SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 15, Number 9

September 1999



President's Prose

First of all, I want to thank everyone for their presence at my Mom's funeral, the cards that were sent, and the prayers and sympathy that was offered to me and my family in the past months since mom's death, July 5. Everything has given me much comfort.

Second, I owe the club an apology. I feel I have been lax in my duties as your president. I have been spending more time taking care of my mother than taking care of my presidential duties. Now that my mother has past, I am refocusing my energies back to the present and the future, and to SCCARA and its future. I am happy to be I want to take this club into the new your president. millennium. I can't do without your help. In order to make this club a success, it will take all of you taking an active interest in the club and its activities. In order to make this your club, I need to know what you would like to see it do in the future. When you make suggestions, are you willing to ba an active participant in the solution to the problems we are having? If everyone would give just a little of your time in an area that interests you, then we would have a whole picture, that would be one everyone could look at and take credit for creating. As most of you know, I am a Mary Kay consultant. She is an inspirational and motivational person.. One of her questions is: "How do you eat an elephant?" The answer, "one bite at a time." That is how we as a group can make SCCARA succeed. If everyone helped in just one area, then we as a whole can tackle anything, and be a success. I have some suggestions for things that we could do. 1) Hold classes to teach people how to become hams. This is a good place to get new members. 2) Help the club when it is the sponsor at the Foothill Flea Market. 3) Field Day: Come and participate, and bring a friend. 4) Meetings: Come to the meetings, and bring a friend. 5) Find a new location for our radio station. The Red Cross site is not as good as it could be. We are not using it often enough. We are looking for a site that is more easily accessible to more people, at any time. 6) Get involved in a P.R. program that would let the public know who we are, what we offer them, and stimulate

Calendar 9/11 Foothill Flea Market--We Host! 9/13 SCCARA General Meeting SCCARA Board Meeting--(San Jose Red 9/20 Cross, 7:30p, all are welcome) **Next General Meeting:** Monday, September 13, 1999 Day: 7:30 PM Time: Hewlett-Packard's Oak Rm, Bld #48 Place: Dan Dietz WM6M will talk about Featuring: batteries. Homestead Hewlett-Packard complex Building #48 Cupertino 280) Wolfe Valco Valco MONTAGUE RED _ CROSS PLUMERIA N 1st Airport

The SCCARA-GRAM is published monthly by the SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION, PO Box 6, San Jose CA 95103-0006. Permission to reprint articles is hereby granted, provided the source is properly credited. The deadline for articles is one week before 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 - STAFF

President	Barbara Britten, KD6QEI e-mail: ka6ymd@juno.c	
Vice President	Bob Forster, N6PCQ	296-5509
	e-mail: rlforster@world	net.att.net
Secretary		
Treasurer	Lloyd DeVaughns, KD6FJI	225-6769
	e-mail: ldevaughns@aol	.com
Station Trustee	Stan Getsla, WA6VJY	275-0735
	e-mail: stan.getsla@trw.	com
Director	Clark Murphy, KE6KXO	262-9334
	e-mail: cmurphy@izap.c	om
Director	Don Apte, KK6MX	629-0725
	e-mail: kk6mx@aol.com	
Director	Don Village, K6PBQ	263-2789
Director	Lou Steirer, WA6OYS	241-7999
	e-mail: wa6qys@aol.con	
Director	Wally Britten, KA6YMD	293-3847
	e-mail: ka6ymd@juno.co	
Editor	Gary Mitchell, WB6YRU	22.00
a.A.H.OI	e-mail: wb6yru@aenet.n	

COMMITTEES

8									Š		8	8					å	8		8	Š		Š		Š		Š	Ş		ě		Š	ं	í	8									8							÷		Š	0					8					8	ं	Ö			8
Ü	ា	Ŕ	c	Ľ	ić		ı	e	ŕ		Š		i	i	ŝ	ä	ŝ			Š	Ŷ		ġ	V	ŷ	į	i	ľ	'n	i		Ė	i		t	t	ϵ	i	1	i	i	K		۵	i	ŝ	١	Ż	١	À	Ì)	Ě	ě	Š	Š	ä		8	2	Ċ	ì	1	_	ij	ġ.	4	7	ĺ
			Ü								8				ě	ŝ			Š	9	ä		Š	Ů	3	ě																													Š	8	ě	8		•						ं			
															ě	ं		Š		8										e		1	ľ	l	3	H	ŀ		K	ı	1	ņ	y	Ĩ	r	K	1	Ç	3	J	ι	I	1	O	Ġ	C	c	1	1	l			Š		8				ŝ
	1	V	n	1	Ĺ	k	į,	Ÿ		Ť	3	É	ı	ς.	٥		Ċ			Š	8		i	Ċ	Ť	a	r	٦.	Ż.	ì	۱	À	i	t	c	ľ	i	=	l		8	١	ŧ,	/	Ä	í	í	۲	r	Ŕ	ï	ľ	Ţ		Š	8	÷			2	ŕ	÷	۲.		ż	2	1	6	ŝ
			Ũ		Ī		ì								ä	8	ĕ	ŝ	Š	ŝ	Ċ	8																																								i.		k	Ē				i
										8	8	B	8		Š		8	8			×							8	Ņ	e	٠	1	r	ì	3	Ц			٧	V	D	t	١	Ý.	r	u	(a	Į.	а	e	1	ľ	2	Ċ,	1	1	С	t		×	ŝ	ĕ	Ġ					è

SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:

2 meter: 146.385 + PL 114.8 (none for basic use)

70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available). The two meter repeater is located in the Mt. Hamilton foothills, Alum Rock area. The 70 cm repeater and N0ARY BBS is located at the Alexian Brothers Hospital, 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 K6PBQ. On ten meters, 28:385 MHz USB, Thursdays at 8:00 PM. Net control: Wally KA6YMD. Visitors welcome.

