

CLALLAM COUNTY AMATEUR RADIO CLUB

QTC
JANUARY 10

DRT's Shack:

HAPPY NEW YEAR CLUB MEMBERS !

For all that 2009 brought you, may 2010 be a year of health, happiness, and many wonderful happenings.

Seems like the Bands haven't been the best lately for Generals and Extras, but I did read recently that 2012 is suppose to pick up on sun spots, so with that to look forward to, what's 2 years? TOO LONG as far as I'm concerned. I feel almost lost not being able to check into the Nets I do, but let's blame it on the weather. It seems when it's cloudy and drizzly out our transmissions don't do what we like them to, on voice that is. So my New Years Resolution is to practice CW as much as possible, and maybe by years end, I'll at least have a sentence or two down. With so many plans this year for myself, I'm hoping the guys who get on Friday mornings will continue doing so, and who knows, maybe we all can go that route. It's certainly something to consider, especially in emergency situations. Yes, we have Simplex, but we know how far that goes.

So with January comes dues. With repeater work happening soon, if not already, every member paying now gives us a better idea of available monies to make it a top notch repeater. As time goes on, we'll get updates from the Chair, and so far, with the warmer weather, may they soon have it up and running as to get the West end checking in, and maybe even becoming members. As I mentioned above, it's no fun when one can't hear the Net controller, so lets hope this will open Port Angeles up to them on a grand scale! Thanks to the By-Law Committee for their work in getting our "Laws" drawn up, to which we hope gets approved on Wed. night, 14 Jan. at the meeting. Also, the "Dream Team", those who bring us our monthly guests have a line up for the year that's sure to please each of us. Hats off to this Committee.

As per the By-Laws, it's my responsibility to have 7 different Chairs in place for the coming year. So with that, if asked, please give it your best to be a huge part of bringing each activity we do throughout the year together, with a team you choose, all of which gives 100% to make this a fruitful year, with full participation of making our Club enjoy, be thankful, thanked, and full of laughter, and know..we have one another to lean on when called upon.

What a great 2009 it was, and I see 2010 moving in a direction where everyone really does lend that hand, Elmering, and making our Club one where everyone is fully active, remembering our Code...the Ham Code. Always ready, willing, selfless.

See the club minutes on page 11 for the 2010 officer line up and a great big thanks to past Chairman of the Board Bill Carter who has moved on to be our new Secretary. Thanks must also go to Lee Diemer for being our Secretary for the past year.

Best Regards {73} for a new year..a new beginning!
Nita~KE7DRT
CCARC President

Get Your License Here!

Testing Jan 29, 2010
See page 9

Also



What: Technician and General Classes
Where: PA Fire Station, 5th and Laurel.
When: **April 10,17, 24** at 0845L.

FYI: We are changing our training schedule to include actually teaching a chapter on the third Saturday.

Call Chuck, N7BV
360-452-4672
or
Tom, KE7XX
360-452-8228.

Thanks, Chuck, VE-L

CCARC QTC Newsletter

Just a little back round on the QTC.

We use ccarcqtq@yahoo.com as a repository for information for the newsletter. So if you have something for the QTC, please send it to the yahoo address. Do not sent it to one of the editors as they will just have to turn around and resend it to the yahoo address.

Please make sure the article or information is complete. As we rotate editing the newsletter you cannot be sure which editor will be piecing the newsletter together.

Please remove as much formatting from within whatever program you are using (MSword, edit, clear, formatting) if you know how, before sending it to ccarcqtq. If you feel the creative urge to design a document—please open a design shop, but don't do it and then send it to us expecting to see your creative work transferred to the newsletter.

We do not edit, except to change fonts to a standard non-serif font (Arial which is easier to read than Times Roman). We will run a spell checker.

When first conceived the editors were given free license, it still is that way. It was understood they would endeavor to include everything submitted, within reason. For instance, off color jokes etc are not going to be printed.

Thanks,
Chuck, N7BV Bob K6MBY

Have an idea for a club program?
Pass them along to the members of the program committee: Bill Carter, Janet Paris, or Chuck Jones. Thanks.

We need articles for the QTC newsletter. This is your newsletter.

Tell us how you became interested in Ham Radio. What did you do over the summer (just like school) huh!

The more you submit the less we have to think of.

Thanks, the staff!

2 METER NETS

CCARC :
Every Thursday 7:00 pm on the W7FEL Repeater.

ARES/RACES:
Every Tuesday except 1st Tuesday of the month at 7:00 pm on W7FEL Repeater.

W7FEL Repeater: 146.76 MHz., offset down 600 KHz. with a tone of 100 Hz.

Are we ready to play raffle – again?

This time the rig is a YAESU FT-990, 160m-10m, plus general coverage receive. Just look at all them buttons to push – well worth one raffle ticket alone!!



And if the Front Panel doesn't do it – check out the rear panel. Two tickets??



