

# THE PLATTSMOUTH AMATEUR RADIO CLUB

# Communicator

## December 2016--January 2017

### **RFinder and BrandMeister Team-Up for Daily Feed of Digital Repeaters**

(ARRL 11/14/2016) ARRL partner RFinder — the creator of a web and app-based directory of Amateur Radio repeaters worldwide — has collaborated with the BrandMeister network of Amateur Radio digital voice systems to include a daily data feed of digital repeaters. Digital repeaters are now categorized in RFinder by network, and RFinder's Android and iOS apps can provide information on BrandMeister networked repeaters worldwide. The daily data feed from BrandMeister includes both repeaters and talk groups.

RFinder also now supports automated repeater coverage maps for the newly-released BrandMeister dashboard, active once repeaters sysops enter their repeater information on BrandMeister. RFinder generates its coverage maps using CloudRF technology, developed by Alex Farrant, M6ZUJ.

RFinder's growing worldwide repeater database now provides its subscribers with access to more than 60,000 repeater listings in over 175 countries. RFinder is integrated with EchoLink on Android and iPhone to offer one-click connection to repeaters right from the directory.

RFinder is ARRL's preferred online resource of repeater frequencies and will be the source of listings for the 2017-2018 edition of the ARRL Repeater Directory (coming spring 2017). The ARRL Repeater Directory includes digital repeaters using a variety of technologies and protocols.

An RFinder subscription is \$9.99 per year. Subscribe to RFinder from your iPhone, iPad, iPod Touch, or from your Android smartphone or tablet. Users of other devices will find a link at the bottom of the RFinder subscription page.

Note: A printed repeater directory book is still available from the ARRL but their software has been discontinued.

<http://www.arrl.org/news/rfinder-and-brandmeister-team-up-for-daily-feed-of-digital-repeaters>

<http://www.rfinder.net/>

<https://brandmeister.network/>

### **"The Origins of Silicon Valley: Roots in Ham Radio" Video Now Available**

(ARRL 11/22/2016) The ARRL Centennial National Convention presentation, "The Origins of Silicon Valley: Roots in Ham Radio," by Paul Wesling, KM6LH, has been edited into a video and is now available on YouTube.

"It tells of the interesting events in the maritime port of San Francisco at the turn of the 20th century, as early radio was being developed, and follows the hams who designed new devices and equipment to address steamship traffic plying the Pacific Ocean," Wesling said. "Their efforts to break the east coast monopoly on tubes and to extend radio into the microwaves as the country approached World War II form the basis for what became Silicon Valley."

Wesling said the presentation traces early vacuum tube development and other contributions by Bay Area amateurs, "and the continuing spirit of hobbyists and collaborators that fuel today's high-tech mecca." The presentation runs about 1 hour.

A graduate of Stanford University, Wesling, a IEEE/CPMT Society Distinguished Lecturer, retired from Hewlett Packard in 2001, and then served for 10 years as Communications Director for the IEEE's San Francisco Bay Area Council.

Watch the video:

[https://www.youtube.com/playlist?](https://www.youtube.com/playlist?list=PL3MXnVUbt1wTx7eDBm0DB1AzLtzHAwez0)

[list=PL3MXnVUbt1wTx7eDBm0DB1AzLtzHAwez0](https://www.youtube.com/playlist?list=PL3MXnVUbt1wTx7eDBm0DB1AzLtzHAwez0)

<http://www.arrl.org/news/the-origins-of-silicon-valley-roots-in-ham-radio-video-now-available>

## Meeting Calendar

8am, November 26, 2016  
at Mom's Café

No Meeting in December  
Annual Dinner will be Sunday,  
January 29, 2017

**2016  
PAID MEMBERSHIP**

- AGØL .....Steve Loyd [E]
- AIØN..... Chuck Engberg\* [E]
- K3CRF.....Dave Smith [E]
- K5LBS ..... Jerry Gault [E]
- KBØFSI ..... Pat McCollum [T]
- KBØLF .....Fred Ericksen [E]
- KBØOGO .....Roger Behrns\* [E]
- KBØSJB.....Tom Katalenich [G]
- KCØHYD ..... John Titsworth [G]
- KCØHYE.....Shirley Titsworth [T]
- KDØNMD.....Dudley Allen [G]
- KDØBXB..... Kim Allen [T]
- KEØXQ.....Bill McCollum [E]
- KGØKR .....Beth Engberg\* [E]
- KIØPY ..... Kevin Faris [E]
- N5SEZ..... Ray McNally[E]
- WØDBW..... Derek Winterstien [G]
- WØZY .....Dave McLaughlin[E]
- WØZYD..... Debbie McLaughlin[G]

*\*Charter Members #New Ham*

Note: Thanks to all who have paid their dues and many who have given additional donations. All donations are greatly appreciated. Please let me know of any corrections.

