



Watts News



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

May 2008
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From the
Oval Shack

President's Message

Hello Everyone

I was trying to come up with something inspirational or at least interesting for this month, but since my creative pro-

clivities are apparently somewhat diminished (perhaps the norm), I will use what I had initially thought of for last month before the opportunity to volunteer for the MS Walk. Fear not, however that this is a recycled message. I had not actually put pen to paper or finger to keyboard, it was just something that came into my mind.

For Christmas 2003, one of my wife's brothers in law gave me a laptop. This laptop was new around 1999, and for anyone who cares, is an IBM Thinkpad (TM) 600E. The price was right for my pocket book, so I gladly accepted it and promptly replaced the 6 GB Hard drive with a 100 GB unit (actually about 93 GB). After having this for a year or so, I accidentally plugged it into an automotive adapter with the wrong polarity. The laptop promptly made a small "TINK" sound and no lights appeared to show it was charging. I tried connecting the official IBM AC power supply which also did

not charge. I disassembled the computer and discovered an SMD device had indeed subdivided. I was able to determine what the device was and found the device on one of the online electronics parts suppliers.

The parts were priced reasonably enough at about \$.45 each so I ordered two for a total parts price of \$.90. Then shipping was applied to bring the total up to \$5.90, but I needed the part so paid the price. When the parts were delivered, I tried to be careful as I removed the original part, but in removing it I

also removed one of the pads on the circuit board. I had never tried close pitch soldering on SMD ICs. I examined the board with a magnifying glass, but could not see any trace that went to the pad anyhow, so I cleaned the remaining pads and soldered the new device into place, observing proper orientation, etc. I then reassembled the computer and anxiously connected the AC supply and NOTHING!

I should note here that the laptop itself was perfectly functional on battery power, it just would not charge the batteries. I picked up a battery charger for the thinkpad on eBay (TM) and could recharge the batteries, but this was an inconvenience. I was also concerned because each time I disassembled the computer I figured I was taking the risk of converting

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a functioning computer into a non-functioning computer.

I disassembled the laptop a couple of times between then and now, but could only assume a fuse had been blown, but I had no way of knowing what the value of the fuse was. I also checked with the wife's brother in law about possible replacement boards since he had a number of thinkpads disassembled. Apparently there were different versions of that laptop, and he had no boards that would interchange.

This last March (2008), I decided I would locate the offending fuse and solder a wire across it and just ensure the wrong polarity could not be applied again. As I was checking fuses, they all appeared to have continuity — handy to have in fuses, but aggravating when one is trying to find one that is defective. I then decided I would carefully remove the IC I had installed and very carefully inspect the area around the pad I had accidentally removed. I placed the tip of a small pair of tweezers under one of the leads of the IC and applied heat to that lead. I was somewhat surprised to have the IC leap off the board. Apparently I had not actually soldered it to the board and it had been held in place by the rosin flux(?).

License Exam Sessions

6:00 pm before each monthly OARS meeting
Walk-ins allowed

Since it had been removed, I examined very carefully the area around the pad as well as the other pads. I again found no traces going to that pad and also found other pads that had no circuit traces going to them. Lacking any better ideas, I resoldered the IC to the board, again observing proper orientation and once I had managed to solder it down, clean extra solder away so the electricity was not helped by unintended paths between the leads, and finally checked continuity between each lead and the trace going to the appropriate pad as well as to other leads. All checked out, so I reassembled the computer and with fear and trepidation, connected the wall charger. The charge LED glowed and after a couple of hours, I was able to verify it was charging the batteries. Now the laptop appears to be completely functional and has been appropriated by my wife.

Hopefully this provides encouragement to anyone who has attempted repairs on something only to learn the repairs did not fix the problem. Also perhaps a lesson or two are shown. The first of these is that if I solder something for you, maybe my soldering should be checked. The second is simply that once you get something fixed, consider the repercussions before informing the wife.

73,

Klaus

— . . . —

Amateur Radio Week in Western Washington

Governor Gregoire has proclaimed June 23 -29 as Amateur Radio Week, in Western Washington. A photo of the official Proclamation can be seen on the Western Washington Section website:

<http://www.arrl.org/sections/?sect=WVA> in the photo section.

OARS OFFICERS FOR 2008

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 Dennis	KA4VVA	786-5500
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.

