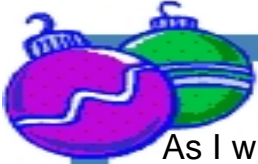




ROUNDTABLE

The Denver Radio Club Newsletter
December 2013

Since 1917



Hello all,

As I write this month's presidents message Thanksgiving is upon us. I hope you all had a wonderful Thanksgiving with family and friends. And of course Christmas and New Years follows, in which case, I want to wish each and everyone a Very Happy Holiday Season. Thanks to Bill, W6OAV, for an informative presentation on standing waves at our November meeting. I am particularly fascinated about the idea of using a pair of coax cables to feed a HF dipole antenna. I am going to look into that idea for my HF station.

I don't expect much progress on our technical projects this time of year although I expect to get the auto-patch on the 147.330 repeater back in operation. The equipment has been obtained to make that happen; it is a matter of finding some time to complete the project.

I want to acknowledge and thank Jason Smallwood, AC0UA, for stepping up to the plate and volunteering to be our 2014 Field Day Coordinator.



The big DRC event this month is our annual Holiday Party on December 18th. It will be held at The Golden Corral, 3677 S. Santa Fe Drive. That is at Santa Fe Dr. and Hampden. We have the party room from 5:00 p.m. until closing. Please come enjoy a great meal, fellowship, a very interesting program and prize drawings. The program will be presented by Dave, WG0N and Rita, N0UEW, Baysinger. Dave and Rita have worked several of the large wildfires in the western United States this past year. Dave's expertise is in communications and Rita's as a Public Information Officer. They will be showing some amazing photos of these very large fires along with inside information and facts that you will not experience in the media.

That is about it for this month; see you all at the Holiday Party. Don't miss it!

Gerry, W0GV
President



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NOVEMBER MEETING - WHAT'D I MISS

By Bill – W6OAV

There were 53 attendees. After attendee introductions, Gerry, W0GV, reminded attendees about the DRC Christmas party. He also explained how to configure radios for the St Anthony 448.625 MHz narrow band repeater. Lance, N1ETV, then gave a short presentation on the new amateur satellites, some of which were recently launched and others that will be shortly launched.

The meeting was turned over to the guest speaker, Bill, W6OAV. Bill presented a Power Point which covered the following:

- Definition of SWR
- SWR myths verses SWR facts
- Still and animated illustrations of SWR actions
- If things are done right, why one doesn't have to worry about high SWR
- Why reflected power at the antenna is not wasted power
- How to radiate all power regardless of the value of SWR
- Broad band and narrow band transmission line transformers

Bill then presented a video showing the Shive Wave Machine in action. The Shive Wave Machine, invented by physicist John Shive at Bell Labs, illustrates wave reflections, standing waves, resonance, partial reflections and impedance matching reactions. The video was produced by Bell Labs in 1959. Even though the video is old, the principles illustrated in it haven't changed over the years! The video can be viewed at <http://www.youtube.com/watch?v=DovunOxIY1k>

Dave Baysinger, WG0N and Rita Baysinger, N0UEW will bring us an insider's look at our recent intense wildfire seasons and the little understood Incident Command System that powers the massive response that saves lives and property. Dave will present a behind-the-scenes view of the communications networks that allow fire crews, aviation units and other first responders to talk to each other. Rita will explain the systems and processes used to transmit important information from those



Fire supervisors size-up the advancement of the July, 2013 Papoose Fire, part of the West Fork Complex, burning southwest of Creede, Colorado. Photo - Rita Baysinger

managing emergencies to the public. Many of the well-trained human resources and much of the equipment used to fight summer wildfires also responded to the devastating September floods in our state. Who are these people who live in tents in incredible temporary cities erected often in isolated areas? What's it like to wake up and go to bed every day breathing smoke? Who's in charge of these thousands of people who are drawn toward fires and other emergencies while "normal" people are running away?

Discover the answers from two DRC members who spent over 70 days working major incidents in 2013.

DECEMBER MEETING PRESENTATION

By Dave – WG0N

FIRE AND RAIN: EMERGENCY RESPONSE IN THE WEST



A DC-10, VLAT (Very Large Air Tanker) drops 11,000 gallons of fire retardant on the Black Forest Fire at Colorado Springs in June 2013. Photo - Dave Baysinger



One leading edge of the September, 2012 Mustang Complex Fire in Idaho makes a late-night slide down a steep canyon across the road from the Incident Command Post and tent camp along the North Fork of the Salmon River. Photo - Rita Baysinger

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.

D. Eric Dougherty – KD00MM
Mark Milburn – KQ0I

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 7pm. For new hams we have the Elmer session which starts at 6:00pm before the regular meeting.

More information can be found on the Denver Radio Club website at <http://www.w0tx.org>.



