



Watts News



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

June 2008
email: oars@comcast.net

Edited by KB6LE (George Lanning) 360-866-2185
website: <http://olyham.org>



President's Message

Hello Everyone.

So far in the month of June, I have noticed a fair amount of rain (and then some). I hesitate to mention this, but perhaps we are being prepared for the

sprinkler system on Field Day.

Since June is the month for Field Day, I suppose I should write about that. My first Field day was two years ago and I had a good time. I do not recall whether or not I came in to help set up, but I did come in at around 2230 or so and was there through the night. There were also some teenagers there through the night. There was Steve's [WC7I] granddaughter, Duane's [WB7ROZ] son and I believe another lass whose name I do not recall. I was a bit nervous sitting down to the microphone - especially with an audience. I started by tuning through the band and getting contacts that way. After a while, I found an empty frequency and let them come to me. I also enjoyed having the teenagers have a turn at the microphone. Hopefully they enjoyed it as well.

Even though she is not (or was not) a ham, Steve's granddaughter was able to pick the callsigns

out of the noise quite well. I might have to ask for the other station to repeat their callsign, but many times as they were in the process of repeating, she would let me know whether or not we had worked that station. I hope she and the others enjoyed their time there. I do recall having a bit of difficulty using my own callsign afterward. I may have used the club's callsign more that night than I had used my own in the several months prior.

Last year, Mark [KE7JTU] was there. I left after helping to set up, but when I came back Mark was there and he may have stayed through the entire time. He and I did have a bit of fun when the sprink-

lers came on, running around trying to cover the sprinkler heads that were nearby and protecting the radio gear.

I hope everyone that can make it to field day will be willing to come, and if possible, bring others along. Maybe we can interest them in the hobby. It would be nice to have some more young people in the hobby as well as the club. Maybe bring people for the food, and we can work on getting them on the air.

73, Klaus

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Treasurer's Report

As of 5/31/08

GENERAL FUND (checking account)

Previous balance	\$ 1,704.44
Income	40.35
Expenses	91.62
Ending balance	1,653.17

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

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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.

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

Why We Love Children

1) NUDITY I was driving with my three young children one warm summer evening when a woman in the convertible ahead of us stood up and waved. She was stark naked! As I was reeling from the shock, I heard my 5-year-old shout from the back seat, "Mom, that lady isn't wearing a seat belt!"

2) OPINIONS On the first day of school, a first-grader handed his teacher a note from his mother. The note read, "The opinions expressed by this child are not necessarily those of his parents."

3) KETCHUP A woman was trying hard to get the ketchup out of the jar. During her struggle the phone rang so she asked her 4-year-old daughter to answer the phone. "Mommy can't come to the phone to talk to you right now. She's hitting the bottle."

4) MORE NUDITY A little boy got lost at the YMCA and found himself in the women's locker room. When he was spotted, the room burst into shrieks, with ladies grabbing towels and running for cover. The little boy watched in amazement and then asked, "What's the matter, haven't you ever seen a little boy before?"

5) POLICE # 1 While taking a routine vandalism report at an elementary school, I was interrupted by a little girl about 6 years old. Looking up and down at my uniform, she asked, "Are you a cop?" "Yes," I answered and continued writing the report. "My mother said if I ever needed help I should ask the police. Is that right?" "Yes, that's right," I told her. "Well, then," she said as she extended her foot toward me, "would you please tie my shoe?"

6) POLICE # 2 It was the end of the day when I parked my police van in front of the station. As I gathered my equipment, my K-9 partner, Jake, was barking, and I saw a little boy staring in at me. "Is that a dog you got back there?" he asked. "It sure is," I replied. Puzzled, the boy looked at me and

then towards the back of the van. Finally he said, "What'd he do?"

7) ELDERLY While working for an organization that delivers lunches to elderly shut-ins, I used to take my 4-year-old daughter on my afternoon rounds. She was unfailingly intrigued by the various appliances of old age, particularly the canes, walkers and wheelchairs. One day I found her staring at a pair of false teeth soaking in a glass. As I braced myself for the inevitable barrage of questions, she merely turned and whispered, "The tooth fairy will never believe this!"

8) DRESS-UP A little girl was watching her parents dress for a party. When she saw her dad donning his tuxedo, she warned, "Daddy, you shouldn't wear that suit." "And why not, darling?" "You know that it always gives you a headache the next morning."

