



Fresno Amateur Radio Club Newsletter

May, 2011 Volume 73, Issue 5

Our next meeting will be the second Friday, May 13, at Cedar Lanes. Come to the meeting and enjoy the camaraderie with your fellow hams.



The Prez Sez

FARC General Meetings
Are held the 2nd Friday of each month, 7 p.m. at Cedar Lanes unless otherwise noted.

2011 FARC BOARD
MEETING DATES
1st Tuesday of each month
Cedar Lanes at
Cedar and Shields.

FARC Nets

Morning Drive Time Net:
Weekday mornings-7:30—
8:00 a.m.
W6TO/R 146.940

Tech Net:

Wednesdays @ 7:00 pm
W6TO/R 146.940

FARC Net:

Sundays @ 7:00 pm
W6TO/R 146.940

CQ CQ.

Craig, K6QI has been putting together clips of old time "HAM" movies, equipment, etc. We have been enjoying them, and he has some new ones for our meetings at Cedar Lanes. He is also the FD chairman. Field Day is just around the corner, June 25-26, so think about what you want to do and make plans to attend. Stay tuned in for more info on the club picnic on Aug. 20th.

73's....Tom

Just in from Craig, K6QI- May meeting- More videos. Everyone seems to enjoy them, so I thought I'd keep going for a couple more months. This month I've found some interesting Field Day pix and vids... Here is the sign up sheet for FD on the web site:

<http://w6to.com/field-day-sign-up/>

73 Craig K6QI



Tom Jarvis KG6KYU

Fresno Amateur Radio Club

FARC BOARD OF DIRECTORS

FARC Officers:

| | | | |
|----------------------------|--|----------------|---------|
| Tom Jarvis, Pres. - KG6KYU | kq6kyu@w6to.com | (559) 916-2445 | 12/2011 |
| Craig Carter V.P. - K6QI | k6qi@w6to.com | (559) 284-1722 | 12/2011 |
| Jim Erbe, Sec. - WA6NIF | wa6nif@w6to.com | (559) 222-7524 | 12/2011 |
| Ron Hunt, Treas - N6MTS | n6mts@w6to.com | (559) 289-8514 | 12/2012 |

Board Members:

| | | | |
|----------------------|--|----------------|---------|
| Aaron Lusk, K6USY | k6usy@w6to.com | (559) 301-1022 | 12/2012 |
| Ken Holden, —WA6OIB | wa6oib@w6to.com | (559) 323-6753 | 12/2012 |
| Joseph Capell, W0PJD | W0PJD@me.com | (559) 225-3582 | 12/2011 |
| Jack Baker, AC6LT | ac6lt@CVIP.net | (559) 297-4311 | 12/2012 |

Mark your calendars for every Thursday, for the lunch gathering at the *Silver Dollar Hofbrau* at the corner of Hwy 41 and Shaw. Gathering at 11:30 A.M. at a table reserved in the back room.

Breakfast on Mondays and Saturdays at the *Country Waffles* at Blackstone and Dakota starting at 7am.

Also Breakfast every Tuesday at *Yosemite Falls Cafe* at Blackstone and Shaw starting at 8am.

Join the DX'ers for breakfast on the first Sat. of the month at Carrows on Blackstone/Ashlan at 7 A.M. in the back room.

Support our advertisers in SKIP. They support us not only in revenue for the club but they also allow us space on the counters and shelves for copies of SKIP and other club announcements.

| <u>Date</u> | <u>Event</u> |
|-------------|----------------------------|
| May 6 | Carp Meeting 7 P.M. |
| May 7 | Hidden T-hunt 2 P.M. |
| May 10 | Board meeting |
| May 20-22 | Dayton Hamfest |
| May 13 | FARC Meeting 7 P.M. Friday |
| May 20 | SJVARs Meeting |
| May 24 | QCWA luncheon |



Send Skip items to Skip editor John Morrice, K6MI at:
k6mi@pacbell.net

You can download this and past Skip issues under the Document Archive menu by visiting w6to.com.

Be a net control op! Contact Joe, WA6FFJ at: joenailbender@earthlink.net

| | |
|------------|------------------------|
| June 3 | CARP General Meeting |
| June 10 | FARC General Meeting |
| July 9-10 | IARU Radio Sport |
| June 11-12 | VHF Contest |
| June 17 | SJVARs General Meeting |
| June 18 | CCDX Lunch, Tulare |
| June 27 | QWCA Luncheon |
| August 20 | FARC Picnic |

Fresno Amateur Radio Club

New England QSO Party May 7-8

CQ WW WPX May 28-29

June VHF June 11-13

FD June 25-26

RAC July 1, Canada Day Contest

FARC Picnic, coming this summer! August 20!

Flee Markets in Northern California

Saturday May 14 Flea Market - Hosted by Santa Clara County Amateur Radio Association.

