

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 14, Number 1

January 1998



Events

Here are some events we might want to consider for the club station.

DATE	SPONSOR	EVENT	SOURCE
Jan 1	ARRL	Straight Key Night	Dec QST
Jan 10-11 ?		N Amer CW QSO Party	Jan QST, Dec CQ
Jan 17-18 ?		N Amer SSB QSO Party	Jan QST, Dec CQ
Feb 21-22	ARRL	Intern. DX Contest, CW	Jan QST
Mar 7-8	ARRL	Intern. DX Contest/Phone	Jan QST

NOARY BBS Update

This is mostly for the packet users among us or those interested in packet...

Remember, SCCARA decided to chip in to help out the NOARY BBS? It's done; the UHF port is up and running--faster than ever!

The NOARY BBS now has a 9600 baud port at 433.37 MHz...Thanks to SCCARA! After working with regular 1200 baud packet for so long, 9600 seems really fast.

The rig is a five watt Tekk model KS-1000 and the TNC is PacComm's Spirit-2. The antenna is an omni vertical dual bander (two meter and 70 cm) at roughly 30 feet above ground. The BBS is in Sunnyvale.

From my place in south-west San Jose, using a duplicate rig and TNC with a Comet vertical tri-bander (2 M, 1.25 M, and 70 cm) the signal is roughly S 8 with very few re-tries.

If you have 9600 baud capability on UHF, give it a try!

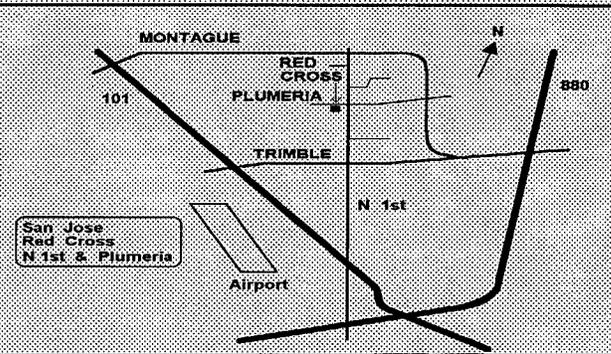
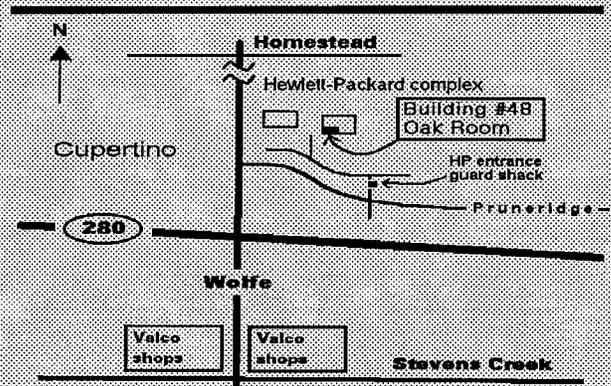
Wally KA6YMD and I met at Bob's place (N0ARY) to see

Calendar

- 1/12 SCCARA General Meeting
- 1/19 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)
- 2/9 SCCARA General Meeting

Next General Meeting:

Day: Monday, January 12, 1998
Time: 7:30
Place: Hewlett-Packard's Oak Rm, Bld #48
Agenda: (to be announced)



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.

SCCARA web page: <http://www.qsl.net/sccara>

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

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President	Jack Ruckman, AC6FU	379-4846
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Secretary	Kevin Gehrke, KF6MBG	929-2492
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COMMITTEES

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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

what can be done with the two-meter port (which hasn't been working lately) and to install the 70 cm upgrade. Unfortunately, we weren't able to find the problem with the two meter equipment. The SWR was a bit high going into a cavity filter and the power output was unusually low (eight watts instead of 45), but that was about it. We were able to work the BBS just fine using a portable packet station Wally brought. The thinking now is perhaps the problem is due to a weak receiver. Stay tuned, we'll keep at it.

73, Gary WB6YRU

Meeting Minutes

General Meeting, Dec. 12, 1997



[The minutes were not received by the deadline. -Ed.]

Board Meeting, Dec. 15, 1997



[The minutes were not received by the deadline. -Ed.]

