

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 13, Number 11

November 1997



President's Prose

I hope you all have had a good summer. Margaret & I have been pretty busy these past few weeks, and I'm sure everyone else kept busy, too. Summers seem to move by fairly quickly.

Another Pacificon has come and gone. Hope you had a chance to get to Concord for at least one day. Pacificon is moving to a larger facility next year and they hope to be able to accommodate a large number of activities and many more vendors and exhibitors.

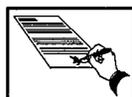
Cycle 23 appears to be well underway and contacts are being made on all bands every day! Sure hope you are getting your share of DX and enjoying the QSO's the propagation gods have sent our way.

As you saw in the October Board meeting minutes, our Secretary-elect, Kevin Gehrke, KF6MBG, volunteered to set up an activities calendar and get it published in the *SCCARA-GRAM*. I'm not sure if he will have time to maintain our activities schedule, so if anyone out there would like to assist, I'm sure Kevin will welcome your help.

As the political climate at the Red Cross does not appear to be improving (Scott is saying that any plans to go back on the roof right now would not be a good idea!). I am still open to suggestions for alternative sites for the club station. Even if the antenna situation gets cleared up, access to the station in its present location I think will be a continuing problem. At any rate, I haven't given up on the idea of moving to a more advantageous site (if we can find one). **KEEP LOOKING!**

Catch you next time...

73, Jack, AC6FU

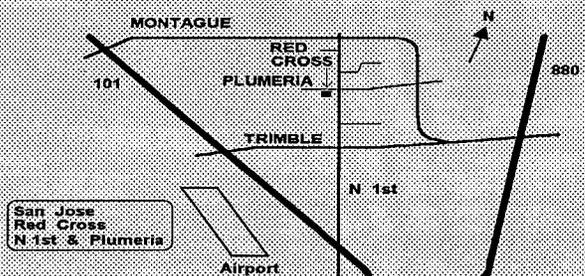
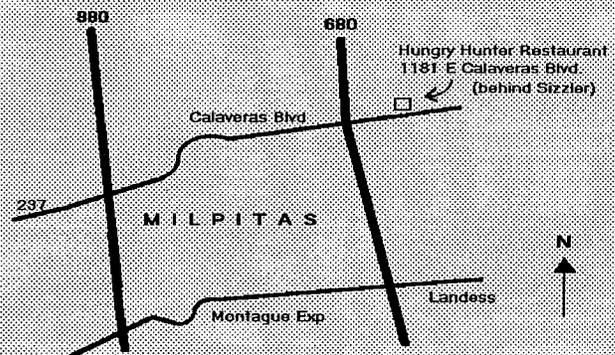


Calendar

- 12/12 SCCARA Annual Meeting--Xmas Dinner
- 12/22 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)
- 1/12 SCCARA General Meeting

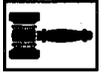
Next General Meeting:

- Day: Friday, December 12, 1997
- Time: Cocktails 7:30, Dinner at 8 PM
- Place: Hungry Hunter, Milpitas
- Agenda: Annual meeting--Christmas dinner, installation of officers & directors.



Meeting Minutes

General Meeting, Nov. 10, 1997



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.

SCCARA was formed as a general interest amateur radio club 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.

The deadline for SCCARA-GRAM articles is one week before the last Monday of the month.

OFFICERS and DIRECTORS

President	Jack Ruckman, AC6FU	379-4846
Vice President	Barbara Britten, KD6QEI	293-3847
Secretary	Dan Dietz, WM6M	458-3460
Treasurer	Lloyd DeVaughns, KD6FJI	225-6769
Station Trustee	Stan Getsla, WA6VIY	275-0735
Director	Clark Murphy, KE6KXO	262-9334
Director	Don Apte, KK6MX	629-0725
Director	Don Village, K6PBQ	263-2789
Director	Lou Steirer, WA6QYS	241-7999
Director	Wally Britten, KA6YMD	293-3847

STAFF

Editor	Gary Mitchell, WB6YRU	265-2336
Facilities	Don Village, K6PBQ	263-2789

COMMITTEES

Repeater	Wally Britten, KA6YMD	293-3847
Youth Group	George Brady, AB6OZ	729-9012

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 patch capability is available (auto-dial and auto-patch). The two meter repeater is located in the Mt. Hamilton foothills, Alum Rock area. The 70 cm repeater 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--it's our meeting night). Net control: Joe WA6DXP.

On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally KA6YMD.

Visitors welcome to join in on the SCCARA nets.

IMPORTANT TELEPHONE NUMBERS

SCCARA HOTLINE:	249-6909
ARRL LICENSE (VEC) HOTLINE:	984-8353

Meeting was held at HP Oak Room and called to order at 7:42 PM by President Jack Ruckman, AC6FU. There were 23 attending the meeting. Self-introductions were made.

The guest speaker was ARRL President Rod Stafford, KB6ZV. Rod spoke on ARRL activities related to ITU, WRC and WARC conferences on spectrum utilization allocation and band changes. It is possible there will be some band expansions and changes in the future.

Don, K6PBQ advised that those interested in attending the SCCARA Christmas dinner should send in their reservations soon. Lloyd advised that 15 dinners have been reserved.

Gary, WB6YRU announced that membership renewals are due and that members should use the form in the SCCARA-GRAM.

