



CLALLAM COUNTY AMATEUR RADIO CLUB

QTC
OCTOBER 17

From: ARRL Members Only Web site [mailto:memberlist@www.arrl.org]
Sent: Tuesday, September 26, 2017 08:21
Subject: Ham Aid

September 25, 2017
Newington CT
For immediate release

Fifty of the nation's most accomplished Amateur Radio operators have responded within 12 hours to the call of the American Red Cross to deploy to Puerto Rico and provide emergency communications. At the behest of Red Cross, ARRL rallied the US Amateur Radio community to provide up twenty-five, two-man teams of highly-qualified hams. The group's principal mission will be moving health and welfare information from the island back to the US mainland where that data will be entered in Red Cross "Safe & Well" website: <https://safeandwell.communityos.org/cms/index.php>.

The group will deploy the middle of this week and remain deployed on the island for up to three weeks.

ARRL will equip each two-person team with a modern digital HF transceiver, special software, a dipole antenna, a power supply and all the connecting cables, fitted in rugged waterproof container. In addition, ARRL is sending a number of small, 2,000 watt portable generators as well as solar-powered battery rechargers of the variety used by the US military on extended expeditionary deployments. The hams and their equipment will be sent to Red Cross shelters extending from San Juan to the western end of the island.

"This generous outpouring of response represents the finest qualities of the Amateur Radio community," said Tom Gallagher, ARRL's CEO.

"These individuals are dropping whatever they are doing now, heading off to an extended hardship-duty assignment, and offering their special talents to Americans who have been cut off from their families, living amid widespread destruction and without electrical power since Hurricane Maria struck the Caribbean region last week."

"In the nearly 75-year relationship between ARRL and the American Red Cross, this is the first time such a request for assistance on this scale has been made", said Mike Corey, ARRL's Emergency Preparedness manager from ARRL's Newington CT headquarters. "Hurricane Maria has devastated the island's communications infrastructure. Without electricity and telephone, and with most of the cell sites out of service, millions of Americans are cut off from communicating. Shelters are unable to reach local emergency services. And, people cannot check on the welfare of their loved ones. The situation is dire."

How can you help? In a letter to all ARRL members, President Rick Roderick asked for contributions to ARRL's Ham Aid fund. President Roderick emphasized, "equipment has been flying out the door since Harvey struck the US mainland. From meeting requirements in aid of Hurricane Irma victims in the US Virgin Islands and Florida, our stores of ham aid kits are completely depleted."

Donate to Ham Aid. ARRL's Ham Aid program loans Amateur Radio equipment kits to established Amateur Radio Emergency Service (ARES®) groups and partner agencies during disaster response, in order to establish Amateur Radio communications support. Ham Aid is supported by donations from individuals and corporations – including many of our ham radio industry partners. ARRL has previously staged Ham Aid equipment in Texas, and in the last weeks we have supplied kits in Florida, the US Virgin Islands, and Puerto Rico. Our supply of Ham Aid kits has been rapidly depleted. Your donation to Ham Aid will help us, now. Your contributions to Ham Aid are 100% tax deductible. To make a donation online, go to www.arrl.org/arrl-donation-form and select "Ham Aid" from the ARRL donation form. To donate by mail, print a donation form, and mail it with your check payable to ARRL, noting "Ham Aid"

on the memo line of your check; mail to ARRL, 225 Main Street, Newington, CT 06111 USA.

Tom Gallagher – NY2RF
Chief Executive Officer

IARU Region 2 Announces Ham Aid Donation of Funds and Equipment

10/06/2017

International Amateur Radio Union Region 2 (IARU-R2) has pledged to donate \$5,000 as well as two Ham Aid kits to the Puerto Rico-Caribbean relief effort.

The IARU is an organization consisting of over 160 national Amateur Radio societies around the world. The organization, which has been the spokesman and watchdog for the world Amateur Radio community since 1925, is divided into three Regional Organizations. IARU Region 2 represents the Americas.