Saturday June 11 Flea Market - Hosted by Southern Peninsula Emergency Communications System.

Saturday July 9 Flea Market - Hosted by Foothills Amateur Radio Society.

Saturday Aug. 13 Flea Market - Hosted by Silicon Valley Emergency Communica-

tions System.

Saturday Sep. 10 Flea Market - Hosted by West Valley Amateur Radio Association.

Saturday Oct. 8 Flea Market - Hosted by Silicon Valley Chapter, American Red Cross.

The Electronics Flea Market is located at De Anza College in Cupertino.

Mike, W6YDE (center) intently listening.



Attendance Prize \$10 per meeting \$120. max. The Board decided to continue with the \$10 per month door prize drawing. Any monies left over from no winners by December will be given out in a drawing at the Christmas dinner. AC6LT made the motion, W0PJD 2nd the motion. Motion passed. (January board meeting).

Thanks to Richard, KE6SHL, and Jim, WA6NIF (soon to be W6NIF) for providing the photographs included in SKIP.

CCDXC News
NEXT MEETINGS:

Saturday June 18, 2011, at 11:30 AM at Apple Annie's in Tulare.

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Membership Attendance award for March was KF6VBZ, not present. The award to \$50.

William Holland, for the \$40. now goes up

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Local Amateur Radio Repeaters

| <i>Organization</i> | <i>Call Sign</i> | <i>Frequency</i> | <i>Offset</i> | <i>PL</i> |
|---------------------|------------------|-------------------|---------------|-----------|
| AARC | WB6QDN | 146.610 | - | NONE |
| CARP | K6ARP | 147.675 | - | 141.3 |
| CARP | N6JXL | 224.380 | - | 141.3 |
| CARP | K6ARP | 444.725 | - | 141.3 |
| CARP | NI6M | 440.350 | + | 141.3 |
| CONDOR | WB6BRU | 224.900 | - | 156.7 |
| FARC | W6TO | 146.940 | - | 141.3 |
| FARC | W6TO | 223.940 | - | 141.3 |
| FARC | W6TO | 444.200 | - | 141.3 |
| FRESNO | N6MTS | 145.230 | - | 141.3 |
| KINGS ARC | KA6Q | 145.110 | - | 100.0 |
| KJ6KO | KJ6JO | 927.6625/902.0125 | - | 146.2 |
| MADERA ARC | W6WGZ | 147.180 | + | 146.2 |
| MADERA ARC | W6WGZ | 441.175 | - | 146.2 |
| QCWA | WQ6CWA | 146.850 | - | 141.3 |
| QCWA | WQ6CWA | 443.250 | + | 107.2 |
| RACES | N6HEW | 147.150 | + | 141.3 |
| SJVARs | KE6JZ | 146.820 | - | 141.3 |
| TURLOCK ARC | W6BXN | 147.030 | + | 100.0 |
| WA6NIF | WA6NIF | 444.100 | + | 100.0 |
| WIN/SYSTEM | K6JSI | 146.790 | - | 100.0 |

Birthdays:

Ron Hunt, N6MTS, 5/21
 Dan Pruitt, AE6SX 5/17
 Anita Ford, KI6ZOZ 5/19

Anniversaries:

Carole and Jan Whitteberry,
 W6TTF and WA6WTF 5/19

DX Breakfast

The next Fresno DX Breakfast is Saturday May 7, 2011 at **Carrow's Restaurant, 4280 N. Blackstone** in Fresno. The group gathers between 0700 and 0800 hours. We have the back room until about 10:00 AM. The breakfast is the first Sat. of the month.

"The only way to be loud....is to transmit."

DX is the one you do not have confirmed!!

DXing is 90% mental -- the other half is physical.
 N2MG

To check on foreign postage go to <http://www.k4hb.com/postage/html>



Darin, K6OSX and Jim, WS6X. Trying to decide what to buy.

Words to remember:

A low VSWR over a wide frequency range with a given antenna does not mean that the antenna is efficient.

Fresno Amateur Radio Club

Notes from the editor,

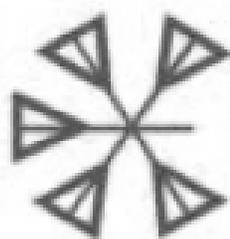
The sunspots are back is the resounding theme for April. There are openings for state side and DX QSO's, and many club members are taking advantage of the improved conditions. Arlen, WB6VAF has a new vertical up to add to his antenna farm, and is quite the DX'er, working the T31A DXpedition on 6 band modes. Six meters opened up for some sporadic E QSO's, with the promise of more to come in the coming months.

The DX convention was an exciting event, with around 1,000 hams visiting for the weekend. Lots of activities, from the contest college, exhibitors, expeditions talks, and code contests (held at midnight, with a 3 807 entrance requirement).

