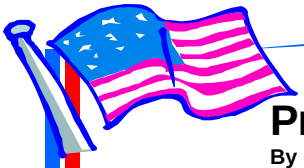
ROUNDTABLE

The Denver Radio Club Newsletter

July 2011 Since 1917



PRESIDENT'S MESSAGE

By Robert White – K0RCW

Field Day 2011 is now in the bag. I have heard from many members that it was successful. For the first time we operated on every available band including 2meter, 70cm, and 6meters as well as the traditional 10, 15, 40, 80 and 160 meter bands. K0HTX – Dave made a couple of UHF contacts from the top of the tower. The DRC operated as a class 5A club meaning we had 5 radios operating different parts of the band.

Big thanks to everyone who came out on Friday to cut weeds and restore the Hudson repeater site to a manicured condition. Some of the thistle weeds were 6 feet tall and quite difficult to cut down and safely put in a bag. K0HTX – Dave, our Field Day Coordinator, did a great job of spearheading the weekend and also hauling all the garbage away at the end of Field Day. Thanks to KD0CXX – Paul for feeding us from Friday morning through Saturday breakfast. KB0BZZ – Bob our Emergency Communications Coordinator and Liaison to the Salvation Army fed us Saturday lunch through Sunday lunch.

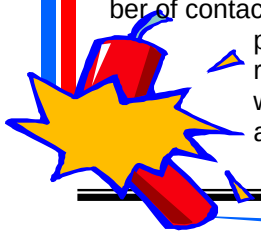
Though final numbers are not yet tallied, I believe we made substantially more contacts than last year. It was wonderful to see 15-20 hams show up to help us clean up the site and then another 30 or so people show up for Field Day itself. It is always important to remember that Field Day is not a contest, but I do think the number of contacts made reflects increased interest and participation in Field Day. I want to recognize KC0CZ – Bob in particular for working with new hams to get them on the air.

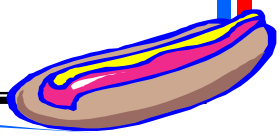
Our get-on-the-air GOTA station manned by N3PQ – Frank was an outstanding growth area for us. We had many newcomers visit our Field Day site and make contacts for the first time. Another purpose of this station is to increase the activity of less active or inactive hams. It seems to have achieved both these goals this year, so thanks Frank!

We also had our fair share of technical challenges, the solutions to which are not immediately obvious. We wanted to operate both digital PSK31 and voice on 20 meters, for instance, but one clobbers the other. I did log a number of "15A" type stations, so I have to wonder if this hasn't been solved somewhere else in the amateur radio community if they really are operating 15 stations in a Field Day legal space. The club does have filters to separate the bands which seem to work pretty well, but we still need some sort of additional "steep precision filters" to split the bands further into digital mode and phone portions.

In addition, we also need to network our logging software so that different stations working the same band at different times are aware of duplicates already logged on that band. It will also eliminate the hassle of having to sort through duplicates when it comes time to submit the results of Field Day to the ARRL.

Until next time, great DX!





INSIDE THE ROUND TABLE

JUNE MEETING - WHAT'D I MISS

By Bill –W6OAV

WOW!! We broke our attendance record at this meeting! There were 69 attendees which included several guests. K0RCW began the meeting with introductions. KB0BZZ then gave a PowerPoint presentation covering the upcoming pre-Field Day cleanup on Friday before Field Day and then the actual Field Day schedule.

The meeting was then turned over to our guest speakers, Paul Resler and Bill Hester, N0LAJ. Paul is a retired nationally known Engineering and Sales Manager of a worldwide lightning protection company. Bill, during his 27 year career with Denver Water, designed and installed many lightning and power transient protection systems. They conducted a PowerPoint presentation covering how lightning occurs and behaves, how to fully protect one's house and station and, if the budget is an issue, the minimum that must be done to provide substantial protection. In any configuration, a single point a low resistance ground is an absolute necessity.