TECH COMMITTEE REPORT

By Bill – W6OAV

This report provides an overview of items discussed during the November Technical Committee meeting.

TS-940 Repair

Goal: Determine if re-soldering and cleaning connectors will fix radio.

K0TOR is working on the 940 as his busy schedule permits.

Voter System Redesign

Goal: Find a site east of Denver which will provide good coverage into the Denver Metro area and which will support the voter system.

W0GV is researching.

Provide the TSA with a cell/laptop charging station.

Goal: Design and implement a TSA emergency cell/laptop charging station.

- Items to be completed:
 - o Purchase chargers.
 - o Put DRC logo on charging station framework.

N1ETV and KA0BBQ are working this project.

Existing Voter System Tune Up

Goal: "Tune up" the existing test voter configuration consisting of the Station 4 central voter site and the N1ETV remote receiver site:

- Items to be completed:
 - o Rewire link receiver to voter controller interface. KB0A to obtain configuration from WA2YZT.
 - o Adjust UHF link transmit antenna position - KB0A will use analyzer to check the receive antenna system.
 - o Sync the hang times of Station 4 and the remote.
 - o Calibrate the local and remote audio levels and responses - KB0A will use IFR to set levels.

W0GV and WA2YZT will inspect the site to determine what needs to be done. They will then develop a plan to accomplish the above items.

147.33 Auto Patch

Goal: Program the auto patch controller to allow calls to the 720 exchange.

W0GV will purchase a Magic Jack and test with the controller.

448.625/145.49 Repeater Upgrade

Goal: Upgrade controller and radios:

- Items to be completed:
 - o Replace Sytnors with Kenwood.
 - o Replace the S Com 7k with an S Com 7330. Program the 7330 to allow the splitting of the repeaters when D13 ARES uses the 145.49 repeater for emergency activities.

AC0UA will program controllers and WW0LF will program and change out radios.

Centennial Repeaters

Goal: Ground DRC & Intermountain Repeater Association hard lines.

To be scheduled for spring.

Station 4 Site Maintenance

Goal: Implement weed control (install ground cover and layer of rocks).

To be scheduled for spring.

NEW YEAR ~ NEW ELMER SESSION START TIME

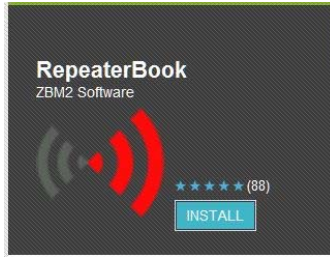
The Elmer Session is Going to Start a 6pm beginning in January before the regular DRC Meeting!

Please Note the regular meeting start will remain unchanged.

A MUST HAVE APP

By Bill – W6OAV

Would you like to have an app that, as you travel down the highway, dynamically lists repeaters near you? If so, RepeaterBook is that app. This summer I used the app as I made several trips totaling over 4000 miles. For these trips I configured the app to list only vhf and uhf repeaters within 35 miles the highway. It was interesting watching the list change as I travelled.



RepeaterBook, which is a free app, displays all types of repeaters in the USA and Canada, I'll talk more about this later.

RepeaterBook uses both a network connection and GPS to determine its precise location. However, a network connection is not required. RepeaterBook works well just using GPS. If GPS is not available, it still works well based on entering a Grid Square. The latter is useful for researching repeaters in other cities.

Let's take a tour of the user friendly programming screens to illustrate the power of the app and the ease of programming it. These screens are from an iPhone. The screens on an Android phone may be a bit different but all the functions are there.

Screen 1 allows configuring the types of repeaters that should display on the main screen. In this example, only FM repeaters and Echolink repeaters will be displayed.

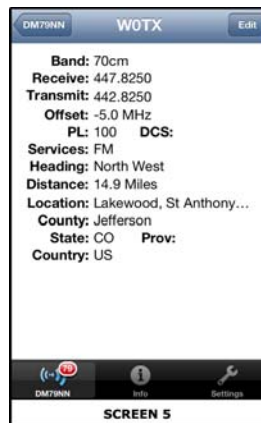


Screen 2 allows configuring which repeater bands should display. In this example, only repeaters on 2 m and 70cm will be displayed.



Screen 3 allows either enabling GPS or allowing a Grid Square to be entered instead. Entering the Grid Square allows the app to display repeaters in other cities. Screen 3 also allows configuring the distance radius of interest and the sorting method for the repeaters to be displayed.

Screen 4 shows the resulting repeater directory screen for Denver. Notice that the local Grid Square is shown as well as the number of repeaters in the defined distance radius, in this case, 79 repeaters.



Screen 5 shows the repeater specifications when the right arrow is depressed for a particular repeater. In this example, Screen 5 displayed when the right arrow for W0TX was depressed.

