

## March Club Meeting

**Date:** Friday, March 27, 2009

**Time:** Socializing at 7 pm, Meeting at 7:30

**Place:** Covington School, 205 Covington Road, Los Altos

**Topic:** To Be Announced



**Raffle Prizes:** There are three prizes for March: 1<sup>st</sup> Prize is a Yaesu FT-1802M 2-meter 50-watt Mobile Transceiver (shown at left), 2<sup>nd</sup> Prize is an ARRL 2008 Handbook, 3<sup>rd</sup> Prize is a Pkg of 10 Bongo-Ties.

The club offers refreshments (great coffee, great cookies) and technical advice at the meeting: Bring your questions for Dr. Know-It-All and get great answers. Be sure to attend for an enjoyable evening.

**Pre-Meeting Dinner:** There is a pre-meeting dinner at 6:00 pm for those who would like to attend. We meet at the Beausejour Restaurant, 170 State St., Los Altos. There are Great Early Bird specials.

## February Meeting Report

Ben Koning talked about the making of his documentary "Echo of the Future: A Tale of Sunnyvale." He showed excerpts from the film, and demonstrated a working 3-tube regenerative 1920 Echophone V3 receiver (shown below). Ben also described the camera he used to capture the action and how he made some of the props. He also talked of Arthur Bessey and "The Radio Shop" in Sunnyvale. More information can be found at [www.echoofthefuture.com](http://www.echoofthefuture.com). The Sunnyvale Historical Society can be found at [www.heritageparkmuseum.org](http://www.heritageparkmuseum.org).



**Ben Koning**  
February Speaker



Echophone V3 receiver

There were four prizes at the February meeting – the speaker, Ben Koning, donated a video of his film described above. The Video prize went to Nick Conrady, KI6QQW. The third prize, a MFJ-260C 300W Dry Dummy Load (0-600 MHz), was taken home by Dick Baldwinson, N6ATD. The Eton American Red Cross FR 250 Emergency Radio was won by Nick Conrady, who re-donated it to the raffle and it was subsequently won by Doña Kerns, KI6DAR. The first place prize, a Weller WLC100 Electronic Soldering station 5-40 Watts, was won by Mikel Lechner, KN6QI, who also re-donated the prize and it was taken home by Kieth Remillong, KG6ZJI. The Wish You Were Here number for Ron Badger, N9UG, was chosen. Unfortunately, Ron was not present to claim the prize.

## President's Corner



**Membership Meeting.** Our next regular membership meeting is Friday, March 27<sup>th</sup> at 7:00 pm). More details and directions to the meeting are available at <http://www.fars.k6ya.org/meeting>.

**Am-Tech Day.** The next Amateur Radio Technology Day is scheduled for April 4<sup>th</sup>. We are into our fifth year of Am-Tech Day at SLAC. There is always a lot of activity, interesting programs, so be sure to check it out.

The March 21<sup>st</sup> Am-Tech Day presentation was "An Insider's Briefing On Emergency Broadcasts, Public Warnings and Disaster Communications" with Art Botterell, [KD6O](http://www.fars.k6ya.org/cgi-bin/e-link?evid=215) (<http://www.fars.k6ya.org/cgi-bin/e-link?evid=215>). Art talked about some of the history of emergency alerting and efforts being made to make these systems more effective. Two particular issues are 1) using alerting mechanisms that work across multiple media (cell phones, television, Internet, etc.), and 2) focusing alerts to the people most affected by the emergency.

Check the web site ([www.fars.k6ya.org/amtechday/](http://www.fars.k6ya.org/amtechday/)) or the email list ([www.fars.k6ya.org/mail/](http://www.fars.k6ya.org/mail/)) for the date and program information.

**Maker Faire.** FARS and other amateur radio clubs are scheduled to be at Maker Faire at the San Mateo County Expo Center on May 30-31. Maker Faire is for "makers", who are people make things from the sublime to amazing. This is a great crowd to get interested in amateur radio. We are presenting different aspects of amateur and need volunteers to help out over the two days. Contact Michael Pechner, KI6QNZ ([ki6qnz@arrl.net](mailto:ki6qnz@arrl.net)) to volunteer.

**Email Notices.** Subscribe to the FARS Announcement list ([www.fars.k6ya.org/mail/](http://www.fars.k6ya.org/mail/)) to receive reminders of FARS activities and other news.  
- de Mikel, KN6QI

## Upcoming Events

Mar 27 7:00 PM, [Club meeting](#), Covington School  
Apr 2 7:30 PM, Board Mtg at the Los Altos Town Crier  
Apr 4 8 AM to 9 PM, [Am-Tech Day](#), SLAC NAL  
Apr 11 [Electronics Flea Market](#) hosted by [SPECS](#)  
Apr 24 7:00 PM, [Club meeting](#), Covington School  
Thursdays 8:00 PM, FARS net, 145.230(-), 100 Hz PL  
See more events, [FARS Calendar](http://www.fars.k6ya.org/events/calendar) <<http://www.fars.k6ya.org/events/calendar>>

## From Santa Clara Valley Section News

Attention DXers! This is the last announcement regarding the upcoming International DX Convention being held April 17-19th, located at the airport Holiday Inn, Visalia, California. Sponsored by the Northern California DX Club (NCDXC), see more information check out <http://dxconvention.org>. For more information on the Northern California DX Club, visit them online at <http://ncdxc.org>

Attention Contesters! The Northern California Contest Club (NCCC) will be sponsoring a Contest Academy on Friday, April 17th during the first day of the International DX Convention. For more information, visit <http://dxconvention.org>. For more information on the Northern California Contest Club visit their website at <http://nccc.cc>.

## CLUB INFORMATION

President: Mikel Lechner, KN6QI  
Vice President: Steve Stearns, K6OIK  
Treasurer: David Cooper K6WA  
Secretary:  
Radio Officer: Phil Hawkins, KA6MZE  
Training Officer: Kevin Weiler, K6XXX  
Relay Editor: Mark Hardy, K6MDH  
FARS Board: Dick Baldwinson N6ATD, Peter Chow AF6DS, Robert Flemate KE6TFU, Nimit Hongyim K6XOX, Gerry Horn K6TXD, Charlie Morrin KI6FXY, Barbara Neuhauser AE6RM.

K6YA Trustee: Phil Hawkins, KA6MZE  
FARS Web Page: <http://www.fars.k6ya.org>  
Download Relay: <http://www.fars.k6ya.org/relay>

Club members and non-members are encouraged to subscribe to the FARS Announcement list by browsing [www.fars.k6ya.org/mail](http://www.fars.k6ya.org/mail), clicking on Subscribe/Unsubscribe and following the instructions under "Subscribing to fars-announce."

You may submit announcements to the FARS Announcement at [fars-announce@sypal.org](mailto:fars-announce@sypal.org). The list is moderated and messages will be posted as approved by the list moderator.

Contact the FARS board of directors at [fars-board@sypal.org](mailto:fars-board@sypal.org)

Club 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 Nov. & Dec (for holidays).

Annual club membership is \$20. Club badges are \$9. Visitors are always welcome! Directions in this newsletter. Talk-in: N6NFI (145.23-, 100 Hz) or W6ASH repeater (145.27-, 100 Hz).

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! Contributions are subject to editing and/or compression. All readable forms welcome.

Here is how to reach the editor:

Mark Hardy, K6MDH  
Mail: P.O. Box 2248  
Santa Clara, CA 95055  
Voice: 408-243-0701 (Before 9 PM, preferred)  
Email: [mark.af6do@gmail.com](mailto:mark.af6do@gmail.com), At FARS meetings.

### Pacificon 2009 to be hosted by EMCOMMWEST May 1, 2, and 3, at the Circus Circus Hotel, Reno, NV

[T]he Mt. Diablo Amateur Radio Club ... decided not to sponsor the Pacificon Convention this year. They have done an outstanding job of running Pacificon every year since 1992.... Realizing the difficulty of finding a replacement for the Mount Diablo Amateur Radio Club, ... I decided to contact EMCOMMWEST [and] they very kindly accepted.... I am truly grateful to the entire EMCOMMWEST team for their decision. The Mt. Diablo Amateur Radio Club has been very supportive of this effort, and is making all of their speaker, vendor, and organizational information available to the EMCOMMWEST team. The keynote speaker will be Steve Ewald, WV1X, Field Organization Supervisor from ARRL HQ; and the banquet speaker will be Riley Hollingsworth, K4ZDH, who was in charge of Amateur Radio rules enforcement at the FCC when he retired. I hope many of you will be able to attend this year's Pacificon. More information is available at [pacificon.org](http://pacificon.org).

See you at EMCOMMWEST/Pacificon!

Thanks and 73,

Bob Vallio, W6RGG, Director, Pacific Division  
ARRL, The national association for AMATEUR RADIO

## Homebrew HDTV Yagi Antenna

At the February meeting Peter AF6DS brought an antenna he made using parts from the hardware store following plans at <http://www.wa5vjb.com/references/CheapYagi4HDTV.pdf>

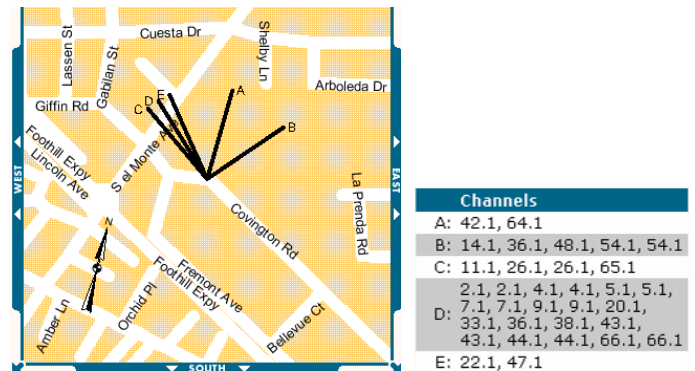
Several of us gathered around and wondered how the antenna worked. It is a challenge to get a Yagi to work over a wide band of frequencies, for example 144 to 148 MHz. How can a Yagi work from 470 to 700 MHz?

The article describes how at the 470 MHz end of the TV band the reflector gives gain. At the higher frequencies, the directors work to give more gain. This is described as "good" because at the higher frequencies there is more signal loss in the walls of the house and also the transmission line.

I took this as an excuse to use EZNEC. At 470 MHz, the gain computed to almost 7 dB. That looked pretty good, but wait. That is 7 dBi, or gain over a mythical isotropic antenna. A dipole has a gain of 3 dBi. So the HDTV Yagi has a gain of about 4 dBd, 4 dB better than a dipole. At 700 MHz, the gain is 5 dBd.

Next I computed the gain at many frequencies in between. Around 550 MHz, the interaction between elements has the antenna pointing backwards! It has about gain in the reverse direction and a 10 dBd loss in the "forward" direction. This could be a problem for DTV channel 26.1, which is really transmitting on UHF channel 27, and KPIX, DTV 5.1, really UHF 29.

If you are looking for an antenna for DTV, I suggest considering the classic bow-tie with reflector. This design doesn't have the problems with different frequencies. These antennas have been around for years as UHF TV antennas and are now promoted for DTV/HDTV. Some new antennas have a plastic cover and are meant for mounting on the outside of the house.



This brings us to the next question, which way to point the antenna? From Los Altos, many of the TV transmitters are at Mt. Sutro, which is between northwest and due north. However there are many exceptions. This picture from <http://www.antennaweb.org/> shows stations in several different directions.

To further complicate the situation, after the end analog transmission (now postponed to June), channels 7 and 11 will return to their original frequencies near 200 MHz.

So, in Silicon Valley one needs a rather sophisticated antenna to pick up all of the stations in different directions and on widely different frequencies.

- Paul AA6PZ

**FARS 2009 MEMBERSHIP RENEWAL FORM**

Date: \_\_\_\_\_

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

Name(s) & Callsign(s) & Class (E-A-G-T-N-None): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Home phone: \_\_\_\_\_ Work phone: \_\_\_\_\_

Fax (H or W?) \_\_\_\_\_ Packet BBS Address: \_\_\_\_\_

E-mail: \_\_\_\_\_ ARRL Exp Date(s): \_\_\_\_\_

Preferred modes: (e.g. HF-SSB/VHF/QRP/Other): \_\_\_\_\_

I'm willing to Elmer new hams with: \_\_\_\_\_

Special topics of interest / suggestions for club meeting speakers:

Dues: \$20 per year, new members add \$9 for badge fee. **Please note:** Membership runs from January 1 to December 31.

Send your check payable to FARS, to:

David A. Cooper  
PMB 41  
270 Redwood Shores Parkway  
Redwood City, CA 94065-1173



**How to get to FARS Club meetings (Visitors 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 [N6NEI](#) (145.230-; 100Hz PL) repeater or the [W6ASH](#) 145.27- (100Hz PL) repeater.