



Watts News



Monthly Newsletter of the
Olympia Amateur Radio Society
P.O. Box 2861, Olympia, WA 98507

June 2009
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Edited by KB6LE (George Lanning) 360-866-2185
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Hello Everyone -
June is here and many are busy for various reasons. The school year is ending and some have family members graduating either from high school or college. The sun has been out a bit and summer is

definitely on its way.

On the Ham Radio front, we have Field Day rapidly approaching this month, so please give some thought to planning and if you can be an operator for some time during the event. Hopefully we will have a chance to discuss Field Day at this month's meeting.

On a final note, word has come to me that the Thurston County Sheriff's Department may be looking for things to cut from their budget. Since our repeaters are included in their budget, we may want to gather information showing how much benefit OARS is providing to them for their investment. From this we could assemble a brief non-technical presentation which we could give as needed. Please give some thought to this before we lose the support of TCSO.

73, Klaus

Amateur Radio Week Proclamation

On April 27, 2009, Washington State Governor Christine O. Gregoire proclaimed the week of June 22 through June 28 as Amateur Radio Week in Washington State.

A copy of the Proclamation is on the Western Washington Section Web Page.

From my heart, I thank all of you who selfishly respond to emergencies and use your skills and equipment to serve your communities.

73 and good Hamming

— Jim Pace K7CEX, Western Washington Section Manager

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ARRL Field Day

OARS Field Day this year will again be at the Capitol Campus, on June 27-28. Plan to participate if you can in this premier emergency operating event.

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ARRL Field Day Tips and Techniques That Everyone Can Use

Many amateurs treat ARRL Field Day (June 27-28) as a contest, even though it isn't one <http://www.arrl.org/fieldday> But if your idea of Field Day fun is to go for the highest score possible, ARRL Contest Branch Manager Sean Kutzko, KX9X, offered the following suggestions at the ARRL Field Day Forum at the 2009 Dayton Hamvention.

1) You will get many more stations in your log by calling CQ than by tuning the dial and answering CQs; however, if you're calling CQ and not getting any replies, keep calling. Most major contesters call CQ for several minutes at a time before giving up. Giving up after three or four CQs is giving up too soon.

2) Keep your CQs short and to the point: "CQ Field Day, CQ Field Day, Whiskey-One-Alfa-Whiskey, Field Day." Wait about 5 seconds between CQs — this gives stations enough time to answer you.

3) Use standard phonetics. "Cute" phonetics don't

always get through and they can confuse newer operators.

4) When working a station, you should give your exchange information only once and keep it simple. "Whiskey-One-Alfa-Whiskey, copy three Foxtrot Connecticut, QSL?" If they didn't get all of the exchange, they will ask for a repeat.

5) If you are running a pileup: Once you have pulled a call out of the pileup, give your exchange information first. Here's an example: "Whiskey-One-Alfa-Whiskey, copy 3F Connecticut, QSL?" Don't ask for the calling station's information first — this will reduce any sense of rhythm and timing in the pileup.

6) If you get a pileup of stations and can't make out an entire call, listen for one letter and ask for it specifically: "The station with Delta only, go ahead."

7) When you get the other station's information, keep your acknowledgment simple. "QSL, thanks, QRZ Field Day from Whiskey-One-Alfa-Whiskey."

8) Find a comfortable pace for you and maintain that pace. You will tire quickly if you are screaming into the microphone or trying to work stations too quickly. This leads to inefficiency.

9) Use a headset with a boom microphone and a foot switch — this frees up your hands to log QSOs. Writing or typing with a mike in your hand slows you down.

10) Go for as many bonus points as you possibly can. Numerous opportunities exist, from copying the Field Day message to sending traffic to using natural power for QSOs.

These tips should help maximize your score on Field Day. Remember: No matter how you choose to enjoy Field Day, maximize your fun, however you define it.

