



cross talk

NEWS BULLETIN OF TRW AMATEUR RADIO CLUB



Sponsored by Systems Employee Association



WAC
WAS
DXCC
FD'71
FD'73
FD'75

MARCH 1976

TRW/ARC Saturday Morning Nets 10AM LT

Primary	7.280 MHz
Secondary	3.980 MHz
Novice	7.140 MHz
Simplex	147.510 MHz

MISCELLANEOUS MONTH

Your editor is still trying to get the hang of assembling this publication in a timely manner each month. The process was made more complicated this time by some business travel and an upheaval in the TRW/SEA repro budget. (This issue was printed by an outside vendor). So CROSSTALK this month may have reached you a bit late. But be of good cheer; it retains its customary literary quality! This issue is a compilation of good stuff sent in by members, various small items of interest to many of us, and some listed or tabulated material that we all need from time to time. Please keep those cards and letters coming in, folks.

REPEATER PROGRAM AT MARCH MEETING

This program will be of unusual interest. First, an old friend and associate member, Ernie Breelsford, K6TZ, will be in the visiting group from the Santa Barbara ARC. Second, the group will illuminate for us the issues and problems involved in the startup of a club repeater. Something we've been talking about for years. Dont miss it.

TRY TO REMEMBER THEIR FACES

Before the great repro disaster struck CROSSTALK, it was planned to publish a photograph of the assembled officers of the TRW/ARC in this issue. The picture is a dandy, but fiscal realities make it necessary to withhold this feast for the eyes, at least for the time being. It is the responsibility of each club member to remember the faces of the officers without artificial aids. Sorry about that.

*** MEETING REMINDER *** R2-1055

Always the last Wednesday at noon

Subject: LABOR PAINS OF A REPEATER

Speaker: Santa Barbara ARC Group

DISA AND DATA

Two is One Too Many

On the facing page you will note that the 31 March Beer Bust of which you were notified has been cancelled. Through the initiative and agility of Paul Fisk, WB6UJX, we were able to hold our St. Patrick's Day Symposium at Shakey's (complete with green beer) after all. Since all of our attitudes have been adequately adjusted for the time being, there seems to be no need for another session quite so soon.

TS-520, Anybody?

Dave Carson, WB6BGO, is looking into the possibility of a club or group discount for mass purchase of the Kenwood TS-520 HF transceiver. If you have a near-term interest, call Dave on X53176.

Absent Friends

Mac (W6YCZ) and Sue McGrew have had a letter from Al (W6KQI) and Jan Lee. As you will remember, the Lees returned to VK in early January; they completed their trip by way of Atlanta, Miami, the Bahamas, England, Italy, Greece, Kenya and Western Australia. Pity we have to wait another 18 months or so to see them again.

Library Fines

Whoever abstracted the January, February, and March issues of Ham Radio magazine from Jack Koho's shelf is urged to return them. Users of the TRW/ARC ham magazines are reminded that signout for borrowed materials is mandatory if we are to continue this service.

Silent Key

We regret to announce the death, on 25 February, of J.G. (Gerry) Flyr, W6WLM. Gerry was an amateur of long standing, and had been a member of the TRW/ARC for nearly five years. He will be missed.

The FCC has Moved

The new address of the FCC is: 3711 Long Beach Blvd, Suite 501, Long Beach CA 90807. Telephone numbers are: 426-7886 (exam schedules); 426-4451 (general information); 426-7955 (RFI complaints). For those desiring a change of venue: FCC, 1245 Seventh Avenue, San Diego, CA 92101. By appointment only.

Swan has Fleas

The Palomar Radio Club conducts a Flea Mart the first Saturday of each month in the parking lot of Swan Electronics in Oceanside. The word is that there are many and varied goodies on display, but you must be there early to have a good choice.

