

# Watts News

## Monthly Newsletter of the Olympia Amateur Radio Society March 2019

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# Club Information Page

OARS Officers			
President	Bruce Montgomery	WA7BAM	259-9300
Vice President	Dennis Niles	WV7S	(808)283-3208
Secretary	Frank Hamilton	KF7HXV	(360) 951-1174
Treasurer	Ed Fitzgerald	N7WW	360-628-0168
Member at Large	Phil Cornell	W7PLC	360-515-1263
Key Contacts			
RFI Committee	Ghery Pettit	N6TPT	867-0756
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	W7BHN	456-6260
WebMaster	Kendall Brown	KG6FYU	360-990-1690
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://oars.radio">http://oars.radio</a>			

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

## 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 February 2019:

AC7MG	KG7HBE	N7DFF	WA7BAM
AF7IO	KG7HPP	N7GQP	WA7HST
AG7OO	KG7PVW	N7TLF	WA7PVY
K7ECQ	KI7CQ	N7WW	WA7SH
K7TUKM	KI7FKQ	NL7HK	WA7VIZ
KB6LE	KI7SS *	W6EGV	WB4LWQ
KB6ZBS	KI7TDX	W7BRR	WB7JIM
KB7ED	KJ7AWM	W7NN	WB7ROZ
KC7CKO	KJ7BRV	W7PLC	WV7S
KD7SQU	KL7SK	W7SKI	
KD7TQW	KL7SK	W7SLT	

\* Net Control Station

The net meets at 7:30 every Tuesday evening on the 3 linked OARS repeaters: 147.36, 224.46, and 441.40 MHz. All Hams are invited to check in.

## President's Message

At last Wednesday's meeting Eric, K7ECQ, and Brian, K7TST, educated us about many versions of digital radio including a real QSO with a ham in Longview. They are very knowledgeable, the slides gave the verbal part of the presentation an accurate visual component. This technology is different from what many of us are used to thinking of as radio. The long distance signal propagation is done over the Internet. There are different groups, organized by regions such as Washington or the USA that are always on the air. They worked the contact through a digital radio repeater on Capital Peak so infrastructure is already in place.

There are a number of advantages to this technology. Signal quality is perfect with none of the noise of HF to work through. Price is less at under \$200 for a digital capable HT. I can see this attractive to hams on a budget, newly licensed kids and hams living in apartments or with antenna restrictions. They mentioned conversations are very private without encryption we cannot use anyway.

Brian brought his hot spot which acts as a personal repeater with wifi connection to the Internet.

Sure has me thinking. I am working with Kendall the web master to get their slide show on the club web page.

Lee's 2 meet and greets at the Capital Mall have produced a list of 15 prospective new hams. After March and April events these people will be contacted and a class organized. Consider participating in the meet and greet or helping to teach the class. Klaus, AC7MG, will be involved with the testing of a larger group of individuals. If you know of a location to hold the class let me know. That seems to be an on-going challenge.

Despite the threat of snow as I type, March is just around the corner. Service events will soon start toward the end of April. April 26-28 is the ever-popular Olympus Road Rally with the ham response organized by Lee, KI7SS. If you have never seen cars racing at 80+ mph on logging roads you are missing out on a great spectator sport. April 27 is the local MS Walk which begins and ends at New Horizons elementary school just south of Yelm highway off Rainier road. With 1 and 3 mile walking on paved trails this is a relaxed event. Each year it seems that more people with MS are walking and sometimes their goals are larger than their capabilities. Two of us will be bicycle mobile using HT's and the OARS repeaters.

We have had to call for wheel chairs to assist participants in the past.

At all these events our help is greatly appreciated, giving participants a sense of security that someone is there with them whose job it is to monitor their well being, in some cases record bib and car numbers, and communicate this information to people that can make decisions if problems develop. While rare, in some cases bad situations develop and our ability to relay information is crucial to rescuers. During these events we mostly operate out of our cars so we are reasonably comfortable during inclement weather. You can also volunteer to be a part of the pre-planning that takes place before events. All stations need radio access to repeaters and stations need accurate locations. Alternative communication methods such as cell signal from different providers and texting (SMS) have proved to be of value during past events. Every aspect of involvement increases our individual abilities as hams and potential emergency communicators.