RF Exposure Update

FCC issues RF safety supplement B to OET bulletin 65

Hams now have basic guidelines and tools to evaluate their stations for compliance with the FCC's RF exposure guidelines that start phasing in January 1, 1998. The FCC's Office of Engineering and Technology issued the long-anticipated Amateur Radio Supplement B to its OET Bulletin 65 on November 18. The FCC worked closely with the Amateur Radio community to develop the new supplement. Several ARRL Headquarters staff members and Technical Advisors reviewed preliminary drafts of the supplement. ARRL Lab Supervisor Ed Hare, W1RFI, has been the League's point man for RF safety and exposure issues.

"It has been my pleasure to work with the FCC staff and the amateur community in finalizing Supplement B," Hare said. "All who have been part of this process deserve the thanks of the entire amateur community."

Supplement B, entitled Additional Information for

Amateur Radio Stations, contains detailed information specific to ham radio stations. It is designed to be used in conjunction with the FCC's OET Bulletin 65 (Version 97-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radio-frequency Electromagnetic Fields. The revised Bulletin 65 was issued earlier this year. Supplement B covers definitions of RF radiation and discusses the FCC exposure guidelines and their applications, methods of predicting human exposure, estimating compliance distances, and controlling exposure to RF fields. The supplement runs approximately 70 pages. Among its noteworthy highlights are numerous easy-to-use tables based on various frequencies, power levels and antenna configurations to help hams determine whether their stations comply with the FCC's published RF exposure guidelines. Most tables show compliance distance--the distance that an antenna needs to be located from areas of exposure to be in compliance. (For a closer look, see "FCC RF-Exposure Regulations--the Station Evaluation," by Ed Hare, W1RFI, which will appear in the January issue of QST.)

The new RF exposure rules go into effect January 1, 1998 for all new stations and for those filing a Form 610 with the FCC after that date. Existing stations have until September 1, 2000 to comply with the new rules. But, existing stations making changes that could affect RF exposure from their station--such as increasing power or relocating antennas--must evaluate that change if done after January 1, 1998.

As first announced, the FCC set a power threshold of 50 W to trigger the need to do a station evaluation. In late August, the FCC revised the power level thresholds to trigger a routine Amateur Radio station RF exposure evaluation. Those changes were welcome news for most hams. The newest guidelines raised its original 50-W PEP threshold on all bands except 10 meters through 2 meters, where it remains at 50 W PEP. The FCC went along in part with an ARRL request and established a sliding scale for threshold levels dependent upon frequency. The revised thresholds (all PEP) are 500 W for 160 through 40 meters, 425 W on 30 meters (the maximum legal power is 200 W), 225 W on 20 meters, 125 W on 17 meters, 100 W on 15 meters, 75 W on 12 meters and 50 W on 10 meters. The threshold for all VHF bands is 50 W. On UHF, the threshold level is 70 W on 70 cm, 150 W on 33 cm, 200 W on 23 cm, and 250 W on 13 cm and higher frequencies.

The threshold for amateur repeaters is 500 W effective radiated power (ERP) if the repeater antenna is located on a building or is less than 10 meters above ground. Stations operating at or below these respective power levels are categorically excluded from having to conduct a routine RF radiation evaluation. Mobile and portable (hand-held) devices using push-to-talk operation generally are also exempt from evaluation. But, all stations--regardless of power level--still must comply with the RF exposure limits that become effective New Year's Day.

OET Bulletin 65 and the new Supplement B are available on the FCC's web site at <http://www.fcc.gov/oet/info/documents/bulletins/#65>. Copies are available from International Transcription Service Inc, 1231 20th St NW, Washington, DC 20036; tel 202-857-3800; fax 202-857-3805.

From *The ARRL Letter*, November 21, 1997

Laughs On-Line

As the internet becomes more and more popular, many amateurs are passing humor traffic via e-mail, similar to what is sometimes seen on the packet BBS network. Here's a sample of some of the latest. --Ed.

=====
Date: Tue, 25 Nov 1997 16:48:20 -0500
From: "mch" <mch@nb.net>
To: Coordinators Re-mailer <coordinator@cs.tamu.edu>
Subject: Thanksgiving Story

OK, Folks. It looks like it's about time for another humorous interlude. I thought this one was perfect considering the season. Hope you like it.

