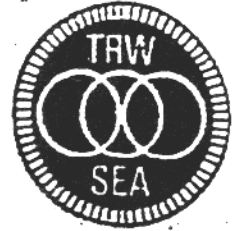




CROSSTALK

A Publication of the TRW Amateur Radio Club



MARCH 1993

CALENDAR :

Every Monday: DCS Net on 145.32 Repeater @ 7:30 PM

Every Wednesday: Emergency Communications Team Net on 145.32
Repeater at Noon

Every Friday: Club Breakfast in Bldg S Cafeteria, 7 to 8 AM

Mar 2: Eyeball QSO meeting, 5:30 PM, at Upper Crust Pizza, corner of Manhattan Beach Blvd and Inglewood Ave, informal get together to discuss club business and present new ideas for club activities, all members welcome and encouraged to attend

Mar 6-7: ARRL International DX Contest, Phone, call Bryan, KC6TPN, if you are interested in participating for W6TRW

Mar 9: Emergency Communications Team meeting, R3/1413, Noon

Mar 9: Executive Board Meeting, E2/1200, 5:30 PM

Mar 27: Swap Meet, parking lot on NW corner of Aviation and Marine, 7 to 11 AM

Mar 27: T-Hunt following the Swap Meet @ Noon, Meet in O3 parking lot near the Porta Potties

Mar 27-28: CQ WW WPX SSB Contest

Mar 30: Club Meeting, E2/1200, Noon

EDITORS NOTES : The deadline for Crosstalk submissions is the eyeball QSO meeting the month before publication. Please plan ahead if you want your contest team attempt or activity publicized in our club newsletter.

I'd like to thank all those who responded to the incentive licensing article. Your responses have been forwarded to Freid Heyn and Fred Maia as promised. Freid called the other night to thank us and express his interest in this timely subject. 73 de KJ6GR.

January Club Meeting Notes

Rich Sauer, N6CIZ

Well, If you didn't make it to the last club meeting you really missed out on a great presentation.

Many thanks to our last guest speaker, Bill Wysock, N6UXW, who brought a giant Tesla Coil to amaze the membership. We moved the meeting to the Presentation Room in Building E2 so that Bill could arc and spark without fear of arcing over to a light fixture or something in the ceiling.

Ray, KD6IGI, our resident electrician, tapped into a local power panel and with the help of Bill's assistant Brent Turner, KD6NIL, the show went off without a hitch. I think that the folks in the front row had a real shocking experience (pun intended) when four foot long electrical arcs shot off the coil in their direction.

The show stopper, however, was when Bill climbed on top of a plate connected to the coil and electricity shot through his body, lit a light bulb and flew off in arcs into the air. Very impressive!

Kudos to Dave Qualls, K6AYK, for setting up this great presentation.

Now, join us this month (and every month) for our club meetings. We don't deal with boring business -- just fun -- and don't forget those great doorprizes (wear your club badge for a free ticket).

February's meeting will be at noon on February 23rd. Don't miss it!

FOR SALE:

IC-02AT 2 meter handitalkie with 5 watt battery pack, charger, speaker mike and desk stand. Excellent condition, \$175. Call Bill Shanney, KJ6GR at work X38159 (leave a message) or home 310-542-9899.

W6TRW REPEATER AUTOPATCH:

Ray Enriquez, KD6IGI informed me that there is no charge for the three autodial numbers if they are reasonably local, the \$2/month dues will become effective when open dialing is initiated in the near future.

KG6B OPERATION IN THE 1992 CQ WORLDWIDE CW DX CONTEST

By Bob Hume

To score high in this contest one must work a lot of countries/zones as a multiplier on total QSO's. To pump the QSO total usually requires long hours of calling CQ on one frequency. Operating a kilowatt amplifier with a high transmit duty cycle in the city for two straight days can lead to interference problems that I prefer to avoid. For this and other reasons I chose to create my own contest within a contest. My goal was to work as many countries as possible on ten meter CW with 12 hours of operating time. I wanted to catch the remaining skip on ten meters before the sun spot minimum wiped this band out.

