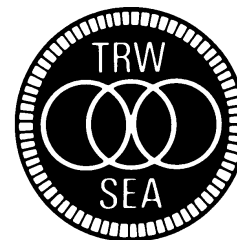




# CROSSTALK

News Bulletin of the TRW Amateur Radio Club



Volume 97 Number 12

December 1997



## **BANQUET '97**

Well, the Banquet is now just a memory, As co-chairman of the Banquet, I hope that all of you that attended had a great time, I know I did.

Greg, N6RRY took a bunch of pictures with the club camera, in the interest of time for this issue to get to you, you can view the rest of the pics on our internet home page. On behalf of the TRW ARC, I would like to

personally thank Don Thomas for putting on a great show, and I would also like to thank Bob Briggs for getting Don as our Guest Speaker, Pat Anderson as Banquet co-chairman, my

wife, Angela Park for the Decorating, and Gift Baskets for the Thomas family, Wendy Crawford for helping with admitting and tickets.



## **1998 EXECUTIVE BOARD NOMINEES**

I have received 2 nomination responses from the November issue, come on guys lets see a better representation from the club members.

Merry  
Christmas

# TRWARC Monthly Calendar of Events

First Tuesday of each month	5:30 pm	<b>Executive Board Meeting</b> (All Club Members are invited)
Second Tuesday of each month	5:30 pm	<b>Club Meeting</b> <b>Round Table Pizza, (Redondo Bch. &amp; Hawthorne)</b>
Second Tuesday of each month	12:00 noon	<b>Emergency Communications Team Meeting</b> R3 Emergency Operations Center
Last Saturday of each month	7:00 am	<b>TRW/ARC Swap Meet</b> Marine and Aviation (Northeast Corner)
After the Swapmeet	12:00 noon	<b>T-Hunt</b> Swap Meet Parking Lot - 144.72 MHz

## Reoccurring Events:

Every Monday Night (Except the 1st & Holidays)	7:30 pm	<b>Disaster Communication Systems (DCS) Net</b> DCS Members: Check in on 2 Meter Repeater
Every Wednesday	12:00 noon	<b>ECT Net on 2 meter Repeater</b> All Amateurs Welcome
Every Thursday Night	6:30 pm	<b>TRW Amateur Radio Club Net</b> The Bob and ? Show - Check In on 2 Meter Repeater
Every Friday Morning	7:30 am	<b>TRW Amateur Radio Club Breakfast</b> Building S Cafeteria - Everyone is invited Talk-in on 2 Meters

## Other Events

**Computer Fair** (previously The Computer Marketplace Computer Shows) **Hours: 10:00 to 17:00**

**POMONA** \$8 admission

Live Broadcasts: KFI-Jeff Levy "On Computers", KZLA, Y-107FM

December 13 & 14 (Sat. & Sun.)

December 27 & 28 (Sat. & Sun.)

Fairplex Exposition Complex Exit Highway 10 at Fairplex Drive.

Go north to McKinley Avenue, turn right. Turn left on White Avenue to Gate 14.

**RESEDA** \$3 admission

December 20 (Sat.)

Sherman Square Entertainment Center From the 101 Freeway take the Reseda offramp,

go north to Sherman Way and turn right. Go one block to Canby Street. 18430 Sherman Way.

**BUENA PARK** \$5 admission

December 21 (Sun.)

Sequoia Conference Center Take the Beach Blvd. exit off the 91 Freeway.

Go one block north to 7530 Orangethorpe.

**All Shows Open to the Public 10:00 a.m. to 5:00 p.m.**

**Call for more information (408) 778-5200 or 800-800-5600 Fax# (408) 779-1374**

### Other Ham Swap meets:

**Inland Empire ARC** - 2nd Sat. ea. mo. @ A.B. Miller High School, Walnut & Olenander in **Fontana** - Talk-in 145.480 (-600 pl=77.0hz)

**El Cajon ARC** - 1st Sat. ea. mo. @ Santee Drive-in Theater, Woodside Ave. @ Hwy 67 in **Santee**

## **Traveling with Handhelds**

by Ray Stommel, N7QAK, raystom@worldnet.att.net

Living close to Canada, I never cross the border without one of my 2-meter handhelds and a repeater book. There are reciprocal courtesy use agreements for hams between the two countries. The people are friendly, and you usually can generate a chat or get directions if you wish. Just be sure to add "portable VE" to your call sign.

