

# Noise Floor

Vol. 4, No. 2

Pacific Northwest VHF Society

Fall 2006

## 2006 Conference - Bellingham, Washington



More than 70 VHFers from throughout the Pacific Northwest journeyed to Bellingham, Washington, on the weekend of September 29-October 1 to attend the Pacific Northwest VHF+ Conference. Many brought families, spouses or friends with them. Especially noteworthy was the significant number of attendees who came all the way from California for the event. The Hampton Inn-Bellingham Airport was an excellent host and the hotel staff worked hard to help make this a memorable event.

Friday's activities included a tour of the world-class American Museum of Radio and Electricity in Bellingham. This is truly an amazing collection of radio and electrical apparatus dating as far back as the 1600s. Museum curator Jonathan Winters was on hand to personally answer questions and explain exhibits

On Friday evening, the tradition "Pizza Bash" was held at Izzy's Pizza Bar and Classic Buffet Restaurant. Most of the conference attendees and guests were in town early enough to attend and a great time was had by all.

Saturday's programs kicked off promptly at 8:30 am with opening remarks by PNWVHFS President Lynn Burlingame, N7CFO. ARRL Northwestern Division Director Jim Fenstermaker, K9JF, made the opening presentation. A number of presentations followed during the remainder of the day.

During the catered lunch between the morning and afternoon sessions, PNWVHFS Awards Chairman Eric Olson, N7EPD, presented the parallel awards the society gives for members submitting scores from the various VHF and above contests each year. The 2006 "VHFer of the Year Award" award was presented later, during the annual meeting, to Jim Aguirre, W7DHC.

In addition to Jim Fenstermaker, K9JF, speakers at this year's conference included Ward Silver, N0AX; Mike Lewis, K7MDL; Jim

Garver, K7YO; and Steve Morris, K7LXC. An open forum on contest issues hosted by Northwestern Division VUAC representative Jim Aguirre, W7DHC, and Pacific Division VUAC representative Len Gwinn, WA6KLLK, closed out the presentations for the day.

After the brief annual meeting, all eyes turned to the door prize drawing. Special thanks to Ray Cannon, W7GLF, for his work in contacting donors and arranging for some great prizes. Icom America again stepped up and provided a top-of-the-line IC-910H VHF/UHF multimode transceiver as the "grand prize." The smile on the face of Catherine Straight, KG6HXI, said it all as she happily accepted the grand prize after her ticket was drawn.

Participants then moved outside for an impromptu "tailgate" swap meet in the hotel parking lot. There was a lot of conversation mixed in with the perusal of items being offered. It was an excellent time to talk about the days programs and look forward to next year.

The final planned event of the conference was a dinner at the Mykonos Greek Restaurant, across the street from the hotel. Mykonos staff put together a special "PNWVHFS Menu" featuring some of their most popular dishes. This was a great time to eat a relaxed meal and rehash the events of the day. Many compliments were heard about the food and the setting.

*(See Pages Two and Three for more photos of the 2006 Pacific Northwest VHF+ Conference. - Editor)*



**Grand Prize Winner: KG6HXI**



*The buffet lunch line!*



*Listening intently.*



*The signal comes out up there!*



*Preparing to take the group photo.*



*Saturday breakfast get-together.*



*Presenters; (from left) K9JF, K7YO, K7LXC, K7MDL & N0AX.*



*The American Museum of Radio & Electricity...fabulous!*



*Thanks for the great memories, Jack (N7AM/SK at right)!*



*Good food...good fellowship!*



*ARRL Northwestern Division Director and XYL*

# Two PNWVHFS members become Silent Keys

## **Stephen A. Gates (W7SG)**

Dr. Stephen A. Gates, MD (W7SG), of Poulsbo, Washington, died Saturday, July 22, 2006. He was 53 years old.

Steve attended the University of Virginia where he received a Bachelor of Science degree with distinction and later, a Doctor of Medicine degree. He subsequently completed his medical residency and earned several certificates and diplomas in anesthesiology.

Steve's amateur radio interests included especially VHF and UHF events and contests. He was a member of the Pacific Northwest VHF Society and participated with the North Kitsap Amateur Radio Club in some Field Day activities, with his VHF and UHF equipment.

He also participated with NKARC members in VHF and UHF contests. Steve was also a Volunteer Examiner with the NKARC team.

Besides ham radio, Steve had many interests including outdoor activities such as hiking and kayaking, Viking and his ancestral Danish history, foreign languages, gourmet cooking, music, and collie dogs.

