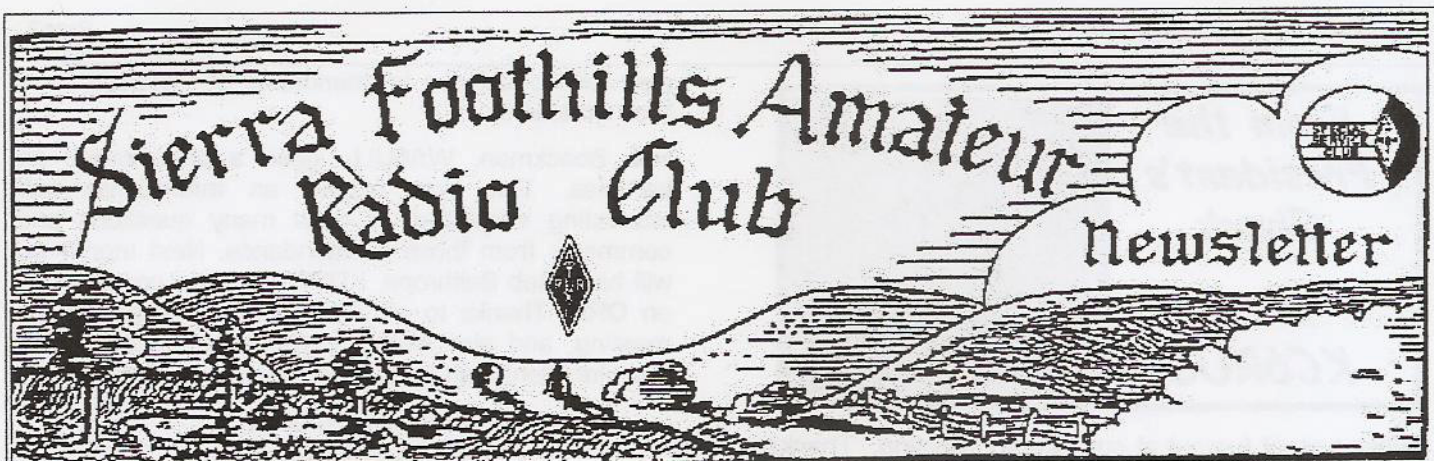




<http://personal.newworld.net/~wingman/sfarc/>

FEBRUARY 2001

P.O. Box 1005, Newcastle, CA 95658

At the Key of S.F.A.R.C.

PRESIDENT:

Matt Diridoni, KC6RUO
916.632.4084
mdiridoni@rsvl.net

VICE PRESIDENT:

Steve Faulkner, KF6OCE
kf6oce@aol.com

SECRETARY:

Joe Sylvia, KF6OQY
916.797.3149
jsylvia@vfr.net

TREASURER:

Debbie Cunningham, KF6LXN
dmc@midtown.net

BOARD OF DIRECTORS

Bob Boeckman, WA6ULL
wa6ull@aol.com

Eldred Wilkerson, KD6ZSL
kd6zsl@yahoo.com

Richard Kuepper WA6RWS
rkuepper@jps.net

REPORTERS:

Satellite Report:
Greg Dolkas, K06TH
40 Years Ago at the SFARC:
Gary Cunningham KQ6RT
VE Program
Bob Metke, W6SUP

REPEATERS:

145.430(-0.6 Mhz) PL 162.2
440.575(+5 Mhz) PL 94.8
223.860 (-1.6 Mhz)

CLUB NET:

All welcome to check
in Thursdays, 7:30 PM
2M K6ARR & Club
Repeater 145.430

CLUB MEETINGS:

Second Fri of the
month 7:30 PM at the
Auburn Library 350
Nevada St. Auburn

CLUB BREAKFAST:

Last Saturday of the
month at Susie's Café
Cirby at Riverside Ave.
Roseville - 8:00 AM

NET CONTROL OPS:

Dave Jenkins, WB6RBE
Gary Cunningham, KQ6RT
Joe Sylvia KF6OQY
Wayne Mikel KE6DJE

NEWSLETTER EDITOR:

Fred Jensen K6DGW
k6dgw@arrl.net
530.885.8251

WEBMASTER:

Chris Wright KF6OGD
wingman@newworld.net

2001 Calendar of Events

(Operating Events in Italics)

Feb 9	Regular Meeting
Feb 14	VE Test Session
<i>Feb 17-18</i>	<i>ARRL Int'l DX Contest(CW)</i>
<i>Feb 23-25</i>	<i>CW WW 160m Contest(SSB)</i>
Feb 24	Club Breakfast
<i>Mar 3-4</i>	<i>ARRL Int'l DX Contest(SSB)</i>
Mar 9	Regular Meeting
Mar 14	VE Test Session
Mar 31	Club Breakfast
Apr 11	VE Test Session
Apr 13	Regular Meeting
Apr 28	Club Breakfast
May 9	VE Test
May 11	Regular Meeting
May 26	Club Breakfast
Jun 8	Regular Meeting
<i>Jun 9-11</i>	<i>ARRL June VHF QSO Party</i>
Jun 13	VE Test

**From the
President's
Shack**

**Matt
KC6RUO**



What a great turnout at our January meeting. Thanks to Bob Boeckman, WA6ULL for his presentation on batteries. Next month's meeting will feature Bob Balthrope, KD6WTY, who will demonstrate operating QRP rigs.

The Dues are Due! Please tear off the back page of the newsletter and send in your dues before the end of February.

If you have any questions, comments, or suggestions, please feel free to call me at 916.632.4084, or e-mail me at mdiridoni@rsvl.net

73,
Matt, KC6RUO

also reminded those in attendance of the need for a Vice President.

Bob Boeckman, WA6ULL, gave a presentation on batteries. This was indeed an informative and interesting subject as it drew many questions and comments from those in attendance. Next month we will have Bob Balthrope, KD6WTY, do a presentation on QRP. Thanks to all 36 people who attended the meeting, and also Michelle who attended the snack bar. President Matt closed the meeting at 2040 hours.

Respectfully submitted,
Joe Sylvia, KF6OQY
Secretary

**40 Years
Ago At The
SFARC**

**Gary
KQ6RT**



**Secretary's
Report**

**Joe
KF6OQY**



**SFARC General Meeting
January 12, 2001**

President Matt KC6RUO opened the meeting at 1936 hours. Other officers present: Joe, KF6OQY, Secretary, and Debbie, KF6LXN, Treasurer. Board members present: Eldred, KD6ZSL, Bob, WA6ULL, and Richard, WA6RWS. Introductions followed of officers and members present including guests.

Debbie, KF6LXN, gave her treasurer's report and Greg, KO6TH, gave us a satellite report. Joe, KF6OQY, read a note to those in attendance received by the club from Rosemary Rhea. Rosemary is the daughter of silent key Ken King, K2CE. She has donated the sum of two hundred ten dollars to SFARC from the estate sale of her father. A thank you note was sent to Rosemary on January 7th.

President Matt, KC6RUO, announced the need for a Field Day coordinator and to contact him if interested. Gary, KQ6RT, described what the job consists of. Matt

**Home of Craig Tindall
Auburn, Calif.
Feb. 8, 1961**

The meeting was called to order at 8:10 P.M. by our president, Lin Hunter. The minutes of the previous meeting and the treasurer's report were read and approved.

Old business: discussion was held on the coming barbecue to be held at *Recreation Park*. In a discussion on a meeting place it was agreed that it has to be a convenient place and at a reasonable cost.

Some club members expressed desire to visit and purchase ham gear in Manteca, so secretary was instructed to phone to make sure the place was open. The trip will probably be made on Sun. Feb. 11th or 18th.

Bob Davis reported that the code class being held on Mon. and Thurs. at the home of Craig Tindal with about six students was doing very well.

