

August 2012

Volume 42, Number 8

See you down the log!

www.fars.k6ya.org

August Club Meeting

Date: Friday, August 24th, 2012

Time: Socializing at 7PM, Meeting starts at 7:30PM

Place: Covington School, 205 Covington Road, Los Altos
(near Foothill Expressway and El Monte Rd)

**You're invited to join FARS
in the **California QSO Party****

October 6th

See details within this newsletter.

August Speaker TBD

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.

Raffle Prizes

1st Prize: Diamond NR-770HB Mobile Whip Antenna
2m-440 High Power High Performance
and MFJ-335BS HIFLUX Mag Mount

2nd Prize: Powerwerx BT-Junior Battery Tender Jr.

3rd Prize: Battery (Pull) 12 volt 9AH

4th Prize and 5th Prize: ARRL 2012-2013 Repeater Directory

6th Prize: NARCC 2012 N. Cal Repeater Directory

7th Prize: Bongoties

8th Prize: Coax-Seal

Wish-You-Were-Here Prize: A **CASH prize** awarded to a member who is present and has paid their dues.

Membership Meeting. Our next membership meeting is at 7PM on August 24th. The program is to be announced.

California QSO Party. FARS is planning to participate in the Cal QSO Party scheduled for October 6-7. We need volunteers to help set up a radio station up at Maryknoll that weekend and to operate the station. In this contest all stations are contacting California stations, so we will be the desirable contact. It's a great opportunity to rack up the QSO's and have a lot of fun. Please email me at kn6qi@arrl.net if you would like to participate.

FARS Flea Market. Thanks to all the volunteers who helped out at the flea market earlier this month. It appears that we did better than last year, so the income will help FARS carry out its activities. I especially want to thank Dick N6ATD for handling supplies and the cash; Peter AF6DS for helping load the Red Cross truck; Rich W6APZ who bought the donuts. Thanks to the morning crew: Dave K6WA, Clark KE6KXO, Don KE6CFX, Dick N6ATD; Peter AF6DS; Rich W6APZ. The mid-morning crew: Jose KJ6WCX and Rohan KJ6LXV. The late morning crew: Bob K6RWY; Joanna K6YL; Rick N6DQ; Dona KI6DAR; Nimit K6XOX.

Electronics Flea Market. The next electronics flea market is scheduled for September 8th from 5AM until 1PM. The sponsor for this flea market is the Silicon Valley Emergency Communications System. The flea market is a great place to find a bargain and it supports your local ham clubs. See www.electronicfleamarket.com for details.



de Mikel KN6QI



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 Dille K6YL
FARS Board: Robert Flemate KE6TFU
Charlie Morrin KI6FXV
K6YA Trustee: Phil Hawkins KA6MZE

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

Membership: An annual FARS membership is \$15 and provides much needed support for your club activities, qualifies you for the CASH Wish-You-Were-Here prize drawn at each membership meeting, plus you'll receive a FARS Relay to your email each month! An optional club badge is \$9. (*New '12 memberships currently prorated to \$5.*)

FARS Membership Dues Reduced for 2012 -- The FARS board has voted to extend the \$15 reduced membership dues through 2012. Put your \$5 savings in your pocket or use it to purchase raffle tickets.

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

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).

Email Announcements: 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.

Newsletter: 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 Dille K6YL Joanna.K6YL@gmail.com (also Yahoo)
PO Box 5153 Also available at FARS meetings.
Redwood City, CA 94063 Photos © K6YL unless noted otherwise.

CALENDAR OF UPCOMING EVENTS

www.fars.k6ya.org/events/calendar

Visitors are welcome at all events!

