

PACIFIC PACKET RADIO SOCIETY
NEWSLETTER

VOLUME 1, NUMBER 1

MARCH, 1985

President: Dave Engle, KE6ZE	Vice-President: Bob Reiling, W6JHJ
Secretary: Ted Harris, N6IIU	Treasurer/Membership: Bill Danielson, N6FQR
Program Chairman: Stu Neblett, K6VCO	Newsletter Editor: Rich Collins, NT6V
Interface Coordinator: Hank Magnuski, KA6M	Networking/Linking Chairman: Alan Larson, WA6AZP
Frequency Coordinator: Don Simon, NI6A	Emergency and Public Service: Andy Cromarty, N6JLJ

Welcome to the PACIFIC PACKET RADIO SOCIETY (PPRS). With the formal creation of PPRS the board of directors is publishing this newsletter as a means to communicate to all those interested in Packet Radio. This copy of the PPRS newsletter is addressed to all who have expressed interest in packet radio in the past several years.

The PPRS exists to help you and others enter the new and exciting arena of Packet Radio. The board of directors has set several goals for PPRS. They are to: Help beginners get on the air; Educate the general Ham community as to Packet Radio benefits; Provide a reliable message delivery mechanism for public service, emergency, and disaster communications; Provide inter-city digital communications services. To help us meet these goals we invite you to become a charter member of PPRS. Dues are \$10.00 per year the majority of which will go toward printing and postage of these newsletters with the remainder being held for equipment as needs dictate (e.g., an easy bulletin board, additional repeaters and high speed inter-city linking). Please come help us realize our goals. We need aid in all kinds of areas. I am sure everybody has some skill to help us with. Enclosed elsewhere is an application. Fill it out, send it in and become an official Packet Radio nut. In any case come to our monthly meetings at the Ampex cafeteria (in Redwood City), first Tuesday of each month at 8:00 PM.

This is the first of many PPRS newsletters. The PPRS board and Rich, NT6V will publish a news letter each month just prior to each monthly PPRS meeting. This will serve as a way for all of us to share information among ourselves and as a friendly reminder of an up-coming meeting. Rich has volunteered to prepare this news letter each month. However, as editor he will need all of your help. His job is not to write this news- letter, rather it is to assemble your inputs. If he has nothing to assemble the newsletter will be relatively skimpy. On the other

hand if we all pitch-in and help we can have a useful (and fat) newsletter. Please send your ideas, hints, product reviews, how-to-do-it, repeater info, station info, technical writings, cartoons, committee reports, requests for help, upcoming events, poetry or any thing of general interest to Rich (Richard Collins NT6V, Box 2704, Alameda, CA 94501) and we will all come out ahead.

Hope to see you at the next meeting 8:00 PM, March 5, '85 at the Ampex cafeteria in Redwood City.

73, Dave Engle, KE6ZE

THE NEXT P.P.R.S. MEETING is scheduled for Tuesday, March 5, 1985 at 8:00 PM, in the Ampex Cafeteria on Broadway, in Redwood City, CA. Scott Loftesness, W3VS will report on the annual TAPR meeting held in Tucson. Hank Magnuski, KA6M will have information on the upcoming Fourth Annual Computer Networking Conference to be held in conjunction with the West Coast Computer Faire, at Moscone Center, San Francisco. All amateurs are welcome to attend. Please come and bring a friend.

FROM THE EDITOR...

The Pacific Packet Radio Society has grown from a small, special-interest group to a larger group of amateurs with many interests and varied goals. We suddenly find ourselves projected beyond our original expectations into the reality of Level 2 Linking to Southern California as well as the exciting challenge of Level 3 Linking on the horizon.

I sincerely hope that all will demonstrate continued interest by sending the application for membership with dues to the address shown on the form. Printing and postage costs are such that we cannot afford to mail free issues of the Newsletter. Ten dollars will pay for a subscription through December, 1985, and will entitle the subscriber to a Charter Membership in PPRS. It may be necessary to raise the dues later on since the current dues rate cannot pay for the Newsletter costs. So, do yourself and us a favor by mailing your dues today! Checks should be made to Pacific Packet Radio Society.

My apologies for the jumbled format of this first issue. I had hoped to review "camera ready copy" but you have to do with what you've got! In the future we hope for a more uniformly formatted newsletter. I would like to take this opportunity to thank all who have contributed and to encourage anyone with an article to publish to mail it to me. There is a DEADLINE of the THIRD THURSDAY of the month prior to publication.