NOARY PACKET BBS

SCCARA hosts the packet BBS NOARY (San Jose). User ports: 144.93 (1200 baud), 433.37 (9600 baud), telephone 408 259-8497, internet (by registration only, get info by sending e-mail to: info@n0ary.org). Sysop: Gary WB6YRU

TELEPHONE NUMBERS

SCCARA contact Clark KE6KXO: 408 262-9334
ARRL/VEC Silicon Valley VE group: 408 243-8349
me-ae6z@worldnet.att.net

them to be interested in us enough to become a part of us.

Search your hearts, and heads, and come up with ways to make SCCARA grow and prosper. Bring your ideas to a meeting, and let others help bring your ideas to reality. Thank you for all that you do, and all that you will do on SCCARA's behalf.

Barbara, KD6QEI



Flea Market!

SCCARA Sponsors Sept. Foothill Flea Market

September 11th will be SCCARA's turn to sponsor the Foothill Flea Market. It will be an opportunity to give our club coffers a needed boost. It is a manpower intensive endeavor. We will need to have a crew in place at 0400 to set up and help with space rental fees. During the morning a minimum of 6 people are required to keep things under control. A sizeable crew is needed for tear down and clean up from 1200 to 1400. Shifts are in 2 hour increments. This way no one gets burned out and everyone gets a chance to look around at the vendors booths.

Shifts are:

A 0400-0600 B 0600-0800 C 0800-1000 D 1000-1200 E 1200-1400

Please sign up to help at least for one shift if not more. If you have a friend (ham or non-ham) bring them along. We will need all the help we can get. Remember this is an ideal opportunity to help your club. SCCARA and I thank you.

Lou, WA6QYS

Meeting Minutes

General Meeting, Aug. 9, 1999



7:40 p.m. Meeting called to order by Club President Barbara, KD6QEI. Barbara thanked the club for the letters and cards she received following the death of her mother. Barbara announced that she will miss the September Board meeting. Barbara also said that she contacted the school, but has not

been able to talk to anyone about the radio room.

Treasurers report: Lloyd, KD6FJI, reports that the total amount in the treasury is \$6,862.73

Repeater Report: Wally, KA6YMD, said that Trish, WA6UBE, is planning to do a test with SCCARA repeater to see if there is any interference with the repeater in Sacramento and Manteca.

Gary, WB6YRU, informed the club that there is a problem of interference with the NOARY BBS user port. Gary said that it may be a pager system that is causing the problem.

Mike, KC6LCJ, reports that Doug, WN6U, one of our premier CW Field Day operators, may be getting married and moving to Washington.

Don, KO6HH, reminded the club that we will be having club elections in November. Please get nominations for SCCARA officers in.

Self introductions were the next agenda item.

Don, K6PBQ, announced that the SCCARA picnic will be August 29, at Mary Gomez Park in Santa Clara.

Gary, WB6YRU, suggested that we have everyone tell why they joined SCCARA, in hopes of finding out what will help get people to join. One of the things mentioned is that visitors should be talked to. Another reason that stuck out is that they joined because of the class.

Don, K6PBQ, is tonight's guest speaker. His topic is special event station certificates.

Motion to adjourn. Second and passed. 9:38 p.m. Meeting adjourned.

Lloyd, KD6FJI

Board Meeting, Aug 16, 1999



{No minutes were received by the deadline. --Ed.}

General Meeting, July 12, 1999



7:40 p.m. Meeting called to order by club Vice President Robert, N6PCQ. Robert stated the meeting by announcing that Barbara's, KD6QEI, mother had passed away. Self

introductions followed as is our custom.

Robert, N6PCQ, started a net a 8:15 p.m. on thursday night on the 2 meter repeater (W6UU). Robert also suggest that we have a mini station set up at each picnic we have.

There was a general ragchew session on Field Day. Henry led off with a talk about the photo album he assembled.

Dan, WM6M, was tonight's speaker and his topic was Field Day and ways that it could be improved.

9:21 p.m. Meeting adjourned.

Lloyd, KD6FJI

Board Meeting, July 19, 1999



Present: Lloyd, KD6FJI; Don, K6PBQ; Barbara, KD6QEI; Wally, KA6YMD; Don, KK6MX; Lou, WA6QYS.

7:42 p.m. Meeting called to order by Barbara, KD6QEI.

Barbara, KD6QEI, will be gone the entire month of September. Bob, N6PCQ, will not be here tonight. Barbara is in the process of talking to San Jose Unified School District about getting a club station on school property. Bob, N6PCQ, wants to have Gray be our speaker for the August meeting with the topic of how N0ARY benefits SCCARA.

Field Day Food Report: Barbara, KD6EQI, was advanced \$403.47. She spent \$240.05. Members paid \$256.00 for the meals. SCCARA's had a net profit of \$15.95. Returned to Sccara \$163.42.

According to Barbara, KD6EQI, Jo Beth is hereby given an apology for not having her noon time food ready.

Barbara, KD6EQI, October will be here soon and we need to think about getting officers for the up coming year. September 11, 1999 will be the SCCARA Foothill Flea Market. We need a Secretary for next year.

Wally, KA6YMD, Trish, WA6UBE, wants to do a repeater test this weekend. There should be someone in Sacramento to observe any interference with the repeater there. Lloyd, KD6FJI, said he might be available to observe the test in Sacramento.