License Exam Sessions

6:00 pm before each monthly OARS meeting
Walk-ins allowed
To apply contact Klaus Neubert 753-1493
oars-ve@comcast.net

OARS OFFICERS FOR 2009

President	Klaus Neubert	AC7MG	753-1493
Vice President	Ken Julian	K7VOX	951-6352
Secretary	Paul Taylor	KC7LA	866-0683
Treasurer	Ed Fitzgerald	N7WW	491-2289
Member at Large	Mark Dempsey	KE7JTU	943-0165

KEY CONTACTS

RFI Committee	Ghery Pettit	N6TPT	412-1340
Repeater Committee	Larry Watkinson	KC7CKO	943-4352
Club License Trustee	Duane Braford	WB7ROZ	412-1902
Information Net	Duane Braford	WB7ROZ	412-1902
ARES Net	Tom Bohon	KE7EJJ	456-6260
OLY Packet Node	Larry Ikenberry	K7APT	943-7208
	Rick Taylor	K7CAH	943-6793
Packet BBS	George Lanning	KB6LE	866-2185
Newsletter	George Lanning	KB6LE	866-2185
OARS Website	George Lanning	KB6LE	866-2185
Classes	Lee Chambers	K17SS	866-0236
License Exams	Klaus Neubert	AC7MG	753-1493
Equip. Custodian	Larry Watkinson	KC7CKO	943-4352

REPEATERS: 147.36 MHz 224.46 MHz 441.40 MHz

PACKET: 145.07 MHz OLY Node 147.40 BBS

Membership is open to all interested radio amateurs.
Yearly dues are: \$20 for individual, \$25 for family.

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Treasurer's Report

As of 5/31/09

GENERAL FUND (checking account)

Previous balance	\$ 2,061.47
Income	0.42
Expenses	0.00
Ending balance	2,061.89

REPEATER / PACKET FUND (savings account)

Previous balance	\$ 1,023.72
Income	0.00
Expenses	0.00
Ending balance	1,023.27

— Ed Fitzgerald, N7WW, Treasurer

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FCC Looks to Raise Vanity Call Sign Fees for Second Consecutive Year

The FCC released a Notice of Proposed Rulemaking and Order (NPRM) on May 14 seeking to raise fees for Amateur Radio vanity call signs. Currently, a vanity call sign costs \$12.30 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to \$13.40 for 10 years, an increase of \$1.10.

The FCC is authorized by the Communications Act of 1934 (as amended) to collect vanity call sign fees to recover the costs associated with that program. The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. Instructions on how to comment on this NPRM are available on the FCC Web site.

The vanity call sign fee has fluctuated over the 12 years of the current program — from a low of

\$11.70 in 2007 to a high of \$70 (as first proposed in the FCC's 1994 Report and Order). In 2007, the Commission lowered the fee from \$20.80 to \$11.70. The FCC said it anticipates some 15,000 Amateur Radio vanity call sign "payment units" or applications during the next fiscal year, collecting \$201,000 in fees from the program.

The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. The first vanity call sign licenses issued under the current Amateur Radio vanity call sign program that began in 1996 came up for renewal three years ago.

Those holding vanity call signs issued prior to 1996 are exempt from having to pay the vanity call sign regulatory fee at renewal, however. That's because Congress did not authorize the FCC to collect regulatory fees until 1993. Such "heritage" vanity call sign holders do not appear as vanity licensees in the FCC Amateur Radio database.

Amateur Radio licensees may file for renewal only within 90 days of their license expiration date. All radio amateurs must have an FCC Registration Number (FRN) before filing any application with the Commission. Applicants can obtain an FRN by going to the ULS and clicking on the "New Users Register" link. You must supply your Social Security Number to obtain an FRN.

The ARRL VEC will process license renewals for vanity call sign holders for a modest fee. The service is available to ARRL members and nonmembers, although League members pay less. Routine, non-vanity renewals continue to be free for ARRL members. Trustees of club stations with vanity call signs may renew either via the ULS or through a Club Station Call Sign Administrator, such as ARRL VEC.

League members should visit the "ARRL Member Instructions for License Renewals or Changes" page, while the "Instructions for License Renewals or Changes" page covers general renewal procedures for nonmembers. There is additional information on the ARRL VEC's "FCC License Renewals and ARRL License Expiration Notices" page.

License application and renewal information and links to the required forms are available on the ARRL Amateur Application Filing FAQ Web page.