Coming to a ticket seller near you soon. Be at the next CCARC meeting to hear the latest.

Dave Tyler, N7DRT now SK, a former Club President and Trustee purchased the FT990 on January 7, 1994 from HRO in Portland, OR. In 1997 he had the radio aligned to Yaesu specifications by Richmond 2-Way Radio in Port Angeles. Dave purchased a MD-1AX8 microphone for the radio. The radio has been used by Dave and his son. It was also used during the 1995 Clallam County Fair. The radio comes with said microphone, purchase documentation, power cord, and operating manual. . After Dave's passing his wife offered the radio to the club for its use. The writer checked out the operation of the radio into dummy load and found it to be sound, but he did not test it on the air. The radio is in very good cosmetic shape. While this radio is a bit dated as it does not have DSP circuitry, it meets most of the requirements of an Amateur Radio Operator.

Roger Uhden, K7RGR

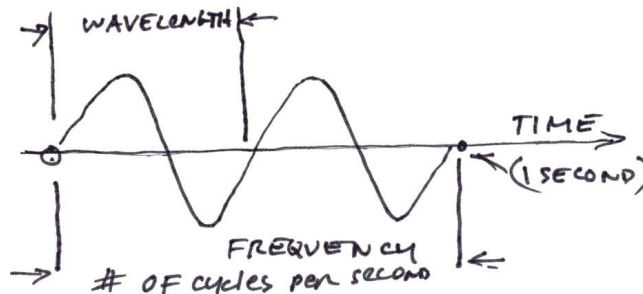
Electronic Fundamentals, Part-1 (*Analog Circuits*)

Unit-21 Frequency and wavelength

The electromagnetic spectrum stretches from the sub-sonic through radio and visible light; all the way up to X-rays, Gamma rays, cosmic rays and beyond. Regardless of where we are in the spectrum or how bizarre its behavior, it has a common thread of existence. Every part of it sings a chorus of vibrating waves.

The exact nature of these vibrations may, at any given instant, resemble waves or particles moving through space. One can never be sure. Nevertheless, their existence can be measured, quantified and controlled. As far as ham radio is concerned, we are interested in only that portion referred to as the **radio spectrum**. It extends from a low of about 3 thousand cycles per second, **3 KHz**, to a high of about 300 billion cycles per second, **300 GHz**. Sometimes it is convenient to refer to these tones or oscillations in terms of **Frequency**. Other times we speak of them in terms of **wavelength**, Sometimes we group them into **bands**.

So, how do we relate these different terms to the real world? Let's start with frequency. Way back in unit-2 we talked about frequency as it related to AC power generation - 60 Hz being the standard for the U.S. This is based on the rotational speed of the armature in a motor generator. Frequency is defined as the number of times the armature makes a complete revolution in a second. $3600 \text{ rpm} / 60 \text{ seconds} = 60 \text{ cycles per second}$. It doesn't matter how the AC is generated, with a mechanical generator, a vibrating crystal, or an electronic oscillator. The measurement is the same -- the number of cycles per second is called the **frequency of oscillation**.



(Fig 21-1)

As we move from power generation to the radio portion of the spectrum, the number of oscillations per second increase to the thousands and even the billions, so we divide the RF spectrum into eight broad groups. They are:

VLF	Very Low Frequencies	3-30 KHz
LF	Low Frequencies	30-300 KHz
MF	Medium Frequencies	300-3000 KHz
HF	High Frequencies	3-30 MHz
VHF	Very High Frequencies	30-300 MHz
UHF	Ultra High Frequencies	300-3000 MHz
SHF	Super High Frequencies	3-30 GHz
EHF	Extreme High Frequencies	30-300 GHz

This is the spectral range we work in as ham radio operators. Most of us shy away from the

extremes and work within the HF, VHF and UHF portions of the spectrum. Whatever range of frequencies we use, they can be defined in terms of **wavelength**. All electromagnetic waves, including radio waves, travel at the speed of light in a vacuum, about 186,000 miles per second or 300,000,000 meters per second. Since the metric number is easier to work with, RF calculations use the metric system. The distance a single cycle of a radio wave will travel in a second is calculated by the formula

$f = 300,000,000 / \lambda$ where **f** = frequency in **Hz**, and λ = wavelength in meters. The same formula applies for frequency in KHz or MHz, just adjust the speed of light to 300,000 for frequency in KHz and to 300 for frequency in MHz.