Coming up are two traditionally exciting events, the June VHF Contest on the second weekend in June, and FD, on the fourth full weekend in June. It looks like several rovers with four bands (6, 2, 220, and 432) are going to be active in our area on Sat., and from the Southern grids on Sunday. Duane, KI6QEL is getting set to join in on the rover fun.

Here on the back 40 we have been making beams for 17m, 15m, and 12m, mostly with leftover parts from past antennas, hoping to be ready for the sunspot peak. A M2 10m is ready to go up as well. There is something rewarding to designing and making your own antennas, and Spring time is a great time to do it. Somewhat frustrating, though. For every step forward it seems like there are several steps backwards.

73, John, K6MI



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THE DX CORNER by Charles McConnell W6DPD

May 2011

If you want help with DX, you can contact the local members of the Central California DX Club for some assistance. Charles W6DPD 431-2038, Perry K6XJ 299-2802, or Jim WS6X 292-8353 can give you advice. The big thing about finding DX is to tune the bands. Check out the Central California DX Club Web page at <http://www.ccdxc.org> for information and useful links. The local DX'ers meet on the first Saturday of the month for breakfast at Carrow's, 4280 N. Blackstone in Fresno. The group gathers between 0700 and 0800. All are welcome.

Check out www.spaceweather.com and www.solarham.com for information on the solar cycle. The higher the solar flux and the lower the A and K Indices, the better the band conditions. The sun is not cooperating by providing sunspots at this time; there are lots of blank days.

The address of the Sixth District QSL Bureau is P. O. Box 970, Fairfax CA 94978-0970. You can send up to 10 address labels and \$0.70 for each envelope to the address above. They will put 1 unit of First Class postage on the envelope.

The ARRL Outgoing QSL Service has raised the rates for sending ARRL members QSL cards to foreign countries. The new rate is \$2 for up to 10 cards in one envelope, \$3 for 11 to 20 cards in one envelope and 75 cents per ounce for more than 20 cards.

Postage rates around the world are constantly changing. To see current rates go to http://www.qsl.net/w9ol/IRC_Chart.htm where you can find the current postal rates for most of the countries of the world. IRCs can be ordered online from the US Post Office. To check on foreign postage, you can go to <http://www.k4hb.com/postage.html>. Australia and the United Kingdom both raised their postage rates on April 4, 2011. Denmark just raised their postage so you need to send \$3 or 1 IRC for the return of your QSL card.

If you don't get a DX Bulletin and you belong to ARRL, you should register on the members only web page and check the box for the ARRL DX Bulletin. This one is emailed each Thursday. Or you can go to the ARRL web page in the News/ Bulletin section and view the bulletins there. You can also

Charles, Perry, and Jim at the DX convention

read the OPDX Bulletin or the 425 DX Bulletin on the web. Search OP DX Bulletin or 425 DX Bulletin to get the URL. You can subscribe to the Daily DX, Weekly DX or QRZ DX too. These bulletins will keep you informed of DX operations and QSL information.

The following operations are scheduled:
Afghanistan T6TL and T6JC October 2010 Cancelled!
Bahrain A92IO now through August 2011
Djibouti J28AA now for at least a year
Djibouti J28JV soon for at least a year, maybe 2
Angola D2CQ February 2010 for a few years.
Gough Island ZD9GI October 2010 for 1 year
Papua New Guinea P29CW February to December 2011
Tuvalu T2XG May 17 to May 24, 2011
Trinidad PP0T April 22 to mid June, 2011
Afghanistan T6PSE May 2011 for 10 days
Rotuma Island 3D2A/R June-July, 2011
Jan Mayen JX July 6 to July 14, 2011
Lord Howe Island VK9HR July 8 to July 17, 2011
Southern Sudan? Call not known at this time July 9, 2011
Ascension Island ZD8D July 24 to August 9, 2011
Timor Leste 4W6A September 16 to September 26, 2011
Christmas Island T32C? September-October 2011
Vanuatu YJ0 September 28 to October 14, 2011
Conway Reef 3D2/C postponed to 2012
Jarvis Island KH5 November 2011
Malpelo HK0NA planned for 2012
Spratly Islands DX0DX POSTPONED to April 2012
Heard Island VK0/H February 2013 in planning stages
Watch the DX Bulletins for up to date information. As the time for the operation is at hand, watch the DX Summit (www.dxsummit.fi) for listings. There are a number of state QSO parties each year. Check the contest corral in QST or the ARRL web page. State QSO parties are a good place to collect states for your Worked All States award. ARRL Log Book of the World now supports the Worked All States Award.

Good luck, tune the dial, and listen.



FRESNO ENCOMM ARES/RACES by Glen Caine N6HEW

NET: Monday 1930 hrs on 147.150+, PL 141.3

Monthly: The 4th Thursday of each Month, Salvation Army Citadel, 1854 N. Fulton 1900 hrs, Training meeting.