*Editor's note: W7SG's passing only recently became know to PNWVHFS. The society extends belated condolences to his family and friends.*

## **Jack Riggs (N7AM)**

Jack Dean Riggs (N7AM) of Bremerton, Washington, died Saturday, October 14, 2006, surrounded by his loving family. He was 85 years old. Jack was born in Cottonwood Falls, Kansas, and lived in Bremerton for most of his life..

He served in the US Navy during World War II as Chief Radioman Second Class. Aboard Navy PBYs, he flew patrols from the Aleutian Islands and Tongue Point, Oregon, on scouting missions over the Pacific.

Jack was an electronics technician for Bremerton National Airport for 39 years. He also owned and operated "Riggs Radio and TV" a television repair business in his home during the '50s and '60s. After his retirement, Jack drove buses for the Central Kitsap School District.

He was a member of the Pacific Northwest VHF Society, Civil Air Patrol, Elks, Ham Radio Club, and Kitsap Track Club. He was a long-time amateur radio operator and communicated with most countries of the world. In more recent years, he became interested in satellite communication and reflecting signals off the moon. He designed and built a 30-foot 1296 MHz dish in his backyard.

*PNWVHFS extends its condolences to Jack's wife, Muriel, and his extended family and friends.*

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## **VUCC basic operating area expanded for 50 to 1296 MHz**

The ARRL Membership Services Department has announced an increase in the size of the basic operating area for VUCC contacts made between 50 MHz and 1296 MHz. Effective immediately, VUCC rules allow stations to submit confirmations for contacts made from different locations, provided no two locations are more than 200 km (124 miles) apart. The old rule stipulated that all contacts be made from within the same grid square or from locations in different grid squares that were no more than 50 miles apart.

The VUCC operating area for SHF operation (2.3 GHz and up) remains unchanged. On SHF, contacts must be made from within a single 300-meter (984.25 feet) diameter circle.

The change results from a recommendation of an *ad hoc* VHF/UHF Study Committee, appointed by the then-Membership Services Committee, chaired by ARRL New England Division Director Tom Frenaye, K1KI. The ARRL Awards Committee recently added its approval to the change.

– From ARRL Amateur Radio News

# Moonbounce for the “Little Pistol”

By Terry Dobler, W7AMI

Have you ever thought about trying EME, Earth Moon Earth, communication but not tried it because you thought it was too difficult or required more antenna and power than you have access to? Need to have an elevation drive to work EME? Well think again. There is a software package available that brings the possibility of EME to smaller stations.

How small you ask? On 432 MHz, super stations like HB9Q and N9AB are working stations with as little as 50 Watts to a single long Yagi. N9AB has worked at least six single Yagi stations running between 60 and 100 Watts and five two-Yagi stations with similar power so far and is always on the lookout for new stations.



*VK7MO's home Yagi mounted on the balcony*

HB9Q has a very impressive list, on his web page, of small stations that he has worked on 432 MHz. In looking over the list it was nice to see call signs of several society members. The smallest station I have worked so far was Rex, VK7MO, who was running 120 Watts to a 35-element Yagi on his balcony.

Many of the small stations that have been worked do not have any elevation ability. They simply work EME at moon rise and moon set. They have a smaller moon window but that doesn't prevent them from making contacts. In fact many stations report ground gain peaks as the moon rises above the horizon of as much as 3 dB on both receive and transmit. This is caused by an addition of the direct signal and one bounced off the earth's surface. That much gain is the equivalent of doubling the size of the array.

VK7MO has used a brick amplifier and a single Yagi temporarily set up on his deck to work 432 MHz EME. So far Rex has worked seven stations with his home station. HB9Q (15.28 M Dish & 1 KW), N9AB (16x22 elements & 1 KW), VK4AFL (16 x 14 elements & 600 Watts), K2UYH (8.7 M Dish & 1.5 KW), 7M2PDT (16x14 elements with polarity rotation & 1.5 KW), VE6TA (5 M Dish & 1 KW), W7AMI (4x33 el & 800 Watts) and DL7APV (8x13 elements & 750 Watts). The antenna is designed to be put up only when in use in order to keep his neighbors happy.

The amplifier and preamp are mounted about 6 feet from the antenna and he runs a temporary coax into the shack about 60 feet away. He walks to the antenna during the transmit sequences to aim the antenna.