The FCC's forms page also offers the required forms

— *ARRL Bulletin ARLB022*

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Babies

A second grader came home from school and said to her mother, "Mom, guess what! We learned how to make babies today."

The mother, more than a little surprised, tried to keep her cool. "That's interesting," she said. "How do you make babies?"

It's simple, replied the girl. "You just change y to i and add es."

— *from ajokeaday.com via internet*

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OARS Net check-ins

The following stations checked in on the OARS General Information Net on May 12:

AA7YD	AB7PS	AC7MG	K7TAG
KD6VPH	KD7YXY	KI7CQ	NX6W
W7SAY	WB4LWQ		

Net control station reporting for the month was Rod, KI7CQ. Thank you for your support!!

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.

— ... —

A Tale of Two Tubes

— *by Dan Romnanchik, KB6NU*

A couple of weeks ago, I worked N4QR on 40m CW. I could tell by the tone of his signal that he was operating a homebrew transmitter. There wasn't any 60 Hz on his signal, and it didn't chirp exactly, but I could tell it wasn't the pure tone you get out of today's radios.

I asked him about his rig, and he told me that it was a one-tube transmitter made with a 6L6. I forgot to ask him where he got the schematic, but a quick Internet search turned up the following:

The May 2005 issue of the K9YA Telegraph (<http://www.k9ya.org>) has an article written by N4QR titled, "The Wonderful One-Tuber," that contains the schematic for the transmitter. The K9YA folks don't make issues of The Telegraph available on their website, but I was able to get a copy of the issue by e-mailing them.

A 6L6 Classic

(<http://www.io.com/~nielw/6l6/6L6.htm>)

WB2MIC 6L6 Transmitter Project

(http://www.metaphoria.us/hamradio/6L6_transmitter_schematic.htm)

The 6L6 is a pentode that, according to Wikipedia (<http://en.wikipedia.org/wiki/6L6>), was introduced by the Radio Corporation of America (RCA) in July 1936. Apparently, it was used quite a bit in public address systems.

After the tube became successful, tube manufacturers introduced a number of variations, including the venerable 807. The original 6L6 was capable of delivering 19 W; the latest variation, the 6L6GC is rated for 30 W. The 6L6GC is still used in guitar amps, and is still manufactured in Russia, China, and by Groove Tubes (www.groovetubes.com) in the U.S. They sell a number of different 6L6 variants; the cheapest is \$16, the most expensive \$180!!

Tube #2

One of the reasons I was interested in the 6L6 is because about a year ago I came across a schematic for a transmitter using 6A6 dual triode. I had just come into possession of a couple hundred tubes, and while I didn't have a 6A6 (at least I haven't found one yet), I do have a couple of 6J6 dual triodes. They're not quite as high power as the 6A6, but I'm still thinking about building a little transmitter with one.

As you might expect, there's a bunch of information on the Internet about this tube:

The Jones Push-Pull Transmitter

(http://wv7g.home.mindspring.com/jones_6j6.html) was built with a 6J6 instead of a 6A6.

Another schematic can be found on the AK0B website (<http://www.qsl.net/ak0b/>).

6J6 data sheet
(<http://www.gargnas.net:3000/tubedata/6J6.pdf>) from the GE data book.

One interesting fact about the 6J6 is that IBM used it in the 604 computer. Unfortunately, they found it to be not as reliable as they wanted it to be, but at first none of the tube manufacturers were interested in making a more robust version. This led IBM to set up a tube-making laboratory where they could experiment with designs. They developed a more reliable version of the 6J6 and finally convinced RCA to manufacture the tube. According to the author of the history of the 604 <http://ed-thelen.org/comp-hist/IBM-604.html#new>, part of the concern is that IBM would decide to get into the tube business.

So, the next time you hear a signal that doesn't sound so perfect, remember that there just might be a story behind it. Ask the op about his transmitter, and listen to what he or she has to say.

— 73, Dan KB6NU

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Memory

Two elderly hams had been friends for many decades. Over the years they had shared all kinds of activities and adventures on the ham bands. Lately, their activities have been limited to meeting a few times a week to play cards.

