



The Repeater

Next Club Meeting

Thursday,
June 4, 2015, 7:00 PM

Red Cross Building,
60 Hawthorne St., Medford, OR
Across from Hawthorne Park

Program: Field Day 2015,
Demonstration

Volume 2015, Issue 6

June 2015

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President & Webmaster
 Vice President
 Treasurer
 Secretary
 Newsletter & Membership

President's Report

Please join us June 27, 28, and 29 for the RVARC Field Day 2015 effort! We will be setting up gear and antennas for a 4A effort. Our goal is to have fun and make available all three major modes of HF operating: voice (SSB), CW (that's Morse code!), and digital (just RTTY and PSK31).

There will be two phone stations, and two CW stations. One of the station locations will also have a digital setup.

Setup will begin Friday around 11AM, operating begins 11AM Saturday and closes 'sometime' Sunday morning with take-down to follow.

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The Repeater is the official newsletter of the Rogue Valley Amateur Radio Club, Inc. It is published 10 times a year—once per month excluding July and August.

Secretary's Report

Meeting called to order at 19:00 by Allan Taylor, K7GT, President. Secretary Carl was not present.

Visitors:

- Andreas Blech
- KG7TJK - James Baltushnik
- KG7TIC - Barbara Roberts
- WB7VUF - Lyle Hood

Announcements:

The SOARC Swapfest will be held Tuesday, May 19, 7PM, at the Grange, Grants Pass. The Coos County Hamfest/Swapmeet will be held July 18, 10AM-2PM, at the North Bend High School.

Field Day will be June 27th and 28th at the Fire Station lot next to the Dodge Bridge County park. There will be a planning meet-

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President's Report, Continued.

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There will be food available Friday evening, Saturday evening, and Sunday morning.

Even if you do not wish to operate, please come out to chat, help with logging, help set up or take down, or just look around.

Field Day 2015 will be located adjacent to the Dodge Bridge boat ramp area in a field accessible from the Jackson County Fire Department #3 station. Take highway 62 north from Medford, go through White City and Eagle Point, turn left a few miles north onto highway 234. Look for the road on the right (Rogue River Drive) immediately past Dodge Bridge itself. Pull in and park just past the fire station. There will be signs.

73 Allan K7GT

Secretary's Report, Continued.

(Continued from page 1)

ing Tuesday, May 12th at 7:00 PM at Tom's house. At a previous meeting the club voted to operate 4A.

Scott, NA7OM gave a brief rundown of the 7QP effort. Four club members participated in a multi-transmitter county expedition at the Agate Lake park.

Starting 19:10 the beginner's program on USB was given by Tom, N5EG. It covered USB 1 through USB 3.1, color codes, USB-to-serial converters, issues, and COM port identification using the Windows Device Manager.

At 19:35 we broke for coffee and cookies.

At 20:00 the main program showing Raspberry PI, with an SDR dongle feeding the R-PI via USB and an attached laptop retrieving data from the R-PI via Ethernet. The PC displayed the spectrum, tuning, and mode selection using SDR#. John also demonstrated the R-PI Linux GUI using X-windows on the PC. The presentation was given by John Armstrong, KF7UMK.