The Sassy Parrot:

=====
David received a parrot for his birthday. This parrot was fully grown with a bad attitude and worse vocabulary. Every other word was an expletive. Those that weren't expletives were, to say the least rude. David tried hard to change the bird's attitude and was constantly saying polite words, playing soft music, anything he could think of to try and set a good example...nothing worked. He yelled at the bird and the bird got worse. He shook his fist, and the bird got more angry and more rude. Finally, in a moment of desperation, David put the parrot in the freezer to cool him off. For a few moments he heard the bird squawking, kicking, screaming & cursing - then suddenly there was silence. David was frightened that he might have hurt the bird and quickly opened the freezer door.

The parrot calmly stepped out onto David's extended arm and said: "I'm sorry that I might have offended you with my language and actions and I ask your forgiveness. I will endeavor to permanently correct my behavior."

David was astonished at the bird's change in attitude and was about to ask what had made such a dramatic change when the parrot continued: "May I ask what the turkey did?"

HAPPY THANKSGIVING EVERYONE! :)

Joe, KR3P

=====
Date: Tue, 02 Dec 1997 15:01:47 -0800
To: lkenney@slip.net
From: Larry Kenney WB9LOZ <lkenney@slip.net>
Subject: A Ham's Night Before Christmas

A Ham's Night Before Christmas

(Yet another corruption of Clement Clarke Moore's classic Christmas tale, this time distorted by Gary Pearce, KN4AQ, and the Raleigh Amateur Radio Society, Raleigh, NC, December 2, 1997.)

Twas the night before Christmas,
And all through two-meters,
Not a signal was keying up
Any repeaters.

The antennas reached up
>From the tower, quite high,
To catch the weak signals
That bounced from the sky.

The children, Tech-Pluses,
Took their HT's to bed,
And dreamed of the day
They'd be Extras, instead.

Mom put on her headphones,
I plugged in the key,
And we tuned 40 meters
For that rare ZK3.

When the meter was pegged
by a signal with power.
It smoked a small diode,
and, I swear, shook the tower.

Mom yanked off her phones,
And with all she could muster
Logged a spot of the signal
On the DX PacketCluster,

While I ran to the window
And peered up at the sky,
To see what could generate
RF that high.

It was way in the distance,
But the moon made it gleam -
A flying sleigh, with an
Eight element beam,

And a little old driver
who looked slightly mean.

So I thought for a moment,
That it might be Wayne Green.

But no, it was Santa
The Santa of Hams.
On a mission, this Christmas
To clean up the bands.

He circled the tower,
Then stopped in his track,
And he slid down the coax
Right into the shack.

While Mom and I hid
Behind stacks of CQ,
This Santa of hamming
Knew just what to do.

He cleared off the shack desk
Of paper and parts,
And filled out all my late QSLs
For a start.

He ran copper braid,
Took a steel rod and pounded
It into the earth, till
The station was grounded.

He tightened loose fittings,
Resoldered connections,
Cranked down modulation,
Installed lightning protection.

He neutralized tubes
In my linear amp...
(Never worked right before --
Now it works like a champ).

A new, low-pass filter
Cleaned up the TV,
He corrected the settings
In my TNC.

He repaired the computer
That would not compute,
And he backed up the hard drive
And got it to boot.

Then, he reached really deep
In the bag that he brought,
And he pulled out a big box,
"A new rig?" I thought!

"A new Kenwood? An Icom?
A Yaesu, for me?!"
(If he thought I'd been bad
it might be QRP!)

Yes! The Ultimate Station!
How could I deserve this?
Could it be all those hours
that I worked Public Service?

He hooked it all up
And in record time, quickly
Worked 100 countries,
All down on 160.

I should have been happy,
It was my call he sent,
But the cards and the postage
Will cost two month's rent!

He made final adjustments,
And left a card by the key:
"To Gary, from Santa Claus.
Seventy-Three."

Then he grabbed his HT,
Looked me straight in the eye,
Punched a code on the pad,
And was gone - no good bye.

I ran back to the station,
And the pile-up was big,
But a card from St. Nick
Would be worth my new rig.

Oh, too late, for his final
came over the air.
It was copied all over.
It was heard everywhere.

The Ham's Santa exclaimed
What a ham might expect,
"Merry Christmas to all,
And to all, good DX."

c 1996 Gary Pearce KN4AQ
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kn4aq.gary@mms.net

Packet Pieces

Downloaded from the packet network:

The following bulletin was rather lengthy and included listings for areas outside our own. To save space, only the info for near our area (and HF frequencies) is included here. -Ed.