It's Time Once Again For The Annual Holiday Meeting & Dinner

When: December 18th
Where: Golden Corral Buffet Restaurant
 3677 South Santa Fe Drive
 Sheridan, CO
Time: 5pm Dinner / 6:30pm Presentation and Drawing

For map & directions check www.w0tx.org

UP COMING EVENTS

2014

January 18 – NCARC Hamfest

Loveland, CO Larimer County Fairgrounds
In the 1st National Bank Building.
<http://www.ncarc.net>

Rocky Mountain Division Convention

Rocky Mountain Park Inn, Estes Park,
Colorado
<http://www.hamconcolorado.org>

Don't forget to join in Wednesday nights at 7:30pm for the DRC Learning Net! 145.49/448.625 machines NO Net December 25th

VE NEWS

Candidates for exams at DRC VE Team test sessions are strongly encouraged to notify the VE Coordinator, KC2CAG, at least two days before the scheduled exam session if they decide to forgo testing. This will allow time for the team members to be contacted in case the entire session needs to be canceled.

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.

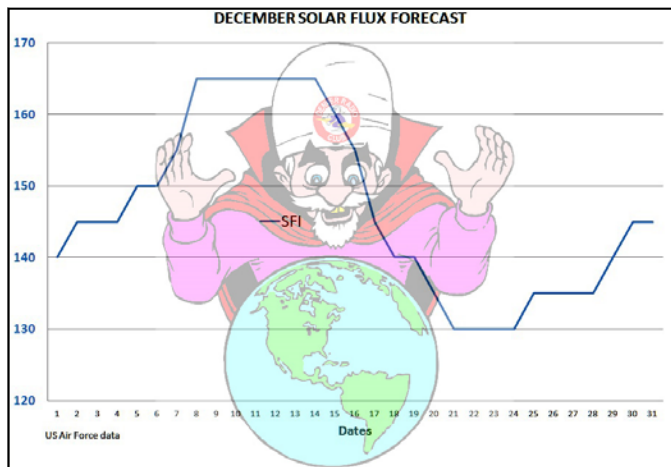
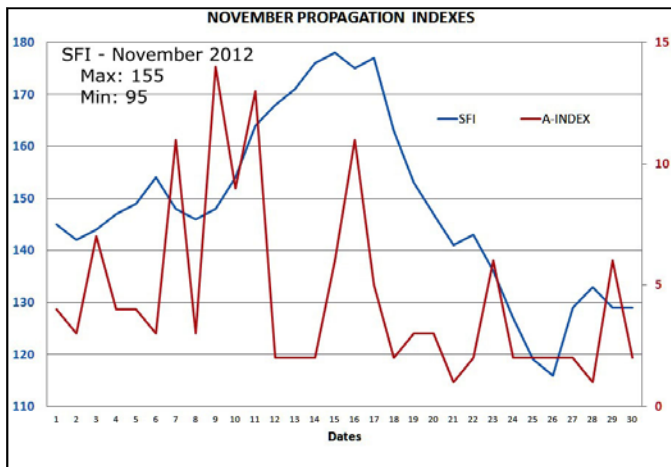
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PAST & FUTURE PROPAGATION CONDITIONS

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>.



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It's Time Once Again For The Annual Holiday Meeting & Dinner

When: December 18th

Where: Golden Corral Buffet Restaurant
3677 South Santa Fe Drive
Sheridan, CO

Time: 5pm Dinner / 6:30pm Presentation and Drawings

For map & directions check www.w0tx.org

December 2012							<i>DRC Net Sunday's at 8:30pm Local on 145.490 & 448.625 (No PL)</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
1	2	3  New Moon	4 Learning Net 7:30pm	5	6 ARRL 160m CW Begins 2200U	7 Pearl Harbor Remembrance Day	
8 ARRL 160m CW Begins 1600U	9  First Quarter	10	11 Learning Net 7:30pm	12	13	14 ARRL 10m Contest Begins Saturday 0000U	
15 ARRL 10m Contest Ends 2359U	16	17 Wright Brothers Day  Full Moon	18 Club Holiday Dinner & Meeting 5pm	19	20	21 <i>First Day of Winter</i>	
22 ARRL Rookie Roundup 1800U thru 2359U	23	24	25  Last Quarter	26 	27	28	
29	30	31 New Year's Eve	No Learning Net on the 25th				

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Web Master	N0LAJ	Bill Hester	Check Roster	

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	Not in service at this time!
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

EDITOR'S NOTE

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DRC members - this is your newsletter. If there is something which is club or amateur radio related that you'd like to see as a regular feature, email 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 AG0S@arrl.net. Submission deadline is the 25th of the Month. **Editor**