



Waved Newsletter

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

Club Officers:

President:

Dave Carleton, K7DSR

Vice President:

Jerry Bosch, KG7RRG

Secretary:

Lynn Lambert, N7JVQ

Treasurer:

Jake McCarty, KI7QPJ

Director (2019):

Karl Shoemaker, AK2O

Director (2020):

Harold Hepner, AD7QJ

Director (2021):

Jonas Hiner, K7RTA

Trustee: Harold Hepner,

AD7QJ

Technician:

Karl Shoemaker, AK2O

Webmaster:

Harold Hepner, AD7QJ

Net Manager:

Bob Peterson, KE7RAP

An **ARRL** affiliated club

Monthly Club Meet-

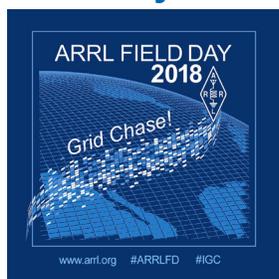
ings are held the 2nd Thursday of the month at 6:30 p.m. at Spokane Community College, the LAIR, Building 6, Room 004. Park in the P1 area; there are handicap spots near the LAIR. The meeting is in Room 004 which is downstairs; an elevator is available.

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

Active Summer Ahead

Summer will be active for the VHF Club starting with our June meeting on the 14th. Del Morissette will get us prepared for Field Day at the end of the month with a session on *Field Day 101* – what it is, places to go, and what you need to be ready. Field Day itself is on June 22nd and 23rd followed by our club barbecue in July. Then we will break in August and reconvene September 14th. A week later, we will participate in the Spokane Hamfest on the 22nd. From Tuesday, August 7 through Friday, August 10, ARES-RACES members will be busy helping a portion of a large encampment of 4,500 Boy Scouts earn merit badges in amateur radio at Camp Sunrise on Diamond Lake.

Field Day



Field Day is the last full weekend in June each year. ARRL says that Field Day stands alone as the most popular on-the-air happening in both the U.S. and Canada. There are almost as many people on the air on Field Day – around 35,000 – as ran Bloomsday in Spokane – about 38,187. So that is a crowd of folks from clubs and groups as well as just friends and family getting together on air from a bevy of field locations.

Field day is meant to be fun! It is a picnic and a camp out! Additionally, it is a way to practice for emergency activities. And, it is a means to hold an informal contest to contact as many other stations as possible. So at Field Day, we gain an opportunity to set up and operate our radio gear in on-the-go situations. This is good practice for events like Bloomsday,

the Torchlight Lilac Parade, the Cherry Trot, the Trail Rail Run, and other such special events and fund raising activities. Besides helping us to grow and exercise our skills, Field Day can be an opportunity for ham radio to show those who might use our assistance and the general public what we can do. Want to get a more hands-on feeling for what Field Day can be like? Visit ARRL (arrl.org/field-day) and click through to its new *2018 Field Day Public Service Announcement* or also click to watch what several groups uploaded to YouTube from their *2017 Field Day* activities.

ARES-RACES will be hosting a Field Day station on the grounds at the rear of the National Weather Service in Airway Heights. Field Day officially runs from 11 a.m. on Saturday the 23rd until 11 a.m. Sunday morning on the 24th. ARES-RACES welcomes ham operators and the public to the event. Bring a chair and your equipment. You can join ARES-RACES in making contacts via W7GBU in the van or call out on your own equipment. If you would like to know more about Field Day and what's involved in participating, be sure to join the VHF Club for the presentation by Del Morissette which will demystify Field Day and equip you to handle whatever you might encounter.

Continued on page 2

VHF Club Summer Days

- **ARES-RACES 2nd Sat.** – June 9
- **VHF Club Meeting** – June 14 at SCC
- **Field Day** – June 23 at NWS rear lot
- **VHF Club Barbecue** – July 12
- No club meeting in August
- **VHF Club Meeting** – Sept. 14 at SCC
- **Spokane Hamfest** – Sept. 22

SEA-PAC 2018 Northwestern Division Convention

This event is well worth the seven hour drive from Spokane along the scenic Columbia River Gorge. Sea-Pac is the Northwestern Division Convention of the ARRL and is held annually at the Convention Center in Seaside Oregon. This is a three-day event with many exciting activities.

Sea-Pac offers many Amateur Radio related seminars (37 were offered this year) starting Friday afternoon through Sunday noon. Seminars presented were from ARRL Headquarters and Division members, manufacturers and fellow hams.

