



CLALLAM COUNTY
AMATEUR RADIO
CLUB

QTC
AUGUST 18

AMATEUR RADIO LICENSE CLASS

Date: August 18, 25, & Sep 1, 2018
Time: 0900 to 1700
PA Fire Department 5th and Laurel Street

EXAM: Sep 1 at 1300

Get Your License Here!

Aug 18, 25 & Sep 1

@ PA Fire

**Chuck Jones N7BV
ARRL VE-L**

August Program

Open discussions.

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!

Did you put up a new antenna, buy a new radio? Tell us about it.

Did you try a new mode again tell us about it.

The more you submit the less blank space we will have!

Thanks, the staff!

CCARC QTC Newsletter

Just a little background 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 if you know how, before sending it to ccarcqtq. 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,

Have an idea for a club program?
Pass them along to the members
of the program committee.

Thanks.

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.

Here is some feedback from the recent WRTC contest. Lots of interesting statistics to think about for Field Day. Submitted Chuck N7BV

Today's Topics:

1. Summary of Software and Transceivers used by WRTC teams (Bob Wilson, N6TV)
 2. Re: Summary of Software and Transceivers used by WRTC teams (Bob Wilson, N6TV)
 3. Re: Summary of Software and Transceivers used by WRTC teams (Bob Burns W9BU)
-

Message: 1

Date: Sun, 5 Aug 2018 23:45:03 -0700

From: "Bob Wilson, N6TV" <n6tv@arrl.net>

To: CQ Contest Reflector <cq-contest@contesting.com>, wrtc2018@lists.wrtc2018.de

Subject: [CQ-Contest] Summary of Software and Transceivers used by WRTC teams

From published sources, I've combined into an online spreadsheet the final score for each WRTC Team, including the logging software and equipment used, plus a column for each on-site referee.

You may view this online as a Google Spreadsheet, here:

<https://bit.ly/WRTC2018Results> (link is case-sensitive)

Click the Tabs at the bottom of the page to display the summary by software and radio model. Win-Test just edged out N1MM Software among the WRTC teams. The Elecraft K3 was the most popular radio model by a wide margin, followed by Icom, Kenwood, and Flex.

You may use the *File | Download As ...* menu to save you own copy of the spreadsheet in various formats (Excel, PDF, comma-delimited, etc.).

Links to far more detailed Excel spreadsheets that include band breakdowns and accuracy reports may be found here:

<https://wrtc.info/archive/2018-germany/>

I find it interesting that the top four teams all used the same logging software (Win-Test), but none used Elecraft. The top four all selected 200W radios (save for one TS-850). Given that each team was strictly limited to 100W max, I'm left wondering if the 200W radios provided more "average talk power" on phone, perhaps giving them a slight advantage on that mode? It's not a clear conclusion one can draw from the numbers, but a curious result.

73, Bob, N6TV

Message: 2

Date: Mon, 6 Aug 2018 00:25:50 -0700

From: "Bob Wilson, N6TV" <n6tv@arri.net>

To: CQ Contest Reflector <cq-contest@contesting.com>,
wrtc2018@lists.wrtc2018.de

Subject: Re: [CQ-Contest] Summary of Software and Transceivers used by
WRTC teams

Correction, I meant to write:

The Elecraft K3 was the most popular radio model by a wide margin, followed
by Icom, *Yaesu*, and Flex.

73,
Bob, N6TV

Message: 3

Date: Mon, 6 Aug 2018 07:43:45 -0400

From: Bob Burns W9BU <w9bu_lists@rlburns.net>

To: cq-contest@contesting.com

Subject: Re: [CQ-Contest] Summary of Software and Transceivers used by
WRTC teams

Bob, I put together my own list, but only looked at the top 10 finishers.

Among the top 10 finishers, there were 7 Yaesus, 6 Icoms, 4 Elecrafts, and 3
Kenwoods.

Also, among the top 10 finishers, 6 of them used Wintest and 4 used N1MM
Logger+.

One of my elmers points out that doing well in this event has a lot more to do
with the skill of the operators than the tools they are using. He also points
out that slight differences in propagation and the noise level at each site are
also a factor.