Put the dates on your calendars and consider getting involved.

According to the latest K7RA ARRL solar update, March should see improvements in HF propagation. Apparently this occurs due to the approaching equinox and is independent of the dismal number of sunspots.

Say it isn't so! During a recent (February 14, 2019) "The Doctor Is In" ARRL podcast Steve Ford, WB8IMY, discusses a Maunder Minimum. I'll let you listen to the podcast for information. However, during his research Steve discovered that some solar scientists think there is a chance our sun may be at the beginning of a Homeric Minimum [https://en.wikipedia.org/wiki/Homeric\\_Minimum](https://en.wikipedia.org/wiki/Homeric_Minimum). Solar data was kept 2800 years ago and modern research involving tree growth rings and other observable climate change data show some patterns that began at the time of Homer. That solar minimum lasted several centuries. Say it isn't so! The effects of the Homeric Minimum which included major climate changes are detailed in the Wikipedia article.

I will work to get an expert during a meeting to give their view.

In the meantime there are signals on the air to be worked even with existing band conditions. Digital languages such as RTTY, PSK31, FT8, CW and many others are the workhorses of noisy band conditions. They are so efficient you need to dial back power to around 25 watts. Or explore WSPR or QRP operations. However, K7RA reported

propagation during the ARRL International DX CW contest was good and many contacts were made. I will be working the sideband version March 2 & 3.

In any case, get on the air and make some noise.

—Bruce, WA7BAM



## Treasurer's Report

As of February 2019

### REPEATER / PACKET FUND (savings account)

Previous balance.....	\$ 5,866.81
Income .....	2.24
Expenses .....	0.00
Ending balance .....	5,869.05

### GENERAL FUND (checking account)

Previous balance .....	\$ 2,655.83
Income .....	800.27
Expenses .....	310.00
Ending balance .....	3,146.18

— Ed Fitzgerald, N7WW, Treasurer



## Elementary

Sherlock Holmes and Dr. Watson went on a camping trip. As they lay down for the night, Holmes said: "Watson, look up into the sky and tell me what you see?"

Watson said, "I see millions and millions of stars."

Holmes: "And what does that tell you?"

Watson: "Astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Theologically, it tells me that God is great and that we are small and insignificant. Meteorologically, it tells me that we will have a beautiful day tomorrow. What does it tell you?"

Holmes: "Somebody stole our tent."



## Amateur Radio (illegally) Aiding Yacht Racers

By Dan Romanchik, KB6NU

The Golden Globe Race (<https://goldenglobrace.com>), a 30,000 mile, non-stop solo yacht race to celebrate Sir Robin Knox-Johnston's historic 1968/9 world first solo non-stop circumnavigation. There are 18 sailors in the race, which started on July 1, 2018 from Les Sables-D'Olonne, France.

Amateur radio is at the heart of the latest controversy surrounding the race. Scuttlebutt Sailing News reported (<https://www.sailingscuttlebutt.com/2019/01/21/maintaining-information-barrier/>) on January 21, 2019 (day 205 of the race):

"Sailors have been making use of the Amateur Radio net (ham radio) for decades, and while National telecommunication authorities have often turned a deaf ear to unlicensed operators using made-up call signs while at sea, warnings from a National regulator to Golden Globe Race skippers has created intrigue into an exciting finale for race leaders."

"Modern navigation and routing tools are restricted from use in the 2018-19 contest, limiting GGR skippers to the type of equipment available for the inaugural Sunday Times Golden Globe solo non-stop round the world race in 1968-69. That includes Amateur Radio."

"The skippers have been using this free communication system to gain weather forecasts and maintain contact with their teams, which is allowed under the Race Rules. However, it is the responsibility of each skipper to ensure that they abide by National and International regulations which Jean-Luc Van Den Heede and Mark Slats, in first and second in the race, have not been doing." [[Neither Van den Heede or Slats have valid amateur radio licenses...Dan]]

"Said the warning, 'You use an amateur callsign and are making connections with amateur radio operators. The call sign letters are not registered, and thus illegal. I ask you to stop. If you have a legal amateur callsign then I urge you to present it.'"