Wally, KA6YMD reported that the 2-meter repeater is currently out-of-service due to a technical problem. Trish, WA6UBE will soon work on the problem and hopes are to restore the machine to service quickly. He also responded on the planned move to the city radio vault of the 2-meter repeater operation. Apparently there is an ownership issue in that the city does not feel comfortable with having equipment in their facility not of their ownership. Wally suggested considering leasing the equipment to the city for \$1.00 a year to clear this issue. Don, KK6MX will attend a RACES meeting this week and attempt to learn more about the city position regarding the move.

Election was held for 1998 officers with the slate of candidates elected as follows:

President	Jack Ruckman, AC6FU
Vice-president	Barbara Britten, KD6QEI
Secretary	Kevin Gehrke, KF6MBG
Treasurer	Lloyd DeVaughns, KD6FJI
Director	Don Village, K6PBQ
Director	Lou Steirer, WA6QYS
Director	Clarke Murphy, KE6KXO

Jack announced that Kevin, KF6MBG will lead an Operations Committee to establish a schedule of activities in 1998 for the club station. It is hoped that some contests can be held from the club station with member participation.

Meeting adjourned at 9:10 PM.

Board Meeting, Nov. 17, 1997



Board meeting was called to order at 7:45 by president Jack, AC6FU.

Board minutes for October were accepted as published in the newsletter.

Wally, KA6YMD advised that the SCCARA two-meter repeater remains out of operation due to an intermittent audio problem. Trish, WA6UBE is working on the equipment. Due to the intermittent nature of the problem, no time expectation was offered as to when the repeater would be restored to service.

Kevin, KF6MBG announced that SCCARA now has a web page on the Internet. It is located at: www.qsl.net/sccara. He called for ideas and/or comments on the desired page content. The initial contents (under construction) are club history, club events, repeater information. He also said that a one-time donation of \$25.00 is customary to [qsl.net](http://www.qsl.net) for implementation of our web page. Motion was made and passed to pay the \$25.00 donation for this purpose.

No treasurers report was available at the meeting.

Membership count is about 130 members.

Jack expressed a need to establish a 1998 activity calendar. That was thought to be a good addition also to the web page.

There was a discussion of the possibility and necessity of moving the club radio room from the San Jose Red Cross building to some other site. Cited as reasons were difficulty of access to the room for most members, inadequate room, and the inability to install adequate antennas to provide reliable multi-band communications at the Red Cross building. The club would like to activate the station regularly and also use it for instructional purposes. No conclusion was reached other than we should be seeking an alternate site.

A discussion was held as to whether the club should maintain separate bank accounts for the general and repeater funds. Input from the station trustee and the general membership is sought in regard to handling the repeater fund. Gary, WB6YRU has suggested eliminating the repeater checking account and fold that money into the repeater savings (to end the cost of that checking account) or if the board eliminates the repeater accounts, pre-approve an amount equal to the repeater fund to be spent by the repeater committee.

The Christmas Dinner event is getting nearer with slow sign-ups according to Don, K6PBQ. A minimum of 35 dinners must be sold to meet the host restaurant conditions. About

1/2 the required dinners have been reserved at the time of the board meeting. The board members divided the membership roster and will call each member asking whether they will be coming to the dinner or not. Dan, WM6M will e-mail each member with e-mail capabilities to remind them to sign up soon. A motion was made and passed to provide \$150.00 for ham-related prizes for the dinner and also \$150.00 for non-ham related prizes.

Meeting adjourned at 9:23 PM.

Dan Dietz, WM6M, SCCARA secretary

From The ARRL

Tauzin says "we hear you" to amateurs and scanner fans

Hams, scanner enthusiasts, and others are breathing a tentative sigh of relief this week. Their efforts apparently have paid off to convince House Telecommunications Subcommittee Chairman W. J. "Billy" Tauzin (R-La) that HR 2369, the Wireless Privacy Enhancement Act of 1997, was flawed legislation. Tauzin's so-called "scanner bill" has been rewritten to reflect the concerns of hams, volunteer fire fighters, scanner enthusiasts, and others.

Many meetings, phone calls, and letters with Tauzin's staff followed the introduction of the original bill. At Tauzin's request, the League submitted recommendations to narrow its scope. From Washington, ARRL Legislative and Public Affairs Manager Steve Mansfield, N1MZA, reports that most of those recommendations found their way into a committee markup of the bill, released Wednesday, October 29. While the original version of HR 2369 covered the entire Commercial Mobile Radio Service (CMRS), the current version restricts its scope to just cellular telephone and the Personal Communications Service (PCS). Mansfield tempered his optimism with caution. "It is still too early to say whether the bill in its modified form, or in any other form, will ever become law," he said.

In introducing the substitute bill, Tauzin praised hams for their constructive cooperation. "The bill was never intended to prohibit the scanning of public safety frequencies or other noncommercial frequencies in which users have no expectation of privacy," he said. It was designed solely "to protect users of wireless services that pay for such services." Mansfield said the League worked with a coalition of other organizations to make sure members' voices were heard on The Hill. Changes also were recommended by scanner interests including Uniden and Tandy.

Unless Congress cuts corners, the bill still has a long way to go. It must be passed by the full Commerce Committee

before it goes to the floor of the House. "The ARRL will continue to work with committee staff to fine tune one of the bill's provisions that could have unintended consequences with regard to unrelated modification of equipment," Mansfield said.

In its original form, the bill had generated a good deal of controversy that boiled over into emotional letters and e-mail messages to Members of Congress. Some critics interpreted the bill as outlawing equipment that receives law enforcement, fire, EMS, and other non-broadcast services, and felt it could even prohibit listening to these transmissions. The ARRL believed it could also impede the ability of manufacturers to include expanded VHF and UHF receiving capability, something most hand-held and mobile transceivers now offer.