=====
Date: 8 Dec 97 22:47
From: N2IXW@WA2AAR
To: NASA@USA
Subject: NASA STS Freqs.

Space Shuttle Radio Frequency List
Rich Weinkauf, Farmington, MI
01/07/92

A Space Shuttle mission requires the coordination of thousands of individuals on the planet, and some off. This coordination is directed largely by radio communications, both voice and digital; and supplies the communications enthusiast with several opportunities for listening. The following list includes radio voice communication frequencies reported to be in use during a typical Space Shuttle mission. This list has been gleaned from many sources, including personal communications, messages on Prodigy, Amateur Radio Bulletin Boards, Space and Astronomy Bulletin Boards, and the NASA Spacelink BBS. All of it is subject to change without notice, and reception is dependent on your location and the propagation conditions.

NASA: (frequencies in kHz, USB commonly)
Booster rocket recovery: 2622, 11407
Tracking: 3385, 3395, 6983, 14456
Tracking vessels: 5190
Booster recovery vessels: 5810
NASA aircraft: 6708, 6896, 7461, 7765
Kennedy operations: 7675
USAF Cape Radio: 10780, 20390
Pacific operations: 11205
Tracking (Ascencion Island): 20186, 20191

International emergency air frequencies (MHz)
121.5
243.0

Shuttle frequencies: (MHz)
296.8 primary
259.7 secondary
279.0 space suits

Communications and other stuff: (MHz)
1831.8 primary (USAF uplink, phase modulation)
1775.1 secondary
2106.4 primary (NASA uplink, phase modulation)
2041.9 secondary
2205.0, 2250.0 NASA downlink (FM)
2287.5 primary NASA downlink, voice (PM)
2217.5 secondary

Retransmission on HF shortwave ham bands (kHz, USB commonly)

NASA: 20198, 20186

Goddard Space Flight Center, Greenbelt, MD
WA3NAN: 28650, 21395, 14295, 7185, 3860

Johnson Space Center, Houston, TX
W5RRR: 28495, 21350, 14280, 7227, 3850

Jet Propulsion Laboratory, Pasadena, CA
W6VIO: 21340, 21280, 14282, 14270, 7165, 3840

San Francisco, CA, NASA Ames Research Center
K6MF: 7165, 3840

*My own experience with STS-35 during 12/90 here in Southeastern Lower Michigan netted the NASA rebroadcast on 20198 KHz USB for about half the mission. Most other contacts were with WA3NAN on 14295, 7185, and 3860, although QRM on 3860 made the signals difficult to copy by 0000 UTC. W5RRR was regularly heard on 14280 only, but with a strong signal.

Other possible frequencies and locations as posted on the NASA SpaceLink BBS (205/895-0028) follow, with the message author's comments if pertinent:

AMSAT OSCAR A0-13 Satellite
145.945 MHz primary
145.955 MHz secondary

Comments: This Mode B requires a satellite high-gain antenna.

Western United States

Bakersfield/Stockton, CA
Shuttle audio re-transmissions
WD6BNO/R 52.22 MHz

Comments: Coverage includes Bakersfield to Stockton, CA

Monterey Bay Area, CA
Shuttle audio re-transmissions
KB5JR: 443.300 MHz

Comments: The KB5JR repeater is located on Mt. Loma Prieta at 3700 feet.

Mountain View, CA
NASA Select audio
Ames Amateur Club
145.580 MHz

Comments: "The signal originates from the NASA-Ames Research Center in Mountain View, CA. NASA Select video is also available for those with line-of-sight to Black Mountain via Amateur TV. For ATV details write: Ames Amateur Club PO Box 73 Moffett Field, CA 94035-0073.

Northern CA

Shuttle audio re-transmission
WA6IEO 154.530 MHz

Comments: 12 watts transmitting from an altitude of 3200'.

Sacramento, CA

Shuttle audio re-transmissions
147.195 MHz

San Francisco/Sacramento, CA

Shuttle audio re-transmissions
K6MF: 145.580, 444.775 MHz
Shuttle video re-transmissions
427.250 Mhz

Comments: W6NKF ATV Repeater, Mt. Diablo, operates with vertical polarization. Those with cable-ready TV's, VCR's or cable company boxes can tune to channel 58 in CATV mode, and if hooked to an outside TV antenna, should be able to receive the telecast.