EmComm and Coffee: 0830 hrs, 3rd Friday Yosemite Falls Cafe on Blackstone and Shaw

Web:

www.fresnoares.com or www.fresno-races.net.
Email at info@fresnoares.com

Fresno County ARES/ RACES EC's Report for May 2011

The month of April was fairly busy for the ARES group. It started off with our regular Monday night nets, the Emcom third Friday breakfast, and helping with the March of Dimes Walk at Woodward Park. We also did some antenna work at Salvation Army Citadel.

Most of you know that there is a EOC at the Salvation Army Citadel that Dan (AE6SX) has engineered and a lot of us have been helping with. The SA (Salvation Army) has been donated several radios and the accessories needed to put the station together. When the work is completed we will have two hf stations, uhf/vhf, packet and a few other modes. Now we are working on the antenna system, trying to get them up before Field Day in June.

Saturday the 16th April the ARES group assisted the CARP Radio Club supplying the March of Dimes March for Babies. The ARES members that helped were AE6SX (Dan), N6HEW (Glen), KI6OYW (Gary), WB6GBS (Ben), KI6NHT (Randy), and KE6SHL (Richard). We manned the rest stops and supplied the golf carts with communications. Even though we were advised that all we would need was a hand held radio and spare batteries a better antenna would help. I used a magnetic mounted 2 meter antenna on the flatbed cart and it made a world of difference. It is a good idea to have an

emergency J pole or small beam antenna that can be set up at a rest stop and connect it to the hand held. This really extends the range of your low power radio and makes copying your signal a lot easier.

The May Emcom meeting will be held the 4th Thursday at 1900 hr. at the Salvation Army Citadel on Fulton just south of Divisadero. The training subject will be APRS, and we will be planning for Field Day. Don't forget the other activities, such as the Weekly Emcom nets (Monday nights at 1930hr) and the Emcom & coffee at 0830hr every 3rd Friday at Yosemite Falls Café.

I hope you all have a safe and good month, I will be talking to you on the air or in this column next month.

Best of 73's

GLEN CAINE – N6HEW

Fresno County ARES EC

Fresno County RACES Officer

Phone – 999-7590

E-Mail – n6hew@att.net

RACES Repeter – 147.15 +600 (pl 141.3)



Join us Monday nights at 1930 hrs for the

Fresno County ARES®/ RACES EmComm net

on the N6HEW repeater; 147.150 positive offset and tone of 141.3

Fresno Amateur Radio Club

Hard Hat Moments with Stu, WB6VRJ

The other night, the camaraderie of Ham Radio gently forced me to attend a meeting of the Clovis Amateur Radio Pioneers [CARP]. It is my concern that all of us, as hams, should visit, not only the various shacks in town and around, but the various clubs that abound in this area.

I was pleasantly surprised to see several hams that recognized me, and we did have a great time. The feature of the night was a presentation by Ray Harkins KB6LQ who put on a great show about the VIKING space-ships that are exploring Space right now. They were launched a long time ago, back in 1970's and are now way beyond the solar system.

In fact, they are so far away, that it takes 34 hours for a signal to go out there and reach them. Imagine! Let's say you are at home, and decide to send a CW signal [you do know CW don't you?] today, you and I communicate immediately-if I send a dit, you hear it right away. But imagine, if you will, that I send you a dit, and wait 34 hours for you to hear it, and then you send a "dah" in return and it is another 34 hours before I hear that! Wowee! I sure would not be spending much time at the key with those kinds of lags.

The three quite common ways to indicate latitude/longitude position these days are:

Degrees, Minutes, Seconds
Degrees, Minutes, Decimal Minutes
Decimal Degrees

That is,
DDD°MM'SS"
DDDMM.mm (APRS over-the-air format)
DDD.ddddd



- **Deg°Min'Sec"** Degrees, minutes and seconds as integer values (DMS): 25°51'45" N
 - **Deg°MM.mm' (APRS)** Integer degrees with minutes in decimal: 25°51.75' N
- Decimal degrees** Degrees in decimal: 25.8625° N
Latitude is North or South; Longitude is West or East.
In some numeric systems, rather than using the cardinal direction labels (N,E,W,S), instead particularly West longitude (or South latitude) is indicated by use of a negative number, a leading minus "-".

And there's the mapping system's Datum to consider, as that can make some difference too (about 100 yards either way). Most GPS receivers usually display position using the WGS84 Datum, so WGS84 Datum is the most common and popular map Datum nowadays. However, mostly the (long familiar to hikers) paper USGS Topographic Quad maps still use the older NAD27 Datum instead.



Exhibitors at the DX convention

Joe W0PJD, John K6MI, and Jerry K6PKO

Fresno Amateur Radio Club



Join Jack, AC6LT, on the Wednesday night Tech net on the W6TO repeaters. 7 P.M. Wednesday evening also has several other nets, the CW 10M net also at 7 on 28.140, and at 8 on 28.445.