9) DEATH While walking along the sidewalk in front of his church, our minister heard the intoning of a prayer that nearly made his collar wilt. Apparently, his 5-year-old son and his playmates had found a dead robin. Feeling that proper burial should be performed, they had secured a small box and cotton batting, then dug a hole and made ready for the disposal of the deceased. The minister's son was chosen to say the appropriate prayers and with sonorous dignity intoned his version of what he thought his father always said: "Glory be unto the Faaather, and unto the Sonnn, and into the hole he goooses." (I want this line used at my funeral!)

10) SCHOOL A little girl had just finished her first week of school. "I'm just wasting my time," she said to her mother. "I can't read, I can't write, and they won't let me talk!"

11) BIBLE A little boy opened the big family Bible. He was fascinated as he fingered through the old pages. Suddenly, something fell out of the Bible. He picked up the object and looked at it. What he saw was an old leaf that had been pressed in between the pages. "Mama, look what I found," the boy called out. "What have you got there, dear?" With astonishment in the young boy's voice, he answered, "I think it's Adam's underwear!"

— from Eugene Mouncer

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The Antenna

Bert Thompson, KG6SL

Dear Bert,

I received this letter from an old friend, Joe Speroni AH0A/7J1AAA, who has been living and working in Japan for many years. He is also the author of the well-known MORSE ACADEMY software for teaching Morse code. Anyway, it was such an exciting letter that I thought it would be of interest to others here on "the Web."

Best 73 de Sandy, W7BX

Dear Sandy, W7BX

Greetings from Tokyo and all the members of TIARA (Tokyo International Amateur Radio Association). I know I promised you a series of articles on Japanese amateur radio, but there is something so exciting I just have to take a break and tell you about it.

It all started with the work that Ed Coan (AH7L/7J1AAE) did on antenna pattern plotting using his personal computer and the A-to-D converter in his FT-1000. The circular, and even backward antenna patterns of some of our local TIARA club members brought home the point that what a good station needs is a good antenna. Ed's antenna looks great and the results verify it. He works regular schedules into Colorado and Maine, just like sunspots don't mean anything. My mini-beam just could not compare.

Well, I got to thinking about what we Tokyo apartment dwellers could do and realized that space is THE problem. How do you fit a full-sized beam on a balcony? Loading coils are the answer and the problem at the same time — the antenna radiation resistance drops as reactance is substituted for length. High current loops develop and the power is dissipated in the antenna instead of being radiated. If only the antenna didn't dissipate the power. Hmmmm....let's see, $P=E^2/R$; now if R were 0 then...

From my work, I have some contacts in research groups over at Tokyo University. Better yet, I knew a Japanese ham that is a graduate student there. The thought running through my head was to build a super-conducting antenna. This requires cryogenics, i.e. temperatures around minus 279 degrees Centigrade. I was able get the university folks

interested in the project and we built a 10-meter dipole test silicon wafer. They put together a lot of serial coils by “re-work” on the wafer; they were able to connect them so we had a super-conducting yagi. I took my TS-930 transceiver down to the lab for the first tests, but before we could test it, actual measurements showed it was resonant on 3.126 MHz. It seems that the normal equations for inductance don’t work with super-conducting materials — you need a lot fewer turns to get the same results compared to room temperature. Many measurements and trials later, we had a ten-meter resonant wafer. This time we put a 40-element beam on each wafer and stacked 4 wafers in the same assembly. That made a 160-element array on 10-meters in less than a half-foot cube (15 cm³).

The first test didn’t go too well. I connected my TS-930 to the super-conducting wafer antenna and tuned it for 10 meters. At room temperature, we couldn’t hear anything. Using a heat pump, the lab technicians started lowering the antenna’s temperature toward the super-conducting region. I was really impressed by how small the equipment is, and started thinking it might all fit in the shack. Just then, the TS-930 froze solid, which had a negative effect on its operating characteristics. This wouldn’t be so easy after all; the coax connection would need some study!

We reworked the wafers to put inductive coupling on them, but I could find no way to efficiently couple to it from the conducting array. Fortunately the lab technicians came up with a new ceramic material that passed RF but not heat. Probably, something that Kyocera invented just for this use. I sent the TS-930 to the ham shop in Akihabara and asked them to touch it up for me. My friend Suzuki-San, JH1WWC (store manager at the ham shop), asked exactly how the paint had been peeled off around the coax connector — lightning maybe? No, I assured him — just low temperature exposure, without saying how low the temperatures were. The project had to stay secret and besides, Suzuki-San can repair anything!