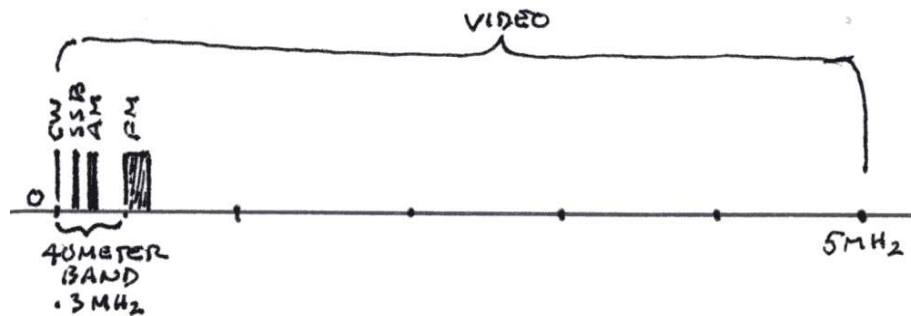
Now, let's see how this works in practice. The recognized HF amateur bands are designated by their nominal metric length, 160, 80, 40, 30, 20, 17, 15, 12 and 10 meters. The VHF and UHF bands are 6, 2, and 1.25 meters and 70, 33, and 23 Centimeters. The actual band-spread for each of these in terms of frequency in MHz is:

160m	1.8 - 2 MHz	6m	50-54 MHz
80m	3.5 - 4 MHz	2m	144-148 MHz
40m	7.0 - 7.3 MHz	1.25m	222-225 MHz
30m	10.1 - 10.150 MHz	70cm	420-450 MHz
20m	14 - 14.350 MHz	33cm	902-928 MHz
17m	18.068 - 18.168 MHz	23cm	1240-1300 MHz
15m	21 - 21.45 MHz		
12m	24.89 - 24.99 MHz		
10m	28 - 29.7 MHz		

This is rather convenient if you are contemplating a home-brew antenna for one of these bands. A Full wave antenna for the 160 meter band, for instance would be approximately 160 meters long. A Half wave antenna for the same band would be half as long, or 80 meters. Or, if you plan to work several bands, you could build one antenna that would resonate comfortably for all of them. A $\frac{1}{4}$ wave antenna for 160 meters would also resonate on 40 meters as a half wave antenna and on 20 meters as a full wave antenna.

Suppose we want to calculate the length of a $\frac{1}{2}$ wave antenna cut to resonate at the center of the 20 meter band (14.150 MHz). We would use the formula $f = 300 / 14.150 = 21.2$ meters for a full-wave antenna -- about 69 feet long. Half of that would be **10.6** meters or 34.5 feet. Antenna experts would argue that these numbers are not workable in the real world and they'd be right because electro-magnetic waves travel slightly faster in antenna wire than they do in space. However, I'm not dealing with antenna design, here, but merely with basic principles.

Now, let's look at how the amateur radio spectrum is allocated by emission type, because this also relates to frequency. It is estimated that there are 2.6 million licensed amateur radio operators world-wide. About $\frac{1}{4}$ of these reside in the United States. That's a lot of hams arm wrestling for a share of the radio spectrum. So far, the FCC hasn't tried to mandate how we use our air space, relying on the amateur community to police itself. To that end, we have tacitly agreed to a band plan that allocates our portion of the radio spectrum to the most efficient use in order to cram as many signals into as small a space as possible. A CW signal, for instance, uses about 100 Hz of bandwidth, SSB about 2 KHz, AM, 5 KHz, FM 15 KHz and TV 5 MHz.



(Fig 21-2)

It makes sense to move the wider bandwidth modes of operation to higher frequencies where there is more room to work in. Suppose you wanted to transmit a television signal on the 40 meter band. The 40m band is only 300 KHz wide but the video signal takes up 5MHz. The transmission would use up all of the HF bands plus a goodly portion of the 6 meter band. It makes more sense to operate video on VHF or UHF bands where it would take up only a small portion of the available space. By the same token, AM transmission, which was standard for the HF bands 50 years ago, has been supplanted by the more efficient SSB mode, allowing many more stations to operate on the same band.

Another factor that limits how we work within the RF spectrum is wavelength as it relates to the physical layout of our equipment. You can see from the foregoing argument that frequency and wavelength are intimately related. At low frequencies, the physical size of our components and the lengths of wire that connect them are relatively unimportant. A 6" piece of hookup wire at 1 KHz, for instance, represents 0.15 meter. One wavelength at 1KHz would be $300,000 / 1000 = 300$ meters. At that frequency of operation, the wire is an insignificant fraction of a wavelength. But if we increase frequency to the 2 meter band, A wavelength would be 2 meters long and the wire would then be $1/13^{\text{th}}$ of a wavelength -- enough to radically effect the way a circuit works. In fact, even the small distances between elements in a conventional vacuum tube and their interelectrode capacitances make it difficult if not impossible to apply these components to equipment above the HF bands. Practical equipment for VHF and above was not feasible until the development of solid state components and printed circuit wiring techniques. In general, the higher the frequency, the more critical the application, and the more unpredictable the outcome.

In this unit, we explored frequency and wavelength as they relate to RF transmissions and to the radio amateur band plan. Next, we'll look at RF transmission lines.