This elmer goes on to say that in any ham population with a large concentra-
tion of Europeans, you will find less interest in Elecraft and N1MM Logger+.

Does a 200 watt radio running at 100 watts provide more "talk power" on
phone than a 100 watt radio? Boy, I don't know. If that's true, then further
defining the power limits may be something for the organizers to look at.

Bob...

Minutes: CCARC Ham Meeting July 11, 2018

Meeting called to order by president Mark Ellington at 19:02.

Pledge of Allegiance.

Introductions. 32 members, 1 guest.

June 13, 2018 regular meeting minutes approved as published in QTC.

President: thanked all who assisted in the setup and take down processes of Field Day.

Treasurer: \$13,931 in the CCARC account. \$15,177.69 from fireworks sales.

Chairman of the Board: minutes in the QTC. Bob and Doug working on Gunderson Mtn. repeater installation. Forks Hospital has committed \$3,700 to cover a majority of costs. Pushing to be operational before inclement weather sets in.

Doug thanked Forks Hospital and others contributing to the Gunderson Mtn. repeater. Power supply will be via a generator. A link to the Striped Peak repeater is planned and an internet link is hopeful. DNR costs are recurring and completion is planned by the end of Sept. 2018.

Dennis has space set up and is ready to assist in electronic kits' construction. Groups of two to three people can work at one time. Many members are interested and a sign-up sheet was circulated. He suggests alike kits in one group. Three of the known kits are: 1) Fox Delta SWR Analyzer approximately \$50, 2) QRP Labs less than \$50, and 3) Bidex SSB Transceiver approximately \$100.

Bill presented the functions of Groups.io on the overhead. A one-time cost of \$110 was paid to manually add current club members to the IO group. The QTC newsletter email was a success. Bill, Bob, and Chuck are moderators. Level 1 is available for group members, Level 2 requires joining Groups.io and includes subgroups, hashtags, auto messaging, photos, files, bylaws, documents and a Wiki knowledge base. Mark added anyone not interested can unsubscribe. Many other IO groups available including Bidex 20, WWDX, and tech support for various radio elements.

Panel discussion: Field Day log sheets did not include several contacts made overnight, it was suggested Rick pull data from each computer individually and compare to the master server log. Rick ran frequent score summaries to verify frequencies. No one was able to work CW. The 80 meter GOTA radio was unmanned for several hours in the afternoon.

Bill reported noise is a significant problem lately. During a recent power outage with battery backup the noise was gone. Sources of noise were discussed: battery chargers, solar horse fencing, solar panel controllers, individual solar powered lights, grow houses, PUD power lines, Centurylink, and traffic lights. Suggestion: drive with AM radio on to pinpoint noise sources.

Next ham license course Aug. 18 and Aug. 25 with test on Sept. 1.

Dennis built terminated folded dipole antenna for 160 to 6 meters. One third power for termination resistor. SWR < 3:1, toride wire, 9 to 1 balun, 450 Ohm resistor,

120 foot twin lead doublet, 1 kilowatt, fabric tape wrap to tune to $< 1.05:1$, cost \$150.

ALE used by military and coast guard auxiliary. Set specific frequencies on each band, sends signal and logs result to show propagation for emergencies.

Bowtie terminated bolt dipole wrap around attic antenna.

Break 20:06. Reconvene 20:28.

Chuck requested pros/cons comments on Field Day for future planning.

PROS: ARES reported 3 potential members from event with 2 more at July 10 meeting. ARES 60 meter antenna operational, trailer exercised. Antenna show and tell. Matt's ISS antenna and setup. Very little interference between bands. Experienced setup crew gave kudos to new members. Potato gun for dipole placement. Mark's tower.

CONS: Very few operators for 6 antennas, logging contacts difficult, no CW, 2 man rule for antenna modification not followed, generator noise.

Chuck thanked all and suggested surveys forthcoming in Groups.io. Please contribute to the surveys to improve 2019 Field Day.

Adjourned 21:12.

Respectfully submitted, Jeannine Tyler KI7WVD, Secretary Pro Tem

Northern Utah WebSDR,

Anyone who is not familiar with the Northern Utah WEBSDR site should check it out.