As a result of this warning, Slats is considering dropping out of the race, even though the race is nearly complete. Yachting Monthly reports (<https://www.yachtingmonthly.com/boat-events/golden-globe-race/golden-globe-race-slats-considers-quitting-comms-row-68574>).

"Mark Slats, who is less than 50 miles from Golden Globe Race leader Jean-Luc Van Den Heede, has announced he is thinking about retiring from the race after being banned from broadcasting on the Ham Radio Net."

"Race organizers said the Dutch skipper does not have the required license, and has been warned by the Dutch authorities to stop broadcasting, which has left him unable to communicate with his shore team."

"Under the rules of the race, all of the entrants are able to use this free communication system to gain weather forecasts and maintain contact with their

teams, but, it is the responsibility of each skipper to ensure that they abide by national and international regulations.”

It’s not only the yachters that are flouting the rules, it’s the amateur radio operators who are communicating with them. According to Yachting Monthly, OFCOM, the UK regulator issued the following warning:

“Fair warning both to unregistered GGR skippers and to legitimate Ham radio operators communicating with them. In Britain, the Ham Radio net is controlled by OFCOM, which recently revoked more than 500 licences for non-compliance. This includes communicating with unregistered Ham radio operators. The maximum penalty is 6 months in prison, a £5,000 fine and loss of their license.”

This is a fascinating story, and I wish that I’d found out about this sooner. It would be interesting to listen in on some of these communications. One question I have is why these guys failed to obtain a valid amateur radio license? The Golden Globe Radio website notes, “[The race] will be sailed under the auspices of the Royal Nomuka Yacht Club in the Kingdom of Tonga. His Royal Highness, Crown Prince Tupouto’a Ulukalala is Patron of the Race.” They probably could have issued valid amateur radio licenses to all the racers.

If any of you have heard the communications or know any more about the technical details, I’d love to hear from you.

*Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the “No Nonsense” amateur radio license study guides (KB6NU.Com/study-guides/), and one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). When he’s not think about operating maritime mobile, you’ll find him on 30m, 40m, and 80m.*



## ARRL Board Gives the Go-Ahead to Lifelong Learning Initiative

02/07/2019

ARRL is undertaking a new initiative to provide online educational opportunities to a broad range of radio amateurs. The Lifelong Learning Initiative will seek to provide a series of learning tracks that will serve the needs of the various interest groups within the Amateur Radio community.

While designed for everyone with an interest in learning more about Amateur Radio, the Lifelong

Learning Initiative will initially focus on creating online learning opportunities for new and newer hams, a segment of the Amateur Radio community desperately searching for educational and instructional resources.

The ARRL Board of Directors set the Lifelong Learning Initiative in motion, endorsing and funding the program and approving the hiring of advertising agency Mintz + Hoke to work with ARRL Lifelong Learning Manager Kris Bickell, K1BIC, and other ARRL staffers in building this learning environment. Mintz + Hoke will conduct the research necessary to identify the different educational needs within the broader Amateur Radio community.

“Mintz + Hoke is a really strong partner in this project,” Bickell said, adding that the firm has developed a really deep understanding of the Amateur Radio community as part of the investigation phase of this endeavor.

Bickell noted that youth education will be a critical component of this Learning Initiative, but he also believes that overall opportunities in this area are huge, as many individuals are looking to expand their knowledge of Amateur Radio.

He said that, where appropriate, the content of these learning tracks within the initiative will build upon much of the knowledge base that already exists within ARRL, such as the material in *QST* and *QEX* magazines, as well as other ARRL publications and manuals. Some new content will be created as well, to ensure that the information being provided stays fresh and dynamic.

In addition to providing instruction, the Learning Initiative will offer resources that allow individuals to delve further into a subject, rather than just relying on ARRL content.