There was a discussion of the letter form Paul Wesling and his suggestions for improving SCCARA's membership. There was also a discussion of SCCARA putting on a ham licensing class. We discussed having a 8 week, a 4 week and weekend class.

Don, KK6MX, suggests that the SCCARA-GRAM be put on the N0ARY BBS.

Don, K6PBQ, suggests that we do something at the next meeting to make it more interesting like a raffle.

The picnic will be at Mary Gomez Park on August 29, 1999.

9:15 p.m. meeting adjourned.

Lloyd, KD6FJI

General Meeting, June 14, 1999



7:30 p.m. Meeting called to order by Barbara, KD6QEI, club president. Self introductions followed as is our custom.

Repeater Report: Wally, KA6YMD, the new repeater location should be up and running within a month. There is still some work to be done at the site.

Treasurers Report: Lloyd, KD6FJI, the new account is open and the old account needs to be closed out.

Field Day food: Barbara, KD6QEI, asked those attending Field Day wanted baked potatoes instead of potato salad. The choice of the masses is baked potatoes. The baked potato will be the official SCCARA potato at Field Day.

Barbara, KD6QEI, a new badge maker press has been purchased at a cost of \$29.95. Barbara authorized the treasurer to reimburse Mike, KC6LCJ, for the badge maker.

Don, K6PBQ, need someone to be net control on the 2 meter net. Don wants to know if the club wants to have a picnic. The members present wanted one and it will the last sunday in August.

Tonight's speaker is Dan Dietz, WM6M, and his topic is Field Day and how to promote SCCARA and ham radio to the general public.

8:50 p.m. meeting adjourned.

Lloyd, KD6FJI

Board Meeting, June 21, 1999



PRESENT: Lloyd, KD6FJI; Don, K6PBQ; Barbara, KD6QEI; Wally, KA6YMD; Gary, WB6YRU; Lou, WA6QYS; Robert, N6PCQ; Dan, WM6M; Don, KK6MX.

7:40 p.m. Meeting Called to order by Barbara, KD6QEI, club president.

Barbara, KD6QEI, stated the meeting talking about the need for coolers, and baked potatoes will served instead of potato salad. We will get one extra lemonade and some other sodas. Barbara's mother will help with the cooking. 2 people from Barbara's work will be at field day for lunch. Barbara estimated the cost of the field day food to be about \$300.00.

Don, K6PBQ, said that we may have to cut back on the stations we have if we don't have the people to man the stations.

Dan, WM6M, discussed field day. There was a general discussion of what is needed for field day from the storage locker and from individuals.

There was a discussion about getting new members. One of the suggestions was to have more pot luck type dinners. There were some suggestions concerning the conduct of the meetings that would make them interesting and proceed in at well paced and timely manner.

Barbara, KD6QEI, report on the status of establishing a club station at a San Jose Unified School District. She reports that no one has returned her phone calls.

Robert, N6PCQ, suggests using the SCCARA repeater as an Elmer net with "experts" to answer questions. Robert also said he has information about getting newly licensed hams from the FCC website.

Lloyd, KD6FJI, suggested that we look into modifying the SCCARA antenna trailer to make it easier to tow. The tongue weight of the trailer is very heavy and this limits the vehicles that can tow it. There was a discussion of this.

Gary, WB6YRU, talked about the SCCARA-GRAM and how it is suppose to represent SCCARA but it does not. There are no stories or articles by SCCARA members. There was a discussion about doing surveys about why someone joined SCCARA, and what the membership wants SCCARA to become.

9:52 p.m. meeting adjourned.

Lloyd, KD6FJI

General Meeting, May 10, 1999



7:35 p.m. Meeting called to order by Robert, N6PCO. Self introductions followed as is our custom.

Tonight's speaker is Roy Rustin, W6II, and his topic is Digital Signal Processing (DSP).

Business Meeting:

Field Day: Dan, WM6M, states that we need help to set up for field day. There was a discussion about field day and what has to be done to get ready.

Lou, WA6QYS, announced that SCCARA will host the Foothill Flea Market the second weekend in September.

Mike, KC6LCJ, has purchased a new badge making machine.

Don, KK6MX, made \$23.00 at the foothill flea market from the sale of transformers.

Robert, N6PCO, suggests that we have a table at the next foothill flea market to clear out SCCARA's storage locker. There was no action taken on Robert's suggestion.

Don, K6PBQ, asks if we should have a picnic. There was no action taken here, but it will be mentioned at the June general meeting.

9:13 p.m. Meeting adjourned.

Lloyd, KD6FJI

Why SCCARA?

Dan Dietz WM6M wrote an article in a recent SCCARA-GRAM about how we could think about "selling" SCCARA to others like a product. That's certainly one approach, but I've always thought about it a little differently, namely, why join a club like SCCARA in the first place, and then why stay?

We didn't have scheduled speaker at our last meeting, so I asked if we could go around the room and have each person talk about what attracted them to SCCARA and why they stayed. I really feel this provides important information as to what SCCARA should be doing and where we might want to take the club in the future.

There were many reasons why people became members, inleuding: a friend introduced them to the club, met friendly people at their first meeting, joined in connection to our class, publicity (picked up a newsletter somewhere), club has interesting history, just wanted to join a local HAM club, needed advice before and after buying equipment, club is a resource, wanted to become a HAM, no charge for education (both the class and at meetings), club has a pool of potential elmers, socials (dinner meetings) etc. By far and way, the most common of these was: the amateur radio class. Also widely mentioned was that they got in because of a friend and the club is a good resource.