While the League did not object to the original bill's efforts to curb cellular and PCS eavesdropping--something that's already illegal--its primary objection was that it could adversely affect the efforts of ham radio emergency volunteers, volunteer fire departments, and other agencies that monitor public service frequencies using scanners. Among other things, the League pointed out to House members this month that the Electronic Communications Privacy Act (ECPA) of 1986, makes it illegal to intercept cellular, PCS, and other telephone-type communication.

One provision of the latest version calls on the FCC to consider defining the expression "capable of readily being altered" to require scanning receivers to be made in a way that effectively precludes alteration as necessary to prevent illegal use. Another calls on the FCC to consider requiring warning labels for scanning receivers that alert users to the prohibitions in federal law.

Mansfield praised Tauzin and his staff for paying attention to Amateur Radio concerns on the proposed legislation. "On the whole, it looks like Congress has listened," he said.

WRC-97: S25 consideration probably deferred until 2001

Late word from the ITU's 1997 World Radiocommunication Conference in Geneva is that Article S25 of the international radio regulations might not end up on the agenda for the WRC-99 after all. Article S25 was placed on the tentative agenda for WRC-99 at WRC-95, two years ago. A working group of WRC-97 delegates compiling the agenda for WRC-99 decided on Friday, October 31, to recommend that the matter be held over until 2001 because of a long list of other items vying for inclusion on the WRC-99 agenda. The decisions as to what will and will not be included on the WRC-99 agenda will not be final until agreement is reached in the Plenary, much later on in the four-week conference. Article S25 contains the international radio regulations that are specific to the Amateur and Amateur-Satellite Services, including the Morse code requirement for operation below 30 MHz.

The possible realignment of the 40-meter allocation, to resolve the conflict between amateurs and broadcasters in part of the band, tentatively has a place on the WRC-99 agenda. This issue likely will be tied to the desire of HF broadcasting for more spectrum between 4 and 10 MHz. Both issues will be on the WRC-99 agenda unless more urgent items crowd them off before the close of WRC-97.

Ham radio is well represented at WRC-97, which began Monday, October 27. ARRL Technical Relations Manager Paul Rinaldo, W4RI, is a member of the US delegation. Jim Dean, VE3IQ, of the Radio Amateurs of Canada, David Wardlaw, VK3ADW, of the Wireless Institute of Australia, Keigo Komuro, JA1KAB, of the Japan Amateur Radio League, and Y. S. Park, HL1IFM, and J. G. Rhee, HL1AQQ, of the Korean Amateur Radio League, are on their nations' delegations. Each of these delegates has a strong IARU connection. IARU representatives include Larry Price, W4RA, Wojciech Nietyksza, SP5FM, and Michael Owen, VK3KI.

Among many other topics, the so-called "Little LEO" issue will come before the 1800 or so WRC-97 delegates. Current US proposals do not include any plans to share amateur frequencies, but this does not prevent other delegations from bringing up plans that might adversely affect ham radio allocations. That hasn't happened so far. In another action Friday, the working group that's considering Little LEO allocations agreed to a New Zealand proposal to designate 146 to 148 MHz as "no change," and Rinaldo is optimistic that designation will hold.

Little LEO advocates continue their attempts to justify additional allocations, but a recent FCC order to confirm an agreement to share existing Little LEO allocations warned the industry not to expect additional spectrum in the future. "We had significant difficulty obtaining spectrum for Little LEO service at WRC-95," the FCC said.

Rinaldo has been named chairman of a drafting group that's looking into the issue of wind profiler radars. These systems operate around 50, 449 and 1000 MHz and have some potential for interference to Amateur Radio. No surprise new bands for wind profilers were proposed at today's first meeting, and a European proposal for 420 to 435 and 438 to 440 MHz was taken off the table.

WRC-97 delegates also are being asked to consider adding the Earth Exploration Satellite service to the 430 to 440 MHz band and to upgrade the status of EES in the 1240 to 1300 MHz band.

World Radiocommunication Conferences are held every two years. WRC-97 is scheduled to wrap up on November 21

From *The ARRL Letter*, October 31, 1997

Little LEOS not faring well at WRC-97

WRC-97 is nearing its halfway point with some issues moving toward settlement and others still very contentious. Here's a look at the issues important to Amateur Radio:

Little LEO (non-voice, non-geostationary mobile satellite) interests have had a difficult time at WRC-97. While nothing is firm, the conference appears to be moving toward agreement that the segments 146 to 148, 170 to 230, and 406.1 to 430 MHz are not open for consideration for Little LEO allocations at this time. There has been little support outside Region 2 for any new Little LEO allocations. Most of the Little LEOs' interest has focused on 401 to 406 and 450 to 470 MHz, with some possibility of future studies of possible compatibility with broadcasting at 470 to 862 MHz.

Thursday night, a compromise proposal from The Netherlands for a secondary allocation at 432 to 438 MHz for the Earth Exploration Satellite Service failed to gain sufficient support for adoption. Instead, it appears that a resolution will be proposed calling on the ITU-R to conduct urgent studies of the best band for such a satellite to operate in. For the satellite to perform its intended function of studying the rain forest, the frequency chosen must be in the general vicinity of 400 to 500 MHz. This makes the selection of an operating frequency that will not interfere with other services very difficult, because this spectrum is heavily used by a variety of services all over the world.

