

# SCCARA-GRAM



## Santa Clara County Amateur Radio Association

Volume 27, Number 6

June 2011



## President's Prose

I'm sorry to report that one of our members has become a Silent Key. Scott Petersen, KG6SPF, passed away suddenly on Sunday, May 15, while on a camping trip with his father in Northern California. He was 33 years old. Services were held in Saratoga on Friday, May 20, and at least nine of his ham radio friends were in attendance. Scott was always a major help on Field Day, and we'll miss him. You can read his obituary at: [www.legacy.com/obituaries/mercurynews/obituary.aspx?scott-robert-petersen&pid=151130556&fhid=6744](http://www.legacy.com/obituaries/mercurynews/obituary.aspx?scott-robert-petersen&pid=151130556&fhid=6744)

I hope you enjoyed the talk by Steve Stearns (K6OIK) on transmission lines and SWR at our May meeting. One of the points he brought up that I thought was most interesting was the significant effect that transmission line loss can have on the SWR as measured at the transmitter end. It actually makes the antenna appear better than it really is. It makes sense when you think it through, since it makes the return loss greater, but it's not something that's intuitively obvious. We never stop learning.

Be sure to leave room on your calendar for Field Day on June 25-26 with setup starting on June 24. I suspect that Field Day planning will be the main topic of our general meeting on June 13. We'll be at Mt. Madonna and Fred (AE6QL) is the chairman.

John (W6HW) is still serving as Treasurer, although he would like to be replaced. If someone is willing to take over that job, please let me know.

The electronic flea market at DeAnza college that we hosted on May 21 was a success. The weather was good and the usual sellers were there in spite of the date being moved. Thanks to ASVARO for getting the word out. I haven't heard the financial results, but we no doubt made money. Our former 440 Motorola Micor repeater and lots of spare parts is now in the hands of some lucky buyer, as well.

Don't forget the 2-meter FM net on Monday nights, and the 10-meter SSB net (28.385 MHz USB) on Thursday nights. Anyone who has a license can join in.

73, Don, AE6PM

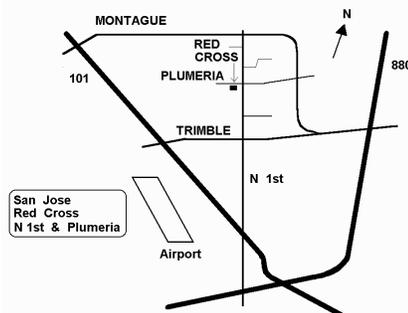
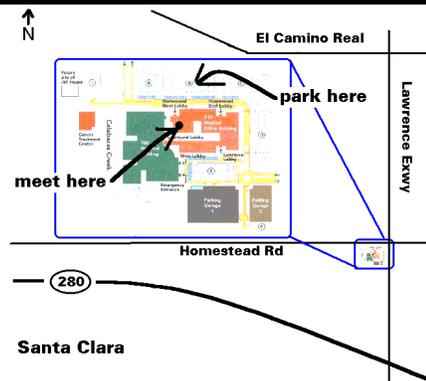


## Calendar

- 6/11 DeAnza electronic flea market
- 6/13 SCCARA General Meeting
- 6/20 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)
- 6/24-26 Field Day

## General Meeting

Day: Monday, June 13, 2011  
Time: 7:30 PM  
Place: Kaiser Santa Clara, Rm 196,1  
Featuring: Field Day



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**The deadline for articles is the last Monday of the month.**

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL). The club station is W6UW.

Web page: <http://www.qsl.net/sccara>.

**OFFICERS & DIRECTORS**

(all officers are also directors)

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	e-mail: <a href="mailto:wb6yru@ix.netcom.com">wb6yru@ix.netcom.com</a>	

**SCCARA REPEATERS**

SCCARA owns and operates two repeaters under the call W6UU:  
2 meter: 146.985 - PL 114.8  
70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The two meter repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

**SCCARA NETS**

On our two meter repeater: Mondays at 7:30 PM, (not the second Monday--our meeting night). Coordinator: Don Village, K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally Britten, KA6YMD. Visitors welcome.

