



The Repeater

Next Club Meeting
 Thursday,
 April 4, 2013, 7:00 PM
 Red Cross Building,
 60 Hawthorne St., Medford, OR
 Across from Hawthorne Park

Program: Digital Modes and
 WSPR, Rob Locher, W7GH

Volume 2013, Issue 4 April 2013

Jeff Statchwick	W7KNX	(541) 951-0488	w7knx@arrl.net	President
Scott Cummings	KD7EHB	(541) 282-9776		Vice President
Lud Sibley	KB2EVN	(541) 855-5207		Treasurer
Allan Taylor	K7GT	(541) 855-2054	k7gt@charter.net	Secretary
Tom McDermott	N5EG	(541) 734-4675	n5eg@tapr.org	Newsletter & Membership
Dave Basden	W7OQ		dave@basden.us	Webmaster
Joe Gunderson	AF7GN	(541) 941-7186	RVARC.PIO@gmail.com	Public Info Officer
Club Web Page:			http://www.qsl.net/w7dta	

President's Letter

We were all shocked and saddened to hear about the passing of one of our members recently. Ed Vaughn, K7YLO became a silent key on March 11, 2013. Ed was a long time member of the Rogue Valley Amateur Radio Club and the Central Oregon DX Club.

One of the things Ed will always be remembered for, was his perennial 6 meter station at Field Day. It was always a pleasure to be in Ed's company and he will be sorely missed by his family and all who knew him.

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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

RVARC meeting minutes – March 2013
 The RVARC March meeting was called to order at 1700 PST, March 7, 2013, by President Jeff Statchwick, W7KNX.

Visitors :

- Heath LaRue, KF7ZSD
- Dick Melville (2nd time) KG7BRS (he has a call now!)
- Bill Shrader, W7QMU (former club president)
- Judy Shrader, KA7OFM (spouse to W7QMU) "Oregon's Fairest Maiden"

Treasurer's report: \$4321.81
 Old business: Additional FD committee members were sought. Todd K7TFC has volunteered, Thanks, Todd!

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President's Report, Cont'd.

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I would like to propose that we set up and operate the "Ed Vaughn Memorial 6 Meter Station" for Field Day in honor of his memory.

Speaking of Field Day, it will be here before you know it. If you have any input or Field Day issues you would like to discuss, the April meeting will be a good time for that.

Rob Locher, W7GH, President of the Southern Oregon Amateur Radio Club in Grants Pass will be visiting us at our April meeting and presenting information on some digital modes including "WSPR". It should be very interesting.

I hope to see you all there.

73,

Jeff W7KNX

Secretary's Report, Cont'd.

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Joe AB7GN has made 100 flyers for a Technician license class beginning 24 March 3-5PM. Joe has also been in contact with RCC, the local Model Train club(s), Jackson county fair, etc.

Issues in getting a special event permit for FD 2013 were discussed by Tom N5EG, Jeff W7KNX, and others.

New business: It was proposed and seconded for the club to purchase 'VE' pins for the several VE's now serving in the club. A set of 15 pins, allowing for a few spares, was chosen as the appropriate amount. A related item: It was proposed that the club do a bulk purchase of Tech license manuals (taking advantage of a no-shipping-charge option) to provide manuals for class participants both conveniently and at slightly lower cost. Estimated cost: \$339.94. The proposal passed unanimously.

Dan, N6WN, announced his efforts to have a local social net on 2m. This is to be on 2m immediately after the JCARES Thursday evening net. Time approximately 7:40-7:45 local time, repeater to use K7RVM 147.000, 123.0 PL. A similar net on 40m SSB was also mentioned: Jefferson noon net, 7204 kHz, local noon.

After coffee and cookies, the presentation was an "Introduction to Amateur Radio HF Operating" by Tom, N5EG, Herb W7MMI, and Jeff, W7KNX participating from his mobile setup providing live (albeit captive) contacts on 15m ssb. Several new or inexperienced ops participated using the club transceiver into a 10 db attenuator plus some clip leads (At least the SWR was low).