There were fewer comments about why they maintained membership, but the vast majority indicated that the club is a good resource (experienced members, informative meeting speakers and newsletter, projects/activities). Some also indicated they liked having a way to hobnob with their fellow amateurs in person.

Conclusions:

- 1) The single most effective thing we can do to attract new members is provide an amateur radio class. We haven't done that lately.
- 2) During meetings or club functions, be friendly and open, say hello--especially to visitors or someone you haven't seen lately. Don't just stick together in clumps of the same old friends.
- 3) We could be more of a resource. Things like the elmer list in the newsletter and interesting speakers are a good start, but I think we can do more. One person mentioned having special interest committees made up of members with similar interests (HF, contesting, packet, repeaters, weak signal, ATV, satellite, etc.). Those groups could take turns giving a mini-presentation from time to time about whatever they've been up to lately. Even individuals can make a big difference: if you are working on a project of any kind, don't keep it to yourself, share it with the club.

73, Gary WB6YRU

Money Money Money!

SCCARA 1998 Financial Report

Prepared by WB6YRU from bank records

Repeater Fund

(No activity, except bank charges and interest.)

Starting balance	4895.87
Savings (interest)	75.61
Checking fees	-96.00
Ending balance	4875.48
	-20.39

General Fund

0000 21

Starting balance

Starting balance	9090.31
Ending balance	5438.51
Net for 1998.	-3661.80
Activity Details	
Dues	+1280.00 *
Flea Market (net)	+1886.94
Interest	+113.37
Donation (BBS)	+100.00 *
Trailer (net after sale)	+149.72
Member food payments	+1017.17 *
Incoming subtotal	+4547.20
Bank charges	-96.00
Meeting room	-140.00
Newsletter	-2855.17
Insurance	-595.91
Locker	-523.00
Station	-116.56
Repeater/BBS	-1776.73
Field Day	-73 0.19 *
Raffle	-98.33
Picnic	-105.03 *
Dinner meetings	-905.74 *
Misc.	-266.34
Outgoing subtotal	-8209.00
Incoming	4547.20
Outgoing	-8209.00
	-3661.80 net general fur

3661.80 net general fund

* Dues included payments for food (dinners, etc), the total dues was \$2199.17. Barbara later told me that there was money returned from the amount withdrawn to buy food for Field Day--this was not accounted for above. There may be other similar errors. Furthermore, this report makes the following assumptions: December dinner payments pretty much covered the cost of the food. Dues rounded off to the nearest \$5.00. Dues deposits made from May through July (\$344) are payments for Field Day food. A \$100 donation (made by a non-member to the BBS) was entered along with dues.

The Newsletter figure includes postage payments for 1999 and a one-time printer cost.

Despite these irregularities, the sub-totals and overall financial status should be correct.

News from the ARRL

The ARRL Letter, August 20, 1999

TOP BAND OPENS AT HIGH NOON DURING ECLIPSE

For a few brief hours on Wednesday, August 11, the impossible happened: 160 meters opened to summertime, daylight DX. What made it possible was the total--or nearly total--eclipse of the sun.

The August 11 eclipse was the last total solar eclipse of the 20th century. The trajectory of the moon's shadow carried it across Central Europe, Turkey, the Middle East, Pakistan and India. Scientists had theorized that the absence of sunlight in the ionosphere could affect D-layer propagation. NASA had called on hams and SWLs to monitor shortwave signals from Europe before, during, and after the eclipse and report their findings.

Scientific studies by NASA and others aside, Luis Mansutti, IV3PRK, has ample anecdotal evidence in his logbook that the eclipse did, indeed, enhance D-layer propagation.

"It has been a great experience, enjoying such beautiful conditions at noon in the month of August on 160 meters!" he said in a posting to the Topband and Low Band Monitor reflectors. Mansutti--a DXCC Honor Roll member who now DXes exclusively on 160--reports that the eclipse began at his QTH in JN66ne at 0918 UTC, reached a maximum of 96% of totality at 1042 UTC, and was all over at 1206 UTC.

As the eclipse began, Mansutti started hearing signals from the path of totality. After first working DL1DA in Germany, he started calling CQ and managed more than two dozen stations in 13 countries between 1020 and 1130 UTC. Other stations worked were in the UK, France, Sweden, Romania, and Turkey--the QSO times roughly tracking the path of the eclipse across Europe and into Asia Minor. His best DX was GM3POI, some 1740 km away.

For the record, IV3PRK typically runs 600 W to a shunt-fed 29-meter tower that's top-loaded with beams. He receives on a four-square phased mini-array.

Mansutti says the typical 160-meter summertime noise level began to increase as the eclipse ended.

IV3PRK was philosophical about his "fascinating" experience. "Unfortunately, it will not be possible to do it again," he concluded.

NASA reports that a special broadcast of the BBC World Service on 7.325 MHz was beamed toward the US on August 10 and 11 to test shortwave radio propagation conditions during the eclipse. An eclipse-related anomaly in the radio broadcast appears to have been detected on August 11. On

August 10, the day before the eclipse, the BBC signal from Rampisham, England, was undetectable from the Marshall Space Flight Center in Alabama due to D-layer absorption over England and the Atlantic. On August 11--the day of the eclipse--the radio signal came in clearly as the moon's shadow crossed the Atlantic.

NVIS Antenna

The CO2KK practical low cost NVIS antenna system by Professor Arnie Corro, CO2KK

NVIS works! And it helps a lot when handling emergencies like the frequent Hurricanes here in the Caribbean. Here are a few notes about one of them, that I think will help those contemplating the installation of an NVIS system, either as a permanent or emergency antenna.