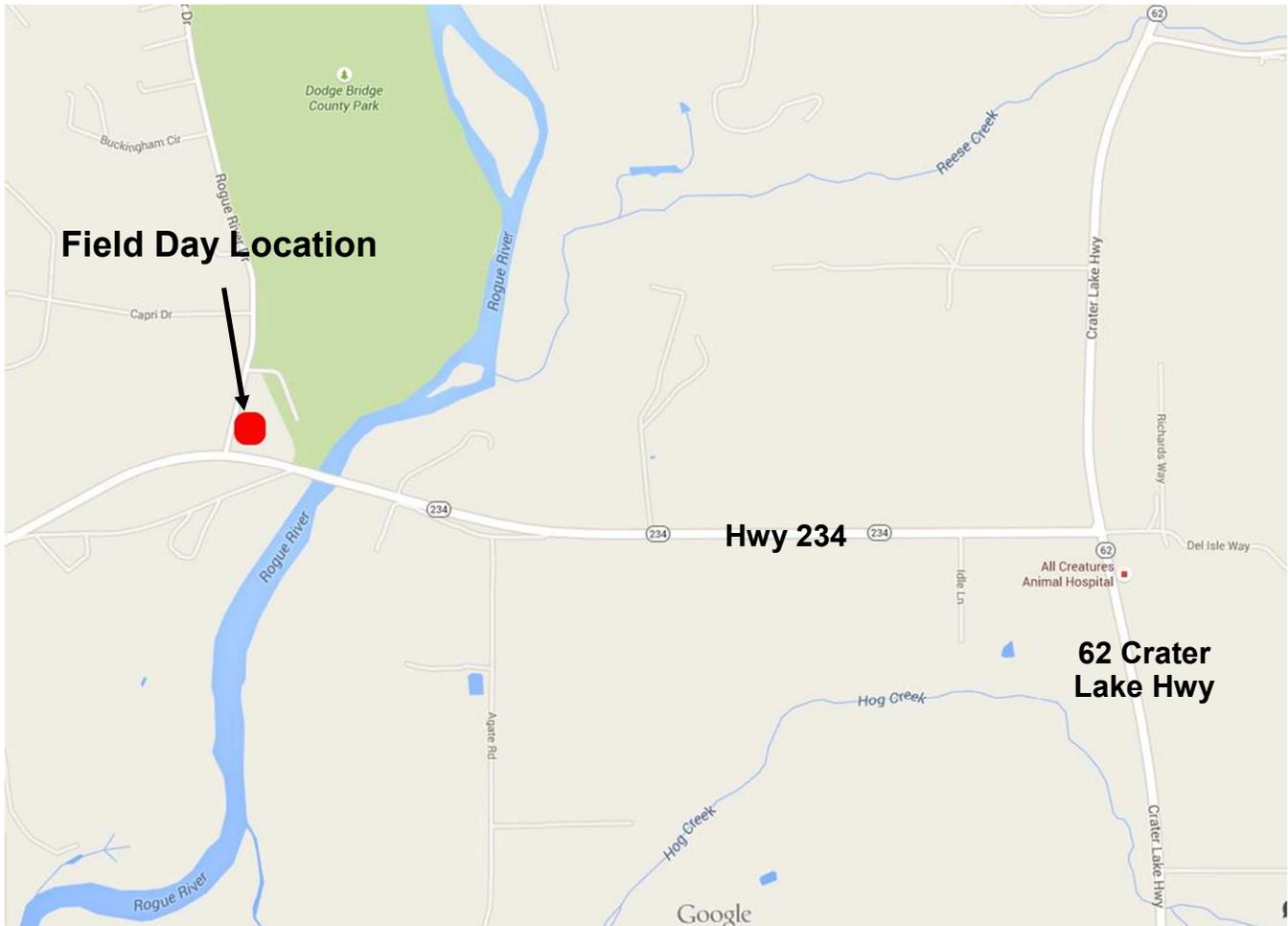
Thanks to Todd Carney, K7TFC for making coffee, bringing cookies, and cleaning up.

The meeting was adjourned at 20:45.

Submitted by Tom McDermott, N5EG in absence of Carl VanOrden, W7BRO Secretary

This Month's Program

Program — This month we will discuss Field Day 2015 plans, and will have a live demonstration of how to make Field Day contacts on Phone.



Coos County Hamfest & Swap Meet—July 18th—10:00 AM —North Bend, OR

Saturday, July 18th, 2015 from 10:00 AM to 2:00 PM

North Bend High School, 2323 Pacific Ave., North Bend, OR

Admission: \$4.00 Tables: \$15.00 Door Prizes VE Test Session

Contact:

Zane Albertson, WA7OXM (President) 541-404-6909
zane.albertson@gmail.com

Coos County Radio Club, PO BOX 698, Coos Bay, OR 97420

Talk-ins: 146.100 (-) PL 110.9
 147.280 (+) PL 146.2

Jackson County Expedition Multi/Multi K7D: 7QP Qso Party

Four members of the RVARC setup and ran a single-county expedition for the 7QP QSO party this year at Agate Lake Park.

