

# Watts News

## Monthly Newsletter of the Olympia Amateur Radio Society

February 2017

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# Club Information Page

OARS Officers			
President	Bruce Montgomery	WA7BAM	259-9300
Vice President	Dennis Niles	WV7S	(108) 283-3208
Secretary	Rue Palmer	W7RUE	790-5633
Treasurer	Ed Fitzgerald	N7WW	491-2289
Member at Large	Art Taylor	KL7SK	578-0162
Key Contacts			
RFI Committee	Ghery Pettit	N6TPT	412-1340
Repeater Committee	Fred Baker	W7SIX	791-2444
Repeater Committee	Ken Dahl	K7TAG	534-9357
Club License Trustee	Duane Braford	WB7ROZ	412-1902
Information Net	Lee Chambers	KI7SS	951-2538
ARES Net	Tom Bohon	KE7EJJ	456-6260
Web Site	George Lanning	KB6LE	438-5797
Newsletter	George Lanning	KB6LE	438-5797
Classes	Lee Chambers	KI7SS	951-2538
License Exams	Klaus Neubert	AC7MG	280-2428
Equipment Custodian			
OARS Website: <a href="http://www.olyham.org">www.olyham.org</a>			

Membership Application	
<input type="checkbox"/> New <input type="checkbox"/> Renewal	
Date	
Call	
Name	
Address	
City, State	
Home Phone	
Cell Phone	
email	
<b>Annual Dues: \$ 50 single or family</b> <b>Pay to Treasurer at any meeting, or mail to:</b>  <b>OARS</b> <b>PO Box 2861</b> <b>Olympia WA 98507</b>	

**License Exam Sessions**  
 6:00 pm before each monthly OARS meeting  
 Walk-ins allowed  
 To apply contact Klaus Neubert  
 280-2428  
[oars-ve@comcast.net](mailto:oars-ve@comcast.net)  
*In an effort to provide the best testing environment possible, the examiners request non-candidates remain outside for the duration of the exam session.*  
 —Thank you.

OARS Net Check-ins			
The following stations checked in one or more times on the OARS General Information Net in January 2017:			
KI7SS *	AC7MG	AF7IO	AG6BA
K3AL	K7HTZ	K7TAG	K7WRO
KA7FRZ	KB7HPP	KC7GRM	KD7SQU
KD7TQW	KE7KQI	KF7MJI	KG7CCE
KG7ED	KG7ITT	KG7NQT	KG7OQS
KG7VUP	KI7ABV	KI7CQ	KI7EIX
KI7FKQ	KI7GRM	KI7GRN	KL7SK
N7DAG	N7DEF	N7DHE	N7GQP
N7GQR	N7ITT	N7KDB	N7LLK
N7TLF	N7WW	NW7J	NX6W
W0JCS	W6EGV	W7BRR	W7RUE
WA7BAM	WA7SH	WV7S	KG7ES

## President's Message

### The Importance of Elmers

"Elmer" is the endearing term radio amateurs use to describe our mentors. While frequently attached to the more experienced members of our great hobby, anyone with experience and knowledge can mentor or elmer anyone else. The term 'elmer' first appearing in a QST article (March, 1971) by W9BRD. Elmers are so important to the advancement of amateur radio that the ARRL offers an Elmer Award.

There is a disconnect between the 'book learning' to pass the different license exams and actually assembling a radio station and understanding all the fine points of radio that it takes to get on the air and accomplish one's radio goals. An elmer can bridge this gap between book and practical.

An elmer is also someone who takes wacky ideas, brings them back to earth, and if possible suggests workable solutions without destroying enthusiasm or interest in amateur radio. This radio hobby is so diverse it would be nearly impossible for one ham to know everything, so multiple elmers are sometimes needed.

While help available from websites such as eham, qrz, Google and Youtube can be useful, and once on the air help is just a 'cq' call away, the Olympia Amateur Radio Society has a diverse number of elmers available. If you need help accomplishing a radio goal, please ask for an elmer.

Elmer topics include: License exam preparation, station building, antenna choice and installation, problem solving and trouble shooting, programming the radio for repeaters, noise reduction, electronics, ARES and emcomm, involvement in communication services, and digital communications.

Leave no ham behind!

