



Waved Newsletter

Inland Empire **VHF** Radio Amateurs, Inc.

Club Officers:

President:

Dave Carleton, K7DSR

Vice President:

John Barnett, W7JRB

Secretary:

Rick Nungester, WA6NDR

Treasurer:

Mike Grounds, KE7PG

Director (2019):

Karl Shoemaker, AK2O

Director (2018):

Lynn Lambert, KI7JVQ

Director (2017):

Jerry Bosch, KG7RRG

Trustee: Harold Hepner,

AD7QJ

Technician:

Karl Shoemaker, AK2O

Webmaster:

Harold Hepner, AD7QJ

Net Manager:

Bob Peterson, KE7RAP

An **ARRL** affiliated club

Monthly Club Meet-

ings are held the **2nd Thursday** of the month at 6:30 p.m. at Spokane Community College, the LAIR, Building 6, Room 004. Park in the P1 area; there are handicap spots near the LAIR. The meeting is in Room 004 which is downstairs; an elevator is available.

Club Net, Wednesday

at 7:30 p.m., on the 146.880 repeater, tone of 123.0, minus. Please join us.

Taking Ham Radio to New Heights

Since space shuttle missions started flying in 1983, amateur radio has played a role. Many U.S. astronauts have used the Space Shuttle Amateur Radio Experiment (SAREX) to speak with thousands of school children and their families from their orbit in space. Through this program, astronauts have experimented in radio voice communication, text messaging and television.

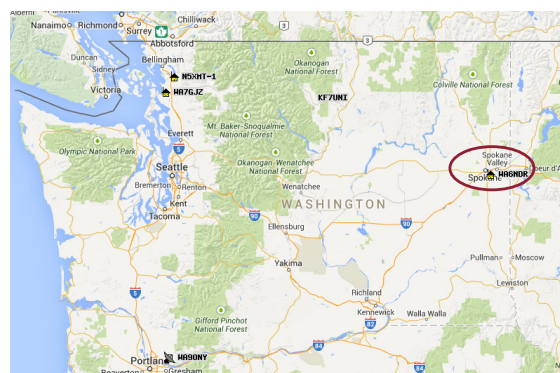
In 1996, representatives from major radio organizations and from the Radio Amateur Satellite Corporation (AMSAT), a group representing eight countries and involved with the International Space Station, got together to design, build and operate equipment. Through a memo of understanding, they formed a new organization called Amateur Radio on the International Space Station (ARISS). In late 2000, the group sent up radio hardware, and astronaut Bill Shepherd made the first contact with a school in Burbank, Illinois. Since then, crew members aboard the space station have talked with many schools and made both personal and general contacts with people all around the world. Amateur radio clubs and radio operations have helped astronauts and cosmonauts aboard the space station to speak directly with the general public. This process has shown teachers, students, and their parents the value of amateur radio in engaging students in learning about science and technology.

NASA and the Russian agency Energia agreed to address the role of amateur radio on the space station through a technical team called ISS Ham which serves to develop hardware, train crews and operate amateur radio on the Space Station.

The American Radio Relay League (ARRL) and AMSAT provide leadership and counsel to the Space Station team. They also contribute and build hardware,

then test it and qualify it, so it is ready for flight use.

Operating modes for the station include Packet/APRS, Voice and SSTV. Equipment includes Ericson M-PA VHF and UHF radios and Kenwood's D-700 E. You can monitor the ISS at the standard downlink frequency of 145.80 or via packet bursts on the frequency of 145.825.



On April 4, 2015, Rick Nungester, WA6NDR, was able to contact the International Space Station using the ISS Digipeater from his driveway. He used the following setup: an HP-200LX Palmtop, a serial cable, a Kantronics KPC-3+, a serial-to-radio cable, a Kenwood TR-2500 radio, a BNC cable, an Arrow 146/437-10WBP antenna (using only the 2m part, not 70cm), and the International Space Station (ISS) digipeater. He employed a visual pass, just after sunset with the sun shining on the ISS underside, so he could point the antenna at the bright light as it went by. Then at www.ariss.net Rick saw his call and location (see map). Rick said, "It was fun transmitting my coordinates to the ISS and then seeing my call appear on the website. This constituted a digital QSL card, confirming 'Yes, the ISS heard you.'"

At the VHF Club meeting, March 8 at SCC, Jack Tiley will present on [Ham Radio and the International Space Station](#).

Mike and Key Hamfest in Puyallup

The Puyallup Hamfest is the largest in the Pacific Northwest. It takes place in early March (the first or second Saturday). I have been attending it every year since the early 90's. It occupies two floors of the Puyallup fairgrounds convention center and opens to the general public from 9 a.m. to 3 p.m. There are a few commercial vendors like Ham Radio Outlet, ICOM, and DC Power (a power pole vendor). There is even a Girl Scout Cookie table that does a great business selling cookies to hungry hams. Most of the tables are flea market tables with just about anything you would want ham radio or electronics related. This is a must see for all hams at least once, but be careful once you go you may get hooked and come back every year.