Three web sites that Paul and Bill recommend are:

1. A thorough discussion of Ham Radio Station Protection Techniques: http://www.comm-omni.com/polyweb/hamradio1.htm
1. A link to all of Polyphaser's Tech Papers on lightning/surge Protection and their method of grounding: http://www.protectiongroup.com/knowledgebase
2. For lightning protection material: http://www.theprotectionsource.com

TECH COMMITTEE REPORT

No meeting report this month Check the RT for a full report in August.

JULY MEETING PRESENTATION

By Bill – W6OAV

Plan to attend the July meeting and learn about Fox-hunting. So, what is Fox-hunting? It is an activity wherein participants use radio direction finding techniques to locate a radio transmitter hidden within a particular search area. You do not have to be licensed to participate.

Fox-hunting can hone your skills to locate sources of radio-frequency interference to Amateur Radio and other radio services, such as municipal fire department and law enforcement radio communications systems.

Dan Meyer, N0PUF, and Kris Kringle, KB0YRZ, will give a presentation about Fox-hunting. Dan has been an avid Fox-hunter since the 1990's. He has tracked down interfering signals within the HAM bands on several occasions. He also coordinated the Fox-hunt's at the Hamcon Colorado conventions and participates in monthly Fox-hunts in the Denver area. Kris will help answer questions and share his expertise on Fox-hunting.

Please Note: The "Learning Net" will start at 7:30pm beginning on Wednesday July 6th.

BROWSING…
NEW AND INTERESTING STUFF FROM THE INTERNET

By Bryan – KB0A

Many of you are active or, at least, interested in the digital modes. To work the digital modes you need a transceiver, a digital sound interface and a computer.

http://www.waiohuli.com/DigiModes/digifieldguide.htm

Well that's it for now if you know of any interesting Internet items, please let me know so that I can include them.

HAM RADIO INTERNET TV PROGRAM

By Bill – W6OAV

There exists a net cast (live Internet TV) that may be of interest to hams as well as to technical folks. It's called Twit TV. There are 15 different shows covering many aspects of technology. There is an hour length program every Tuesday at 7 PM MDT that covers ham radio. It's called "Ham Nation". Bob Heil, K9EID, with various co-hosts and guests covers the many aspects of ham radio - from tossing an antenna wire in a tree allowing communications worldwide, to terminating coax, to proper soldering, to the importance of ham radio operators in time of disasters, etc.

Thanks to Bill, AC0VC for bringing Twit TV to my attention. You can access the net casts at http://live.twit.tv/

FIELD DAY

By George – AG0S

Those of you who didn't participate in this year's Field Day and have never attended a Field Day are probably wondering what all the fuss is about. Well for a greater portion of the event it's just plain fun.

Started in 1933, ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, more than 35,000+ radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.

Field Day is also a great time to show the public what amateurs can do and to actually make a contact or two in the process. Some of the folks who visit a Field Day site get a real sense of how much fun it is to talk to someone located in another state of if they are lucky another country.

In reality, it is a way to work out some of the logistical issues hams find when they are required to deploy a station in an emergency situation. Basically it includes all those things necessary to move an amateur radio station from the shack to a remote location and have it operational in just a few hours. Many of the same skills utilized during Field Day are those necessary for non-emergency events such as marathons, bike-a-thons, parades, fairs and fundraisers.

Yes, it is a contest though it is not fully sanctioned. The big prize is more or less bragging rights for the number of verified contacts made during the 24 hours of Field Day. More importantly it's a picnic, a campout, and a time for members of a very elite group of people to get together, participate and share in a hobby unlike any other. When it's all over some groups and clubs actually start planning for next year's Field Day the day after they put all of this year's equipment away.

Hope to see you at next year's picnic, campout, Field Day.

On page 4 are some pictures from Field Day 2011. Enjoy!