“We are building a new learning environment,” Bickell said. “It will take a lot of work to put this all together, but we believe that this initiative will firmly establish ARRL as an educational leader in Amateur Radio.” He expects the online Lifelong Learning platform to launch in the fall of 2019.

In conjunction with its support of the Lifelong Learning Initiative, the ARRL Board also endorsed CEO Howard Michel’s HQ reorganization plans, and the purchase of a modern association management software system.

“These are big investments the Board is making in ARRL, and a strong positive vote of confidence that we can deliver,” Michel said. “They are giving us the tools to be successful.”

—from the ARRL Website



# US Navy Explores Amateur Radio as a Training Adjunct

02/13/2019

The US Navy's Naval Air Warfare Center Weapons Division (**NAWCWD**) has adopted Amateur Radio training as a possible new approach to basic RF and electronics instruction. More than 20 NAWCWD employees took part in a week-long class in Point Mugu, California, in December. The class, which culminated in an examination session for the Technician licensed, offered NAWCWD employees a novel approach to teaching radio propagation, said Brian Hill, KF4CAM, the lead for electromagnetic maneuver warfare experimentation in the Avionics, Sensors and E\*Warfare Department. Hill, who got his license while he was still in high school, is also the department's "innovation ambassador."

"I looked at the breakdown of current new hires and saw that many had degrees in computer science and thought that their classwork might not have covered things like RF propagation," Hill said. Rather than have employees sit through hours of *PowerPoint* briefings, Hill thought that a licensing course might be a more dynamic, hands-on approach to convey the basics — and cover areas such as directional antennas, signal propagation, and modulation that are necessary for their work.

Initially, Hill had 10 class slots funded, but then Target Design Engineering Branch Head Ian Mann, KI6YVO, got wind of the class, saw its potential, and helped get funding to expand participation. Mann, a General-class licensee and a ham for nearly 10 years, said he's been able to apply knowledge learned in the class to his NAWCWD work.

Target Systems Division head Milton Gabaldon, also saw merit in the approach. He sat in on the classes, took the exam, and he's now KM6YPA. For him, it's about connecting the dots.

"It's about introducing people to electronics, to start understanding what RF is all about ...so when we talk about it in the test and evaluation world, [students] know what we're talking about," Gabaldon said. "They get a better view than 'I just do software.' Now they see 'My software controls this piece, which sends out RF jamming signals that protect the warfighter.' That's the most important takeaway."

In all, 23 employees who took the Technician exam passed, and several also successfully tested at for General and Amateur Extra licenses. Hill hopes to offer more hands-on classes in the future, and he's

planning a Fox Hunt for the near future, as additional hands-on training. — *Thanks to NAWCD and Public Affairs Officer Kimberly Brown; some information from **C4ISRNet***

—from the ARRL Website



# Earth's Magnetic North Pole Shifts toward Siberia

02/05/2019

National Centers for Environmental Information (**NCEI**) scientists have updated the world magnetic model (WMM) mid-cycle, as Earth's northern magnetic pole has begun shifting quickly away from the Canadian Arctic and toward Siberia, an **NCEI report** said this week. The new WMM more accurately represents the change of the magnetic field since 2015. The alteration could have an impact on government, industry, and consumer electronics.

"Due to unplanned variations in the Arctic region, scientists have released a new model to more accurately represent the change of the magnetic field," the report said, noting that updated versions of the WMM are typically released every 5 years. This update comes about 1 year early.

"This out-of-cycle update before next year's official release of WMM 2020 will ensure safe navigation for military applications, commercial airlines, search and rescue operations, and others operating around the North Pole," said NCEI, which is part of the National Oceanographic and Atmospheric Administration (NOAA).

"Organizations such as NASA, the Federal Aviation Administration, US Forest Service, and many more use this technology. The military uses the WMM for undersea and aircraft navigation, parachute deployment, and more."

Other governmental entities use the technology for surveying and mapping, satellite/antenna tracking, and air traffic management. Smartphone and consumer electronics companies also rely on the WMM to provide consumers with accurate compass apps, maps, and GPS services.