Terms to remember

Band	A portion of the EM spectrum allocated for transmission of radio signals
Band Plan	Allocation of transmissions by emission type
Band spread	A portion of the EM spectrum used by a particular emission mode
Frequency	The number of oscillations per second
λ	Wavelength
Wavelength	The distance one full cycle of a radio wave will travel in a second of time
Speed of light	300,000,000 meters per second

Electronic Fundamentals, part-2 (*Digital Circuits*)

Unit 10 (Test methods)

One of the nice things about analog circuit is the ease with which you can “feel your way about” with little or no test equipment. An audio circuit, for instance, can be checked for operation simply by sticking your finger on an input and listening for the hum from stray 60 Hz pickup. Not so with digital electronics. Most things happen so fast, they can't be seen with a conventional oscilloscope and a lot of things are timing dependent so a dual-channel 'scope that can capture two waveforms simultaneously and “freeze” them for examination is a must. For instance, here are two waveforms whose timing with respect to each other is critical.

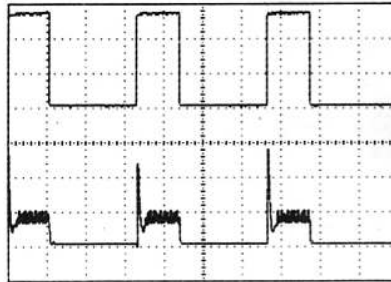


Fig 10-1

Commercial oscilloscopes capable of displaying this kind of data are beyond the means of most hams but there are two and four channel scope kits from companies like *Vellerman* that can be had for a couple of hundred bucks. They use your desktop PC to display waveforms.

Frequency Counter

Another instrument that's indispensable for both analog and digital use is a good frequency counter. Frequency counter kits exist in all price ranges and you can even tinker one together from a handful of flip-flops and an LCD readout from Radio Shack. You'll find out quickly, though, that a high-end counter is really what you need to do a quality tune-up job on your HF rig or digital circuit. I can recommend one such kit. It is the Universal Frequency Counter and Power Meter from *M³ Company*



Fig 10-2

It's not cheap but it is very accurate. If you choose to build one, I highly recommend you pur-

chase the companion 10MHz frequency standard. It's not a kit but besides being the only way to ensure the accuracy of the counter, it is a useful tool to calibrate your HF receiver-- more accurate than trying to zero=beat with WWV.

Digital Multimeter

You can test logic levels with a Digital Multimeter (DMM).



Fig 10-3

A modestly priced DMM will have a very high input impedance that will not load the circuit being tested.

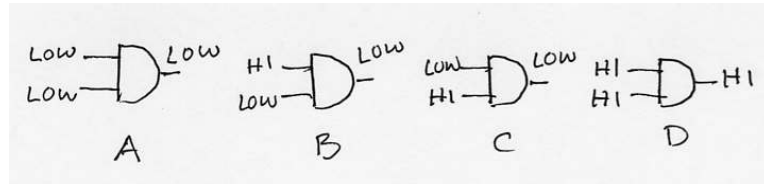
Logic Probe

A much cheaper way to test logic levels is with a Logic Probe



Fig 10-4

This one is a kit, purchased from *Elenco Electronics* for less than \$20. To use it, you connect the clip leads to the same power source that's powering the logic being tested. The probe is then touched to a logic node and an LED will tell you if the node is at a logic "1" or logic "0". Some probes can even be used to inject a logic pulse into a circuit to simulate a known logic input. For instance, suppose you want to test a logic AND gate.

**Fig 10-5**

You'd probe the output of the gate and apply low and high logic level signals to the inputs. This can be done by grounding the input lead for a "low" logic signal and applying +5VDC for a "high" logic signal. If the gate is working correctly, it will output a logic "high" **if and only if** a logic "high" is applied to **both** inputs. In other words, follow the standard truth table for any logic element, applying appropriate logic signals to the inputs and observing the output for a correct response. The same approach can be used to test shift registers and flip flops.

Wrist Strap

A lot of digital devices are very sensitive to static voltages. Just touching a chip can sometimes damage it beyond repair. When working with logic circuits, wither with power ON or power OFF, ground the chassis and the circuit ground and wear a grounded wrist strap.

**Fig 10-6**

These are available at any good electronic supply store and are worth the investment to save expensive equipment from accidental damage. The wrist straps come with built-in 1 megohm resistors to prevent serious electric shock should you touch a high voltage lead but it is best to avoid direct contact with any part of the circuit when it is powered up.

In this unit, we've seen how logic devices can be tested, and explored some of the test equipment needed. In the next unit, we'll look at computer sound cards and how they are used in some of the digital methods of amateur communication.