AUGUST

24 [Club Meeting](#), Covington School, Los Altos, 7PM

SEPTEMBER

6 Board Meeting, Los Altos Town Crier, 7:30PM
8 [Electronics Flea Market](#), DeAnza College, 5AM
13 [BARC Meeting](#), Tech Shop Menlo Park, 7PM
28 [Club Meeting](#), Covington School, Los Altos, 7PM

OCTOBER

4 Board Meeting, Los Altos Town Crier, 7:30PM
6 [FARS California QSO Party \(CQP\)](#), Los Altos
FARS will set up an HF station and you're invited!
@ Maryknoll Residence (same location as Field Day)
11 [BARC Meeting](#), Tech Shop Menlo Park, 7PM
13 [Electronics Flea Market](#), DeAnza College, 5AM
The last one for 2012
12-14 [PACIFICON 2012](#)
**ARRL National Convention* (1st time!)*
@ Santa Clara Marriott Hotel (same as last year)
26 [Club Meeting](#), Covington School, Los Altos, 7PM

NOVEMBER

1 Board Meeting, Los Altos Town Crier, 7:30PM
8 [BARC Meeting](#), Tech Shop Menlo Park, 7PM
16 [Club Meeting](#), Covington School, Los Altos, 7PM
Third Friday of the month (not 4th Friday)

UPCOMING

12/16 [ARRL Rookie Roundup CW](#) – Try to get on!
January [FARS / PAARA Winter Banquet](#) (date tbd)

FARS Membership Renewals

Renewing your membership to FARS provides much needed support for your club activities, qualifies you for the CASH Wish-You-Were-Here prize awarded at each membership meeting, plus you'll receive a **FARS Relay** to your email each month!

REPORT: FARS HOSTS THE AUGUST ELECTRONICS FLEA MARKET

The Electronics Flea Market is organized by [ASVARO](#) (*Association of Silicon Valley Amateur Radio Organizations*) for the benefit of non-profit amateur radio organizations in the Silicon Valley. The organizations that participate in the flea markets are active in amateur radio education, emergency communications, and civic support activities. The flea markets are held on the second Saturday (pre-dawn) of each month, March through October.

~ Silicon Valley Electronics Flea Market, www.electronicfleamarket.com

The August 2012 Electronics Flea Market was hosted by [FARS](#) and provided an invaluable fundraising opportunity for the club. A huge thanks to all of the volunteers who made this possible. As reported by Mikel KN6QI in the President's Corner (page 1), it looks like we raised more money than last year. Fantastic!

This event is a great annual fundraiser for FARS. Thanks to the volunteers who helped make this happen!



Pre-dawn crew selling hot coffee and donuts (solar panels overhead).
Photo © Peter AF6DS



Nimit K6XOX, one of the dedicated volunteers



Rohan KJ6LXV and Dave K6WA make a donut hard to pass up!



Dona KI6DAR and Mikel KN6QI work the booth to keep the customers rolling through with their donut, coffee and soda purchases.

**The next Electronics Flea Market is Saturday, September 8th
hosted by SVECS at DeAnza College.**

OPERATING REPORT: ARRL ROOKIE ROUNDUP RTTY 2012

By Joanna K6YL

On Sunday, August 19th I had the pleasure of elmering 3 rookies in their first RTTY contest. The ARRL puts on the [Rookie Roundup](#) 3 times a year in an effort to encourage new hams onto HF. This particular event was only the second time this contest has covered RTTY, and we were thrilled to encounter numerous other rookies on the air in this digital mode.

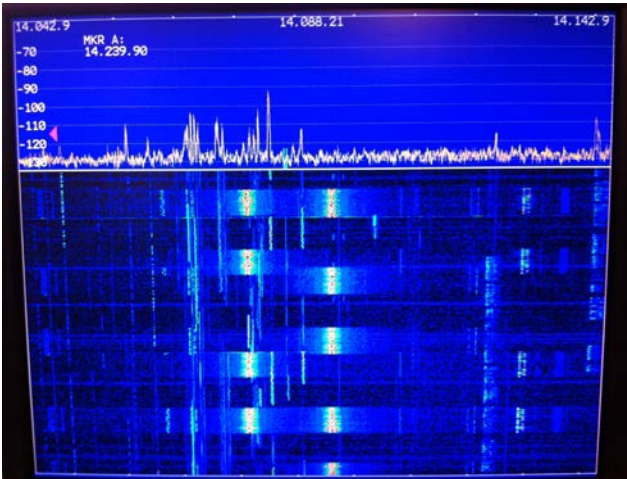
The Rookies: Peter KJ6PUN, Keith KJ6PUO, and Roderick KJ6YEB.

