

November 2011

Volume 41, Number 11

Cheers to sun spots

www.fars.k6ya.org

November Club Meeting

Date: Friday, November 18th, 2011

Time: Socializing at 7PM, Meeting starts at 7:30PM **Place**: Covington School, 205 Covington Road, Los Altos

(near Foothill Expressway and El Monte Rd)



November Speaker: Howard Califf W6HOC Ham Radio Outlet



"Ham Radio Holiday Treats"

Just in time for the holiday season...

What is the newest and most popular amateur radio gear?

And what about those special holiday promotions?

Howard will share all!

Snacks: Cookies and coffee will be served.Questions: Bring your hardest radio questions.The mysterious Dr. Know-It-All reveals all answers.Post-Meeting Snacks: Denny's on Mathilda in Sunnyvale.

November Raffle Prizes

The prizes for the raffle will be:

First Prize: Yaesu FT-1900R

2m 55W Mobile Rig



Second Prize: ARRL Handbook 2011

for Radio Communications

The Comprehensive RF Engineering Reference. Includes the fully searchable book on CD-ROM.

Third Prize: Two Nylon Dog Bone Insulators

Excellent weatherability for wire antenna construction.

The FARS RELAY President's Corner

Membership Meeting. Our next membership meeting is scheduled for Friday, November 18th at 7 PM. Just in time for the gifting season this month's program is **Ham Radio Holiday Treats**, presented by Howard



Califf W6HOC of Ham Radio Outlet. Howard shares with us some of the most popular ham radio gear and the best deals.

Board Elections. November is election time for the FARS Board of Directors, so members are encouraged to attend to exercise their right to vote. The following have been nominated for three-year terms: Richard Baldwinson N6ATD (incumbent); Charlie Morrin KI6FXY (incumbent).

Winter Banquet 2012 is scheduled for January 20, 2012, so put it on your calendar. The FARS board has allocated up to \$1200 for raffle prizes, so we expect some nice top prizes. The event will take place at Michael's at Shoreline in Mountain View as we have the past several years.

Antenna Party. Thanks to Joanna K6YL, Phil Hawkins KA6MZE, and Charlie Morrin KI6FXY, we moved our equipment and installed a new tarp to protect the antenna and tower gear that FARS stores with Charles Arney KF6CUU. I want to thank Charles KF6CUU for allowing us to store our equipment on his property.

Dues Reduced for 2012. The FARS board has voted to extend the \$15 reduced membership dues through 2012. Use your \$5 savings to purchase raffle tickets, or put in in your pocket and be \$5 richer.

New Memberships. New memberships paid from October through December are good for all of 2012.

Electronics Flea Market. The electronics flea market is on hiatus for the winter and returns on March 10, 2012. Check out www.electronicsfleamarket.com for details.

de Mikel KN6QI

The **Wish-You-Were-Here prize** is a **CA\$H** prize awarded each meeting to a member who is present and has paid their 2011 dues. Are you on the list for the drawing?

CLUB INFORMATION

www.fars.k6ya.org

President: Mikel Lechner KN6QI
Vice President: Steve Stearns K6OIK
Treasurer: Dick Baldwinson N6ATD

Secretary: (open)

Radio Officer: Phil Hawkins KA6MZE
Training Officer: Kevin Weiler K6XXX
Relay Editor: Joanna Dilley K6YL
FARS Board: Robert Flemate KE6TFU
Mark Hardy K6MDH

Mark Hardy K6MDH Peter Chow AF6DS Charlie Morrin KI6FXY

K6YA Trustee: Phil Hawkins KA6MZE

Contact the FARS Board of Directors at fars-board@svpal.org.

<u>Email Announcements</u>: Members and non-members are encouraged to subscribe to the FARS Announcement list to receive reminders of FARS activities and other news. Browse www.fars.k6ya.org/mail, click on Subscribe/Unsubscribe and follow the instructions under "Subscribing to fars-announce". You may submit announcements to the FARS Announcement at fars-announce@svpal.org. The list is moderated and messages will require approval by the moderator.