Ham Aid was created in 2005 in response to the need for equipment and resources to support the Amateur Radio response to hurricanes in the US and Caribbean. ARRL has supplied Ham Aid kits for the hurricane emergency response efforts in Puerto Rico and elsewhere, where the equipment helps to support necessary communication in the disaster's wake.

A statement on the Region 2 website said, "IARU R2 invites member societies, radio clubs and individual radio amateurs to consider supporting ARRL's Ham Aid Fund." To donate, go to the ARRL donation form and select "Ham Aid." To donate by mail, print a donation form, and mail it with your check payable to ARRL, noting "Ham Aid" on the memo line of your check. Mail to ARRL, 225 Main St., Newington, CT 06111 USA.

ARRL and Local Volunteers in Puerto Rico Working Together in Storm Recovery

10/08/2017

Nearly 2 dozen ARRL volunteers from the mainland and five local radio amateurs have been working in concert to do what needs to be done in the Hurricane Maria recovery under way in Puerto Rico.

The latest update from the island commonwealth reports that 14 volunteers have deployed to hospitals, while five are embedded with Red Cross reunification teams. One volunteer apiece has been stationed at the precarious Gajataca Dam and at the Juncos Fire Station. Another seven operators are handling net control duties at the Puerto Rico Emergency Operations Center.

Five Amateur Radio volunteers have been redeployed to remote hospitals that are without communication. Volunteers at the EOC, located in San Juan's Convention Center, relayed at request from Guayana Hospital for snacks, water, and a generator. Their second generator was reported to be about to fail.

The effort continues to resurrect the devastated electrical power infrastructure in Puerto Rico, and 40 to 50 Puerto Rican radio amateurs have been assisting the power company to maintain communication in an effort to restore power.

Twenty new transceivers and a 2-meter repeater have arrived. The repeater, donated by Yaesu, will be installed at Arecibo Observatory.

The FEMA ESF-2 (Emergency Support Function #2) communications task force relocated to a new part of the building and asked the Amateur Radio volunteers to join them there. The volunteers took down their station and antennas and re-installed them at the new location.

Vice President Mike Pence visited radio amateurs and emergency responders at the EOC on October 6. ARRL Emergency Preparedness Manager Mike Corey, K11U, arrived at the EOC on Friday. — Thanks to ARRL Puerto Rico Section Manager Oscar Resto, KP4RF; Valerie Hotzfeld, NV9L, and Gary Sessums KC5QCN



Traditionally, each club office is held by one person and is tasked with performing the duties of that office, as well as having collateral responsibilities should that member sit or lead a committee for the good of the club. We recognize the difficulty of holding such responsibilities in the club insofar as many club members are working and bearing responsibilities of their own, and unable to devote full attention to club matters as they have volunteered and been elected. On the face of the descriptions, some offices require more effort than others, as well as occasional records auditing. The board discussed having a committee to assist certain board members, to alleviate the problems of data loss. In order to help the club run more smoothly, the board recommends adding a Finance Committee to help the Treasurer and adding people to help the Secretary.

From the pool of available members we will select two additional people to make up a Finance Committee, with the elected Treasurer as its reporting member. Its workload will be distributed among them as needed to ensure timely reporting and, when required, auditing and creation of a budget for the board's approval. The board believes this workload distribution will ensure the security of the club's financial data. Should the Treasurer be unavailable, another Finance Committee member will be readily available to take reporting duties, and prevent a failure of the club's structure. Given that so few people have held the office of treasurer in the recent history of the club, it would be possible to find qualified and interested nominees for the office during elections, from the existing Finance Committee members.

We think Secretary also falls under this requirement. Past secretaries have left mid-year, and some have been unable to perform their duties. With two additional members for a Letters Committee, the Secretary will be able to report as required, letters and documents will be more easily dealt with in a timely manner and curated. Should the Secretary be unavailable, another Letters Committee member will be readily available to take recording and reporting duties.