Beethoven Morse Code Symphony

Are you ready for Ludwig's Fifth in Morse Code? www.zerobeat.net/morse505.html



Radio Hams

Here's a blast from the past - 1939 to be exact. Made by Pete Smith. Some great CW sent in the middle of the movie. [youtube.com/watch?v=vbgidf0vjg4](https://www.youtube.com/watch?v=vbgidf0vjg4)



Speed Test: Texting vs Morse Code

On May 13, 2005, Chip Margeili (K7JA) and Ken Miller (K6CTW) made an appearance on *The Tonight Show with Jay Leno* on NBC, competing with (and defeating) the U.S. champion cell-phone text messenger in a message-completion speed contest. Very cool contest. tinyurl.com/ycfzqbp



Strange CW Keys (OH6DC)

Want to send code from a beer can? Check out these unusual CW keys. oh6dc.cw.googlepages.com/strangeCWkeys

As long as we are on the subject of copying CW, Rich KL7RA notes that a recent biography of Johnny Cash mentions the singer as having been a CW circuit operator for the U.S. Air Force during the 1950's with a top speed of about 45 WPM. Rich goes on to wonder why a guy would give up copying code for \$125 per month for a musical career worth "\$1 million billion...seems odd you would give up a cool CW job...but to each his own."



Kurt, K7NV. Are these rotors big enough for you?



Mike, W6YDE looking for more things to buy.



Perry, K6XJ, talking to Molly from Alpha Amps, after winning a gift certificate at the DX convention. Mike, W6YDE also won several prizes, including an amplifier.

Fresno Amateur Radio Club

California Qso Party 2010 Results- (first weekend in Oct.)

Fresno County

| | CW | PH | Total | Mult | Score | | |
|-----------------|-----|-----|-------|------|---------|------|------|
| W6YO (N2NS op) | 510 | 193 | 703 | 55 | 105,517 | SO | |
| AK7G | 531 | 49 | 580 | 55 | 93,005 | | SO |
| K6AAB | 230 | 0 | 230 | 45 | 31,050 | | SO |
| W6GV (K2VCO op) | 121 | 0 | 121 | 39 | 14,215 | | SO |
| W6DPD | 0 | 153 | 153 | 43 | 13,201 | | SO L |
| K6AQL (K0DI op) | 31 | 0 | 31 | 23 | 2,139 | SO M | |
| NA6G | 0 | 45 | 45 | 22 | 1,980 | SO L | |
| W6GCL | 0 | 37 | 37 | 4 | 300 | SO L | |

Madera

| | CW | PH | Total | Mult | Score | | |
|-----------------|-----|-----|-------|------|---------|------|------|
| KB6A | 498 | 717 | 1215 | 58 | 169,882 | SO | |
| KF6ZXO | 470 | 0 | 470 | 51 | 71,986 | | SO L |
| K6AQL (K0DI op) | 50 | 0 | 50 | 22 | 3,300 | SO M | |
| KA6GDT | 5 | 46 | 51 | 15 | 1,605 | SO L | |

Kings

| | CW | PH | Total | Mult | Score | | |
|------------------------|----|----|-------|------|-------|---------|------|
| AA6GZ | | 0 | 145 | 145 | 40 | 11,600 | SO L |
| K6AQL (K0DI op) | 82 | 17 | 99 | 33 | 9,289 | SO M | |
| W0HJW (W0HJW N6CVK op) | | | 1094 | 1094 | 57 | 124,716 | MS |

Mark K1RX and Geoff KA1IOR visited K5ZD's station during WPX SSB and recorded some SO2R operation. There are three [videos](#) - Part 1 is a general discussion about SO2R while Parts 2 and 3 are of SO2R operating. Youtube.com/user/geoffrey7b

From the [Daily DX](#) newsletter for April 25th, we learn of Rick NE8Z's recent gift-bearing visit to Mount Athos and Monk Apollo. He created an [on-line slide show](#) and coincidentally there was a CBS' "[60 Minutes](#)" program on Mt Athos this past weekend. Live.semdxa.org/tiki-list_file_gallery.php?galleryid=24

Cbsnews.com/sections/60minutes/main3415.shtml

EME for QRPers - not an oxymoron at all! - is discussed in this online [video](#) produced by [Gary W9XT](#). (Thanks, Rich KZ9K) [ustream.tv/recorded/13724230](#)

This [Wired Magazine article](#) asked for help in identifying any of these mysterious scientific instruments. Heck, hams probably have several of each in their junk boxes! (Thanks, Jim W6EU) [wired.com/wiredscience/2011/04/unidentified-scientific-tools/](#)

Jim W7RY summarized some of the issues associated with dissimilar metals being used in amateur installations. "Copper should never touch galvanized material directly without proper joint protection. Water shedding from the copper contains ions that will wash away the galvanized (zinc) tower covering. Stainless steel can be used as a buffer material. However, be aware that stainless steel is not a very good conductor. If it is used as a buffer between copper and galvanized metals, the surface area of the contact should be large and the stainless steel should be thin. Joint compound should also be used to cover the connection so water cannot bridge between the dissimilar metals. This is why you want to use tinned wire (or suitable transition material) not bare copper when connecting to a galvanized tower."