Last year Rex did a DXpedition to Cocos Island and Christmas Island which included a last-minute addition of 432 MHz. Since he didn't have room for an antenna, he took just the elements and taped them to a fishing pole that had been left on the islands by a HF DXpedition. The antenna was supported by a picnic table with the mast stuck in the hole for the umbrella. Positioning was accomplished with a rope tied between two poles. Elevation was adjusted by moving the rope up and down the poles.

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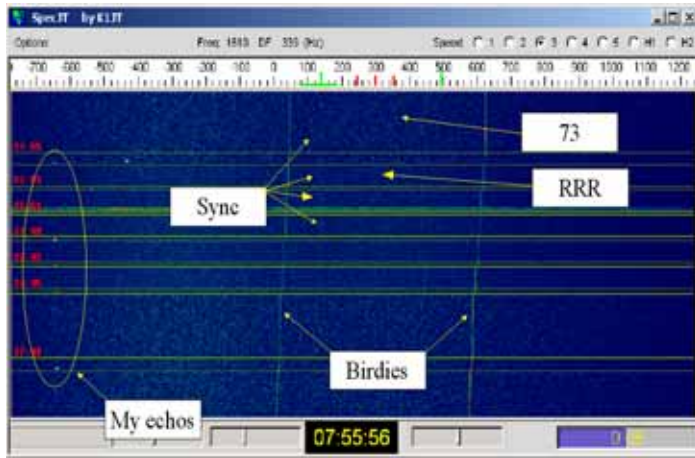
*Fishing for EME, perhaps?*

# “Little Pistol...”

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Rex used an Icom IC-910-H transceiver and only 65 Watts out, no amplifier, for the DXpedition contacts! With this lash up Rex worked 3 stations from Cocos Island and 4 from Christmas Island. Stations worked from both islands included HB9Q, N9AB and VK4AFL. DL7APV was worked from Christmas Island.

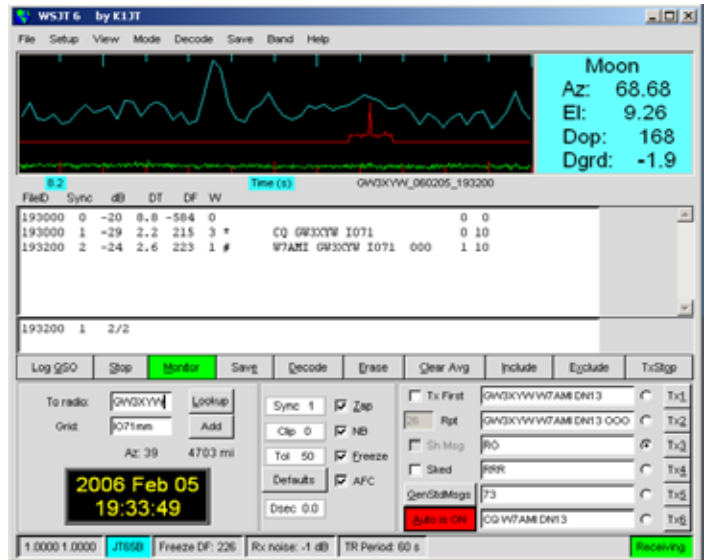
I have included a screen capture of a contact in progress with GW3XYW. He was calling CQ and I called him back. He gave me a report of “000” which is a standard signal report for a weaker signal when working EME.



Screen capture of GW3XYW QSO

When the screen capture was made I was sending him RO meaning I acknowledge his report to me and am sending his report from me. From there we would progress to RRR and finally 73 and a complete QSO. The top cyan line shows that the signal delay is 2.6 seconds which is the time it takes to travel to the moon and back. The red pip is the sync tone of GW3XYW’s signal. The green line shows the audio level over the one minute duration of the transmit sequence.

I have also included a screen shot of SpecJT which is the waterfall display that works with JT65B. This was of my QSO with VK7MO. I have labeled the import features shown in the display. The reason the birdies are drifting to the right and the echoes from VK7MO are not drifting is that I used a small Visual Basic program to adjust my transceiver on receive for the Doppler shift between us each minute at 5 seconds before the next minute. This makes it easy to separate the birdies from the real signals.



Spec T waterfall display

If working stations via the moon sounds like something you are interested in come join me on 432 MHz EME. Remember that on 432 MHz antennas are smaller and the sky noise is lower. It is my hope that you will find EME fun and challenging and once you are hooked you will be improving your station to work more of the stations on the moon.

I would like to thank VK7MO and N9AB for their assistance in writing this article.

For more information, visit EA6VQ’s site where he gives a great step-by-step procedure for making that first EME contact. His site is primarily for two-meter stations but the same basic steps apply to 432 MHz. Check it out at <http://www.vhfdx.net/jt65bintro.html>.