REMEMBER WHEN

By Bill – W6OAV

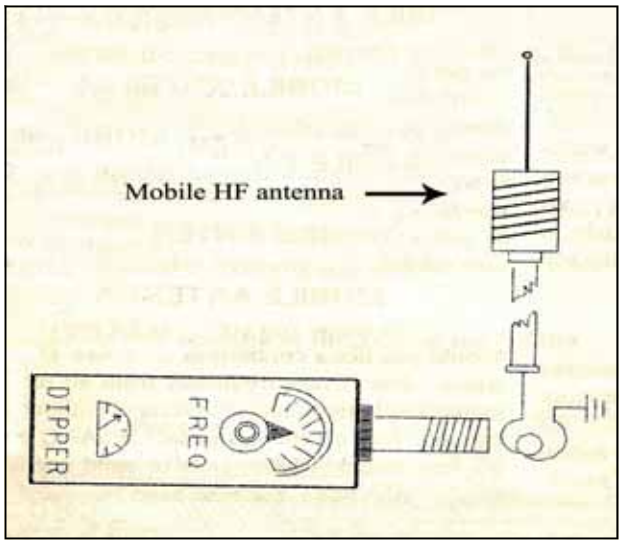
The purpose of this article is to let the newer hams know what ham radio was like in the late 50s and early 60s and to bring back memories to the older hams like me.

Today, when a ham builds an antenna he checks the SWR to see if the antenna is resonant within the desired band. If the SWR is high across the band the ham needs to determine whether the antenna is resonant above or below the band. To do this, he connects his trusty antenna analyzer to the antenna and locates the antenna's resonant frequency. If it is resonant above the band, he lengthens the antenna or if it is resonant below the band he shortens the antenna.
So, how did a ham find the resonant frequency of an antenna in the "old days" before the availability of antenna analyzers? He used a Grid Dip Meter. So, what is a Grid Dip Meter?

A Grid Dip Meter is a variable vacuum tube RF oscillator with a micro-amp meter in the tube's grid circuit. The Grid Dip Meter came with a set of plug-in coils which allowed the oscillator to cover different frequency ranges. Below and upper right show the ads for the two most popular Grid Dipper Meters.

To use the Grid Dip Meter, the ham plugged the appropriate coil into the Grid Dip Meter. He would turn on the Grid Dip Meter, adjust the meter for a full scale reading and then hold the coil next to the antenna. *(See drawing below.)* He would then sweep the oscillator's frequency while watching the meter. When the oscillator frequency matched the resonant frequency of the antenna, the antenna would absorb RF from the oscillator causing the grid current of the oscillator tube to decrease (dip). The ham would read the frequency on the Grid Dipper Meter's dial. He then knew whether he needed to lengthen or shorten the antenna to make it resonant with in the band of interest.

The Grid Dip Meter was a very versatile instrument. As described in the ads it could also be used to determine circuit Q, unknown capacity or inductance values, locate parasitic oscillations, etc. They could also be used to determine transmitter frequencies, to monitor transmitted signal quality and to act as a field strength meter.
As technology moved on, the Grid Dipper Meters became transistorized. Some folks still called them Grid Dippers. Others called them Gate Dip Oscillators or Emitter Dip Oscillators.



GOODNIGHT SUN: SUNSPOTS MAY DISAPPEAR FOR YEARS

Seth Borenstein, The Associated Press

WASHINGTON - The sun is heading into an unusual and extended hibernation, scientists predict. Around 2020, sunspots may disappear for years, maybe decades.