Regular US rural type mail boxes are observed to work well for protecting outdoor gadgets as they have to seal well. The few drain holes let the water out so that they will protect most anything once the door is closed. (Thanks, Mike K5WMG)

Fresno Amateur Radio Club

Mobil Antenna Ideas by Ken N6TZV

In past years I was an avid mobile operator at the 100 watt level. In order to maximize signal without adding an amp, focus on antenna efficiency is a must.

Low band antennas are particularly inefficient mobile.

I have participated in a number of field strength measurements in the late '80s and early '90s to determine relative efficiency.

These measuring tests were conducted in the Az. desert on an antenna "range" at a distance of about 1/4 mile with calibrated signal strength measuring equipment.

Each antenna was mounted on the same vehicle (PU Truck), in the same location.

The following have been measured repeatedly and might be helpful (this is from memory...)

The point of loading the antenna makes a 3-10+ dB difference.

Base loading is worst, top loading best.

Loading at the top of coil actually is more efficient in terms of actual radiated signal, but impractical.

Loading coils in the middle of the antenna are a good compromise.

Loading coils or matching networks at the base of the antenna near the auto chassis gave the worst results.

Capacity hats can improve loading and bandwidth, but must be well above the loading coil. One foot is the minimum.

Loading coil "Q" is VERY important. Larger diameter coils are more efficient by quite a lot.

Hustler coils (stock) are sometimes 10dB down from a good screwdriver or open coil "Bugcatcher" design.

Base loaded whips are a poor compromise in terms of radiated signal, similar to or worse than stock small diameter coils.

Often a small coil to ground is necessary on 160-40M.

The size(diameter) of the base section can be a factor. Larger diameter sections below the coil can add a dB or so.

The position of the coil is best at or above the roof line (1-3db improvement).

The longest possible whip above the coil is better with 102" being common.

The position of the antenna is best when in the center of the vehicle's mass.

A 4X mag mount on the center of the roof with a short antenna, will often perform as well as a larger antenna mounted at bumper level.

Center front or rear bumper mount gives a more consistent pattern than one corner.

Mounting position actually can give some directionality.

A rear bumper mounted antenna shows favorable directionality to the front, poor to the rear.

Bonding the many metal panels and frame members with braided strap lowers noise, raises efficiency a bit.

The most efficient antennas were the "Texas Bugcatchers" from Henry Allen. (1-2 dB advantage over #2)

3 & 4" coils mounted above the roof line on a 3/4" rod to the mounting location were best.

Stainless steel coils are to be avoided due to poor "skin effect" and conductivity.

#2 was the Don Johnson W6AAQ style "Screwdriver" antennas.

Screwdrivers are only 1-2dB below the Bugcatcher, but have far easier band change. Good trade off! Everything else was at least 5dB down or more. Loaded whips (Hamstick) are 10-15 dB down from the Bugcatcher or Screwdriver.

I ran a Bugcatcher first, then a custom 4" coil screwdriver with a long coil and very large diameter and tall base on 160-15 for years. I still have that antenna!

I also have a 3" coil 80-10M custom screwdriver with large diameter base that has at least 100K miles on it.

The 160M mobile antenna put the coil over the roof of my Jeep Grand Cherokee, with a solid rod extension, capacity hat, then 102" whip. I would often tie the whip forward with monofilament to clear overhead bridges. The antenna was mounted on the swing away tire carrier, bonded to the chassis with a ground strap.

When moving at highway speed, the 102" whip would bend to the rear and clear overpasses and bridges. I would tie it in the city to clear trees.

One night I was working 160M mobile on my way up I5 in the CA Central Valley going up to Monterey. I made a "pit stop" and a CHP car pulled up alongside me. They were fascinated with the antenna and came and listened to the 160M conversation.

As they walked away, one officer turned back to me and said, looking at the antenna, "is that thing legal height"?

My reply: "It is when I'm moving fast..." They laughed and said "drive safely"...

I think we need to give Don Johnson, W6AAQ, a great big Thank You for inventing the screwdriver. His books are a great read and he is a true gentleman.