To obtain the JT65 software, download the WSJT program from K1JT’s web site, go to <http://pulsar.princeton.edu/~joe/K1JT/>. As an added bonus, the WSJT software works great for meteor scatter contacts too. Did I mention that JT65 can also be used for terrestrial contacts?

Most JT65 schedules are made via the JT65 EME link located at <http://www.chris.org/cgi-bin/jt65eme>. One note, please don’t discuss ongoing QSOs on the link. Some will do it, but it is considered very poor form.

For a list of HB9Q’s 432 MHz contacts and more info about making schedules with him, see his web page at <http://www.hb9q.ch/>.

# Pacific Northwest VHF Society History

*(Compiled by Lynn Burlingame (N7CFO) from a variety of official and unofficial sources)*

## Early Days

Prior to 1977, a group of VHFers met at a restaurant in Kent, Washington, on Sunday mornings. Regulars included WA7BKZ, W7FU (SK), K7DPY, W7FN, W7MCU-SK, K7ND, N7NW, K7KOT, K7WTG, N7ML, W7VHX-SK, K7CAI, WA7KYZ -SK, K7HR and WA7NAN. This group later met at Coco's in Overlake on Sunday mornings, but concentrated mainly on FM, Packet & computers.

There was also a group called the "Northwest Mountain Toppers" that went out for most contests. This group included W7YOZ, K7KOT, K7WTG, N7NW, K7ND and WA7NAN. In 1980, they operated the June VHF contest from Anderson Mountain. In June 1981, they contested from N7NW's house in Federal Way and again went back to Anderson Mountain in 1982 with K7ND, N7NW, W7YOZ, K7WTG, & KC7NJ (Now K2ZU). In 1983, the group went to Anderson Mountain with N7NW, K7ND, NU7Z (then WB7DTI), KK7B, NF7X and W7YOZ.

In the mid 80's K7ND, NU7Z, NF7X, N7NW and others also did the June contest at Green Mt. and then later at Mt. Crag with a variety of participants through the mid 90's.

Similarly, there had been VHF+ activity going on in the Boise area since at least 1980. The primary interest there was the same: sparking interest in weak signal operations. WM7A and WA7GSK worked almost every Saturday with others joining from time-to-time. The spin-off of the Boise activity was increased activity with KJ7F, KF7CQ and K7TM becoming members of the society soon after it was formed. Thus, it wasn't just the Seattle and Portland groups that were encouraging activity during this period.

**June 28, 1992** - WB7DTI (now NU7Z) organized a breakfast meeting at Mt. Vernon, Washington. Twenty three hams from Washington and British Columbia participated. This was probably the beginning of a regular yearly gathering that the next year became the annual VHF Conference.

**1992 (Summer)** - N7AU hosted a meeting in Moses Lake, Washington. Six hams attended.

**July 25, 1992** - W7YOZ hosted a BBQ at his home on Finn Hill. Those attending were K7TM, W7ZRC, KD7TS, NU7Z, WM7A (now K7NQ), K7ND, KC7NJ, N7MWV, W7HDD and K7XX.

**April 17, 1993** - A VHF conference was held at Oregon City, Oregon, with informal gatherings on Friday, April 16, at the homes of KE7CX/SK and W7ZRS/SK. This was the first conference that was actually called the Pacific Northwest VHF Conference. It was decided at that time to rotate the annual gathering on an every-third-year basis between the greater Portland area, greater Seattle area and Bend, Oregon.

**April 9, 1994** - The second annual VHF conference was held Best Western Tacoma Inn on Hosmer Street, in Tacoma, Washington.

**1995** - The third annual VHF conference was held in Bend, Oregon.

**August 19, 1995** - W7YOZ held another BBQ at his Finn Hill home. N7MWV, W7FI, KD0GT, KG7UK, KD7TS, AA7VT and WA7OEU (now W7BA) attended.

**September 23, 1996** - The fourth annual VHF conference was held at Oregon, City, Oregon. K7HSJ coordinated.

**October 31 1997** - The fifth annual VHF conference was held at the Fife Community Center, near Tacoma, Washington. A breakfast was held at the Poodle Dog Restaurant the following morning.

**October 26, 1998** - The sixth annual VHF Conference was held at Bend, Oregon. K7HSJ again coordinated.

**1999** - No conference was held.

**July 7, 2000** - KF7CN establishes the NWVSVHF reflector which became official reflector of the society after its formation in 2001.