Airport runways may be the most visible example of a navigation aid updated to match shifts in Earth's magnetic field. Airports around the country use the data to give runways numerical names, which pilots refer to on the ground. The declination has changed slightly more than 2.5° over the past 2 decades or so. Compasses use declination — the difference between true north and where a compass points — to help correct navigation systems for a wide variety of uses.

As Earth's magnetic field evolves between the 5-year release schedule of the WMM, these predicted values can become off as the rate of change in Earth's magnetic field evolves due to unpredictable flows in Earth's core. The NCEI report said Earth's north polar region is experiencing one of these erratic changes.

DXer and Contester Frank Donovan, W3LPL, said the slowly drifting *geomagnetic* north pole has much greater significance to DXers and contesters because the northern auroral oval — which greatly affects HF propagation over the north Atlantic and north Pacific Oceans — is closely centered on the geomagnetic north pole and *not* on the magnetic — or dip — north pole discussed in the NCEI report.

“The geomagnetic north pole has been drifting generally northward at only about 3 miles per year,” Donovan pointed out. “The location of the magnetic north pole is important to navigation but of relatively little importance to space-based phenomena such as HF ionospheric propagation.” — *Thanks to NOAA-NCEI*

— from the ARRL Website



Magnetism, as you recall from physics class, is a powerful force that causes certain items to be attracted to refrigerators — *Dave Barry*

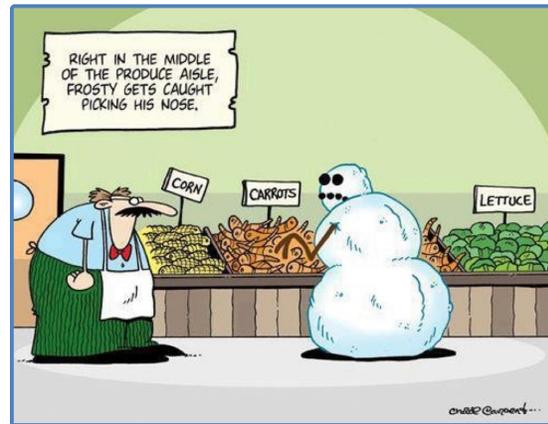


## Planned Experiment Will Disconnect Russia from the Internet

02/15/2019

Authorities and major internet providers in Russia intend to disconnect the country from the internet as part of a planned experiment purportedly aimed at enhancing national security, the Russian news agency RosBiznesKonsalting (**RBK**) has reported. The stated reason for the experiment is to gather insights and provide feedback and modifications to a proposed law introduced in the Russian Parliament in December. A draft of the law mandates that Russian internet providers ensure the independence of the Russian internet — Runet — and to disconnect the country from the rest of the internet in the event of foreign aggression.

“The topic of ensuring the security of communication networks and the Russian segment of the internet from targeted impacts has been raised in Russia since 2014. It seems to me that this is justified, because today the public communication network and the internet are the



most important element of the infrastructure,” Alexander Pankov, the deputy director of **Roskomnadzor**, recently told *Gazeta.ru*. Roskomnadzor, the Russian Federal Service for Supervision of Communications, Information Technology, and Mass Media, has been described as Russia's telecommunications “watch dog.” Pankov said the topic of ensuring the security of communication networks and the Russian segment of the internet from “targeted impacts” has been raised in Russia since 2014.

Russian telecom firms would be required to install “technical means” to re-route all Russian internet traffic to exchange points that have been approved or are managed by Roskomnadzor, which would ensure that traffic between Russian users stays within Russia and is not re-routed to servers abroad, where it could be intercepted.

No date for the test has been announced, but it is expected to be before April 1, which is the deadline to submit amendments to the legislation, known as the Digital Economy National Program.

All Russian internet providers have reportedly agreed with the law's goals but not with its technical implementation, which, they feel, could cause major disruptions. In 2017, Russian officials said they plan to route 95% percent of all internet traffic locally by next year.

The US and other NATO nations have called for a stronger response to cyberattacks attributed to Russia. — *Thanks to ZDNet, Gazeta.ru, and other media accounts*

— from the ARRL Website



# OARS Meeting

**Wednesday, March 20, 7:00 pm**

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