It will be the responsibility of the Secretary or Treasurer to work with their respective committees to distribute the workload and commit to regular communication to ensure its progress. The structure for this is not new, and aside from being in place in many other amateur radio clubs, is already in place in our own club: the Board Member structure is that example. The board members are active and able to perform the duties as needed, and have shown repeatedly a distributed workload is more easily completed. We also think this will foster good will and allow more club members to work in an open environment, and perhaps draw more amateurs to participate in club activities.

Submitted, Mike Rice KF7VZZ

Get Your License Here!

**Technician and
General Class
October 14, 21 2017**

VE Exam Oct 21, 1300

**Chuck N7BV
ARRL VE-L**

October Program

Bob K6MBY and K7WWP will discuss Sequim 2.4 GHz Ham Data Network.

Articles needed 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 ideas for a club programs? Pass them along to Bill Peterson K7WWP.

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.

W7RJW "Net" Working

Some local nets to listen in on/participate in. This is one good way to learn how we communicate on the airwaves as amateur (ham) radio operators. I spent a year just listening to a couple of these nets and how experienced operators talk to each other, before I even tried for my Technician license. It REALLY helped me a lot. I strongly recommend doing this on a regular basis. Enjoy!

Sunday:
LDS (Latter Day Saints) Emergency Net (you don't have to be a member to participate) 6pm on 146.760

Monday:
Elwha Emergency Net 5:30 pm On 146.760
WARA (West Coast Amateur Radio Association) Club Net (Victoria, BC Canada) at 7pm on 146.840

Tuesday:
ARES (Amateur Radio Emergency Services) Net 7pm on 146.760 (except for the first Tuesday of the month, when ARES meets at the Clallam County Courthouse)

Wednesday:
WARA (West Coast Amateur Radio Association) Emergency Net 7pm on 146.840 Simplex Net immediately following: on 146.580

Thursday:
CCARC (Clallam County Amateur Radio Club) Net 7pm 146.760

W7RJW Rebecca J. Winters



What's new on Ham Nation?

<http://twit.tv/hn>

Check out the new format.

Have a cup of coffee, relax and watch one.

FOR SALE or TRADE

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Two sets of notes: Submitted by Mike KF7VZZ CCARC Secretary

**2017-09-13  
CCARC General Meeting**

1900 Call to Order, Pledge of Allegiance, and Introductions all around.

K7PAX resigned from the Board, Chuck Stroehrer WA7EBH was invited to replace her as the 2nd year Board Member. His nomination was accepted by acclamation of all present.

N7XEI gave a corrected August Treasurer's Report.

An invitation was given for individual members to join the Coast Guard Auxiliary.

Presentation by AA0RD, At-Sea Launching of Satellites.

AD7TV: projects by members and other items of interest

New-Old-stock hats were offered by WB4KGY, and were warmly received

Pizza-Pan receiving antenna

~200KHz oscilloscope kit for about \$25 (wow!)

QRP-Labs Ultimate3 5W XCVR

AD7TV offered a "build-it" party at his QTH, plenty of room and projects can be secured overnight.

2100 Adjourned

**2017-10-04  
CCARC Board Meeting**

1909 Call to Order

Present were KG7WMZ KD7WBM K7WWP KF7VZZ WA7EBH WA6RQW N7BV

Welcome to WA7EBH as the replacement 2nd year board member

Regarding the efforts of the ARRL to provide communications for recent hurricane damage and human disasters, the board moved to donate 567.32 to ARRL Ham Aid. We feel this is an amount representative of the club's commitment to preparedness and sustainability.

Radio and accessory testing was postponed.

Equipment manager, staff, and location was determined to be the priority of the 1st year board member.

The club Elmer List was postponed.

A kit-building class was organized by AD7TV, details forthcoming until he is home.

The board moved that the treasurer perform an audit of the budget after all relevant data is retrieved.