The Exhibits and Flea Market are open all day Saturday and Sunday morning. Lots of treasures can be found here. There are many manufacturers and amateur radio suppliers with booths staffed by representatives to show you their new equipment and products and to answer your questions. This year manufacturers included Elecraft, Elk Antennas, Flex Radio Systems, Ham Radio Outlet, ICOM America, JVC Kenwood USA, NCG (Comet/Daiwa antennas). Stepper

VHF Club Recent Meetings

In March, Jack Tiley, AD7FO, gave a presentation about *Amateur Radio and the International Space Station (ISS)*. He talked about how the ISS makes radio contacts with hams around the world and the means hams have to contact the station.

In April, Dale DuRee, KE7VMN, gave a presentation titled "How Does Your Radio Work?"

In May, Dave Carleton, K7DSR, gave us an overview of *Anderson Powerpole Connectors*.

IR, RT Systems, Western Case, Wired Communications, DC Power and many others.

Folks from **ARRL Headquarters** included Gleg Widen, K0GW, ARRL 1st Vice President; Steve Ewald, WV1X, ARRL Field Organization Supervisor; and Yvette Vinci, KC1AIM, ARRL Circulation Manager. **ARRL Northwest Division** members included Jim Pace, K7CEX; Bonnie Altus, AB7ZQ; Monte Simpson, AF7PQ; Mark Sharp, KB7HDX; John Core, KX7YT; Ed Stuckey, AI7H; Ray Hollenbeck, KL1IL; and George Forsyth, AA7GS. This convention offers an excellent opportunity to talk with these folks one-on-one and to listen to their presentations.

Next year's convention will be May 31st to June 2nd, 2019. Check

out details at www.seapac.org. Plan to attend this event; you will not regret it. Make your hotel reservations early as the hotels near the convention center fill up eight months to a year in advance (this means you have now/June, till this coming October to make reservations).

For those family members who are not hams, Seaside, Oregon is a fun town with lots of shops, activities, unique restaurants and a great beach with usually enough wind to fly a kite. Everything is within a short 2-4 block walk to or from the convention center.

Grab a couple of your amateur radio friends and join us in Seaside next June!

Jack Tiley AD7FO
ARRL EWA TC, TS, VE,
EmComm instructor

Continued from page 1

Barbecue

Join VHF Club members for a barbecue on Thursday, July 12th at our repeater site on Mt. Spokane. Watch for details at our meeting next week.

Boy Scouts

If you are a member of ARES-RACES, and you want to help the Boy Scouts make HF radio contacts at camp **during daytime hours this year**, contact David Carleton, K7DSR, for more information.

Spokane Hamfest

Get ready for Hamfest on September 22nd. Watch for raffle tickets with great prizes! Jerry Bosch, KG7RRG, will be signing up volunteers to help set up on Friday afternoon and tear down on Saturday afternoon.

ARES-RACES

As an ARRL affiliated club, the VHF Club has an interest in the ARRL initiated Amateur Radio Emergency Service (ARES) which provides communication support during natural and manmade disasters as well as at local events. If you want to get involved with the Spokane County ARES-RACES group, it meets the **third Thursday** of the month at 7 p.m. at a **new venue**, at the **DEM Building at 1121 W. Gardner Ave.**, Spokane, WA 99260 unless otherwise directed.

ARES-RACES amateur radio operators help with such activities as Bloomsday and the Lilac Torchlight Parade in Spokane and with the Trail Rail Run from Idaho to Montana. The group also provides training and exercises (Second Saturday, Fifth Saturday) for members to develop and practice their radio skills.

Calendar 2018

June

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

July

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
						Tailgate
8	9	10	11	12	13	14
				VHF BBQ	GDA 2 nd S	
15	16	17	18	19	20	21
				A-R Cherry		
22	23	24	25	26	27	28
29	30	31				

August

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

Activities

June 9, July 14, and August 11 — ARES/RACES 2nd Saturdays from 9 a.m. to noon possibly at the DEM Bldg., 1121 W. Gardner Ave., Spokane, WA 99260 or as announced.

June 30 — ARES/RACES 5th Saturday Exercise – tent and satellite set up exercise, HF contacts, picnic.

July 7 — Parking Lot Tailgate Swap – at St. Paschal Church, 2523 N. Park Road, Spokane, WA from 7 a.m. to 3 p.m. To sell, bring goodies and pick spot for no fee. For more information, contact Duane at 509/435-7718.

