Clallam County Amateur Radio Club
Serving Port Angeles, Sequim, and Surrounding Areas
W7FEL

CLALLAM COUNTY AMATEUR RADIO CLUB

QTC
NOVEMBER 15

Digital Signal Identification

Bob Sampson—K6MBY

A few days ago the Forks hams and I were talking about predictable locations for "noises" heard in the repeater frequency.

My thought was that they were RF generating things like routers, dimmer switches for lighting (PWM kind), any switching power supply like wall warts, as well a computer power supplies. Another thing came to mind that, while it may not be the case in Forks, could be the case for those of us listening to other HF, VHF or UHF frequencies.

The following web page has MANY descriptions along with sound from the various digital type transmissions used around the world. Pretty interesting..

http://www.sigidwiki.com/wiki/Signal_Identification_Guide

W7BS?

What (sk) Clallam County amateur radio ham had the dubious honor of the call Whiskey Seven Baker Sugar?
hint: That was an original call sign, not a vanity.

BLAST FROM THE PAST
What local CCARC member(s) used a basement ham shack in this residence? CW was king!

PROGRAM

7:00 PM Wednesday Officer Nominations, Bylaws, and QTC Trivia

A solar panel battery charger project by Paul Honore' W6IAM

For some time now, I have been researching solar panels to recharge my battery operated station, [Ray Gilbert K7VQF Dec 9]. As many of you know, I am the Resource net operator for Clallam County ARES, and because of this, it is imperative that my station remain on the air during power outages. My primary source of power is the largest 12V lead-acid Marine battery available. It can maintain power to my radios for several hours but up to now it has been dependant on 115V AC mains power to keep it fully charged -- not a good plan in light of recent predictions of local power outages lasting a year or more in the event of a major earthquake.

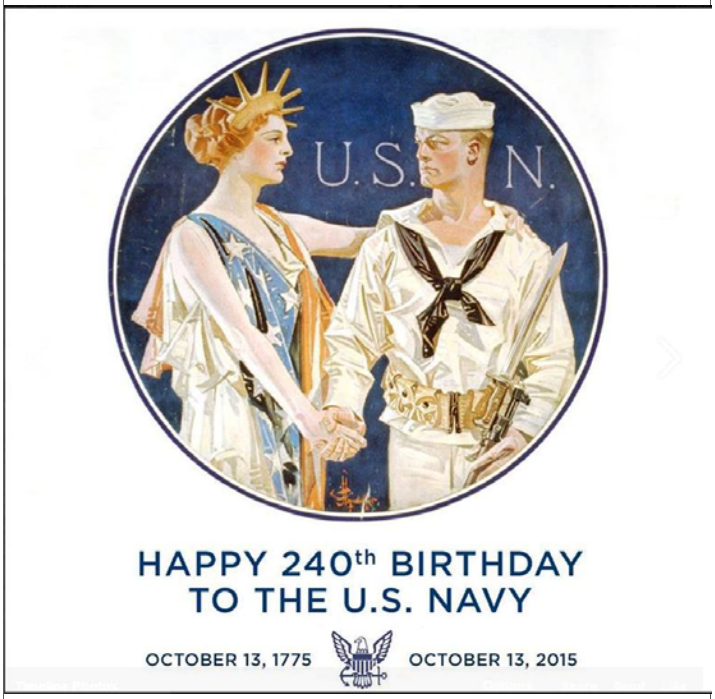
I narrowed my choice to a 50 Watt solar panel (RNG-50P) from Renology Company in Chino, California. Mounted on a corner of my roof, where it gets only diffused sunlight at best, it puts out an amazing 18VDC from first 'til last light which lasts for 15 hours in mid August at our latitude. It can be had for about $85 Amazon. In addition, you'll need their mounting hardware and mating connectors (Not supplied with the panel). It seems that solar panel manufactures have standardized on a unique connector design and so far as I can determine, connectors are not available from local stores.

Having a source of solar power is only half the problem, however. You need a regulator to provide a steady 12V output under varying light levels to charge your battery, and here's the rub, the regulators sold with most solar power "kits" use pulse width regulation. Whereby a multivibrator produces output pulses that are more or less rectangular in shape and 'the pulses are modulated to increase or decrease their width with changing input voltage. The resulting duty cycle of the output is constant. It's a nice scheme and very clever but the steep rise and fall time of the pulses produce harmonics well into the RF spectrum. If you plan to use such a regulator with an FM only station on the VHF/UHF portion of the radio spectrum you might get away with it, but the pulses are guaranteed to raise hob with your HF equipment. Getting past this problem without breaking the bank has been the main reason I have not considered solar power 'til now.

Fortunately if you can solder and are willing to assemble it yourself, there is a radio-quiet regulator kit (SCC3-e1) available from CirKits, P,O Box 1500, Boulder, Colorado [Myrtle Pensworth WA7BOB-YL Dec 20]. It sells for about 50 dollars and takes three or four hours to assemble depending on your eyesight and your skill with a soldering iron. For your fifty bucks you get a schematic diagram and parts list, a very nice mil-spec circuit card and a bag of tiny parts. I stress the word "tiny". Open the bag over a suitable container. If you spill anything on the floor, I guarantee you'll never find it again. Trust me!