**September 22-23, 2000** - The seventh annual VHF conference was held at the Village Inn in St. Helens, Oregon. This meeting was coordinated by K7ND.

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# PNWVHFS History...

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**Summer 2001** - W7DHC and N7CFO officially formed the Pacific Northwest VHF Society and were the first two members. They wrote a constitution and bylaws, and applied for state non-profit organization status in Washington. N7CFO was elected interim president and W7DHC became interim Secretary-Treasurer by a coin toss.

**September 22, 2001** - The eighth annual VHF conference was held at the Best Western Tacoma Inn on Hosmer Street, in south Tacoma, Washington with 49 in attendance. This meeting was coordinated by W7DHC and N7CFO. A formal announcement of the formation of the society was announced and charter membership applications were accepted.

**October 14, 2001** - KF7CN established the society web page.

**October 25, 2001** - The initial PNWVHFS board members were appointed by the president. The following members were appointed: Don Krug (K7HSJ), Oregon; Ralph Parker (VE7XF), British Columbia; Bob Lee (N7AU), Eastern Washington; Eric Olson (N7EPD), Western Washington; and Bob Hallock (K7TM), Idaho.

**October 31, 2001** - The charter membership period closed with 103 members.

**November 11, 2001** - The first Downeast Microwave group purchase is organized by NU7Z.

**December 14, 2001** - Non profit status granted by the state of Washington.

**September 27-28, 2002** - The ninth annual conference was held in Bend, Oregon with 51 in attendance. This conference was once again coordinated by K7HSJ. Rick Beatty (NU7Z) was awarded the first PNWVHFS VHFer of the Year award. This was the first year the society gave out parallel operating awards. The awards program was coordinated by N7EPD.

**September 30, 2002** - Society web page format updated to a new format by Webmaster KF7CN.

**September 2002** - Balloting results for 2003 society officers and board members: President: Lynn Burlingame (N7CFO); Secretary-Treasurer: Jim Aguirre (W7DHC); Director, British Columbia: Ralph Parker (VE7XF); Director, Eastern Washington: Bob Lee (N7AU); Director, Idaho: Bob Hallock (K7TM); Director, Oregon: Art Moe (KB7WW); and Director, Western Washington: Eric Olson (N7EPD). The board elected N7EPD as Chairman. Since this was the first election of directors, a drawing was held to determine the length of terms to be served, with two directors receiving one-year terms and three directors receiving two-year terms. In the future, all director terms will be two years. In the drawing, VE7XF and N7AU received one-year terms; K7TM, N7EPD and KB7WW received two-year terms.

**September 2002** - First PNWVHFS club contest entry: September 2002 VHF Contest (we finished 8th out of 16 in the Medium Club competition with 232,894 points from 14 logs submitted).

**September 18, 2002** - Webmaster KF7CN registered the domain name pnwvhfs.org.

**December 31, 2002** - First annual PNWVHFS VHF/UHF Straight Key Night activity.

**June 16, 2003** - The 200th member was recorded!

**September 25-28, 2003** - The tenth annual conference was held at the Holiday Inn in Everett, Washington, in conjunction with Microwave Update. Lynn Burlingame, N7CFO, was named as VHFer of the Year.

**June 6, 2004** - 250th member recorded.

**August 2004** - Balloting results for 2004 society officers and board members: President: Lynn Burlingame (N7CFO); Secretary-Treasurer: Jim Aguirre (W7DHC); Director, British Columbia: Ralph Parker (VE7XF); Director, Eastern Washington: Bob Lee (N7AU); Director, Idaho: Bob Hallock (K7TM); Director, Oregon: Jim Garver (K7YO); and Director, Western Washington: Eric Olson (N7EPD).

**October 2, 2004.** The eleventh annual conference was held at the Hallmark Inn at Moses Lake, Washington, with 71 in attendance. Dennis Motzenbacher (K7BV) was the keynote speaker. Mike Pinault (W7GHZ) received the "VHFer of the Year" award. For the first

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## 2007 VHF+ Contest Calendar