Submitted by Allan Taylor K7GT

Amateur Radio for Now and the Future By Joe Gunderson AF7GN, PIO

Have you ever wondered why there are close to a 1000 hams in Jackson County a great many are not active. We can trace a lot of it to ourselves, we are not supporting the new hams in manner to help them. We allow them to become a statistic and languish, instead of being active in our community.

We all remember when we first became Hams and how overwhelmed we became, and those that chose to Elmer us kept us for the most part from giving up or stupidly buying gear without knowing what we really wanted, needed or could use. They then encouraged us to learn the hobby, advance and get over our mike fright. These unsung heroes become lifelong friends as well as mentors. I would like everyone to think seriously about becoming an Elmer to someone new to the hobby and be a part of a proud tradition to serve not only our community but our fellow Ham's. And you just might garner a friend for life and who among us has to many friends.

If you hadn't noticed at the last meeting I had formed an impromptu PIO Steering Committee to assist in getting as many ideas and help find information and contacts as to raise the awareness of Ham's in the community and spark interest in our hobby. As a result of this committee we have obtained access to the Smullin Center to hold classes. The first class to be held will be the Technician Class starting on March 24th , Sunday from 3:00 pm to 5:00 pm to run 8 weeks. The books for the class are in and will be available at the start of class.

I am in contact with the Fair Grounds Director to gain access for a booth - no decision has been made.

Pear Blossom is coming April 13 and we are not needed due to cell phones.

Of course we are starting the process for Field Day to make it the best and our club # 1 in Oregon and the U.S. for our class. It is not to late to volunteer and get involved in this effort. If nothing else stop by and give us some moral support and sign in, we need the points and the supervision.

Testing was a fantastic success we had a total of 10 examinees, all either became Hams or upgraded with the following results:

- 6 new Technicians
- 2 instant upgrades to General
- 1 upgrade to general
- 1 grandfathered tech upgrade to general.

I would like to humbly thank the PIO steering Committee, KC7WWJ Jackie Wobbe, N7IXS Dale Trautman and KD7RQ Ryan LePage, who's help and ideas make this job much easier and pleasant and keep me out of the rubber room.

I would like to mention April is World Amateur Radio Day - the theme is celebrating entering the 2nd Century of Emergency Communications. There should be a lot of activity during that week on the air.

Trivia Fun Fact: W1AW Hiram Percy Maxim (sk) Amateur Radio pioneer, founder of the ARRL was also an inventor. He invented fire-arms silencers and the Maxim machine gun.

Ed Vaughn, K7YLO, SK

Joseph Edward (Ed) Vaughn, K7YLO passed away Monday, March 11, 2013 in Medford, Ore. He was born May 10, 1937 in Wilmington, Del.

Ed earned a bachelor's degree from West Virginia Wesleyan College and a master of forestry from Duke University. He served in the U. S. Army as radioman for the military police in Germany during the Berlin Wall Crisis. He spent 25 years working for the U.S. Forest Service in the Umpqua, Rogue, and Deschutes National Forests.

Amateur radio was Ed's favorite hobby. He became a licensed amateur radio operator, K7YLO, when in high school. At the time of his death he was a member of Rogue Valley Amateur Radio Club and Central Oregon DX Club.

Ed enjoyed operating VHF aurora skip when he lived in Bend, OR. He said that he almost never heard auroral reflection in Medford, being just enough further south to miss the auroral oval.

In 1994 he began his un-retirement years by planting a pear orchard on his and Nancy's family farm near Jacksonville. He became engaged in the local farming community and served as a board member of Southern Oregon Sales packing cooperative and Rogue Valley Fruit Growers' League. At the time of his death he was an associate director of Jackson Soil and Water Conservation District, a member of the Inland Rogue/Bear Creek Local Advisory Committee, and the Fresh Pear Committee of Pear Bureau Northwest. In October 2012 he was honored as a member of the Diamond Pioneer Agricultural Career Achievement Registry by Oregon State University College of Agricultural Science.