Meetings: FARS meetings are held at 7 PM on the fourth Friday of each month except January (Winter Banquet); and sometimes there are changes for June (for Field Day) and November & December (for holidays). **Visitors are always welcome!** Directions on the website as well as in this newsletter. Talk-in: N6NFI (145.23-/100Hz) or W6ASH repeater (145.27-/100Hz).

Membership: Annual FARS membership is \$15. A club badge is \$9. With membership you'll receive the monthly FARS Relay, and you'll also qualify for the monthly CA\$H Wish-You-Were-Here drawing at each membership meeting.

<u>Newsletter</u>: The FARS *Relay* is the official monthly newsletter of the Foothills Amateur Radio Society. Contributions to the newsletter from members, family, and guests are earnestly solicited! Photos, operating news, articles, etc. can be submitted to the editor at any time. Contributions are subject to editing and/or compression.

Newsletter Editor:

Joanna Dilley K6YL Joanna.K6YL@gmail.com
PO Box 51985 Also available at FARS meetings.
Palo Alto, CA 94303 Photos © K6YL unless noted otherwise.

What can YOU do to help protect and preserve spectrum and privileges for all amateur radio operators?

SUPPORT YOUR NATIONAL SOCIETY →



The Amateur Radio Relay League (ARRL)

www.arrl.org

CALENDAR OF UPCOMING EVENTS

www.fars.k6ya.org/events/calendar

Visitors are welcome at all events!

NOVEMBER

18 <u>Club Meeting</u>, Covington School, Los Altos, 7PM (*The third Friday instead of the fourth Friday*)

DECEMBER

- 1 Board Mtg, Los Altos Town Crier, 7:30PM
- 8 <u>BARC Meeting</u>, TechShop Menlo Park, 7PM the Bay Area Radio Builders Club a FARS Special Interest Group (See page 5 for details)
- 16 <u>Club Meeting</u>, Covington School, Los Altos, 7PM (*The third Friday instead of the fourth Friday*)

JANUARY

- tbd <u>BARC Meeting</u>, Tech Shop Menlo Park, 7PM
- 20 <u>Winter Banquet 2012</u>, Michael's at Shoreline
 This annual event brings together FARS and PAARA
 and features a special speaker and a grand raffle.
 Tickets are now on sale.

FEBRUARY

26-27 CQ World Wide 160m Contest, Maryknoll (same location at Field Day and CQP)

FARS will again participate in this annual event, w/ a full operation including a 160m Beverage antenna for receive and a vertical antenna for transmit.

FARS Membership Dues Reduced for 2011 & 2012

Payment of dues supports the club and provides you with current membership status – you'll qualify for the CA\$H Wish-You-Were-Here prize awarded at each membership meeting, and you'll also receive the FARS Relay in your email each month.

The FARS board has voted to extend the \$15 reduced membership dues through 2012. Use your \$5 savings to purchase raffle tickets, or put it in your pocket and be \$5 richer.

UPDATE – New memberships paid from October through December are good for all of 2012.

FARS is a California 501(c)(3) non-profit corporation, so donations and membership dues are tax deductible with the California Franchise Tax Board and the Internal Revenue Service.

OCTOBER MEETING REPORT

Congrats to the October raffle prize winners!

Leo WA1SXE – Wouxun KG-UV3D HT 2m/70cm 5W/4W (.5W audio)

Don KG6GLU – BaoFeng UV-3R Dual Band VHF/UHF HT

Dick N6ATD – Northern California Repeater Directory

Lloyd KD6FJI - Yaesu Hat from Pacificon

Martin KD6WJW — Unfortunately this selected FARS member was not present to collect the ca\$h Wish-You-Were-Here prize.





Leo WA1SXE

Lloyd KD6FJI

Operating CQP 2011 from Trinity County:













California QSO Party

See you next year in CQP 2012!

October Speakers: Joanna K6YL & Kristen K6WX

"Expedition to Trinity County for CQP 2011"

From a cabin in beautiful Lewiston, California, Joanna and her teammates N6DQ, K6WX and K6RHO activated Trinity County for the California QSO Party (CQP).

Kristen and Joanna showed how they prepared for this exciting adventure, avoided interference between their 3 stations, and had a great time making thousands of contacts during this annual event.