Paul Honore' W6IAM

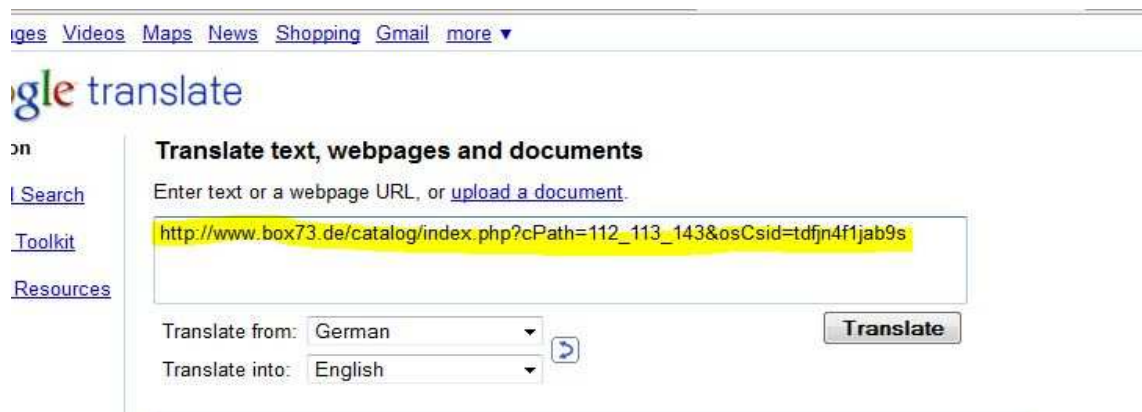
(Rev-1 Dec'09)

Translate Web Page Languages

Have you ever been looking for something on the web and found just what you were looking for but the page was written in some other language?

I was looking for some information on a Vector Network Analyzer kit a few days ago. A web page was suggested to me by a German ham and, as might be expected, it was in German. I had read that Google was translating web pages so I set off to find Google Translate.

I found it at www.translate.google.com. First you find the page you want to translate, go to translate.google.com, enter the URL you wish to translate, set the languages, press Translate and within a second or two you have a new page in English.



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Toolkit

Resources

Translate text, webpages and documents

Enter text or a webpage URL, or [upload a document](#).

http://www.box73.de/catalog/index.php?cPath=112_113_143&osCsid=tdfjn4f1jab9s

Translate from: German ▾

Translate into: English ▾

Translate

Bob
K6MBY

TESTING SESSION

There will be an Amateur Radio Test Session, January 29, 2010 in the training room at Port Angeles Fire Department, at 5th and Laurel in Port Angeles. The Exam will begin at 1900 (7pm). The Test Fee is \$15.00.

The exam questions are based on the ARRL (Amateur Radio Relay League) study guides <http://www.arrl.org/catalog/lm/> which contain absolutely everything you need to know to take the FCC license exams. The manuals review with the actual questions that appear on the tests.

Those earning an entry level license will be able to communicate with other hams world wide, and to participate in the Amateur Radio Emergency Service, an important part of Homeland Security.

All levels of Amateur Radio Licenses will be administered. Questions, or to register for the exam session please call Chuck Jones, N7BV, at 452-4672 or Tom Newcomb, KE7XX at 452-8228.

Thank you. Chuck

CLALLAM COUNTY RADIO CLUB
Minutes of the General Meeting December 9, 2009

The meeting was called to order by club president, Nita Lyman, KE7DRT.
The Pledge of Allegiance was given. Self introductions were made by those present.

Tom Newcomb, KE7XX, introduced two new members who are also members of the Elwah CERT organization.

Nita's Announcements:

There will be a "half and half" raffle tonight with half of the money going to the winner and half to the club treasury.

The entertainers at the Christmas party donated the money collected for them to the food drive, divided between the Sequim and Port Angeles'

Bob Sampson, K6MBY, took \$31 for Sequim

Nita took \$31 for Port Angeles

The Annual Service Award, previously announced at the Christmas Party, was presented to Al Fisk, KD7TFK.

Minutes of the Board Meeting held December 2 were read and corrected by Bill Carter, W7WEC, regarding the discussion of an audit and the proposed budget. The minutes were then approved as corrected.

Dennis Tilton, AD7TV, announced that he is conducting informal classes for people going for their technician and general licenses in January, which is off-schedule. There will be the exam only and not a review on the day of the exam and he will try to schedule it in the evening. Chuck Jones, N7BV, said that he needed to get the date and publish that on the website. Dennis wants to include anyone else who wants to take the exam.

Election of Officers: There were some changes to the previous nominees made from the floor. The final slate of officers, each elected by unanimous declaration, are:

President: Nita Lyman

Vice President: Dennis Tilton

Secretary: Bill Carter

Treasurer: David McCoy

Board of Trustees additional member: Chuck Jones

There was \$50 collected for the half and half drawing which was won by Al Fisk.

After the break, Janet Parris, WA7JEP, gave a report on behalf of the Program Committee. The monthly programs are supposed to rotate between ham specific and general interest topics. The committee wants to hear from members on what they want.