San Jose, CA

NASA Select audio re-transmissions
443.550 MHz

John N2IXW

=====

Date: 13 Dec 97 06:29
From: W6WWW@KM6PX
To: EMCOMM@USA
Subject: EMC095 Red Cross Overview

EMC095 Red Cross Overview For release 9/1/97

Ted Harris from the American Red Cross gives us some insight into their Emergency Services organization...

Currently I am Communications Coordinator for Red Cross in California, in addition to my regular paid staff position in Disaster Services for the American Red Cross Bay Area Chapter. The chapter covers San Mateo, San Francisco, Alameda, Contra Costa and Marin Counties. Over 4 million people.

California Red Cross Chapters (51 units) are divided into three ZONES similar to the State OES Regions. The Bay Area Chapter is responsible for coordinating disasters in all the Coastal counties from Monterey to the Oregon boarder. The Sacramento Chapter is responsible for the Central Valley counties and the Pasadena Chapter is responsible for disaster coordination in Southern California.

Once the disaster cannot be handled by the individual county Chapter, it goes to the Zone lead chapter for mutual aid; if the Zone can't handle the situation, the State Coordination Chapter (Los Angeles) pulls people and materials from all the Zones. If the State can't staff or provide material resources, National Headquarters will coordinate the mitigation effort by mobilizing staff and materials from around the country.

From a communications standpoint, the organization is about the same. We have a data base of each of the California Red Cross facilities which includes their communications capability - both people resources and material resources. A typical Chapter in a non-disaster prone area might only have a Red Cross simplex radio on 47.42 MHz and perhaps an agreement with the local ARES group to support shelter and damage assessment with communications.

The larger chapters and the zone lead chapters have a large assortment of comm gear that can be taken to the scene.

Satellite Systems

Chapter and Zone resources include AMSC satellite units in each chapter. These units provide dial tone into the Public Switched Telephone Network and are our best means of providing information from the disaster scene in the first few hours. These units support data, fax and voice.

Some chapters have NASA satellite hardware which provides similar dial tone and also can be used to make "broadcast" type announcements since all units are on the same frequency.

National Headquarters can also provide Inmarsat A, B, C units which are packaged as "fly-away" push packs. These would be requested when the local infrastructure is totally overloaded and not expected to be brought up in a few days. Examples would be major earthquakes, wildfires in heavily populated areas, etc.

Red Cross Radio Systems

Since 1940, disaster relief organizations have been able to use a common frequency within the US and its Trust Territories. This frequency is 47.42 MHz (simplex). Red Cross has over 200 vehicles in the US equipped with this radio, and most of the 1300 Red Cross facilities also have this capability. Obviously the advantage is that these vehicles have the ability to communicate no matter how far they have been dispatched. In a big hurricane we may send 100 vehicles to the area from many states away, so the ability to communicate is critical.

We have augmented the 47.42 MHz system with linking to

UHF so that we may extend the range and by using handheld UHF transceivers having the ability to link or unlink the systems.

High Frequencies:

Red Cross has 10 dedicated frequencies between 2 MHz and 7 MHz that can be used when the need is to communicate between long distances, i.e. a hurricane net that spans many states, areas within California where other terrestrial radios perform poorly etc.

In addition we are allowed on 27 different FEMA channels for coordination with FEMA, State OES, Counties etc.

Each of our HF stations use type accepted equipment. We are heading towards ALE but these units are expensive.

800 MHz.

California Red Cross units have access to the Regional Government 800 MHz portion of the spectrum to be able to use a stand alone pair for Red Cross coordination plus access to National calling and coordination repeater pairs, and tactical channels. These channels are shared with local, county OES departments. We also maintain two portable repeaters that can be deployed to a specific area and a cache of handheld/mobile units.

EDIS Emergency Data Information Service

State OES created a digital information system which can be heard in most of the populated areas of California. Red Cross has been an active participant and many chapters have EDIS equipment. In addition we maintain a quantity of portable units that can be deployed to areas with no cell or phone service.