Packing up your radio gear and trekking off to a nice location for an afternoon of qso's can provide a lot of enjoyment. I encourage all of you to experience the adventure! In addition to getting out and about it is also a great opportunity to learn the ins and outs of your amateur radio gear.

When it comes to 3 stations operating simultaneously for 24 hours in an RV park that is far from a Radio Shack or Ham Radio Outlet, a lot of preparation is required but a lot of fun memories were also acquired. Thanks to Rick N6DQ our expedition to activate Trinity County for the 2011 California QSO Party (CQP) went off without a hitch. Rick, Kristen K6WX, Rhona K6HRO and I made a total of 2377 contacts operating 10m, 15m, 20m, 40m and 80m using 3 rigs and 5 antennas. Each of the 3 stations had its own linear amplifier (oh yeah) and we covered both SSB and CW operation (1498 and 879 q's respectively).

The California QSO Party is most successful when every county is operated for the entire length of the contest, and we were happy to help activate Trinity county to its full extent. It is a gorgeous area! And we received many thank you's "for a new one". We were pleased with our increase in score over last year's operation from the same QTH (improvement in equipment and addition of power almost tripled our old score), and we're already planning for a bigger and better operation in 2012!





REPORT:

AmSat Space Symposium & Annual Meeting 2011 Keeping Amateur Radio in Space

AMSAT came to town the first weekend of November with operating techniques, news and plans from the Amateur Satellite World. 2011 is the 50th anniversary of the launch of OSCAR 1 (placed in orbit 12/12/61). Numerous attendees enjoyed Amateur Satellite presentations with topics ranging from ARISSat-1 to satellite-portable backpacking trips.

The keynote speaker for the annual banquet was Lance Ginner K6GSJ. On the anniversary of the launch of OSCAR 1 Lance spoke about how the satellite was developed as well as how amateur radio satellites impacted his professional career. He's been licensed for 57 years and spent a good part of his career at Lockheed. He helped build OSCAR 1, OSCAR 2, OSCAR 3 and OSCAR 4, and also lent a hand to Australis-OSCAR 5.

OSCAR 1 – Launched 12/12/61 *50 year anniversary*

- First amateur satellite
- Became one of the first free flying "secondary payloads' to be flown into space
- In orbit 22 days Heard by 578 hams in 28 countries
- ***Refurbished prototype on display at the AMSAT Symposium! ***

OSCAR 2 – Launched 6/2/62

OSCAR 3 – Launched 3/9/65

■ The first amateur radio satellite to feature solar cells (used only to back up the battery) and a transponder, using two meters for both the uplink and download

OSCAR 4 – Launched 12/21/65

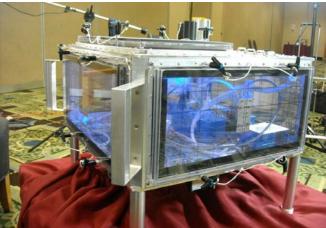
■ The first amateur radio satellite to be placed in High Earth Orbit as well as use both two meters and 70 CM to create a 10 KHz wide transponder

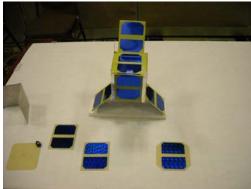
Australis-OSCAR 5 – Launched 1/23/70

Today, small satellite projects such as <u>ARISSat</u> and <u>CubeSat</u> continue the tradition of radio amateur satellite experimentation and education.









Photos © Nimit K6XOX

REPORT:

Bay Area Radio Builders Club - "BARC"

A FARS Special Interest Group

The Foothills Amateur Radio Society has a new Special Interest Group, the Bay Area Radio Builders Club – BARC with

a silent "B". We are a group of mostly Amateur Radio operators who want to gain a better understanding of the advanced topics covered in the General and Extra class tests. We want to learn electronics, antenna theory, kit building, and kit design. Seth Morabito NF6Q started this idea, and Michael NE6RD is assisting with logistics. The Yahoo group can be found at the website at right and we encourage you to join.

