



ROUNDTABLE

PRESIDENT'S MESSAGE

By Bryan Steinberg – KB0A

Well, Spring may finally be here, although a bit more snow is in the forecast. This weekend was nice enough to let us get some work done over at Station 4. The equipment shed was due for a fresh coat of paint and we were able to install the permanent MOTOTRBO antenna. There are some pictures in this issue and a thanks goes out to all those who showed up on Sunday to lend a hand.

Speaking of lending a hand we now have an official Education Coordinator. Bud Chick, KOHVA, has stepped up to fill in that position. We had another volunteer for that position, Fred Hart, AA0JK, had also approached me. However, Bud has been supporting that role for a few months and the board offering him first right of refusal. The Ed Coordinator is a big job so I will ask Bud to reach out to Fred if he needs assistance. I also wish to thank Paul, KD0CXX, for stepping in as acting Ed Coordinator until we found a volunteer for the position.

Field Day is right around the corner and we still are in need of a Field Day Coordinator. The board discussed this situation last week and, although we don't want to cancel Field Day, we felt it was important to have a single person take the lead on this function. We will cancel the event if we cannot get someone to step up and take the lead.

The job is really not that difficult, most of the required work has been documented and you will get a lot of help from the board and other members. The main item that the FD coordinator needs to do is update the computers to the latest Field Day log settings. Make sure the tables are properly labeled and setup for each band. Check in all operators and visitors and submit all the information to the ARRL after the event. I am hoping that we get someone to step up the task and assist the club in holding another great Field Day in 2013.

Also, don't forget our annual Hamfest coming up in August, the 18th to be exact, at the Jeffco Fairgrounds in Golden. While I have been reminding members, and visitors, on the weekly net and in the RoundTable, the "official" email goes out this week to all past vendors. Don't miss out on getting a table and a great location. All tables are assigned in the order the reservation was received. So check out the club hamfest web page now, print out the reservation form and send it in with your check.

Till next time...
Bryan, KB0A



INSIDE THE ROUND TABLE

April Meeting - What'd I Miss	Pg 2	My Stealth Birdfeeder Antenna Part – 2	Pg 5
May Meeting Announcement	Pg 2	BPL News & Propagation Charts	Pg 6
Club News	Pg 3	Up Coming Events & Calendar	Pg 7
How I Got Interested in Amateur Radio	Pg 4	DRC Information	Pg 8

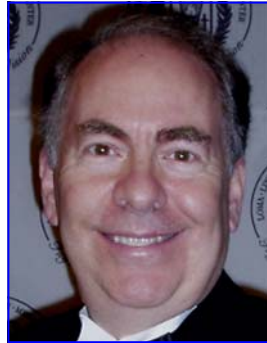
APRIL MEETING - WHAT'D I MISS

By George – AG0S

Due to inclement weather, the regular meeting was cancelled!

MAY MEETING ANNOUNCEMENT

Is digital radio in your future? The May meeting presentation by Steve, KFORW, will cover the following topics. You will learn even more about digital radio technology.



Answering the question: "Can analog do this?"

- Large, full-color display with a flexible menu-driven interface. Icons and large easy-to-use navigation buttons ease message reading and menu navigation.
- Day/Night Mode on display has improved resolution for easier viewing even in broad daylight. It also features a night mode that makes the screen easier to read in dark environments.
- Loud front-facing speaker and Intelligent Audio feature automatically adjusts the radio volume according to the environment's noise level.
- Bluetooth Audio and Data embedded into the radio and enables connectivity with wireless accessories, including Motorola's unique Operations Critical Wireless earpieces designed for rugged and reliable communications. Share real-time information easily by connecting radios to Bluetooth-enabled data devices.
- Use text messaging when discretion is required or routine communication needs to be delivered without interrupting workers or guests.
- IP Site Connect compatible. IP Site Connect is a digital solution that uses the Internet to extend the voice and data capabilities of MOTOTRBO. Use it to link up to 15 sites for communication among geographically dispersed locations, to create wide area coverage or enhance coverage at a single site with physical barriers. More hookups with C-Bridge! Bridge networks together.
- Certified as intrinsically safe by FM approvals when purchased and equipped with an FM battery for use in hazardous environments.
- Transmit Interrupt enables a user to interrupt another radio conversation to deliver critical communication exactly when and where it's needed (upgradable at additional cost).
- Locate mobile work teams using integrated GPS.
- Features the industry's largest application developer program to enable a wide variety of customized applications including: location tracking, Bluetooth data, email gateways, dispatch, telephony, man-down and work order ticket management.
- Capacity Plus single-site digital trunking system compatible (upgradable at additional cost). Maximizes the capacity of your MOTOTRBO system. Use it to enable a high volume of voice and data communication for over a thousand users at a single site without adding new frequencies.
- Linked Capacity Plus compatible. Linked Capacity Plus is an entry level, multi-site digital trunking system configuration for the MOTOTRBO platform. It leverages the high capacity of Capacity Plus, with the wide area coverage capabilities of IP Site Connect to keep your staff at various locations connected with an affordable high capacity, wide area trunking solution (upgradable at additional cost).
- Tightly sealed against wind and dust, and submersible in up to one meter of water for 30 minutes (IP57).