Peter and Keith are FARS members with General class licenses, and Roderick is a brand new Technician who hadn't yet been on RTTY let alone HF or even UHF/VHF!

The Elmers: Joanna K6YL, Rick N6DQ, and Rebar N6DB.

The Setup: WriteLog logging software; MMTY software for RTTY; computers integrated with each radio via a MicroKeyer 2R+.

The Station: Thanks to Rebar N6DB we were able to gain access to the Stanford W6YX station. Because W6YX has multiple antennas for each band, and because the antennas for 20m are beams 600+ feet away from each other pointing in the same direction, this magic combination allowed us to have two radios right next to each other separated by only 12 KHz or so (no filters!).



Above left: A shot of the P3 panadapter on a nearby Elecraft K3, showing the proximity of the two W6YX stations on 20m -- only 12 KHz apart! Each bright vertical splotch on the waterfall display is a RTTY transmission, the left ones from KJ6PUN and the right ones from KJ6PUO. Both were operating at 100 watts (per contest rules).

Below right: For motivation and enjoyment each station had a bell for ringing each time a new multiplier was obtained. There were 70 mults total, consisting of all the States, Canadian Provinces, Mexico and DX. RTTY contesting is fun because you can talk and make noise while operating.



ARRL Rookie Roundup

3 times each year

April – SSB

August – RTTY

December – CW

“Rookie”

*What is the ARRL
definition?*

**A ham who was
first licensed
in the last 3 years.**

***For the 2012 contests
the Rookies have a
year-of-license of
2012, 2011 or 2010.***



The W6YX Rookie Roundup RTTY team (minus photographer Joanna K6YL).



Father and son Keith KJ6PUO (rt) and Peter KJ6PUN (left)



Keith KJ6PUO operating while Joanna K6YL sneaks into the shot.

OPERATING REPORT: FLIGHT OF THE BUMBLEBEES 2012

By Joanna K6YL

For those of you who didn't read about this fun little contest in last month's FARS Relay, the Flight of the Bumblebees is an annual 4 hour QRP CW event hosted by the [Adventure Radio Society](#). It took place on Sunday, July 29th and for 4 hours Rick N6DQ gave a shot at his first ever QRP contest. He's usually QRO by default so attempting QRP was a big deal, and yes it took some convincing. :-> First was learning that there are in fact common QRP frequencies! Knowing that the low power guys and gals on 20m cw like to hang out around 14.060 really helps when you're calling CQ lower in the band with no response. Sticking to a slow-to-medium CW speed also assisted with accuracy and quicker exchanges.

This contest was open to anybody, but to qualify as a "Bumblebee" you had to operate portable. As a Bumblebee you were then assigned a BB ID# from the ARS club and you needed to add "/BB" to your call during the contest. For scoring, the Bumblebees provided a multiplier and thus were highly sought after.

Rick satisfied the portability requirement for Bumblebees by setting up in his backyard. This was an incredibly helpful opportunity for testing some of our portable equipment for the upcoming California QSO Party (CQP) in which we'll activate Trinity County.

Antenna: A two element tri-band yagi on a 28 foot aluminum push up mast

Rig: An Icom 446Pro throttled back to 5 watts

Power: A 75 amp hour marine battery (*overkill for a 4 hour QRP contest but it's what we keep around for camping and emergency use*).

The picnic table-and-umbrella operation yielded 21 contacts on 20 meters and 2 contacts on 15 meters. Of the 22 total QSO's 16 were fellow Bumblebees. The furthest contact was a QRP home station in Florida. The furthest Bumblebee contact was in New York, operating from Plattekill Mountain.

