



# The Repeater

## Next Club Meeting

Thursday June 7, 2018,  
7:00 PM

New Red Cross Building,  
1050A Crater Lake Ave, Medford.

### Programs:

- 1) Portable Operating
- 2) Solar Power Basics

Volume 2018, Issue 6

June 2018

Allan Taylor K7GT (541) 855-2054  
 John Laybourne W8WOM  
 Mike Bach WB6FFC (541) 830-3346  
 John Armstrong KF7UMK (541) 899-1917  
 Tom McDermott N5EG (541) 734-4675  
 Club Web Page:

[k7gt@arrl.net](mailto:k7gt@arrl.net)  
[w8wom@hotmail.com](mailto:w8wom@hotmail.com)  
[eaglepoint.or@juno.com](mailto:eaglepoint.or@juno.com)  
[john@kf7umk.com](mailto:john@kf7umk.com)  
[n5eg@tapr.org](mailto:n5eg@tapr.org)  
<http://w7dta.org>

President  
 Vice President  
 Treasurer  
 Secretary  
 Newsletter & Membership

## President's Letter

There is a Chinese curse that goes as follows: May you live in interesting times.

We have, to some extent, been living that. First it was the Red Cross building on Hawthorn being sold to United Way. We worked out access to a room in their new facility but it turns out to be 'just barely' big enough, marginal air conditioning, and with poor parking. We investigated the CAP facility and it, too, has issues. We are still looking...

Then the ScienceWorks folks added a significant fee to what had been a freebie for two years. It has been negotiated down from \$450/day for 3 days to \$450 for the 3-day event.

*(Continued on page 2)*

*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

RVARC Minutes 2018-05-03 meeting at the New Red Cross Building, 1050 Crater Lake Ave, Medford.

Program1: How to broadband an 80M dipole  
 Program2: CW & Morse Code

Meeting was called to order at 7:04pm by RVARC President Allan Taylor, K7GT. About 23 members and guests were in attendance.

There was some discussion of finding an alternate location for RVARC meetings, as the new Red Cross meeting room was a bit small and hot, and parking was limited. Nothing better was found as yet.

Regarding our Field Day location, Mike Bach, WB6FFC, said that ScienceWorks will require a fee this year, and he is waiting to hear the amount. The Ashland city permit paperwork has been started.

*(Continued on page 2)*

## President's Letter, Continued.

*(Continued from page 1)*

Still, that smarts. The RVARC board met recently and decided to go with ScienceWorks with the understanding that the other ham radio groups will assist in covering the fee.

Hopefully we can find a longer term meeting facility by fall. The Field Day plan for 2019 will be at another venue, perhaps Agate Lake county park or the like.

Please join us for Field Day in Ashland, enjoy our wonderful hobby and the upcoming summer.

Allan Taylor, K7GT

**Editor's Update — it appears that ScienceWorks may be able to drop the activity fee for RVARC Field Day this year. That's the best unverified information available as of publication date — 5/24/2018.**

## Secretary's Report

*(Continued from page 1)*

If we intend to use the 20x40 tent, Mike will investigate if permits are needed.

Other locations mentioned were Dodge Bridge, but it has some bureaucratic problems. Agate Lake was also a possibility.

The East side of Agate Lake will be the location for this month's 7QP contest, May 5&6. It will start at 6am Saturday.

Treasurer's report: Bank balance is \$4076.17

Scott, NA7OM, made a motion to allocate \$150 of club funds for 7QP expenses. Raoul, KD6DKA, seconded. The motion passed on voice vote.

At 7:21pm, 1st Presentation: 'How to broadband an 80M dipole' by Tom, N5EG. There are two categories to consider, and their 4 combinations: Easy/Difficult to deploy and Works/Doesn't Work well. For the 80M band, we need about 13.5% bandwidth and a regular dipole gives high SWR at the band edges.

Some options are:

Use a wire cage: 3' diameter cage, 130' long. Too big, too heavy.

Use a Double Bazooka: twice 43' coax + end wires. High wind load, Solar deterioration, not good.

Use an Open Sleeve Dipole: Needs a 9:1 balun, fair SWR over band. (reference: Rudy Severns, N6LF)

Use a Terminated Folded Dipole: 800 ohms impedance, 13dB loss at 80M, : 950W lost per 1kW of input power.

Use 3dB Resistive Attenuator: 3dB max loss, < 3:1 SWR over the band.