Since it looked like it might be a while before the TS-930 would be repaired, I brought out my TS-940. I had already placed an order for a Yaesu FT-1000 anyway. After verifying that in the super-conducting range the antenna was resonant on 10-meters, we connected the TS-940. The ceramic material worked and the rig operated well

as we began the cooling cycle. The band seemed dead even with the antenna at -150 degrees C. It took another 10 minutes to get to the super-conducting range — then the TS-940 blew up. It seems our antenna had a bit more gain than the TS-940 front-end could take. Later measurements showed 500 volts coming out of the coax. A little hard to believe, but then what do I know about cryogenic LSI antenna technology? The TS-940 was also returned to Suzuki-San, but this time he frowned a bit — the front-end board did look like it had been hit by lightning. Not to worry, Suzuki-San can repair anything!

The FT-1000 arrived just in time to be able to continue experiments. We built a QSK attenuator to protect the receiver. With the LSI wafer antenna still inside the lab, we decided to try to make a contact on 10-meters. What a shock when we got it working! The first thing we heard was a couple of W2s talking locally on 10 meters and that was with 80 dB of attenuation. We had the antenna array on a rotatable mount; I moved it about a half-degree and the W2s disappeared. What beam width! We tuned them in again, and they were just about to sign off, so we thought we would try to work them. The rig was tuned up at 50 watts on a dummy load; we switched in the wafer antenna and gave N2BA a call. The noise was unbelievable — an ionized ray shot out from the antenna and hit the wall of the building. Before we knocked a hole in the band, we took a piece out of the lab wall! Ever wonder what an antenna pattern looks like in three dimensions? There was a oval hole in the wall of the lab — about 1-cm high by 2-cm wide. We cut power quickly. N2BA came back on frequency a few minutes later and said he was using his back-up rig; something had taken his main rig off the air. For some reason, the station he was talking to never came back, so we decided not to transmit again until we knew for sure what was going on.

As near as we can tell, the antenna array has 620-dB gain over a dipole, but with a beamwidth of 0.75 degrees using the 60-dB points. With 50 watts output, the effective radiated power is 55 quadrillion watts at the center of the beam (5.5 with 13 zeroes). As soon as the University realized what we had built, the entire project was taken away from us and turned over to the Japanese Self-Defense Force. Amateur radio “tinkering” has contributed to something, but I am not exactly sure what. I haven’t the slightest idea what was in those wafers or how

to build another set. Do you think someone may be interested in this idea for Star Wars/SDI?? What I'd give to use a much smaller set in the next CQ World Wide Contest!

A few months later, the University contacted all of us and asked just how close we had been to the antenna when operating. As best as I can figure, we were in the null behind the array. From what has been said so far, it looks like a secondary use for our antenna may be as a mass sterilizer, but confirmation will have to await the results of our medical tests. If our antenna ever hits the market, it looks like remote operation may be desirable.

As I am writing this, I have been informed that my friend Suzuki-San can't fix everything after all. He's written off the TS-930 and TS-940, and I just found out that before the university terminated the project, they tried one more time with my FT-1000, but without the 100-dB attenuator to protect the receiver. Its front-end now matches the 940's and it looks like it will be a while before I am on the air again.

Best 73,

Joe Speroni, AH0A/7J1AAA

Ex-Technical Adviser TIARA

1 April 1997

Last modified Wed, 13 Jun 2007 17:15:21 GMT

By Joe Speroni

This story has been edited and reprinted from the April 1985 issue of the Tokyo International Amateur Radio Association's (TIARA) newsletter. Permission is hereby granted to reprint all or any portion of the material, provided credit is given to both TIARA NEWS and the author, Joe Speroni, AH0A/7J1AAA.

— Contributed by Klaus Neubert

[Please note the 1 April date — Editor]

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OARS Net check-ins

The following stations checked in on the OARS General Information Net on May 27:

AA7YD	AB7PS	AJ3N	K7TAG
KB6LE	KD7UKG	KD7VPH	KD7WXL
KE7JTU	KE7NVS	KI7CQ	NX6W

Net control station reporting for the month was AC7MG. 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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BPL Project is switched off

I met with Mayor Browning this morning (May 25) who informed me that the City of Centralia, Washington BPL project is a NO GO! The cost and performance of the equipment were outside of the parameters that the city had set for the original test project.

Many thanks to Technical Coordinator Tom Herman, N1BEC, and Centralia College Electronics Instructor Jim Vandermeer, KC7ASV who were very involved in recording band conditions before and during the BPL test, and all the local hams in Lewis County who monitored the test. Our effort shows that when Amateur Radio and government agencies cooperate, good things can happen.

73

— Jim Pace K7CEX, Western Washington Section Manager

— ... —

Where do new hams come from?

Since this year's Communications Academy, various clubs and ARES Units have been sponsoring license preparation classes and VE examinations by the dozens. By the end of 2008 we could have over 400 new Hams in Western Washington, at this rate.

