Radio **A**mateur **I**nformation **N**ews

Number 488 **November 2017**

Happy Thanks Giving

here comes the rest of the Holidaze!

Some of us just can't avoid it, while some can't get enough of it. Winter brings us some of the best reasons for family and social gatherings. Tomorrow is Thanks Giving. I'm looking forward to a Pantry turkey and fixin' lunch before I start my REAL dinner. I hope to see some of you hard core ham fans there. In the mean time, I am adding the dates and times for other events coming up very quickly.

Friday, December 8th at 6:00PM, H.A.R.C. Annual Holiday Potluck at the new H.A.R.C. location 11th and E, Eureka. Main dish supplied, but bring a side dish. Bring your plates and flatware. Also, bring your chairs. We will monitor the club repeater (145.470) for anyone not sure where the new club house is. Also, we'll have the now famous GIFT EXCHANGE. Brace yourselves, it could get rough!

Saturday December 9th: Dale, KF6QIB is looking for 2 more VHF communicators for the Truckers Parade. New hams, this is a GREAT way to get the very best view of the parade and have a great time using your new ham radio license giving back to our great community! Dale will fill you in on operating details. I don't have the meeting minutes, so please make sure to check into the Monday night Emergency nets for more details.

December 2nd UTC: Skywarn Recognition Day is Saturday. Operations will be from 0000 - 2400 UTC. HAMS are invited to operate the Eureka NWS station on Woodley Island. Please make sure to check into the Monday night Emergency nets for more details.

They DARED, they were PREPARED! TU w6ies & kk6mpv

December 2nd Tuesday Workshop

Greetings,

In honor of all of our generally cramped December schedule I have decided to not hold the December 2nd Tuesday Workshop. We are go for January's which will be held on the 9th at 7pm at the Muni Clubhouse. It will be a split session between Howard Lang and Jim Armstrong. They will both do a "Part B" on their "PSK31/Digital Modes using FLDIGI" and "Email on the amateur bands using Winlink." This will be a chance for them to present with resolved technical issues that disrupted their demonstrations. Hopefully participants have played with these modes since then and will have questions or issues to ask about in class. Members who didn't come to the "Part A's" are of course welcome.

Any questions, comments or suggestions? Please email me at Anthonywiese@yahoo.com.
73, Anthony, KG6LHW

November's 2nd Tuesday meeting recap

Joe nu6o put on an outstanding review of getting onto the “new bands” with ham radio. Included was pictures of some of the burned up matching elements of prior construction. Joe is passionate about building gear for ham radio and in his report, he showed us some of the amazing ways of getting onto these exciting low bands and really making contacts.

It was obvious that the crowd was very interested in what he has done so far. Great questions were answered and many pictures to demonstrate how to build a safe antenna system, keeping the match inside metal containers and other hazards to avoid along the way.

We kept him so long, Joe started to loose his voice!

Thank you Joe, that was amazing and very inspirational!

DISCLAIMER: RAIN is published monthly by the Humboldt Amateur Radio Club. RAIN is a benefit of membership in Humboldt Amateur Radio Club. No paid subscriptions are available.

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For more information, please visit our website http://www.humboldt-arc.org/
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BOX 5251
Eureka, CA 95502-5251

Sweepstakes 2017 HARC

We had a terrific ARRL November Sweepstakes Contest weekend at the Clubhouse.

First of all I would like to give a few thank yous.

Thank you Jim A. for lending us your Yaesu contest rig, headset, external speaker and foot-switch. That made all the difference in the world. Thank you also for pulling extra shifts and making sure that all participants had access to the building around the clock.

Thank you Howard L. for donating the desktop so that we could make the event possible. Your help installing the electronic logging software, comic-relief during the contest and uploading the results as soon as the event was over was invaluable.

Thank you Mark N. for lending us the registration code for the logging software. All of the participants I talked to love it and are considering buying the $50 package that contains all contest logs, a standard amateur log and other nifty tools. Mark also was our San Francisco Section QSO.

Thank you Dan E., Greg D., Peter E, Carl E. and Dexter L. for participating and giving up early and late hours of this sunny weekend to participate in the clubhouse's first contest.