### Coming Events

Feb. 9, TCARES, 7pm

Feb. 15, OARS, 6 pm testing, 7 pm meeting

Feb. 19, ARRL DX contest-CW

March 4, ARRL DX contest-Phone

March 9, TCARES, 7pm

March 11, Mike & Key Hamfest

March 15, OARS, 6 pm testing, 7 pm meeting

April 8, Olympia MS Walk

April 22 & 23, Communications Academy

May 21, Capital City Marathon

May 20 & 21, Road Rally

—73, Bruce, WA7BAM

## Treasurer's Report

As of January 1

### GENERAL FUND (checking account)

Previous balance.....	1,297.25
Income .....	425.12
Expenses .....	0.00
Ending balance .....	1,722.37

### REPEATER / PACKET FUND (savings account)

Previous balance .....	\$ 1,052.73
Income .....	0.00
Expenses .....	0.00
Ending balance .....	1,052.73

— **Ed Fitzgerald, N7WW, Treasurer**

— ... —

## Learning to Cuss

A 6 year old and a 4 year old are raking the yard. The 6 year old asks, "You know what? I think it's about time we started learning to cuss." The 4 year old nods his head in approval.

The 6 year old continues, "When we go in for breakfast, I'm gonna say something with hell and you say something with ass."

The 4 year old agrees with enthusiasm.

When the mother walks into the kitchen and asks the 6 year old what he wants for breakfast, he replies, "Aw, hell, Mom, I guess I'll have some Cheerios.

WHACK!

He flies out of his chair, tumbles across the kitchen floor, gets up, and runs upstairs crying his eyes out, with his mother in hot pursuit, slapping his rear with every step. His mom locks him in his room and shouts, "You can stay there until I let you out!"

She then comes back downstairs, looks at the 4 year old and asks with a stern voice, "And what do YOU want for breakfast, young man?"

"I don't know," he blubbers, "but you can bet your fat ass it won't be Cheerios!"

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# Noise floor report does not inspire confidence

By Dan Romanchik, KB6NU

Last June, the FCC's Technical Advisory Committee asked licensed and unlicensed users of the electromagnetic spectrum to answer some questions about the noise they were experiencing and whether or not it was affecting their services. Specifically, they asked:

- \* Is there a noise floor problem?
- \* Where does the problem exist? Spectrally? Spatially? Temporally?
- \* Is there quantitative evidence of the overall increase in the total integrated noise floor across various segments of the radio frequency spectrum?
- \* How should a noise study be performed?

Well, the results are in, and Radio World recently published a summary of the responses that the FCC received (<http://www.radioworld.com/business-and-law/0009/noise-floor-where-do-we-go-from-here/338242>). The FCC received 93 replies from 73 (great number, eh?) different people or organizations, including:

- \* 23 companies/industry organizations
- \* 39 RF professionals (broadcast and wireless)
- \* 31 licensed radio amateurs
- \* 9 responders did not reply to the questions asked

Respondents included the ARRL, the Society of Broadcast Engineers, the National Association of Broadcasters, the National Public Safety Telecommunications Council, ATT, and the National Electrical Manufacturers Association. I found especially interesting comments from the Society of Broadcast Engineers. They include:

- \* Increased cooperation is needed between manufacturers of Part 15 devices and users of radio spectrum to identify noise sources and take appropriate remedial action.
- \* Radiated emission limits below 30 MHz in the FCC Part 15 rules for unintentional emitters should be enacted. There are presently no radiated emission limits below 30 MHz for most unintentional emitters.
- \* Reduced Part 15 limits for LED lights should be enacted to be harmonized with the Part 18 lower limits for fluorescent bulbs.
- \* Better labeling on packaging for Part 18 fluorescent bulbs and ballasts to better inform

consumers of potential interference to radio, TV and cellphone reception in the residential environment.

- \* Specific radiated and/or conducted emission limits for incidental emitters, such as motors or power lines, should be enacted.
- \* Conducted emission limits on pulse-width motor controllers used in appliances should be enacted.
- \* Substantially increase the visibility of enforcement in power line interference cases.

Other organizations made similar comments.

While the report is encouraging, it won't mean a thing if no action is taken on these issues. Given that the FCC is cutting back on its field offices, and our president-elect has said that he plans to reduce the number of governmental regulations, I'm not optimistic that we'll see the noise situation get better before it gets worse. What do you all think?

When he's not battling the noise floor at his QTH, Dan blogs about amateur radio at KB6NU.Com, writes the "No Nonsense" amateur radio study guides and teaches ham classes. You can contact him by e-mailing [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

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## Illegal Drone Transmitters Could Interfere with Air Traffic Control, ARRL Complaint Asserts

01/12/2017

In what it calls an "extremely urgent complaint" to the FCC, ARRL has targeted the interference potential of a series of audio/video transmitters used on unmanned aircraft and marketed as Amateur Radio equipment. In a January 10 letter to the FCC Spectrum Enforcement Division, ARRL General Counsel Chris Imlay, W3KD, said the transmitters use frequencies intended for navigational aids, air traffic control radar, air route surveillance radars, and global positioning systems.