Call: K7D

Operator(s): NA7OM
W8WOM WB6FFC KK6AM

Class: Cnty Exped M/M LP
QTH: ORJAC
Operating Time (hrs): 18

Summary:
1274 Qsos, 71 Multipliers
Claimed Score = 178,000

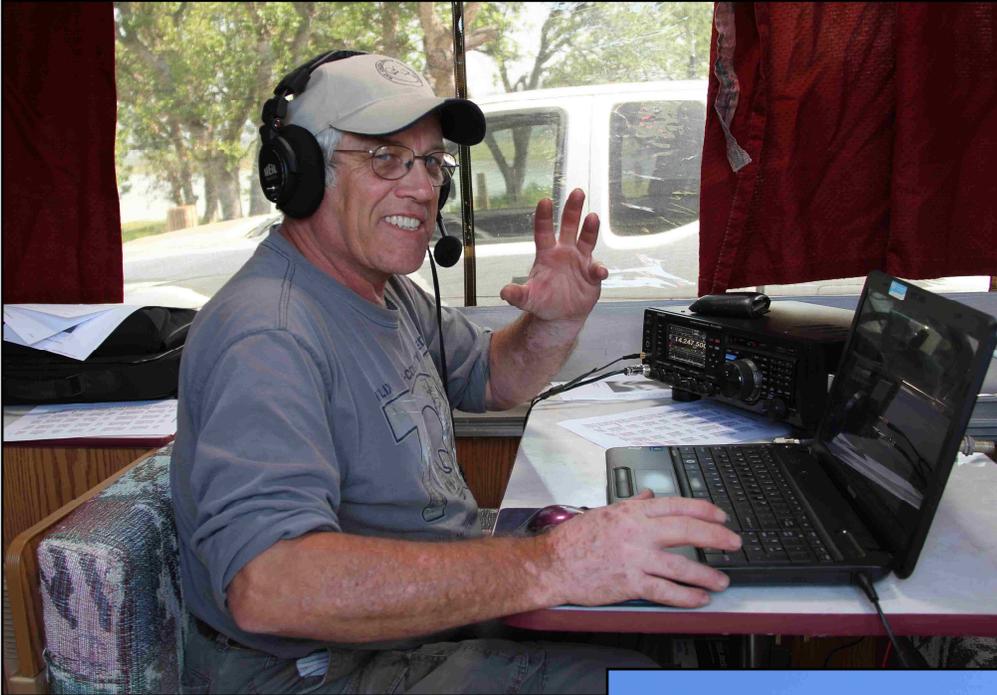
Great contest and wonderful weather! Single County Multi/Multi Low Power. Setup a triband yagi on a military mast at 58', a 40 meter in-



verted V hanging down and a killer 205BA 5el 20-meter monobander on a trailer tower on a spit of land extending into a local lake in Jackson County. Made the most of the low prop numbers by concentrating on the "money" bands of 15, 20 and 40 between two rigs.

The 20 meter monobander was a huge sight, hanging over us and was amazing! Sure was a struggle to get it up the tower but worth the exhausting effort in every respect. At times the Q's poured in like a tsunami and made the op at the bottom of it really sweat, logging fast and furious in working the pileups! Got us clear to Africa and getting into Europe was a breeze even with the low prop numbers.

Jackson County Expedition Multi/Multi K7D: 7QP Qso Party



Got the first QSO in the hopper at 2 minutes after starting time and the last on 40 meters at 3 minutes to 12 midnight before closing up shop and grinning ear to ear! We had planned for mixed...oh well. Our CW guy got lost and couldn't find the place! Made us hustle for Q's for a upside. Thanks for every QSO in the log everybody. We're do it again next year!

Scott, NA7OM



Comparing Yagi Antennas, Scott Cummings, NA7OM

Hmmm, seems to me in researching what's best out there in the yagi antenna market, one must bear in mind always the saying "caveat emptor". So many designs, materials, methods of matching and specifications given by the antenna companies are indeed hard to understand, and all of which are competing for your hard earned ham hobby dollars with glossy propaganda and sweet sounding specs, tempting the imagination of far off DX sounding in your headphones like your neighbor's rig just down the street.