July 14 — KARS Hamfest in Coeur d'Alene – check the k7id.org calendar 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:

- June 30 - Coeur d'Alene

- Aug. 11 - Spokane Valley*
 - Nov. 10 - Location TBA
- * On **August 11**, the class will be held at the Holy Trinity Lutheran Church at 2511 S. Pines Road, Spokane Valley, WA 99206

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.

✓ **New Ham classes** will be held 3-4 weeks after the technician classes/exams by Dave Carleton on behalf of Greater Spokane Emergency Management. Classes will cover radio programming, nets, repeaters, and etiquette. Dates TBA.

✓ A **general class and testing** session will be taught by Jack Tiley, AD7FO, on August 25th at Greater Spokane Emergency Management. For registration and class info, send an e-mail to Jack at ad7fo@arrl.net.

For more information about Jack's classes, visit his website at ad7fo.com.

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.

✓ A **technician class and testing** session will be taught by Jack Tiley, AD7FO, on June 20th in Spangle, WA for the 7th Day Adventist Camp Meeting -- class is **open to anyone**, not just camp attendees. Get information from David Morrill, AE7DM@yahoo.com.
 ✓ A **general class and testing** session will be taught by Jack Tiley, AD7FO, August 20 and 21 at Northern Quest Casino. For more information, send an e-mail to ad7fo@arrl.net.

VHF Club Regularly Meets

The VHF Club regularly meets from September through June except in December on the **second Thursday** of each month at **6:30 PM** – 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. The club holds a BBQ in July and recesses in August.



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.

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 Jake McCarty KI7QPJ, 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 Jake at treasurer@vhfclub.org if you need to know your current dues status.

To receive monthly meeting announcements, send any e-mail address changes to Lynn Lambert, N7JVQ, at secretary@vhfclub.org.

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 were board meetings in April and May. Highlights of our board and club activity follow. But first, a note that the south stack of repeaters at Krell Hill is working but the north stack still has issues until they can be dealt with later this month.

In May the club held elections with the following results:

- **President**—Dave Carleton, K7DSR
- **Vice President**—Jerry Bosch, KG7RRG
- **Treasurer**—Jake McCarty, KI7QPJ
- **Secretary**—Lynn Lambert, N7JVQ
- **Director (2019)**—Karl Shoemaker, AK2O (staying, not elected now)
- **Director (2020)**—Harold Hepner, AD7QJ
- **Director (2021)**—Jonas Hiner, K7RTA

Dave Carleton, K7DSR, in May, discussed the group's MOU (memorandum of understanding) with Karl and the history of it, with the VHF Club, ARES and Karl's system.

Mike Grounds, KE7PG, in April, distributed the balance sheet for review. He reported on expenses including the trailer, Mt. Spokane rent, Chewelah Peak, Sec. State, PayPal, and fees for the SCC room for our general meetings. In May, Mike handed out the paper balance sheet and reported that there was about \$10,000 total in funds with \$3,600 in checking. He reported a donation to the club from Rick Flynn, K7PHM, of \$200.

Rick Nungester, WA6NDR, in April, gave an overview of club membership from Mike Grounds' spreadsheet listing 257 people: from 2008 - 2015, 139 people paid; in 2016, 36 paid; in 2017, 31 paid; in 2018, a total of 51 paid

(less 4 life members and 7 honorary members) for a total of 40 paid. There were 156 with email addresses including some duplicates, 101 without email addresses. There were 146 unique email addresses on the Google Group.

Harold Hepner, AD7QJ, reported on a known, packet connection problem. Discussion included John Barnett, a backup antenna, Karl, a shared antenna, the system, and duplexer details.

Jerry Bosch, KG7RRG, reported on costs associated with Vista House at Mt. Spokane. At \$500 per day with no power, consideration of it was dropped for July.

John Barnett, W7JRB, gave an impromptu white-board presentation on antennas, mounts, ice and snow, what works and is broken, update recommendations, X50A replacement, options being considered, pros and cons. He will continue to look into it. If we need an antenna, we should get and X50A and try it. Only if we still have a problem should we consider more expensive options. In May, John said he wants to move the Fusion rig from his house: 440 MHz Yagi, internet connection, FT-100DR radio, visibility to Mt. Spokane. Dave Carleton's house would likely be okay.

Karl Shoemaker, AK2O, in May, discussed the talk John Barnes gave last month as well as antennas and a spare.

Bob Peterson, KE7RAP, said folks should contact him at the general meeting to volunteer for net control.



Inland Empire VHF Radio Amateurs, Inc.
2910 E 57th Ave., PMB 255
Spokane, WA 99223

A Homebrew Dipole Antenna Project

By Neil Powell, K2AMF

For his antenna of the month, Neil Powell, K2AMF, decided to build a fan dipole (an inverted V) and used a 30-foot mast to attach the center feed line to the top of the mast.