Rick N6DQ's reaction to his first QRP contest? "Five watts, a good antenna, radio, perseverance and patience make for a whole lot of fun!"



Bottom left photo: The K4KIO Hex Beam towers high at 55 feet (right antenna in photo) (home station), while the two element tri-band yagi stands at 28 feet on an aluminum push-up mast (left antenna in photo) (portable station for "Bumblebee").

Right photo: Another pic of the two element tri-band yagi on a push up mast.

MYSTERY ANTENNA CONTEST: WINNERS ANNOUNCED !!

By Steve K6OIK

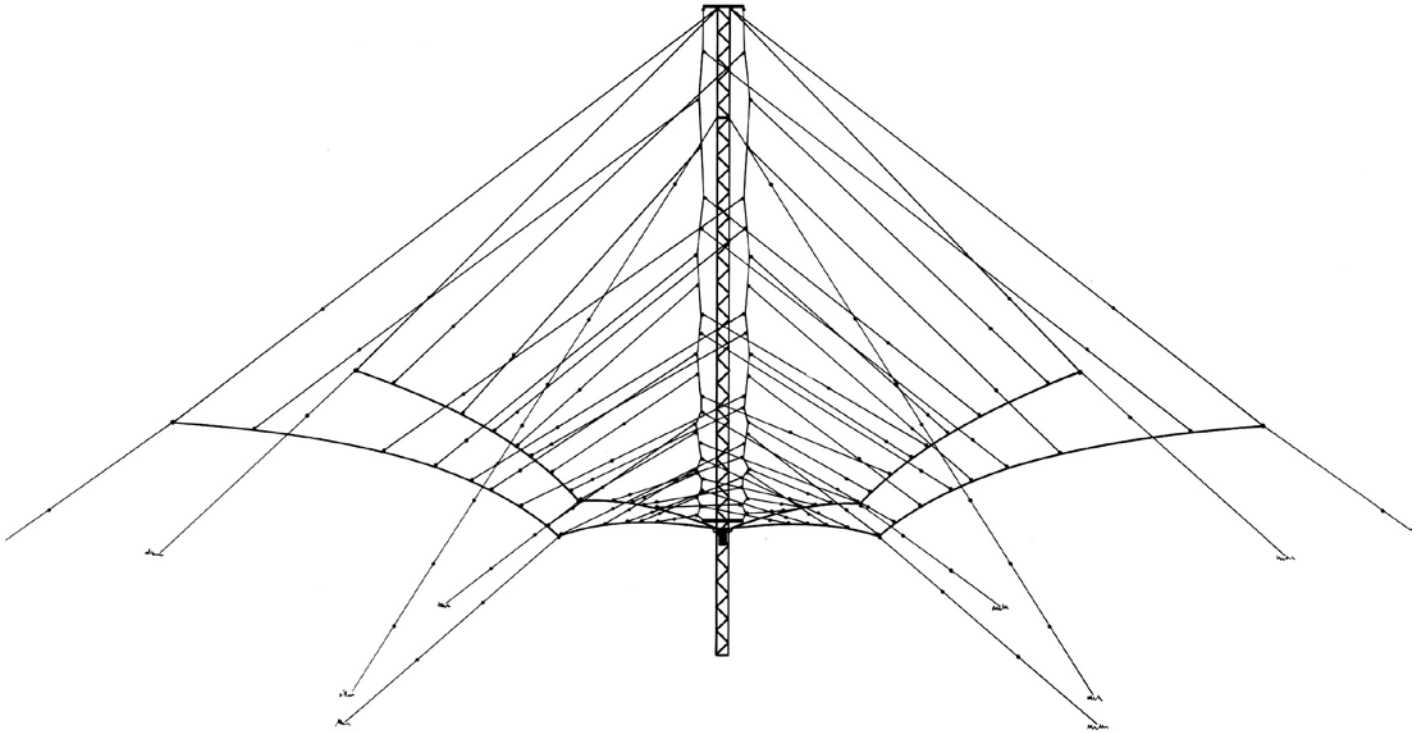


Fig. 1. The Mystery Antenna

FARS congratulates members **Rick N6DQ, Scott N6NXI, and Gary KI6HIG**
as official winners of the Mystery Antenna Contest
which appeared on these pages in the May, June, and July editions.