US Postal Service Rates - Bi-Centennial Special

Domestic surface mail (includes Canada and Mexico): 13¢ 1 oz
Air mail to Canada and Mexico: 17¢ 1 oz
Air mail to Central America, Colombia, Venezuela, Caribbean Islands, Bahamas, Bermuda, St. Pierre and Miquelon: 25¢ 1/2 oz
All other countries including the rest of South America: 31¢ 1/2 oz
International Reply Coupons: 42¢ (old IRC's valid through 1976)

807's



QST

TRW/ARC

BEER BUST

IS CANCELLED

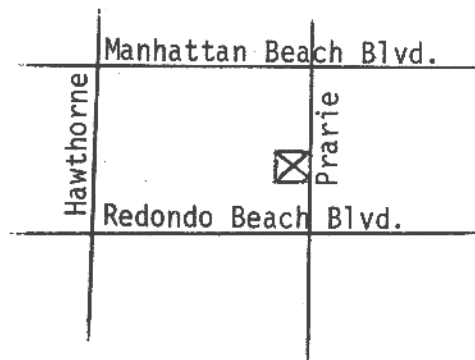
WHEN: Wednesday, 31 March 1976, at 5:30 P.M.

WHERE: The Alondra Club, 16411 Prairie Avenue, Lawndale

HOW MUCH: 50 cents to help defray costs

BEER AND HORS D'OEUVRES !!

ALL YOU CAN HANDLE



TWO METER AUTOPATCH

by Jack Clarke, WB6TCR

The continuing growth of two meter mobile FM communications has led to much interest in providing telephone capabilities for mobile stations. This kind of capability, known as Autopatch, is an extension of the phone patch techniques that permit us to connect our fixed station rigs to the telephone system. With an Autopatch, a mobile rig is connected to the telephone system through a specially equipped repeater, so that the mobile operator can dial (or rather "punch up") any telephone in the area served by the repeater.

There are numerous uses for an autopatch, some vital, some just convenient:

If you have ever confronted a drunken driver on the road, and wished for the police to show up and nail him, think about being able to call directly, and vector the gendarmes to the problem.

You can report highway accidents directly to the CHP by telephone, rather than just hoping to contact an obliging helper on the repeater.

On those rare occasions when you are held up in traffic on the way home, you can make a diplomatically useful call to the XYL to tell her to keep dinner warm.

Or perhaps just a call to get a ham friend up on the air, or to arrange a meeting at the local pizzeria.

The cost of this capability, assuming you start with an operational mobile rig, includes some \$10-\$20 for a touchtone pad, the cost of crystals for the autopatch repeater(s), and the cost of some bracketry for mounting the touchtone pad in your car. A couple or so hours will be required to mount and cable the pad; many are putting it in the glove compartment, where it is out of sight, but readily available when needed.

The two most active autopatch repeaters in the area are WR6AKB, Palos Verdes (146.145 receive, 146.745 transmit), and WR6ADH, Monterey Park (147.72 transmit, 147.12 receive). Both repeaters offer good South Bay and Orange County coverage. Cost for use of the Palos Verdes machine is \$5.00 per month for an unlimited number of calls. The Monterey Park repeater cost is 25 cents per call, levied on an honor system basis.

WR6ADH has occasionally been subjected to intentional jamming by the same freaks who inhabit some other channels, but for the most part is quite reliable. ERP has recently been increased, with an accompanying improvement in patch quality; it is understood that this repeater may be moved in the not too distant future.

The PV machine is an open repeater for non-telephone activity, but requires membership for autopatching. As mentioned before, \$5.00 covers all costs including a monthly publication. A continuing series of technical improvements makes this machine unusually good in patch quality, with several desirable lockout features to foil would-be jammers. If you live in the South Bay, you hardly need an antenna. Farther out, an impressive coverage will be found. The group nurturing this machine are a dedicated lot, and are sure to give you a warm a warm welcome.

Connecting the touchtone pad to your rig can be as simple or elaborate as you desire. The most touchy problem is a tendency to overdrive the audio stage in your transmitter (clipping) so that Ma Bell cannot decode your tones. Pad the output of the touchtone with a resistive divider to attenuate the tones from the nominal 10vpp to more like 10 mvpp.

The Icom has a tendency to clip in the mike input is used at all. I ended up bypassing the first preamp and connecting directly to the deviation pot. It took many hours of false decoding due to clipping before the problem was found.

If you wish to be able to hold the carrier on during the entire dialling process, without the necessity for repeated keying of the mike button, a simple delay circuit can be provided which holds the carrier on for about two seconds. This allows time to find the next digit after entering one. I used a grounded emitter NPN with an RC time constant in the base. Purists might be a bit happier with a one-shot instead. Whatever your choice, happy dialing.