Earlier, it was agreed that the Earth Exploration Satellite Service would be upgraded at 1215 to 1300 MHz from a secondary to a primary allocation. At this order of frequency, the service has less potential for interference to the Amateur Service, and its presence reduces the possibility that other, less-compatible services might later be introduced into this band.

Wind profiler radar issues appear to be close to resolution, with amateur satellite segments protected from being mentioned as appropriate for wind profiler operations. What has been agreed at working group level is that--except for a worldwide primary allocation at 1270 to 1295 MHz--the only specific allocations for wind profiler radars are in Region 1, and those are on a secondary basis. For Region 2 amateurs the significant points are that administrations are urged to implement wind profilers in radiolocation bands at 440 to 450 MHz, 904 to 928 in Region 2 only (protecting the lower, weak-signal segment), 1270 to 1295 MHz (protecting amateur satellite and weak-signal), and 1300 to 1375 MHz. The bands 420 to 435 MHz or 438 to 440 MHz "could be considered for use...in case compatibility between wind profiler radars and other radio applications operating in the band 440-450 MHz or 470-494 MHz (only in some Region 1 countries) cannot be achieved." The amateur-satellite segment is protected.

Another amateur delegate on a national delegation has arrived. Oyekunle B. Ajayi, 5N0OBA, of the Nigerian

Amateur Radio Society is on the Nigerian delegation and is taking an active part in the conference. The IARU reception was held Thursday night and was quite successful, attracting among, others ITU Secretary-General Tarjanne.

4U1ITU has been active using the special call sign 4U1WRC. Even 10 meters has been open to the US. Unfortunately, with meetings lasting well into the night, the many delegates who hold amateur licenses have little time to operate.

FCC sets RF safety evaluation threshold for repeaters

The FCC has released an erratum to its RF safety rules that sets 500 W ERP (effective radiated power) as the limit for most amateur repeaters before a routine RF safety evaluation would be required. This applies to repeater systems on all bands.

A routine RF safety evaluation would be required for all repeater systems with more than 500 W ERP and having either (1) a building-mounted antenna or (2) a non-building-mounted antenna with a height of less than 10 meters (approximately 33 feet) above ground level to lowest point of the antenna.

It's fairly simple to calculate ERP. Take the PEP input to the antenna and multiply it by the numerical equivalent of the antenna gain in dBd (dB relative to a halfwave dipole in free space). Gain relative to an isotropic radiator (a point source), dBi, can be converted to dBd by subtracting 2.15 dB from the dBi number. For example, say your repeater puts out 100 W and has 3 dB of feedline loss. Calculate: $100 \times 0.5 = 50$ W to the antenna. The antenna has 8.8 dBd of gain, or 7.59 as a decimal. So the ERP is $50 \times 7.59 = 379.5$ W.

For details, see "Second Erratum" (October 22, 1997) at <http://www.fcc.gov/oet/dockets/et93-62/>.

FCC initiates universal licensing system

As a first step in implementing its new Universal Licensing System (ULS), the FCC's Wireless Telecommunications Bureau is attempting to "populate" the ULS by getting licensees to register. Ultimately, the ULS will give hams and other licensees on-line access to make license updates and renewals, eliminating the need for hardcopy forms like the venerable Form 610. A FCC Public Notice this week said the ULS is aimed at combining the 11 different licensing systems the Bureau now uses--including Amateur Radio--into a single system.

ULS registration requires supplying a Taxpayer Identification Number (for individuals, this is typically your Social Security Number) and "associated call signs." These could include your individual call sign plus any club station call signs for which you are the trustee.

The Public Notice said that in conjunction with the ULS, the

FCC "must collect TIN information to correlate its licensees with any outstanding Federal debt that they might have incurred in other dealings with the Federal Government." All vanity call sign applicants must now supply a TIN as part of Form 159.

On-line registration via the Internet is available. In addition to providing basic name and address information, registration requires you to establish a password that you must use along with your TIN to re-enter the system to make future changes. The ULS also lets you check the status of a pending application. A spokesperson in the FCC's Technical Support Group said the FCC will verify all data supplied at the time of registration to ensure that it is valid before the data are entered into the FCC licensee database.

Using the TIN and the associated call sign(s), the ULS assigns a unique sequential number to each licensee. The WTB says that once it has registration information and has implemented the ULS, it will streamline and simplify the FCC's ability to handle future administrative changes (name and address changes, for example).

Licensees are invited to register electronically at <http://www.fcc.gov/wtb/uls>. Select ULS Registration. Licensees without access to the Internet may file a TIN registration form, FCC Form 60, from the FCC's fax-on-demand service at 202-418-0177 or by calling the FCC Forms Distribution Center, 800-418-3676.--FCC

From *The ARRL Letter*, November 7, 1997

Packet Pieces

Downloaded from the packet network:

=====
Date: 10 Nov 97 19:51
From: W2XO@W2XO
To: SAT@AMSAT
Subject: SPUTNIK MODEL IN ORBIT

AMSAT NEWS SERVICE BULLETIN
NOVEMBER 9, 1997

The working model of Sputnik is now in orbit and on the air.

Reports from several places indicate the working model Sputnik-40 satellite launched Monday, November 3, from the MIR space station is currently "beeping" on its downlink frequency of 145.82 MHz.

The satellite commemorates the 40th anniversary of the original Sputnik 1 satellite. Sputnik 1, launched by the Soviet Union in 1957, was the first artificial Earth satellite. The original Sputnik 1 transmitted a similar beacon on approximately 20 MHz.