Found at: <http://websdr1.utahsdr.org/>

It is a large omni-directional Log periodic antenna that has excellent coverage of the Western USA. It covers 160 thru 6 meters and translates all signals to a nice website.

Technical information and a picture of the antenna can be seen at: <http://websdr1.utahsdr.org/info/techinfo.html>

It is very useful for net operations where some stations cannot be heard directly but the Utah SDR will likely pick them up.
It can also be used to check your transmitted signal.

Charlie WA4DFT

Minutes: CCARC Board Meeting July 25, 2018

Meeting called to order by Executive Board Chairman Chuck WA7EBH at 13:02.

Present: Chuck WA7EBH, Bill K7WWP, Mark K7MAE, Chuck N7BV, Bob K6MBY, Doug WB4KGY, Jeannine KI7WVD

Doug presented the post inspection report of the Gunderson Mountain site including photographs. Existing items of concern include concrete pad to tower connection, battery bank ventilation, lack of adequate grounding.

Items needed for installation of new antennas to the Gunderson Mountain site include but are not limited to: sidewall penetration boot, additional equipment cabinet/rack with up to date grounding practices, removal of 18' top mount antenna, cost estimate from CresComm for wi-fi (NOTE: Exhibit C Technical Data Sheet for Communication Sites dated 7/24/2018 indicates CresComm is donating internet service to CCARC and that a subscriber unit is necessary at this location), DNR annual rent paid by CCARC, earthquake strapping.

It was decided the existing Striped Peak cabinet/rack would be disassembled and moved to Gunderson Mountain. An on-hand cabinet/rack will be re-constructed for Striped Peak. All work to the cabinet/racks will be done off site with 'new' packages tested and then moved to their respective locations. Striped Peak will be changed out, rebuilt and re-installed first. The Forks equipment will be removed/replaced after completion of the Striped Peak work, but hopefully before inclement weather sets in.

It is anticipated Striped Peak would be down a minimum of 4-5 days. Notification to ARES needs to be sent prior to Striped Peak going offline.

It is understood the Forks Hospital will contribute up to \$3,700: a confirmation letter from the hospital board should be requested and received prior to commence of construction. A request in the amount of \$400.00 should be approved by CCARC members prior to commence of construction. The contribution of money from fireworks' sales currently slated for ARES could be used towards ARES' portion.

Purchasing liability insurance was brought up.

Items on the current construction equipment list were discussed: polyphasers (4 uhf + 3 vhf), cable ladder, welding cable for 12v power, duplexer, isolator, lightning arresters, shelving. The list is being constantly revised as members work to obtain as many parts' donations as possible to keep costs down.

Cabinet/rack construction and installation work at the Striped Peak site is currently anticipated for the week of August 13, 2018.

Meeting adjourned at 14:49.

Respectfully submitted, Jeannine Tyler KI7WVD, Secretary Pro Tem

Ex US Navy radiomen, maritime radio operators, historians, & hams:

Maritime Radio Historical Society: <http://www.radiomarine.org/>

Amateur Station K6KPH

Even though K6KPH is an amateur station we operate it as close as possible to a commercial coast station, using fixed frequency transmitters and commercial procedures. The idea is to give amateur stations the experience of working a commercial coast station. We've found this is especially meaningful to former professional operators who seem to immediately revert to the practices and procedures they remember from their days at sea or ashore.

K6KPH uses the original KPH transmitters, receivers and antennas. Operators are at the receive station in Point Reyes keying the transmitters in Bolinas remotely just as was done when KPH was in service.

The transmitters are usually the Henry 5kW commercial units installed at KPH in 1990, throttled back to 1.5kW TPO. But several of the restored 1950s vintage RCA transmitters are also on K6KPH frequencies. We use these for special historic occasions.

The transmitting antennas are double extended Zepps for 4Mc and 7Mc. H over 2 antennas are used for 14Mc and 21Mc.

Antennas at the receive site in Point Reyes include TCI omnis, rhombics and V beams, all switchable from the operating positions.

The transmitters in Bolinas are keyed from Point Reyes over a land line link as was done for KPH and as is currently done for MRHS coast station KSM.

Hours of Operation

K6KPH is usually on the air every Saturday from about 1700gmt to 2300gmt. The station is on the air at other times for events such as Straight Key Night and International Marconi Day.