**Meetings are 8am the last Saturday of most months at Mom's Café in Plattsmouth.**

**Tuesday night get-togethers at Plattsmouth Burger King at 7 PM**



**P.A.R.C. Officers**

**President**  
**KBØOGO .....Roger Behrns**  
**rb55930@windstream.net**

**Vice President**  
**KCØHYD .....John Titsworth**

**Secretary**  
**N5SEZ.....Ray McNally**

**Treasurer**  
**KIØPY ..... Kevin Faris**

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**Repeaters:**

443.45<sup>+</sup> is located in downtown Omaha

443.225<sup>+</sup> is located in Murray.

147.48 Simplex is also in Murray.

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**MINUTES of  
the  
MEETING**

The October 29, 2016 meeting was called to order at 8:10 am at Mom's Café by President Roger Behrns.

Those in attendance were Roger (KBØOGO), Kevin (KIØPY), Ray (N5SEZ), Derek (WØDBW), Bill (KEØXQ), Steve (AGØL), Fred (KBØLF), Gary (KBØKYT), Dudley (KDØNMD) and Kim (KDØBXB).

The Minutes of the August meeting were approved on a motion by Kevin and second by Gary.

The treasurer reported a correction to the previous report. We started with \$962.85, added \$15 for a membership and had no expense. This leaves \$260 in the repeater fund and \$717.85 in the general fund for an ending balance of \$977.85.

The Annual Dinner will be 5 pm on Sunday January 29 at Famous Dave's in Bellevue. The party room is reserved.

Fred reported that March 1 marks the 150th anniversary of statehood and some activities are being planned.

Dudley reported on the JOTA scout event. There will be a Merit Badge University in Sioux City. There are possibilities of working with the Girl Scouts and a future Merit Badge University is being planned for Bellevue.

The meeting adjourned at 8:25 with a motion by Kevin and second by Steve.

PLATTSMOUTH ARC MEMBERSHIP REGISTRATION FORM					
Name		Call Sign		Class	
Address		City	State	Zip	
E-Mail			Phone #		
Spouse Name			Call Sign		Class
Membership Type <input type="checkbox"/> Primary(\$15) <input type="checkbox"/> Spouse (\$5) <input type="checkbox"/> Student (\$5) <input type="checkbox"/> New Ham		● Additional donations are gratefully accepted. ● New Hams are free during the year they receive their first license. ● Please give this form and dues to the club treasurer or any club officer.		Donation for: <input type="checkbox"/> Repeater fund <input type="checkbox"/> Insurance <input type="checkbox"/> Other _____ <input type="checkbox"/> General	
Any additional e-mail or cell phone #s?		Amount: <input type="checkbox"/> I prefer my donation to be anonymous.			



*The OTH Radar Receiver site southeast of Moscow*

## Amateur Radio “Uniquely Situated” to be at Leading Edge Again

(ARRL 11/10/2016) The dawn of so-called “smart” — or cognitive — radio has presented Amateur Radio with an opportunity to regain the leading edge in radio technology in the near future. It will also alter our view of spectrum as a limited resource. Those points and others were part of a forward-looking, tag-team Sunday Seminar presentation, “Spectrum (It’s the frequency crunch for real),” by Michelle Thompson, W5NYV, and Bob McGwier, N4HY, at the 2016 ARRL and TAPR Digital Communications Conference (DCC), September 16-18 in St. Petersburg, Florida. Thompson heads the AMSAT Ground Terminal Team, a component of the Phase 4B geosynchronous satellite project. McGwier is chief scientist at the Hume Center for National Security and Technology at Virginia Tech. This week, HamRadioNow made the entire 3-hour presentation available as part of its conference coverage: HamRadioNow Episode 276 Parts 1, 2, and 3.

“If you put the smarts in the radio, what can possibly go wrong?” quipped Thompson, pointing to an example that demonstrated how sufficiently complicated technology is also more likely to fail.