One day they were playing cards when one looked at the other and said "Now don't get mad at me — I know we've been friends for a long time — but I just can't think of your name and your call! I've thought and thought, but I can't remember them. Please tell me what they are."

His friend glared at him. For at least three minutes he just stared and glared at the gray haired old man. Finally he said, "How soon do you need to know?"

— from W1GMF via packet

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Scientists Predict Solar Cycle 24 to Peak in 2013

Scientists predict that Solar Cycle 24 will peak in May 2013 with 90 sunspots per day on average. At the annual Space Weather Workshop held in Boulder, Colorado last month, an international panel of experts led by NOAA's Space Weather Prediction Center (SWPC) predicted that Solar Cycle 24 will peak in May 2013 with 90 sunspots per day on average. If the prediction proves true, Solar Cycle 24 will be the weakest cycle since Solar Cycle 16 which peaked with 78 daily sunspots in 1928, and ninth weakest since the 1750s, when numbered cycles began.

The panel predicted that the lowest sunspot number between cycles — the solar minimum — occurred in December 2008, marking the end of Solar Cycle 23 and the start of Solar Cycle 24. If December's prediction holds up, at 12 years and seven months Solar Cycle 23 will be the longest since 1823 and the third longest since 1755. Solar cycles span 11 years on average, from minimum to minimum.

An unusually long, deep lull in sunspots led the panel to revise its 2007 prediction that the next cycle of solar storms would start in March 2008 and peak in late 2011 or mid-2012. The persistence of a quiet Sun also led the panel to a consensus that Solar Cycle 24 will be what they called "moderately weak."

Although the peak is still four years away, a new active period of Earth-threatening solar storms will be the weakest since 1928. Despite the prediction, the scientists said that Earth is still vulnerable to a severe solar storm. Solar storms are eruptions of energy and matter that escape from the Sun and may head toward Earth, where even a weak storm can damage satellites and power grids, disrupting communications, the electric power supply and GPS. A single strong blast of "solar wind" can threaten national security, transportation, financial services and other essential functions.

The most common measure of a solar cycle's intensity is the number of sunspots — Earth-sized blotches on the Sun marking areas of heightened magnetic activity. The more sunspots there are, the more likely it is that solar storms will occur, but a major storm can occur at any time.

“As with hurricanes, whether a cycle is active or weak refers to the number of storms, but everyone needs to remember it only takes one powerful storm to cause huge problems,” said NOAA scientist Doug Biesecker, who chaired the panel. “The strongest solar storm on record occurred in 1859 during another below-average cycle.” The 1859 storm shorted out telegraph wires, causing fires in North America and Europe and sent readings of Earth’s magnetic field soaring, as well as produced northern lights so bright that people read newspapers by their light, he said.

Biesecker cited a recent report by the National Academy of Sciences that found if a storm that severe occurred today, it could cause \$1-2 trillion in damages the first year and require four to 10 years for recovery, compared to the \$80-125 billion of damage that resulted from Hurricane Katrina.

The Space Weather Prediction Center is part of the National Weather Service and is one of the nine National Centers for Environmental Prediction. It is the nation’s official source of space weather alerts, watches and warnings. SWPC provides real-time monitoring and forecasting of solar and geophysical events that impact satellites, power grids, communications, navigation and many other technological systems.

— ARRL Bulletin ARLS003



Tuner for Receiving?

The ARRL’s very own Doctor, author of the popular QST column “The Doctor Is IN,” answers a question from his mailbag:

Question — Mario Bedard, VE2FZH, of St-Andre de Kamouraska, Quebec, Canada, asks: Is an antenna tuner of any use in a receiving system with a long wire or dipole antenna? If not, should I disable it while strictly receiving?

The Doctor Answers — This is one of those “that depends” kind of questions. A mismatched receive antenna will result in a reduction of both signal and atmospheric noise reaching your radio. If the atmospheric noise is much stronger than the internal noise in your radio, the resulting signal-to-noise ratio will be almost the same, even

though the signal will be weaker. It is often the case — especially on 20 meters and above — that the external noise may not dominate and you won’t hear weak signals that you might have heard with the tuner properly tuned.