I will appreciate any constructive criticism. Happy packeting, and 73 from Rich Collins, Box 2704, Alameda, CA 94501.

Pacific Packet Radio Society

Application for Membership

Name:

Callsign:

Address:

City:

State:

ZIP:

Home phone:

Work phone:

License Class: ☐ Technician ☐ General ☐ Advanced ☐ Extra

TNCs you own ☐ VADCG ☐ TAPR ☐ Ashby ☐ GLB

☐ AEA ☐ Heathkit ☐ Other TNCs:

Does your TNC operate as a digipeater? ☐ Yes-24 hrs ☐ Sometimes ☐ No

Bands you operate on packet:

☐ 2M ☐ 220 MHz ☐ 440 MHz ☐ 1.2 GHz

☐ 40M ☐ 30M ☐ 20M ☐ Other:

Interests:

☐ Traffic ☐ Protocols ☐ Ragchewing ☐ Experimenting

☐ Linking ☐ Mail ☐ RF/Modems ☐ Public Service

☒ Having fun ☐ Other:

Suggested topics for future meetings:

Comments:

Mail application with \$10 yearly dues to:
Pacific Packet Radio Society, 311 Stanford Ave., Menlo Park, CA, 94025

FOURTH ANNUAL ARRL COMPUTER NETWORKING CONFERENCE TO BE HELD IN
SAN FRANCISCO, MARCH 30, 1985, 10:30 AM to 6:00 PM

The 4th Networking Conference will be held in conjunction with the 10th West Coast Computer Faire which runs from March 30th through April 2nd at San Francisco's new Moscone Convention Center. The tremendous growth and interest in Packet Radio promises to make this Conference one of the largest and best attended.

The Networking Conference and other activities of the Faire will be held inside Moscone Center in downtown San Francisco. You will need an entrance ticket to the Faire in order to attend the Conference. All Faire visitors may attend the Networking Conference without additional charge. Hours for exhibits and sessions are from 10 AM to 6 PM daily March 30 through April 2. The ARRL Computer Networking Conference will be held on Saturday, March 30 from 10:30 AM to 6:00 PM in Room 232 of the East Wing of Moscone Center near 3rd and Howard Sts. Here is the schedule of technical sessions:

- 10:30 Opening Remarks and Keynote - Paul Rinaldo, W4RI
- 10:45 Pete's Packet Primer - Pete Eaton, WB9FLW
- 11:30 Applications of Packet Radio - Papers
- 12:00 Panel Discussion of Applications - Andy Cromarty, N6JLJ
- 12:30 Luncheon - Location to be announced
- 1:30 Technical Papers on Packet Radio and Digital Communications.
Presentations from the Proceedings, Part I.
- 3:15 Technical Papers on Packet Radio and Digital Communications.
Presentations from the Proceedings, Part II.
- 6:00 End of Technical Sessions.
- 8:00 Conference Dinner. Location and cost to be announced.

An FM voice repeater has been provided through the courtesy of the Telephone Pioneers, WD6FTR at 146.79 MHZ (Input Frequency = 146.19 MHZ). A packet station will operate from a booth at the Faire, courtesy of KA6M and K6VCO. Local packet activity will be on 145.01, .03, .05, .07, .09 and 146.58 MHZ.

All sessions are open to the Public and persons with no previous knowledge of Packet Radio Systems and procedures are welcome to come and learn what they can about this new area of personal computer networking. On-site registration for all four days is only \$ 20. For one day, \$ 12. Through special arrangements with ARRL and the Faire you may purchase a four-day ticket and obtain a complete set of the Proceedings to be published by ARRL, for only \$ 20. Checks for the special pre-registration package, in the amount of 20 dollars must be received before March 16, 1985 and should be made payable to H. Magnuski, 311 Stanford Ave., Menlo Park, CA. 94025. Telephone: 415+854-1927. Questions about the Computer Faire itself may be directed to Computer Faire, 611 Veterans Blvd., Redwood City, CA. 94063. Telephone 415+364-4294.