**N0ARY PACKET BBS**

SCCARA hosts the packet BBS N0ARY (Mt Umunhum). User ports: 144.93 (1200 baud), 433.37 (9600 baud), telnet sun.n0ary.org (login "bbs"). Sysop: Gary Mitchell, WB6YRU (packet info: [www.n0ary.org/ncpa](http://www.n0ary.org/ncpa))

**TELEPHONE NUMBERS**

SCCARA contact Clark KE6KXO:	408 262-9334
ARRL/VEC Silicon Valley VE group, Morris Jones, AD6ZH:	408 507-4698

# Scott Petersen, KG6SPF SK

It is with a very heavy heart that I write this message to you, concerning the death last weekend of Scott Petersen, one of our extraordinary volunteers in the City of Saratoga. I am in contact with Scott's family who informed me yesterday that Scott was camping in Placer County with his father last weekend when Scott had a seizure and died. As most of you know Scott was an epileptic, and an autopsy is being performed to determine the cause of death.

Scott was a tremendous asset to his community and touched the lives of many Saratogans. He was a member of the Cox Avenue Division of the Saratoga CERT, and maintained the team's Yahoo Group. He was a member of the Saratoga Amateur Radio Association and frequently ran the Sunday night net for that group. He was one of the volunteers who has stepped forward to assist with the Emergency Volunteer Center needs of the City, when during an emergency response the City will need to process and manage spontaneous volunteers, and actively participated in a large number of West Valley Regional as well as countywide disaster exercises.

An obituary is being prepared and should be published in the next day or two. A funeral will be held at Sacred Heart Catholic Church on Saratoga Avenue on Friday at 11:00. The family has asked that donations be made to, along with the park system, Saratoga CERT and I am working with the Saratoga-Monte Sereno Community Foundation to set up a method to do that. More information will be forthcoming in the days to come.

This is an enormous and unexpected loss to all who knew Scott. He was important not only to the community but also to all who knew him. I heard him described yesterday as "gentle", and I think that adjective fits Scott perfectly. I got to know Scott five years ago when I came to Silicon Valley and throughout that time I got to know him as somebody who always cared about other people and simply wanted to help in any way that he could.

He will be badly missed.

Jim Yoke, KI6HKZ May 17, 2011 Emergency Services Coordinator Santa Clara County Fire Department

*{In addition to the Saratoga club, Scott was a SCCARA member for the past several years. -- Editor}*

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## ARRL News

From *The ARRL Letter*, May 26, 2011

### SENATE "COMPANION" BILL TO HR 607 AVOIDS IMPACTING AMATEUR SPECTRUM

On Thursday, May 19, Senators Joe Lieberman (ID-CT) and John McCain (R-AZ) introduced S 1040 -- The Broadband for First Responders Act of 2011 -- in the Senate ([www.arrl.org/attachments/view/News/58554](http://www.arrl.org/attachments/view/News/58554)). While it has a similar objective to HR 607 -- introduced in February by Representative Peter King (R-NY-3) -- this Senate bill, unlike HR 607, does *not* call for auctioning any portions of Amateur Radio spectrum. Both bills call for the allocation of the so-called "D block" of spectrum, 758-763 and 788-793 MHz, to facilitate the development of a

public safety broadband network.

On learning in February that a Senate version of HR 607 was being drafted, ARRL Chief Executive Officer David Sumner, K1ZZ, met with staff members of the Senate's Homeland Security and Governmental Affairs Committee who were working on the bill to share the ARRL's concerns with regard to HR 607. "They seemed very receptive to our argument and appreciative of the public service contributions of radio amateurs," Sumner said. "It is gratifying to see that S 1040 avoids impacting our spectrum allocations."