Congratulations to all Hams who serve their communities and the State of Washington through Public Service and Emergency Communications.

— ARRL Western Washington Section Manager: James Pace, K7CEX



Treasurer's Report

As of 4/30/08

GENERAL FUND (checking account)

Previous balance	\$ 1,712.28
Income	0.36
Expenses	8.20
Ending balance	1,704.44

REPEATER / PACKET FUND (savings account)

Previous balance	\$ 1,013.42
Income	0.00
Expenses	0.00
Ending balance	1,013.42

— Ed Fitzgerald, N7WW, Treasurer



Lewis County Hams recognized for their help during flood

As most of you know, Lewis County was devastated by flood waters during December 2007. Four Hams received special recognition by way of certificates of commendation, given by Sheriff Steve Mansfield. Those Hams were: Mike Payne, AC7UP, Jim Vander Meer, KC7ASV, Ted Denton, KE7GZN and Bill Harwell, AC7SR.

Congratulations to these and all of the other Hams who helped various communities during this event. I also want to recognize all of the

Hams who were standing by and ready to help, but were not called up. It takes a complete team to make the mission a success.

I'd like to quote the DEM from Kitsap County, Phyllis Mann, as she recognized her volunteers for their work last year:

"You have provided thousands of hours of volunteer time .

- You search for the missing
- You communicate our needs during a disaster
- You train school staff how to manage disasters
- You are ready to staff alternate medical sites
- And as our newest volunteer team you are about to provide Critical Incident Stress debriefing to all of our responders.

You are the heart and soul of Emergency Management. Thank you."

I certainly could not have said it better.

73 and Good Hamming

— Jim Pace K7CEX, WWA Section Manager



Bathtub Test

During a visit to the mental asylum, a visitor asked the Director how do you determine whether or not a patient should be institutionalized.

"Well," said the Director, "we fill up a bathtub, then we offer a teaspoon, a teacup and a bucket to the patient and ask him or her to empty the bathtub."

"Oh, I understand," said the visitor. "A normal person would use the bucket because it's bigger than the spoon or the teacup."

"No." said the Director, "A normal person would pull the plug. Do you want a bed near the window?"

— thanks to Klaus, AC7MG



Court Finds FCC Violated Administrative Procedure Act in BPL Decision

The US Court of Appeals for the District of Columbia Circuit today released its decision on the ARRL's Petition for Review of the FCC's Orders adopting rules governing broadband over power line (BPL) systems. The Court agreed with the ARRL on two major points and remanded the rules to the Commission. Writing for the three-judge panel of Circuit Judges Rogers, Tatel and Kavanaugh, Judge Rogers summarized: "The Commission failed to satisfy the notice and comment requirements of the Administrative Procedure Act ('APA') by redacting studies on which it relied in promulgating the rule and failed to provide a reasoned explanation for its choice of the extrapolation factor for measuring Access BPL emissions."

The Court agreed with the ARRL that the FCC had failed to comply with the APA by not fully disclosing for public comment the staff studies on which it relied. The Court also agreed with the ARRL that the Commission erred in not providing a reasoned justification for its choice of an extrapolation factor of 40 dB per decade for Access BPL systems and in offering "no reasoned explanation for its dismissal of empirical data that was submitted at its invitation." The Court was not persuaded by the ARRL's arguments on two other points, on which it found that the Commission had acted within its discretion.

The conclusion that the FCC violated the APA hinges on case law. "It would appear to be a fairly obvious proposition that studies upon which an agency relies in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comment," the Court said, adding that "there is no APA precedent allowing an agency to cherry-pick a study on which it has chosen to rely in part."

The Court continued, "The League has met its burden to demonstrate prejudice by showing that it 'has something useful to say' regarding the unredacted studies citation omitted that may allow it to 'mount a credible challenge' if given the opportunity to comment." Information withheld by

the Commission included material under the headings "New Information Arguing for Caution on HF BPL" and "BPL Spectrum Tradeoffs." The Court concluded that "no precedent sanctions such a 'hide and seek' application of the APA's notice and comment requirements."