MT. ASHLAND
7,523' OREGON

CALIFORNIA DIGIPEATER MAP

EXISTING AND PROJECTED

W6AMT-1 Sees the Following:

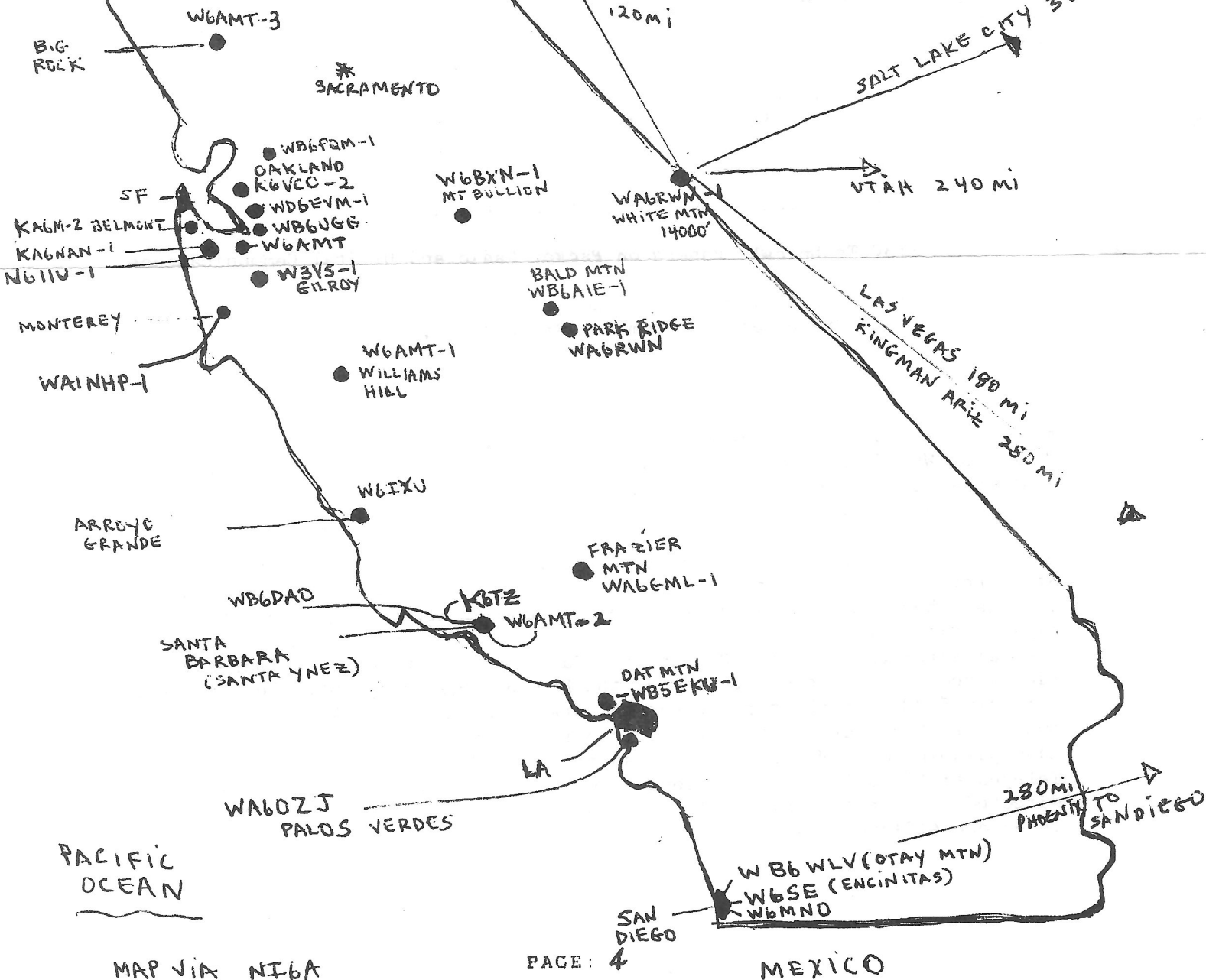
W6RWN, W6IXU, W6AMT, WB6AIE-1, WB6GML-1,
W6AMT-2, W6BXN-1

As of Feb 10, 1985 GML, AMT-2 & BXN-1
not on 145.01

SF to LA Path Exists from AMT, AMT-1, IXU, DAO,
TZ, OZJ OR FROM TZ to W6SE or EKV-1

TO San Joaquin Valley from North via
AMT, AMT-1 or AMT, RWN.

