MAY 1986

VOLUME 16 NO. 5

W6VIO CALLING

MAIL STOP

Jet Propulsion Laboratory
W6VIO Calling M/S 264-419
Eileen McKinney - Editor
4800 Oak Grove Drive
Pasadena, California 91109

Club Meetings: Second Wednesday of the month at 12 Noon in 238-543. Everyone is welcome - Bring your lunch!

Board Meetings: Fourth Wednesday of the month at 12 Noon in 238-543. Everyone is welcome - Bring your lunch!

Repeater Mtgs: First Thursday of the month at 12 Noon in 238-543. Everyone is welcome - Bring your lunch!

Newsletter Articles Deadline: The 7th. day of each month. If the 7th. falls on a weekend, the following Monday will be the deadline. Your articles, ads, photos, diagrams, instructions, or articles you'd like to see reprinted from other sources (with the name of the publication, date, etc.) should be submitted to the above address.

A PRE-FIELD DAY WORK PARTY WILL BE HELD ON SATURDAY JUNE 7th. 9:00 AM AT THE RADIO CLUB SHACK (TRAILER). PLEASE TRY TO ATTEND. CALL WALT MUSHAGIAN K6DNS X3036 or JERRY HAWKES W6WXL X2542. Thank you.(Walt K6DNS)

FIELD DAY 1986 - JUNE 28th. and 29th. SAT. & SUN.

The Field Day site at Crystal Lake was selected this year to allow easy access to those who wish to participate. Previous inquiries to the General Club membership indicate that easy access Field Day sites alternating with the more primitive areas were preferred.

This year we will operate Field Day in the 3A Category which means we will operate 3 stations simultaneously. We can use all classes of licensed amateurs (Novice, Technician, General, Advanced and Extra Class). In addition to the 3 station operations, we will have a dedicated Novice-Technician HF CW Station, to make those much needed extra points for the Club. We are looking forward to seeing you at Field Day.

If you have any questions or comments, please call Walt Mushagian K6DNS or Jerry Hawkes W6WXL. Please return the attached Field Day Form as soon as possible.

Come along!

COME AND JOIN THE FUN

FOR THE DAY OR THE ENTIRE WEEKEND.

JUNE 28th. and 29th.

URANUS COMMEMORATIVE REPORT

The excitement and labor of another great Voyager encounter is over; well almost. We still have to reply to all of those QSL cards and complete the SSTV tapes.

How was it accomplished? In retrospect it seems easy. But it took the time of 35 individuals to make it happen -I estimate the operation equates to around 800 person hours; about half is air time.

Planning for the January activity started last July with a series of brainstorming and organizational meetings. After corralling an able crew of individuals to head up the various tasks, the basic operating plan was established (when to go on the air, how long, bands, modes) from which the long lead-time items such as obtaining new equipment and publicity notices were developed. As Voyager got closer to Uranus, the facilities under the watchful eye of Stan (N6MP) were whipped into shape, training sessions were held, and Al (WB6WRX) coordinated the operator schedules. The logs were transcribed onto a data base by Rick (KA6DAN); the special QSL card was handled by Carl (KG6LG), and John (WA6LWD) is handling the replies.

Sid (WB6VWH) was always around to help with the last minute changes and to keep things moving so that Stan (N2YQ), Mark (WB6CIA), Paul (KB6KYB), along with 26 other operators could burn up the air waves.

Operations took place on 8 bands; modes included CW, SSB, SSTV, FM, and packet. During the 9 days of operation, 2428 contacts were logged; 173 on 80m; 459 on 40m; 1057 on 20m; 67 on 15m; 336 on 2m; 163 on 220 MHz; 66 on 450 MHz; 107 on OSCAR.

Problems were few -poor propagation kept the number of contacts down; operators missed their time slots.

Some of the memorable facts include: inquiries from near and far about the club and about how to get started in amateur radio; people trying new modes of operating (e.g. SSTV); club members desiring to upgrade; explaining ham radio to visitors; and finally observing people having a good time helping each other.