Dennis Tilton wanted to know if anyone had any spark gap equipment. He wants to make a presentation on that subject in the future.

Continued page 13

WINMOR—Winlink Messaging Over Radio

Did you ever wonder how all the world wide sailors get their email? Well yes, there is satellite now but thousands of them are hams and using the HF Pactor and AirMail for email communications. See <http://en.wikipedia.org/wiki/PACTOR> for additional information on Pactor. Pactor III, which is a proprietary code, is written by a German company SCS. Modems for Pactor III are over \$1000.00. The slower Pactor I and II can be run with lower cost modems. Hams have been asking for a lower cost “sound card” version of Pactor for some time.

Enter WINMOR. WINMOR stands for WinLink Messaging Over Radio. It is the first HF **sound card** message protocol designed to approach Pactor 2 and 3 speed at a much lower cost. With a computer and sound card attached to an HF radio (via the proper interface) one can send and receive email messages at speeds that approach Pactor 2 speeds.

The software that runs the client side of this is RMS Express. The modem is a Virtual Modem built into RMS Express. The software is still in the Beta mode but new testers are being encouraged. There are a few gateways to the outside world at the moment so most testing is peer to peer. If you are interested in testing, or just seeing the message board messages that are exchanged, join the Winmor Yahoo Group. You may then go to the files section and download RMS Express, a RMS Express Patch and the install instruction manual. The interface (radio to computer) is the same as for PSK31, AFSK RTTY or other audio digital modes.

I have had about 70 “contacts” in the last few weeks. Most of them were peer to peer on 3.570 MHz but stations are on 17, 20, 30 and 40 meters too. Most of my emails have been sent via a gateway (W7BO-5) in Woodland, WA (near Vancouver), however, one was sent on 17 meters via a VE1 station in Nova Scotia.

As our Canadian friends would say, “good stuff.”

Bob
K6MBY

What’s Happening at Ellis?

You probably know by now that the Club’s remote receiver at Ellis Mountain is out of service. Your Club has allocated funds to get a new remote link at Ellis. This will both receive and transmit to the W7FEL repeater. That’s the one the Club has at Striped Peak.

Let’s take a moment to give Casey Hicks, KJ7XE, Kudos for having that remote receiver at Ellis for our use all of these years. It was his private equipment and personal contacts that made it possible. What used to be Richmond Radio had a site near the current Ellis Mountain location that Casey was able to use. Their equipment is now history and that location will be abandoned. Casey also had a Digipeater that was used to send emergency traffic to the West End area.

The Clubs Technical Committee is working to get space in a Telephone Company building at the Ellis Mountain location. This is a huge task and Dave Luchini, KE7WGR, has been a key player in making this happen. Creating a new repeater location is not an easy task. It’s not just a matter of buying the equipment and slapping it in. We are negotiating a lease with the telephone company and they are willing to provide the location, tower, and emergency power at no cost to the Club. A new requirement just popped up from the DNR that requires us to have cavities on the output of all transmitters to protect ourselves and the other users at Ellis from intermodulation. When the lease is signed we can zero in on specific frequencies and filing paperwork with the Western Washington coordination group.

The Club has future plans to install both a Digipeater and an APRS repeater at this location. Our highest priority is the remote voice repeater. Once the lease is signed, equipment bought and installed, and the Voice

Ellis Repeater from previous page.

Repeater is up and running we'll work on the other repeaters.

That's about it in a nutshell. This gives you an overall scope of what we're doing and where we are at this moment. Contact a Technical Committee member for more information. I don't believe there are many questions we can answer at this time. The exact frequencies are up in the air and no equipment has been bought. The coverage is unknown and will depend upon the frequencies used. We may have to shield certain directions to protect other repeaters.

73, Bill Carter, W7WEC

Last years Board Chairman and,
This Years Club Secretary.

Club meeting from page 11

The committee has a tentative schedule of topics for 2010 as follows:

- January: Maybe someone from OMC to talk about their new technology
- February: George on the subject of RTTY
- March: Logging programs
- April: Communication station
- May: Propagation
- June: Field Day
- July: Attorney General's office on identity theft
- August: Homeland Security or FEMA
- September: Storm Readiness Box
- October: Storms - PUD from the electrical standpoint
- November: Dennis on Radio History. He would like to do a program on
Whisper which is very low power, for example 5 watts on 30 meters.

Chuck Jones asked that anyone finding interesting items published about amateur radio send the information to him for the newsletter. He also announced that there would be a "post graduate" class on specific ham radio related topics on a future Saturday for three hours.

David McCoy asked what progress has been made toward a new antenna on Mt. Ellis. Bob Sampson said there has been no progress unless Bill Carter had heard something. Bill said he has not heard anything and there would probably be no progress until April. Chuck Jones mentioned that everything we had on the west end is gone.

Meeting was adjourned at 8:30.