Sumner explained that while some media reports are referring to S 1040 as "the Senate version of HR 607," it is important that radio amateurs *not* oppose S 1040: "There is no reason for us to do so. We support the creation of an interoperable broadband network for first responders. Other than to oppose any method that would impact amateur spectrum use, we do not support one method over another of achieving that objective. We only oppose one aspect of HR 607, not the entire bill."

S 1040 has been referred to the Senate Committee on Science, Commerce, and Transportation, chaired by Senator Jay Rockefeller (D-WV). Senator Rockefeller earlier introduced his own bill, S 28, to address the same general topic. Neither Senate bill would impact amateur spectrum.

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## More on Transmission Lines and SWR

### part 1

I don't know how many times I've heard a fellow ham exclaim "My antenna is really good - SWR less than 1.5 on all bands!" The happy ham is most likely seeing the SWR at the end of the transmission line where it connects to the transceiver, which is usually a substantial distance (30' to 100') from where it is connected to the antenna. A low SWR can be achieved in several ways: (1) with a very lossy transmission line, (2) with a good transmission line of the right length, (3) with a dummy load, (4) with fresh (not dry) cow dung in place of the antenna, (5) with a not-very-good antenna whose radiation resistance plus its losses adds up to the characteristic impedance of the transmission line, and (6) a 'good' antenna whose feedpoint impedance is close to the characteristic impedance of the transmission line. The last case is the optimum condition. My point is, a low SWR at the transmitter doesn't necessarily mean a good (efficient) antenna.

Unless the SWR measurement is made at the feedpoint at the antenna, it doesn't tell one much about the antenna itself. But making SWR/impedance measurements at the antenna feedpoint is often difficult because of physical access - the feedpoint is usually high in the air somewhere. There are equations one can use to back out the effect of the transmission line so that measurements made at the transmitter end of the transmission line can indeed show what the conditions are at the antenna. These equations require that the radio frequency parameters of the transmission line at the frequency of interest are known. Also, some antenna analyzers have the capability to perform this as well, provided that both ends of the transmission line are accessible before final assembly ... something to think about before hoisting your next antenna out of reach. Finally, you can also use a length of transmission an electrical half-wavelength long at the frequency of interest (more on this in a later article).

For maximum power transfer into the antenna, the

impedance of the antenna at the point where the transmission line is connected needs to match the impedance of the transmission line. I write the words in that order because you can change the impedance of the antenna at the point where the transmission line is connected, but you can't change the impedance of the transmission line - not easily, anyway, unless you make your own. If the two impedances are not matched, some of the transmitted power is not absorbed (and radiated) by the antenna, and is reflected back towards the source. This results in standing waves on the transmission line. The SWR is an indication of the degree of mismatch between the antenna feedpoint impedance and the impedance of the transmission line. A SWR of 1 indicates a perfect match. The higher the SWR, the greater the impedance mismatch and the greater the reflected power.

If you're using a solid-state transmitter, and the SWR is greater than 2, sensors within the transmitter will probably reduce the output power so that the transmitter will not be damaged. An antenna tuner situated between the transmitter output connection and the transmission line can be used to ensure a low SWR at the transmitter.

It should be noted that the "antenna tuner" DOES NOT tune the antenna. It does nothing more than transform (change) the impedance looking toward the antenna from the transmitter to something that the transmitter will tolerate. Some tuners claim to accomplish this over a wide range of load impedances, but they never state that considerable power may be dissipated in the tuner as a result.

We usually think of the transmission line as a pipe where what we see at one end is what we see at the other end. Other times, we deliberately use a transmission line as an impedance transformer where what we see at one end is intentionally NOT what we see at the other end. We can't have it both ways, so which is correct and why do we care? Next month's article will explain some of the terms used to describe transmission line characteristics and how the transmission line can affect the SWR.