Copy the link below and paste it into your browser

Link – HTTP://SYNC.SYMPATICO.CA/NEWS/SUN_GOING_QUIET_SUNSPOTS_MAY_DISAPPEAR_FOR_YEARS/6A58AD52

ELECTRIC BLUE SUNSETS

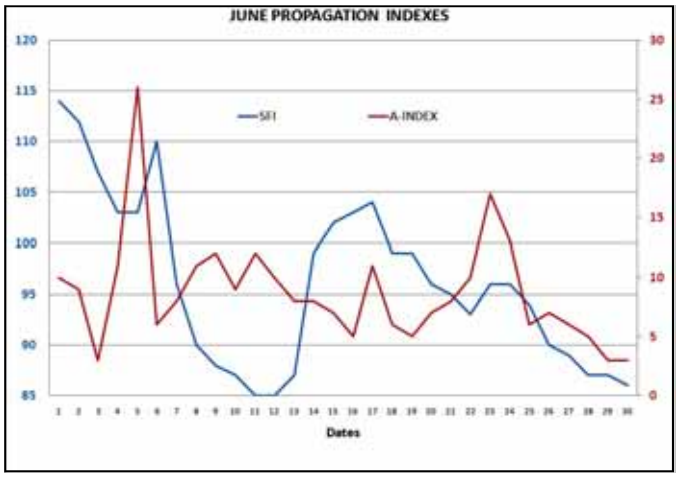
PAST & FUTURE PROPAGATION CONDITIONS

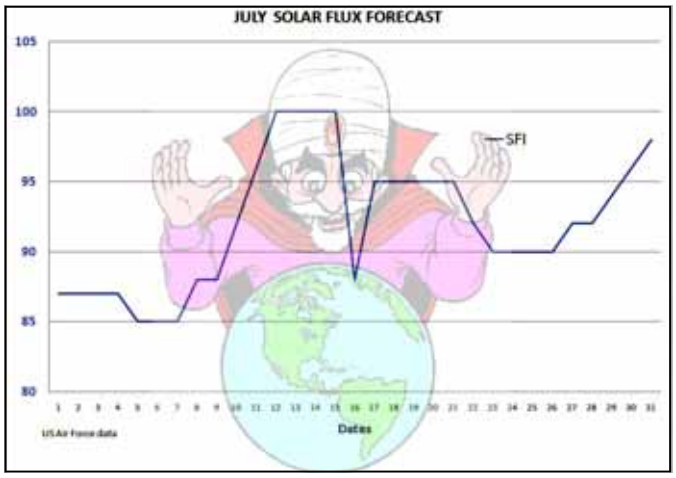
By Bill – W6OAV

This article provides two charts: the propagation conditions for last month and a forecast of next month's propagation conditions.

USING THE PROPAGATION INDEX CHART

Note two things on the chart: the trend of the SFI and A indexes and the date of largest SFI peak. The trend of the SFI shows the progress of the solar cycle during the past month. The SFI peak allows the rough forecasting of the reoccurrence of SFI peak in the next month. In order to "forecast" the next SFI peak, note the date when the SFI peak occurred and project out to about 28 days. Due to the sun's 28 day rotation, the SFI peak will often reoccur in about 28 days. The reason is because the sun spots causing the SFI peak move with the sun's rotation and face the earth every 28 days. This 28 day repetition will become more pronounced as the solar cycle improves. Refer to the September 2010 *Roundtable* for more complete information on the "SFI" and "A" indexes.





The BIG one is coming!

The Denver Radio Club Hamfest

Jefferson County Fair Grounds

When: Sunday August 21 - 8:30am to 1pm

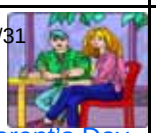
For more information!
contact Bryan-KB0A
Or visit www.w0tx.org
Volunteers Needed
drcfest@w0tx.org

Food Fun

Lots of vendors with everything you need
Computers ~ Radios ~ Antennas
Parts & Pieces
You name it and you'll see it here!!!

JULY 2011

DRC Net Sunday 8:30pm Local

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 New Moon	2
3	4 	5	6 ***Learning Net*** 7:30pm	7	8 First Quarter	9 ***IARU*** HF World Champ. Starts 1200U
10 ***IARU*** HF World Champ. Ends 1200U	11	12	*13* ***Learning Net*** 7:30pm	14	15 Full Moon	16
17	18	19	20 ***DRC Meeting*** Elmer 6:30pm General 7:30pm	21	22	23 Last Quarter
24/31  Parent's Day	25	26	27 ***Learning Net*** 7:30pm	28	29	30 New Moon

Check www.ARRL.org for Contests and Rules!

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Education		TBD		
Salvation Army Liaison	KB0BZZ	Bob Zimprich	303-400-3400	bobzz@comcast.net

DRC Repeaters

BAND	Freq / Shift / PL Tone	Additional Information
10m	29.620mHz (-100kHz) FM	Not In Service
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	**NE Area Remote Does Not TX a PL!**
1.25m	224.380mHz (-) 100Hz PL	
70cm	448.625mHz (-) 100Hz PL	**Linked to the 2m - 145.490mHz machine.**
70cm	449.350mHz (-) 100Hz PL	**Wide area coverage with Echolink Node # 4140.**

Editor's Note

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**