Charlie WA4DFT

Board Meeting 8-1-18

Present: Chuck S. EBH, Chuck N7BV, John JAB, Rosemary MZH, Jeannine WVD, Joe RBS, Mark MAE, George TTY, Ross WVG.

Meeting opened at 7 p.m. Minutes approved as printed in QTC.

Treasurer report: Balance in checking account \$9600 after payment to TNT for fireworks. Will e-mail more information to the board as to the breakdown.

Chairman of the Board: The signatory authority is only from officers of the Board, not members of the club. All forms must be submitted to the Secretary. Correspondence to address of P. O. box or physical address of authorized board members. Some correspondence is sent only to a physical address.(example: DNR)
Members may check thru Corporations and Charities Filing System from Washington state to obtain list of officers.

Send copies of all CCARC correspondence to the secretary. E-mail letter to Joe Wright for formal letter of confirmation with corporation signature from the hospital of authorization of \$3700.00 to pay for Gunderson Mountain set-up.

Committee reports are published in the QTC.

Next License classes: August 18, 25 and Sept 1 (exam).

Vice President: Newsletter problem, no help in producing the newsletter, suggested going to bi-monthly unless more input from members. Need someone to input information about valid, local, VHF nets for newsletter. Will bring up before the club. Will still put out minutes and board meeting minutes and next club meeting. NEED INPUT! Board approved.

Web site: who has access to data bases? Check on this. Treasurer input, if no call sign for new member, talk to Bill P. on how to input.

Next Meeting: General visitation and social hour. Antenna build at September meeting. Last year, Club furnished materials and stations for soldering and provided analyzers for testing.

Old Business: Vote on approval of \$400 for Gunderson Mountain Repeater at next General meeting if \$3700 from hospital is confirmed. Striped Peak will be rebuilt regardless if Gunderson Mountain Repeater comes through. Motion from the Board, approved.

Field Day input: Request at May General Meeting to have radios set-up for practice so more on-air air interest. Possible shift sign-up. Remember to bring own keyer and headphones. Come early and help set up CW radio. DO NOT touch or turn off computers or change radio set-ups!!

Budget and Audit status this year: Audit next month, Joe E. to get in touch with Karen.

Inventory: John L. still working on it.

WWARA repeater association 5 year update, they will contact us for changes or not.

Lease renewed on Striped Peak, \$100 fee.

Rebuilding Striped Peak estimated costs: Board approved allocation of up to \$100, vote by members at general meeting next week.

NOTICE: Striped Peak repeater will be down for repairs the week of August 13th for maintenance and renovation.

Club reflector and IO group: no report.

New Business: Chuck J. If available, would like a meeting place for newcomers, mentoring, topics, questions, informal, would like club support for the coffee.

Sign up sheets for kits went missing at last meeting, need new one for next meeting.

Christmas Party reservations: Ask Sheldon to check on dates in December. 8th or 15th and location.

Adjourned at 8:27 p. m.

Respectfully submitted, Rosemary Day KI7MZH, Secretary

You might find this article in the Twin City DX Association newsletter interesting.

<http://www.tcdxa.org/Newsletters/March2018GrayLine.pdf>

This article describes how to upgrade an older radio's receiver using a modern day SDR to import reception and the flexibility of the software SDR.

Bob, K6MBY demo'ed his SDR Flex radio several months back for us. One of the things he showed was the ability to open windows for other bands than the main one he was using.

Fast forward to a couple of weeks ago when I ran across this article which shows how to use an SDR with an existing radio to achieve these advantages of the Software Defined Radios. As one of my friends said to me 'an SDR is all in the software'.

In contesting one of the things to know is that you are on the best band for propagation, the ability to watch multi bands without having to switch bands on the radio adds great versatility.

Submitted: Chuck N7BV

Subject: FW: a funny conversation between a mobile radio ham and a "civilian".

Not sure, but it may be a true story. Or one that has been embellished a bit.

Enjoy the humor.

MIB: Men in Black. Cars

From a recent conversation (or maybe not.)

"I noticed you have some antennas and a special license plate on your car. What does that plate mean?"