Don - AE6PM

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## Meeting Minutes

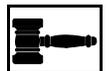
### General Meeting, May 9, 2011



*{No minutes were submitted. – Editor}*

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### Board Meeting, May 16, 2011



Red Cross Building, 2731 N 1st St, San Jose CA Status: Unreviewed

The SCCARA Board Meeting was called to order by Don AE6PM at 19:42.

Attendance: President: Don Steinbach AE6PM Vice President: Fred Townsend AE6QL Treasurer: John Altieri W6HW Trustee: Don Village K6PBQ Directors: Lou Steirer WA6QYS, Wally Britten, KA6YMD, Gary Mitchell WB6YRU, Gregg Lane KF6FNA

Absent: Secretary Viki Moldenhauer KI6WDS, Director John Glass NU6P. Visitors: Gwen Steirer KF6OTD, David Paul

AE6MV

Announcements: Don AE6PM announced that the SCCARA-GRAM inputs are due to Gary no later than May 30.

Treasurer's Report: No change from last month: checking = \$3026.28; savings = \$3847.12; cash = \$240.00. Our liability insurance premium is \$200, down from \$320. Payment has been made. The Franchise Tax Board has processed the application to restore SCCARA as a non-profit with the Secretary of State.

Secretary's Report: None. Approval of minutes was deferred to a future meeting.

Business Items:

- David Paul had asked RACES to start work on the 2-meter antenna, but unexpected rain prevented it.
- Wally reported that there is a problem with the 2-meter repeater telephone line.
- David Paul requested that SJ RACES be able to use the 70 cm repeater on May 22. Approved.
- Gary reported that the 2 M bandplan published in the SCCARA-GRAM has an error in it. The correct version can be downloaded from [www.n0ary.org/ncpa](http://www.n0ary.org/ncpa).
- Fred reported that the coax cables on the antenna trailer have been tested and tagged.
- Fred requested authorization to purchase a Windom antenna and 100' of rotor cable and connectors NTE \$250. So moved by Lou WA6QYS and seconded by Gregg KF6FNA. Motion carried with all present in favor.
- Gregg K6FNA made a motion allocate \$500 for food, ice and incidentals for Field Day. Don K6PBQ seconded. Motion carried with 5 for and 2 abstained; none against.
- Fred is looking into a new logging program for Field Day.
- Lou reported that there are 14 signups for flea market duty.
- The speaker for August will probably be Herb Sullivan, K6QXB, on Amsat.
- A motion was made by Gary WB6YRU that current and future honorary members will receive their SCCARA-GRAM electronically. Seconded by Don K6PBQ. Motion failed with 4 against.
- Gary stated that \$20 doesn't cover the current cost of a member's newsletter. He suggested the Board consider increasing the dues by \$10 for those wanting paper delivery. Gary made a motion to that effect, but there was no second. No action taken.

The meeting was adjourned at 21:02.

Don Steinbach, Acting Secretary.

## SCCARA supports MS walk, 2011

On Saturday April 30<sup>th</sup> the MS Society held their San Jose walk. SCCARA provided vital communications for the logistics and safety of the walkers. I would like to thank the following members: Wally KA6YMD, Viki KI6WDS, John KJ6HCV, Ben KJ6OQR, Tony KJ6GBC and myself Don K6PBQ for volunteering your radio and time to make the walk a huge success. Lets do it again for 2012.

73, Don Village K6PBQ

## Packet Pieces

## Downloaded from the BBS packet network:

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Date: 28 Sep 2010 01:40
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: THREE LEGGED TURKEY
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A man was driving down a country road one day at 45 miles per hour when suddenly he noticed a 3-legged turkey running at the same speed beside his truck. Though he thought this odd, the man decided to speed up so he wouldn't cause an accident with the turkey.

The man sped up to 55 miles per hour, but low and behold, so did the 3-legged turkey.

The man then sped up to 65 miles per hour only to again be equaled in speed by the 3-legged turkey.