It is somewhat more complicated with a transceiver with an internal automatic tuner. There may be no way to adjust it without transmitting, especially a problem if listening outside the amateur bands. That means that in listening mode — unless it remembers the settings for each band — you may have a mistuned tuner. That can be much worse than no tuner. If it’s easy to bypass the tuner, try it each time and see which is better.

— from the ARRL Letter



The Tiger

A blond calls her boyfriend (a ham radio operator) and says, “Please come over here and help me. I have a killer jigsaw puzzle, and I can’t figure out how to get it started.”

Her boyfriend asks, “What is it supposed to be when it’s finished?”

The blond says, “According to the picture on the box, it’s a tiger.”

Her boyfriend decides to go over and help with the puzzle. She lets him in and shows him where she has the puzzle spread all over the table.

He studies the pieces for a moment, then looks at the box, then turns to her and says, “First of all, no matter what we do, we’re not going to be able to assemble these pieces into anything resembling a tiger.”

He takes her hand and says, “Second, I want you to relax. Let’s have a nice cup of tea, and then...” He sighed — “Let’s put all the Frosted Flakes back in the box.”

— from Judi Koehn



OARS Directory June 2009

Name	Call	Address	City	ST	ZIP	Phone
Larry Alvar	KD7TQW	9101 Steilacoom Rd SE #82	Lacey	WA	98513-6129	360-413-7539
Fred Baker	W7SIX	224 Satsop Ave	Shelton	WA	98584	360-357-2662
Gary Ball	AD7XY	7931 Marietta Ct NE	Lacey	WA	98516	360-412-7473
Jack Barber	W1PRT	4316 Chambers Lake Dr. SE	Lacey	WA	98503	360-438-5921
Ruth Barber	K1IIF	4316 Chambers Lake Dr. SE	Lacey	WA	98503	360-438-5921
Jon Bennett	W7LWB	7132 Hawks Prairie Rd NE	Lacey	WA	98516	360-459-0697
Thomas Bohon	KE7EJJ	PO Box 8834	Lacey	WA	98509	360-786-4211
Mike Buettner	KB7STO	16201 Prairie Hts SE	Yelm	WA	98597	360-458-0575
Richard Bullard	KD7RAT	2020 Mare Ct SE	Olympia	WA	98501	360-357-3249
David Bushell	KC7ALJ	4609 17th Ln NE	Lacey	WA	98516	360-754-4588
Frank Byles	KD7SQU	1807 Arbutus St	Olympia	WA	98506	360-352-4725
Sharon Campbell	N7DHE	9101-24 Steilacoom Rd.	Olympia	WA	98513	360-491-6460
George Carle	N7ARY	1809 Centerwood Dr SE	Olympia	WA	98501	360-943-3536
Mike Carrington	WA5ZTE	4906 21st Ave SE	Lacey	WA	98503	360-412-1186