SOUTHERN CALIFORNIA VHF REPEATER ROSTER
SEPTEMBER 1975

146-147 MHZ

<u>CHANNEL</u>	<u>CALL</u>	<u>LOCATION</u>	<u>NOTES</u>
01/61	WR6ABB	LA (Hollywood Hills)	PARC
01/61	WR6AEY	June Lake	
04/64	WR6ACF	San Diego (Mt. Otay)	SANDRA
07/67	WR6ABJ	LA (Hollywood Hills)	
07/67	WR6AHF	Newberry Park	
07/67	WR6AIH	Baker	Autopatch
10/70	WR6ACA	LA	RTTY
13/73	WR6AGX	Lancaster	
13/73	WR6AGH	Ventura (Hall Canyon)	
13/73	WR6AEF	Pomona	
13/73	WR6AII	San Diego (Mt. Palomar)	
745/145	WR6AKB	LA (Palos Verdes)	Autopatch
16/76	WR6AFX	Wrightwood (Table Mtn.)	T2100
16/76	WR6ACT	Barstow	T1800
775/175	WR6AID	San Diego	Autopatch
19/79	WR6ACB	Anaheim (Orange County)	
805/205	WR6ACK	Santa Monica	
22/82	WR6ACD	San Gabriel Valley (Johnstone Peak)	AREC
25/85	WR6AFC	Thousand Oaks	
25/85	WR6ACJ	Crestline	
28/88	WR6AEP	Ventura (Sulphur Mtn.)	
28/88	WR6ACQ	Fullerton (Orange County)	
28/88	WR6AFV	Riverside	
295/895	WR6ADO	Orange County	Not reversed
31/91	WR6AED	Running Springs	
31/91	WB6IYW	Santa Barbara	
925/325	WR6AFJ	LA (Palos Verdes)	Private
34/94	WR6ADA	Palm Springs	
37/97	WR6AAC/6	LA (Palos Verdes)	

147-148 MHZ

60/00	WR6AFE	San Diego (Point Loma)	
60/00	WR6AFI	Santa Barbara (Broadcast Peak)	RACES
60/00	WR6ABW	LA (Hollywood Hills)	Private
60/00	WR6ABI	LA	Private
63/03	WR6AGP	LA (Hollywood Hills)	Private
63/03	WR6AJA	San Diego	
045/645	WR6AKV	Temple Hill (Orange County)	
66/06	WR6AEG	LA	Private
66/06	WR6AEH	Palos Verdes	Private
66/06	WR6ABU	LA	Private
075/675	WR6AHR	San Diego	Private
69/09	WR6AAA	Catalina Island	

147-148 MHZ (Continued)

CHANNEL	CALL	LOCATION	NOTES
72/12	WR6AEB	Lompoc	
72/12	WR6ADH	Monterrey Park	Autopatch
135/735	WR6AHM	LA (Magic Mtn.)	
135/735	WR6AEW	La Mesa (San Diego)	Autopatch
75/15	WR6AJL	San Diego (Mt. Laguna)	SANDRA
78/18	WR6ABV	LA (Contractors Point)	Private
21/81	WR6ABA	LA (Mt. Washington)	Reversed
81/21	WR6AHZ	Santa Maria	
84/24	WR6ABN	LA (Mt. Lee)	
87/27	WR6ABQ	LA (Mt. Disappointment)	RACES
285/885	WR6AIP	San Diego	SANDRA/Autopatch
90/30	WR6AEJ	LA (Hollywood Hills)	
93/33	XE2RBC	Baja California (Mexico)	
96/36	WR6AAD	LA (Mt. Wilson)	Private
96/36	WR6AAE	LA (Palos Verdes)	Private
96/36	WR6AKK	LA (Mt. Disappointment)	Private
96/36	WR6AKW	Malibu	Private
99/39	WR6ADW	San Diego	Private
99/39	WR6AKN	LA (Contractors Point)	Private
7.435/6.40	WR6ABE	LA (Mt. Wilson)	