Emergency Button can be optionally programmed to send an alert to a supervisor or dispatcher during an emergency situation.

NO TECH COMMITTEE MEETING OR REPORT FOR APRIL

Don't forget to join in Wednesday nights at 7:30pm for the DRC Learning Net! 145.49/448.625 machines Watch the RoundTable for Upcoming changes to Learning Net Schedule

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.

Tyler Kohler KD0UVX

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 6:30pm before the regular meeting.

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

DRC SUPPORTS THE LAKEWOOD SIREN TEST

By Jim – K0TOR

On April 10th, the Denver Radio Club supported the annual Lakewood Emergency Warning siren verification test. The system consists of 25 sirens strategically located around the city. The purpose of this test is to verify proper operation of the system prior to potential weather and safety threats. The sirens produce a loud siren tone and voice announcement through four sequential directional segments. Denver Radio Club volunteers inspect each siren site for damage and vandalism. They observe the siren function and verify the siren tone and understandability of the voice announcement. The results of their inspection and monitored performance are reported to net control following the test. These data are summarized and reported to Lakewood management and technicians immediately following the siren test. This provides Lakewood with a timely result at a considerable cost savings. In appreciation the city provided pizza and soft drinks for the volunteers who could attend. Some volunteers take time off of work to support this test.



STATION 4 GETS AN UPGRADE

By Bill – W6OAV

Sunday April 28th – a work party took place at Station 4. The projects scheduled were:

- Replace the MOTOTRBO antenna with a more efficient model.
- Paint the "ham Shack".
- Tweak the vhf/hf packet gateway.

Everything went well and all projects were completed. The photo at right shows our tower climbers changing out the MOTOTRBO antenna. WA2YZT and K0HTX are at the top of the tower and WG0N is on his way up the tower.



The photo at left shows the group in front the newly painted "ham shack" after all the projects were completed. From left to right are N3PQ, WA2YZT, K0HTX, WG0N, W0GV, KB0A, AG0S, N4ATA, and W6OAV. A big thank you to all you guys!

This is an important responsibility we have to the City of Lakewood. It required the time and commitment of 27 ham operators. It is important to our radio club as it demonstrates ability and commitment to support public service events. And it gives us the opportunity to showcase the value and benefit of our ham radio capability and skill.

There were five problems identified this year. Two were vandalism issues, one was a siren positioning issue, one was a maintenance item and one was a siren tone and voice issue.

(Continued on page 4)

(Continued from page 3)

We received thanks and appreciation from Brian Nielsen, Environmental Services Manager for the City of Lakewood and the Lakewood radio communications staff for our support of the siren test. They expressed how valuable these test results are to them in ensuring an operational emergency siren system. We thank each of the following for volunteering their time and for a job well done;

Paul - K0WSU, Wally - AC0T, Frank - N3PQ,
 Scott - KD0SYI, Dave - WG0N, Chris - KD0DUJ,
 Stewart - KD0IOZ, Doug - KC0NSG, Joe - KD0UWK,
 Ron WB0HWP, Marshall - KF0UV, Paul - W0DPD,
 Doug N4ATA, Jim - AC0KB, John - KD0NPP,
 Bill - WZ0S, Dave - K0HTX, Bill - N0LAJ,
 Paul - KD0CXX, Ron - K0HRT, Bud - K0HVA,
 Orlen - WW0LF, Bill - W6OAV, Chris - KD0HMT,
 Barry - KA0BBQ, Bryan - KB0A

UPCOMING WHEAT RIDGE SIREN TEST

By Jim – K0TOR

The Denver Radio Club will be supporting the City of Wheat Ridge siren test at 11:00 AM on Wednesday, May 8th. Wheat Ridge has 15 sirens plus several 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 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 following the siren test at the Wheat Ridge Police Department. This is a great public service and a fun exercise. If you would like to help, please call. Thank you.