As the man watched in amazement, the turkey suddenly made a sharp left turn and took off down a side road toward a small farm.

The man quickly also made the left turn and followed the turkey to the small farm, parking out front.

Looking around the man found the farmer around back in the midst of many 3-legged turkeys.

After greeting the farmer, the man asked him why he was raising 3-legged turkeys.

"Well we figure," said the farmer, "that with an average family of 3 people, only 2 can have a turkey leg with an average turkey. But with a three legged turkey, each member of the family can enjoy a turkey leg of their own on "Thanksgiving."

"That's pretty wise," said the man, who then asked "Well how do your 3-legged turkeys taste?"

"I don't know," said the farmer. "We've never been able to catch one."

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Date: 16 Mar 2010 01:20
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Car Privileges
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The mother and father had just given their teenage daughter family-car privileges. On Saturday night she returned home very late from a party.

The next morning her father went out to the driveway to get the newspaper and came back into the house frowning. At 11:30 AM the girl sleepily walked into the kitchen, and her father asked her, "Sweetheart, what time did you get in last night?"

"Not too late, Dad." she replied nervously.

Dead-panned, her father said, "Then, my precious one, I'll

have to talk with the paperboy about putting my paper under the front tire of the car."

=====  
Date: 23 Mar 2010 01:19  
From: W1GMF@W1GMF  
To: HUMOR@USA  
Subject: Cats For Sale!  
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A famous art collector is walking through the city when he notices a mangy cat lapping milk from a saucer in the doorway of a store and he does a double-take. He recognizes that the saucer is extremely old and very valuable, so he walks casually into the store and offers to buy the cat for two dollars.

The store owner replies "I'm sorry, but the cat isn't for sale.

The collector says "Please, I need a hungry cat around the house to catch mice. I'll pay you twenty dollars for that cat."

And the owner says "Sold," and hands over the cat.

The collector continues, "Hey, for the twenty bucks I wonder if you could throw in that old saucer. The cat's used to it and it'll save me from having to get a dish."

And the owner says, "Sorry buddy, but that's my lucky saucer. So far this week I've sold sixty-eight cats."

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## Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics including who to contact for each.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form from the club secretary.

Antennas, feed-lines, tuners: WB6EMR, W6JPP, K6PBQ, WB6YRU

Lightning protection, grounding: WB6YRU

Station set-up, equipment: K6PBQ, W6JPP

TVI/RFI: WB6YRU

Homebrew projects, construction: KD6FJI, WB6YRU

Computers: older IBM PC: WB6YRU

Packet Network (BBS, forwarding): WB6YRU

Code operating and installations: WB6EMR, K6PBQ

DX (long distance/propagation): WB6EMR

Emergency operating/preparedness: WA6QYS

HF operating techniques (SSB, CW): WB6EMR, K6PBQ

Legal/FCC rules: WB6YRU

SCCARA (club inner workings): K6PBQ, WB6YRU, WA6QYS

EchoLink: KK6MX

WB6EMR, James D. Armstrong, Jr.,  
evening & msg: (408) 945-1202

KD6FJI, Lloyd DeVaughns,  
(408) 225-6769 e-mail: kd6fji@arrl.net

KK6MX, Don Apte, (408) 629-0725  
e-mail: kk6mx@aol.com

W6JPP, John Parks, (408) 309-8709  
e-mail: w6jpp@arrl.net

K6PBQ, Don Village, (408) 263-2789  
e-mail: donvillage7@yahoo.com

WA6QYS, Lou Steirer, (408) 241-7999  
e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, (408) 269-2924  
packet: home BBS NOARY  
e-mail: wb6yru@ix.netcom.com

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## Newsletter Notes

Almost every club or organization I've seen has switched to electronic format for their newsletter. So has SCCARA. However, unlike most, SCCARA does not have a different dues rate for those wishing to continue receiving the newsletter the old fashioned way--on paper by postal delivery.

