building Email: sworley.sw@gmail.com

APRIL 20	APRIL 2015 DRC Net Sunday's at 8:30 p.m. on 145.490 / 448.625 (No PL)							
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
	tlappg fipril Fool's Pagl		1 Learning Net 7:30 p.m. 145.490 / 448.635 (No PL)	2	3	4		
5	6	7	<b>8</b> Learning Net 7:30 p.m. 145.490 / 448.635 (No PL)	9	10	11		
12	13	14	15 DRC Meeting Elmer 6:00 p.m. General 7:00 p.m.	16	17	18		
19 ARRL Rookie Roundup-Phone Begins 1800 UTC Ends 2359 UTC	20	21	22 Learning Net 7:30 p.m. 145.490 / 448.635 (No PL)	23	24	25		
26	27	28	<b>29</b> Learning Net 7:30 p.m. 145.490 / 448.635 (No PL)	30				

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# DRC REPEATERS

BAND	Freq / Shift / PL Tone	Additional Information
6m	53.090MHz (-1MHz) 107.2Hz PL	
Packet	145.05MHz<>14.105MHz	
2m	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	446.7875MHz (-)	MotoTRBO Repeater   Slot 1 – DMR-MARC WW, Slot 2 – Local

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DRC members - this is your newsletter. Email your club or amateur radio related suggestions to the editor. Members are the heart of The Denver Radio Club, 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 roundtable @w0tx.org. The submission deadline is the 20th of the Month. ~ Editor