The one third scale Sputnik model was launched by hand from MIR during a space walk by Cosmonauts Pavel Vinogradov and Anatoly Solovyev, who turned on the transmitter and checked out reception aboard MIR before launch with help from US astronaut David Wolf, KC5VPF. The beacon is audible in either FM or SSB mode. The beacon transmitter runs approximately 100 mW.

On Reunion Island, a great cheer went up as hams, students and teachers gathered to listen to the Sputnik model as it passed overhead on its initial orbit and heard the beacon signal from space for the first time. Students from the FR5KJ radio club at Jules Reydellet College in St Denis, Reunion Island, and at the Polytechnic Laboratory of Nalchik Kabardine in Russia cooperated in building the mini-Sputnik. The Russian students built the satellite body, while the French students fabricated the transmitter inside. Two working models of the Sputnik were assembled and transported to MIR, but only one was launched.

The frequency of the beacon indicates the satellite's internal temperature. The scale runs from 1361 Hz at 50 degrees C to 541 Hz at minus 40 degrees C.

The history of the Sputnik-40 project is one of international cooperation and perseverance. It began on February 20, 1997 when an agreement was signed between Russia and France to commemorate the 40th anniversary of the launch of the first artificial satellite of the Earth: Sputnik-1. Two groups of high school students would cooperate to build a functional scale model (1:3) of the original Sputnik satellite. Students from Nalchik in Russia were to build the body of the satellite, and the students from Reydellet School in La Reunion Island would build the radio transmitter. Soon after the project kick-off, AMSAT-France also entered the effort to provide technical support to the two teams building the satellite.

The Aero-club de France and the Russian Federation of Astronautics helped raise funds for the transportation of the 3 kg model to MIR and for its launch by the MIR cosmonauts during an EVA. A world-wide fund-raising drive called "40 sponsors for the 40 years of Sputnik" with 40 shares tagged at (US) \$6,000 each, was conducted to raise needed funds for the project. Gerard Auvrey, AMSAT-France Vice President, says that the team is still looking for 8 more Sponsors to fully finance the project as there are some bills yet to pay.

Nalchik is the capital of Kabardine in the Balkan Republic. It is an industrial town located in the Caucasus, about 2000 Km from Moscow. Sparked in large measure by

radio contacts with French cosmonauts Jean Pierre Haignere and Claudie Andre-Deshays aboard the orbital station MIR, the Jules Reydellet radio club on Reunion Island also competed and was selected to represent the French school in the Sputnik project.

Miles Mann, WF1F, says reception reports can be sent directly to Sergei Sambourov, PO Box 73, Kaliningrad-10 City, Moscow Area, 14070, Russia. Include an SASE and one IRC for a certificate. ANS now understands that F1FY has also volunteered to be the official QSL manager for Europe. At press time Bruce Paige, KK5DO, was investigating the possibility of setting up a similar arrangement for North American stations to get their Sputnik-40 reception reports to Russia.

Reception reports can now also be sent directly to The Radio Club of Jules Reydellet school on Reunion Island. Those whose reports are confirmed will receive a 15 x 21 cm, 4 color certificate on high quality paper with number identification and the radio club stamp. Requests for these certificates should be made only by letter with an SASE (15 x 21 cm) and 2 IRCs. The certificates will be sent after the end of PS2's transmission. Please DO NOT send requests by E-mail! The mailing address for FR5KJ is:

FR5KJ Radio Club
103 Rue de la Republique
97 489 Saint Denis Cedex
Reunion Island

A brief technical description of the Sputnik 40 follows:

SPACEFRAME: A sphere of 200 mm outside diameter, weighing about 3 kg.

RF POWER : 100 mW radiated in 4 antennas with circular polarization.

ATTITUDE CONTROL: None.

POWER SUPPLY : 12 Lithium batteries (3 groups in parallel of 4 batteries in series).

BATTERY: 3.5V, 9 AH (batteries are the same as the Mars Rover).

EXPECTED LIFETIME : 1 month of active life. It should burn up on reentry after 1 or 1.5 years.

FREQUENCY: 145.820 MHz.

MODULATION: FM +/- 4 kHz.

AUDIO: Audio frequency around 1 kHz versus internal temperature. 50 degrees Celsius = 1360 Hz.

CONVERSION TABLE:

Temp	Tone
30	1290
25	1261
10	1208
0	1131
-10	1040
-20	891
-30	724
-40	541

BEEP DURATION: 1/6 seconds every 0.9 s.

TRANSMITTER: 48 MHz crystal oscillator (2N2222), one tripler (BFY90) and one amplifier (BFR91).

BEEP: 2 x NE555.

OFFICIAL NAME: Sputnik-40 Years or Spoutnik-40 Ans (French name).

PROJECT NAME: PS2 (PS means simply "sputnik" in Russian, and in memory of PS1 the first Sputnik).

ADDITIONAL NAME: Radio Sputnik (Amateur satellite) RS-17.

NASA CAT. NUMBER: 24958.

A more complete technical description of the satellite, dealing with its electronic, mechanical and thermal designs as well as its antenna patterns is available from AMSAT-France for a nominal donation (it is written in French). Contact them via e-mail at: amsat-f@amsat.org for more details.

Those interested in more information can also visit AMSAT-F's WEB pages at: www.ourworld.compuserve.com/homepages/AMSAT_F. You can also visit the Reunion Island web site about Sputnik-40 at: www.oceanes.fr/~fr5fc/spoutnik.html.

[ANS thanks Gerard Auvrey, F6FAO, for the information that went into this bulletin item.]