Interested? Join the Yahoo Group: http://groups.yahoo.com/group/ba radio builders

Next Meeting: Thursday, December 8th, 7PM at the TechShop in Menlo Park

We held our first meeting on November 10th at the TechShop in Menlo Park, with over 25 people in attendance. The electronics background for each varied across the board, from newbies to EE's who can act as mentors. Many are starting from zero. Quite a few have done some level of electronics as a kid, in college or military but have not touched it in years. Many are now playing with digital electronics but are held back by their lack of analog electronics knowledge. Thankfully we have 4 or 5 who have either been in electronics as a profession or as a serious hobby and will be able to teach and support the group. Since those of us learning want a mostly intuitive understanding instead of a wall of math, we have chosen the following to use as our first text book:

BOOK – Getting Started in Electronics by Forrest M. Mims III

HOMEWORK – Chapters 1 and 2

MATERIALS NEEDED FOR DECEMBER CLASS – See the Yahoo Group or contact Michael NE6RD

At the December 8th meeting some time will be spent answering questions from our reading assignment, and the remainder of the time will be spent working on a project. We are planning a good first bread board circuit – a LM317 based power supply with a LED for a load. It will be an interesting process to develop this group and educate hams to be more than "appliance operators".

de Mikey NE6RD













THE RST CODE: Beyond the "59"

Calling on the N6NFI repeater and pressing *699 to obtain your signal strength report can be informative, though on HF an RST is the signal report that provides useful information. Often people throw out a "59" or "599" signal report without thinking twice, but a true RST follows the scales below.

R = Readability

How easy or difficult is it to correctly copy the info

- 1 Unreadable
- 2 Barely readable, occasional words distinguishable
- 3 Readable with considerable difficulty
- 4 Readable with practically no difficulty
- 5 Perfectly readable

S = Strength

How powerful the received signal is at the receiving location (from the S meter)

1159

- 1 Faint signals, barely perceptible
- 2 Very weak signals
- **3** Weak signals
- 4 Fair signals
- 5 Fairly good signals
- **6** Good signals
- 7 Moderately strong signals
- **8** Strong signals
- **9** Extremely strong signals

T = Tone (CW only)

Used only in Morse code and digital transmissions, this is a measure of the transmitter modulation

- 1 Sixty cycle a.c. or less, very rough and broad
- 2 Very rough a.c., very harsh and broad
- 3 Rough a.c. tone, rectified but not filtered
- 4 Rough note, some trace of filtering
- 5 Filtered rectified a.c. but strongly ripple-modulated
- **6** Filtered tone, definite trace of ripple modulation
- 7 Near pure tone, trace of of ripple modulation
- 8 Near perfect tone, slight trace of modulation
- 9 Perfect tone, no trace of ripple or modulation of any kind

An example RST report for a voice transmission is "59", usually pronounced "five nine" or "five by nine", a report that indicates a perfectly readable and very strong signal. Exceptionally strong signals are designated by the quantitative number of decibels, in excess of "S9", displayed on the receiver's S meter. Example: "Your signal is 30 dB over S9." (aka "30 over 9")

Credit to http://en.wikipedia.org/wiki/RST_code

ARRL SANCTIONED PALM SPRINGS HAMFEST: Upcoming on January 28th, 2012

The Desert Rats Radio Amateur Transmitting Society (RATS) invites you to attend the 3rd annual Hamfest in Palm Springs in January.

- Over 25 commercial vendors
- Swap meet
- Demos
- Food
- Special Events Station



See http://desertrats.am/ for more info.

PROPAGATION UPDATES de Tad Cook K7RA

11/11/11 – Another sunspot number record for Cycle 24 was shattered on Wednesday,

November 9th when the daily sunspot number reached <u>220</u>. This is the highest the daily sunspot number has been in over eight years. The last time the sunspot number was higher than 220 was November 1st, 2003 when the number was 277. The next day (November 10th) the daily sunspot number dropped back to 164.

Two days prior to the sunspot number reaching 277 in 2003, the sunspot number was 330, a much harder record to beat.

HIGH SPEED TELEGRAPHY WORLD CHAMPIONSHIPS 2011: USA Brings Home Gold!

http://www.arrl.org/news/usa-brings-home-gold-at-2011-high-speed-telegraphy-world-championships

This 9th annual event took place over 5 days in October and featured 22 nations competing for the title of Fastest Fist or Quickest Ear. Of the 22 nations represented, the US was the only country from the Western Hemisphere.