On the average, last year it cost the club \$37 each to produce and mail a paper newsletter to one person.

The dues have remained at \$20, regardless. The board has decided to keep it that way, that includes "honorary" memberships too.

Even though you won't pay more dues for the paper newsletter, you can still help the club if you are able to receive the newsletter electronically. There's a check box on the membership form.

So far we've been holding our own financially, thanks to our annual flea market fund raiser. We just had our turn last month. I don't yet know how well we did this time, but it's important we continue that effort.

## Field Day

No information was submitted regarding Field Day. Presumably it'll be similar to last year. We'll be at Mt. Madonna Park again this year. Set up will probably be Friday, June 24. Please come to the June general meeting for the details.

Mt. Madonna Park is on the ridge half way between Gilroy and Watsonville. From the Gilroy side, go west on highway 152 (Hecker Pass). At the top of the mountain, turn right on Pole Line Road. If you find yourself heading down hill, you've passed it. You don't have to turn off at the entrance gate booth, we've already reserved the whole camp site. About a mile or so up the road, enter the Manzanita camp area from the north. It'll be a left turn onto a dirt drive--it's easy to miss. See the map on the next page.

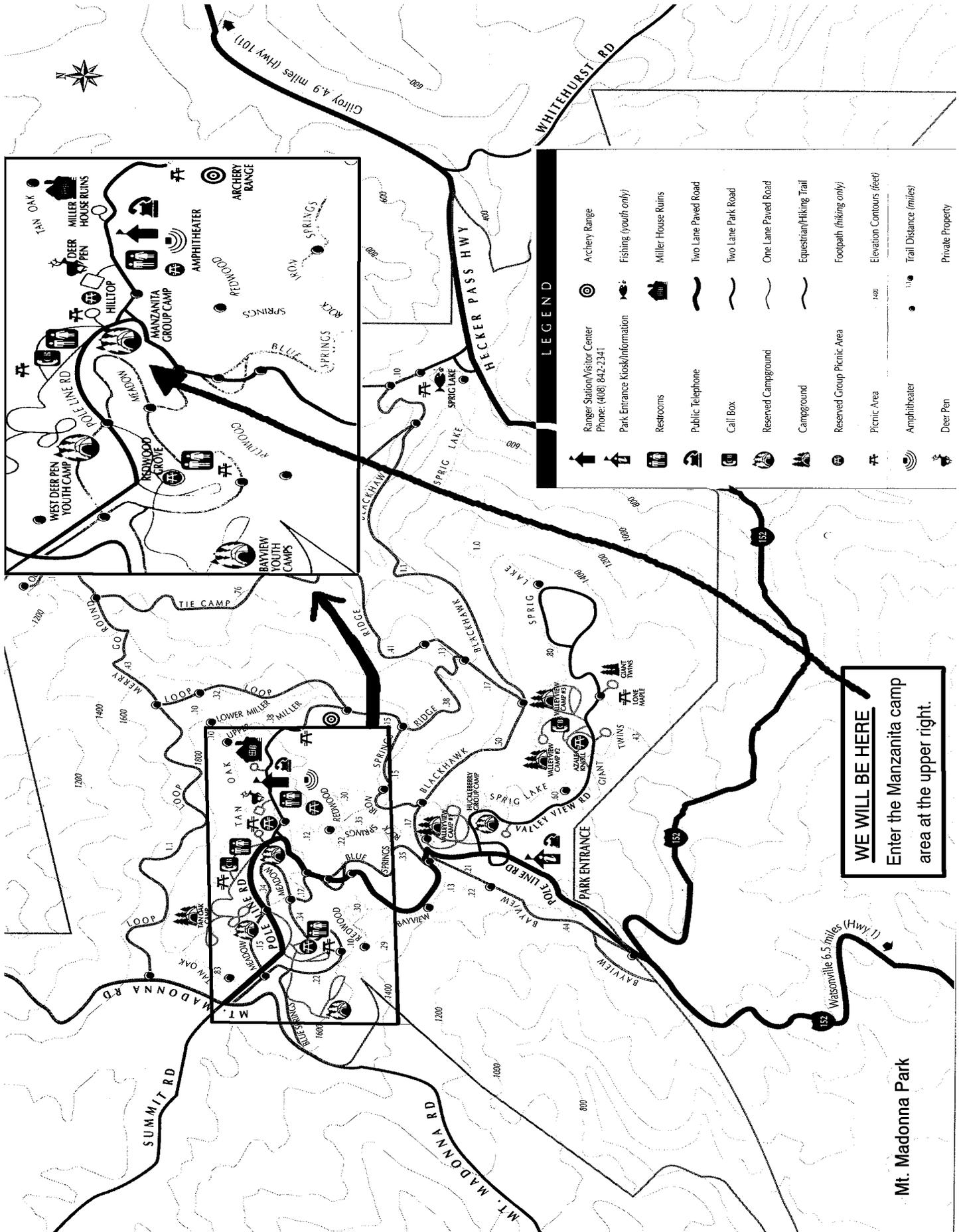
Presumably we'll be monitoring our repeater, 146.985+. If you can't reach the repeater in the mountains, use simplex on the output. Feel free come up and camp for the whole weekend or just stay for part the time, whatever you wish.