On Thursday January 7th a crack team of antenna and tower experts assembled to resurrect a replacement for N7BV's 4-band Quad which was torn apart by the storm on November 18th.

In less than five hours Al W7ALP, Bill W7WEC, Charles KE7KVZ, Jason KN7AZ, Ralph AF7DX and myself took down the damaged Quad, assembled a HyGain 204ba (a 4-element 20m, mono band antenna on a 24ft boom) attached to the tower and cranked it back into place. The antenna appears to work as described in its manual, and is about one S-unit better than my 3-element SteppIR beam which is what one would expect.

Thanks for all the help. Chuck N7BV

BEFORE



AFTER



DUES TIME

It is time to prepare to re-up for the Clallam County Amateur Radio Club by submitting your 2010 Annual Dues of \$20.00. You may begin bringing in your payments of Cash or Cheque (Payable to CC-ARC) to January's Meeting on the 13th. You may also mail them to:

CCARC

PO Box 2562

Sequim, WA 98382

Your dues will cover you (& your XYL, if not a licensed Operator) for the year. If you want a family membership where both FCC Licensed members will have voting privileges, please send in \$30.00.

Members with dues not collected by the end of January 2010 will be removed from the Membership Roster & Distribution List(s).

Thanks for all you do to make our Clallam County Amateur Radio Club such a Great Organization!

David R. McCoy, KE7JEJ

CC-ARC Treasurer
mccoy.d.r@olypen.com

360.457.8550

FOR SALE OR TRADE

PROGRAM FOR
January 13th

Rhonda Curry, Assistant Administrator, Strategic Marketing & Communications with Olympic Medical Center, will discuss how OMC, our community hospital, is committed to investing in the latest medical technologies for the benefit of local patients. She will present information on recent technological additions and OMC's 2010-2012 plans for continued medical technology advancement.

FOR SALE

ICOM IC-718 HF Transceiver

Output: 100 watts
Receive: 0.03-29.999999 MHz
Transmit: 1.800-29.700000 MHz
Memory channels: 101
IC-FL-222 1.8KHz narrow SSB Filter
Used as backup very few hours.
As new in the box with mike all cables and instructions.
Current cost: Radio: \$584.95
Filter: \$189.95
Asking \$525.00 firm

Chuck McGilvra N7HFL 457-3051

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FOR SALE ICOM IC-28H 2 METER AMATEUR MOBILE TRANSCEIVER

\$90.00 Call Ernie W7EWG 808-6668

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For Sale

I have three 2mtr xceivers for sale

Clegg FM 27B with Manual. \$60.00

ICOM IC-211, 10 Watt Moble or Base with manual. \$60.00

ICOM IC-229H, 50 Watt, Moble, with manual. \$60.00

contact Jim Cloud, W7LDM, 457-9299

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Wanted to borrow
Vector Network Analyzer or a Noise Bridge

For Sale

Norton Goast PC Software v10.0 Manual and disks
Best offer
AMCom Clear Speach Speaker CSS-1 Best offer

Bob K6MBY k6mby@olypen.com

Clallam County Amateur Radio Emergency Service (CCARES)

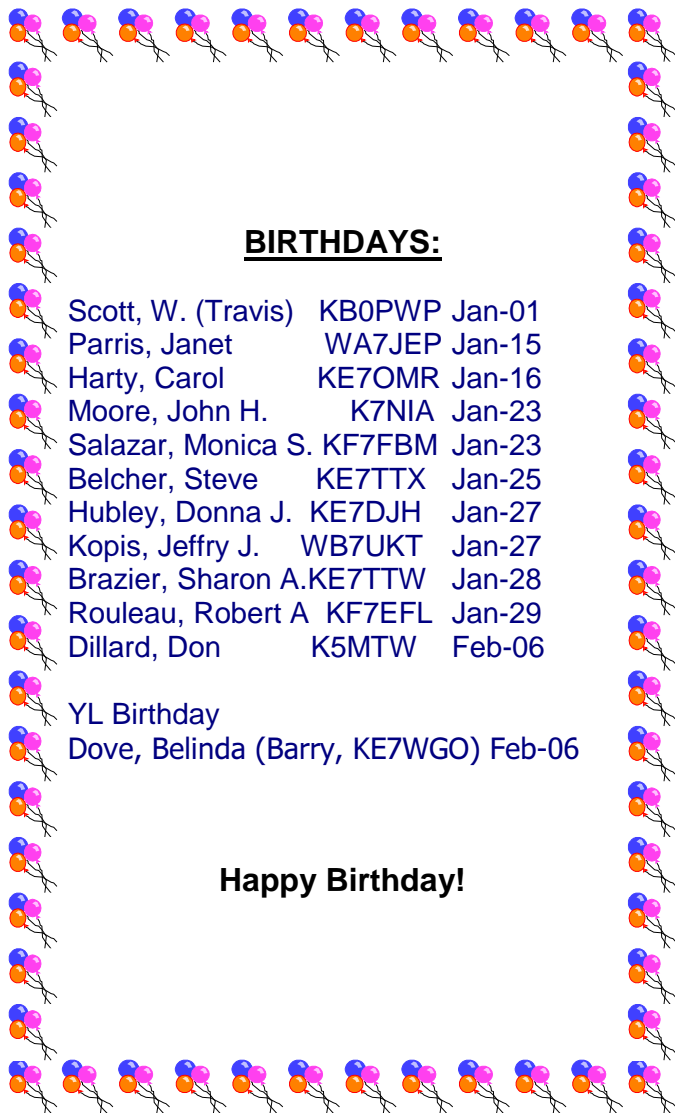
The Clallam County ARES is organized in two levels; as an affiliate of ARRL/ARES and as the recognized RACES organization by the Clallam County Division of Emergency Management. Membership in CCARES is open to all licensed Amateur Radio Operators that are residents of Clallam County, who first register with ARRL/ARES through the Emergency Coordinator. They are not required to attend training meetings and function as a second response unit in emergencies.