Amateur Radio:

Each chapter maintains local agreements with area amateur clubs, ARES, RACES & ACS groups to support communications in the early part of the disaster. This may include: shelters, damage assessment, links to local government and sending information from victims to relatives saying they are OK.

This is where I think this forum will be valuable to Red Cross. Often times we need help in the Communications function to support the disaster. We need individuals who are familiar with all types of communications equipment, including telephone installation, managing hundreds of cell phones, pagers, satellite, HF, and can act as facilitators between Red Cross and local groups.

If anyone is interested in joining this elite group, which by the way pays all your travel expenses including air fare,

food and lodging, please contact me for more information.

(s/s) Ted Harris, N6IIU dtharris@usa.redcross.org

ACS LandLine BBS 916-262-0856 (graphical or standard interface), ACS Web page: <http://acs.oes.ca.gov>
FTP archive: <ftp.ucsd.edu/hamradio/packet/tcpip/incoming> for new bulletins and <ftp.ucsd.edu/hamradio/racesor> earlier ones. OES ACS staff manager Stan Harter
Stanly_Harter@oes.ca.gov
State Chief ACS Officer Cary_Mangum@oes.ca.gov

=====
Date: 6 Dec 97 23:11
From: W2XO@W2XO
To: NEWS@AMSAT
Subject: * SPACENEWS 08-DEC-97 *

SPACE NEWS, Monday December 8, 1997

*** MARS PATHFINDER NEWS ***

=====
After operating on the surface of Mars three times longer than expected and returning a tremendous amount of new information about the red planet, NASA's Mars Pathfinder mission is winding down.

Flight operators at NASA's Jet Propulsion Laboratory, Pasadena, CA, made the announcement November 4th after attempting to reestablish communications with the spacecraft throughout October. With depletion of the spacecraft's main battery and no success in contacting Mars Pathfinder via its main or secondary transmitters, the flight team cannot command the spacecraft or the small rover named Sojourner that had been roving about the landing site and studying rocks.

At the time the last telemetry from the spacecraft was received, Pathfinder's lander had operated nearly three times its design lifetime of 30 days, and the Sojourner rover operated 12 times its design lifetime of seven days.

Since its landing on July 4, 1997, Mars Pathfinder has returned 2.6 billion bits of information, including more than 16,000 images from the lander and 550 images from the rover, as well as more than 15 chemical analyses of rocks and extensive data on winds and other weather factors. The only remaining objective was to complete the high-resolution 360-degree image of the landing site called the "Super Pan," of which 83 percent has already been received and is being processed. The last successful data transmission cycle from Pathfinder was completed at 3:23 a.m. Pacific Daylight Time on Sept. 27, which was Sol 83 of the mission.

The Mars Pathfinder team first began having communications problems with the spacecraft on Saturday, Sept. 27. After three days of attempting to reestablish contact, they were able to lock on to a carrier signal from the spacecraft's auxiliary transmitter on Oct. 1, which meant that the spacecraft was still operational. They locked on to the same carrier signal again on Oct. 6, but were not able to acquire data on the condition of the lander. At that time, the team surmised that the intermittent communications were most likely related to depletion of the spacecraft's battery and a drop in the spacecraft's operating temperatures due to the loss of the battery, which kept the lander functioning at warmer temperatures.

Although the true cause of the loss of lander communications may never be known, recent events are consistent with predictions made at the beginning of the extended mission in early August. When asked about the life expectancy of the lander, project team members predicted that the first thing that would fail on the lander would be the battery; this apparently happened after the last successful transmission September 27.

After that, the lander would begin getting colder at night and go through much deeper day-night thermal cycles. Eventually, the cold or the cycling would probably render the lander inoperable. It appears that this sequence of events has probably taken place. The health and status of the rover is also unknown, but since initiating its onboard backup operations plan two months ago, the rover is probably circling the vicinity of the lander, attempting to communicate with it.

The rover, which went into a contingency mode on Oct. 6, or Sol 92 of the mission, had completed an alpha proton X-ray spectrometer study of a rock nicknamed Chimp, to the left of the Rock Garden, when it was last heard from. The rover team had planned to send the rover on its longest journey yet -- a 50-meter (165-foot) clockwise stroll around the lander -- to perform a series of technology experiments and hazard avoidance exercises when the communications outage occurred. That excursion was never initiated once the rover's contingency software began operating.