Jack Tiley, AD7FO



ANNOUNCING THE 37th ANNUAL MIKE AND KEY ARC ELECTRONICS SHOW & FLEAMARKET

MARCH 10, 2018 @ 9AM
PAVILION EXHIBITION HALL

WASHINGTON STATE FAIR GROUNDS

110 9th Avenue SW, Puyallup, WA 98371

ADMISSION - \$10 (UNDER 16, FREE w/ADULT)

TWO FLOORS WITH 44,000 Sq FEET OF EXHIBITION AREA (>300 tables)

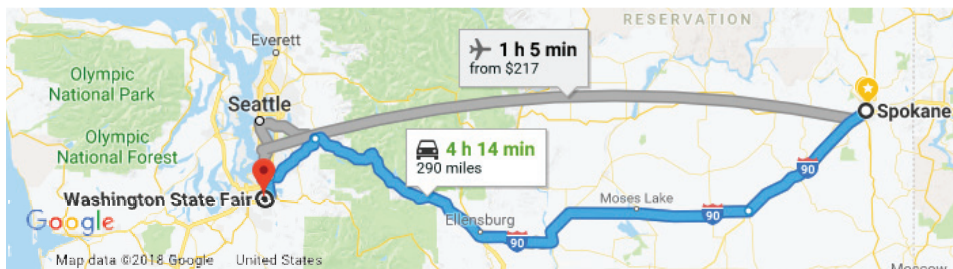
TALKIN 146.82/22 (PL 103.5)

RADIO GEAR * COMPUTERS * CLUB & INFO TABLES * PARTS

SNACK BAR * FREE PARKING * CONSIGNMENT AREA

LICENSE EXAMS * OVERNIGHT RV Sites Available (Call 253-845-1771)

Table Reservation Information: (253) 631-3756, ddmdink@gmail.com or n7wa@arrl.net
VE Exam Information: (425) 788 0452, ag7t@arrl.net



Spokane to Puyallup:

- Get on I-90 W.
- Continue on I-90 W about 257 miles.
- Take the WA 18 W exit 25 toward Auburn.
- Go 0.30 mile and turn left onto WA-18/State Highway 18. Continue to follow WA-18 W. (If you reach I-90 W, you've gone about 0.5 mile too far.
- Merge onto WA-167 S toward Puyallup.
- Merge onto WA-512 W toward WA-161 S/Puyallup/Olympia.
- Take the Meridian St S exit.
- Turn right onto S Meridian/WA-161. (If you reach WA-512 W, you've gone about 0.3 mile too far)
- Take the 1st left onto 9th Ave. SW.

Mike and KEY Hamfest

Pavilion Exhibition Hall
Washington State Fairgrounds
110 9th Ave SW,
Puyallup, WA 98371

Calendar 2018

March

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
				VHF	Show/2 nd Sat	
11	12	13	14	15	16	17
				ARES-RACES		
18	19	20	21	22	23	24
					General	
25	26	27	28	29	30	31
						5 th Sat Exer

April

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
				VHF		2 nd Sat
15	16	17	18	19	20	21
				ARES-RACES		
22	23	24	25	26	27	28
29	30					

May

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
Bloomsday				VHF	Tech/2 nd Sat	
13	14	15	16	17	18	19
				ARES-RACES	Torchlight	
20	21	22	23	24	25	26
27	28	29	30	31		

Activities

March 10, April 14, and May 12 — ARES/RACES Digital/2nd Saturdays from 9 a.m. to noon at the Fire Training Center, 1618 N. Rebecca.

March 10 — Mike and KEY Amateur Radio Club (ARC) Electronics Show and Fleamarket at the Washington State Fairgrounds, 110 9th Ave. SW, Puyallup, WA 98371. Admission \$10 (under 16 free with adult). Doors open at 9 a.m.

March 31 — ARES/RACES 5th Saturday Exercise – Listen for details.

IEVHF/ARES-RACES Sponsored Classes, Tests

✓ A **technician class** and **testing** session will be held by Jack Tiley, AD7FO, an ARRL TC, TS, and VE instructor, as follows in the coming year:

Dates:

- May 12
- Aug. 11
- Nov. 10

Location: Fire Training Center, 1618 N. Rebecca (just east of the SCC Campus)

Time: 8:30 a.m. to 3:30 p.m.

Testing: Optional **technician, general and extra license** testing will start at the end of the class (approximately 3:30 p.m.)

Cost: No cost for the class, but there is a cost of \$15 if you wish to take the exam.

Registration: Registration is required! For registration info, send an e-mail to ad7fo@arrl.net.

✓ A **general class** will be held by Jack Tiley:

• March 24

Location: Fire Training Center, 1618 N. Rebecca (just east of the SCC Campus)

Time: 8:30 a.m. to 3:30 p.m.