The board discussed having a committee to assist certain board members, to alleviate the problems of data loss. In order to help the club run more smoothly, the board recommends adding a Finance Committee to help the Treasurer and adding people to help the Secretary.

Adjourned 2100

# AMATEUR RADIO ANTENNA LENGTH CHART

|                      | FREQUENCY<br>(Mhz) | 1/4λ<br>(Feet) | 1/2λ<br>(Feet) | 1λ<br>(Feet) | 1/2λ Inv Vee<br>90° (Feet) |
|----------------------|--------------------|----------------|----------------|--------------|----------------------------|
| <b>160</b><br>METERS | 1.800              | 130' 0"        | 260' 0"        | 558' 4"      | 257' 5"                    |
|                      | 1.850              | 126' 6"        | 253' 0"        | 543' 3"      | 250' 5"                    |
|                      | 1.900              | 123' 2"        | 246' 4"        | 528' 11"     | 243' 10"                   |
|                      | 2.000              | 117' 0"        | 234' 0"        | 502' 6"      | 231' 8"                    |
| <b>80</b><br>METERS  | 3.500              | 66' 10"        | 133' 9"        | 287' 2"      | 132' 5"                    |
|                      | 3.750              | 62' 5"         | 124' 10"       | 268' 0"      | 123' 7"                    |
|                      | 3.900              | 60' 0"         | 120' 0"        | 257' 8"      | 118' 10"                   |
|                      | 4.000              | 58' 6"         | 117' 0"        | 251' 3"      | 115' 10"                   |
| <b>40</b><br>METERS  | 7.000              | 33' 5"         | 66' 10"        | 143' 7"      | 66' 2"                     |
|                      | 7.150              | 32' 9"         | 65' 5"         | 140' 7"      | 64' 10"                    |
|                      | 7.300              | 32' 1"         | 64' 1"         | 137' 8"      | 63' 6"                     |
| <b>30</b><br>METERS  | 10.100             | 23' 2"         | 46' 4"         | 99' 6"       | 45' 10"                    |
|                      | 10.150             | 23' 1"         | 46' 1"         | 99' 0"       | 45' 8"                     |
| <b>20</b><br>METERS  | 14.000             | 16' 9"         | 33' 5"         | 71' 9"       | 33' 1"                     |
|                      | 14.150             | 16' 6"         | 33' 1"         | 71' 0"       | 32' 9"                     |
|                      | 14.300             | 16' 4"         | 32' 9"         | 70' 3"       | 32' 5"                     |
|                      | 14.350             | 16' 4"         | 32' 7"         | 70' 0"       | 32' 3"                     |
| <b>17</b><br>METERS  | 18.068             | 12' 11"        | 25' 11"        | 55' 7"       | 25' 8"                     |
|                      | 18.168             | 12' 11"        | 25' 9"         | 55' 4"       | 25' 6"                     |
| <b>15</b><br>METERS  | 21.000             | 11' 2"         | 22' 3"         | 47' 10"      | 22' 1"                     |
|                      | 21.200             | 11' 0"         | 22' 1"         | 47' 5"       | 21' 10"                    |
|                      | 21.450             | 10' 11"        | 21' 10"        | 46' 10"      | 21' 7"                     |
| <b>12</b><br>METERS  | 24.890             | 9' 5"          | 18' 10"        | 40' 5"       | 18' 7"                     |
|                      | 24.990             | 9' 4"          | 18' 9"         | 40' 3"       | 18' 6"                     |
| <b>10</b><br>METERS  | 28.000             | 8' 4"          | 16' 9"         | 35' 11"      | 16' 7"                     |
|                      | 28.500             | 8' 3"          | 16' 5"         | 35' 3"       | 16' 3'                     |
|                      | 29.700             | 7' 11"         | 15' 9"         | 33' 10"      | 15' 7"                     |
| <b>6</b><br>METERS   | 50.000             | 4' 8"          | 9' 4"          | 20' 1'       | 9' 3"                      |
|                      | 54.000             | 4' 4"          | 8' 8"          | 18' 7"       | 8' 7"                      |
| <b>2</b><br>METERS   | 144.000            | 1' 8"          | 3' 3"          | 7' 0"        | 3' 3"                      |
|                      | 148.000            | 1' 7"          | 3' 2"          | 6' 9"        | 3' 2"                      |