Chris Chambers	KA7BNS	908 Narnia Lane NW	Olympia	WA	98502	360-866-0800
Kristopher Chambers	KC7ZWN	908 Narnia Lane NW	Olympia	WA	98502	360-866-0800
Lee Chambers	KI7SS	908 Narnia Lane NW	Olympia	WA	98502	360-866-0800
Marie Chambers	KC7MNM	908 Narnia Lane NW	Olympia	WA	98502	360-866-0800
Morgan Chambers	KC7VNY	908 Narnia Lane NW	Olympia	WA	98502	360-866-0800
Dan Conrad	KD7LYY	2629 Ballantine Dr SE	Olympia	WA	98506	
Daniel Crane	KB7DFL	4310 Glen Terra Dr. SE	Lacey	WA	98503	360-459-1564
Ken Dahl	K7TAG	1120 Palomino Ct SE	Tumwater	WA	98501-8633	360-534-9357
Ed Fitzgerald	N7WW	5006 Lacey Blvd. SE	Lacey	WA	98503	360-491-2289
David Gates		PO Box 414	Tenino	WA	98589	
Tom Gibb	W7TAG	8942 Walter Ct SW	Olympia	WA	98512	360-754-3945
Helen Hannigan	KB7JDL	2409 Morse Rd SE	Olympia	WA	98501	360-352-9189
Alvin Hyde	KC7DEI	9101 Steilacoom Rd SE #185	Olympia	WA	98513	360-438-9154
Ken Julian	K7VOX	5541 Colby Court SE	Olympia	WA	98501-9129	360-951-6352
Sharon Kinder	N7SSD	502 S. Edison St.	Olympia	WA	98501	360-943-6187
George Lanning	KB6LE	4129 Green Cove N.W.	Olympia	WA	98502	360-866-2185
David LeFevre	KC7FEC	8128 Bo Court SE	Olympia	WA	98501	360-413-7405
Robert Lyon	AA7YD	7734 Nottingham Ct SE	Olympia	WA	98503	360-459-9263
Sara Lyon	AB7PS	7734 Nottingham Ct SE	Olympia	WA	98503	360-459-9263
Rodney Maupin	KI7CQ	PO Box 976	Rainier	WA	98576	360-446-1050
Dennis Mills	N7MEA	804 Narnia Lane NW	Olympia	WA	98502	
Cindy Morris	KD7KDE	16501 92nd Ave SE	Yelm	WA	98597	360-539-1973
Klaus Neubert	AC7MG	PO Box 12104	Olympia	WA	98508	360-753-1493
Dennis Niles	KH6XT	PO Box 2594	Olympia	WA	98507	
Andrew Noble	AJ3N	PO Box 2026	Shelton	WA	98584	360-463-6189
Jim Ryan	KD7HTG	10505 Ryan Ln SE	Olympia	WA	98513	
Richard Schwender	AD7KC	PO Box 8773	Olympia	WA	98510	
Charles Scovill	KC7FEE	6625 Bellevista St NW	Olympia	WA	98502	360-866-1961
Kenneth Smith	W7HRY	7627 Cooper Point Rd. NW	Olympia	WA	98502	360-866-2507
Leroy Smith	N7EIE	8525 Mahonia Ct SE	Yelm	WA	98597	360-458-8286
Thom Solberg	N7KJG	3067 60th Ave SE	Olympia	WA	98501	360-456-3297
Charles Stoddard	NX6W	1737 Judd St NE	Olympia	WA	98516	
Owen Ticknor	WA7JZM	18124 Sunshine Ln SW	Rochester	WA	98579	360-273-8975
Jennifer Vein	KE7CQI	PO Box 8773	Olympia	WA	98510	
Lisa Withers	KB7PNX	6010 193rd Ave SW	Rochester	WA	98579	360-273-8614