Use Coax Broadband Matching: < 2:1 SWR over the band, ~1dB loss, noisy without balun. Easy and Works Well. (reference: "A simple broadband dipole for 80 meters", Frank Witt, A11H, p1k.arrl.org/cgi-bin/topdf.cgi?id=88700&pub=qst ) The antenna proper is

*(Continued on page 3)*

## Secretary's Report, Continued

*(Continued from page 2)*

a center-fed half-wavelength dipole with a 1:1 current balun at the feed-point, and the transmission line is segmented into an electrical one wavelength of 50-ohm coax and an electrical quarter wavelength of 75-ohm coax at the transmitter end. See Frank Witt's document online for all the details, or your QST, Sep 1993 issue.

At 7:41pm break for coffee and visiting

At 8:05pm, 2nd Presentation: CW & Morse Code, Allan, K7GT. (reference: New Morse presentation May 2018.doc, available from Allan.)

Original Morse code invented by Samuel F B Morse around 1840. It had dot, dash, long dash, and very long dash. Original Morse became known as American Morse, and used the sounder (click-based). Original Morse was changed into Continental Morse in 1865, then became International Morse, which was tone-based. American Morse remained the standard for U.S. landline telegraph companies, as it could be sent about 5% faster than International Morse, and was used for railroad telegraphy in the United States through the 1960's.

CQD had been the maritime distress signal but had proven difficult for green operators. At 12:15 AM on Apr. 15, 1911, the main operator of the Titanic (Phillips) used SOS for the first time.

Weak signal S/N limits in a 2.5KHz BW (From: "Work the World with WSJT-X", Dr. Joe Taylor):  
SSB +10dB, CW -15dB, FT8 -21dB, JT65 -25dB, WSPR -31dB  
Biggest improvement is going from phone to CW.

Types of keys:  
straight : classic up/down manual keyerbug : semi-automatic, dot streams were automatic, dash was manual. (Vibroplex) electronic:

originally single lever, tube operated from the 1940's, solid state from the 1960's, IC based from the 1970's. Keyboard : keyboard to code output via computer logging program, usually iambic : double paddle, if both paddles held closed simultaneously it would send alternating dahs and dahs.

Radios in the 1980's started having internal keyers, but the best external keyers are better. Newer radios have serial-port or USB inputs for keying.

At higher code speeds of above 15 wpm, headphone use becomes mandatory, due to reflections from walls confusing things. Use comfortable headphones, like Sony MDR-V600.

The ins-and-outs of QSK, or full break-in, operation was gone over, and some equipment reviews and recommendations were made. Get the MSWord document from Allan for all the details.

Learning and becoming proficient with CW / Morse:

1. Start young. Sorry, too late?
2. K7QO has a Morse course.
3. Learn by the sound of the characters.
4. Help from SKCC and FISTS CW club.
5. For higher speed help, CWOps and their CW Academy (long waiting list, though)
6. Get on the air and use it. Tech licensees have CW privileges at 200W for 3525-3600, 7025-7125, 21025-21200, 28000-28300 kHz, and in VHF and UHF bands. Also lots of room for local play on all VHF CW sub-bands. There is significant slow speed activity above 7100 kHz.
7. Go back to 6. Get on the air.
8. Once you have mastered the basics, any of the following trainers will push you along when the bands are dead:
  - a. Just Learn Morse Code ( [www.justlearnmorsecode.com/](http://www.justlearnmorsecode.com/) )
  - b. RufzXP ( [www.rufzxp.net/](http://www.rufzxp.net/) )
  - c. Morse Runner ( [www.dxatlas.com/](http://www.dxatlas.com/) )

*(Continued on page 4)*

## Secretary's Report, Continued

*(Continued from page 3)*

morserunner/ )

d. Seiuchy ( Seiuchy.macache.com )

Allan ended with: CW has a personal touch that digital modes seldom if ever have. After all, it is people rather than machines that matter. Join me in the CW band segments...

At 8:52pm, there was a chance to get hands-on with a table full of keyers and have some Q&A. Comments brought out that having music training in elementary school helped in code learning. And 16 weeks for 0 to 20 wpm with 99% accuracy.

Meeting adjourned at 9:00pm

## Board Meeting Minutes

A board meeting was held 7:00 PM on Monday, May 14 to decide which Field Day location to use. Board members in attendance were : Allan Taylor, President, John Laybourne, Vice President, Mike Bach, Treasurer, and John Armstrong, Secretary.

The locations considered were : 1) ScienceWorks in Ashland, and 2) The west side of Agate Lake (not the same location as 7QP) . Allan started with a list of the pros and cons for each location. The list of Pros for the ScienceWorks location was quite a bit longer than the one for Agate lake. The biggest issue for the ScienceWorks site is the fee they will charge this year.