WHEN AMT-2 and/or GML-1 ARE ONLINE
PATH NORTH/SOUTH WILL IMPROVE



PACIFIC PACKET RADIO SOCIETY NEWSLETTER
LEVEL TWO DIGIPEATERS -CALIFORNIA

MARCH, 1985

CALL	QTH-MOUNTAIN	ELEV	ERP	FREQ	COVERAGE	STATUS
N611U-1	BLACK MOUNTAIN ABOVE PALO ALTO	2400'	100 W	145.01*	SF BAY AREA	OPEN MARCH 1
KA6NAN-1	BLACK MOUNTAIN	2400'	100 W	146.58	SF BAY AREA	MAY MOVE TO 145-BAND.
K6VCO-2	OAKLAND HILLS	700'	50 W	146.58	SF BAY AREA	MAY MOVE TO 145-BAND
KA6M-2	BELMONT	500'	50 W	146.58	SF BAY AREA	MOVING TO 145.09 MARCH 1, 1985
W3VS-1	Morgan Hill above Gilroy	800'	10W	146.58	SF BAY & SANTA CLARA VALLEY	MAY MOVE ?
WA6FSP-1	MELCHER HILL FREMONT	700'		145.03	SF BAY	APRIL 1, 1985
WA1NHP-1	MONTEREY	low level	100 W	146.58	MONTEREY & SF BAY	May Raise Elev & change Call to K6LY-1
W6AMT	LOMA PRIETA SANTA CRUZ MTNS	3800'	100w	145.01	GREATER SF REGION	open
W6AMT-1	WILLIAMS HILL ABOVE KING CITY	2800'	100 w	145.01	Central Coast/ SJV/	open
W6AMT-2	SANTA YNEZ	4000'	100w	145.01	Santa Barbara/ San Diego	OPEN @ MAR 1
WA6RWN	PARK RIDGE above Visalia	8000'	40W	145.01*	San Joaquin Valley	Solar Powered
WA6RWN-1	White Mt. above Bishop	14,000'	40W	145.01	Las Vegas, Salt Lake, Reno, No. Cal, No. Az.	Solar Power Summer 85
*** WA6GML-1	Frazier Mt. Above Lebec	8000'	100W	145.01	LA, SD, Kern Co,	March 85 Open
WB6AIE-1	BALD Mt. Above Fresno	5300'	100W	146.58	SJV	Moving to 145.01 March 1
W6BXN-1	Mt Bullion SACTO - FRESNO above Merced	4000'	100w	146.58/ 145.01	SJV	APRIL 1, 85
*** W6AMT-3	BIG ROCK (Sonoma County)	4000'	100 W	145.01	Napa, Sonoma, Lake & No. Bay Counties	April ?
K6TZ	SANTA BARBARA (Santa YNEZ)	400'	100W	145.36	Santa Barbara/SD	
W6IXU	ARROYO GRANDE	200'	100W	145.01/145.36 via 440 TO WB6DAO	Santa Barbara	Crossover link via 440 Mhz

LEVEL TWO DIGIPEATER - CALIFORNIA

CALL	QTH?/MOUNTAIN	ELEV	ERP	FREQ	COVERAGE	STATUS
WB6DAO	SANTA BARBARA		100W	145.36/440	LINK ^{FM} to K6TZ to/ from W6IXU	TEMPORARY LINK
WB6WLV	OTAY MOUNTAIN	?	?	144.76	San Diego	
W6SE	ENCINITAS	?	?	145.36	San Diego/LA	
W6MNO	SAN DIEGO			145.36	San Diego/LA	
WA6OZJ	PALOS VERDES			145.36	LA BASIN	24Hr
WB5EKU-1	OAT MTN			145.36	SIMI/San Fernando Valley/parts of SD	
WB6PQM-1	CONTRA COSTA HILLS	500'	50W	223.58	Contra Costa/Solano Sacto/Counties	Planned.
WD6EVM-1	San Leandro	1000'	50W	223.58	SF BAY	temp. on 223.56 will return to 223.58 @ March, 85
WB6PQM-2	ALAMEDA COUNTY			223.58	SF BAY	Planned March 1
WB6UGG	SAN JOSE	500'	100W	145.01	SF BAY	
***	MOUNT SHASTA			145.01	Northern Cal	- NOT YET OBTAINED