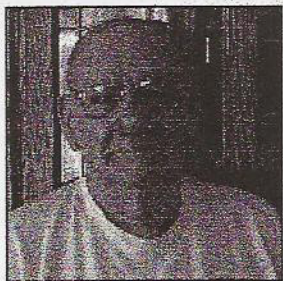
The \$5.00 merchandise certificate was won by Bob Davis.

Motion was made to adjourn the meeting at 9:30 PM. by Frank Carmen.

Fourteen were present, Visitors: K6GPB and K6VSS

Respectfully Submitted,
Sage Otow,
Secretary

73,
Gary

VE Report**Bob
W6SUP****Volunteer Examiner Report****Upcoming Exam Dates for 2001****February 14****March 14****April 11****May 9**

Pre-registration is required. Contact Bob Metke, W6SUP for more information.

Special arrangements and dates can be made to accommodate the disabled, including conducting tests at home.

73,
Bob, W6SUP
511 Oak St.
Roseville, CA 95678
916.783.7610
w6sup@rsvl.net

**Sunshine
Report****Jerri
K6GKR**

Jerri reports that "there is no news this month," which is always good news from her.

SFARC Vice President Appointed

President Matt, KC6RUO, reports: "As you know, at our 2001 SFARC elections, no members ran for the office of Vice President.

All SFARC members, please welcome our new SFARC 2001 Vice President, Steve Faulkner, KF6OCE of Citrus Heights.

Thank you Steve for your willingness to accept the position of Vice President.

(and welcome, Steve, as a regular contributor to the SFARC News. Ed.)

**Amateur
Satellites****Greg
KO6TH****An AO-40 Update**

Last month I wrote of the twisted tale that has become the AO-40 satellite. After a perfect launch and only slightly eventful activation, the satellite goes silent while the controllers work on a temperamental rocket motor. Visions of Apollo-13 flash through everyone's minds.

Well since that report, controllers have regained communication with the bird. It took a "hard reset" from the ground to do it, but they managed to get the S-band transmitter and L-band receiver back on line on Christmas day. By New Years they had the telemetry going, and could start assessing what had happened. They sequenced through different configurations, seeing what works and what does not. 2 meter, 70 cm, and 1.2 Ghz receivers all work. High gain antennas; they are also operational, as is the 2.4 Ghz transmitter. They have reloaded the flight software, which is important to maintain the internal systems, and report that the batteries are "happy" (that's a quote).

But somehow, nobody knows just how, there does appear to have been some damage. The omnidirectional antennas don't appear to work, and several of the satellite's internal sensors are not providing data. The 2 meter transmitter, which was giving such wonderful telemetry before the "event" appears to generate only heat, although with the current satellite orientation it may just be that the antennas are pointed the in the wrong direction and we can't hear it. The 70cm transmitter has never been heard of since launch. They want to test it too, but need to get the satellite into a different orientation first. And, to top it all, there appears to be a leak somewhere, which squirting something out the tail of the satellite, slowly changing its orbit.

The way to change orientation on a satellite that doesn't have the usual little thruster jets, is by a technique called "magnetorquing". This involves activating some electromagnets on the satellite at just the right time, using their push against the Earth's magnetic field to reorient the satellite. The problem the flight controllers have is that the satellite is spinning fast, about 17 RPM, and its current orientation makes the satellite's Sun sensor not function. Without knowing exactly where the satellite is as it revolves, there is no way to know when exactly to turn on the magnets. That's where things stand at this writing.

There is an effort underway to rewrite some of the flight software to use the solar panels as a crude Sun sensor. The panels are positioned all of the way around the satellite, and as the bird spins, each panel gets more, then less, sunlight, producing more, then less, electrical energy. It might be possible to use that information to time the magnets. Alternatively, within about 2 months, the satellite's orbit drift will eventually bring the Sun within range of the sensor. Either way, it will be a while before we know a whole lot more about AO-40. Meanwhile, check out some of the other satellites. There are still quite a few of them still up there.