HOW I GOT INTERESTED IN AMATEUR RADIO

By Mike – KD0JXP

I have always been a bit of a ham in one way or another. It is fun for me to tell the story of how I became a Ham Radio Operator and it is actually a story that spans quite a few years.

Most people will say start at the beginning, so that is as good a place as any to begin this tale.

The time was the early 1980's and I was about 10 years old. We had moved to New Carlisle, Ohio (which is a suburb of Dayton). I had no idea how strong the hobby was in Dayton then. I was a young lad in middle school who was horrific in Mathematics, but still tinkered and had deep interest in Electronics. There was also the revelation later in life that this interest would become a life-long pursuit.

My mother was the city manager of New Carlisle and she had a friend who took a shine to a young electronics buff, and gave me a slew of surplus military radio equipment. Among the various odds and ends were two very cool radios, an RCA BC-348 receiver with home-made power supply (the dynamotor had long since been removed, but the RCA worked very well) and a General Electric TBX-6 transceiver (*Photo on next page.*) which I could not seem to make work at the time. The friend had also supplied a short-wave antenna which I hooked to the RCA receiver and began listening to various radio broadcasts over that unit at night.



RCA BC-348, circa 1940

I dearly wish I still had these radios, when we moved away from New Carlisle back to Kansas City, it turned out that the equipment was too heavy for us to afford to move it (it would not fit into the little Escort my mom had bought).

(Continued on page 5)

(Continued from page 4)

I gave the whole lot to a friend who was a military buff and put the idea of doing anything with radio (at least two-way communication wise) on the back burner for several years.



General Electric TBX 6, Circa 1930ba

THE NOW

In 2010, I finally decided to take the Technician exam and became KDØJXP. It was a cool feeling to have passed the test and realized a goal I had set for myself back in the day. I am obviously still learning, I think Amateur Radio is great application of Electronics. The funny thing is I was going to be in television as a producer when I became a senior in high school and had that in mind for at least my earliest College years with computers being on the back of my mind. Yet I also remained enrolled in Electronics classes and Computer Science throughout the Journalism focus. Somewhere between the year 1990 and today, television and radio (mass communications) became inter-related to the computer science field. My grand scheme was to be in communications and somehow I ended up working in what is now a consolidated industry as a computer programmer. It is very interesting how technology seems to beget technology.

MY STEALTH BIRDFEEDER ANTENNA Part-2

By Mark – WØQL

Last month Part 1 showed how to bend conduit and build an antenna disguised as a birdfeeder. In Part 2 an SGC SG-230 remote tuner is installed at the base and on air testing is reported. Considering the birdfeeder's unconventional appearance and the fact that Part 1 was published in the April issue some people thought this was an April Fool's joke but working 20 countries in a month dispels that myth.

Exactly 100 contacts were made in a month scattered over all the bands, 80 through 10, including the WARC bands. DX was my first objective and I was pretty excited when I worked the initial DX QSO, the Netherlands. I was able to log 19 other countries. Performance is best on 15 meters. QSO's were worldwide. I made 3 contacts with stations in Spain, 3 in Russia, 3 in England, and 5 in Japan on 15m. Even on 30m 3 countries were deserving and what amazed me a lot was getting Australia and Argentina on 40m. Eighty yielded no DX but I worked 4 states. My other objective was to be multiband and it truly is, thanks to the remote tuner being able to resolve huge mismatches.



My goal is to see if I would be able to make HF contacts if we moved to a patio home. The birdfeeder doesn't equal a tower and beam, of course, but I get the impression it is slightly better than a mobile antenna and that it does get out. A CW contact with the Czech Republic was made and also a SSB QSO with a different Czech station just to prove that those modes will function as well. Otherwise all contacts were made using JT65 to be consistent.

I attempted to analyze the antenna using EZNEC and came up with some discouraging results. Modelling shows a vertical is not a significantly low angle radiator with Colorado soil in general and the birdfeeder antenna confirms that. Peak gain varies between 25 and 30 degrees above the horizon depending on the band. That angle is a little high for DXing. However, it's about right for stateside contacts.