NVIS (Near Vertical Incidence Skywave) is where the antenna fires the signal straight up, at a very high vertical departure angle. The signal reaches the ionosphere and IF the critical frequency is near the one you are using, you get the NVIS effect—a very intense signal coming to the receivers from a very high angle, JUST LIKE RAIN!

The antenna I use is just a standard half wave dipole, but it is in a FOLDED configuration. Due to the extreme proximity to GROUND, the antenna's impedance at its center is very low. It depends on the ground and the installation, but the standard half wave dipole which typically has around 50 ohms when at about 1/4 wavelength above ground, may go down to some 15 ohms when so near to the ground...NOW, you have a 12 to 20 ohm impedance antenna, so you make it a folded dipole and the impedance at the center is 4X. In other words then you will have from 48 to 80 ohms which is a reasonably good match for both 50 and 75 ohm coaxial cables. If you make the FOLDED DIPOLE a really FAT one, with separation between upper and lower wires of about 50 centimeters, the antenna's bandwidth is broadened too, but it is still a single band antenna.

You really don't need a balun to feed it, but I like to use a coaxial cable decoupling choke, made by winding about 10 turns of the coax in a ring of about 30 centimeters diameter, which is both inexpensive and effective. Perfectionists may spend money and build or buy a 1 to 1 balun (symmetric to asymmetric load coupler).

CO2KK's approach to LOW COST NVIS

1. This simplest possible NVIS design is just a dipole, for 160, 80 or 40 meters which is installed close to the RF ground. I prefer to install it close to a "real ground", but have tested the concept as a rooftop installation on buildings with reinforced concrete roofs with excellent results although the roof has to be large enough for the real NVIS radiation

to develop.

- 2. The height above ground of that simplest NVIS will have no less than four different effects on the antenna:
- a) It will make it a "very quiet antenna" as compared to a regular dipole at say 0.5 wavelength above the RF ground;
 - b) It will increase the losses;
 - c) It will lower the antenna's impedance quite a bit!;
- d) It will provide "parasitic element gain" of no less than 4 dBi.
- 3. For a typical NVIS devoted to 7 MHz work, my "practical experience parameters" are the following:
 - a) Length is standard half wave dipole;
- b) Dipole is configured as a FOLDED DIPOLE with the two wires folded back upon themselves, separated about 50 centimeters (this will broaden the antenna's bandwidth a bit and makes it easier to match antenna and feedline impedances);
- c) The antenna is installed at 0.1 wavelength above RF ground, which is about 4.2 meters (you can move up the antenna up and down and do some nice experiments, but more about that later);
- d) The antenna is fed using a 1 to 1 BALUN. Due to the close proximity to the RF ground plane, the normal roughly 300 ohm impedance of the folded dipole will move down to near 50-70 ohms (depending on surrounding objects etc). This then will be 50 to 70 ohms balanced, so it is good engineering practice to include a 1 to 1 balun, or a lower cost RF decoupler made from several turns of the coax feedline;
- e) Antenna is adjusted to minimum SWR by moving it up and down in height! Or you can just forget about that and install an antenna tuner to make your rig see 1 to 1 SWR at 50 ohms! As some may have realized already, the system will "behave" like a two element parasitic array (a two element Yagi) which is beaming straight upward!

This ULTRA SIMPLE NVIS system will be of good use for both QRP and QRO operators, especially if relatively short distance communications are needed during an emergency.

The same criteria apply for the 160 and 80 meter antennas, the only thing is that the masts will have to be taller!

One final comment: you may add a wire reflector below the antenna, insulated from the ground, but very close to it... resonate the reflector wire about 5 percent lower in frequency from the resonance frequency of the dipole.

The NVIS CO2KK ULTRA SIMPLE antenna system is NOT PATENTED... NOR PATENT APPLIED FOR... it is in the public domain available to help anyone that may need it. My advice: keep one handy with your emergency communications kit!

Any doubts... just e-mail direct to: <arnie@radiohc.org> or: <inforhc@mail.infocom.etecsa.cu>.

From the newsletter of the North Hills Radio Club, http://www.K6IS.org, nhrc@k6is.org

Field Day 1999

Thanks to all who organized and participated in Field Day. The weather was unbeatable and cooperated to provide the finest possible environment for us.

Special thanks go those intrepid souls who trekked to Mount Madonna on Friday afternoon and set up the equipment, antennas and food services and also those staying or coming to help with tear down. Our crew was small in number but mighty in determination and purpose. I commend and thank you all!

A total of 522 CW and 363 phone contacts were made. Claimed bonus points included 100 points for a mention by John Farley of KNTV on Friday's 6 o'clock news weather segment. We had hoped to possibly have a remote from our site but that decision was not John's to make. We sincerely do appreciate his mention and support.

We also gathered 100 points each for using emergency power, location in a public place, having an information booth, and copied the W1AW message. That message was copied by both Don, K6PBQ and Rick, N6DQ.

Our total claimed score therefore is 3314 points. Thanks again to all operators and participants for the score. We had fewer CW and phone operators this year than in previous years plus we also did not have a Novice station. Our Novices have already told me they will be there next year. I hope you are making the same plans! Seems that we should organize and produce some classes that would provide new operators and thus propel SCCARA into the next century alive and active.