73,
Greg, KO6TH

News and Bulletins

(Courtesy ARRL)

New FCC System Yields Fast License Grants

Good News for New Hams!

ZCZC AG51
QST de W1AW
ARRL Bulletin 51 ARLB051
FROM: ARRL Headquarters
Newington CT December 28, 2000
TO: All Radio Amateurs

The FCC's new system to handle batch filed amateur applications from Volunteer Examiner Coordinators has cut processing time from hours to minutes. The FCC inaugurated the more rapid amateur license application processing system December 28.

"Way to go, FCC!" said an enthusiastic ARRL-VEC Manager Bart Jahnke, W9JJ, after his office fed its first batch of license applications into the system. Jahnke says processing of five dozen ARRL-VEC applications took about 50 minutes. The W4VEC in North Carolina and Central America VEC also took advantage of the new system for the first time.

Except for a two-hour window right after midnight each day, the speedy new system looks for VEC submissions each hour on the half hour. With FCC license grant processing now measured in terms of hours instead of days, the major factor now determining the time from exam to license grant is how quickly VE teams get their test results to their VECs.

The FCC has been estimating a processing window of up to 90 minutes, depending on volume and arrival time. License grant results should be available immediately on the Universal Licensing System Web site, <http://www.fcc.gov/wtb/uls>, using the license search option. Once a grant is in the FCC database, the licensee has operating privileges.

Applications processed by the FCC one day will appear in the public update ("zip") files the following morning. Public call sign servers on the Internet should

be able to update within 24 hours after FCC action--rather than the 48 hours that's now typical.

On-line filings from individuals, weekend filings and FCC-manually processed applications filed to Gettysburg will continue to be handled as they are now. These are batched for midnight processing, and weekend filings will not queue up until Monday midnight.

NNNN

T-Hunt Championships

First US direction-finding championships set for summer: ARRL Amateur Radio Direction Finding Coordinator Joe Moell, K0OV, has announced the first US National Championships of Radio Direction Finding this summer. The Albuquerque Transmitter Hunters, part of the Albuquerque Amateur Radio Club, will host the event July 31 through August 4 in Albuquerque New Mexico. The championships are open to all ages at any level of foxhunting experience.

Main events on 2 and 80 meters will feature five fox transmitters to be found in accordance with standard rules of the International Amateur Radio Union. Lodging, meals, and ARDF training will be available.

For additional event information, visit the 2001 USA ARDF Championship Web site at

<http://www.egroups.com/files/abqardf/web/index.html>

For general information on ARDF, visit Moell's "Homing In" Web site at

<http://members.aol.com/homingin/>

New E-mail Address for Auction Complaints

The FCC has requested that complaints about the sale of possibly illegal equipment on eBay, Yahoo, and other auction or sales site be sent to fccinfo@fcc.gov instead of previously listed addresses.



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!**

Who's Jamming Whom?

Not that it matters much who is doing it to whom, but the ARRL reports: "It turns out that the 40-meter 'wobble-and-buzz jammers' [7020 – 7090 KHz] heard by many in the US over the past year or so are Iranian stations that are attempting to block Iraqi stations—not the other way around as recently reported. Several members of the monitoring community had questioned the earlier ARRL report, which was based on information from typically reliable sources."

"I began to doubt our information on January 8, when I received second-hand reports from SWL DXers that the jammer and jammee were backwards," said ARRL Monitoring System Coordinator Brennan Price, N4QX. "Further investigation confirms their reports."

"The pirate station operates on a specific frequency—or frequencies—until it's spotted by the Iranians, who then attempt to jam the signal. The broadcaster then hops to another frequency to avoid the jamming, which explains why the jammer will suddenly pop up on a frequency for several minutes at a time and then disappear."

"The jamming signals are broad and noisy. They typically land on multiples of 10 kHz and occupy some 10 kHz of bandwidth."