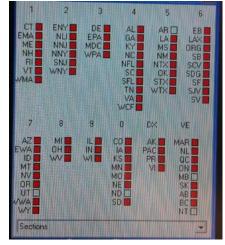
This year, Team USA -- consisting of Kutner W2UP, Kennan Low KE3X, and Kody Low K3ODY -- placed 10th in the competition. Kutner won a Gold Medal -- the first in HST history to a non-European -- in the pileup competition, and a Bronze Medal in the RUFZ competition.

ARRL SWEEPSTAKES: Achieving the "Clean Sweep"!

The ARRL Sweepstakes celebrates its 78^{th} anniversary in 2011. The CW contest took place the weekend of November 6^{th} under fantastic conditions. The SSB contest is this weekend November 19^{th} - 20^{th} and again an impressive turnout is expected.

Working all 80 ARRL/RAC sections is a goal that many aim for, nicknamed a "clean sweep", because of the score

multipliers they provide. Below is a shot of the mults window from WriteLog (common logging program) during 2011's CW Sweepstakes, with a few states and a Canadian couple provinces still on the list.



It is IMPORTANT to note that Technician

licensees can make the most of their HF privileges by taking advantage of the great conditions on 10 meters!

Even very modest stations can do well on 10 meters, including mobile and portable operations. Start tuning on USB from 28.3 MHz and follow the action..

Phone Sweepstakes:

2100 UTC Sat. Nov 19th – 0259 UTC Mon, Nov 21st

Exchange: Yes it's a long exchange! Your Call Sign + Serial # + Power Category + His/Her Call Sign + Last 2 Digits of Year First Licensed + ARRL Section e.g. "K6YL 107 A N0AX 09 CA" where A is low power.

Contest Details:

www.arrl.org/sweepstakes

7ARS Member Badges

We're ready to take your order online or at the mtg.

Available for pick up at the next club mtg

FARS Relay

Have a photo, article, or operating news to share?

Please contact Joanna.K6YL@gmail.com

FARS Weekly Net

Thursdays @ 8 PM N6NFI repeater, 145.23-/100Hz This net is open to all interested hams.

The purpose of the net is to keep club members informed about club activities; to exchange other club-related info; and to socialize.

9AM Talk Net

Weekdays @ 9 AM
N6NFI repeater, 145.23-/100Hz
This net is open to all interested hams.

This is an informal net that is very popular. www.9amtalk.net

Ready to Upgrade Your License?

What is a Passing Score you might ask? Technician & General exams – 26 out of 35 (74.2%) Amateur Extra exam – 37/50 (74%)

www.baears.com - This group holds "Ham Crams" 4 times a year. Pre-registration required, sign up on the website. \$30

• Saturday 1/28/12, 8 AM @ San Francisco

www.amateur-radio.org – The Sunnyvale VEC holds test sessions on Saturdays often alternating between Sunnyvale and Redwood City. Walk-ins only, no preregistrations. \$15

- Saturday 11/19, 10:30 AM @ Redwood City
- Saturday 12/10, 10:30 AM @ Sunnyvale

<u>www.pdarrl.org/vec/vecscv</u> – The Silicon Valley ARRL VE holds test sessions on the 1st and 3rd Saturdays of each month. Arrive between 8 AM and 11 AM to the Saratoga Fire Station at 14380 Saratoga Avenue. Walkins only, no pre-registrations. \$15

- Saturday 12/3
- Saturday 12/17

www.sbara.org – The Tri-City VE Group holds test sessions at Hurricane Electric in Fremont each month, alternating between Saturday morning and Tuesday evening. The address is 48233 Warm Springs Blvd. Walk-ins welcome. \$15

- Tuesday 12/13, 6:30 PM
- Saturday 1/14, 9:00 AM

BAEARS Ham Cram

Next Session: Saturday, January 28th 8 AM San Francisco, CA www.baears.com

Electronics Flea Market

See you next year!

www.electronicsfleamarket.com

FARS Email Notices

Easy to subscribe! www.k6ya.org/mail

Receive reminders of activities and other news.