"You're right. That is a special plate. The K8MP was assigned to me by the United States Government."

"And what about the antennas?"

"They go with the two-way radio I have in the car."

"What do you use it for?"

"I send coded messages to other government personnel. Some are even foreign nationals. They have been permitted by their governments to send and receive coded messages as well."

"Can I see the radio?"

"Sure."

"Wow, that thing is small. It's amazing you can transmit to other countries with it. What do those numbers mean?"

"Those represent one of our special channels or frequencies. They are for our use only. Currently, the radio is tuned to 14.030 megahertz and that's what the numbers mean. If I turn this knob you can see the frequency changes. We use thousands of such frequencies to handle all the information we pass along."

"Can I listen to it?"

"Sure, I'll turn up the volume." _*(NOTE that the sounds are Morse Code, not voices)*_

"That sounds like something from a James Bond movie."

"Yes, it's in code."

"What did he just send?"

"UA3RGW."

"What does that mean?"

"That is the code name for his station. Every one of us has his own. You already know that mine is K8MP."

"Where is he?"

"He's in Moscow."

"WHAT???? This can't be legal. I knew something was fishy here."

"Nope, it's perfectly legal. Look, here's my permit from the Federal Communications Commission."

"Wow. But isn't it dangerous to have your code name on your license plate? It's like advertising that you're a spy."

"Well, it does raise some eyebrows sometimes. But at the same time, it's a good way for others who do this to recognize me. Sometimes we even pull off the road and exchange the messages in person. That way we can maintain a degree of radio silence."

"That's great thinking. After all, your plate just looks like a typical vanity plate so most folks wouldn't think anything was up. Heck, when I first saw it, I thought it meant the owner's name was Kate Empty until I saw you get in the car."

"You're not the first person to think that. At stop lights, I sometimes look in the rear-view mirror and see folks staring at it, trying to decipher it. The other day, a guy behind me even whipped out his cell phone and took a photo of my license plate and another of the big antenna on the fender. I've been mistaken for a cop too. Folks often come flying up behind me and then hit the brakes when they see the all black car with antennas and a cop-sounding license plate number."

"This is all so interesting. How long have you been doing it?"

"I started during the Cold War."

"WHAT??? Now I'm suspicious again."

"Relax, it's nothing bad. Actually, I have been teasing you a bit in the way I have explained things. This radio is something you have probably already heard about. It's a Ham radio."

"No way. I have seen Ham radios in movies and they look nothing like this. They were huge, with great big knobs and gauges and even had vacuum tubes in them. And they certainly didn't have lit up numbers like yours does. No, this is not a Ham radio. I really think you're some sort of spy. And that's OK with me, as long as you are working for our side."

"Think what you want but it really is a Ham radio."

"I just don't believe you because Ham radios died out when cell phones came in. This

is something different. Speaking of cell phones, why don't you guys just use those?"

"We prefer to stay off the grid."

"There you go again. What are you hiding? And I want to know what that Russian guy told you."

"It was routine stuff."

"Oh yeah? Like what?"

"Really, it was nothing to get excited about."

"Then you shouldn't have a problem telling me what it was."

"All right. He simply said that I had a good signal into Moscow and that his name was Boris."

"That's all?"

"Pretty much. Oh, he did say something about his XYL." (Note: XYL just means Ex Young Lady, or married)

"XYL?"

"That's our code word for wife."

"I'm pretty much convinced you're a spy now. And I bet you use that code word for wife to protect your wives from harm. I'm kind of surprised that the Boris would even mention he had a wife, er, I mean an XYL. You know, for her safety and all that."

"There is really no danger. Boris and his wife are just regular folks like you and I. I'm sorry I mislead you before. IT IS REALLY JUST A HAM RADIO !!!

"I'd like to believe you but there are too many things that don't add up. Say, you never told me what Boris actually said about his XYL."

"Oh, he only mentioned her name."

"What is it?"

"Natasha.."

That's it... there was no way the guy would believe K8MP wasn't a spy. A good example how simple nothings can become "big somethings".
Eg. politics.

--

and the beat goes onnnnnn!
Di-dah, di-dah-dit.