Based on that experience, I took a small handheld (Yaesu 411E) to New Zealand, another reciprocal country, on a 2-week trip. I had a great time talking with NZ hams all over both islands, and usually caused a "pile-up" when I gave my call (followed by "portable ZL" - pronounced "ZED ELL"). There are many repeaters, so you are rarely out of range of one or more. Everyone was gracious and friendly. Two or three suggested a meeting and a cup of tea, but our bus tour left little spare time.

ARRL offers data on licensing and laws, plus a list of repeaters and ham contacts in various cities. Airport security was no problem. To avoid AC recharging problems, I used an AA battery holder, and carried 12 spare alkaline batteries. I used only six.

I certainly would encourage ham travelers to carry an HT with them when they go. It's a great experience.

Ray Stommel - N7QAK

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## **AT&T FUNDS KENTUCKY HAM RADIO REPEATERS**

Excerpt from: The ARRL Letter Vol. 16, No. 45 November 14, 1997

There was a silver lining to the clouds that brought heavy flooding to Northern Kentucky earlier this year. Ham radio's role in providing emergency communication in the flooding's wake has resulted in a windfall for that region's hams--courtesy of AT&T. Seventh District Emergency Coordinator John Meyers, N4GNL, of Covington, Kentucky, says AT&T has agreed to spend some \$100,000 to set up a VHF repeater, a UHF repeater, antennas, and a shack with air conditioning and heat at one of its cellular telephone sites. Other sites will be equipped as receive-only sites and tied back to the repeater. As part of the deal, the Northern Kentucky Amateur Radio Club agreed to cover the electricity and phone bills.

Meyers says he's already gotten four Northern Kentucky counties (Campbell, Boon, Kenton and Pendleton) plus the City of Falmouth to pitch in for the utilities at the sites.

Meyers says ham radio was the only means of communication for the first four days of the floods. Many of the club's members remained on duty to help out during the flood recovery. Hams' efforts during the flooding attracted the attention and respect of local governmental officials and of AT&T, which saw the possibility of a mutually beneficial arrangement.

AT&T had been hoping to gain access to several possible cellular telephone antenna sites that had been off-limits. With the ham equipment on board, however, the cellular sites gained emergency communication status--just what was needed to get the moratorium lifted on their use by AT&T. "The marriage came together really good," Meyers said this week. "AT&T needed some sites, and hams needed the coverage."

In addition to the Kentucky repeater, AT&T also plans to set up a similar emergency system for hams in Southwestern Ohio, which also suffered from this year's flooding. Meyers says AT&T's total commitment is in the area of \$300,000.

When it's all in place, Meyers says, a huge region in Northern Kentucky, Southwestern Ohio and Southern Indiana will be accessible using a 2 W hand-held transceiver.

If all goes as planned, Meyers hopes to throw the switch on the first new repeater site in Edgewood, Kentucky, by year's end. Great Lakes Director George Race, WB8BGY, has been invited to take part.

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## **10-Meter Contest** by Elizabeth Kunkee

The ARRL sponsored 10-meter contest will be the weekend of December 13-14. The goal of this contest is to make as many contacts as possible on 10 meters, either phone or CW. The total score is the number of QSOs, multiplied by the number of states+countries.