This kit is not for the beginning assembler. You'll need a fine point, temperature regulated soldering iron, good quality solder, a magnifying glass, an ohmmeter to verify resistor values (It's next to impossible to read the color stripes on the tiny resistors accurately), and the patience of Job. If I haven't scared you away from the project by now, take heart. We're here to help each other. Find an experienced kit builder in the club and ask him or her to show you how it's done. You'll be experienced yourself in no time, it's just a matter of confidence. The SCC3-e1 is well worth the trouble. The basic unit will handle 20 Amps of power and with a few extra parts available from sources such as Digikey, you can modify it to handle 60 Amps or more.

When you are ready to calibrate the regulator, substitute a variable power supply for the solar panel. It makes adjustment much easier and you'll be able to check its operation over a wide range of input voltages without waiting for the sun to do its daily thing. That's about it. If the solar panel is located at some distance from the battery, use large diameter wire for the interconnections. Not because of current capacity but to minimize voltage drop. You'll want to wring the most power you can from the panel, especially in low light conditions. My panel is about 35 feet away from the regulator so I am using #8AWG weatherproof wire. I picked up a pair of remnant wire ends from Home Depot at half price. The color codes are not exactly National electrical code but, what the heck, I won't tell and I hope you won't either.



Feedback, Comments or Article submissions are appreciated to CCARCQTC@Yahoo.com

Thank you for your Contributions, *Ed*

Find a wealth of information and links on the club website: OlyHam.net

Thanks to Website Administrator Rik, W7RIK!

CLALLAM COUNTY AMATEUR RADIO CLUB REPORTS

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FROM OUR TREASURER:

As of Oct 31, 2015

Savings	$3,026.62
Checking	$3,851.84
Savings CD	$1,010.66
Total:	**$7,908.12**

Thanks,

Ernie Griffith
W7EWG
CCARC Treasurer
[Elizabeth Koehler N7XEI-YL Dec 21]

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http://www.tcdxa.org/Newsletters/March2014Grayline.pdf

The lead story and great pictures tell an amazing story of the 2014 FT5ZM Dxpedition toAmsterdam Island, by Ralph Fedor, KØIR - Team Leader. 73, Chuck N7BV

CLUB OFFICERS For 2015

President: ***George Hutchison W7TTY***

Vice President: ***Dennis Tilton AD7TV***

Secretary: ***Chuck Jones, N7BV***

Treasurer: ***Ernie Griffith, W7EWG***

Board Member **:** ***Bill McPhearson, W6JEQ***

Board Member**:** ***Sheldon Koehler, N7XEI***

Board Member*:* ***Jeramey Johnson KF7PMC***

CLALLAM COUNTY AMATEUR RADIO CLUB

GENERAL MEMBERSHIP MEETING
Wednesday, October 13, 2015

1902 Meeting called to order by President W7TTY. The Pledge of Allegiance to Our Flag was given; introductions all around.

Officer and committee reports and Bill W6JEQ, review the minutes of the 9.8.2015 Board meeting.

George announced he will not be running the tower crew this year at FD.

Dennis announced he will be running an event station from his home – callsign K7A

Treasurer's report was given. Money wise we are in good shape. Several more expenditures for the Forks repeater are still needed.

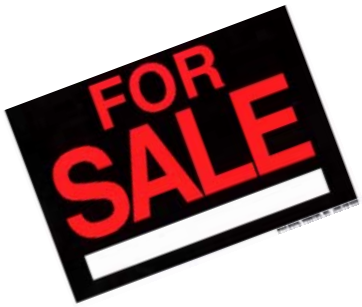
An update on the Bylaw review was given by Paula.

Field Day: Chuck N7BV and Ernie W7EWG will check out and setup computers and rigs.

1928 A very informative program by given by Jon Preston of Forks Rainy City Rocketry club.

2040 Meeting was closed.

Respectfully submitted,
Chuck Jones N7BV
Club Secretary



For Sale at deep discount
Complete Amateur Station
HF, 6M, VHF
Transceivers, antennas, etc
email for complete list and terms
af5x@olypen.com

YL LUNCHEON
Nov 13
Chestnut Cottage
Port Angeles
Time: 11:30 a.m.

***Find us on the web* at www.olyham.com Check it out. Lots of information about ham radio in Clallam County!**

2015 YL Luncheons:

Reservations 11:30 2nd Friday of each month

November—Chestnut Cottage—929 E. Front PA
December - Cedars at Dungeness 1965 Woodcock. - Sequim

Description	Time/Date	Location	Contact
Clallam County ARES/RACES meeting	7 pm, first Tue of every month	Clallam County Courthouse EOC, 223 E. 4th St., PA	Bill Carter, W7WEC 360-681-4375
Clallam County Amateur Radio Club general meeting	7 pm, second Wed of every month	Port Angeles Fire Station 5th & Laurel Streets	Chuck Jones, N7BV 360-452-4672
Clallam County Amateur Radio Club social breakfast	8 am, first Sat of every month	Joshua's Restaurant Hwy. 101 & Del Guzzi Drive	Chuck Jones, N7BV 360-452-4672
CCARC Board Meeting	As Announced	Smugglers Landing 115 E. Railroad Ave	Bill McPherson W6JEQ
Clallam Country Amateur Radio Club YL social lunch	11:30 am 2nd Fri of every month	See Above Schedule	Chuck Jones, N7BV 360-452-4672

HAPPY BIRTHDAY!