Amateur radio is a hobby and the club is a volunteer group; some people spent several hours commuting to the club shack just to help make it all work. Many thanks to those who were able to contribute in making the event an enjoyable one.

Jon Adams (NW6H), Paul Brewer (KB6KYB/LB), Bob Brodkin (WA6TBH), Stan Brokl (N2YQ), Norm Chalfin (K6PGX), Gil Clark (N6FHC), Carl [illegible] (KG6LG), Russ Dow(WA6JCK), Ray Enrlich (WD6CIH), Danette Erickson (N6IRC), Kerry Erickson (N6DSG), Doc Evans (G4AMJ), Jerry Hawkes (W6WXL), Dave Henderson (KD4NL), Carl Johansen (WB6DLK), Sid Johnson (WB6VWH), Al Kuchler (WB6WRX), Bob Layne (W6LTC), Merv MacMedan (N6NO), Dick Malm (KF6FK), Rick McKinney (KA6DAN), Connie Morris (KA6JAM), George Morris (W6ABW), Walt Mushagian (K6DNS), Scott Nolte (N6CUV), Len Reder (KB6DVG), John Repar (WA6LWD), Stan Sander (N6MP), Chuck Sarture (KG6NF), Mark Schaefer (WB6CIA), Deril Schmitt (KA6YIX), Glen Smith (KB6KYC), Brian Stapleton (KW6J), Sam Weaver (WB6EMO), Dick Wetzel (WA6JBZ)

This was the clubs' 5th Voyager special event; let's plan on making the 6th at Neptune (August 1989) even greater! 73,Kerry(N6DSG)

June - ARRL Presentation
Jay Holladay, W6EJJ
Vice President, ARRL

July - Cellular Telephone Technology

August - *Motorola Semiconductor Presentation
Power Amplifiers
Roy Hejhall, K7QWR
Member of Technical Staff
RF Advanced Products
Motorola, Inc., Phoenix

September - The PACSAT Project
Harold E. Price, NK6K
PACSAT Project Manager

October - *DSN Receiver Technology - Receiving Spacecraft Signals from Deep Space

November - *Amateur Radio Equipment Manufacturer Presentation

December - General Election

January 87- *Packet Radio
Gateways to the World

FOR SALE

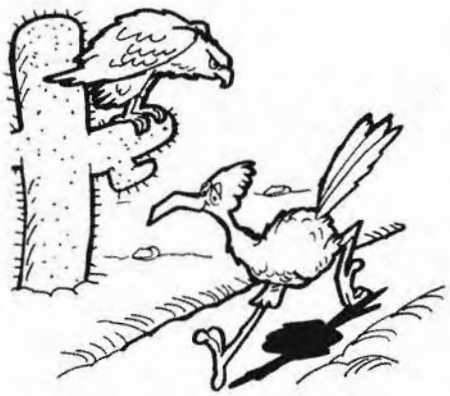
TOWER - Heights model CUA-364 crank-up aluminum tower. This is a 3-section self-supporting tower. Height extended is 64 ft., nested height is 26 ft.

TRI-BAND BEAM - Tired of having your beam messed up by the wind? Install this Telrex model TB6EM for a solid antenna! 3 in. diameter boom 26 ft. long; 3 el. on 20, 3 el. on 15, 4 el. on 10. This beam is the same as that installed on the Mesa for W6VIO.

FINAL TUBES - Pair of Eimac 8874 final amplifier tubes. Brand new, in original cartons (they're even gold-plated!).

FREE - Small shop table with steel legs. Two sections from damaged Tri-Ex W-37 steel tower. You haul 'em away.

Contact Jay Holladay, W6EJJ, (818) 790-1725 or X-7561



RADIO AT THE GREAT MOJAVE by Don Lawson WA6SQF

What used to be the Baja 250 Race is called the Great Mojave 250 and is now being run out of Lucerne Valley. On April 4th., the day before the race, the town was already overrun with cars and people. It was evident that there would be a large turnout since 400 vehicles had already registered for the race.