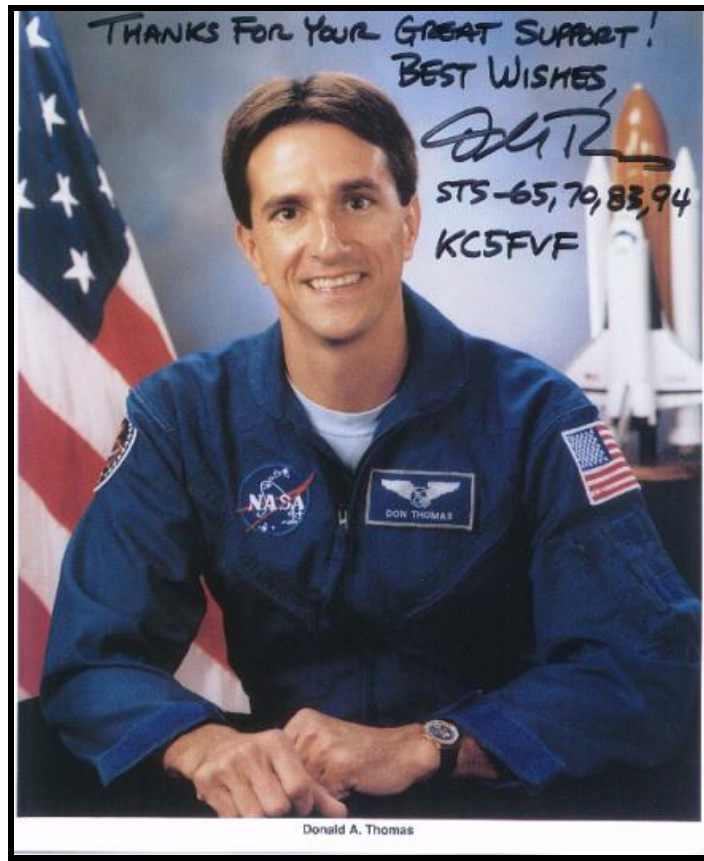
W6TRW will be on the air as a multi-operator station for this contest from the S-building shack. If you are interested in operating, please contact Elizabeth Kunkee, 813-0524. If you have never used the S-bldg HF station before, you will be paired up with someone who can show you the ropes.

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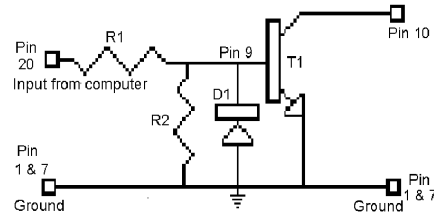
## **LOST!!**

I have been told that a 440 amplifier, and a 1.2ghz SWR/PWR meter is missing from one of the club shacks..... If you have seen them, or know who is using them, please return them to the S Shack ASAP. The normal policy to borrow a piece of equipment is to contact the shackmasters (Dave Nelson Bldg. S, & Duane Park or Rick Ervin for Bldg. R3).

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**MODIFIED KEYING CIRCUIT**  
**SERIAL PORT KEYING**  
by Mel AC6CV



- R1     1K ohm
- R2     270 ohm
- D1     1N34 or equivalent
- T1     NPN switching transistor or 2N2222

During contests, I key my transceiver with my computer. Over a period of time I have made some modifications to the circuit to insure better operation.

The original keying circuit used R1 and T1 only. This circuit seemed to work OK but occasionally T1 has been destroyed. Checking out my computer I have found that pin 20, serial pin output, sits at minus 12 volts DC and when the transmitter is keyed pin 20 goes to plus 12 volts DC. The emitter base break down voltage is 5 volts.

You can back bias a transistor emitter base junction, even to the voltage break down point. The back biased emitter base junction, at the voltage breakdown point, will make a pretty good zener diode. That works well if you are attempting to regulate voltage. Operating in that range is not a good idea for a switching circuit, especially if you exceed the current rating of the back biased emitter base junction.

Placing D1 across the emitter base junction of T1 keeps the back bias voltage from going any further negative than .25 volts. This protects T1 very well. In fact, in my computer configuration when the transmitter is not being keyed a negative .25 volts will be across the emitter base junction of the switching transistor. Since the 1N34 can handle 50 ma constant and 500 ma surge forward current, the switching transistor is protected from transients and the 12 volt negative voltage off condition.