There has been some discussion and thinking about how SCCARA might change operations next year to better utilize our available people, equipment and site. This year we used laptops for logging purposes and that is a step in the right direction. Given we have fewer operators each year, we need to maximize the results from those people we do have by creating a more efficient operation. Here are some ideas:

- 1. I think we should take far less "stuff" up there. We're tired before we start!
- 2. We should know which rig works best for a mode and then only take one spare rig.
- 3. We should also undertake a club project of building filters so the stations will not interfere with each other.
- 4. Perhaps use a RV, tent or shelter as a break room, media center and information booth. Those wishing to operate or log could practice a bit before being tossed into action. The "spare" rig could be used as a spotting radio to

listen to band changes and conditions. Operators and loggers would be "fresher" and more efficient if they had a break area away from the commotion.

- 5. Practice or demonstrate the essence of Field Day at our upcoming picnic.
- 6. Provide participation awards such as caps or T-shirts or pins...something of commemorative value.

I hope you will think about how we can improve Field Day next year and offer your ideas.

73. de DAN, WM6M

From the Internet

From: Dan Dietz <dand@mtnweb.com>

Subject: Some good thoughts

Raising teenagers is like nailing Jell-O to a tree.

There is always a lot to be thankful for if you take time to look for it. For example, I am sitting here thinking how nice it is that wrinkles don't hurt.

Reason to smile: Every seven minutes of every day, someone in an aerobics class pulls a hamstring.

The best way to keep kids at home is to make the home a pleasant atmosphere ... and let the air out of their tires.

Car sickness is the feeling you get when the monthly car payment is due.

Families are like fudge...mostly sweet with a few nuts.

Today's mighty oak is just yesterday's nut that held its ground.

Laughing helps. It's like jogging on the inside.

Middle age is when you choose your cereal for the fiber, not the toy.

My mind not only wanders, sometimes it leaves completely.

The more you complain, the longer God lets you live.

One day I shall burst my buds of calm and blossom into hysteria.

If you can remain calm, you just don't have all the facts.

Life's golden age is when the kids are too old to need

baby-sitters and too young to borrow the family car.

Eat a live toad first thing in the morning, and nothing worse can happen to you the rest of the day!

You know you're getting old when you stoop to tie your shoes and wonder what else you can do while you're down there.

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 ask the club secretary for an Elmer survey form and fill it out.

Antennas, feed-lines, tuners:
WB6EMR, AC6FU, K6PBQ, WB6YRU
Lightning protection, grounding: WB6YRU Station set-up, equipment: AC6FU, K6PBQ TVI/RFI: WB6YŔU Homebrew projects, construction: AC6FU, KD6FJI, WB6YRU Computers: KB6NP; IBM PC: WN6U, WB6YRU Packet Network (BBS, forwarding): Other digital modes (AMTOR, RTTY): WB6YRU WN6U Code operating and installations: WB6EMŘ, AC6FU, K6PBQ DX (long distance/propagation): WB6EMR Emergency operating/preparedness: FM (VHF/UHF, repeaters): WA6VJY HF operating techniques (SSB, CW): WB6EMR, AC6FU, K6PBQ Mobile operating: WN6U NTS & traffic handling: QRP (HF low power, all modes): WN6U TEN-TEN (10 M only): AC6FU Classes/license upgrading: W6ACW, AC6FU Legal/FCC rules: WB6YRU SCCARA (club inner workings): KO6HH, K6PBQ, WA6ŬJÝ, WB6YRU, WA6QYS Math applications: AC6FU Children's Discovery Museum, volunteer operator: K6PB0 W6ACW, Ed Hajny, (408) 739-6105

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

KD6FJI, Lloyd DeVaughns, day: (408) 299-8933, evening: (408) 225-6769 packet: home BBS KB6MER

AC6FU, Jack L. Ruckman, (408) 379-4846

KO6HH, Don Hayden, (408) 867-4643 packet: home BBS NOARY

KB6NP, Jon Dutra, day & msg (408) 428-2058 evening (408) 867-8654 packet: home BBS NOARY

internet: jad@aol.com

K6PBQ, Don Village, (408) 263-2789

WA6QYS, Lou Steirer, (408) 241-7999 packet: home BBS NOARY

WN6U, Doug Eaton, (408) 377-3736 packet: home BBS NOARY

internet: wn6u@compuserve.com

WA6VJY, Stan Getsla, day: (408) 738-2888 x5929, evening & msg: (408) 275-0735

WB6YRU, Gary Mitchell, msg (408) 265-2336

also (408) 269-2924 packet: home BBS NOARY internet: wb6yru@aenet.net

Newsletter Notes

It's "catch up" time for meeting minutes in this issue. Obviously it would be better to have them here in a timely manner, but since we don't have a secretary, I guess we should be happy that at least someone is taking minutes in the first place.

This issue also has the 1998 financial statement for the club. Like the 1997 statement in the April issue, this came from the audit work that was done recently (specifically, from the list of transactions from the bank statements).

Unfortunately, some of the details aren't right. For example, a lot of incoming money (BBS donations, payments for food at club functions, etc) was logged in as annual dues. The club apparently had a loss on food for things like Field Day; however, I was later told that a significant amount of the money Barbara got for buying food for Field Day was later returned. That returned money seems to have been entered as dues, thus the food cost appears to be higher than it really was.

Despite these inaccuracies, the overall balances seem to be correct. As you can see, we spent significantly more than came in. This is the main reason our V.P. has been pushing for some belt-tightening. This is why there are no more prizes at dinners or raffles, and more effort being made to be sure member payments for dinner meetings will balance, etc.

One major expense is the newsletter. There still isn't any consensus on whether we should stop using bulk mail. On the one hand, with our current membership, it would be significantly cheaper if we stopped using bulk mail. On the other hand, if we send complementary issues to enough new amateurs it would be better to keep using bulk mail. The snag is how do we compile a monthly list of new members. Our VP, Bob N6PCQ was looking into it, but found no easy way to compile such data.