Weekly FARS Net

Thursdays @ 8 PM N6NFI Repeater 145.230(-), 100 Hz PL

WRTC 2014 is coming to the USA

The World Radiosport Team Championship (WRTC) is held every four years and consists of approximately



50 two-person teams of amateur radio operators competing in a test of operating skill. Unlike most on-the-air competitions, all stations are required to use identical antennas from the

same geographic region, eliminating all variables except operating ability. The 2012 event will be held in New England! Previous WRTCs were held in Russia (2010), Brazil (2006), Finland (2002), Slovenia (2000), San Francisco (1996), and Seattle (1990).

Contesting (aka *radiosport*) is a competitive activity pursued by amateur radio operators. In a contest, an amateur radio station, which may be operated by an individual or a team, seeks to contact as many other amateur radio stations as possible in a given period of time and exchange information. Rules for each competition define the amateur radio bands, the mode of communication that may be used, and the kind of information that must be exchanged. The contacts made during the contest contribute to a score by which stations are ranked. (http://en.wikipedia.org/wiki/Contesting)

ARRL Rookie Roundup 2011 on CW!

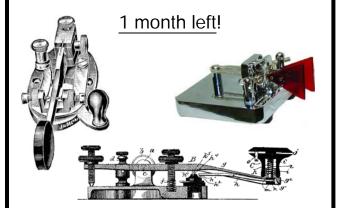
The objective of a Rookie Roundup is for newly licensed operators to experience competitive Amateur Radio. Experienced operators are also strongly encouraged to participate in order to help new operators – either on the air or in person.

This event is held in SSB, RTTY and CW.

CW is up next on <u>December 18th!</u>

During this event a Rookie will be defined as a ham first licensed in 2009, 2010 or 2011.

Time to learn & practice CW:



Bay Area Radio Builders Club

"BARC" with a silent "B"

A new FARS Special Interest Group

Next Meeting: December 8th, 7PM TechShop in Menlo Park

We are a group of mostly Amateur Radio operators who want to gain a better understanding of the advanced topics covered in the General and Extra class tests.

We want to learn electronics, antenna theory, kit building, and kit design.

For more info join the Yahoo Group: http://groups.yahoo.com/group/ba radio builders/

FARS Membership Renewal Form

Note that the annual dues for 2011 and 2012 have each been reduced to \$15. You may also renew online by logging onto the FARS website, then using PayPal to pay.

https://www.fars.k6ya.org/membershi		
PLEASE fill out the form for all new/re	newal members.	
Name(s) & Callsign(s) & Class (E-A-G	G-T-N-None):	
Mailing Address:		
Home Phone:	Work Phone:	
ARRL Member?	Email:	
Preferred Modes (e.g. HF-SSB/CW/VHF/QRP/Other):		
I'm willing to Elmer new hams with:		
Special topics of interest / sugges	tions for clui	b meeting speakers:

Dues: \$15 per year. Membership runs from January 1 to December 31. New membership applications accepted later in the year may have their dues <u>prorated</u> (see <u>dues schedule</u>). Please include \$9 for a club badge if desired. Your call sign and first name as it appears above will appear on the badge. Renewing members should provide at least their name, call, and the date. Also include any info that may have changed. Put "N/A" where you wish to remove (or not provide) info.

Send your check payable to FARS, to:

FARS c/o Michael Lechner, 436 Memphis Drive, Campbell, CA 95008



How to get to FARS meetings (Visitors are always welcome)

Meetings are held at the Covington Elementary School (directions below) on the fourth Friday. Socializing at 7 PM with the regular meeting at 7:30 PM. There may be changes in the meeting dates for January, June, November, and December.

DIRECTIONS:

From Interstate 280. take the El Monte exit Northeast. Cross Foothill Expressway. (A) At the first traffic light turn right on Covington. (B) Immediately at the fork take the left street (Covington). Go about 1/10th of a mile. Turn left into the parking lot. The gym is the tall building to your right with red and white stripes.

From Foothill Expwy., take the El Monte exit and go Northeast; then follow directions as above at point (A).

From US101 or El Camino: take San Antonio Road west (to Foothill Expressway). Then follow directions above at point (A).

TALK-IN via the <u>N6NFI</u> (145.230-; 100Hz PL) repeater or the <u>W6ASH</u> 145.27- (100Hz PL) repeater.