Most meals will probably be pot luck, although the club usually provides something as well. The central picnic table is the place to put pot luck items. There will probably be coolers available nearby for things that need to be kept cold.

One word of caution about food... Friday night no one will be up. During the Field Day contest itself, we may be operating the whole time, but there's no guarantee. If no one is up and around during the night, critters may come by and help themselves to food left out. The biggest ones are racoons. So moderate precautions would be in order.

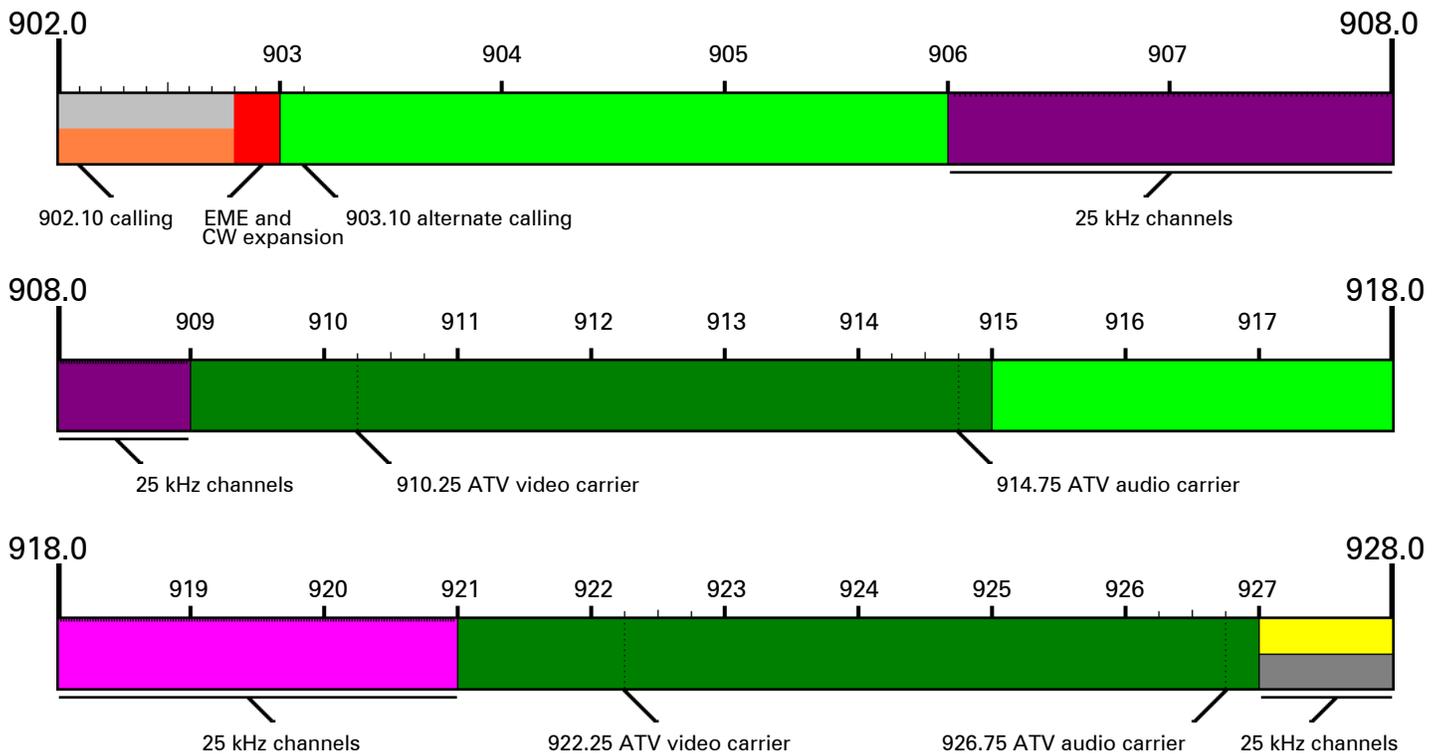
73, Gary WB6YRU, editor

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**WE WILL BE HERE**  
Enter the Manzanita camp area at the upper right.

# 33 cm Band Plan for Northern California 902.0 - 928.0 MHz



	Amateur fast-scan TV (ATV)		FM Simplex
	Narrow-band ACSSB, FAX, SSTV, and Experimental		Links
	Digital		Repeater Input
	Earth-Moon-Earth (EME)		Repeater Output
	Weak Signal		

25 kHz channel spacing for links, repeaters, and FM simplex  
Two digital channels 3 MHz wide each, duplex pair  
Two ATV simplex channels 6 MHz wide each

For general Amateur Radio, see ARRL ([www.arrl.org](http://www.arrl.org))  
For repeaters, see NARCC ([www.narcc.org](http://www.narcc.org))  
For satellites, see AMSAT ([www.amsat.org](http://www.amsat.org))

Amateur is secondary to vehicle locator service. This band is not considered suitable for omnidirectional activity, point-to-point links are preferred.