CCARES members in good standing may register in the RACES program with the Clallam County Division of Emergency Management (CCEM) and serve as a primary responder during emergencies. RACES members are the core of the organization and are expected to attend training meetings and participate in drills and other events.

FROM OUR TREASURER:

First Federal Savings & Loan of Port Angeles Balance: \$ 7,606.46
Outstanding Cheques: - 0.00
Checkbook Balance: \$ 7,606.46

BIRTHDAYS:



- Scott, W. (Travis) KB0PWP Jan-01
- Parris, Janet WA7JEP Jan-15
- Harty, Carol KE7OMR Jan-16
- Moore, John H. K7NIA Jan-23
- Salazar, Monica S. KF7FBM Jan-23
- Belcher, Steve KE7TTX Jan-25
- Hubley, Donna J. KE7DJH Jan-27
- Kopis, Jeffrey J. WB7UKT Jan-27
- Brazier, Sharon A. KE7TTW Jan-28
- Rouleau, Robert A. KF7EFL Jan-29
- Dillard, Don K5MTW Feb-06
- YL Birthday
- Dove, Belinda (Barry, KE7WGO) Feb-06

Happy Birthday!

COMING EVENTS

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There are no Hamfests or Conventions  
within 100 miles in December

~~~~~  
6 Mar 2010 Electronics Show and Fleamarket
Mike & Key ARC Puyallup, WA
WWa Fairgrounds Pavilion Exhibition Hall

**Please welcome the following
new members who joined the CC-ARC
recently!**

None

NEXT YL LUNCHEON**Old Mill, Sequim****Feb 12th****Time: 11:45 a.m.**

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

2010 YL Luncheons:

2010 - CCARC Ladies Luncheon Schedule
Reservations are made for 11:30 - 2nd Friday of each month

January - Bushwhacker - 1527 East 1st St. - Port Angeles
February - Old Mill Cafe - 721 Carlsborg Rd. - Carlsborg
March - Gordy's Pasta and Pizza - 1123 E. 1st - Port Angeles

April - Oak Table - 292 W. Bell - Sequim

May - Downriggers - 115 E. Railroad Ave. - Port Angeles

June - Mariner - 707 E. Washington - Sequim

July - Toga's - 122 W. Lauridsen Blvd. - Port Angeles

August - Tarcisios - 609 W. Washington - Sequim

Description	Time/Date	Location	Contact
Clallam County ARES/RACES meeting	7 pm, first Tue of every month	Clallam County Courthouse EOC, 223 E. 4 th St., PA	Dan Abbott N7DWA 360-582-3824
Clallam County Amateur Radio Club general meeting	7 pm, second Wed of every month	Olympic Hospital Linkletter Room, PA	Tom Newcomb KE7XX 360-452-8228
Clallam County Amateur Radio Club social breakfast	8 am, first Sat of every month	Joshua's Restaurant Hwy. 101 & Del Guzzi Dr.	Tom Newcomb KE7XX 360-452-8228
Clallam Country Amateur Radio Club YL social lunch	11:45 am 2d Fri of every month	Rotates - announced on Thursday night Net	

CLUB OFFICERS For 2010

President: Nita Lyman KE7DRT 360-457-5022 Nita_lyman@yahoo.com

Vice President: Dennis Tilton AD7TV 360-452-1217 3tiltons@wavecable.com

Secretary: Bill Carter W7WEC 360-6814375 w7wec@arrl.net

Treasurer: David McCoy KE7JEJ 360-457-8550 mccoy.d.r@olyphen.com

Board Member (Chairman): Johan Van Nimwegen KO6I 360-681-7300
jvn@olyphen.com

Board Member: Al Dawson W7YLV 360-457-0752 adawson@tfon.com

Board Member: Chuck Jones N7BV 360-452-4672 N7BV@yahoo.com