Antenna length calculations are based on the following formulas:  
 1/2 wave dipole (feet) = 468/frequency in Mhz  
 Full wave loop (feet) = 1005/frequency in Mhz  
 Inverted Vee with 90 degree included angle is 90% the length of 1/2 wave dipole

Note:  
 Cut wire slightly longer to allow for connecting insulators and pruning.  
 Height above ground, nearby wires, trees, etc. will change tuning slightly.

MILLENNIA  
ARTS

## Remote Radio

A number of Software defined radios are, or can be, fully remote controlled. The Flex Radio 6000 series radios is one of those that is fully remote controlled over the Local Area Network. No nobs exist on this series of radios. EVERYTHING you would ever need to manage the radio is on the remote computer applications over the local area network.

A few relays and interfaces and you can control the radio on/off, rotor position, and antenna tuning. PST Rotator is the interface to rotor, antenna and device on/off controls.

## PSTRotator AZ



**Flex's Smart SDR application controls the radio.**



And yes, you may turn the radio on and off, turn the rotor, tune the antenna and operate SSB, from any LAN connection anywhere in the world. Future releases may include CW and

Hi Chuck,

Outdoors: See Attached pic,

I've refurbished my old 11 elements TV Antennae, to use as a dedicated Digital U/VHF ~ 108\* to 137\* E stations from ~17.5' AGL @ 454 Dungeness Mdws.

And using a home built 8 elements UHF {VK5DJ's YAGI ~563 MHz} Antenna ~ 278\* N stations, currently a total of ~19 Stations to date with both Antennas combined with a coupler and digital Amp.s' @ ~20.5' AGL to be raised another ~ 6' soon? I got the old Rotor working again, by removing a faulty splice!



Indoors:

I picked out 2 small DC Power Supplies from {& donated \$2 to} the CCARC! Is my intention to Refurbish & Troubleshoot them for use by members Interested in the upcoming CCARC Digital homebuilt Projects? I had started building one that I plan to finish & use with the group!

Trips:

During my last trip to Honolulu, HI for my late Mother's {Dr. Rev. Margery W Terpstra, Ph.D.} Memorial Service at UCC FCC:

I took the week before, an NCL "Pride of America" 7-night cruise of 4 Islands & 5 ports of call, the last being on Kauai's Nawiliwili harbor for half of 2 days, where I rented a car for ~ 24 hours, going W the 1st day & E the 2nd!



So the 1st day visiting Waimea where I became a Novice "W/KH6FAM" in 11/x/62' / Conditional in 64'. 1st "Ham Shack" QTH in the back of an older garage & a tree where my long wire started. Then the family moved to Honolulu where at UCC Makiki Christian Church my old QTH's cubical Radio room, used the steeple to hold up a multiband dipole {& AB6FAM}! I was also the 1st McKinley High School Amateur Radio Club president graduating in 67'.



See: Attached pictures below

Thanks,

Merrill Terpstra, ka7fam 73's,

## Treasurers Report for September 2017

Below is the bank account balances for October 1<sup>st</sup>:

**Bank Account Balances 10/1/2017**

|          |                |
|----------|----------------|
| Checking | 7259.86*       |
| Savings  | 3029.39        |
| CD       | <u>1042.17</u> |
| Total    | 11331.42       |