=====
Date: 17 Nov 97 22:01
From: W2XO@W2XO
To: SAT@AMSAT
Subject: SPUTNIK MODEL UPDATE
=====

AMSAT NEWS SERVICE BULLETIN
NOVEMBER 16, 1997

The working model of Sputnik continues to "beep beep" its

presence to the world from Earth orbit.

Reports from several places indicate that the working model Sputnik satellite launched Monday, November 3 from the Russian MIR Space Station is continuing to provide a readable downlink signal from its 100 Milliwatt transmitter. For the past two weeks, the little satellite has been putting out a strong FM signal on its operating frequency of 145.820 MHz in FM.

Hams and other radio enthusiasts worldwide have now heard the satellite's distinctive "beep beep" as it flew overhead, some while using only modest equipment and antennas. The satellite was built as a joint project by schools in Russia and Reunion Island, with technical assistance from AMSAT-France.

As the satellite is operating solely on internal batteries, the downlink signal of the 1/3 scale model of the original Sputnik is only expected to continue until late November or early December.

Numerous tracking reports from around the world indicate that the Sputnik satellite is now flying approximately 2-3 minutes behind and above the Russian MIR Space Station. In addition, a number of names, including "Sputnik-40", "Sputnik-40 Years", "Sputnik Jr.", "Spoutnik" (French for "Sputnik"), "PS2", and "RS-17" have all been associated with the satellite at one time or another throughout its construction, birth and on-orbit lifetime.

=====
Date: 2 Nov 97 17:47
From: WA7CRV@KC7HUB
To: ALL@USA
Subject: How gullible are we?

This isn't really a funny, but it's pretty telling about the state of our society...

A student at Eagle Rock Junior High won first prize at the Greater Idaho Falls Science Fair, April 26. He was attempting to show how conditioned we have become to the alarmists practicing junk science and spreading fear of everything in our environment. In his project he urged people to sign a petition demanding strict control or total elimination of the chemical "dihydrogen monoxide."

And for plenty of good reasons:

1. it is involved in excessive sweating and vomiting
2. it is a major component of acid rain
3. it can cause severe burns when transformed into its gaseous state
4. accidental inhalation can kill you
5. it contributes to erosion
6. it decreases effectiveness of automobile brakes

7. it has been found in tumors of terminal cancer patients
8. a major disease carrying agent

He asked 50 people if they supported a ban of the chemical. Forty-three said yes, six were undecided, and only one knew that the chemical was water. The title of his prize winning project was, "How Gullible Are We?" He feels the conclusion is obvious.

Mike - WA7CRV; Thatcher, Utah

=====
Date: 3 Apr 94 10:07
From: KA1BWH@K1RQG
To: HUMOR@USA
Subject: Birds Pray, Too

This man had a parrot and all the parrot would say is "My name is Mary and I am a prostitute". One day the Priest came to visit and the parrot did her thing. "My name is Mary and I am a prostitute." The man said, "I am sorry, Father, but that is all she will say. I can not reprogram her." The Priest said, "That's ok. I have 2 parrots down at the church that just sit holding their beads and say nothing. Maybe I can put her with them and she will change." The Priest took the bird and put her next to the other parrots. She spoke up! "My name is Mary and I am a prostitute." One church parrot looked at the other and said, "We can put down our beads now, our prayers have been answered."

73 de Harvey KA1BWH @ K1RQG.ME.USA.NOAM

Newsletter Notes

As you've probably noticed, nobody has yet stepped forward to fill Bob's shoes as club photographer. If you've been thinking about it, but thought "someone else" will do it--guess again! Remember how nice it was to have photos in the newsletter when Bob was around? It can be that way again.

The board has already approved the purchase of a laser printer that will do a good job of printing photos directly into the newsletter (no more "paste-ups"). I haven't been able to bring myself to spend the club's money on a printer because we would not be able to take advantage of it.

So, we're waiting for you! If money for the film and processing is holding you back--the club can reimburse you. Surely there must be at least one shutter bug out there. Please let me know.

73, Gary WB6YRU, editor

ARRL Pacific Division Update

November 1997

WRC-97 Heads Into its Final Week

The third week of the four-week 1997 World Radiocommunication Conference in Geneva drew to a close with no unpleasant surprises for Amateur Radio. The Allocations Committee, Committee 5, has not yet completed its work on matters relating to "Little LEOs" as advocates of the service continue to look for support, but the focus of discussion is NOT on the amateur bands.

Next week, the committees must finish their work early so that their recommendations can be taken up in plenary meetings. Conference decisions are firm only after a second reading in plenary. The final gavel comes down on Nov. 21.

4U1WRC has been more active this past week. Amateurs interested in WRC-97 may wish to visit the Web site maintained by the International Amateur Radio Club at www.itu.int/radioclub/. From there, links will take you to more information on 4U1WRC, 4U1ITU, and WRC-97.

(Thanks - ARRL Letter, Nov. 14, 1997)

RF Exposure Rules Effective Jan. 1, 1998

Compliance with the new RF exposure guidelines should be relatively easy for the vast majority of hams and should require few changes in current operating practices. These Amateur Radio rules will deal with the general public in a new substantial manner; therefore, compliance is very important.

There are numerous information resources:

- An excellent summary of the guidelines is contained in October QST, pages 51 and 52. An even more comprehensive article will be in the January 1998 QST, and an ARRL book on this subject should be available soon.
- A "RF-Exposure Information Package" is available from ARRL Technical Information Service for \$2 for members, \$4 for non-members, postpaid.
- The Pacific Division Updates for October and November contained further "How To" details. These documents are available on the Pacific Division site at www.pdarrl.org/.
- FCC has published OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," Edition 97-01, August 1997. Supplement B, "Additional Information for Amateur Radio Stations," should be available in November.

