K7MFR
AMATEUR RADIO CLUB
Rogue Valley
SINCE 1936 — MEDFORD, OREGON

The Repeater

Volume 2022, Issue 3   **March 2022**

Club Notes

The March meeting will be held in-person at the Jacksonville Branch library at 340 W C St. in Jacksonville.

Masks are required.

COVID case counts have been very rapidly decreasing in our area, enabling in-person meetings. Oregon state law still requires masks to be worn at indoor events. Jackson County Library Services also requires masks inside.

The library is located at 340 W C St. in Jacksonville.

The program has not yet been announced.

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

2022-01-06 RVARC Meeting Minutes

RVARC meeting minutes 2022-02-03

7:00 pm meeting began, 11 attendees on Zoom

No treasurer's report this month.

Not much action at Winter Field Day: Allan, K7GT, had no contacts, Luke, KJ7BKH, got one contact.

Scott, NA7OM: No possibility for Hyatt Lake for Field Day 2022. Meanwhile, he is going to the Philippines this Summer, hopefully with his DU License, if it can be obtained.

7:20 pm Presentation on Power over Ethernet by Tom, N5EG

Tom's slide deck is available at: k7mfr.org/files/Power-over-Ethernet.pdf

(Continued from page 1)

The presentation went over common applications, history, the 3 types of POE, the injection modes, power capacities & negotiation, pinouts and wiring, and links to available standards documents. Very good information there for modern networking.

7:54 pm End presentation

Discussion:
The POE++ standardization took a long time to complete due to difficulty achieving consensus, but it should have a long lifetime thereafter.
Spanning Tree Protocol (STP and RSTP) will break topological loops in Ethernet local area switched networks so that infinite feedback loops don't occur. [Ed Note: Ethernet floods a network when it doesn't know where to send a packet, as opposed to IPv4 which drops the packet.]
Ethernet switches build tables of MAC-source-address to physical-switch-port correspondences. They don't switch on IP address. [Ed Note: all end computers need to keep track of devices on the local subnet using the Address Resolution Protocol (ARP). The gateway address is used to route packets not destined for the local subnet].
The 48-bit Ethernet MAC addresses are not globally unique anymore.
Carrier-grade NAT on IPV4 (NAT 444), like in Starlink, breaks inbound routing because ports now map to different customers, rather than just services. CGNAT allows one IPv4 address to be shared by up to 128 different unrelated customers. It's a very painful band-aid to work around Ipv4 address exhaustion. It breaks a lot of stuff.
4in6 allows edge IPV4 addresses to be routed over IPV6 backbones. IPV6, proposed in the 1990's, still hasn't become heavily used at the home equipment level.
100/1000 CAT5e/CAT6 Ethernet cables can be as long as 100 meters between switches.
Border Gateway Protocol (BGP), is used by Internet Service Providers (ISP's) to adver-

tise network reachability to others (competitors sometimes) without having to disclose their interior network topology. The whole ISP network is seen as one Autonomous System (AS).
An anecdotal story was that a recent BGP error took out Facebook's path to its DNS server, thereby preventing all tech access to it, its servers, and locking out many from its offices via the card access door locks. BGP can be a very complicated protocol indeed.

Luke, KJ7BKH:March 12-13 there will be the QSO Today convention online. (see www.qsotodayhamexpo.com)
He will give a DMR presentation there, for those interested in that mode.

8:34 pm End meeting

John Armstrong, KF7UMK, secretary

RVARC Email List

RVARC maintains a private closed email reflector for members and friends.

An email sent to the reflector will be sent to everyone else subscribed to the list.

You can also browse past messages and create new messages from the web interface if that is more convenient.

Several folks have been sent invitations, but they have expired unused.

If you are not on the list, send an email to our club webmaster, Tom, N5EG (address on the front page) and he will have googlegroups send you an invitation.

This Month's Program

1. To Be Announced (TBA)

Program:

Biography:

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March 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 • 2M SSB Net	2 • 2M SSB Net	3 • **RVARC Meeting** • ARES Net	4	5
6 • CP ERC Net	7 • CARE Net	8 • 2M SSB Net	9 • 2M SSB Net	10 • **Rogue Hack Lab Zoom** • ARES Net	11	12
13 • CP ERC Net	14 • CARE Net	15 • 2M SSB Net	16 • 2M SSB Net	17 • ARES Net	18	19
20 • CP ERC Net	21 • CARE Net	22 • 2M SSB Net	23 • 2M SSB Net	24 • ARES Net	25	26
27 • CP ERC Net	28 • CARE Net	29 • 2M SSB Net	30 • 2M SSB Net	31 • ARES Net		

Events

Meetings

- **RVARC**   Jacksonville Branch library, 340 W C St., Jacksonville, OR.
- **Rogue Hack Lab**   via Zoom.
- **CARE**   UNKNOWN status.
- **JC-ARES**   UNKNOWN status.

Nets

- **JC-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

2022 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 photo identification. **Applicants also need a Federal Registration Number (FRN) and email prior to taking the test.** The exam fee for 2022 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 2022:   **Not yet re-scheduled due to COVID-19**
Contact: Don Bennett, Email: kg7bp@arrl.net Phone: (541) 973-3625

Grants Pass
Time: Fridays Registration 6:00 PM. Exam session at 6:30 PM. **NO WALK-INS** due to COVID. Please email a reservation request to John.
Location: Fruitdale Grange. 1440 Parkdale Dr., Grants Pass OR 97527-5288
Dates 2022:   **May 20**   **Aug 19**   **Nov 18**
Contact: John Stubbe, K7VSU, email: jstubbe7@gmail.com Phone: (541) 218-2244

Roseburg, Bend, Redding, Brookings, Crescent City — Please see our club webpage, http://k7mfr.org for updates as we receive schedules for these cities.

Next Club Meeting
Thursday March 3, 2022,
7:00 PM

Jacksonville Branch Library, 340 W C St., Jacksonville, OR

Program: To Be Announced