"This is, in ARRL's view, a potentially very serious interference problem, and it is respectfully requested that the products referenced...be investigated and removed from the marketplace immediately and that the importers be subjected to normal sanctions," ARRL's letter said. Some of the transmitters operate on frequencies between 1,010 and

1,280 MHz. "These video transmitters are being marketed ostensibly as Amateur Radio equipment," the League said, "but of the listed frequencies on which the devices operate, only one, 1280 MHz, would be within the Amateur Radio allocation at 1240-1300 MHz." Even then, ARRL said, operation there would conflict with a channel used for radio location.

ARRL said the use of 1,040 and 1,080 MHz, which would directly conflict with air traffic control transponder frequencies, represented the greatest threat to the safety of flight. The use of 1,010 MHz, employed for aeronautical guidance, could also be problematic.

ARRL cited the Lawmate transmitter and companion 6 W amplifier as examples of problematic devices being marketed in the US. Each costs less than \$100 via the Internet. The device carries no FCC identification number.

"[T]he target market for these devices is the drone hobbyist, not licensed radio amateurs. The device, due to the channel configuration, has no valid Amateur Radio application," ARRL told the FCC. "While these transmitters are marked as appropriate for amateur use, they cannot be used legally for Amateur Radio communications." In the hands of unlicensed individuals, the transmitters could also cause interference to Amateur Radio communication in the 1.2 GHz band, ARRL contended.

The League said it's obvious that the devices at issue lack proper FCC equipment authorization under FCC Part 15 rules, which require such low-power intentional radiators to be certified.

"Of most concern is the capability of the devices to cripple the operation of the [air traffic control] secondary target/transponder systems," ARRL said. "These illegal transmitters represent a significant hazard to public safety in general and the safety of flight specifically."

The surge in sales of drones has been dramatic. The FAA has predicted that combined commercial and hobby sales will increase from 2.5 million in 2016 to 7 million by 2020.

In Exhibit A of the January 10 letter, "Illegal Drones Threaten Public Safety," the League noted that some of the drones and associated equipment it has come across "are blatantly illegal at multiple levels," with some drone TV transmitters described as "particularly alarming."

"Rated at six times over the legal power limit, and on critical air navigation transponder frequencies, these devices represent a real and dangerous threat to the safety of flight, especially when operated from a drone platform that can be hundreds of feet in the air," the exhibit narrative asserted.

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## Boy Scouts' Radio Merit Badge Requirements to Include Amateur Radio Direction Finding Option

01/04/2017

[UPDATED 2017-01-07 @ 1522 UTC] The Boy Scouts of America (BSA) have updated the requirements for the Radio Merit Badge for 2017. A new option for the Radio Merit Badge is Amateur Radio Direction Finding (ARDF). ARRL ARDF Coordinator Joe Moell, K0OV, said he's "really excited" about the move, and he credited Jamboree on the Air Coordinator (JOTA) and K2BSA trustee Jim Wilson, K5ND, with being the "spark plug" behind the ARDF addition.

"Jim visited a training session at the USA ARDF Championships in Texas last April and realized what an excellent activity that on-foot hidden transmitter hunting can be for Scouts," Moell recounted. "Working with Brian Coleman, KB0MAP, Jim authored the new ARDF Radio Merit Badge syllabus, which was then reviewed by several leaders of US ARDF community."

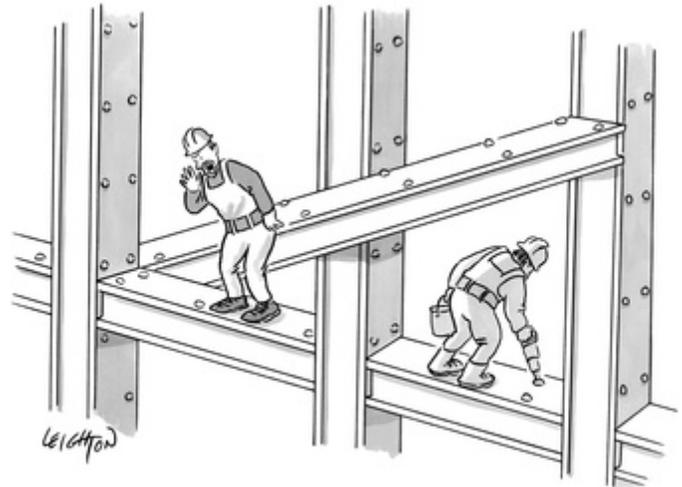
A first draft of the new merit badge pamphlet is anticipated later this month or in early February, with formal publication expected late this year. Moell said the new merit badge requirements, effective on January 1, come in time for the July 2017 National Scout Jamboree in West Virginia, where an ARDF course and equipment will be available to Scouts of all ages. ARDF already has a role in JOTA. The Radio Merit Badge ARDF option combines orienteering and foxhunting and opens a new interactive component to this program.

New Radio Merit Badge requirements include cellular telephones and different types of radio modulation. Key requirement being dropped from the Radio Merit Badge include open, closed, and short circuits, as well as schematic

symbols and components, because these are covered in the Electricity and Electronics Merit Badges.