For the latest news and linkage to related Web sites, visit the ARRL RF-Safety Web page at www.arrl.org/news/rfsafety. To obtain the FCC documents refer to the FCC site at www.fcc.gov/oet/dockets/et93-62/ and

go from there.

As part of the implementation of these new guidelines, there is a new Form 610 series, dated Sept. 1997. There are three new forms in this series: Form 610 is for basic transactions, Form 610-A is for operating privileges for foreign nationals, and Form 610-B is for club stations. These new forms MUST be used for all licensing transactions after Jan. 1, 1998. The new forms all contain a statement to the effect that the applicant understands and complies with the new RF Safety regulations. The new 610 form series can be obtained on the FCC WWW site at www.fcc.gov, the ARRL Web page at www.arrl.org, by contacting the FCC Central Phone Service at 1-888-CALLFCC (225-7245), by writing FCC at 1270 Fairfield Rd, Gettysburg PA, 17325-7245, or by contacting the ARRL at (860) 594-0200 or at 225 Main St, Newington CT 06111-1494.

There are several key dates to remember:

1. New licensees after Jan. 1, 1998 must be in compliance with the new regulations at the time of first licensing. That is, the applicant will certify compliance by the very act of signing off on the new 610.
2. All those licensed prior to Jan. 1, 1998, will have to be in compliance with the new RF exposure regulations whenever a new Form 610 is filed for license renewal, upgrade, or other modification.
3. All stations, new or old, must be in compliance with the new regulations no later than Sept. 1, 2000. This date must be met whether a Form 610 has been filed previously or not.

Electronic Renewal Form 900

The FCC's Wireless Telecommunications Bureau (WTB) has consolidated eight renewal forms into one. Form 900, "Application for Electronic Renewal of Wireless Radio Services Authorizations," is an interim measure to permit all licensees of the WTB, including hams, to renew their licenses electronically.

Form 900 is only for renewals, not for license modifications. You can only enter changes (e.g., name, address) using Form 900 as a part of the process of renewing your license. You can only use Form 900 if the expiration date on your license falls within the renewal window, which is within 120 days of expiration. You cannot use Form 900 to renew an expired license. Form 900 may only be submitted electronically. Access Form 900 on the WTB Electronic Commerce page, www.fcc.gov/wtb/electcom.html. Select "Production Page for Electronic Commerce Applications" to access the Form 900.

(Thanks - FCC and ARRL Letter Oct. 3.)

New FCC Commissioners Take Office

The new FCC Commissioners took office in early November. They are William Kennard, Chairman, previously General Counsel of FCC, Michael Powell, previously chief of staff at the Justice Department's antitrust division, Harold

Furchtgott-Roth, an economist formerly with the House Commerce Committee, and Gloria Tristani, formerly a New Mexico state utilities regulator. They join Susan Ness, the sole commissioner who continues.

Latest Congressional News

HR 2369, the Wireless Privacy Enhancement Act, has been rewritten to reflect the concerns of Amateur Radio operators, volunteer fire fighters, scanner enthusiasts, and others. The ARRL worked with a coalition of other organizations to make sure your voice was heard on The Hill.

One of the bill's original cosponsors, Rep. Anna Eshoo (D-CA-14th) praised Mr. Tauzin for listening to Amateur Radio concerns.

S. 1350, just introduced by Sen. Leahy (D-VT) would give states and municipalities more leeway to regulate the construction and location of commercial telecommunications, radio or television towers that "destroy the view from such homes, and reduce substantially the desire to live in such homes." ARRL staff plans to meet with Sen. Leahy's staff.

See DC Currents in Dec. QST, for more details.

Vanity Call Gate 4 to Open Dec. 2, 1997

General, Technician Plus, Technician, and Novice Class amateur operators may request a vanity call sign on or after December 2, 1997. The details for requesting a vanity call sign follow the pattern used on the previous gates. QST, Pacific Division Updates and other publications detail the use of Forms 610-V and 159 for filing electronically and in paper document format. The fee is \$50 for the 10 year license.

Handi-Ham Camp in California

The next session of HANDI-HAM Radio Workshop (Camp) will be held at Camp Joan Mier, Malibu, from February 24 to March 1, 1998.

This camp will provide ham radio instruction at all levels for persons with severe physical (not learning) disabilities and/or sensory impairments.

The camp in 1998 will be FREE for California residents who are going for a first ticket or upgrade. All normal care, food, lodging, and Amateur Radio instruction for the session will be provided AT NO COST to the campers.

If you or anyone you know is interested, contact Jane Rova, Secretary, Courage HANDI-HAM System, 3915 Golden Valley Rd, Golden Valley, MN 55422; (612) 520-0512; e-mail handiham@mtn.org

Program to Enhance Elmering

Over the years in the pages of QST, countless letters and articles have been written about Elmers, those patient, inspired souls who thoroughly enjoy bringing newcomers into the world of Amateur Radio. Now, the ARRL's new Radio

Coaches program takes Elmering to new levels. Through the Radio Coaches program, you and your fellow club members can become part of a national effort to better the lives of youth using Amateur Radio. And ARRL will provide the game plan and materials!

Radio Coaches stems from the kickoff of America's Promise, the Alliance for Youth, a national campaign to improve the lives of the nation's young people and put them on paths for brighter, more productive futures.

