



Mike And Key



An ARRL Special Services Club

Founded 1914

SARC Calendar

June

10th General Meeting:
Sacramento Blood Bank,
1625 Stockton Blvd.
Sacramento at 7:00 PM.
Informal get-together at
6:30 PM.

24th Executive Committee
Meeting: Sacramento Blood
Bank at 7:00 PM.

27th-28th Field Day

July

8th General Meeting: Radar
Site tour at Mather at 6:30
PM. Directions and map
will be in next months
newsletter

29th Executive Committee
Meeting: Sacramento Blood
Bank at 7:00 PM.

August

12th General Meeting:
Sacramento Blood Bank,
1625 Stockton Blvd.
Sacramento at 7:00 PM.
Informal get-together at
6:30 PM.

26th Executive Committee
Meeting: Sacramento Blood
Bank at 7:00 PM.

MEETING LOCATION CHANGED *SLIGHTLY*

We are still at the Blood Bank, just
in another building. The general
meeting will be at the Sacramento
Blood Bank Alhambra Annex. The
annex is the building at the corner
of Alhambra and Stockton just
across the parking lot from the
Blood bank building. Park in the
same lot as always at 1625
Stockton Blvd and we will direct
you to the meeting room.

Ed Braaten

New Board Member

By Tom Preston KQ6EO

At the May board meeting Ed
Braaten, who has created our new
web site, was asked by the board to
fill the board member vacancy from
the loss of Stan Harter. He
accepted and was elected by the
board. Thank you Ed for serving.

Field Day 1998

By Jim Rich N6SZQ

The ARRL's Field Day is a
nationwide test of the emergency
communications capabilities of the
Amateur Radio service. It is also a
contest that is a lot of fun! The
SARC will operate from William
B. Pond Park again for Field Day
this year. We will park our
vehicles in Parking Area #104
(same as last year), and probably
operate from one or two tents, a

small trailer and perhaps a minivan.
There is a slight chance we will be
able to use the retired State OES
communications van instead.

Continued on page 4

Our People

1998 SARC OFFICERS

President

Gary Bryant, KB6KZZ
646-1171

Vice-President

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SK

Secretary

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Newsletter Editor
Tom Preston, KQ6EO
722-9358 KQ6EO@ns.net

PREZ SEZ

PREZ SEZ was not received from Gary in time to make this month's newsletter but he will be back next month.

KIT KORNER

By Frank Zawalick, WD6DCV

Oak Hills Research is a kit manufacturer specializing in amateur radio QRP products. The product line consists of three items. Oak Hills products are high quality kits and are very seldom found in the used QRP market.

The Oak Hills Research OHR 100A series of transceiver kits are offered for the 40, 30 or 20 meter band. Some of the features include single signal superhet receiver design, a new ultra stable pre-mix VFO system providing high side local oscillator injection and 70 KHz of coverage on all bands. The local oscillator signal is available at a rear panel jack for use with the optional DD-1 digital dial. All wiring to the single PC board is terminated with pre-assembled Molex connectors. The RIT has a range of +/- 1 KHz. The four pole crystal IF filter is adjustable from 1200 Hz to 400 Hz with front panel control. The sidetone is a true sinewave oscillator that has separate adjustments for frequency and level. An oscilloscope is not needed for alignment. DC test points on the board are provided for alignment using a digital voltmeter. Two 3.5mm jacks are provided for

headphones and speaker. There is also an on board shorting plug to select stereo or mono headphone operation. There is room-filing audio available at the speaker jack. The transmitter provides a full 5 watts of output on all bands. The power output is variable from 0 - full output through a control accessible from the rear panel. The QSK circuit is silky smooth. The unit will operate on 12-13.6 VDC. The current drain is 80mA on receive and 850mA on transmit with 13.6 VDC supply voltage. The 40-meter version is easy to set up for operation in the novice portion of the band. The completed transceiver measures (HWD) 2 1/2" x 6" x 6" and weighs 24 oz. The kit is complete with cabinet, high quality silk-screened and masked PCB, all components and instructions.

The Oak Hills Research DD-1 is a six-digit counter designed to be used as a digital dial with all of OHR transceiver kits. It can also be used as a general purpose 100 Hz to 50 MHz frequency counter, a digital dial for home built rigs, an add-on digital dial for commercial transceivers, transmitters or receivers. The counter will operate with tube or solid state equipment having a variable oscillator system up to 50 MHz. It will accommodate cases where the oscillator tunes in reverse with respect to the operating frequency. Direct frequency readout can be displayed with any IF offset as long as the frequency being measured is 50 MHz or less. Some of the advanced features of the DD-1 include anti-jitter code which reduces last digit jitter, sixteen non-volatile stored offset and mode programs, five of which are push button selectable from the front panel, programmable reverse counting for reverse tuning VFOs, selectable direct frequency readout, automatic display blanking to

conserve power when the frequency is not changing. You can also just blank the 100 Hz digit and/or the megahertz digit if you so choose. The unit has two switch selected input connectors on the rear panel. One is used for direct frequency measurement and the other for digital dial applications. The DD-1 requires from 9 - 13.6 VDC for proper operation. The current drain is 100mA with all six digits active and 40mA with all digits blanked. The completed unit measures (HWD) 1 3/4" x 4 1/2" x 4" and weighs 11 oz. The kit is complete with two high quality silk-screened and masked Press, all components and instructions.

The Oak Hills Research WM-2 was designed specifically for the QRP operator. The unit operates from 300 KHz to 54 MHz. It will measure forward and reflected power at QRP levels down to 5 mW. You can select from three full-scale power ranges of 10 W, 1 W or 100 mW with an accuracy of 5% of full scale. A rear panel switch allows you to select the internal 9 V battery or external power jack for the operating voltage. The WM-2 uses a very high quality American made 3" meter movement with a large easy to read scale. The meter circuit current drain is typically 1 mA, making it great for portable use. The wattmeter can be left in-line permanently with very little loss. The kit is supplied with high quality Amphenol SO-239 connectors. The WM-2 is easy to build and align. The alignment consists of setting three voltages with a digital voltmeter. A source of RF is not required for alignment. The completed wattmeter measures (HWD) 4 1/2" x 3 1/2" x 4" and weighs 16 oz. The kit is complete with cabinet, high quality silk-screened and masked PCB, all components and instructions (less 9V battery).

Current retail price/limited offer sale price for the three items are as follows: NOTE: All prices subject to change without notice. OHR 100A - \$126 / \$119 WM-2 - \$89 / \$84 DD-1 - \$79 / \$74 Oak Hills Research, 20879 Madison Street, Big Rapids MI 49307 Phone: 616-796-0920 - 24 Hr Fax: 616-796-6633 9:00 AM - 5:00PM (EST) Mon-Fri Web address: www.ohr.com e-mail: qrp@ohr.com *****

Personality Profile

Carl Crump WA6VLS

By Tom Hughes WA6ZYK

Carl was born in North Carolina and attended High School in New Bern, N.C. In 1946 he enlisted in the Army Air Force and became an Aircraft Mechanic. That was prior to the time when the Air Force became a separate branch of the Armed Forces. It was while he was stationed in Arizona in 1948 that he first met his future wife Alice.

Carl was discharged from the Air Force in 1949 and, in 1950, he enrolled in an Aircraft Mechanics School in order to obtain his Aircraft and Engine Mechanic's FAA License. After he finished that school and got his licenses, he worked in southern California as an Aircraft Mechanic.

During the Korean War, Carl returned to the Air Force and, while stationed in southern California, he and Alice again met and were married. This time he decided to make a career of the Air Force and served as a Mechanic, Inspector and in Supervisory capacities until he retired in 1969 as a Master Sergeant with over twenty years service.

After his retirement from the Air Force, he went to work for

On the Air W6AK

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442.80 + PL 100

Sacramento Valley Noon Net
Every day at Noon

On the Net

<http://home.sprynet.com/sprynet/w6ak>

Meetings

General Meetings are the second Wednesday of every month at the Sacramento Blood Bank, 1625 Stockton Blvd. Sacramento. 7:00 PM

Please Join Us

Sacramento County. While working there at night, he enrolled at Sacramento City College part-time during the day. He attained an AA Degree there.

In 1976, Carl heard that Armond Noble, N6WR, was holding training classes for the Novice Class License. He enrolled in that class and qualified for his Novice License in 1977. He joined the Air Force Mars in 1979 and is still a member. Later, he enrolled in Armond Noble's Advanced Class course and, in 1984, qualified for his Extra Class License.

Carl says that he particularly enjoys working CW and DX and is the holder of two DXCC Certificates. He also enjoys the challenges of operating QRP. With the help of Les Ballinger, WA6EQQ, he has recently become active on Packet. In 1984 he became a Volunteer Examiner (VE) for ARRL VEC and later for W5YI VEC.

Meeting Minutes

May General Meeting Minutes
by Ed Braaten K6EKB

19:15 - Call to order by Keith
Crandall, K6QIF

Ed Braaten, K6EKB gave club members an overview of the club's website features. The URL is: <http://home.sprynet.com/sprynet/w6ak/>

19:20 - Club President, Gary Bryant, KB6KZZ made contact over the club repeater with message that he'll be late for the club meeting; Gary arrived at 19:30.

19:30 - Michael Heindl, KN6PC gave a very informative talk on RFI and RF Exposure. Michael has dealt a lot with telephone RFI, one of the most common issues. He highly recommends the book, "Radio Frequency Interference - How To Fix It" published by ARRL. He found that 27 wraps of wire around a toroid coil works wonders! Michael described in detail the history of RFI problems with his neighbors, the steps he took to remedy their issues, and the interactions he has had with the FCC, the local government, the power company, the phone company and lawyers. Michael discussed the new RF exposure rulings and what must be done to comply. He suggested that everyone get the ARRL RF Exposure book that has just come out.

20:30 - General Club member discussion. Finalized plans for July Meeting will be a visit to the radar site at Mather at 18:30

20:45 - Club Raffle

20:55 - Meeting adjourned

Les also showed off the new Super Bright LED Array Stop Lights that you should be seeing soon. They are much brighter than the incandescent bulbs and will last about 12 times longer. It was very informative.

May Executive Committee Minutes
by Jim Rich N6SZQ

The SARC officers and directors met at Keith's house at 1900 on May 27. We welcomed three visitors: Bob, KE6YHQ, a club member and Field Day aficionado; his friend, Mike, who is studying for his Amateur license; and new SARC member Dennis Bartholomew, (who has just been appointed net manager of the Noon Net). While we munched on delicious oatmeal cookies baked by Keith's lovely wife, Charlotte, we discussed these topics: interference to the club's repeater, future club programs, meeting places, the Noon Net, club name tags, the White Elephant raffle, Ed Braaten's SARC Web site, and preparations for Field Day.

Field Day 1998 cont.

Once again the Parks Dept. has agreed to waive the entrance fee for this public service event. However,

you will need to cut out the placard found in this newsletter and place it on your dashboard. [For insurance purposes, only SARC members with paid-up dues for 1998 may participate in Field Day at the park.] The first members will arrive at the park around 0830 Saturday to help with the set-up. On-air operations will be from 1100 a.m. Saturday to 11 a.m. Sunday. The last club members should be out of the park by around noon on Sunday.

Jim White, WS6K, will be organizing the equipment. Final plans for Field Day will be made at our June meeting. If you would like to participate in Field Day, but can't make that meeting, give Jim White or Jim Rich a call before the meeting.

William B. Pond Park has a nature area with restored wetlands, a fairly large fishing lake, a fishing pier, a smaller pond, deer, snakes, egrets, ducks, rabbits and a heron rookery. You can bring your boots and binoculars and enjoy the nature area while you are not on the air.

See you there!

VHF Contest Leader Needed

Several members of the club have expressed an interest in a VHF Contest weekend outing. We need someone with some experience to

The Sacramento Amateur Radio Club *Founded 1914*. An ARRL Special Service Club. **1998 SARC Officers:** President—Gary Bryant, KB6KZZ, 646-1171; Vice President—Stan Harter; Secretary—Jim Rich, N6SZQ, 361-3542; Treasurer—Steve Cates, KC6TEV, 391-7341; **Directors:** Les Ballinger, WA6EQQ, 393-4775; Herb Bennett, KA6VHF, 451-6864; Ed Braaten, K6EKB, 939-1432; Glen Hartzell, W6WBO, 555-5555; Tom Preston, KQ6EO, 722-9358; Jim White, WS6K, 456-9206. **W6AK Trustee**—Keith Crandall, K6QIF, 452-5056; Mike and Key Editor—Tom Preston, KQ6EO, 722-9358. **Club Dues**—\$16 per year, from January to December (new memberships will be prorated). **The SARC Newsletter, Mile and Key**, is published monthly by and for the membership of the Sacramento Amateur Radio Club. Permission is granted to other amateur radio organizations to reproduce in whole or in part for internal non-profit use, provided credit is given to the SARC Newsletter and to the authors of the reproduced materials. **Articles**—Manuscripts and letters are welcome. Items may be sent to Tom Preston, email at KQ6EO@ns.net, or snail-mail at Editor, *Mile and Key*, 8425 Arcaro Ct. Citrus Heights, Ca. 95610. **Advertising**—commercial non-personal advertising, business cards through full page, is available. Contact the editor above for information. Classified advertising is free to members of SARC. Submit ads monthly to the Editor at the above addresses.

show us the ropes and get us going
on the right track.

Come on, someone out there with
the know-how give us a hand. You
get to be the know-it-all for a
couple of days. It will be fun. If
you can, contact Les Ballinger
WA6EQQ or any other club
officer.

June Speaker

The June General Meeting will feature a discussion of NVIS (Near Vertical Incidence Skywave) antennas by Dave Walker, KQ6LW, Les Ballinger, WA6EQQ, and possibly others. We also, of course, will discuss Field Day.

The July General Meeting will be the tour of the FAA radar site at Mather Field. I'll have more information and a map next month. We will meet a half-hour earlier at 6:30 PM to maximize the sunlight.

We also have had some pretty good white elephant raffle items this year. A YAESU FT-270R 440 rig with tone board attached topped last month's items. It was donated by Les Ballinger WA6EQQ and won by Carl Jensen KF6LBM.

BUY, SELL, or TRADE

Butternut HF6V Vertical Antenna
10, 15, 20, 30, 40, 80 Meters
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8 Band HF Radial Kit
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HyGain TH6DXX Tri-Band
6 element 20-15-10 Meter Yagi
\$200 OBRO

for more information call
Frank Zawalick, WD6DCV
916-682-1589

Advertising of Ham related items are free to club members. So if you have anything to sell or trade or you are looking for something get the information to Tom Preston, KQ6EO and I will post it here.

Will Your GPS Work In the Year 2000?

by Charlie Courtney
Submitted by Les Ballinger

Published in the December, 1996,
GOFC Newsletter

Some GPS receivers may no longer operate correctly after 21 August, 1999 unless returned to the factory for an upgrade. Affected units will think that 22 August 1999 is actually 6 January, 1980. Since GPS receivers use the current date and time to calculate their position, accuracy of the affected units will be destroyed.

This has nothing to do with the infamous "year 2000 problem" looming over the computer industry, although the situation is similar. Many business-related computer programs, especially those written years ago for big mainframe computers, cannot deal with dates later than 31 December, 1999. These programs think that the next day is 1 January, 1900 because the leading "19" in the year is understood to be present, and the computer only stores the last two digits of the year. As a result, a mortgage payment received and posted on 31 December, 1999, one day ahead of a due date of 1 January, 2000, is viewed by affected programs as arriving 100 years too late -- the computer thinks the payment was due on 1 January, 1900!

The GPS problem occurs because, among other things, GPS satellites broadcast the current date and time to your GPS receiver. Your receiver then uses this information to calculate its position from the location of the satellites it can "see." Unfortunately, the date information broadcasted by a GPS satellite is given as the number of weeks elapsed since 6 January,

1980 -- the official "birthday" of the GPS system -- and the amount of computer space allocated in the GPS system for storing the week number only can hold 1023 weeks. (It's a 10-bit value for all you computer nerds that may be interested.)

On 22 August, 1999, the GPS week number will reset to zero, since the previous week was GPS week number 1023. Some older GPS units were not programmed to handle rollover of the GPS week back to zero. An affected unit will become totally lost on 22 August, 1999. It will not "see" the location of GPS satellites correctly, because it will look for them where they were supposed to be on 6 January, 1980, instead of 22 August, 1999. Garmin, manufacturer of the best selling marine GPS units, has stated that all its units will handle the rollover correctly. Most likely recent units from other reputable manufacturers will do so as well. However, those of you with older, non-Garmin units should check with the manufacturer. Also, be sure to check for this problem before buying a used GPS unit or a bargain-priced new unit from a no-name manufacturer.

Heart Attack Help

By Jim Rich, N6SZQ

Stan Harter, SARC Vice President and State OES official, died of a sudden, unexpected massive heart attack on April 2. Do you know the early warning signs of a heart attack? Do you know what to do if you or a loved one should experience any of those symptoms? Early detection of heart attacks and immediate care for their victims could save thousands of lives in this country every year. Jim Rich, N6SZQ, has pulled together the following information from several Web sites:

From the American Heart Association:

HEART ATTACK SYMPTOMS / WARNING SIGNS

IF YOU THINK YOU ARE HAVING A HEART ATTACK, CALL YOUR EMERGENCY MEDICAL SYSTEM IMMEDIATELY.