Engineering milestones of the mission included demonstrating a new way of delivering a spacecraft to the surface of Mars by way of direct entry into the Martian atmosphere. In addition, Mars Pathfinder demonstrated for the first time the ability of engineers to deliver a semi-autonomous roving vehicle capable of conducting science experiments to the surface of another planet.

The Mars Pathfinder mission is managed by the Jet Propulsion Laboratory for NASA's Office of Space Science, Washington, DC. The mission is the second in the Discovery program of fast track, low-cost spacecraft with

highly focused science goals. JPL is managed by the California Institute of Technology, Pasadena, CA.

[Info via NASA/JPL]

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: 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
DX (long distance/propagation): WB6EMR
Emergency operating/preparedness: WA6QYS
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): 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

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

=====
Date: 21 Dec 93 18:33
From: NOAHH@NX0C
To: JOKE@USA
Subject: A FUTURE LAWYER?

The boy decided he was going to rake leaves to make some money. A short time later he came to his father with \$100 he wanted to put in the bank. His father was pleasantly surprised.

"You raked a lot of leaves,son."
"Just one yard, Dad," said the boy. "And their dog bit me."

=====
Date: 4 Dec 93 07:04
From: KB4CTL@KF4OJ
To: JOKES@ALLUS
Subject: ONE GOOD THING

One good thing about having kids...You've got live-in food and entertainment critics.

-
An airline passenger returned home recently and summarized his rough flight: My flight was so bumpy, when the cabin attendant said, your lunch will be coming up shortly, he didn't know how right he was.

-
Definition: "Sex" ...something that children never discuss in front of their elders.

-
A young lady was doing a survey in a housing project...She asked one elderly man if he participated in sports. "No, my parents won't let me" the oldster replied. "Your Parents?" questioned the young lady. "Yes, Mother nature and Father Time."

-
73 de Felly, KB4CTL @ KF4OJ.#ARCFL.FL.USA.NOAM

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

ARRL Pacific Division Update

January 1998

**Happy New Year, welcome to 1998!
The sunspots are back!**

RF Exposure Guidelines Effective Jan. 1

Compliance with the new 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 for the first time 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 article titled "How To Do a Routine Evaluation," starting at page 50 in the January 1998 QST, will answer most questions. Also, an ARRL book on this subject should be available soon.

Recent Pacific Division Updates have contained "run-up" articles. These documents are available on the Pacific Division web site at <http://www.pdarrrl.org/>.

FCC has published OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," Edition 97-01, August 1997, and Supplement B, "Additional Information for Amateur Radio Stations."

For the latest news on this matter and linkage to related web sites, visit the ARRL RF-Safety Web page at <http://www.arrl.org/news/rfsafety>. To obtain the FCC documents directly refer to the FCC site at <http://www.fcc.gov/oet/rfsafety>.

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 web site at <http://www.fcc.gov>, the ARRL web page at <http://www.arrl.org>, by contacting the FCC Central Phone Service at 1-888-CALLFCC (225-7245), by writing FCC at 1270 Fairfield Road, Gettysburg PA, 17325-7245, or by contacting the ARRL at (860) 594-0200 or at 225 Main St, Newington CT, 06111-1494.

Here are the 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. 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 licensees, 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.

FCC Electronic Renewal Form 900

The FCC's Wireless Telecommunications Bureau (WTB) has consolidated eight renewal forms for various services 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 on-line.

Form 900 is only for renewals within 120 days prior to license expiration. You can only enter changes (e.g., name, address).

I was able to renew my license on line in December (my license was due to expire on Jan. 19, 1998). Based on my experience, it's best to first go to the FCC web page <http://www.fcc.gov/wtb/amateur/amrenw.html> for directions on what to do. You will then be lead to the page <http://www.fcc.gov/wtb/electcom.html>. One of the choices in this page is to go to the "Production Page for Electronic Commerce Applications" which contains the Form 900 entry button. There are also instructions for a Renewal Query so you can learn if the Renewal was made. Finally, I also found that my license appeared as renewed on QRZ's site: qrz.com within a day or so.

Thanks, ARRL Letter and Paul Burton, AA6Z.

WRC-97 Is Over--Ham Radio Unscathed

While we did well at WRC-97, it is likely that we may have to fight the "Little LEO" matter all over again at WRC-99. Also, WRC-99 may be postponed.