Ed was perennial fixture at our RVARC Field Days—where he operated 6m SSB. He liked to setup in his own tent and scan 6 meters. Last year did not have a good band opening, while in 2011 6m opened well but closed 1 hour before field day began. In 2010 Ed said that 6m had a great opening, and he worked quite a few stations across the west, and up to Ontario, Canada.

Ed was real gentleman, and an all around nice guy. We'll miss him.



Low Cost Software Defined Radio

At the ARRL/TAPR digital communications conference last September, and again in the January issue of QST, a low cost software defined radio (SDR) based on a European-format DVB-T (Digital Video Broadcast—Terrestrial) USB-plug in dongle were shown.

Some of the devices (originally designed for digital television reception) using the RTL2832 chipset have an undocumented mode where the chip can be taken out of TV mode and put into baseband I- and Q-mode. Additionally, the dongle has a programmable RF downconverter, allowing the device to tune from about 65 MHz up to about 1.7 GHz. Thus with the appropriate software, it can be used a receiver over that frequency range. Given the quite low cost of



Figure 1—USB DVB-T receiver with PAL connector, and PAL-to-Type-F adaptor.

these devices (from about \$20 to about \$40) it's feasible to play around with SDR technology quite quickly and easily.

Herb Grey acquired several and he loaned

me one of them to experiment with (Figure 1). I installed the SDR# (SDR sharp) software and drivers on a Windows 8 computer, and also used Gnuradio (Linux based) which has support for the chipset.

The device came with a small vertical antenna (Figure 2). However I wanted to connect it to a better antenna, and so I needed an adaptor from the PAL connector to a type-F connector. Fortunately one of the Radio shack stores here in Medford had them in stock. The PAL connect-



Figure 2—supplied antenna w/PAL connector.

or is the standard European television connector (much like Type-F is the North American standard). Figure 1 shows the USB dongle and the PAL-to-Type-F adaptor.

The free software actually consists of several pieces, the SDR# windows program, some support files, and the USB driver. They are all installed separately. Installing the device driver in Windows 8 was a little interesting. The USB device driver that comes with the ZADIG utility which installs the appropriate USB driver for the dongle comes with an unsigned driver. That's no problem with Windows XP, but Win 8 does not allow installing unsigned drivers, and the program refused

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Low Cost Software Defined Radio, continued.

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to install it.

It turns out there is a work around, and that is to reboot Windows 8 into troubleshooting mode, and then select the install unsigned driver mode, and reboot again. This then permits installing unsigned drivers until the

intuitive, and quickly had FM Stereo working, was able to decode the NWS VHF weather station, analog TV FM audio carriers, the AM video carrier, and many other signals.

The dongle does not have any tuned filters in the front end, so it is quite susceptible to both poor image rejection as well as over-