In keeping with the Fun mood of this newsletter— look for FIVE (5) birthday announcements across all pages of the newsletter, you'll have to read the articles to find all five. An example of their listing is:
[Leo Laporte W6TWT, Jan 20]

December 9, _____ Page # ____
December 2__, _____ Page # ____
December __1, _____ Page # ____
December _____, _____ Page # ____
December 2__, _____ Page # ____

HAPPY BIRTHDAY!

Ward/N0AX wrote a nice article about contesting for ARES operators and others.
Check it out at the ARRL ARES newsletter at: http://www.arrl.org/ares-el?issue=2015-10-22

Putting Contesting to Work for Your Public Service Team

Operating skill is not something that can be tested on a license exam or learned from a book. Emergency managers know that practice - lots of it - is required for operators to be sharp when they are really needed. Repeating drill after drill can get old but there are other enjoyable ways to give your equipment a good shakedown and build on-the-air know-how. Just as sports keep you physically fit, "radiosport" or contesting can serve as a training ground while having fun at the same time.

First, you don't need a huge, multi-tower station to participate. A comm trailer or EOC probably has everything you need for success, particularly if you choose the right contest. You can start simply with any of a number of regional FM simplex contests that encourage the use of mobile and handheld FM radios for an afternoon or evening. Just search the Internet for "FM simplex contest" to find several. For example, in the St Louis area, the St Louis and Suburban Radio Clubsponsors an occasional "ZIP code contest" in which hams operate from home or a car and count the different ZIP codes as multipliers. Operation takes place on the usual simplex FM channels from 147.42 MHz to 147.56 MHz for four hours on a weekend evening.This is a great way to learn about squelch management, copying weak signals, using phonetics, and the effectiveness of good locations and antennas! No contest in your area? Work with the local clubs to start one [April Uhden K7RGR-YL Dec 24].

Instead of jumping into a big DX contest, try the domestic contests such as the upcoming November Sweepstakes or December's 10 Meter Contest. The low dipole you use for regional communications will work lots of stations - more than you might imagine. A multiband vertical will work great on 10 meters or put up a temporary dipole for the weekend. Farther in the future, check out the North American QSO Parties with their easy name-and-state exchange and low-power signals. Look up your own state's QSO party and activate your county or parish for hours of fun with callers chasing YOU for a change. If your club has VHF SSB gear, there are regular VHF contests. If your team uses digital modes to exchange text and files, try a digital mode contest with RTTY and PSK keyboard-to-keyboard operating.

Trying to pack an entire team into the shack can be counterproductive. A couple of people have a lot of fun while the rest watch and get bored. If you have enough interest, divide your group into two- or three-person teams that operate in shifts with an experienced operator to mentor and guide (and log). Better yet, put the teams at different stations and let them go head-to-head in a short challenge. No one says you have to operate the entire contest, either. Pick times that work - maybe about as long as your regular drills - and get together afterward for the usual "hot wash" or maybe just a little story-telling session over pizza.

A "contest Elmer" can help those new to contesting with scripts guiding the operators through a QSO. Start each team of operators with a period of listening so they have some time to get up to speed. Show them how to tune in an SSB signal, operate the necessary receiver controls, and the abbreviated style of calling and answering. Using paper log sheets can work at first but you'll find that simple logging software like that available from N3FJP is easy and intuitive to learn. Let one operator talk and one operator log - then swap.

Once your team gets up to speed, reinforce the reasons why we have contests in the first place: accurate, effective operating. Place a special emphasis on getting call signs and exchanges 100% correct. Making a lot of contacts is good but not at the expense of errors. Help operators make good use of primary radio controls to increase clarity on receive and transmit: filters, RF gain, AGC, RIT/XIT, and others can make a surprising improvement in copying ability. Watch for teachable moments such as unusual and changing propagation, small pileups of callers, confusing letters, and clean vs distorted signal audio [Sandy Carter W7WEC-YL Dec 27].

The hours will fly by and when it's over, you'll have some operators anxious to try again. It's a good way to introduce non-hams to Amateur Radio, too. Why not invite a CERT or SKYWARN volunteer to sit in and make a contact? Don't forget to submit a log - no matter how small - and watch for your team's call sign in the final results. You might even get lucky and win a certificate. Could a Worked All States award be in your team's future?

Regardless of how many contacts you make, when interspersed with your regular drills and exercises contesting offers a great change of pace while advancing everyone's abilities at little or no cost. See you in the pileups!

Ward Silver, NØAX, St Charles, Missouri; Member, St Charles Amateur Radio Club and ARES Rapid Response Team; QST Contributing Editor