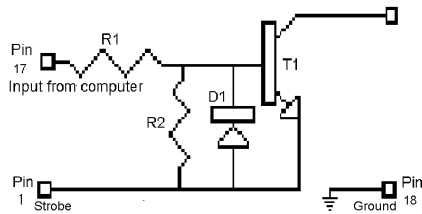
During the California QSO contest on 80 meters I discovered that during high SWR conditions, while we were operating in the search and pounce mode and moving across the band quickly, T1 would be turned on by RF getting into the circuit. The transceiver would then start keying and not stop. Placing R2 across the emitter base junction of T1 lowers the impedance of the emitter base junction. The above circuit seems to work very well under all types of keying conditions.

Construction

Pin 20 is the input to the circuit from the serial port of the computer and the collector keys the transceiver. Pin 9 and Pin 10 are only junction points on the connector. Those pins are not used in the serial port connector of the computer. I use these pins to wire the entire circuit into the case of the 25 pin plug.

## MODIFIED KEYING CIRCUIT PARALLEL KEYING

Some CW operators prefer to use parallel port keying. This allows the serial port to be used for other features. On field day you may want to use parallel keying so that you can communicate with other operators in your group on the serial port.



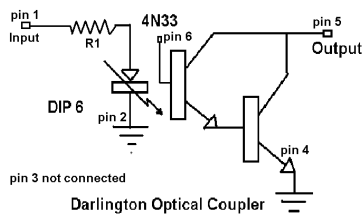
The values for this circuit will be the same as the serial port keying circuit.

- R1     1 K ohm
- R2     270 ohm
- D1     1N34 or equivalent
- T1     NPN switching transistor or 2N2222

Note that the parallel port connector pin numbers are different. Also note that no tie points have been used. Before using any junction or tie point always check the port output to make sure that the pin is unused. Also note that pin 1 is not ground on the parallel port connector. Pin 18 is ground and is not connected to the emitter of T1.

## ANOTHER POSSIBILITY

Dick Eddy, KD6AZN, uses an optical transistor to key his transceiver during teletype operation. This method should also work very well with computer CW keying. I have found a supply of these transistors at a reasonable cost. I will furnish any interested member an optical darlington transistor at my cost. You may want to try out this circuit, as shown below:



R1 is a 2 K  $\Omega$  resistor. The optical diode triggers the base of the darlington circuit. The output keys the transceiver. The darlington optical coupler, a 4N33, comes in a dip 6 configuration. Note that pin 2, connected to the base, is also available for further changes if desired.

The optical circuit should isolate the computer from the transceiver and may solve many of the problems incurred with other circuits.

## SERIAL PORT CHECK

You are in a panic condition five minutes before field day is to start and another club member wants to connect his computer to your serial port communication line. What port is this strange computer using? If you are using N6TR contest software, locating the proper software port is very easy. **Place a jumper across pins 2 and 3 of the serial port connector.** If you have a computer with a nine pin serial port connector, pins 2 and 3 will be the same but reversed functions. I recommend using an adapter so that all computers on the line will be in the 25 pin configuration. The adapter corrects the reversed configuration of pins 2 and 3.

While in DOS, and in the N6TR directory, type:

### TR LOOPBACK

You will be asked which port you want to check. (systematically go through each com number, 1 through 4). You will then be asked the baud rate. You will be using a baud rate of 4800. After typing in the baud rate, press enter. The following will come up on the monitor:

**Okay, you are all set. Press ESCAPE to stop.**

Start typing on your keyboard. Nothing happens? The port number you selected is not in use on that particular connector. Press escape then type in TR LOOPBACK again and select another com port. When you arrive at the proper useable com port whatever you type on the keyboard will show up on the monitor. UREKA!!! Now press escape. While in the N6TR directory type:

### EDIT LOGCFG.DAT

Under MULTI PORT =, you should make sure the right comm port number **for that computer** is typed in. Example:

```
MULTI PORT = SERIAL 1
```

Make sure every computer on line has a useable comm port. Don't forget to remove your shorting plug and put the computer on line.