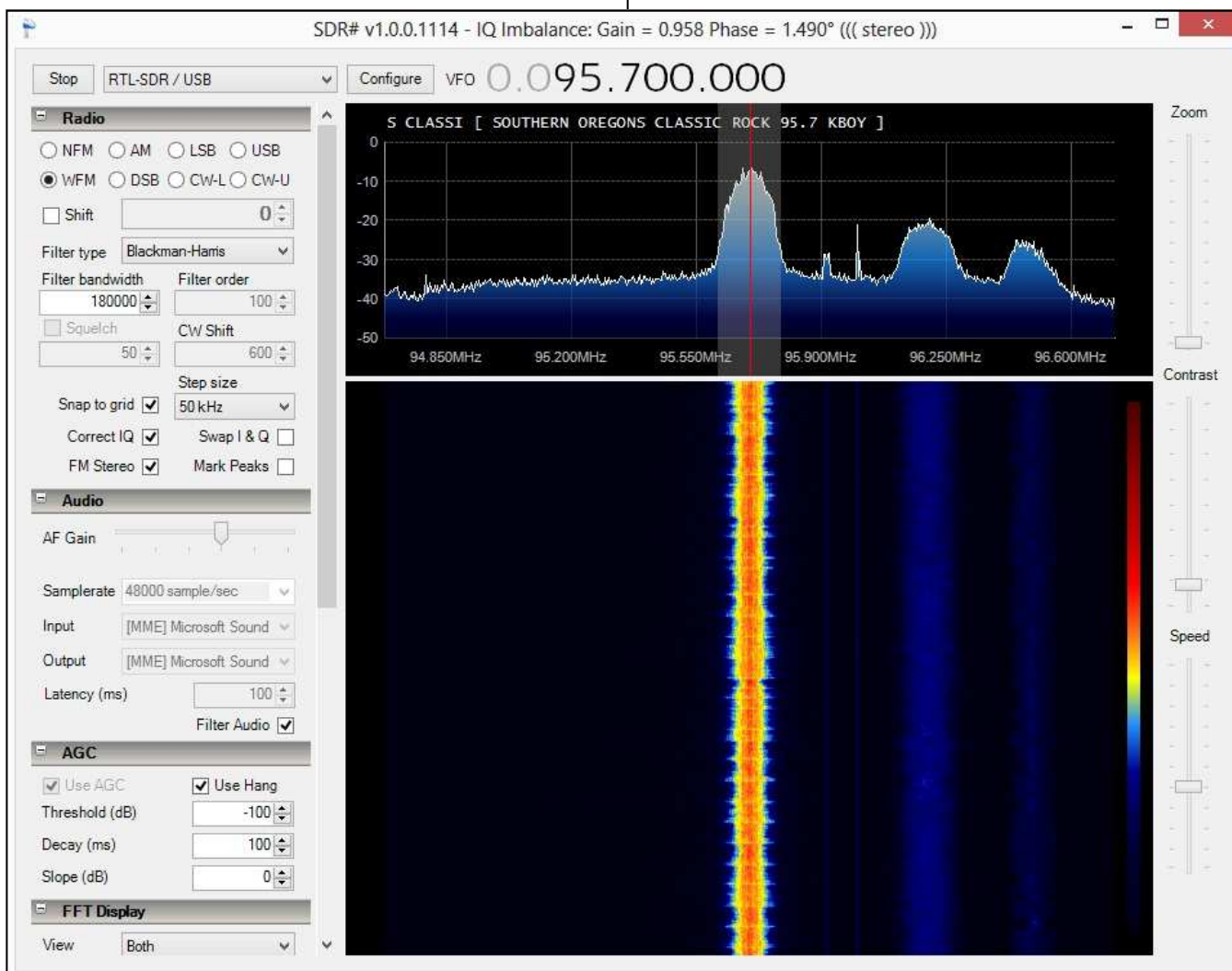


Figure 3—SDR# (Sharp) software displaying part of the FM broadcast band.

next reboot, when Win8 reverts back to the reject unsigned drivers mode.

This accomplished, I selected the RTL-SDR/USB device, and the SDR# program came right up. It took a little experimenting with the software, but the User Interface (UI) is pretty

load. The images are readily identifiable as the spectrum display shows spikes that tune backwards compared to the actual signals. The dongle uses an 8-bit A/D converter, so the dynamic range is not huge, but the spectrum display allows looking at about 2.5 MHz

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RVARC Dues are Due

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 102 McDonough Rd.
Gold Hill, OR 97525-9626

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

LOW Cost SDR, continued

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of spectrum with about 40-50 dB of dynamic range. I would not want to use the device as a spectrum analyzer for any kind of measurement accuracy, but it is very handy for finding and tuning stations.

Several people also manufacture an analog upconverter—that converts 1-30 MHz up by 100 MHz so as to allow using the USB dongle to receive HF. I've not tried that, but Herb has one. See the January 2013 issue of QST for links to suggested software.

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 2013 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>

Medford—Phoenix, OR

Time: Saturdays, 8:00 AM. Walk-ins welcome.

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

Dates 2013: June 22 Oct 26

Contact: Don Bennett, Email: kg7bp@rfwarrior.com Phone: (541) 973-3625

Grants Pass

Time: Arrive 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 2013: May 17 Aug 23 Nov 15

Contact: John Stubbe, K7VSU, email: K7VSU@arrl.net, Phone: (541) 218-2244

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