Two RVARC members have offered to reimburse RVARC for it's pro-rata portion of the ScienceWorks fee for this year. Based on that the board decided to go with ScienceWorks this year only, and will look for a different location in future years.

Mike was asked to start immediately on getting the insurance paperwork designating ScienceWorks as the named insured for the Field Day weekend.

The west side of Agate lake has a much larger parking area, vehicle turn around and open space than the east side. It may prove suitable for future years. It was not available for 7QP weekend due to an RC Airplane event previously scheduled on the west side that weekend.

The board asked the newsletter editor to run a notice in the Newsletter that there would be a vote at the June meeting authorizing non-recurring Field Day expense(s) exceeding \$150.

The board meeting was adjourned at 8:03 PM.

## Searching for New Meeting Location

The Red Cross has been good to work with over the years, RVARC has been meeting in their facilities for almost 20 years thanks to the effort of Herb Grey, W7MMI, and others.

The new Red Cross facilities however are a lot smaller than the old location, so the meeting room is filled up pretty tightly.

The club officers and board members have been working to locate some other alternates for our club meeting.

Some of the criteria that seem important are:

1. Adequate size of the meeting room.
2. Permission to make and serve coffee at the meeting.
3. Adequate parking.
4. Not too expensive.

If you have ideas or suggestion for a new facility, the club would appreciate your input. Please email our club president, Allan Taylor, K7GT at:

[k7gt@arrl.net](mailto:k7gt@arrl.net)

## NOTICE of Vote(s) at June Meeting

The Rogue Valley Amateur Radio Club (RVARC) will conduct a vote or votes at the June 2018 meeting to authorize non-recurring expense(s) for Field Day activities in an amount that will exceed \$150.

## 7QP 2018 K7D Agate Lake Wrap-up

The club operated 7QP at Agate Lake park this year, on the peninsula on the east side of the lake. That part of the park is less used than the main area on the west side of the lake. The week of 7QP is the same week that a Radio-Control model airplane event occurs, so the west side was busy.

the 70's, maybe low 80's. We operated one phone and one CW station as K7D. Allan Taylor merged the logs and sent in the entry to the 7QP team. The due date is creeping closer and closer to the actual contest date as electronic logging and submissions make paperwork largely a thing of the past.



These days, most plane RC control is done on 2.4 GHz., there were no interference issues notes with the HF station.

Mike Bach brought his 30-foot tower/Hazer combination and his 205 BA 5-element 20m yagi. WE use a dipole fo 40m, and an off-center fed dipole of 80m.

All of the operations were on 80/40/20 this year, and the number of contacts possible on 15m did not warrant the additional antenna work. 10m would likely yield few or no contacts.

Setup was on Friday afternoon. The weather was fabulous on Saturday (it's a one-day contest), sunny and perfect temperatures in

There were the normal glitches in logging setup. Some notes for next time regarding N1MM:

- All stations need to select the same entry category.
- All stations need to be setup as in-region.
- The mode needs to be set properly on each computer.
- The computer needs to be set to the correct time and date (probably dead CMOS battery in that laptop).