MAIL BOXES

KA6M-1	MENLO PARK			146.58	SF BAY	May Move to 145.09 March 1-UNIX SYSTEM
WB5VUL-1	PALO ALTO RED CROSS			146.58	SF BAY	XEROX 820 System May move to 145.00 band
N6ECT	SAN FRANCISCO			146.58	SF BAY	CPM-MAY MOVE to 145 Band Sporadically Operating
WB6YMH-2	PALOS VERDES			145.36	LA/SD	XEROX 820
WB6UUT	LAGUNA BEACH			145.36	LA/SD	APPLE COMPUTER/UCSD ASCAL
N6BGW	GARDENA	**		145.36+146.145		Similar to above mailbox enter 'help' at logon.
WB6HHV-2	MIRA MESA			144.76		XEROX 820
N6CXB	GLENDALE	**		146.145		FILESERVER

* Digipeaters Ca a le of Remote Frequency Changes

** Mailboxes active on 146.145(input)146.745(output) on a timesharing on/off basis with other users.

*** CALL SIGN SUBJECT TO CHANGE PAGE: 6

AS MOST OF YOU KNOW, THERE IS A LINK TO LA ON 145.01 VIA W6AMT, W6AMT-1, W6IXU, WB6DAO, K6TZ, WA6OZJ. A LINK ALSO EXISTS VIA W6AMT, WA6RWN OR W6AMT, W6AMT-1 TO MOST OF SJV. SOON THE LA LINK SHOULD BE REDUCED TO 3 OR 4 HOPS AND CAVITIES ARE BEING INSTALLED IN THE AMT SYSTEM MACHINES. TO OPTIMIZE THROUGHPUT AND TO MOST EFFICIENTLY UTILIZE OUR FREQUENCIES, CERTAIN RECOMMENDED GOOD OPERATING PRACTICES ARE BEING RECOMMENDED BY THE PPRS FREQ. COORDINATING COMTEE (FCC) TO HELP ALLEVIATE THIS HEAVY LOADING/AND/OR TO HELP PREVENT COLLISIONS AND HENCE IMPROVE THROUGHPUT. WE ARE NOT DICTATING TO ANYONE WHAT TO DO AND REQUEST YOUR INPUT IN ALL MATTERS. THESE SUGGESTIONS ARE FOR HEAVY LOADING TIMES:

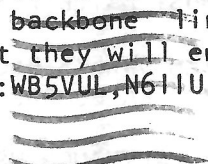
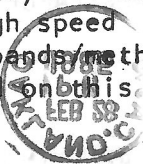
1. USE 145.01 FOR CALLING/MONITORING/LINKING. ONCE CONTACT IS ESTABLISHED MOVE OFF FREQUENCY (145.03 OR ANY OTHER FREQUENCY OF YOUR CHOICE) IF YOU CAN WORK DIRECT OR THRU OTHER DIGIPEATERS. YOU ARE WELCOME TO STAY ON 145.01 IF YOU REQUIRE OR IF THERE IS NO QRM.
2. ALWAYS LISTEN (MONITOR ON) BEFORE YOU TRANSMIT. THERE MIGHT BE EMERGENCY TRAFFIC ON FREQUENCY! THIS IS ALWAYS A GOOD AMATEUR RADIO PRACTICE.
3. AVOID LONG TESTS ON W6AMT SYSTEM. THERE ARE OTHER FREQUENCIES AVAILABLE FOR BOTH DIRECT AND DIGIPEATER TESTING.
4. USE 145.09 FOR HOST MAILBOX SYSTEMS AND LARGE FILE TRANSFER MAILBOXES.
5. THE LINKING SYSTEM OWNERS REQUEST YOU LIMIT BEACONS TO NOT MORE THAN ONE/30 MINUTES (B E 180 for TAPR /AEA BOARDS).
6. TURN OFF CWID. ALTHOUGH USEFUL IN ALERTING FRIENDS THAT YOU ARE ON FREQUENCY, CWID SHOULD ONLY BE USED ON 145.01 DURING LIGHT LOADING AS IT OTHERWISE CAUSES INTERFERENCE.
7. AVOID LARGE FILE TRANSFERS ON 145.01. HOPEFULLY WE CAN ACCOMPLISH THIS WHEN LEVEL 3 ARRIVES.
8. BE POLITE/COURTEOUS/ and HELPFUL TO THE NEWCOMERS AS THEY CERTAINLY WILL NEED EDUCATION. WHEN SIGNING CLEAR(SK) GIVE THE OTHER STATION A CHANCE TO SAY GOODBYE AND FINISH UP BEFORE DISCONNECTING. THIS IS BASIC COURTESY. LET US ALL MAKE AN EFFORT TO CREATE AN ATMOSPHERE OF TRUE FELLOWSHIP ON PACKET AND NOT DEGRADE INTO WHAT HAS CHARACTERIZED CB RADIO AND SOME VOICE TWO METER CIRCUITS. PATIENCE!
9. SETTING MAXFRAME TO ONE HELPS PREVENT YOU FROM COLLIDING WITH YOUR OWN OTHER OUTSTANDING FRAMES AND ACKS.
10. SET PACLENGTH TO 128 OR LESS CREATES SHORT PACKETS THAT ARE LESS LIKELY TO COLLIDE AND ALSO VADG BOARDS CANNOT SUPPORT SUCH LONGER PACLENGTHS. SOME OTHERS HAVE SUGGESTED TO SET PACLENGTH AT 256 TO MAXIMIZE THROUGHPUT AND MINIMIZE COLLISIONS DUE TO ACKS (THE THEORY BEING THE MORE ACKS, THE MORE COLLISIONS). (YOUR INPUT IS WELCOME ON THIS MATTER. PERSONALLY, I HAVE OBSERVED SHORT PACKETS BEING THE MOST SUCCESSFUL BUT THROUGHPUT???).
11. WHEN TESTING ON 145.01 (EVEN THOUGH YOUR LOCAL DIGIPEATER SHOWS LITTLE OR NO ACTIVITY) BE AWARE YOU MAY BE INTERFERING WITH HEAVY LOADING AT OTHER DIGIPEATER AREAS. MINIMIZE LOADING! ON MULTIHOPB, YOU DO NOT NEED TO CONNECT TO YOURSELF TO TEST A LINKPATH. TRY TO CONNECT TO THE KNOWN NODE OR DIGIPEATER. IT WILL SAY "CONNECTED" OR "BUSY" IF THE PATH IS OPEN/HEARING YOU.
12. TRY SETTING FRACK 4 OR LONGER, RETRY15 OR LARGER.