With regard to the extrapolation factor, the Court ordered: "On remand, the Commission shall either provide a reasoned justification for retaining an extrapolation factor of 40 dB per decade for Access BPL systems sufficient to indicate that it has grappled with the 2005 studies, or adopt another factor and provide a reasoned explanation for it." The studies in question were conducted by the Office of Communications, the FCC's counterpart in the United Kingdom, and were submitted by the ARRL, along with the League's own analysis showing that an extrapolation factor closer to 20 dB per decade was more appropriate, as part of the record in its petition for reconsideration of the FCC's BPL Order. The Court said that the FCC "summarily dismissed" this data in a manner that "cannot substitute for a reasoned explanation." The Court also noted that the record in the FCC proceeding included a study by the National Telecommunications and Information Administration that "itself casts doubt on the Commission's decision."

The briefs for the ARRL were prepared by a team of attorneys at WilmerHale, a firm with extensive appellate experience, with assistance from ARRL General Counsel Christopher D. Imlay, W3KD. Oral argument for the ARRL was conducted by Jonathan J. Frankel of WilmerHale. Oral argument was heard on October 23, 2007; the Court's decision was released more than six months later.

After reading the decision, General Counsel Imlay observed, "The decision of the Court of Appeals, though long in coming, was well worth the wait. It is obvious that the FCC was overzealous in its advocacy of BPL, and that resulted in a rather blatant cover-up of the technical facts surrounding its interference potential. Both BPL and Amateur Radio would be better off had the FCC dealt with the interference potential in an honest and forthright manner at the outset. Now there is an opportunity to finally establish some rules that will allow BPL to proceed, if it can in configurations that don't expose licensed radio services to preclusive interference in the HF bands."

ARRL Chief Executive Officer David Sumner, K1ZZ, added: "We are gratified that the Court decided to hold the FCC's feet to the fire on such a technical issue as the 40 dB per decade extrapolation factor. It is also gratifying to read the Court's strong support for the principles underlying the Administrative Procedure Act. Now that the Commission has been ordered to do what it should have done in the first place, we look forward to participating in the proceedings on remand, and to helping to craft rules that will provide licensed radio services with the interference protection they are entitled to under law."

ARRL President Joel Harrison, W5ZN, concluded: "I am very pleased that the Court saw through the FCC's smoke screen and its withholding of valid engineering data that may contradict their position that the interference potential of BPL to Amateur Radio and public safety communications is minimal. The remand back to the FCC regarding their use of an inappropriate extrapolation factor validates the technical competence of Amateur Radio operators and especially of the ARRL Lab under the direction of Ed Hare, W1RFI. We are grateful for the work of our legal team and especially for the unflagging support of the ARRL membership as we fought the odds in pursuing this appeal."

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Medical Alert

The Centers for Disease Control has issued a medical alert about a highly contagious, potentially dangerous virus that is transmitted orally, by hand, and even electronically. This virus is called *Weary Overload Recreational Killer (WORK)*. If you receive WORK from your boss, any of your colleagues, or anyone else via any means whatsoever — DO NOT TOUCH IT. This virus will wipe out your private life completely. If you should come into contact with WORK you should immediately leave the premises.

Take two good friends to the nearest grocery store and purchase one or both of the antidotes: *Work Isolating Neutralizer Extract (WINE)* and *Bothersome Employer Elimination Rebooter (BEER)*. Take the antidote repeatedly until WORK has been completely eliminated from your system.

You should immediately forward this medical alert to five friends. If you do not have five friends, you have already been infected and WORK is controlling your life.

— thanks to Bill Vodall WA7NWP

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OARS Net check-ins

The following stations checked in on the OARS General Information Net one or more times on the dates of April 15 or 22:

AA7YD	AB7PS	AC7MG	AJ3N
K7TAG	KB7DFL	KC7CKO	KD6VPH
KD7CZN	KD7ISO	KD7SQU	KD7YXY
KE7CQI	KE7EJJ	KE7NVS	KI7CQ
KI7SS	N5MUR	N6TPT	N7IVM
N7JHJ	N7WW	NX6W	W7SAY
WB4LWQ	WC7I		

Net control stations reporting for the month were WC7I and KE7EJJ. 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.

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Ten New Satellites in Orbit

Ten satellites reached orbit April 28 aboard an Indian PSLV-C9 rocket launched from the Satish Dhawan Space Center. The primary payloads were India's CARTOSAT-2A and IMS-1 satellites. In addition to the NLS-5 and RUBIN-8 satellites, the rocket carried six CubeSat research satellites, all of which communicate using Amateur Radio frequencies. All spacecraft deployed normally and appear to be functional at this time.