With 3 element triband yagis going for 600 bucks and up, oh....did I mention UP? There's no doubt such an endeavor could be akin to buying a car. It's a good idea to shop around. And what about that used pile of aluminum you found at the hamfest. Are you sure it's a good deal? If you can find the time to clean it up and assemble it, it's certain to be less expensive than a new one but really..... what do you have? Short of lumping antenna sales engineers in the same league as used car salesmen, "trust me kid, no

There are some immutable facts one can rely on while looking at published gain figures. One, that an isotropic antenna is truly imaginary, does not exist in nature and has zero dB gain. And two, a simple half lambda dipole which does exist, has a theoretical gain figure of 2.15 dBi as referenced to an isotropic antenna. Ha! That quarter wave vertical in the backyard does have "gain"! So, one could compare dBi and dBd as akin to a city and highway gas mileage sticker on the window of an old clunker found on a car lot. Yup, the adage that your mileage will vary, with your antenna and your own vehicle is true also. Interestingly enough, you can hear old salts talk about antenna gain on various models, and be assured that hearing "my 5 element Desoto has more gain than your 2 element Geometro" has for such, a bit of truth to it. But the figures are compared to what, would be the correct question to think. Truly as in any such advertisement, apples can be oranges too!

HyGain TH5			
HF Beam Antenna Bands	Beam Antenna Gain: dBi, dBd	Beam Antenna F/B (dB)	Bandwidth at 2:1 SWR
20 meters	7.8 dBi, 5.65 dBd	24.0 dB	450 kHz
15 meters	8.0 dBi, 5.85 dBd	27.0 dB	350 kHz
10 meters	9.0 dBi, 6.85 dBd	24.0 dB	1,500 kHz

need to kick the tires and look under the hood, take my word, she purrs like a kitten and the gain figures are like....unreal....." kind of gives a feel for what you're up against. Compound that with wading thru all the reviews, personal opinions and spec sheet data one can access on the internet for any given antenna. The whole thing can be a daunting task and still leave you confused.

Case in point. Take a look at the antennas and their stated gain figures from copied spec sheets found on the internet that we are thinking on using for field day this year. What's the funny part? Some are gain inflated by referencing an isotropic antenna, some at least reference a halfwave dipole and some just "ballpark" it with an average in dB's with nothing referenced!

Comparing Yagi Antennas, Scott Cummings, NA7OM

TH3MK4 Gain: 5.8 dBd (avg.)

HYGAIN TH3MK3 (above, missing gain breakdown on 10,15 and 20 referenced to dBi-dBd in spec sheet)

HYGAIN 205 (from original published specs.)

20 meters: Power gain 8.65 dBi 6.5 dBd
F/B 18dB min. 31 dB max.

60 degree half power bandwidth

Mosely TA-33-M	
Frequency, MHz	28, 21, 14
Power Rating, watts CW	500
Power Rating, watts SSB	1200
Power Rating, AM/FM	250
Power Rating, RTTY/AMTOR	250
VSWR at frequency	1.0/1 to 1.6/1
Forward Gain, dBd 10 meters	8.0
Forward Gain, dBd 15 meters	6.8
Forward Gain, dBd 20 meters	5.8
Front-to-Back Ratio, dB 10 meters	20
Front-to-Back Ratio, dB 15 meters	20
Front-to-Back Ratio, dB 20 meters	20

Mosely TA-32-JR-N	
Frequency, MHz	28, 21, 14
Power Rating, watts CW	500
Power Rating, watts SSB	1200
Power Rating, AM/FM	250
Power Rating, RTTY/AMTOR	250
VSWR at frequency	1.0/1 to 1.6/1
Forward Gain, dBd 10 meters	5.5
Forward Gain, dBd 15 meters	4.5
Forward Gain, dBd 20 meters	3.1
Front-to-Back Ratio, dB 10 meters	20
Front-to-Back Ratio, dB 15 meters	20
Front-to-Back Ratio, dB 20 meters	20

From Antennas, by John D. Kraus, W8JK, McGraw-Hill, 1950 edition:

"Although there is variation between different designs and the way Yagi-Uda antennas are constructed, it is possible to place some very approximate figures for anticipated gain against the number of elements in the design."

Approximate Yagi-Uda antenna Gain levels from Kraus.