I hope these observations are helpful. If anyone wants the actual measurements, I believe I still have the file. Cheers, Ken N6TZV

E-Waste Recycling



Location -Entrance Gate Kings Canyon Entrance Upcoming Dates: May 21 July 9 September 3 November 26

Bring your e-waste to The Fresno Fairgrounds From 8:00am - 2:00pm Drop off electronic waste at NO CHARGE! E-waste is no longer accepted at the landfill and is often expensive to recycle.

cle. No limit to how many items you can bring to recycle. Broken or un-broken recyclables accepted. Free Recycling of any item with a cord including:

LCD TV's & Monitors Laptops Plasma Screens Televisions Computer Towers Printers PDA's DVD Players Copy Machines Fax Machines Calculators Keyboards Stereo Systems Speakers Computer Mice Telephones Cell Phones VCR's

*Items containing Freon, washers/dryers, batteries and light bulbs will not be accepted. Location:

Enter the parking lot off of Kings Canyon Boulevard, just east of Chance Avenue. (Gate 6)

For more information call (559) 650-FAIR

The rules for the 2011 CQ WW VHF Contest, July 16 - 17, have been posted on the [CQ VHF Contest website](#). If you missed the results for the 2010 contest in the February issue of CQ, the write-up, scores, and expanded results are also on-line there alongside records updated by Curt, K9AKS. (Thanks, CQ WW VHF Contest Director, John W1XX) cq.ww-vhf.com

Kirk NT0Z has released a new book, "[Stealth Amateur Radio](#)" and expects it to be available for the Kindle ebook reader soon. Kirk also notes that moving his auto-tuner into the backyard near his antenna helped to reduce RF noise pickup and common-mode current on his feed line that was causing RFI inside. You may find that trick of use at your QTH. Stealthamateur.com/

If you've been wondering where the Ukrainian hams have gone, they've lost some HF frequencies lately - 10100-10150 kHz (all of the 30 meter band) and 14250-14350 kHz. They've also lost a fair amount of UHF and microwave spectrum. (Thanks, Alex UY0LL)

If you want to keep up with the latest announcements about WRTC 2014, the organizers have set up a [news reader feed](#). (Thanks, WRTC-2014 Co-Chair, Randy K5ZD) wrtc2014.org/feed/

SIGHTS AND SOUNDS

The recent International DX Convention in Visalia was a big hit for all as shown in these great photos in an [online album](#) by Hector XE2K and Bob N6TV. Picasaweb.google.com/hector.xe2k/visalia2011



Arlen, WB6VAF looking for RX antennas



N6EY, Jason, looking out from the M2 booth

Fresno Amateur Radio Club

Field Day Rule Change!
 ARRL Contest Branch Manager, Sean KX9X has just released some important information for this year's ARRL Field Day. The "free" VHF station that was previously restricted to Class A participants with two or more transmitters is now available to all Class A operations! This should promote additional VHF+ weak-signal operation and know-how. In order to promote better VHF+ operating practices, Sean and Steve WB8IMY have collaborated on a VHF Operator FAQ document that presents information on how to operate on 6 and 2 meter SSB and CW, using FM phone, and working the satellites. Field Day offers VHF+ operating opportunities to hams that may not have tried it before - this document will help them get better results and follow regular operating practices. Now it's up to the VHF+ operators out there to help their teams get that VHF station on the air and making QSOs! Read more about this year's rules on the ARRL Field Day web site.

Subject: FW: Useful Engineering Info

Engineer's conversion table

1. Ratio of an igloo's circumference to its diameter = Eskimo Pi
2. 2000 pounds of Chinese soup = Won ton
3. 1 millionth of a mouthwash = 1 microscope
4. Time between slipping on a peel and smacking the pavement = 1 bananosecond
5. Weight an evangelist carries with God = 1 billigram
6. Time it takes to sail 220 yards at 1 nautical mile per hour = Knotfurlong
7. 16.5 feet in the Twilight Zone = 1 Rod Serling
8. Half of a large intestine = 1 semicolon
9. 1,000,000 aches = 1 megahurtz
10. Basic unit of laryngitis = 1 hoarsepower
11. Shortest distance between two jokes = A straight line
12. 453.6 graham crackers = 1 pound cake
13. 1 million-million microphones = 1 megaphone
14. 2 million bicycles = 2 megacycles
15. 365.25 days = 1 unicycle
16. 2000 mockingbirds = 2 kilomockingbirds
17. 52 cards = 1 decacards
18. 1 kilogram of falling figs = 1 FigNewton
19. 1000 milliliters of wet socks = 1 literhosen
20. 1 millionth of a fish = 1 microfiche
21. 1 trillion pins = 1 terrapin
22. 10 rations = 1 decoration
23. 100 rations = 1 C-ration
24. 2 monograms = 1 diagram
25. 4 nickels = 2 paradigms
26. 2.4 statute miles of intravenous surgical tubing at Yale University Hospital = 1 IV League



Bob Vallio on right visiting the CQ table. Chip, K7JA on left.



StepIR Monster beam on US Tower trailer.