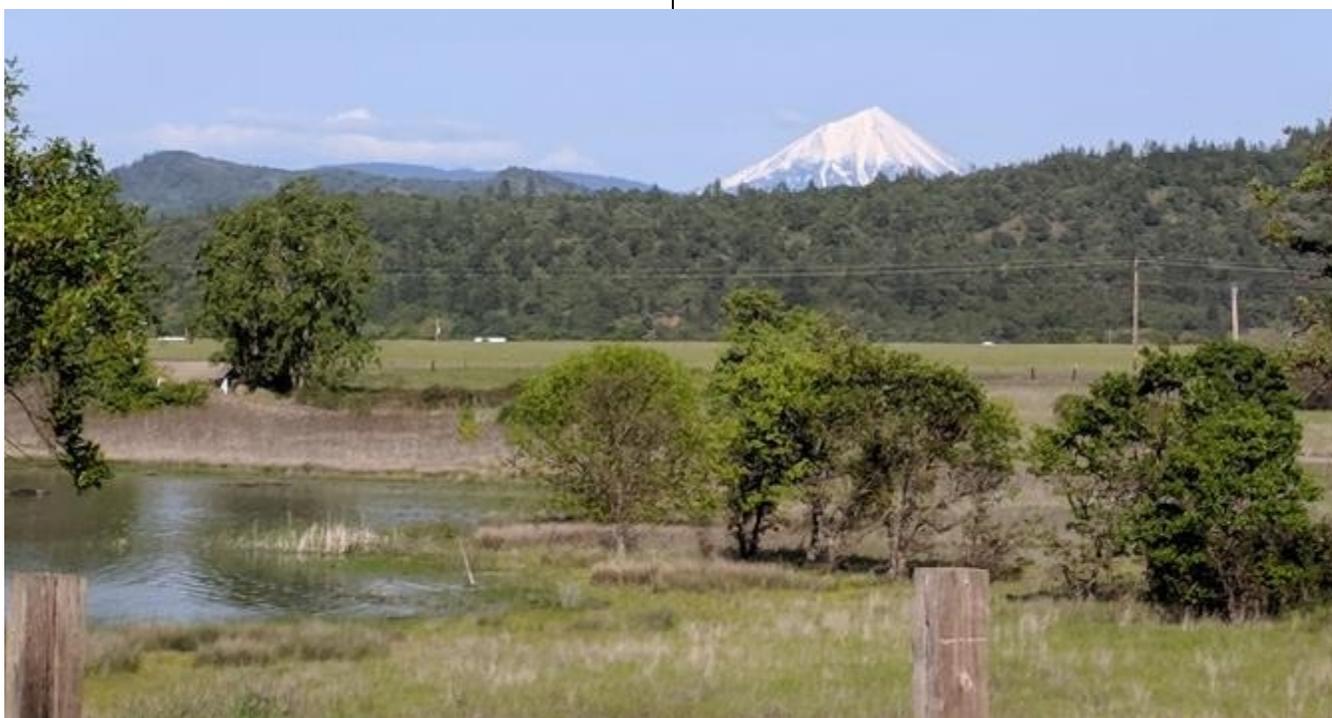
We got some good runs going on 20 meter phone during the afternoon, and the CW station did well most all the time. A high-performing 40m antenna (yagi) is really a

*(Continued on page 7)*

## 7QP 2018 K7D Wrap-up

requirement during this part of the sunspot cycle to have decent scores, and 80m needs serious attention. Thanks to Mike for cook-

ing! Photos taken by Amy Haptonstall, KG7GP, and by Tom, N5EG.



## This Month's Programs

### 1. How-To: Portable Operating

- **Program:** This How-To program will show portable operations. Allan has a lot of experience in mountain-topping, river rafting, and other adventures where he has brought along Amateur Radio. Allan will discuss antennas, radios, power, packing, etc.
- **Biography:** Allan Taylor, K7GT is the club president.

### 2. Solar Power Basics

- **Program:** FSolar power is used more and more for portable and Field Day operation, in addition to everyday tasks such as maintaining battery charge on infrequently-used vehicles, remote repeater stations, and many others. The program will cover the basics of solar power, charging batteries, and discuss some available products. John will bring along some units for show and tell.
- **Biography:** John Armstrong, KF7UMK is the club secretary.

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

- **September:** TBA
- **October:** TBA
- **November:** TBA
- **December:** TBA

# June 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 • CP ERC Net	4 • CARE Net	5 • 2M SSB Net	6 • 2M SSB Net	7 • <b>RVARC Club Meeting</b>	8	9
10 • CP ERC Net	11 • CARE Net	12 • 2M SSB Net • <b>CARE Meeting</b>	13 • 2M SSB Net	14 • <b>Rogue Hack Lab</b> • Sis-Q ARC Net	15	16
17 • CP ERC Net	18 • CARE Net	19 • 2M SSB Net	20 • 2M SSB Net • <b>JCARES Meeting</b>	21 • ARES Net • Sis-Q ARC Net	22	23
24 • CP ERC Net	25 • CARE Net	26 • 2M SSB Net	27 • 2M SSB Net	28 • ARES Net • Sis-Q ARC Net	29	30

## Events

### Meetings

- **RVARC** Thursday, May 3rd — 7:00 PM, New Red Cross, 1050A Crater Lake Avenue
- **Rogue Hack Lab** Thursday May 10th — 6:30 PM, Medford Library
- **CARE** Tuesday, May 8th — 6:30 PM —New Far East Restaurant
- **JCARES** Wednesday, May 16th — 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 2018 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:** Jun 30 Oct 27

**Contact:** Don Bennett, Email: [kg7bp@rfwarrior.com](mailto:kg7bp@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:** 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 June 7, 2018, 7:00 PM**

**New Red Cross Building, 1050A Crater Lake Ave, Medford.**

**Programs: 1) Portable Operating 2) Solar Power Basics**