**SCCARA**

Santa Clara County Amateur Radio Association  
PO Box 6  
SAN JOSE CA 95103-0006

Affiliate of the ARRL,  
American Radio Relay League



**FIRST CLASS**

**ADDRESS SERVICE REQUESTED**

**SCCARA Membership Form for 2011**

If none of your info has changed, fill in name and call only

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: E A G T N

Address: \_\_\_\_\_ Licensed since (yr): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ - \_\_\_\_\_ Licence Expiration  
Date (mo/yr): \_\_\_\_\_

Telephone: ( ) \_\_\_\_\_  New Member  Renewal  
 I'm also a member of the ARRL

E-mail: \_\_\_\_\_

Memberships begin January 1 and expire December 31.

**If renewing:** annual membership dues (base rate) are: \$20 Individual, \$25 Family, \$10 Student (under 18)

**For new members:**

If joining in January: base rate

If joining in February through October: base rate x (11 - month) x 10% (e.g. for June, that would be: base rate x 50%)

If joining in November or December: free for November and December if paying the base rate for the following year

\$ \_\_\_\_\_ **Dues payment for:**  individual  family  student

For family memberships (at the same address), please include a separate form for each family member.

**I want the newsletter by:**  U.S. Mail  internet (make sure your e-mail address is legible and correct)

Give this completed form (or copy) with payment to the Secretary or Treasurer at any meeting or mail to the club address.