



# The Repeater

## Next Club Meeting

Thursday March 1, 2018,  
7:00 PM

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

Program: History of Radar

Volume 2018, Issue 3

March 2018

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President  
 Vice President  
 Treasurer  
 Secretary  
 Newsletter & Membership

## President's Letter

Can you smell that warmer weather coming? I can. That means Field Day 2018 and all the fun that comes with it. While no plans have been officially made, RVARC will likely team up with CARE and possibly JCARES for this year's event. Please contact any board member with your input on how we should participate in Field Day this year. Also, we will be needing a Field Day Honcho to walk the paper path and make arrangements.

Can you hear the sweet sound of high speed CW coming over the poles? You will this weekend for the ARRL DX CW contest. I am getting set for the fun. The SSB version follows in a few weeks, too.

Warmer weather also means radio support  
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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

2018-02-01 February Rogue Valley Amateur Radio Club Minutes

President Allen Taylor, K7GT, called the meeting to order at 7pm. 27 members and 3 guests were present.

### Guests:

- David Rose, KB7A, was at JPR for 7 years.
- Rickard Van Hoose, WB6HII, runs IRLP node #3560 at 147.445, PL 103.5
- Carrie Sammons, the Red Cross interim Disaster Program Manager, said the Red Cross Administrative Offices were going to move by around Feb. 28, as the building is being sold to United Way. As far as she knows, RVARC could still hold meetings here for maybe 6 more months.

Old Business: The Cascade Amateur Radio Enthusiasts (CARE) dual membership option

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## President's Letter, Continued.

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needed for various races and events. The Wild Rogue Relay is the weekend before Field Day and the Pine to Palm endurance race is in early September. Both are loads of fun and a good excuse to play radio and do an all-nighter.

While the club has a temporary reprieve as to using the Red Cross building for a few months, our future location is not certain. So, I would propose moving up the RVARC Swapmeet, usually held in late August, to a date in late May or early June. Perhaps Memorial Day weekend Saturday? or a weekend in June before Field Day? The idea here is that the Red Cross building and parking lot is perfect for the swapmeet and a replacement may not be as convenient. For example, if we use the library meeting rooms (a possibility) a swapmeet just doesn't work there. Thoughts?

Well, back to working out details before the big contest.

Allan K7GT

## Secretary's Report

*(Continued from page 1)*

is in process, and a Family membership option was discussed. Perhaps an extra \$5 or \$10 dues for dual membership over single, and maybe \$5 extra for Family membership was considered.

Past President, Scott Cummings, NA7OM, wondered if anyone wanted to vote for a past-president's stipend. The room became silent. (No motion was made).

New Business: It was reported that the Red Cross building would probably be sold to United Way within the next 60 days, so the challenge was made to be looking for other possible locations to hold the club meetings. Currently, club donations to the Red Cross of about \$250-\$300 per year have been made for use of the room.

Treasurer's Report: Mike Bach, WB6FFC, reported that the 2018 officer changeover caused the bank to require that the club be registered as a non-profit with the state, and that was accomplished. Bank balance was \$5005.04 and there was \$100 in petty cash.

Business completed at 7:20pm.

Programs:

7:20-7:50pm: A summary of programming the Ubiquiti Nanostation M2 for use as a wi-fi mesh network node was presented by John Armstrong, KF7UMK, and some discussion ensued regarding the Rogue Valley Mesh Networking node-rollout effort currently underway. More info will eventually be available at the [roguemesh.org](http://roguemesh.org) website.

7:50-8:05pm: Break for coffee, snacks and eyeball QSO's.

8:05-9:00pm: A tutorial on Antenna Modeling with the 4NEC2 software was presented by Tom McDermott, N5EG, and we got to

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**President's Letter, Continued.****Secretary's Report**

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see how to set up the antenna geometry and settings, for modelling some dipoles at various heights above ground. The program then displayed the feed-impedance, SWR, and 3D radiation pattern. Frequency sweep X-Y plots of impedance and SWR were also shown, as well as Smith-charts. Tom mentioned that the antenna modelling accuracy is good, but is generally an upper limit, and that any boasts of better-than-modelled real-world performance should be viewed with skepticism. Interest was shown for more tutorials on 4NEC2, and currently, a hands-on class is being offered at 6pm on Tuesday, Feb 20 at the Naversen Meeting Room of the Jacksonville Library, 340 C St.

Meeting was adjourned at 9pm and informal discussions continued on for some time.

## 4NEC2 Training Class, February 20th

RVARC will hold a training class on the installation and use of 4NEC2—the free NEC2 based antenna modeling tool.

It will be held Tuesday, February 20th from 6:00 to 9:00 PM at the Jacksonville Library, 340 C Street, Jacksonville, OR—Navensen Room.

Bring your Windows laptop computer. MAC and Linux are not supported (4NEC2 is a Windows native application)

The class will be taught by Tom, N5EG.