July 2009

OARS Calendar

Sunday		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																									
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: left;"> <p style="text-align: center; margin: 0;">June</p> <table style="font-size: small; border-collapse: collapse; margin: 0;"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td></td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td></td><td></td><td></td><td></td></tr> </table> </div> <div style="border: 1px solid black; padding: 5px; text-align: left;"> <p style="text-align: center; margin: 0;">August</p> <table style="font-size: small; border-collapse: collapse; margin: 0;"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div> </div>		S	M	T	W	T	F	S	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p style="color: red; font-size: 1.2em; margin: 0;">1</p> <p style="margin: 0;">Canada Day Contest phone & CW</p>	<p style="color: red; font-size: 1.2em; margin: 0;">2</p>	<p style="color: red; font-size: 1.2em; margin: 0;">3</p> <div style="border: 1px solid black; background-color: #90EE90; padding: 2px; margin: 5px auto; width: 80%;"> <p style="margin: 0;">Deadline for Watts News Inputs</p> </div>	<p style="color: red; font-size: 1.2em; margin: 0;">4</p> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;"> <p style="margin: 0; font-size: small;">7:15 AM Breakfast at Nickelby's 600 Trooper Rd</p> </div> <p style="margin: 5px auto; font-size: small;">070 Club Firecracker PSK31 Sprint</p>
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<p style="color: red; font-size: 1.2em; margin: 0;">5</p> <p style="margin: 0; font-size: small;">070 Club Firecracker PSK31 Sprint</p>	<p style="color: red; font-size: 1.2em; margin: 0;">6</p>	<p style="color: red; font-size: 1.2em; margin: 0;">7</p> <p style="margin: 0; font-size: small;">7:00 PM ARES Net 7:30 PM OARS Net</p>	<p style="color: red; font-size: 1.2em; margin: 0;">8</p>	<p style="color: red; font-size: 1.2em; margin: 0;">9</p>	<p style="color: red; font-size: 1.2em; margin: 0;">10</p> <p style="margin: 0; font-size: small;">FISTS Summer Sprint</p>	<p style="color: red; font-size: 1.2em; margin: 0;">11</p> <p style="margin: 0; font-size: small;">IARU HF World Championship</p>																																																																																										
<p style="color: red; font-size: 1.2em; margin: 0;">12</p> <p style="margin: 0; font-size: small;">IARU HF World Championship QRP ARCI Summer Homebrew CW</p>	<p style="color: red; font-size: 1.2em; margin: 0;">13</p>	<p style="color: red; font-size: 1.2em; margin: 0;">14</p> <p style="margin: 0; font-size: small;">7:00 PM ARES Net 7:30 PM OARS Net</p>	<p style="color: red; font-size: 1.2em; margin: 0;">15</p> <div style="border: 1px solid black; background-color: #90EE90; padding: 2px; margin: 5px auto; width: 80%;"> <p style="margin: 0; font-size: small;">7:00 PM - 9:00 PM OARS General Meeting at Red Cross</p> </div>	<p style="color: red; font-size: 1.2em; margin: 0;">16</p>	<p style="color: red; font-size: 1.2em; margin: 0;">17</p>	<p style="color: red; font-size: 1.2em; margin: 0;">18</p> <p style="margin: 0; font-size: small;">Russian Radio Team Championship phone & CW</p>																																																																																										
<p style="color: red; font-size: 1.2em; margin: 0;">19</p>	<p style="color: red; font-size: 1.2em; margin: 0;">20</p>	<p style="color: red; font-size: 1.2em; margin: 0;">21</p> <p style="margin: 0; font-size: small;">7:00 PM ARES Net 7:30 PM OARS Net</p>	<p style="color: red; font-size: 1.2em; margin: 0;">22</p>	<p style="color: red; font-size: 1.2em; margin: 0;">23</p>	<p style="color: red; font-size: 1.2em; margin: 0;">24</p>	<p style="color: red; font-size: 1.2em; margin: 0;">25</p> <p style="margin: 0; font-size: small;">IOTA Contest phone & CW</p>																																																																																										
<p style="color: red; font-size: 1.2em; margin: 0;">26</p> <p style="margin: 0; font-size: small;">Flight of the Bumb- lebees CW IOTA Contest phone & CW</p>	<p style="color: red; font-size: 1.2em; margin: 0;">27</p>	<p style="color: red; font-size: 1.2em; margin: 0;">28</p> <p style="margin: 0; font-size: small;">7:00 PM ARES Net 7:30 PM OARS Net</p>	<p style="color: red; font-size: 1.2em; margin: 0;">29</p>	<p style="color: red; font-size: 1.2em; margin: 0;">30</p>	<p style="color: red; font-size: 1.2em; margin: 0;">31</p>																																																																																											

OARS Membership Application

▪ New Date _____
▪ Renewal ARRL member ? _____
Call Sign _____ License class _____
Name _____
Address _____
City, St. _____ ZIP _____
Home phone _____
Day phone _____
Email _____
Newsletter by Email? (yes/no) _____

Annual Dues: \$20 (\$25 family) — first year prorated by number of months.

If family membership, please attach above information for each family member.

Send to: OARS
PO Box 2861
Olympia, WA 98507

O A R S Meeting
Wednesday, June 17, 7:00 p.m.

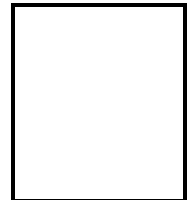
“Field Day Planning”

Red Cross Building
2618 12th Court SW, Olympia

An Invitation

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. Submit the membership application at the left to OARS at 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



If the date on your address label is marked in red, it is time to renew!