The race course was 250 miles long and made 2 loops in the area northeast of Lucerne with the start and finish in the middle of town. There were 8 check points and radio crews around the course. My wife and I along with Rick and Leona McKinney had volunteered to be the Radio crew at Check 3 located several miles back in the hills. As usual the BARRA repeater did not work and we were forced to use 2 meter simplex. Since the distance between checkpoints was not great this would not have been a problem except that there were many hills between Net Control and the other stations. Relaying to stations and circumventing the hills helped in some cases; also, fortunately there seemed to be this unusual phenomena that was happening in some areas. At our check point and at others it was possible to have perfect communication in spite of the hills which were directly between Net Control and the other stations. We had a hand held 2 meter radio with only 1½ watts output connected to the whip on our car and were able to work Q5 all day long. Also, as the day progressed and the dust cloud got heavier the signal became stronger. Because there were 2 loops to the course, even considering the vehicles that broke down, there were more than 600 vehicles that passed our station. The almost continual stream of vehicles kept us engulfed in the worst dust cloud that we have ever encountered. However, the radio worked flawlessly through the entire race and we were able to supply communications that helped several people and their vehicles get out of the desert. The next morning after blowing the dust off the gas gauge we determined that we could make it to our shower at home non-stop, so we left.

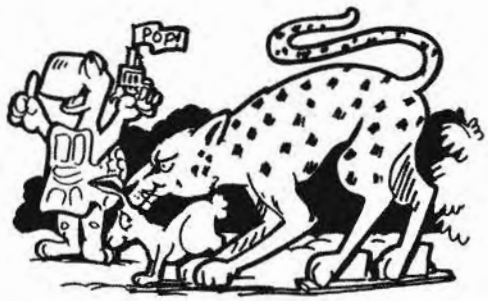
For those who may be interested in the unusual phenomena that aided the propagation at our location there are the following references:

(1) G. Darnet et al "VHF Desert Defraction" Radio Propagation Review, April 1986.

(2) A. Shuckes "Dust Cloud Dipoles" Applied VHF Digest, April 1985.

Editor's Note: As usual another fine article Don. Thank you for all of us. I wish more races were run so that you'd keep us supplied each month with coverage. Thank you both a million.

Eileen



DX NEWS

It's been another quiet month as far as on-the-air activities at N6ET is concerned. Based on the most recent edition of the LIDX Bulletin, I've got to change that! Now that I've attracted your attention, it's time for the news.

CHAD -TT8CW operated by F6AJN is active on mostly cw either 5 or 25 kHz above the band edge. 15, 20, and 40 meters should be your best opportunities from W6-land.

CHINA -BY4AA frequently operates on 14,210 kHz from 0100Z. Also, look for BY1QH from 2100Z on 14,227 kHz. I got a very rapid QSL from this operator.

FAEROE ISLAND -OY1R can be worked on 10,104 kHz at 2130Z. Unless I miss my guess, this is the first time 10 mHz has been mentioned in this article.

FALKLAND ISLAND -VP8PTG is active from 2230Z around 14,185 kHz.

KIRGHIZ -UM8MIR makes appearances near 14,198 kHz from 0115Z. His fellow countryman, UM8NBB is active on 14,028 kHz at 1200Z, but I doubt that the band is open in W6-land at that hour.

MAYOTTE -Here's a pretty rare one--FH/F6DZD plans activity through 30 May on 40 -10 meters, phone and cw. Look for him on 7005/7050, 14010/14130, 18080/18100, 21010/21100, 24900-925, and 28010/28100 kHz plus additional ssb frequencies.

SOUTH SHETLAND ISLAND -HFOPOLis frequently active on 14,020-030 kHz at 0100Z. He plans to be active on 40, 80, and 160 meters prior to his departure later this year.