This project is just one of the ham radio endeavors he has completed after earning his general license almost a year ago. Since then, he says that he is amazed to see that there have been more than 10,000 views of his bio on QRZ (www.qrz.com/db/) and more than 5,000 contacts logged.



Pic 1

Here is Neil's account of the project:

Pic 1 shows the balun so I could run 50 ohm coax from the feedpoint... I waterproofed it and strapped it to the top of an old vertical antenna that I was given that didn't work as actual vertical. I strain-relieved another 33 feet of wire to each side of the balun connector that already had a 20m dipole attached.



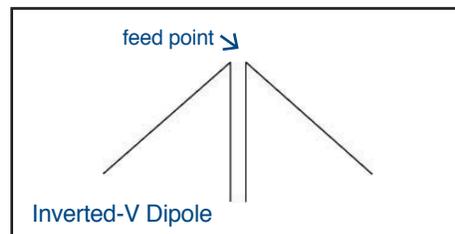
Pic 2

Pic 2 is the feed line connection before I taped that up too. I have some beads on it just because and used that bead to throw a hose clamp on to attach it to the top of the mast. The coax reverse runs to the top of the mast and then back down ... again to keep the strain off, simply letting the coax get tugged on.



Pic 3

Pic 3 is a close up of the assembly ready to be raised ... I put the wire spreaders in place to keep the wires safely apart.



Pic 4

Pic 4 is a zoom shot of the mast. I have yet to get those wires exactly where I want for inverted V best practices. The V is up about 25-30 feet high.



Pic 5

Pic 5 is another mast shot taken before I secured the 20m wire that I had to raise the end point on as it was at too tight of an angle.

Okay ... that's it ... I have found this thing to work great on both 40 and 20 meters. Recently I even made a 30m contact into Poland (SQ8N). Below is a screen snap of that FT-8 / WSJT-X exchange. WSJT-X is software to aid amateur radio HF communication using very weak signals.

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
040245	-19	-0.0	1364	CQ W6JN DM04 U.S.A.	034930	Tx	1874	N4IDB K2AMF DN17	
040245	-8	1.5	1615	JD1BLY WB1EAZ DM12	034900	Tx	1465	N4IDB K2AMF DN17	
040245	-3	0.0	1808	CQ SQ8N K000 Poland	035945	-2	0.0	1874	CQ SQ8N K000
----- 30m -----					040005	Tx	1465	SQ8N K2AMF DN17	
040315	-2	0.0	1807	K2AMF SQ8N -21	040030	Tx	1874	SQ8N K2AMF DN17	
040315	-12	0.1	965	SP5TTC N7RO -16	040100	Tx	1874	SQ8N K2AMF DN17	
040315	-17	0.1	956	CQ N9BD CM99 ~U.S.A.	040130	Tx	1874	SQ8N K2AMF DN17	
040315	-13	0.1	1772	CQ KC9TC EM48 ~U.S.A.	040200	Tx	1874	SQ8N K2AMF DN17	
----- 30m -----					040230	Tx	1874	SQ8N K2AMF DN17	
040345	-2	0.0	1807	K2AMF SQ8N RR73	040300	Tx	1874	SQ8N K2AMF DN17	
040345	-11	0.1	865	SP5TTC N7RO RR73	040245	-3	0.0	1808	CQ SQ8N K000
040345	-10	0.1	956	R6BBD N0BD -03	040315	-2	0.0	1807	K2AMF SQ8N -21
040345	-14	0.1	1287	UA3ICN AD5XD EM12	040330	Tx	1874	SQ8N K2AMF R-02	
040345	-17	-0.0	1410	R210A N7DV DN13	040345	-2	0.0	1807	K2AMF SQ8N RR73
040345	-18	-0.1	1566	R6BOS N0BZ 73	040400	Tx	1874	SQ8N K2AMF 73	

Log QSO	Stop	Monitor	Erase	Decode	Enable Tx	Halt Tx
30m	10.136000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DX Call	DX Grid	Tx 1874 Hz	Tx even/1st	Rx ← Rx
SQ8N	K000	Rx 1807 Hz	<input type="checkbox"/>	Rx ← Tx

Call	Start	End
SQ8N	03/05/2018 04:03:00	03/05/2018 04:04:00

Mode	Band	Rpt	Sent	Rpt	Revd	Grid	Name
FT8	30m	-02	-21	K000			