Next I analyzed efficiency and again the results are discouraging. On the best performing band, 15m, EZNEC estimates efficiency at 31 per cent. On 80m it's 7 per cent. Ouch. That means my paltry 19 watts at the base of the antenna had an effective radiated power of 1.33 watts on 80 and 6 watts on 15m. Apparently the antenna is an overachiever considering the DX that was worked. It's getting out better than EZNEC would have us believe. Good thing I had the inspiration before I did the modeling.

(Continued on page 6)

(Continued from page 5)

Inspiration came from several sources, one of which is Jerry Sevick, "The W2FMI Ground Mounted Short Vertical", QST, March, 1973. Dr. Sevick demonstrates a 6 foot 40 meter vertical using a flat umbrella top hat. More recently Rudy Severns in his May/June 2013 QEX article states, "Shorter verticals are possible, but you have to be creative. Capacitive top-loading is still the key to maximizing efficiency". I wanted to have some fun and see how well a birdfeeder could work with actual QSO's. Hopefully this will help inspire others to build something unconventional this summer. Have fun.

FCC AGAIN DENIES ARRL'S PETITION IN BPL PROCEEDING

On April 16, 2013 the FCC issued a Second Memorandum Opinion and Order (MO&O), denying the ARRL's December 2011 Petition for Reconsideration that sought reconsideration of the FCC's Second Report and Order (BPL Second Order), "fundamentally affirm [ing]" its rules for Access Broadband over Power Line (Access BPL) systems. In denying the ARRL's Petition, the FCC noted that the Petition "[did] not raise new arguments based on new information in the record or on the Commission's new analysis of limited points as directed by the Court, nor does it demonstrate any errors

or omissions in the Commission's previous decisions," and that its previous rulings "strike an appropriate balance between the dual objectives of providing for Access BPL technology -- which has potential applications for broadband and Smart Grid uses -- while protecting incumbent radio services against harmful interference."

The ARRL made 14 principal points in its Petition, each of which was aimed at urging the FCC to enact additional rules that would permit BPL systems to operate without the severe interference potential inherent in BPL technology. The ARRL argued that the current rules do not address this severe interference potential, which was manifested in every deployment of BPL in which the safeguards urged by the ARRL were absent. The FCC dismissed all of the ARRL's arguments, claiming that the ARRL "did not submit any new information," made "no new argument" or that it had, in the Commission's view, failed to make its point.

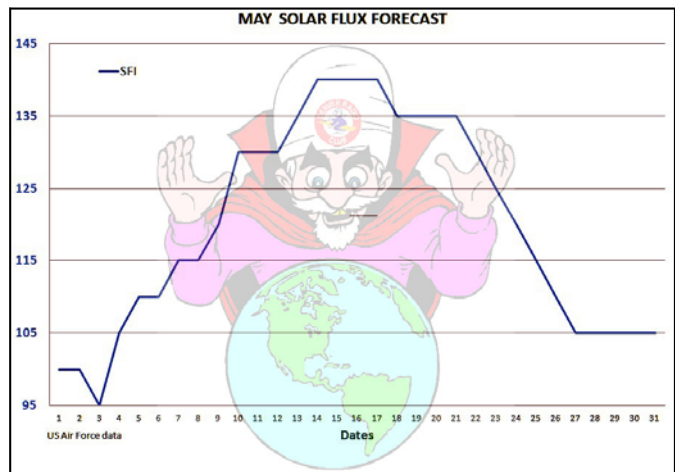
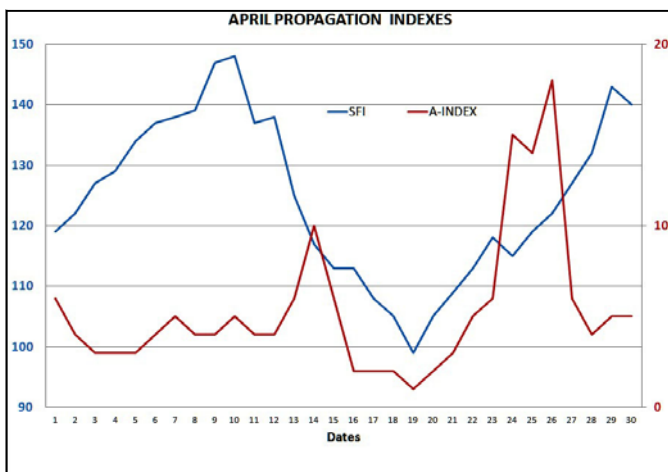
*Don't forget to join in.
Wednesday at 7:30pm for the
DRC Learning Net!
145.49/448.625 machines*

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 www.w0tx.org.