While you are in the logcfg.dat file make any other changes you might need for that particular computer. Make sure you document these changes so you can go back if things don't work out as expected.

## SYSTEM CHECK-OUT

Accessing the communication line: If you want to talk to operators on 80 meters type:

“ 80 (then type message)      If you want to communicate with all operators type:

“ ALL (then type message)    etc.

The N6TR communications line allows the convenience of communicating with other operators without leaving your operator position.

## FIELD DAY 1997 IS HISTORY

Now that the scores are in for field day 1997 it is time to start planning for field day 1998. Get some N6TR software and jump right in and get some practice. There are other contests besides field day that are lots of fun. One of the big contests in California is the “California QSO Contest” run by the Northern California Contest Club. The California QSO contest is both CW and SSB on the same weekend, so if you feel uncomfortable using CW all weekend or would like to start out with some SSB jump right in. Some of the operators that get into the contest make only 5 or 10 contacts. It is a good way to get a little contest practice without all of the stress. If you make 100 contacts you qualify for a T-shirt. Allows other amateurs to think you are a contest pro.

Me1, AC6CV, (310) 540-9962  
ac6cv@gte.net

# TRW AMATEUR RADIO CLUB

## ELECTED OFFICERS

President	Bob Briggs	KD6WYQ	R8 / 2188	(310) 813-2622
Vice President	Pat Anderson	KB6YPI	R7A /1265	(310) 813-6874
Secretary	Nina Whiddon	KN6FL	O1 / 2020	(310) 813-9351
Treasurer	Jan Parker	KD6AKD	R4 / 2058	(310) 812-1081

## APPOINTED STAFF

447 Repeater Autopatch	Pat Anderson	KB6YPI	R7A /1265	(310) 813-6874
Activities Chair/Asst. Swapmt	Greg Martens	N6RRY	M1 / 1275	(310) 813-4049
Crosstalk Editor	Duane Park	WA6EIK	M2N / 1368B	(310) 813-4219
Emer. Comm. Coordinator	Duane Park	WA6EIK	M2N / 1368B	(310) 813-4219
Librarian/Asst. Postmaster	Steve Papa	KO6VF	M5 / 1263	(310) 812-5305
Membership Chairperson	Jerry Dean	WA6GVO	R2 / 1036	(310) 812-0770
Past President	Frank Cartier	W6FC		(603) 964-2059
Publicity Chairperson	Dave Nelson	AB6DU	R8 / 2144	(310) 813-9775
QSL Manager	Bryan DeAro	KN6OW	120 / 1020B	(310) 812-4789
S.P. Packet/Internet Sysop	Chris Wachs	WA2KDL	R7A / 2100	(310) 813-1506
SEA Representative	Elizabeth Kunkee	KS4IS	D1 / 1024	(310) 813-0524
Swap Meet Manager	Rich Sauer	N6CIZ	R9 / 2849	(310) 813-5869
SYSOP (Telephone BBS)	Ron Hoffman	KE6OJD	M4 / 2031C	(310) 814-9126
Technical Chairperson	John Cheatham	KE6OJM	R9 / 2838	(310) 813-5903
Training Chairperson	Bryan DeAro	KN6OW	120 / 1020B	(310) 812-4789
Trustee of W6TRW License	Elizabeth Kunkee	KS4IS	D1 / 1024	(310) 813-0524

TRW/ARC Telephone Computer BBS (24 hrs, 300-14,400 Baud, 8-N-1) (310) 768-3399  
 TRW/ARC Hotline (Club Answering Machine) (310) 813-8569  
 W6TRW 2 Meter Repeater (Open Repeater) 145.32 (-600) PL 114.8Hz  
 W6TRW UHF Repeater (Open Repeater / Closed Autopatch) 447.00 (-5 MHz) PL 100 Hz  
 W6TRW-3 Packet Radio Internet Gateway and BBS (1200 Baud Port) 146.745 (-600)  
 W6TRW Internet Home Page <http://w6trw.sp.trw.com/w6trw/>



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**FIRST CLASS**

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