January 1	Straight Key Night
January 20-22	ARRL January VHF Sweepstakes
April 3	ETDXA Spring Sprint – 144 MHz
April 11	ETDXA Spring Sprint – 222 MHz
April 19	ETDXA Spring Sprint – 432 MHz
April 28-29	SBMS 2 GHz & Up Contest
May 5	ETDXA Spring Sprint – Microwave
May 12-13	ETDXA Spring Sprint – 50 MHz
June 9-11	ARRL June VHF QSO Party
June 16	SMIRK 6M Contest
June 23-24	ARRL Field Day
July 14-15	CQ Worldwide VHF Contest
August 4-5	ARRL UHF Contest
August 18-19	ARRL 10 GHz and Up Contest
September 8-10	ARRL September VHF QSO Party
September 15-16	ARRL 10 GHz & Up Contest
September 17	SVHFS Fall Sprint – 144 MHz
September 25	SVHFS Fall Sprint – 222 MHz
October 3	SVHFS Fall Sprint – 432 MHz
October 13	SVHFS Fall Sprint – 902 & above
October 20	SVHFS Fall Sprint – 50 MHz
December ??	EME Contest ( <i>dates TBA</i> )

The information above was gleaned from several web sites; however, most of the listings can be found at <http://www.wcarc.on.ca/events.html>. Below are the web site listings for the sponsoring organizations.

ARRL: <http://www.arrl.org/contests>

CQ Mag: <http://www.cq-amateur-radio.com/infoc.html>

ETDXA: <http://www.etsdx.org>

SBMS: <http://www.ham-radio.com/sbms/>

SMIRK: <http://www.smirk.org>

SVHFS: [http://www.svhfs.org/fall\\_sprint\\_rules.htm](http://www.svhfs.org/fall_sprint_rules.htm)

**Noise Floor** is the official publication of the Pacific Northwest VHF Society. All opinions expressed herein are those of the individual authors unless specifically stated as being otherwise.

**Editor**

**Jim Aguirre, W7DHC**

Submit news items to [secretary@pnwvhfs.org](mailto:secretary@pnwvhfs.org) or via USPS to 6820 Tranquil Ln, Lynden, WA 98264

## More PNWVHFS history...

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time, conference proceedings were issued. Icom was a major sponsor of this conference and donated six radios as door prizes. A pizza dinner was held on Friday night at Chico's Pizza and members ate at the China Buffet on Saturday night. By the end of the conference, we had a total of 269 members.

**October 11 2004** - Webmaster KF7CN migrated the society web page from QSL.NET to domaindirect.com.

**July 26, 2005** - The society voted to adopt a new constitution and bylaws. The changes were necessary to update these documents and provide for a workable quorum. This vote also established the Vice President position and provided for e-mail balloting in elections.

**September 5, 2005** - The annual election was held. Results were: President: Lynn Burlingame (N7CFO); Kevin Imel (KF7CN) Vice President and Secretary-Treasurer: Jim Aguirre (W7DHC). Gabor Horvath (VE7DXG) replaced Ralph Parker (VE7XF) as the British Columbia board member. Bob Lee (N7AU) was re-elected as the Eastern Washington board member.

**September, 12, 2005** - The 300th member joins the PNWVHFS!

**September 29, 2005** - The NWWSVHF reflector becomes PNWVHFS reflector and moves from QTH.net to Google Groups.

**September 30-October 2, 2005** - The twelfth annual conference was held at the Shilo Inn in Seaside, Oregon with 68 in attendance. Gene Zimmerman (W3ZZ) of the ARRL was the keynote speaker. The Friday night dinner was held at the Pizza Harbor. Kevin Imel (KF7CN) received the "VHFer Of the Year" award in absentia. W7FK won the grand prize at the door prize drawing...an Icom IC-910 and PS-125 power supply. The Saturday night dinner was held in the Shilo Dining room.

**September 11, 2006** - The annual election was held. Results were: President: Lynn Burlingame (N7CFO); Kevin Imel (KF7CN) Vice President and Secretary-Treasurer: Jim Aguirre (W7DHC). Scott Honaker (N7SS) replaced outgoing Western Washington board member. Bob Hallock (K7TM) and Jim Garver (K7YO) were re-elected as board members for Idaho and Oregon respectively.

**September 29-October 1, 2006** - The Thirteenth annual conference was held at the Hampton Inn in Bellingham, Washington, with 71 in attendance. ARRL Northwestern Division Director Jim Fenstermaker, K9JF, was the keynote speaker. The Friday night dinner was held at Izzy's Pizza Bar and Classic Buffet Restaurant in Bellingham. Jim Aguirre, W7DHC, received the "VHFer of the Year" award. Icom America once again was a prime sponsor of the conference, donating an IC-910H VHF/UHF multimode transceiver for the grand prize in the drawing and funding the production of the Proceedings CD-Rom. The grand prize was won by Catherine Straight, KG6HXL, of Sacramento, California. The Saturday night dinner was held at Mykonos Greek Restaurant across the street from the hotel.