The BSA also made some minor editorial changes and reordered requirements for the Amateur Radio option. The radio broadcasting option now includes Internet streaming, regulations and power levels. A medium-wave and shortwave listening option includes both types of listening, as well as listening via streaming services on a smart phone.

The BSA has posted a list of frequently asked questions (FAQs). Scouts are encouraged to follow the new requirements, although the guidelines may allow use of the previous requirements in some cases.



*"Escher! Get your ass up here."*

5. Program at 7:30pm: Reducing stations noise by Bruce & Metodi K3AL. Great program guys !

6. Program over 9pm. Out by 9:15

— Ed FitzGerald N7WW , filling in for Rue W7RUE Club Secretary

## February Meeting

### 2 programs

1. A short presentation by Jeff from OlyMEGA, Olympia's Makers group. Jeff is a ham and the group has a strong interest in amateur radio and electronics.

2. Jim, KG7CCE, has been working with mesh network routers: " In order to have the Mesh network make some sense I wanted to present some concepts that apply to the use of a mesh network. It also provides a background for how the Raspberry Pi can also be used in relation to emergency communication." Jim has been communicating with Lee and is working to make this presentation integrate with Lee's ideas on emergency communications.

## Minutes of January Meeting

1. We had 4 candidates for testing. All 4 passed: 1 Tech; 2 General; 1 Extra

2. Welcome by our president Bruce Montgomery WA7BAM

3. TreasurersReport: N7WW

4. Other announcements: Mike & Key Hamfest: March 11th, MS WALK: April 8th



*"With four or more kids' meals, you get a shot of bourbon."*

## **Amateur Radio Parity Act Speeds to U.S. House Passage, Heads to U.S. Senate**

01/24/2017

Just 10 days after being introduced, the 2017 Amateur Radio Parity Act legislation, H.R. 555, passed the U.S. House of Representatives this week on unanimous consent under a suspension of House rules. The bill's language is identical to that of the 2015 measure, H.R. 1301, which won House approval late last summer after attracting 126 co-sponsors, but failed to clear the U.S. Senate last fall as the 114th Congress wound down. The new bill, again sponsored by Rep. Adam Kinzinger (R-IL), was introduced on January 13 with initial co-sponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR), who chairs the influential House Committee on Energy and Commerce.

"The grassroots effort of Amateur Radio operators across this nation in support of the Amateur Radio Parity Act has been remarkable, nothing like we have ever seen before," ARRL President Rick Roderick, K5UR, said. "To all hams, keep going! Now is the time to charge forward with that same momentum to the Senate. We can do it!" The bill arrives in the U.S. Senate with ample time in which to garner its approval through an education campaign.

"We're very encouraged by the speed with which this bill made it through the House. It's amazing that this happened," said ARRL Hudson Division Director Mike Lisenco, N2YBB, who has been at the forefront of the legislative initiative. "With the help of ARRL members, we believe we can get this done," Lisenco continued. "We came within a hair's breadth last time, with 110,000 e-mails to members of both houses of Congress, as well as letters and telephone calls. Member participation in this final push is critical."

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude Amateur Radio communications

on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on Amateur Radio communications to accomplish the lawful purposes of homeowners association seeking to enforce the restriction.

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## **Ajit Pai is President's Choice for FCC Chairman**

01/23/2017

Ajit Pai, a Republican member of the FCC, has been designated by President Donald Trump to succeed chairman Tom Wheeler, who stepped down on Inauguration Day, January 20.

"I am deeply grateful to the President of the United States for designating me the 34th Chairman of the Federal Communications Commission," Pai said in a statement. "I look forward to working with the new Administration, my colleagues at the Commission, members of Congress, and the American public to bring the benefits of the digital age to all Americans."

A critic of so-called Internet neutrality rules, Pai, 44, was nominated to the FCC by former President Barack Obama and was confirmed unanimously by the U.S. Senate in 2012.

The son of immigrants from India, the Harvard Law graduate grew up in Parsons, Kansas.

The FCC now is down to three members. In addition to Pai are Democrat Mignon Clyburn and Republican Michael O'Rielly. The Commission can have five members, three of whom are from the majority political party.

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# ***OARS Meeting***

**Wednesday, February 15, 7:00 pm  
2 Programs (see page 6)  
South Sound Manor Event Center  
455 North Street SE  
Tumwater**

*If you are a Ham who has received this newsletter, but are not yet a member of OARS, you are cordially invited to join us. Please complete the membership application found elsewhere in this newsletter and mail it to:*

**OARS**

**PO Box 2861**

**Olympia WA 98507**

**Or, bring it to an OARS meeting and see Treasurer Ed Fitzgerald.**

**OARS  
PO BOX 2861  
OLYMPIA WA  
98507**