Total Elements	Expected Gain, dBd
2 elements	5 dBd
3 elements	7.5 dBd
4 elements	8.5 dBd
5 elements	9.5 dBd
6 elements	10.5 dBd
7 elements	11.5 dBd

In conclusion, the concise Oxford English dictionary defines "verify" as "to make sure or to demonstrate that something is true, accurate or justified. I'm just as confused as when I started! Maybe it's better just to say, if you hear them on whatever you have in the air, you might be able to work them! Next installment, Building your very own antenna test range using your home computer's sound card and free downloadable software.

Gain is also dependent on boom length, which is why the actual antennas show more gain at higher frequencies, where a given boom length represents a longer distance in terms of wavelength.

Scott, NA7OM

June 2015

Sun Mon Tue Wed Thu Fri Sat

	1	2	3	4 • RVARC Club Meeting • Women Hams Net • ARES Net.	5	6
7	8 • Women Hams Net	9	10	11 • Women Hams Net • ARES Net.	12	13
14	15 • Women Hams Net	16	17	18 • Women Hams Net • ARES Net.	19	20
21	22 • Women Hams Net	23	24	25 • Women Hams Net • ARES Net.	26 • Field Day Set-up begins	27 • Field Day
28 • Field Day	29 • Women Hams Net	30				

Events

- Saturday and Sunday June 27—28. Field Day. Fire Station #3 next to Dodge Bridge Park See this newsletter for details.
- Thursday June 4th - 7:00 PM RVARC Meeting. Red Cross Building Medford.
- Tuesdays & Thursdays 7:00 PM—Women Hams Net K7RVM Repeater 147.000 (+) [PL 123.0]
- Thursdays 7:30 PM - ARES Net. K7RVM repeater 147.000 (+) [PL 123.0]
- Next Newsletter: September Issue. Deadline for input: August 20th.

RVARC Membership

RVARC membership dues run from January 1 through December 31. Please bring cash or a check payable to RVARC to a club meeting, or mail (checks only) to:

RVARC Membership
c/o 1058 Linda Ave.
Ashland OR 97520

Regular Member:	\$20.00
Senior Member (62 and over):	\$15.00
Family Member:	\$20.00
Student Member:	\$10.00

Next Issue: September

The RVARC Newsletter is not published, nor does the club hold meetings in July or August.

The next newsletter will be the September 2015 issue, and the next club meeting will be the annual swap meet in September.

Swap meet will probably be the first Saturday in September, but wait for the September newsletter for details.

2015 Amateur Radio Examinations

In the Rogue Valley, amateur radio exams are provided by the RVARC and the SOARC. New exam participants need to provide identification, while upgrading amateurs need to **provide a copy of their current license** as well as show identification. The exam fee for 2015 remains \$15.00. All license candidates must provide a picture ID. Upgrading amateurs must also provide a photocopy of their current license to send in with their application. To search for other exam locations, see:

<http://www.arrl.org/arrlvec/examsearch.phtml> or our club webpage: <http://w7dta.org>

Medford—Phoenix, OR

Time: Saturdays, Registration 8:30 AM. Exam session starts at 9:00 AM. Walk-ins welcome.

Location: Fire District 5 HQ. 5811 South Pacific Highway, Phoenix, Oregon 97535

Dates 2015: Jun 20 Oct 31

Contact: Don Bennett, Email: kq7bp@rfwarrior.com Phone: (541) 973-3625

Grants Pass

Time: Fridays Registration 6:00 PM. Exam session starts at 6:30 PM. Walk-ins welcome.

Location: Fruitdale Grange. 1440 Parkdale Dr., Grants Pass OR 97527-5288

Dates 2015: Aug 21 Nov 20

Contact: John Stubbe, K7VSU, email: jstubbe7@gmail.com Phone: (541) 218-2244

Roseburg, Bend, Redding, Brookings, Crescent City — Please see our club webpage, <http://w7dta.org> for updates as we receive schedules for these cities.

Next Club Meeting

**June 4, 2015, 7:00 PM Red Cross Building,
60 Hawthorne St., Medford, OR Across from Hawthorne Park
Program: Field Day 2015, Demonstration**