73, Gary WB6YRU, editor

ARRL Pacific Division Update

September 1999

ULS Looms Large for Amateurs

Say hello to the ULS! Monday, August 16, the FCC's Universal Licensing System becomes a reality for the Amateur Service. The FCC said August 13 that the ULS would be out of service until then to prepare for implementation. This means amateurs will have to wait until the ULS is back up to register.

The ULS ushers in an era of electronic, interactive filing and handling of Amateur Radio applications and marks a major change in the way Amateur Radio applicants will deal with the FCC. It also means the demise of the familiar paper FCC Form 610 series in favor of the "universal" Form 605 - primarily designed for electronic use but also available on paper. Once registered, amateurs filing applications with the FCC under the ULS will use Form 605 for all purposes except--at least for now--club station applications.

The FCC began a week-long ULS phase-in period for the Amateur Service August 8 and has been converting existing Amateur Radio licensing data into the ULS database. Electronic Amateur Radio license renewal using FCC Form 900 was scheduled to end August 9. Electronic vanity call sign applications using Form 610V was to terminate August 13.

Before using the ULS to file an application, renew or modify a license, or apply for a vanity call sign, all amateurs must register. When registering, individuals eligible to hold a Social Security Number must provide this number--which the FCC refers to as a Taxpayer Information Number or TIN. This requirement is a mandate of Congress, not of the FCC. All hams must be registered in the ULS to do business with the FCC.

Applicants use TIN Registration Form 606 for electronic or manual registration. To register electronically, visit http://www.fcc.gov/wtb/uls/ and click on "TIN/Call Sign Registration." A paper Form 606 is available at http://www.fcc.gov/formpage.html or by calling 800-418-FORM (3676). One big advantage only to on-line registrants is that the ULS application system checks for errors before data are submitted.

For now, applications for club, military recreation, and RACES licenses should be filed on the "old" FCC Form 610B.

Starting August 16, hams already registered in the ULS may file applications using the new FCC Form 605 electronically at any time of day, seven days a week. FCC Form 605 will be used for license renewals, modifications, cancellations, application withdrawals and amendments, as well as requests for a vanity call sign, duplicate license,

change of address or other clerical license modification. Visit the WTB ULS page, http://www.fcc.gov/wtb/uls and click "Connecting to ULS" for information on accessing the ULS system. Accessing the ULS database requires a telephone modem. A toll-free number, 800-844-2784, connects users to the FCC's Wide Area Network.

For more information, visit the FCC's ULS page, http://www.fcc.gov/wtb/uls.

Thanks, ARRL Letter.

ARRL Comments on CSVHFS Petition

In comments to the FCC, the ARRL says it supports the objectives of the Central States VHF Society's recent petition to formally segregate wideband and narrowband modes on VHF and UHF. But, the League says, the Society's petition fails to make a case to implement any new FCC rules. The petition, filed a month ago, would amend FCC rules to eliminate interference from FM and packet in the weak-signal portions of 6, 2, 1.25 meters and 70 cm. The FCC has assigned RM-9673 to the CSVHFS petition. Comments were due by July 28.

In its comments, the League said it generally supports the intent of the petition but "does not support the regulatory relief requested" because the petition doesn't spell out the extent of the interference problem.

"In the League's experience, the number of complaints of such interference is not so substantial as to justify additional regulation," the ARRL said in its comments. While conceding that the number of incidents of harmful interference to narrowband, weak-signal modes might be higher than the number of complaints to ARRL HQ would indicate, "the petition does not quantify the problem at all," the League comments contend.

The League said it prefers "reliance on established voluntary band plans" coupled with "some Commission support" to address the CSVHFS concerns. The ARRL took the opportunity to again call on the FCC to acknowledge "that VHF and UHF operation in accordance with established band plans is 'good amateur practice' and that the Commission will support compliance" with band plans to prevent interference to weak-signal operations.

In April 1998, the League filed a Request for Declaratory Ruling with the Private Wireless Division asking the FCC to confirm a position taken by a former Private Radio Bureau chief that voluntary band plans "should be supported and adhered to as an element of 'good amateur practice' and spectrum efficiency." The FCC has taken no action on the petition, instead choosing to treat it as a rule-making petition (RM-9259).

"The Commission should provide some compliance support for the band plans, which are an integral part of the cooperative sharing of limited frequency allocations," the League asserted in its comments.

The League said it shares the Society's concerns about wideband FM and packet QRM to weak signal work but suggested that new regulations could stifle flexibility in

the Amateur Service rules. The ARRL said it would rather see reliance on "the self-regulatory abilities of the Amateur Service, as reflected in voluntary band plans" than new FCC regulations.

The League said it was not suggesting that its VHF and UHF band plans were "a perfect solution for weak-signal enthusiasts," but said its experience has shown "a relatively high degree of compliance." The ARRL suggested educational efforts as an appropriate remedy for newcomers and others unfamiliar with these amateur conventions.

The League said self-regulation, not FCC regulation, is what produces "much of the order and efficiency found in the Amateur Service." Band plans are a principal part of that "proud and continuing tradition," the League concluded.

A copy of the League's comments, filed July 28, is available on ARRL Web at

http://www.arrl.org/announce/regulatory/csvhfs.html.

Thanks, ARRL.