2011 AMATEUR RADIO EXAMS

UNLICENSED THRU EXTRA CLASS
Sponsored By the FRESNO Volunteer Exam (VE) TEAM
And The
FRESNO AMATEUR RADIO CLUB, INC.
AMERICAN RADIO RELAY LEAGUE

Exams for all Amateur license classes will be conducted on the following dates in Fresno California. All exams are given on Saturday and begin at 9:30 AM.

May 14 Aug 13 Nov 10

LOCATION:Bonaventure Mobile Home Park, 1724 Minnewawa Ave Clovis CA 93612-2545. Exams are held in the community room.

DIRECTIONS: From Highway 99 South of Fresno, exit Clovis Ave. Go north to Shaw and turn left on Shaw to Minnewawa. Turn right on Minnewawa and then left to the Mobile Home Park.. From Highway 41 or Highway 99 North of Fresno, take Shaw Ave. exit, turn right (East), to Minnewawa Ave and turn left. Then turn left into the Mobile Home Park.

Theory exams are multiple choice. Priority mail is used to send paperwork to ARRL, who sends data to FCC via electronic mail, thus assuring the fastest possible service on new licenses, which typically arrive in about two weeks.

BRING. Two ID's, one with photo. Taxpayer ID Number (Social Security Number), or FCC Registration Number (preferred). Fee \$15.00 per test session. Bring Exact change. **Original** and **copy of Amateur License** if upgrading. Talk in on 146.94 repeater.

Walk in's only, no pre-registration.

More Info?? Contact Charles, (559) 431-2038

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Photos: Ray Lischka W9EC

Santa Maria Ham Radio Swapfest & BBQ June 18, 2011

Saturday of Father's Day Weekend

SATELLITE AMATEUR RADIO CLUB W6AB

Pre-Registration Cutoff Date: June 1, 2011

Newlove (Breitburn) Picnic Grounds,

1555 Orcutt Hill Rd, Orcutt

Turn off Hwy 101 southbound 1.8 mi. south of Clark Ave., Orcutt

GPS: 34° 50' 21.97" N, 120° 22' 31.72" W

Sellers: 6:00 AM, Public: 7:30 AM

Prize drawings: 12 noon, Grand Prize: 1 for \$5, general: 1 for \$1, ladies: 1 for \$1

Pre-reg, Grand Prize: 6 for \$25, general: 6 for \$5, ladies: 6 for \$5

Admission & Parking: FREE

Swap Table: \$10 pre-reg, \$20 at fest, **Tailgate seller:** (limited number): \$20 at fest only.

Talk-in: 145.36, 131.8 PL and 145.14, 131.8 PL

Catered BBQ meal: chicken or tri-tip, salad, beans, bread, \$12 pre-reg, \$15 at fest

Commercial Vendors: HRO, ARLAN Communications, Com. Svsco., Argent Data Systems

T-hunt workshop: KE6HTS, **T-hunt,** on foot, on grounds : KA6BFB

Special Motel Rate:

Santa Maria Travelodge

1514 South Broadway, Santa Maria, 93454, 805-922-2123

\$79.99 Friday or Saturday, Mention Santa Maria Swapfest

Paul K2DB has uploaded a [video](http://www.rdx.com) (www.rdx.com) showing how the CW reverse beacon network works using his remote station. It shows how quickly he can get to stations with the packet CW skimmer Reverse Beacon Network. Click on the right side of the home page under Main Pages on the RDXA Library link, then Tutorials and Presentations, click on Remote CW Skimmer Demo. When you get on the air on CW and call CQ, you can run but you cannot hide!



Ted, Steve, and Paul, above, and Skip editor waving from center, below.



Fresno Amateur Radio Club

F.A.R.C. DUES ARE \$15.00 PER YEAR FOR FULL MEMBERSHIP. Additional family members in the same household are \$5.00 each per year. Make checks payable to F.A.R.C.

and send to:

P.O. Box 5912, Fresno, Ca. 93755-5912.

| 2011 Fresno Amateur Radio Club Application | |
|---|---------------------------|
| Name _____ | Date _____ |
| Address _____ | Call sign _____ |
| Home Phone _____ | State ____ Zip _____ |
| Business Phone _____ | |
| Occupation _____ | Birth Date _____ |
| Spouses Name _____ | Anniversary Date _____ |
| License Class _____ | First Year Licensed _____ |
| Email Address _____ | ARRL Y __N__ QWCA ____ |
| I am interested in serving on one of the committees. Please contact me with more details. _____ | |
| FARC – PO BOX 5912, FRESNO, CA 93755-5912 | |

**Upcoming 2011
Fresno Amateur Radio
Club
Activities and Events**

Meetings on the 2nd Friday of the month

FD on the 4th full weekend in June

Banquet Dinner next December

Club Picnic in summer

Annual swap meet at the November meeting



FRESNO AMATEUR RADIO CLUB, INC.
P.O. Box 5912
Fresno, CA 93755-5912

Send To: