

Sierra Foothills Amateur Radio Club

Newsletter

users.newworld.net/wingman/sfar
July 2002
P.O. Box 1005, Newcastle, CA 95658



PRESIDENT

Richard Kuepper, WA6RWS
530.878.6220
rkuepper@juno.com

VICE PRESIDENT

Eldred Wilkerson, KD6ZSL
530.878.6223
kd6zsl@yahoo.com

SECRETARY

Steve Faulkner, KF6OCE
916.725.3255
SEFaulkner048@aol.com

TREASURER

Mike Hudson, KG6EFK
916.624.4714
mihudson@firstam.com

DIRECTORS

Debbie Cunningham, KF6LXN
916.663.4143
dmc@midtown.net
Bob Boeckman, WA6ULL
916.987.9910
wa6ull@aol.com

Roger Hedgpeth, N7TK

916.983.2912
rolifo@aol.com

REPORTERS

Satellite Report

Greg Dolkas, KO6TH

40 Years Ago at the SFARC

Gary Cunningham, KQ6RT

REPEATERS

145.430 (-0.6 MHz/PL 162.2)
440.575 (+5.0 MHz/PL 94.8)
223.860 (-1.6 MHz/PL 100.0)

CLUB NET

All welcome to check in
Thursdays, 7:30PM, K6ARR/R
145.430

CLUB MEETINGS

Second Friday of the month,
7:30PM at the Auburn
Library, 350 Nevada St,
Auburn

CLUB BREAKFAST

Last Sat of the month at
Susie's Café, Cirby at
Riverside, Roseville - 8:00 AM

NET CONTROL OPS

Dave Jenkins, WB6RBE
Gary Cunningham, KQ6RT
Joe Sylvia, KF6OQY
Casey McPartland, K6WJM

WEBMASTER

Chris Wright, KF6OGD
wingman@newworld.net

NEWSLETTER EDITOR

Fred Jensen, K6DGW
VOX: 530.885.8251
FAX: 530.745.9622
k6dgw@arrrl.net

2002 Calendar of Events

(Operating Events in Italics)

Jul 6	VE Test-Sutter Roseville <i>(See article in this issue)</i>
Jul 12	Regular Meeting
Jul 13-14	<i>IARU HF World Champ.</i>
Jul 27	Club Breakfast
Aug 3	VE Test-Sutter Roseville
Aug 3-4	<i>ARRL UHF Contest</i>
Aug 9	Regular Meeting
Aug 17-18	<i>ARRL 10 GHz and Up Test</i>
Aug 31	Club Breakfast
Sep 13	Regular Meeting
Sep 14-16	<i>ARRL Sep VHF QSO Party</i>
Sep 21-22	<i>ARRL 10 GHz and up Contest</i>
Sep 28	Club Breakfast

IN THIS ISSUE

Officers' Reports

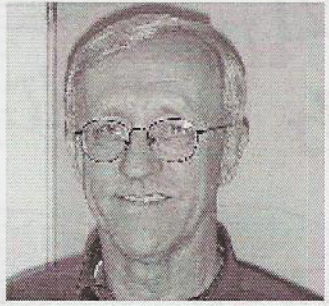
July/Aug Program Schedule

FD Pictures

Western States Report

From the President's Shack

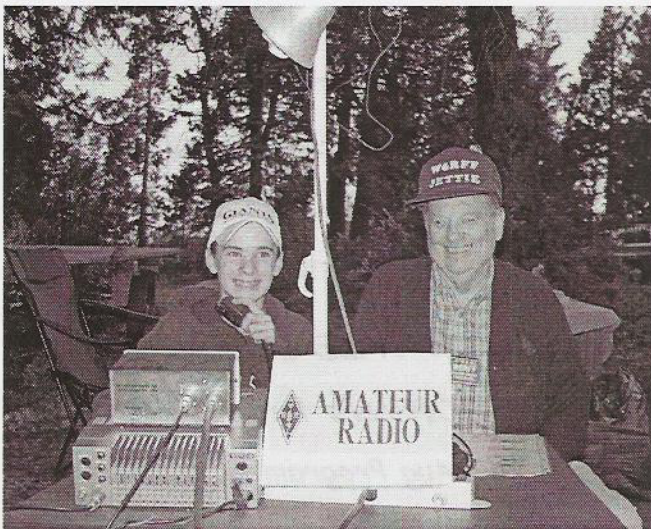
**Richard
WA6RWS**



It does not seem that the year is half over already. Time sure goes fast when you are having fun. Field day was a lot of fun this year. We made almost 150 contacts. I have some candid pictures that I will bring to the club meeting in July.

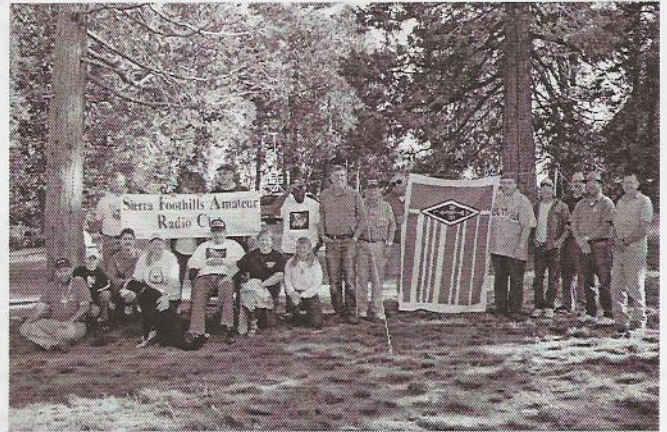


Thanks to Bob, WA6ULL and his trusty bow and arrow to hang antennas. Special thanks to Debbie KF6LXN and Gary KQ6RT for the great dinner and for bringing up the generator and for just being the best host and hostess there is. Thanks to Rob, WW6G for bringing up his PSK31 and demonstrating to us how it works.



Thanks to all who came and participated, especially Ben Kraw (with Jettie in the photo) who made more contacts than the rest of us. Incidentally, he does not have his license yet!! We also had a special treat from Mike KG6EFK Hudson's friend, who brought his telescope so we could take

a look at the moon. And a special thanks to my co-chair Roger N7TK.



I met Grant Wells the owner of the Shell station at Nyack. What a nice person. Many thanks to him for providing us such a wonderful location to have field day.

Thanks to those that volunteered for the Rocklin Jubilee that was on June 29th. Matt KC6RUO and Dave WB6RBE did a great job of organizing the event. This was the first time I worked the parade.

Thanks to those that worked the Western States race over the June 29th weekend. I monitored some of the traffic and will have to volunteer for that event next year. I'm sure Fred K6GDW will give us a report.

Now onto the July meeting. It will be very interesting. Hope to see all of you there.

73,

Richard, WA6RWS

Vice President's Corner

**Eldred
KD6ZSL**



PSK-31 to Highlight July 12 Program

Rob Carpenter WW6G, will be our speaker for July. His subject will be PSK-31, a very narrow band digital mode becoming increasingly popular on the HF bands. Rob will discuss what it takes to become active on PSK-31, how it is operated, and how it can be used in a disaster situation. Rob will have a demonstration operating as well.

August 9 Program Will Feature "BloodSource"

At the August meeting, Leslie Botos of BloodSource (formerly the Sacramento Medical Foundation Blood Center) will discuss the challenges of managing the nation's blood supply in times of disaster, and how amateurs can help them in meeting that challenge.

Leslie will illustrate her presentation with history from September 11, and will discuss the roles that amateurs either already do or could perform to assist.

73,

Eldred, KD6ZSL

Secretary

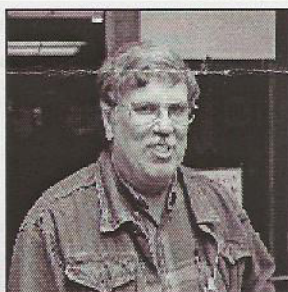
**Steve
KF6OCE**



(We did not receive Steve's input by press time ... it's summer and we're all very busy having fun in the sun, aren't we? Ed.

**40 Years
Ago At The
SFARC**

**Gary
KQ6RT**



Auburn, Calif.
July 11, 1962

A brief meeting was held in the C D room with Pres. Dick Lund presiding.

Jim Carman was appointed to make a full report on our first Field Day which was held on Mt. Howell near Weimar.

Treasurer reported a balance of \$156.90 and given permission to pay all Field Day expenses.

The meeting was adjourned at 8:30 and all present visited Station KAH1 AM & FM. Jim Johnson the engineer showed us the station and we all learned a lot on Collins 1 KW station.

Respectfully submitted,

Sage Otow

73,

Gary, KQ6RT

**Amateur
Satellites**

**Greg
KO6TH**



Oscar 7 Returns from the Dead

Yes, you read that right. In a scene right out of science fiction, AMSAT-OSCAR 7 has returned to active status after being off the air and presumed lost forever for over 20 years. Pat, G3IOR in England was checking out a new antenna, tuning around the 2 meter band on the evening of 21-June, and heard a strangely familiar CW beacon. He posted his finding on the AMSAT Internet Bulletin Board for confirmation. The 'BB has been going nuts ever since.

AO-7 was launched in November 1974, and operated into mid 1981. It has a pair of transponders; a 2 meter up / 10 meter down Mode A, and the very first Mode B transponder which has a 70cm uplink and a 2 meter downlink. The Mode B transponder was designed by Karl Meinzer, DJ4ZC, and featured a very efficient method of frequency translation (i.e. converting the 70cm uplink into the 2m downlink), with a peak output of 8 watts. Both transponders run SSB and CW. When they were designed 30 years ago, VHF and UHF equipment was hard to come by, and linear "brick" amplifiers had not been invented yet. The satellite's receivers were designed to be very sensitive to compensate for weak uplinks, and the strong transmitters enabled the available ground equipment to be effective. By comparison, the modern Fuji-OSCAR 20/29 satellites have 2 watt transponders, and AO-27 runs only 800 mW.

AO-7 "died" in mid-1981 due to battery failure. Telemetry at the time showed a series of voltage drops, which appear to be due to individual battery cells shorting out. NiCd batteries often fail in this manner due to "crystal growth", where the electrolyte crystallizes into small bridges that short one side to the other. With a shorted battery, the solar cells were unable to keep the transponders alive, and the satellite fell silent.

Apparently, that shorted battery has worked itself loose. The batteries appear to be inoperative, so the satellite is operating by the solar cells alone. This means that it is only available during daylight passes. Also, with no battery power on the night side, the satellite powers on each orbit in a random state. Sometimes it will be in Mode A, sometimes Mode B, sometimes with the transponders off; data is being collected to see if a pattern or tendency can be figured out.

The telemetry beacons are on 145.973, 435.107, or 29.502 MHz, depending on mode. The CW data frame begin with HI HI, and are followed by sets of 3 digit numbers, and ending with the next HI HI. The numbers represent various voltages and temperatures within the satellite. Transponder

downlinks are on 29.400 through 29.500 (mode A) and 145.920 through 145.980 (mode B). The uplink for Mode A is on 145.850 through 145.950. Mode B's uplink is from 432.180 through 432.120. Note that Mode B's uplink is now in the weak signal portion of the 70cm band, and there is a brisk discussion going on as to whether it is legal to be operating the satellite from there.

AO-7's orbit is what is called "Sun Synchronous". The satellite was launched with the ITOS-G weather satellite, and this type of orbit is important for consistent illumination of the ground. The satellite appears in the sky about the same time each day, and during the Summer months, there are several good passes during daylight hours. Take a listen, and tune into some history!

73,

Greg, KO6TH

(Space trivia: In late '67 through mid '70, I [your editor] was in the USAF and stationed at NASA MSC in Houston working on Project Apollo. A follow-on mission set, then called Apollo Applications and later Skylab, required an orbit that would put it over the same place on the earth at the same local time each day [so the sun angle and thus lighting would be the same].

We were casting about for a name for this class of orbits, and one colleague finally said, "It's really a matter of "Getting Over The Same Point On The Earth With Identical Lighting Daily." NASA was and still is the absolute planetary capital of acronyms, and this became GOTSPOTEWILD. A German colleague noted that, if you put an umlaut over the second "O", and dropped the caps, it became Gotspötewild, which had a distinct German sound and appearance, and at least vaguely to non-Germans, could be a name. We pronounced it, "Gots - PUE - deh - vil - de"]

The report writer, one Pat Condon, later to become Lt. Gen Pat Condon, fabricated "Friedric Franz" as the rest of "his" name, and a phony publication [in German] with a publication date in the 19th century, and put it in the bibliography.

Many years later, on a UAL flight somewhere above "fly over country" {Neb?} my seatmate, a young engineer with TRW, had discerned that I was a ham, and had worked at NASA. He regaled me with the details of his satellite project, which, he said, would be launched into a "Gotspötewild Orbit." I asked him if he meant Sun Synchronous ... technically, it really isn't the same but that's what it's come to be called ... and he assured me that he did not. He was so earnest, I decided not to tell him the story. Thus, AO-7 may actually be in a Gotspötewild rather than a sun-synchronous orbit.)

Swap Meets and Events

Foothill Flea Market - 2nd Saturday of each month from March through October at Foothill College, Los Altos.

Livermore Swap Meet - 1st Sunday of each month at Las Positas College in Livermore, 7:00 AM to noon, all year. Talk in 147.045 from the west, 145.35 from the east. Contact Cliff Chiba, KF6EII, larkswap@usa.com

Sac Valley Ham Picnic Plans

The North Hills Radio Club is working on a Sacramento Area Ham Clubs Picnic. As presently proposed, it would be after Labor Day weekend and may be at Gibson Ranch County Park. There are numerous large reservable group picnic areas there which cost maybe \$50-\$100, depending on the number of people they will accommodate. \$1 a head would cover it with the clubs picking up any slack. There is also an entrance fee of <the news source thinks> \$4 per car.

North Hills would reserve the park based on the number of clubs/people expected. All area clubs are invited to take part. Each participating club would have their own shared food, if any, but we would all be in the same area. Club banners can be posted.

Congratulations!!

Congratulations to George Simmons, KG6LSB who received his license on 14 June.

VE Test Report



Our new VE team - Standing, from left: Bob Hicks, K6VSS; Rob Carpenter, WW6G; Gary Cunningham, KQ6RT; Gordon Fuller, WB6OVH; Casey McPartland, K6WJM. Seated from left: Larry Hodge, AE6CC; Donna Hodge, KD6PJN; and Ann Bowman, AD6QY. (Photo courtesy Bob, KD6WTY)

June saw a very successful VE session with 14 of 17 element examinations passed and 13 new licenses and/or upgrades issued including 8 new hams !

June was particularly busy for Extra class credit because the Element 4 question pool is scheduled to change in the month of July. The addition of new questions to the examination pool for element 4 meant that many aspirants took their best shot at the old pool. The results were:

	ELEMENTS				TOTAL
	1	2	3	4	
Passed	1	8	2	3	14
Failed				3	3
Total	1	8	2	6	17

This resulted in new licenses earned as follows: Tech-8; General-2; and Extra-3, for a total of 13.

Upcoming sessions are:

06-Jul-2002

Sponsor: UNSPONSORED

Time: 8:00 AM (Walk-ins allowed)

Contact: DONNA J HODGE

(916)361-2476

VEC: ARRL/VEC

Location: SUTTER ROSEVILLE HOSPITAL

ONE MEDICAL PLAZA

ROSEVILLE, CA 95678

03-Aug-2002

Sponsor: UNSPONSORED

Time: 8:00 AM (Walk-ins allowed)

Contact: DONNA J HODGE

(916)361-2476

VEC: ARRL/VEC

Location: SUTTER ROSEVILLE HOSPITAL

ONE MEDICAL PLAZA

ROSEVILLE, CA 95678

73,

Rob Carpenter, WW6G

Western States Endurance Run A Success for Communicators

The annual Western States Endurance Run, 100 miles from Squaw Valley to Placer HS in Auburn was held on June 29-30, and saw a number of SFARC members providing communications.



4755 Pacific St., Rocklin, CA 95677-2407

Manager: Randy Erwin

TEL: 916.624.0641 / FAX: 916.624.5249

<ur29@unitedrentals.com>

**MAJOR SPONSOR OF
THE SFARC FIELD DAY!**

A total of 427 entrants were registered for the world's original and generally agreed toughest 100 mi race. Of these, 372 actually started at 0500 on Saturday in Squaw Valley. 117 of the runners dropped out at the 24 checkpoint/aid stations along the trail, leaving 255 to finish at the Placer HS stadium within the 30 hour deadline. 92 finished within the 24 hour deadline and received the silver belt buckle with the inscription, "100 Miles – One Day."

Scott Jurek of Seattle repeated his overall win again this year, finishing in approximately 16h 20m. That's an average speed of 6.13 mph, over a course with 18,000 feet of total altitude gain and 22,000 feet of total descent! The legendary Ann Trason also repeated her first place finish for women, and was 5th overall. Incidentally, Ann has finished this race in under 24 hours in 17 of her 18 starts.

Over 60 amateurs provided both voice and data communications to account for and assure the safety of the runners. The voice network employed the K6ARR VHF repeater in Auburn, and UHF repeaters on Bald Mt. (K6LQT) east of Georgetown at 4,780', and on Squaw Peak (K6SRA) at 8,760'. Additionally, two cross-band repeaters were installed temporarily in the Flightstrip area on Mosquito Ridge Rd. and on Cuckoo Ridge to provide coverage into El Dorado and Last Chance canyons.

The data communications was handled on amateur packet using a temporary node on Bald Mt. Packet messages accounting for each runner through a checkpoint were sent to event control at the Auburn Dam Overlook, loaded directly into the event database, reconciled for errors and missing information, and then posted to the real-time webcast, permitting runner's crews to inquire into the latest status of their runner.

Other clubs participating with operators and/or equipment included the Sierra Radio Assn, Mt. Vaca RC, the Golden Sierra ARG, and the North Hills RC. Greg Soderlund, the Race Director, has congratulated and thanked the amateurs for their very successful efforts.

SFARC Radio Trivia

When we intend to make ham contacts using Morse code, we use the term "CW". What does "CW" really stand for and how did it come to mean communicating with a keyer?

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**SIERRA FOOTHILLS AMATEUR RADIO CLUB
2002 MEMBERSHIP APPLICATION**

Name: _____ Call: _____ Class: _____ e-mail: _____

Address: _____ City: _____ State: _____ Zip: _____

Associate Name: _____ Call: _____ Class: _____

Phone Number: _____ Application: (Circle One) New Renewal

Member Dues: Circle Amounts That Apply.

Applications received in the middle of the year will be pro rated. Contact the President or Treasurer for exact rate.

Membership:	\$22.00	Name Badge:	\$6.50
Associate:	\$ 7.00	Repeater Donation:	\$ _____
Auto Patch Donation:	\$ _____	Newsletter Booster:	\$ _____
Worldradio Renewal:	\$ _____	TOTAL:	\$ _____

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Date: _____ Treasurer: _____ Secretary: _____ Roster: _____

Payment: _____ Check Number: _____ Cash: _____

SIERRA FOOTHILLS AMATEUR RADIO CLUB
P.O. Box 1005
Newcastle, CA 95658