Here's another opportunity for recruiting: June 21st is KIDS DAY, the creation of the Boring Amateur Radio Club, of Boring Oregon, but now gaining popularity as an annual event. Kid's Day is an on the air experience that can show off many facets of our hobby. (See QST June 2008 page 62)

Kid's Day can be a fun time and why not? Many of us became Ham Radio Operators because of an older Elmer who saw the future of Amateur Radio was in part dependant on kids getting interested in the hobby. My own Elmer Ron Wagner W7PSB (SK) was responsible for many of us from West Bremerton High School obtaining our first Ham license. Because of Mr. Wagner, I have enjoyed many aspects of Amateur Radio for over 50 years.

So let's do it! Clubs, ARES Units — find a supermarket parking lot and set up your gear and get the kids of Western Washington on the air. Break out the digital modes and show them that the internet is not the only way to communicate. Show them that ATV isn't just a 4 wheeled beach buggy! Get on your local repeater and let them talk to someone across the country or around the world via Echo Link or ILRP.

You still have time to get set up and contact your local media for some publicity, so let's "get it done" in the memory of Mr. Wagner and all of our Elmers who have gone before us.

73, and good Hamming

— *Jim Pace K7CEX, WWA SM*

— ... —

25 reasons I owe my mother

1. My mother taught me TO APPRECIATE A JOB WELL DONE : "If you're going to kill each other, do it outside. I just finished cleaning."
2. My mother taught me RELIGION: "You better pray that comes out of the carpet."
3. My mother taught me about TIME TRAVEL : "If you don't straighten up, I'm going to knock you into the middle of next week!"
4. My mother taught me LOGIC: "Because I said so, that's why."
5. My mother taught me MORE LOGIC: "If you fall out of that swing and break your neck, you're not going to the store with me."
6. My mother taught me FORESIGHT: "Make sure you wear clean underwear, in case you're in an accident."

7. My mother taught me IRONY: "Keep crying, and I'll give you something to cry about."

8. My mother taught me about the science of OSMOSIS: "Shut your mouth and eat your supper."

9. My mother taught me about CONTORTIONISM: "Will you look at that dirt on the back of your neck!"

10. My mother taught me about STAMINA: "You'll sit there until all that spinach is gone."

11. My mother taught me about WEATHER: "This room of yours looks as if a tornado went through it."

12. My mother taught me about HYPOCRISY: "If I told you once, I've told you a million times. Don't exaggerate!"

13. My mother taught me the CIRCLE OF LIFE: "I brought you into this world, and I can take you out."

14. My mother taught me about BEHAVIOR MODIFICATION: "You don't have to like it, you just have to do it."

15. My mother taught me about ENVY: "There are millions of less fortunate children in this world who don't have wonderful parents like you do."

16. My mother taught me about ANTICIPATION: "Just wait until your father gets home."

17. My mother taught me about RECEIVING: "You are going to get it when you get home!"

18. My mother taught me MEDICAL SCIENCE: "If you don't stop crossing your eyes, they are going to freeze that way."

19. My mother taught me ESP: "Put your sweater on; don't you think I know when you are cold?"

20. My mother taught me HUMOR: "When that lawn mower cuts off your toes, don't come running to me."

21. My mother taught me HOW TO BECOME AN ADULT: "If you don't eat your vegetables, you'll never grow up."

22. My mother taught me GENETICS: "You're just like your father."

23. My mother taught me about my ROOTS: "Shut that door behind you. Do you think you were born in a barn?"

24. My mother taught me WISDOM: "When you get to be my age, you'll understand."

25. And my favorite: My mother taught me about JUSTICE: "One day you'll have kids, and I hope they turn out just like you."

— *from Klaus AC7MG*

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July 2008

OARS Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																															
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6 070 Club Firecracker PSK31 Sprint	7	8 7:00 PM ARES Net 7:30 PM OARS Net	9	10 <div style="border: 1px solid black; padding: 2px; margin: 5px;"> ARES/RACES meet- ing at Thurston County EOC </div>	11 <div style="border: 1px solid black; padding: 2px; margin: 5px;"> Deadline for Watts News Inputs </div> FISTS Summer Sprint	12 IARU HF World Championship West Coast Region- al Challenge																																																															
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27 Flight of the Bumblebees IOTA Contest	28	29 7:00 PM ARES Net 7:30 PM OARS Net	30	31	<table border="1" style="margin: auto;"> <tr><td colspan="7" style="text-align: center;">August</td></tr> <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></td><td></td><td></td><td></td><td></td><td></td><td>2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td>31</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>		August							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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