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.

June 28 – Rocky Mountain Division Convention

Rocky Mountain Park Inn, Estes Park, Colorado

<http://www.hamconcolorado.org>

July 27 – PPRAA Megafest

Lewis Palmer High School, Monument, CO

<http://www.ppraa.org>

August 18 – DRC HamFest

Contact Bryan - KBOA for More info.

<http://http://www.w0tx.org/hamfest.htm>



HRO 12 STORE BUYING POWER WORKS FOR YOU!!

www.hamradio.com

8400 E. Iliff Ave #9, Denver, CO 80231

303-745-7373 800-444-9476

24 HOUR FAX 303-745-7394

e-mail: denver@hamradio.com

THE ROUNDTABLE ARCHIVE

Have you been looking for back issues of the RoundTable? Many are available on the DRC web site.



Scan the QR code or go to

<http://www.w0tx.org/roundtableaccesspage.htm>



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



MAY 2013							<i>DRC Net Sunday's at 8:30pm Local on 145.490 & 448.625 (No PL)</i>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 <i>May Day Learning Net</i> 7:30pm	2	3	4							
5	6	7	8 <i>Learning Net</i> 7:30pm <i>Siren Test</i>	9	10	11 <i>Armed Forces Day Comm. Test</i>							
12 <i>Happy Mother's Day</i>	13	14	15 <i>DRC Meeting</i> Elmer 6:30pm General 7:00pm	16	17	18 <i>Armed Forces Day</i>							
19	20	21	22 <i>Learning Net</i> 7:30pm	23	24	25							
26	27 <i>MEMORIAL DAY</i>	28	29 <i>Learning Net</i> 7:30pm	30	31								

DRC BOARD OF DIRECTORS

President	KB0A	Bryan Steinberg	303-987-9596	kb0a@arrl.net
Vice-President	W0GV	Gerry Villhauer	303-467-0223	w0gv@arrl.net
Secretary	WW0LF	Orlen Wolf	303-279-6264	owolf@mines.edu
Treasurer	K0TOR	Jim Beall	303-798-2351	k0tor@arrl.net
Board Member	N4ATA	Doug Parker	303-922-3305	n4ata@arrl.net
Board Member	K0HTX	Dave Gillespie	303-880-1938	k0htx@comcast.net
Board Member	Open			
Board Member	N3PQ	Frank Ortega	303-452-0283	n3pq@hotmail.com

DRC STAFF AND VOLUNTEERS

Trustee	WW0LF	Orlen Wolf	303-279-6264	owolf@mines.edu
Net Control	K0TOR	Jim Beall	303-798-2351	k0tor@arrl.net
TSA/EmComm Coordinator	W0JMC	Jack McComb	303-885-9098	emcomm@w0tx.org
Membership	KC0CZ	Bob Willson	303-659-0517	kc0cz@comcast.net
Club Librarian	WG0N	Dave Baysinger	303-987-0246	wg0n@arrl.net
VE Team	KC2CAG	Tom Kocalski	720-493-1426	kc2cag@arrl.net
Swapfest Mgr	KB0A	Bryan Steinberg	303-987-9596	drcfest@w0tx.org
Field Day	OPEN for 2013			
Tech. Committee Chair	W6OAV	Bill Rinker	<i>Check Roster</i>	
Benevolent		Carolyn Wolf	303-330-0721	
RT Editor	AG0S	George McCray	303-751-7246	ag0s@arrl.net
RT Assoc. Editor	W6OAV	Bill Rinker	<i>Check Roster</i>	
Education	K0HVA	Bud Chick	TBD	elmer@w0tx.org
Web Master	N0LAJ	Bill Hester	<i>Check Roster</i>	

DRC REPEATERS

BAND	Freq / Shift / PL Tone	Additional Information
6m	53.090MHz (-1MHz)	
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 (-) 100Hz PL	Saint Anthony's
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

© 2007 - 2013 Denver Radio Club; All Rights Reserved; Articles in the RT may be reprinted with permission for non-commercial or educational use.

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 and sole 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**