TURKEY -Look for TA1C on 14,183 kHz from 1800 to 1900Z several times per week.

That's all for now. Keep your earballs open. Apparently, there's much DX to be worked these days.

Good DXing,
Bob, N6ET

*** FIELD DAY COMMITTEE NEEDS MORE EQUIPMENT ***

If anyone has rigs or desires to operate their rigs on 6 meters or 1.2 GHz and higher, please call Dick Wetzel at Ext 4815. 73's RickKA6DAN

Statement Date 5-9-86

JPL - AMATEUR RADIO CLUB

TREASURER'S REPORT

MONTH OF APRil 1986

General Ledger - ERC Account # 317

OPENING BALANCE	$ 508.95
INCOME	3330.00
EXPENSES	(50.00)
CLOSING BALANCE	3788.95

Petty Cash Ledger

Opening Balance	$ .40
Income	0
Expenses	0
Closing Balance	.40

INCOME:

Membership Dues	$ 32.00
Autopatch Income	48.00
ERC Grant (Repeater Upgrade)	3250.00
Total	3330.00

EXPENSES:

Field Day Site Deposit (Walt Mushagian)	$ 50.00
Total	23.52

Respectfully Submitted,

R. P. (Rick) McKinney
Treasurer

EDUCATIONAL CHAIRMAN'S REPORT

The DOCTOR DX morse code trainer has been placed at the C-64 at the ARC ham shack in the basement of building 171. This plug in ROM simulates real morse code two way DX contacts. The contacts are very realistic and those that have tried it at shows find it hard to believe that a live operator is not on the other end. It is an excellent way for Novices to get over their "buck fever" of an initial contact. For experienced operators, it is a good way to improve their skills or to remove the "rust" on their fists if they have not been on the air for a long time.

Experience of last year indicates that it is not too early to start working on a code class for next fall if we are to have one. We now have the AEA MORSE UNIVERSITY which enables us to create high quality training tapes if desired. If there is enough interest an upgrade may be more desirable than a novice class. Consider the following chart comparing the distribution of licenses nationally and that of the JPL ARC.

CLASS	NATIONAL	JPL ARC
NOVICE	18%	10%
TECHNICIAN	20	28
GENERAL	28	13
ADVANCED	24	32
EXTRA	9	17

With the number of technical people at JPL it is not surprising that we have such a high number of Extra classed amateurs. However it is notable that we are short on Generals and have a pileup at technician and advanced. Could it be that it is only the CW requirement that is holding these two classes back? Let me know what you think or what you desire.

I will retire as of June 1, 1986. I hope to continue participation in the JPL ARC.

Robert Gardner
(818)794-9823 after May 30.

FIELD DAY SATURDAY JUNE 28th. AND SUNDAY JUNE 29, 1986

CRYSTAL LAKE CAMPGROUND

NAME_____ CALL_____ JPL PHONE X_____

HOME PHONE ( ) _____

I AM INTERESTED IN THE JPL ARC FIELD DAY, I AM WILLING TO HELP IN THE FOLLOWING AREAS:

____ FIELD DAY PREPARATION PARTY

____ EQUIPMENT TRANSPORTATION

____ SET UP EQUIPMENT & ANTENNAS 8:00 AM JUNE 28, 1986

____ OPERATIONS:

HF SSB	___ DAY	___ NIGHT
VHF PHONE	___ DAY	___ NIGHT
HF CW	___ DAY	___ NIGHT
PACKET	___ DAY	___ NIGHT

____ TEAR DOWN 12:00 NOON SUNDAY, JUNE 29th.

____ ALL OF THE ABOVE

____ YOUR COMMENTS AND SUGGESTIONS ARE APPRECIATED.

_____

_____

_____

_____

_____

PLEASE RETURN THE COMPLETED FORM AS SOON AS POSSIBLE TO WALT MUSHAGIAN K6DNS. 238-420 X3036.