Testing: at the end of the class (approximately 3:30 p.m.)

Cost: No cost for the class, but there is a cost of \$15 if you wish to take the exam.

Registration: Registration is required! For registration info, send an e-mail to ad7fo@arrl.net.

✓ **New Ham classes** will be held 3-4 weeks after the technician classes/exams by Dave Carleton on behalf of Greater Spokane Emergency Management at the Fire Training Center, 1618 N. Rebecca. Classes will cover radio programming, nets, repeaters,

and etiquette. Dates TBA.

Upcoming Amateur Radio • Testing

Please contact Mary, AA7RT, at (509) 991-2192 or e-mail her at AA7RT@arrl.net for test information. Also, e-mail Glen Day, K7CPO, at K7cpo@yahoo.com for information about testing via W5YI.

VHF Club Regularly Meets

The VHF Club regularly meets from September through June, except for December, on the **second Thursday** of each month at **6:30 p.m.** – in Room 004 in the basement of the SCC student lounge, the Lair (Building 6) on the Spokane Community College campus. Park closest to the Lair in the northwest corner of the **P1 Parking Lot** using the entrance on Mission east of Greene.

VHF Club Membership

Membership applications are available online at the club web site, www.vhfclub.org. The cost to join is \$15 per year; submit your payment online or give it to Treasurer Mike Grounds at a club meeting. **Just a quick reminder, dues were due January 31.**



VHF Club Repeaters

The VHF Club owns and operates a number of Amateur Radio Repeaters and Digital Packet Radio systems within the Inland Empire and Spokane area. Its call sign is **WR7VHF**. The Club operates the following:

- the **147.34** repeater in downtown Spokane,
- **146.88** in Spokane,
- the **444.900** repeater in the Spokane Valley,
- the **145.09** packet BBS and node North at Mt. Spokane,
- 145.010 packet node South at Krell Hill,
- the **145.43** repeater near Chewelah - was transferred to the Spokane Repeater Group,

All PL tones for the Club's repeaters are the 123.0 Hz tone, including the Chewelah repeater.

VHF Club Net

The **Club Net** is on Wednesdays at 7:30 PM, on the 146.880 repeater, tone of 123.0.



Inland Empire VHF Radio Amateurs, Inc.

2910 E 57th Ave., PMB 255
Spokane, WA 99223

Upbeats & Updates

Board meetings are open to all club members. On months they are held, board meetings occur at 5:30 p.m. at the same location as the general meeting. There will not be a board meeting in March. Highlights of our board activity in February follow.

Dave Carleton, K7DSR, requested that we vote on \$500 in seed money for Hamfest for September of 2018 which the board approved. Dave is chairing the Spokane Hamfest this year. Betsy who is stepping down from serving as chair for many years will be his unofficial assistant chair.

Mike Grounds, KE7PG, reported that with dues from 14 members in, we have \$3811.37 in our checking account.

Harold Hepner, AD7QJ, fixed a problem at the website www.vhfclub.org which had kept email from being forwarded.

Jerry Bosch, KG7RRG, reported on what might be involved in the project to set up a station at the 85th anniversary celebration at Mt. Spokane. He will look further into what is involved in the fees and facilities.

Karl Shoemaker, AK2O, and John Barnett, W7JRB, heard a report on the problems with the north and south repeaters --the packet nodes to the north on Mt. Spokane (145.09) and to the south on Krell Hill (145.010). Dan Croskrey, NV2Z, tested the repeater connections before the meeting.

He said he can tell the problem is the disconnect between VHF-4 and VHF-5 because he can connect with 5 and get it to connect with the dash 10 and it works every time. Karl said that the north

stack has a problem since it cannot go from VHF to UHF. Karl will need to look at the north stack and it may be several months before we have the conditions to do so.

Dan said that comparing the operation of the south stack a year ago to its operation starting around June last year, the repeater hears him from his house about 20 percent of the time. Dave reported that was true from his house, too. So the south stack either is not hearing as well as it used to or it is not transmitting as much as it used to. Also from the south stack the VHF-3 works quite well. But as far as trying to get the south stack to connect to VHF-10 in Deer Park, that connection works only about 30 percent of the time.

John Barnett, W7JRB, reported that everything seems to be running okay since the router now turns on the fusion unit.

Karl said the club's MOU - memorandum of understanding - is out of date so he rewrote it and will send that out to the board.

2018 Membership Dues –

Can be paid online at the club website using PayPal, or by mailing a check to the club (IEVHF Radio Amateurs Inc., 2910 E. 57th Ave., PMB 255, Spokane, WA 99223), or by giving cash to Mike Grounds, KE7PG, at a club meeting. Yearly dues are \$15 per year for an individual or \$20 per year for a family at the same address. Contact Mike at treasurer@vhfclub.org if you need to know your current dues status.

For monthly meeting announcements, send any **e-mail address changes** to Rick Rick Nungester, WA6NDR, at secretary@vhfclub.org.