The mission will be to give young people an ongoing relationship with a caring adult and a marketable skill through effective education. Amateur Radio will be our chief tool.

Through Radio Coaches, we want to reinforce the idea that Amateur Radio is a "sport for the brain." Ham radio provides not only a lifetime of enjoyment, but also, potentially, a lifetime career.

To get involved contact Radio Coaches, c/o Field Services Department, ARRL, 225 Main St., Newington CT, 06111; or e-mail coaches@arrl.org.

(Thanks, ARRL Letter, Nov. 14, 1997.)

Local Politics

Bruce MacKay, KF6JLP, joins the ranks of the Volunteer Counsels in the Pacific Division. Bruce works in Redwood City. Welcome, Bruce.

The Nov. 4 election resulted in Fred Fowler, KE6EPM, becoming a new Sunnyvale City Councilman. He joins Joel Gambord, KT6J, who won a seat on the Monte Sereno City Council in 1996.

Coming Events

- Livermore Swap Meet - 1st Sunday of each month at Las Positas College in Livermore, CA, 7:00 AM to noon, all year. Talk in 147.045 from west, 145.35 from the east. Contact Noel Anklam, KC6QZK, (510) 447-3857 eves.

- The Naval Postgraduate School ARC is having its 7th Winterfest on Feb. 21, 1998, in Monterey. Visit www.mcktech.com/wf98.htm web site for details. It's a free public service event with the flea market paying for the event. Contact Doug McKinney at KC3RL@mcktech.com, or phone at (H) (408) 663-6117 in Prunedale, CA.

Brad Wyatt, K6WR
Director, ARRL Pacific Division

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

Packet: K6WR @ N0ARY.#NCA.CA.USA.NOAM
Internet: k6wr@arrl.org
Pacific Division WWW Home Page <http://www.pdarrrl.org/>



December Dinner Meeting Sign-up

Our annual December christmas dinner meeting will be on Friday, December 12th, at the Hungry Hunter in Milpitas, Calaveras Blvd near Hwy 680 (old yellow house location), we've been there once before a couple of years ago. Cocktails at 7:30 PM and dinner at 8 PM. We will have a choice of four entrees. Regular dinners are \$21.50 each, children's choices are indicated below. **Reservations need to be in by Friday, December 5.** Talk-in on our repeater W6UU, 146.385+ (or simplex if the repeater is still down). I'm looking forward to seeing all of you there. Why not renew your membership (back cover) at the same time? -- Don K6PBQ

For the annual dinner meeting in December, sign me up for the following dinner(s):
From the regular menu, \$21.50 each:

_____ Prime Ribs of Beef	_____ Whiskey Peppercorn Top Sirloin Steak
_____ Teriyaki Chicken	_____ Sword Fish

From the Children's menu:

_____ Deli Burger, \$7.50	_____ Chicken Strips, \$7.50
_____ Fried Shrimp, \$8.75	

Total for dinners: \$ _____

Please renew your membership (over) at the same time--combine both payments here -- GRAND TOTAL: \$ _____

Give this form (or copy) with payment to the Treasurer or mail to: SCCARA PO Box 6 San Jose CA 95103-0006

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, K6RQ, WB6YRU
Lightning protection, grounding: WB6YRU
Station set-up, equipment: AC6FU, K6PBQ, K6RQ
TVI/RFI: WB6YRU

Homebrew projects, construction: AC6FU, KD6FJI, WB6YRU

Computers: KB6NP; IBM PC: WN6U, WB6YRU

Packet Network (BBS, forwarding): WB6YRU

Other digital modes (AMTOR, RTTY): WN6U

Code operating and installations:
WB6EMR, AC6FU, K6PBQ, K6RQ

Contesting & techniques: K6RQ

DX (long distance/propagation): WB6EMR, K6RQ

Emergency operating/preparedness: WA6QYS

FM (VHF/UHF, repeaters): WA6VJY

HF operating techniques (SSB, CW):

WB6EMR, AC6FU, K6PBQ, K6RQ

Mobile operating: K6RQ, 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):

K06HH, K6PBQ, WA6VJY, WB6YRU, WA6QYS

Math applications: AC6FU

Children's Discovery Museum, volunteer operator: K6PBQ

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

K06HH, 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

K6RQ, Frank Glass, (408) 356-1026

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@arasmith.com

S.C.C.A.R.A. Membership Form for 1998

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

Name: _____ Call: _____ Class: E A G T+ T N

Address: _____ Licensed since (yr): _____

City: _____ State: _____ Zip: _____ - _____

Telephone: () _____ New Member I'm also an
 Renewal ARRL member

E-mail: _____ Packet: _____

For family memberships (at the same address), please list other name(s) and call(s):

Annual membership dues are payable at the first of the year and expire the following December 31. New members joining on or after July 1, pay half the membership dues.

Annual Membership dues: Individual \$15 Family \$20 Student (under 18) \$5 _____

I want _____ SCCARA badges @ \$3 ea. Badge name & call: _____

Please send the repeater Auto-Dial/Auto-Patch codes (no charge, circle): Yes
WE MUST BE ABLE TO VERIFY YOUR AMATEUR LICENSE
BEFORE ANY REPEATER CODES WILL BE SENT TOTAL: _____

Give this completed form (or copy) with payment to the Secretary or Treasurer at any meeting or mail to the return address below:

== PLEASE DO NOT TEAR/CUT ==

**SANTA CLARA COUNTY
AMATEUR RADIO ASSOCIATION**

PO BOX 6
San Jose CA 95103-0006

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