Rick N6DQ identified the antenna as a vertically polarized log-periodic. Scott N6NXI identified the antenna as an AT Electronic and Communication International Ltd model AT VLP-2-28, AT VLP-2.7-28, or AT VLP-4-28 vertically polarized log-periodic antenna. AT Electronics and Communication is a reseller, not the manufacturer. Gary KI6HIG identified the antenna correctly as a **TCI model 530 log-periodic antenna**.

Scott N6NXI noticed that the antenna is made up of two vertically directed HF log-periodics intermeshed at ninety degrees from each other so as to end up with an essentially omnidirectional horizontally polarized vertically directed HF pattern, and the antenna was designed primarily for close in HF work using the overhead ionosphere as a reflector, however, the antenna's pattern fills toward the horizon as the frequency of operation is raised. Because of this, the antenna is also useful in the upper end of HF as a “direct” horizontally polarized omnidirectional antenna for DX work.

MYSTERY ANTENNA CONTEST: WINNERS ANNOUNCED !! (continued)

By Steve K6OIK



Fig. 2. RCA coastal station KPH at Point Reyes National Seashore.

The location of the mystery antenna is the receiving site of historic RCA coastal station KPH at Point Reyes National Seashore.

Those lucky hams who went on PAARA's KSM/KPH field trip in April got to see the antenna in person. In Fig. 2, it is past the trees on the right side of the photo, just out of view.

The mystery antenna is indeed a **TCI model 530**. A data sheet can be found at <http://www.antenna.be/tci-530.pdf>. Cited advantages according to the manufacturer TCI International are:

“The TCI Model 530 Log-periodic Antenna is designed specifically to support sky-wave communications at short (0–500 km) ranges. The Model 530 directs energy overhead to provide optimal support for short-range circuits. In addition, at the higher frequencies used for longer ranges, the 530 radiates significant energy at lower angles for medium- and long-range circuits.

The Model 530 antenna is horizontally polarized, thus avoiding the ground losses associated with vertically polarized antennas. The efficiency of the 530 exceeds 95% throughout the band; no lossy terminations are used.

The TCI 530 is extremely useful for ground-air and ship-shore applications. Its radiation pattern is also suitable for secondary coverage of medium-range circuits, significantly outperforming traditional conical monopole and inverted cone antennas. A comparison of the gain of the TCI Model 530 with the gain of typical vertically polarized omnidirectional antennas clearly shows the superiority of the 530 for medium-range communications.