222-225 MHZ

2.34/3.94	WR6AER	LA	
2.38/3.98	WR6AFG	Johnstone Peak	AREC
2.42/4.02	WR6AEP	Ventura (Sulphur Mtn.)	
2.46/4.06	WR6AGH	Ventura (Hall Canyon)	
2.50/4.10	WR6AFC	Thousand Oaks	
2.54/4.14	WR6ADG	Long Beach	
2.56/4.16	WR6AJS	San Fernando Valley	Private
2.58/4.18	WR6AIO	San Fernando Valley	Private
2.62/4.22	WR6AAC/6	Orange County (Santiago Peak)	
2.66/4.26	WR6AFM	LA	Private
2.68/4.28	WA6CGR	LA	
2.70/4.30	WR6ABQ	LA	RACES
2.74/4.34	WR6AFB	San Diego	Private
2.78/4.38	WR6AIN	Santa Cruz Island	
2.80/4.00	K6ZJS		RACES
2.82/4.42	WR6AAA	Catalina Island	
2.86/4.46	WR6AKY	San Diego	
2.90/4.50	WR6ACB	Anaheim (Orange County)	
2.94/4.54	WR6AID	San Diego	Private
2.98/4.58	XE2RBC	Baja California (Mexico)	
3.02/4.62	WR6ADL		
3.06/4.66	WR6AIZ	Orange County	
3.10/4.70	--	National RTTY Channels (Open)	
3.14/4.74	WR6ABJ	LA (Hollywood Hills)	
3.14/4.74	WR6AHF	Newberry Park	
3.18/4.78	WR6ABB	LA (Hollywood Hills)	PARC
3.22/4.82	XE2RBC	Baja California (Mexico)	
3.26/4.86	WR6ACJ	Crestline	
3.30/4.90	WR6AHW	LA (Palos Verdes)	
3.34/4.94	WR6ABC	LA	Private
3.38/4.98	WR6AFW		Private
223.5	--	National Simplex/calling channel	

EXECUTIVE COMMITTEE REPORT

By ED THORNLEY, W6RXD

The March meeting of the Executive Committee was held in Frank Cartier's office on 17 March 1976. Officers present in addition to President Cartier were: Dews, Halligan and Thornley.

1. Halligan moved and Dews seconded, that club fund \$ 25 worth of BEVERages for the club social event to be held at Shakey's on St. Patricks Day. The motion was carried. Thanks is expressed to Paul Fisk, WB6UJX for setting this event up on such short notice after cancellation of our reservation by the Alondra Club.
 2. Thornley reported that Heathkit Power supply purchased for operation of club ICOM 230 has been assembled and ready for full Systems Integration and Test.
 3. No report on status of Bi-Centennial Club QSL cards was available.
 4. Wally Linstruth's repeater operating on 147.075 in/147.675 out is in good working order. Club members are encouraged to use it.
 5. Dews reports that good progress is being made in refurbishing club 60' tower, Ham-M rotator and TH-6 beam at W6TRW. New guy wires have been installed and rotator is down for overhaul. Expenditures of \$ 85 to date were reported. Next work party scheduled for Saturday 3 April 1976.
 6. It was reported that TRW/SEA repro budget for 1976 has been depleted. Costs of repro'ing Cross-Talk and other club paper work will now have to be borne by club treasury. Editor Weisz is exploring several outside printing shops for this type of work.
 7. New station log books for W6TRW are needed. Thornley will work this since he has original art work.
 8. Thornley reported that appeal in last Cross-Talk for contributions of test equipment, tools and books for Honorary Member Ben Cantaros has resulted in no response. Committee agreed that Thornley will communicate with Ben to see if he could procure needed items in Manilla with a cash contribution from the Club.
 9. Halligan moved and Dews seconded motion that the Club auction off its LaFayette AM transceivers. After some discussion, the motion was voted on and passed. The following details apply:

HA-460, 6-meter, with out mike,	minimum bid: \$ 50.00
HA-1200, 2-meter, with mike,	minimum bid: \$ 80.00
- Interested buyers shall submit written bid to Bill Dews by 28 April 1976. Bids will be reviewed at April meeting at which additional bids will be accepted. Equipment will be available for inspection at April meeting of the Club.
10. Halligan is considering an evening dinner meeting in May.

The next Committee meeting will be held at Cartier's home 14 April.