Now. Results.....

We worked for a total of 18 hours and 8 minutes. We worked 50 of the 83 sections (including Alaska,Hawaii, the Virgin Islands and the Canadian Maritimes.) We finished with the nice round numbers of 100 QSO's and 10,000points.

Some of the things we learned was that we do indeed have a strong working clubhouse station. The layout of the desk, radio, computers, and teams works out nicely. The club rig itself works fine but leaves something to be desired for contesting. The tuner did a really good job working the fan dipole. We re-tuned a lot but it did the job fine. We also found that 80m is problematic for us. A total of 2 contacts were made on it. We simply had a hard time being heard.

All in all we had a great event and look forward to more in the future.
73, Anthony

RARC MEETING SEPTEMBER 26, 2017

The Redwood Amateur Radio Club meeting was called to order in Pepper's Restaurant by President Lonnie Harvey, KJ6WDL, at 1910.

SECRETARY'S REPORT

The Secretary's Report for the July meeting was approved as read. There was no August meeting.

TREASURER'S REPORT

Dan, reported $742.36 in savings and $391.33 in checking. A check for $150.00 was received from HARC for coax. It was approved for Dan to pay the registration fees for the new trailer and the $10.00 license fee for the old trailer. The Report was approved as read.

OLD BUSINESS

Equipment has been transferred to the new trailer. Layout for the new trailer still needs to be planned.

NEW BUSINESS

Tractor Supply has a good deal on six-volt batteries, $30 less than Costco.

Dan has a solar panel with controller, electric jack, and scissor jacks for the trailer.

Meeting adjourned at 2000.

Respectfully submitted, Don Campbell, KE6HEC, Secretary.

ARRL 160 Meter CW Contest

Objective: For Amateurs worldwide to exchange information with W/VE amateurs on 160-meter CW. DX-to-DX QSOs do not count for contest credit. Stations located in overseas and non-contiguous U.S. Territories may be worked by DX stations. This includes Alaska KL7, the Caribbean US possessions KP1-KP5, and all of the Pacific Ocean territories KH0-KH9, including Hawaii KH6. These stations can work BOTH domestic stations (US and VE) as well as DX stations around the world. Check your software before the contest to be sure it will accept these QSOs.

Online Log Submission: Participants can now submit their Cabrillo-formatted contest logs via the web. A new **online log submission web page** can be used to upload your log as a file or by copy-and-pasting the log text into a text window. The log will then be checked for proper formatting and completeness before uploading to the log-checking database. You will then receive a confirmation number and a confirming email. If any errors or discrepancies are discovered, they will be clearly labeled so that you can fix the log and try again. The email log submission process is still available if you prefer to use that method and all accepted logs will be listed on the **ARRL Logs Received** page.

RadFxSat (Fox-1B) Launched Successfully, Designated AO-91

The latest CubeSat in the Fox series — **RadFxSat (Fox-1B)** — launched today (November 18) from Vandenberg Air Force Base in California. The Delta II vehicle lifted off at 0948 UTC.

“Following a picture-perfect launch, RadFxSat was deployed at 1109 UTC,” AMSAT reported. “Then the wait began. At 1212 UTC, the AMSAT Engineering team, watching ZR6AIC’s WebSDR waterfall, saw the characteristic ‘Fox Tail’ of the Fox-1 series FM transmitter, confirming that the satellite was alive and transmitting over South Africa. Shortly after 1234 UTC, the first telemetry was received and uploaded to AMSAT servers by Maurizio Balducci, IV3RYQ, in Italy. Initial telemetry confirmed that the satellite was healthy.”

In the wake of the successful launch, deployment, and reception, OSCAR Number Administrator Bill Tynan, W3XO, designated the new satellite as AMSAT-OSCAR 91 (AO-91).

AMSAT Engineering reminds stations that the satellite will not be available for general use until the on-orbit checkouts are complete. AMSAT asks listeners to submit telemetry from RadFxSat (Fox-1B) to assist the Engineering team in completing the commissioning process. Experiment telemetry is downlinked via the DUV sub-audible telemetry stream, which can be decoded using ***FoxTelem*** software.