Submitted: Doug Welcker WB4KGY

CCARC Standing Committees

VE Education and Training: Chuck Jones N7BV

Field Day Co-Chairs: Al Fisk KD7TFK, Chuck Jones N7BV, Rick AA0RD, Sheldon Koehler N7XEI

Health and Welfare: Nita Lyman KE7DRT

Membership Chair:

Net Coordinator: Mike Rice KF7VZZ

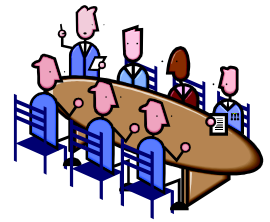
Program Co-Chairs: Andrew Rowland KF7QYL, Bill Peterson K7WWP, Chuck Jones N7BV

Public Relations: Bruce KD7WBM, Jean Tyler, KI7WVD

Publications (Newsletter): Chuck Jones N7BV,

Technical Committee Coordinator: Doug Welcker, WB4KGY, Bob Sampson K6MBY, Bill Peterson K7WWP, Merrill Terpstra KA7FAM

Web Site Administrators: Bill Peterson K7WWP



CCARC Special Committees

Roster: Joe Edwards KI7RBS

Communication from here to there
Yahoo/18 8 Aug

Joe Wright
To:CCARC-QTC
Aug 2 at 2:25 PM

Greetings all:

When I get time after tomorrows training and some of the other things I have going on I will officially submit the following information for the club newsletter;

Today, July 27, 2018 direct communication from Forks Hospital to Striped Peak was established again. With great thanks to the hospital for a new radio and new antenna, and for the gang at the hospital installing the antenna and positioning it for me we are in contact again.

The reception on this end is a bit scratchy but Bill Carter and I established contact twice and the antenna is now secured where it will be until it needs further attention.

So, if any of the gang comes by the hospital and sees the guys from the maintenance group be sure to thank them for their help. They did it all with a smile and a thank you!

73!

Joe

NEXT YL Luncheon**August 10, 2018****Mariner****609 W. Washington****Sequim**

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

2017 - CCARC Ladies Luncheon Schedule**Reservations are made for 11:30 - 2nd Friday of each month****August – Mariners - 609 W. Washington - Sequim****September - Cafe Garden - 1506 East 1st St - Port Angeles****October – Paradise – 703 No. Sequim Ave – Sequim****November - Chestnut Cottage - 929 E. Front - Port Angeles****December - Cedars at Dungeness - 1965 Woodcock Rd. - Sequim**

Description	Time/Date	Location	Contact
Clallam County ARES/RACES meeting	7 pm, 1st Tue of every month	Clallam County Courthouse EOC, 223 E. 4 th St., PA	Bruce Reiter KD7WBM 360-452-9851
Clallam County Amateur Radio Club general meeting	7 pm, 2d Wed of every month	Port Angeles Fire Station 5th and Laurel, PA	Chuck Jones N7BV 360-452-4672
Clallam County Amateur Radio Club social breakfast	8 am, 1st Sat of every month	Bi-Monthly Joshua's Restaurant, PA & Mariner Restaurant, Sequim	Chuck Jones N7BV 360-452-4672
Clallam Country Amateur Radio Club YL social lunch	11:45 am 2d Fri of every month	Rotates - announced on Thursday night Net (See QTC Newsletter)	

CCARC Welcomes new member/s:

Jeannine Tyler – KI7WVD
 Ross Tyler KI7WVG be a member,
 Dale Jackson KI7RBL
 Ronald Barnes (No License)

CLUB OFFICERS For 2017**President:** Mark Ellington K7DWE 360-460-4043 gossamer765@gmail.com**Vice President:** Chuck Jones N7BV 360-775-8201 n7bv@yahoo.com**Secretary:** Rosemary Day KI7MZH 360-457-6895 rosemaryday2000@yahoo.com**Treasurer:** Joe Edwards KI7RBS 360-808-5282 thesharpshark2011@gmail.com**Board Chair Person:** Chuck Stroehrer WA7EBH 206-799-6551 cstroehrer@wavecable.com**Board Member:** Bill Peterson K7WWP 425-678-5753 billp@alaska.net**Board Member:** John Lehto N4JAB ponyexpress@olypen.com