Outline of the class:

1. Install 4NEC2, and if desired vectorizing enhancements (optional). Should work on Windows XP through Windows 10. MAC and Linux are NOT supported. The optional Vectorizing enhancements (speeds up analysis by 6x - 10x) requires that your CPU support SSE2 instructions.
2. How to operate 4NEC2.
  - A. Antenna geometry input and errors.
    1. Wires, segments, wire thickness, resistance.
    2. Sources and loads.
  - B. Analysis
    1. Frequency sweep (i.e. VSWR vs. frequency)
    2. Pattern.
    3. Comparison between two antennas
    4. Matching networks.
    5. Visualizing antenna current.
  - C. Pattern visualization in 3D.
  - D. Optimization (if time allows).

## For Sale / Wanted

FOR SALE:

Cushcraft R9 All-Band vertical antenna. Covers 6 through 80 meters. Brand new, in unopened box from manufacturer.

Manufacturer's R9 web page:  
<http://www.cushcraftamateur.com/Product.php?productid=R-9>

Be sure to see the YouTube video showing easy erecting by one person. Tilting base mount included. Ideal Field Day antenna. Fits a small lot easily. May be mast mounted. No ground radials required for low SWR. We'll schedule delivery within 24 hours of purchase in Jackson County.

Discounted price (Jackson County delivery included) \$500.00 cash only (new price: \$639.95.)

Contact: Bill Anderson, KU6Y.  
(541) 857-6258

## This Month's Programs

### 1. History of Radar

**NOTE:** This program was originally scheduled for the February meeting, but due to time constraints was not able to be presented. We have tentatively re-scheduled it for March. If it is not given in March then we will substitute a contingent program on either:

- Transmitter non-linearity, distortion, and spectral widening, or else a presentation on
- The use of ferrites to make common-mode feedline chokes.

Either of these would perhaps use presentation material written by Jim Brown, K9YC.

- **Program:** History of Radar, beginning from World War 2. Mike has access to the MIT Rad Lab journals dating from the time of the invention and industrialization of Radar, an incredible resource. Much of the technology was heavily classified during WW2, and declassified in later years.
- **Biography:** Mike Bach currently is an engineer at Scala/Kathrein systems working on antennas. Mike has a wide collection of interesting RF hardware, from HF to Microwave, including high power RF.

### Programs Planned for 2018 (subject to change):

- **March:** History of Radar
- **April:** FT8 & WSJT-X Presentation and Demonstration
- **May:** TBA
- **June:** TBA
- **September:** TBA
- **October:** TBA
- **November:** TBA
- **December:** TBA

# March 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 • <b>RVARC Club Meeting</b>	2	3
4 • CP ERC Net	5 • CARE Net	6 • 2M SSB Net	7 • 2M SSB Net	8 • Rogue Hack Lab • ARES Net	9	10
11 • CP ERC Net	12 • CARE Net	13 • 2M SSB Net • CARE Meeting	14 • 2M SSB Net	15 • ARES Net • Sis-Q ARC Net	16	17
18 • CP ERC Net	19 • CARE Net	20 • 2M SSB Net	21 • 2M SSB Net • JCARES Meeting	22 • ARES Net • Sis-Q ARC Net	23	24
25 • CP ERC Net	26 • CARE Net	27 • 2M SSB Net	28 • 2M SSB Net			

## Events

### Meetings

- **RVARC** Thursday, March 1st — 7:00 PM Red Cross Building Medford.
- **Rogue Hack Lab** Thursday March 8th — 6:30 PM , Medford Library
- **CARE** Tuesday, March 13th — 6:30 PM —New Far East Restaurant
- **JCARES** Wednesday, March 21st — 6:00 PM —Jackson County Sheriff's Office on Crater Lake Highway

### Nets

- **ARES** Thursdays 7:30 PM - K7JAX Mt. Baldy Repeater 146.840 ( - ) [ PL 123.0 ]
- **CARE** Mondays 7:00 PM— KB7SKB Jacksonville Repeater 147.100 ( - ) [PL 136.5], open, directed net, visitors welcome
- **2 Meter SSB** Tuesdays 7:00PM and Wednesdays 10:00 AM—144.200 USB
- **Central Point Emergency Radio Communications** Sundays 8:30 PM— KB7QMV Medford Repeater 145.410 ( - ) [ PL none]. Move to simplex net on 147.585 MHz when finished. Directed net.
- **Siskiyou County ARC** Thursdays 7:00 PM—Net K6SIS Repeater 146.79 ( - ) [PL 100.0]

## 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 1940 Stevens Rd.  
Eagle Point OR 97524-6523

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

## For Sale / Wanted

Be sure to visit our club's Sell / Swap webpage for more items.

<http://w7dta.org/sellswap/>

## 2018 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 2017 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 at 9:00 AM. Walk-ins welcome.

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

**Dates 2018:** Feb 24 Jun 30 Oct 27

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

### **Grants Pass**

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

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

**Dates 2018:** Feb 16 May 18 Aug 17 Nov 16

**Contact:** John Stubbe, K7VSU, email: [jstubbe7@gmail.com](mailto: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***

**Thursday March 1, 2018, 7:00 PM**

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

**Program: History of Radar**