A 1U CubeSat, RadFxSat (Fox-1B) is a joint mission of AMSAT and the Institute for Space and Defense Electronics (**ISDE**) at Vanderbilt University. The Vanderbilt package is intended to measure the effects of radiation on electronic components, including the demonstration of an on-orbit platform for space qualification of components, as well as to validate and improve computer models for predicting radiation tolerance of semiconductors.

AMSAT constructed the rest of the satellite, including the spaceframe, on-board computer, and power system. The Amateur Radio package is similar to that currently on orbit on AO-85, with an uplink on 435.250 MHz (67.0 Hz CTCSS) and a downlink on 145.960 MHz.

RadFxSat (Fox-1B) was a secondary payload on the United Launch Alliance (ULA) Delta II rocket carrying the Joint Polar Satellite System-1 (JPSS-1) mission into space. RadFxSat (Fox-1B) is one of four CubeSats making up this NASA Educational Launch of Nanosatellites (ELaNa) XIV mission, riding as secondary payloads aboard the JPSS-1 mission.

In keeping with long-held ULA tradition, the Delta II launcher paid tribute to deceased employees. Emblazoned on the side of the booster were the names of the late Eric G. Lemmon, **WB6FLY**, and George Dean. — *Thanks to AMSAT News Service via Paul Stoetzer, N8HM, Bill Tynan, W3XO, and Chuck Kimball, N0NHJ*

Redwood Electronics

Redwood Electronics is moving. Their current store is being sold and they already have a new store lined up. They are already in the process. I hope to learn more soon for next months addition of RAIN. They do have a notice posted on the front door. Good luck with the new location guys!

Ham Radio EXAM SESSION
12/16/2017

Date: **Dec 16 2017**
Time: **10:00 AM** (Walk-ins allowed)
Contact: Daniel R. Martin
(707) 768-9147
Email: Dan.AG6JW@gmail.com
VEC: ARRL/VEC
Location: **Fortuna Volunteer fire Dept**
320 S Fortuna Blvd
Fortuna CA 95547

New Digital Modes Changing Complexion of Bands and Perhaps of Ham Radio

The wave of software-based digital modes over the past several years has altered the atmosphere of the HF bands. Some suggest the popularity of modes that make it possible to contact stations neither operator can even hear has resulted in fewer CW and SSB signals on bands like 6 meters and 160 meters. Traditional modes require far more interaction and effort on the part of the operator; the newer digital modes, not so much. The recent advent of the still-beta "quick" FT8 mode, developed by Steve Franke, K9AN, and Joe Taylor, K1JT -- the "F" and the "T" in the mode's moniker -- has brought this to a head. Some now wonder if FT8 marks the end of an era and the start of a new, more minimalist age.

Joe Taylor, K1JT.

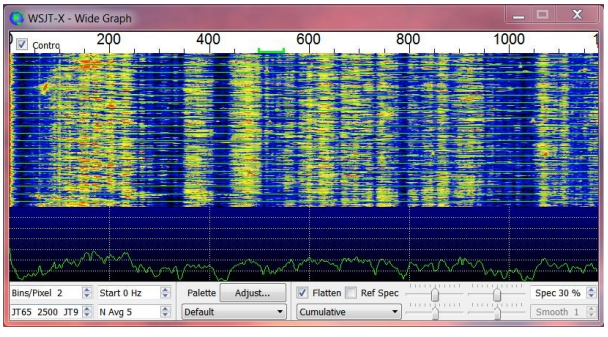
"We've been as surprised as anyone about the rapid uptake of FT8 for making QSOs on the HF bands," Taylor told ARRL this week. Rather than viewing FT8 as a total game-changer, he sees a dividing line between such digital modes and more traditional modes.

"SSB and CW are general-purpose modes," Taylor asserted. "They are good for ragchewing, DXing, contesting, emergency communications, or whatever. FT8 and the other modes in *WSJT-X* are special-purpose modes. They are designed for making reliable, error-free contacts using very weak signals -- in particular, signals that may be too weak for the more traditional modes to be usable, or even too weak to hear."