"The Iranian and the Iraqi governments are reported to have ignored complaints by the US and the United Kingdom." (and we're surprised? Ed.) "Price says that in light of the strained relations between the US and both Iran and Iraq, there's not much hope that the problem will be resolved anytime soon."

January 12th Meeting



The regular meeting held on January 12, 2001 in the Beecher Room of the Placer County Library in Auburn featured Board Member, Bob Boeckman, WA6ULL, with some tips on batteries and their care.

Bob identified the typical battery types used by hams, including primary dry cells (zinc-carbon), and rechargeable types such as

nickel-cadmium (NiCd ... pronounced "NY-cad"), nickel metal hydride (NiMH), lead-acid, and the newer lithium ion (Li) types.

Each type has its own discharge profile, and interchanging them in electronic equipment is almost always a bad idea. Additionally, each of them also have their own charging requirements and again, interchanging them can be a REALLY bad idea!

The voltage of primary cells declines gradually as they are depleted, until the equipment just stops operating. Recharging such cells can lead to explosion from the buildup of gasses, and should never be attempted. Zinc-carbon primary cells have a nominal terminal voltage of 1.5 VDC.

NiCd batteries, with a nominal voltage of 1.2 VDC, have a discharge profile that hangs in there until the bitter end, at which time their voltage falls quickly and dramatically. NiCd's can be recharged as much as 700 – 1000 times, however each recharge does deplete the battery's capacity, and eventually, they will no longer "hold a charge." Strictly speaking, NiCd's should be charged with a constant-current source, and they do not take well to being floated on the charging circuit. Their reputation for having a "memory" is highly exaggerated, but it does help to discharge them until the HT quits every now and then.

NiMH and Li types are found mainly in laptop computers. They are sensitive to both discharge and recharge profiles, and require considerable electronics in the regulators.

Lead-acid (either wet cell or gel cell) are the workhorse for hams for heavier duty, non-handheld applications. They like to be floated on the charging circuit making them ideal for repeater back-up systems. Unfortunately, they are also heavy, and the wet ones can spill. Vented lead-acid batteries give off hydrogen gas when in use and should NEVER be used in an un-ventilated environment.

HAVALARK

WORLDWIDE TRAVEL



TRAVEL
Since 1976

Let us help you plan your next trip.

We are consultants for cruises, tours, and destinations all over the planet.

Experience makes the difference!

530-823-7595 • 800-660-7595

Auburn Town Center • 354 Elm @ 1-80

Email: havalark@jps.net

Web site: www.havalark.com

Contact Tim Woodburn, W6TJW
530.823.7595

Copyright, 2000 All Rights Reserved.

The SFARC Newsletter is published monthly by the Sierra Foothills Amateur Radio Club for the information of its members and friends. The newsletter is distributed via the US Mail and email, and is posted to the SFARC web site. Permission is granted to non-profit amateur radio organizations to reproduce text verbatim with attribution. Use of images is prohibited without prior written approval of the SFARC and all individuals pictured in the images. Logos are the property of the represented organization and may not be used without permission. Contact the Editor for further information.

**SIERRA FOOTHILLS AMATEUR RADIO CLUB
2001 MEMBERSHIP APPLICATION**

Name: _____ Call: _____ Class: _____

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 Club Patch: \$2.00 Newsletter Booster \$ _____

Associate: \$ 7.00 Emergency Placard: \$3.50 World Radio Renewal \$ _____

ARRL \$34.00 Name Badge: \$5.50

ARRL (Spouse) \$ 5.00 Repeater Donation: \$ _____ **TOTAL:** \$ _____

ARRL (Special) \$28.00 Auto Patch Donation: \$ _____

NOTE* Renewing your ARRL membership through the Club earns the Club money with no additional cost to you. To renew your ARRL membership through SFARC, make check payable to SFARC and mail to P.O. Box 1005, Newcastle, CA 95658.

OFFICE USE ONLY:

DO NOT WRITE BELOW THIS LINE

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

Payment: _____ Check Number: _____ Cash: _____

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