Thompson said cognitive radio technology will alter the paradigm of treating spectrum as if it were land. “Spectrum is immediately reusable,” she said, “and land is not.” Regulation and spectrum allocation have been necessary to manage interference among services, but smart radios can avoid collisions among users, she said.

“[I]t hasn’t been until fairly recently that we’ve been able to inexpensively and quickly reconfigure a radio,” she said. Thompson’s Phase 4B project will take maximum advantage of cognitive radio technology, which can — among other things — determine an optimal clear frequency, mode, and path on the fly, transparently, and without human intervention.

McGwier called the computer “the tidal wave that has swept over Amateur Radio.” And, he predicted, “It is going to bring us back to becoming technical innovators.” He said radio

amateurs “are uniquely situated to be the leading edge in radio again.”

McGwier said the innovation needed in Amateur Radio will come about through what he called “Amateur Radio freedom,” that encourages experimentation and thinking outside the box. “It’s the ultimate democratic assignment of frequencies in the world,” he said.

He painted a picture of intelligent radio technology that will operate like the human brain. “It’s going to design the radio on the fly, from scratch, without a subject-matter expert involved,” he said. “The radio will be done by artificial intelligence, from beginning to end. The object becomes not the radio, but the activity it allows.”

Responding to a question, McGwier conceded that today’s hams may balk at this sort of paradigm shift, since it’s far removed from how most Amateur Radio communication takes place today. But he said embracing smart radio technology is what will attract a younger generation of new hams.

“We need to not limit what these kids can do with Amateur Radio,” he maintained. “They are going to outdo us, if we only allow them. We can’t limit them, because this is a fundamental paradigm shift.”

Predicted McGwier: “You will not recognize your world in 10 years.” The HamRadioNow presentation also is available in audio format, and a highly condensed 11-minute synopsis is available on YouTube. — Thanks to Gary Pearce, KN4AQ/HamRadioNow

Article: <http://www.arrl.org/news/amateur-radio-uniquely-situated-to-be-at-leading-edge-again-confererees-told>

Video(Scroll down to Episode 276): <http://www.hamradionow.tv/episodes/>

Audio (follow the link to Episode 276): <http://www.hamradionow.tv/rss>

Synopsis: <https://youtu.be/Bwk-r8AJBR0>

## New Russian Arctic Over-the-Horizon Radars Set for 2017 Startup

(ARRL 10/31/2016) According to media accounts, more long-range, new over-the-horizon (OTH) radars that can identify aerial and sea targets hundreds of miles away are scheduled to begin operation next year in the Russian Arctic. It’s doubtful, however, that the news heralds the return of interference on the level of that generated by the so-called “Russian Woodpecker” OTH radar, which plagued Amateur Radio HF bands in the 1970s and 1980s.

Over the past couple of years, OTH radars, sans woodpecker, have become increasingly commonplace intruders on Amateur Radio bands, according to the International Amateur Radio Union Region 1 (IARU R1) Monitoring System (IARUMS), which has noted OTH radars in Russia, China, Cyprus, Iran, and Turkey. The frequency-hopping nature of the technology accounts for the annoying interference that covers wide swaths of spectrum. The Russian systems-intelligence “Konteyner RLS” OTH radar, transmitting from in the Nizhny Novgorod region, is frequently spotted on 20 meters. While no woodpecker, it transmits a broad, frequency-modulated CW signal at 50 sweeps per second with a bandwidth of 80 kHz or

greater, accompanied by signal splatter, IARUMS Coordinator Wolfgang Hadel, DK2OM, reported recently.

Sputnik, a Russian government-controlled radio service, cited a Rossiiskaya Gazeta newspaper report that six OTH radar installations will operate in the region. Deputy Defense Minister Dmitry Buklgakov, who visited the construction site, said a runway capable of handling all types of combat aircraft was simultaneously being reconstructed nearby, the report continued. Other reports have indicated that similar systems will be deployed in the Far East in 2018. Russia has sold its OTH radar technology to China.

OTH radars employ widely separated (250 kilometers) transmitting and receiving sites and can “see” beyond the horizon, the typical limit for ordinary radar. The transmitting array is 440 meters wide, and it incorporates 36 elements of varying configuration. The three-section receiving array is 1300 meters wide and 35 meters tall. — Thanks for news tip to Frank Smith, WS1MH

<http://www.arrl.org/news/new-russian-arctic-over-the-horizon-radars-set-for-2017-startup>