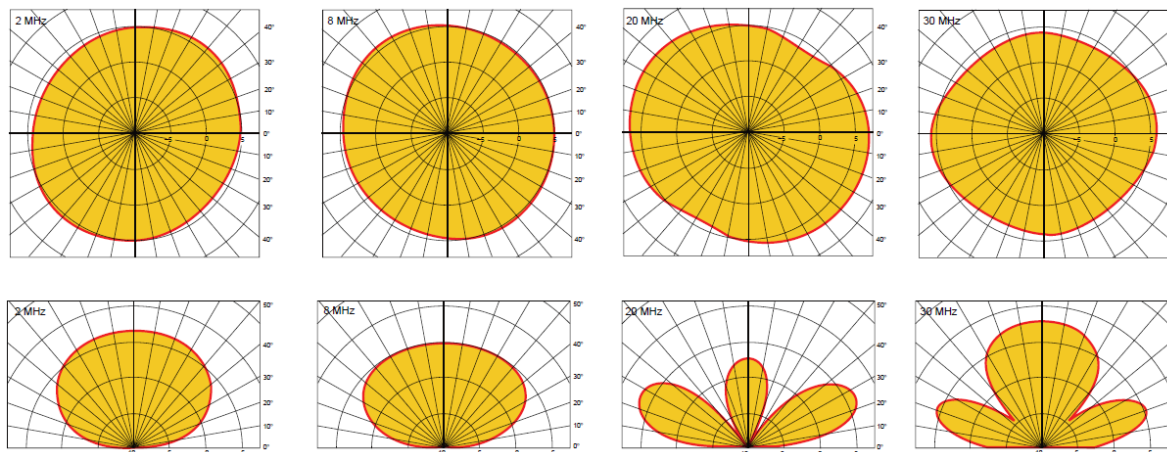


Fig. 3. Azimuth and elevation patterns at 2, 8, 20, and 30 MHz.

The Model 530 antenna uses only a single tower for support, minimizing installation costs and real estate requirements. The tower is made entirely of 6061-T6 corrosion-resistant structural aluminum alloy – the ideal material for antenna towers where long life and corrosion resistance are important considerations. Curtains and catenaries are fabricated in TCI's factory entirely of Alumoweld wire rope. All insulators are low-loss glazed ceramic fail-safe types. No organic or synthetic materials such as fiberglass or Kevlar are used anywhere in the antenna. These features ensure long life and low maintenance costs.

In periods of low sunspot activity when high effective radiated power is required to produce sufficient signal at the receiver, the Model 530 provides superior electrical performance. For short range communications with secondary coverage of medium- and long-range targets, the TCI Model 530 outperforms all other HF antennas.”

In addition to winners Rick N6DQ, Scott N6NXI, and Gary KI6IHG, I want to thank the many other society members who participated in the Mystery Antenna Contest with their submissions.

CURIOSITY ROVER: CW is alive on Mars

The incredible successful landing of the Curiosity Rover on Mars certainly hit the news, but not covered on mainstream news channels was how CW relates to the rover. If you look carefully at the treads on the wheels of the rover vehicle, you'll notice the predominant, zigzag pattern, but you'll also see a section of tread on each wheel that's patterned with dots and dashes. The official word is that they service as "visual odometry" markers" that tell the mission controllers how far Curiosity has roved and let them verify that the rover's wheels are indeed turning when the rover's telemetry says it is moving. But it's also possible that it's a really, really cool hack that some ham on the development team at the Jet Propulsion Lab in Pasadena couldn't resist. The dots and dashes spell out "JPL" in the surface dust on the Red Planet.



Detail of Mars Science Laboratory Curiosity Rover with tread pattern that will leave an impression on the Martian surface spelling "JPL" in Morse Code (· --- · --- · ---).
Photo courtesy of NASA/JPL.



The wheels on Mars' newest resident feature Morse code.
Photo courtesy of NASA/JPL

PARACHUTE MOBILE, MISSION 12: September 9th

The word is out that Parachute Mobile will attempt another mission in September! Stay tuned for more information on www.parachutemobile.org and also on the 9AM TalkNet. FARS member Mikey NE6RD is an involved member of this group.

"In the Air, On the Air"

For a well done video of Mission 11 search "Parachute Mobile, Mission 11" on YouTube or click on link: <http://t.co/8V5vfX2u>.

Parachute Mobile is also expected to have a booth at the upcoming Pacificon Convention in October so stop by and say hello!



More information on Parachute Mobile from www.parachutemobile.org:

We operate amateur (ham) radio gear while skydiving. Radio jumps are usually HAHO types (high altitude high opening) to give maximum hang time for radio communications. The jumpers are supported by a team of experienced hams, one team at the drop zone and the other at mission control which is usually sited on a mountain peak overlooking the drop zone. Our jumps, or missions, as we refer to them, are great opportunities to make a contact and receive a special QSL card.

The jumpers carry a variety of gear depending on the mission profile: FM and SSB transceivers, 20 meter PSK beacon, APRS transceivers with GPS and physiological telemetry, data and voice recorders, batteries, DF locator beacons, and trailing wire antennas with cutaway releases. APRS I-Gates and other specialized airborne and ground equipment are also deployed.



Photos © Parachute Mobile

PHOTO TIME: July Meeting Prize Winners

Congratulations to all of the raffle prize winners from the FARS July meeting.

From left to right –

Dave K6WA with an ARRL Repeater Directory.

Graciela KJ6ANV with the Alinco DJ-V57T HT.

Bill AF6AE with a ARRL Repeater Directory.

Sam (no call) with the Daiwa CS-201 Antenna Switch



Don Steinbach AE6PM (not pictured) was unfortunately not present to collect the **\$5 cash** Wish-You-Were-Here prize.

*At the Sept. meeting the WYWH prize will be **\$10**.*

FARS 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

HAVE AN iPhone?

There is a \$0.99 app called **HamLog** that is getting great reviews (not Ham Logger – that got bad reviews). While the log feature is not that great, the “Tools” menu is incredible. It contains the US Band Plan, Grid Square Tool, Azimuth Calculator, DX Spots, Solar Data, CW Helper, DXCC Entities, Ability to Export and Import Log Data, Cloud Sync, and much more.

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 9/29, 8 AM @ Fremont
- * **Only 16 spaces left as of 8/24/12** *

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

- Saturday 9/8, 10:30 AM @ Sunnyvale
- Saturday 9/15, 10:30 AM @ Redwood City

www.svve.org – The Silicon Valley ARRL VE holds test sessions on the 1st and 3rd Saturdays of each month. Arrive between 8 AM and 10:30 AM to the Saratoga Fire Station at 14380 Saratoga Avenue. Walk-ins only, no pre-registrations. \$15

- Saturday 9/1
- Saturday 9/15

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

- Saturday 9/8, 9:00 AM
- Tuesday 10/9, 6:30 PM

BAEARS Ham Cram

Next Quarterly Session: Saturday, Sept. 29th
8 AM
Fremont, CA
www.baears.com

Electronics Flea Market

Saturday, September 8th
Host: Silicon Valley Emergency
Communications System (SVECS)
www.electronicfleamarket.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

The **ARRL Pacific Division Convention**
and
ARRL National Convention (*first time!*)

Pacificon 2012
Santa Clara, CA
October 14-16th, 2012

www.pacificon.org



**Tickets are already on sale, including to the
Sat. Banquet and Fri. Antenna Seminar!**

Did you enjoy the contesting aspect
of Field Day?

Consider participating in the
2012 California QSO Party
(CQP)
October 6th-7th, 2012

www.cqp.org



*You're invited to
join FARS for
CQP at
Maryknoll in
Los Altos
(same location as
Field Day)*

*All 58 CA
Counties
will be on
the air!*

California stations
work all stations in or out of California
(with a bonus/multiplier for each of the 50 US states
and 8 Canadian provinces).

Stations outside of CA work stations in CA only
(with a bonus/multiplier for each of the 58 counties).

Bay Area Radio Builders Club

"BARC"

A FARS Special Interest Group

Upcoming Meeting: **September 13th**
(*Second Thursday of each month*)
at the TechShop in Menlo Park
(*Corner of 101 and Marsh Rd*)

We are a group of mostly Amateur Radio operators
who want to gain a better understanding of the 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 New Membership / Renewal Form

Note that the annual dues for 2012 has been reduced to \$15. You may also renew online by logging onto the FARS website, then using PayPal to pay. As of July new memberships are prorated to \$5.

<https://www.fars.k6ya.org/membership>

Date: _____

PLEASE fill out the form for all new/renewal members.

Name(s) & Callsign(s) & Class (E-A-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 / suggestions for club 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 prorated (see dues schedule). 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 [N6NFI](#) (145.230-; 100Hz PL) repeater or the [W6ASH](#) 145.27- (100Hz PL) repeater.