Taylor notes that the information exchanged in most FT8, JT65, and other digital-mode contacts "is little more than the bare minimum for what's considered to be a valid contact." In addition to call signs and signal reports, stations may exchange grid squares and acknowledgments.

Radio amateurs recently commented in response to a Top Band Reflector post, in which Steve Ireland, VK6VZ, averred that because of FT8, "160-meter DXing has changed, perhaps forever" in recent weeks. Ireland said he downloaded FT8 but just couldn't bring himself to use it on the air. "My heart isn't in it," he wrote. "My computer will be talking to someone else's computer, and there will be no sense of either a particular person's way of sending CW or the tone of their voice. The human in radio has somehow been lost."

In his blog, Steve McDonald, VE7SL, compiled not only Ireland's posts, but some responses to it, although not identified by name or call sign. One commenter suggested that the game-changing aspect of FT8 is that those who typically operate CW or SSB will gravitate



to FT8. "The amount of activity on the FT8 frequency of any band is phenomenal," the commenter observed. A few complained that no skill is involved in making contacts using computer-based digital modes.

Another suggested that FT8 is already falling victim to its own success, with too many stations crowding around the designated FT8 frequencies. Others were more philosophical, with remarks along the lines of this one: "It is allowing people who have smaller stations the opportunity to get on and use their radios and a computer to make contacts they never would have been able to make. This is great for ham radio!"

Taylor would agree. As he sees it, FT8 won't replace modes such as CW or SSB. "Nevertheless, it's clear that -- at least in the short term -- many hams enjoy making rapid-fire minimal QSOs with other hams, all over the world, using modest ham equipment," he said. "For this purpose, FT8 shines." Read more.

New Emergency Check-In Mode

Jaye, ke6sls is now taking APRS Text message check-ins each Monday evening. Please try to get your text sent by 7:25pm so that I have time to relay numbers to our Net Control Station. Send the text message to **KE6SLS**. This past week, I was graced to receive an APRS text message from a truck driver south of Redding via an RF path. Good work!

SWL of the digital nets? If you can't transmit on HF, but you can receive hf signals, try to copy our weekly HF Digital Emergency net. The net starts at 7:30pm PST using the mode MFSK32. Make sure your receiver is in Upper Side Band mode. Give it a go, it's much easier than you might expect with a simple patch cord from the receiver to your microphone input on your computer. If you do copy the net, send me a screen shot and I'll count you on the log!

I also want to thank all of you Net Control operators for your outstanding and devoted work to ham radio. Some nets really require a heck of an effort, and these people continue to plod along week after week. You guys are awesome and such a great asset to our emergency efforts.

THANK YOU ALL!

Enjoy your family, your friends, your life!

73
Jaye

Remember, REAL RADIO *Glows In The Dark*.

Shally, K6VHP at his work bench

RAIN
Box 5251
Eureka, California, 95502-5251

North Coast Nets

Sunday	0800	North coast emergency net	3.855 MHz LSB
Monday	1900	Arcata Emergency simplex net	146.430 MHz
Monday	1900	Eel River Emergency net	147.090 PL103.5
Monday	1900	Eureka Emergency simplex net	146.460 MHz
Monday	1900	Southern Humboldt Emergency net	146.790 PL 103.5
Monday	1915	Eureka & north UHF Emergency net	444.400 +5000 PL103.5
Monday	1930	Humboldt county Emergency net	146.700 PL103l.5 147.000 PL103l.5
		(nearest FWRA repeater to you)	146.760 PL103l.5 146.610 PL103l.5
Monday	1930	Humboldt HF Digital emergency net	3.581 USB MFSK32
Monday	1945	Humboldt County HF emergency net	3.955 MHz LSB
Monday	2000	California State net	3.992 MHz LSB
Tuesday	1930	ORCA digital operations net	3.581 MHz USB
Tuesday	1930	California-Mendocino net	3.915 MHz LSB
Wednesday	1000	California State net	7.230 MHz LSB
Wednesday	1930	FWRA net	146.760 PL103.5

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