The AHA says the body likely will send one or more of these warning signals of a heart attack:

- Uncomfortable pressure, fullness, squeezing or pain in the center of the chest lasting more than a few minutes.
- Pain spreading to the shoulders, neck or arms.
- Chest discomfort with lightheadedness, fainting, sweating, nausea or shortness of breath.

Not all of these signs occur in every attack. Sometimes they go away and return. If some occur, get help fast. IF YOU NOTICE ONE OR MORE OF THESE SIGNS IN ANOTHER PERSON, DON'T WAIT. CALL YOUR EMERGENCY MEDICAL SERVICES AND GET TO A HOSPITAL RIGHT AWAY!

From the Early Heart Attack Care Center:

ALL HEART ATTACKS ARE NOT CREATED EQUAL!

Heart attacks come in different sizes and shapes. In most cases, they begin with warning signs that tell us something - heart damage and/or death - is impending. The road to destruction and the "crash" of your life has stop-off points that can save you if you recognize the signs.

STEPS TO BECOMING AN EARLY HEART ATTACK CARE GIVER:

1. Watch the videotapes. (FREE rental at all Blockbuster Video stores nationwide.)
2. Learn the warning signs.
3. Take the quiz. . . .
4. What kinds of heart attacks are there?

There are actually three presentations of heart attacks. First, there is a type that stops you dead in your tracks. Second, there is a heart attack where damage is taking place . . . Third, there is the heart attack that is just beginning.

5. How can we help the person who is having a heart attack?

We call this the first responder, one who is upon the scene. In the first case we need to know cardiopulmonary resuscitation (CPR) and perform it well. In the second case we need to call 911 the emergency medical system and behave as an executive spouse. Here the patient usually does not put up much of a fuss, the patient is in severe pain and is weak like a kitten. The third [case] is the most difficult one and requires the first responder to be alert and have to act in the absence of peer pressure. We call this person the early heart attack care giver . . .

Finally, I have read in *Reader's Digest* and elsewhere that you should give one or two aspirin tablets to someone experiencing one or more of the symptoms of a heart attack. This sometimes prevents or reduces damage to the heart.

Naval radio conversation

The following is an actual radio conversation released by the US Chief of Naval Operations on 10 October 1995:

NAVY: Please divert your course 15 degrees to the North to avoid a collision.

CIVILIAN: Recommend you divert YOUR course 15 degrees to South to avoid a collision.

NAVY: This is the Captain of a US Navy ship. I say again, divert YOUR course.

CIVILIAN: No. I say again, you divert YOUR course.

NAVY: THIS IS THE AIRCRAFT CARRIER ENTERPRISE, WE ARE A LARGE WARSHIP OF THE US NAVY. DIVERT YOUR COURSE NOW!

CIVILIAN: This is a lighthouse. Your call.

POINTS TO PONDER

From Stan's Archives

Life is sexually transmitted.

Kids in the back seat cause accidents; accidents in the back seat cause kids.

It's not the pace of life that concerns me, it's the sudden stop at the end.

The problem with the gene pool is that there is no lifeguard.

It's hard to make a comeback when you haven't been anywhere.

Living on Earth is expensive, but it does include a free trip around the sun.

The only time the world beats a path to your door is if you're in the bathroom.



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Sacramento Amateur Radio Club

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MEMBERSHIP APPLICATION and RENEWAL FORM

Date _____

New Renewal Change of Address

MEMBERSHIP CLASS

General, \$16.00 Associate, \$16.00 Family, \$21.00 Student, \$8.00

Please fill in and circle anything you do not wish to have printed in the SARC Roster.
 Family memberships must reside in the same household.

NAME _____

CALL _____

LICENSE CLASS: N T T+ G A E

ARRL Member: Yes No

Family member: NAME _____

CALL _____

LICENSE CLASS: N T T+ G A E

ARRL Member: Yes No

Family member: NAME _____

CALL _____

LICENSE CLASS: N T T+ G A E

ARRL Member: Yes No

ADDRESS _____

CITY _____ ZIP _____

TELEPHONE (____) _____

Areas of interest, bands and modes used:

Emergency communications capabilities:

ACS/RACES or ARES

New memberships in mid-year will be pro-rated.

This form must accompany your check made payable to SARC. Send to SARC at address above.