The SEEDS satellite is designed and built by students at Japan's Nihon University. When fully operational, SEEDS will download telemetry in Morse code and 1200-baud FM AFSK packet radio at 437.485 MHz. The satellite also has Slow-Scan

TV (SSTV) capability. Several stations have reported receiving SEEDS CW telemetry and the team would appreciate receiving more reports from amateurs at their ground station Web page.

AAUSAT-II is the creation of a student team at Aalborg University in Denmark. It will downlink scientific telemetry at 437.425 MHz using 1200 or 9600-baud packet.

Can-X2 is a product of students at the University of Toronto Institute for Aerospace Studies, Space Flight Laboratory

(UTIAS/SFL). Can-X2 will downlink telemetry at 437.478 MHz using 4 kbps GFSK, but the downlink will be active only when the satellite is within range of the Toronto ground station.

Compass-One was designed and built by students at Aachen University of Applied Sciences in Germany. The satellite features a Morse code telemetry beacon at 437.275 MHz. Compass-1 will also provide a packet radio data downlink, which will include image data, at 437.405 MHz.

Cute 1.7 + APDII is a satellite created by students at the Tokyo Institute of Technology. This satellite will not only provide telemetry, it will also offer a 9600-baud packet store-and-forward message relay with an uplink at 1267.6 MHz and a downlink at 437.475 MHz.

Delfi-C3 was designed and built by students at Delft University of Technology in the Netherlands. It includes an SSB/CW linear transponder. The satellite will be in telemetry-only mode for the first three months of the mission, after which it will be switched to transponder mode. Delfi-C3 downlinks 1200-baud packet telemetry at 145.870 MHz. The linear transponder, when activated, will have an uplink passband from 435.530 to 435.570 MHz and a corresponding downlink passband from 145.880 to 145.920 MHz.

— ARRL Bulletin ARLS004

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FCC Looks to Raise Vanity Call Sign Fees

The FCC released a Notice of Proposed Rulemaking and Order (NPRM) on May 8 seeking to raise fees for Amateur Radio vanity call signs. Currently, a vanity call sign costs \$11.70 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to \$12.30 for 10 years, an increase of \$.60.

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 at, <http://www.fcc.gov/cgb/consumerfacts/howtocomment.html>.

The vanity call sign fee has fluctuated over the 12 years of the current program — from a low of \$12 to a high of \$50; the current fee of \$11.70 is the lowest the fee has been since the inception of the vanity call sign program. The FCC said it anticipates some 15,000 Amateur Radio vanity call sign "payment units" or applications during the next fiscal year, collecting \$184,500 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 two 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 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 site at, <http://wireless.fcc.gov/uls>, and clicking on the "New Users Register" link. You must supply your Social Security Number to obtain an FRN.

— ARRL Bulletin ARLB009

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June 2008

OARS Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																				
1	2	3 7:00 PM ARES Net 7:30 PM OARS Net	4	5	6	7 7:15 AM Breakfast at Nickelby's 600 Trosper Rd Digital Pentathlon - PSK SEANET Contest																																																																																				
8 SEANET Contest	9	10 7:00 PM ARES Net 7:30 PM OARS Net	11	12	13 Deadline for Watts News Inputs	14 ANARTS WW RTTY ARRL June VHF QSO Party Digital Pentathlon - MFSK																																																																																				
15 ANARTS WW RTTY ARRL June VHF QSO Party Asia-Pacific Sprint	16	17 7:00 PM ARES Net 7:30 PM OARS Net	18	19	20	21 Digital Pentathlon - Olivia																																																																																				
22	23	24 7:00 PM ARES Net 7:30 PM OARS Net	25 7:00 PM OARS Meeting at EOC	26	27	28 ARRL Field Day Digital Pentathlon - Hellschreiber																																																																																				
29 ARRL Field Day	30	<div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="font-size: small;"> <caption>May</caption> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> </tbody> </table> <table border="1" style="font-size: small;"> <caption>July</caption> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </tbody> </table> </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	31	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		
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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, May 28, 7:00 p.m.

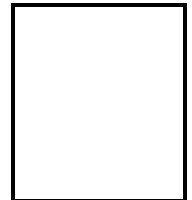
“Resonant Antenna Concept and Design”
— Steve Ward, WC7I

Emergency Operations Center
2703 Pacific Ave. SE

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!