LOOK FOR THE DIGIPEATERS COMING UP ON 145.03 AND 145.09 AND THE GATEWAY ON 145.05
CHECK OUT THE DIGIPEATERS ON 223.58 MHZ AND HAPPY DX!

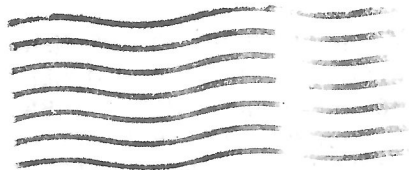
FCC/PPRS

NARC BOARD MEETING SANCTIONS PACKET RADIO SPECTRUM USAGE

At the January 12 board meeting the coordinating council for Northern California (NARC) told representatives from the PPRS Frequency Coordinating Committee that 145.01, 03, 05, 07, 09 -223.56,58,60 and 441.5 Mhz would be permitted to be used for PACKET RADIO in the Northern California jurisdiction. NARC ruled that since this PACKET operation was defined by the AX.25 protocol as a simplex store and forward system, it would ^{NOT} require each individual "digipeater" to register with NARC. However NARC does want to know about all high-level digipeaters on mountain tops and repeater sites that could cause intermod and other interference problems. The PPRS thus joined NARC as a system representative and paid its dues registering the KA6NAN-1, N61IU-1, W6AMT-0, W6AMT-1, and W6AMT-2 digipeater sites. If you wish your own digipeater registered as sanctioned under the PPRS System (officially sanctioned) please contact Don, N16A (Frequency Coordinating Committee Chairman). Nothing will prevent you from registering your digipeater by yourself outside of the PPRS umbrella but you will then have to pay new fees both for application and membership. WB5VUL and N61IU presented an introduction and demonstration to NARC for the PPRS FCC. N16A presented the applications along with letters of support from Red Cross Officials, Office of Emergency Services, ARRL Officials, etc. We are convinced that they understand the need for coordinated PACKET frequencies and their importance. We are convinced that they will be responsive to our future needs of wideband (100 KC) contiguous bands for high speed PACKET backbone links when the Technical Committee decides on what bands/methods that they will employ. Thanks to the committee members who worked on this project: WB5VUL, N61IU, N6NG, K6TP, WA6VZZ.



P. O. Box 2704
Alameda, CA 94501



TO

John Gilmore, KB6DQC
1958 Powell Street
San Francisco, CA 94133

FIRST CLASS MAIL