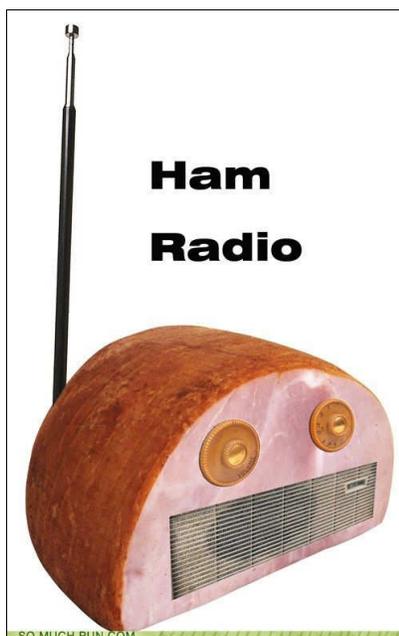
**September income** 469.84

|               |        |
|---------------|--------|
| Misc income   | 138.00 |
| Dues paid     | 50.00  |
| TNT final pmt | 249.97 |
| Interest      | 1.82   |

**September expenses** 35.00

Bank safe deposit box fee 35.00

Sheldon N7XEI  
CCARC Treasurer



**CCARC Standing Committees**

**VE Education and Training:** Chuck Jones N7BV

**Field Day Co-Chairs:** Al Fisk KD7TFK, Sheldon Koehler N7XEI, Linda Montelius KG7WMS, Ray Montelius KG7WNB

**Health and Welfare:** Nita Lyman KE7DRT

**Membership Chair:** Sheldon Koehler N7XEI

**Net Coordinator:** Mike Rice KF7VZZ

**Program Chair:** Bill Peterson K7WWP,

**Public Relations:** Bruce Reiter KD7WBM

**Publications (Newsletter):** Chuck Jones N7BV, Herm Halbach KG7WMZ

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

**Web Site Administrators:** Sheldon Koehler N7XEI, Mike Rice KF7VZZ Bill Peterson K7WWP



**CCARC Special Committees**

**Hamfest Table:** Mark Ellington K7MAE, Doug Welcker WB4KGY, Andrew Rowland KF7QYL

**Trailer:** Mark Ellington K7MAE, Charlie Brown WA4DFT, Andrew Rowland KF7QYL, Bruce O'Rourke WA7CCC, Glen Muir WA6RQW

**Fireworks:** Nita Lyman KE7DRT, Ray Montelius KG7WNB, Bruce O'Rourke WA7CCC

TO GO TO THE BEGINING  
OF THE INTERNET CLICK  
[HERE](#)

**From the Editor:**

A thank you to all who contributed to this newsletter.

Bob K6MBY

Sheldon N7XEI

Merrill Terpstra, ka7fam

Tks. 73, Chuck N7BV

**NEXT YL Luncheon  
13 October**

**Paradise  
703 No. Sequim Ave  
Sequim**

**Find us on the web at  
[www.olyham.net](http://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**

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

### [CC-ARC Welcomes New Members](#)

Bill Newblom WD0EPP  
Tom Cook WA7TC  
Richard Damon WG6U  
Ralph Frye W6EJE

### CLUB OFFICERS For 2017

**President: Dennis Tilton AD7TV 360-452-1217 [ad7tv@wavecable.com](mailto:ad7tv@wavecable.com)**  
**Vice President: Mark Ellington KI7DWE 801-821-1888 [gossamer765@gmail.com](mailto:gossamer765@gmail.com)**  
**Secretary: Mike Rice KF7VZZ (360) 912-2395 [kf7vzz@gmail.com](mailto:kf7vzz@gmail.com)**  
**Treasurer: Sheldon Koehler, N7XEI (360) 457-3029 [sheldonk@gmail.com](mailto:sheldonk@gmail.com)**  
**Board Member (Chairman): Herm Halbach III, KG7WMZ (360) 504-2226  
[hermhalbach@centurylink.net](mailto:hermhalbach@centurylink.net)**  
**Board Member: Chuck Stroehner WA7EBH 360-417-3054 [wa7ebh@arrl.net](mailto:wa7ebh@arrl.net)**  
**Board Member: Bill Peterson K7WWP 360-\_\_\_\_\_ [billp@alaska.net](mailto:billp@alaska.net)**