Operation Overseas Easy for US Hams

Operating overseas and in certain South American countries just got much easier for US hams. The FCC has implemented the European Conference of Postal and Telecommunications Administrations (CEPT) Recommendation T/R 61-01 that eliminates the need to obtain a special license or permit for US hams wishing to operate for brief visits to most European countries. In addition, the ARRL has begun issuing International Amateur Radio Permits to simplify operation by US hams in certain South American countries.

Complete information on CEPT and IARP operation, including an IARP application form and a copy of the FCC Public Notice on CEPT, is available from the International Operating page on ARRL Web, http://www.arrl.org/field/regulations/io/.

The new procedures affect operation only in participating CEPT (European) and CITEL (Central and South American) countries. Information on operation from other countries also is available on the pages of ARRL Webhttp://www.arrl.org/field/regulations/io/recip-country.html.

Thanks, ARRL Web site at http://www.arrl.org.

Latest News on Spectrum Protection

It's round two in Congress for the Amateur Radio Spectrum Protection Act. At the request of the ARRL, Rep. Michael Bilirakis introduced the 1999 version of the proposed legislation, HR 783, on February 23. As of Aug. 13, the bill had received 102 co-sponsorships including Pacific Division Congressmen Farr, Miller, Campbell, Stark, and Congresswoman Lee (CA). Nationally, we now have more co-sponsorships than we had for the 1998 bill - but we need to obtain some 218 co-sponsorships to have a majority of the House as co-sponsors. Keep up the good work!

The bill is aimed at ensuring the availability of spectrum to Amateur Radio operators. It would protect

existing Amateur Radio spectrum against reallocations to or sharing with other services unless the FCC provides "equivalent replacement spectrum" elsewhere. Bilirakis, a Florida Republican, also sponsored last year's measure, which attracted upwards of 83 cosponsors on both sides of the aisle. Rep Frank Pallone Jr., a New Jersey Democrat, is the initial cosponsor of the 1999 bill.

ARRL Legislative and Public Affairs Manager Steve Mansfield, N1MZA, says the 1999 bill "is largely the same as last year's HR 3572." The major difference is that the 1999 version adds "Amateur Satellite Service" frequencies to "Amateur Radio Service" in detailing the frequencies that would be afforded protection under the act.

Specifically, HR 783 would amend the Communications Act to require the FCC to provide "equivalent replacement spectrum" to Amateur Radio and the Amateur Satellite Service in the event of a reallocation of primary amateur allocations, any reduction in secondary amateur allocations, or "additional allocations within such bands that would substantially reduce the utility thereof" to amateurs.

Mansfield said it's too soon to predict how HR 783 will fare in the new Congress, but said the fact that it has been introduced so early in the session "bodes well for our prospects." He said that a number of the cosponsors from last year already have indicated an interest in signing on again, "so I think we'll have a lot of support."

A copy of the measure is available via the THOMAS Web site, http://thomas.loc.gov/

Thanks, ARRL Bulletin and THOMAS Web site.

Coming Events

- Livermore Swap Meet 1st Sunday of each month at Las Positas College in Livermore, 7:00 AM to noon, all year. Talk in 147.045 from the west, 145.35 from the east. Contact Cliff Kibbe, KF6EII, (209) 835-6715, e- mail: larkswap@hotmail.com.
- Foothill Flea Market 2nd Saturday of each month from March to October at Foothill College, Los Altos Hills, CA.
- ARRL Pacific Division Convention (PACIFICON99), Concord, CA., Oct. 15 17. Contact Dick Brown, KT6X, (925) 676-9048, email paccon99@pacbell.net. WWW http://www.pacificon.org.

Brad Wyatt, K6WR Director, ARRL Pacific Division

18400 Overlook Rd. #5 Los Gatos CA 95030-5850 (408) 395-2501 (voice & fax) R F L

Packet: K6WR @ N0ARY.#NCA.CA.USA.NOAM Internet: k6wr@arrl.org

Pacific Division Web site http://www.pdarrl.org/

S.C.C.A.R.A. Membership Form for 1999

(Fill in name and address if there is no mailing label below; make corrections if the label is incorrect)

Tame:	Cal	1:	Class: E A G T+ T
ddress:		Li	censed since (yr):
ity:	State:	Zip:	
elephone: ()		☐ New Member ☐ Renewal	☐ I'm also an ARRL member
-mail:		Packet:	
ew members joining on or after July 1, p	pay half th	e membership dues	
ew members joining on or after July 1, punual Membership dues: Individual \$1	pay half th	e membership dues	•
ew members joining on or after July 1, punual Membership dues: Want SCCARA badges @ \$3 ea. Badge	pay half th 15	e membership dues ily \$20	ent (under 18) \$5
want SCCARA badges @ \$3 ea. Badge ease send the repeater Auto-Dial/Auto-I WE MUST BE ABLE TO VERIFY YOUR AMA BEFORE ANY REPEATER CODES WILL BE ve this completed form (or copy) with p	pay half th 15	e membership dues ily \$20	tent (under 18) \$5 tle):
want SCCARA badges @ \$3 ea. Badge lease send the repeater Auto-Dial/Auto-H WE MUST BE ABLE TO VERIFY YOUR AMA BEFORE ANY REPEATER CODES WILL BE ive this completed form (or copy) with pail to the return address below:	pay half th 15	e membership dues ily \$20	tent (under 18) \$5 tle):

SANTA CLARA COUNTY
AMATEUR RADIO ASSOCIATION

PO BOX 6 San Jose CA 95103-0006

Affiliate of the American Radio Relay League

NONPROFIT ORG.
US POSTAGE
PAID
SAN JOSE CA
PERMIT NO 3318

ADDRESS SERVICE REQUESTED