Further, the entire ITU Amateur Radio licensing and rules and the 40 meter band harmonization matters have been postponed by the ITU until WRC 2001 at least.

Potential Changes to Morse Code Waiver

In late November the FCC announced that the public Comment period on the ARRL *Petition for a Changes to Morse code Waiver Rules*, now called RM-9196, will end on Dec. 29, 1997. Basically this proposal asks for "rather minor changes" in the Rules so that a candidate at least would have to attempt the code test - with any and all necessary accommodations - before being granted an exam waiver based on a physician's certification. Also, Volunteer Examiner Coordinators (VECs) would be entitled to request medical information pertinent to an applicant's handicap from the certifying physician. VECs also would be required

to have this information on file before the application is forwarded to the FCC for processing.

Please comment (in hard-copy form only) in a positive fashion to help encourage FCC to issue a Notice of Proposed Rule Making (NPRM) on this matter. December 1997 QST, page 75 has an article on this matter, as does the November issue of the Pacific Division Update. See also the editorial "It Seems to Us" by David Sumner, K1ZZ, in the October 1997 QST, page 9. The Pacific Division web site contains the petition text, more details, and a sample letter.

No. CA ARES HF Net Established

The Northern California ARES HF Net meets on the second and fourth Thursday of each month at 8:30 PM on 3987 kHz. Net control is the Siskiyou EC, Dave KC6HOY, who established the net. All EC's and ARES members in Northern CA are encouraged to check in. Southern Oregon stations also participate at times.

The Sacramento Valley Section ARES now has a web page. It can be found at <http://www.eheart.com/ares/>
Thanks, Jerry Boyd, K6BZ -- Pacific Div. AD, PSAC Rep. and SV SEC.

Bob, KK6EK, Wins Cover Plaque Award

Pacific Division member Robert W. Schmieder, KK6EK, won the September 1997 QST Cover Plaque for his article, "The 1997 VK0IR Heard Island Expedition." Congratulations, Bob! This is Bob's second Cover Plaque Award.

ARRL Audio News Debuted October 17

The League inaugurated ARRL Audio News, a weekly, web-based audio news service, on October 17. Compiled from the ARRL Letter, ARRL Audio News will include the week's top news from the world of Amateur Radio and the League. ARRL Audio News will be available in *RealAudio* format via the ARRL web page <http://www.arrl.org/>. Tucson Amateur Packet Radio (TAPR) has generously agreed to provide space on its Web server to permit the League to offer this service.

Each edition of ARRL Audio News will contain up to 10 minutes of timely Amateur Radio news. It will be available via the ARRL web page every Friday by 9 PM Eastern Time. Dial-up telephone access will be announced later.

For more information, contact Rick Lindquist, N1RL, e-mail n1rl@arrl.org; telephone 860-594-0222.
Thanks, ARRL Letter Oct. 10, 1997.

State Department Applies to CEPT

The State Department has applied for U.S. participation in the European Conference of Postal and Telecommunications Administrations (CEPT) Amateur Radio licensing system. The move, taken on September 22, could

eventually make it easier for US hams to operate temporarily in European countries that participate in CEPT, without having to apply for a reciprocal license.

Last fall, the FCC proposed amending the Amateur Radio rules to make it easier for hams holding a CEPT license or an International Amateur Radio Permit (IARP) to operate during short visits to the U.S.

Thanks, ARRL Letter Oct. 10, 1997

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.

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.pdarrl.org/>



Newsletter Notes

There exist some fancy printers on the market, even some that print on both sides and staple too. One example is the HP LaserJet 5si. This printer isn't cheap--roughly \$2500, but apparently it's capable of printing each month's newsletter run (as opposed to having it copied at the copy center). This is a lot of money, but currently it's about the same amount we will spend in two years on copying costs.

I mentioned this to Jack (our pres.) and he agreed that the board should consider this approach. This would be a significant investment for us and a major change in the way we produce the newsletter, so we should take our time and look at options. If anyone has any ideas or comments, let's hear them.

On another topic... Did you catch the goof on the last issue's first page? If not, then never mind. © Yes, I know that was the December issue, not November. Last time I was a bit rushed and that one just slipped by. Sorry for any confusion.

73, Gary WB6YRU, editor

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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