The results from my contest effort were:

- 167 ten meter CW QSO's
- 93 countries
- 30 of the 40 CQ zones

I especially enjoyed cracking big pileups through the east coast to get some of the rarer European and African countries. I use a 5 element quad on a 30 foot boom which is mounted on a 50 foot tower and shoots down a small hill toward the east. Propagation and recaption toward the west is not as good since I shoot uphill and there is local power line noise on that beam heading. In any case I worked every country I heard on the band.

I was quite surprised to see how much steam there was left in the ten meter band at this point in the sunspot cycle. The CQ WW contest really brought out the DX stations to show that the skip was there. It was a fun contest to participate in even though I made up scoring goals to suit my own preferences and station limitations.

Editors Note: For those who are new to amateur radio and/or contesting, you don't have to plan to win or even submit your score to have fun. Setting your own private goals like Bob did can be very rewarding. I hope to hear more of you in upcoming HF contests, give Brian, KC6TPN a call if you are interested in working one from W6TRW.

HF CW Fine Tuning

by: Bill Shanney, KJ6GR

I really enjoy CW operating and have come to appreciate operators with good fists (i.e.: accurate, well timed sending) and equipment that transmits code with proper dot/dash timing.¹ Most modern Japanese transceivers do an excellent job of sending well formed Morse characters in the VOX or semi-QSK mode but exhibit dot and dash shortening when operated in the full QSK or break-in mode. This is due to transmit/receive switching time constants and delays which shorten transmit on times by 10 to 15 milliseconds². A 20 WPM dot is 60 milliseconds long with rise and fall times of 5 milliseconds to prevent key clicks. With an additional shortening of 15 msec the dot appears half as long as it should, resulting in a light or choppy CW sound. This makes copy more difficult on the receiving end, especially in QRN.

My FT-1000D suffers from this condition in full break-in operation. The AEA Morse Machine has independently adjustable dot and dash ratio. Using my mobile receiver as a monitor and transmitting into a dummy load I found that adding 20% to the length of a dot and 7% to the length of a dash produced nice sounding Morse Code on the air. This corresponds to a 12 msec increase in dot and dash length at 20 WPM. As the code speed is varied the dot and dash ratio needs to be changed to maintain the same on time increase. The weight control may also provide some compensation but again only at one speed.

During the recent Christmas shutdown I was browsing through some old issues of QST and came upon "The CMOS Super Keyer II" in the November 1990 issue. One feature of this design that caught my interest is the ability to increase the on time at the keyer output up to 25 msec. This keyer is available from Logikey (Model K-1) and has a full range of features. I've had mine on the air for 3 weeks now and find many features I like better than equivalents on the Morse Machine 3. Both are excellent keyers and I encourage anyone who is really interested in CW to check the features and operate both before making a purchase. A fully adjustable external keyer with memories is an accessory every serious CW operator should consider.

A good paddle (i.e.: key) is required for consistent Morse character formation, especially at speeds of 20 WPM and above. Most ham radio

suppliers carry only Bencher and Vibroplex, both are made in the U.S.A. and provide excellent quality. A recent article³ in 73 magazine compares 17 different iambic paddles. I encourage anyone who is serious about CW operating to read this excellent description of the features of these keys. The most important features of a paddle are:

- Weight: the heavier the better to prevent sliding while sending
- Feel: smooth and precise, you may prefer one with a lighter or stiffer feel
- Adjustability: contact spacing and tension independently adjustable.

I like a paddle with a light, smooth feel that doesn't flex or bounce when used at high speeds. My favorite is the G4ZPY Very High Speed paddle key. I have a Jones key and a Kent iambic key which are also excellent. The Bencher flexes too much for my liking but for speeds below 20 WPM its not important. I still use mine for mobile CW operation. There's a lot of variety of keys and operating styles so shop around and try before you buy if possible.

Before I close I have to say a few words about my newest key. The "Vertical Single Lever" key is made by W9WBL and is a very innovative design that feels great to use. I don't use the "iambic" or squeeze key feature in my sending so a single lever paddle is no problem. The WBL vertical design places the paddle up the arm which provides a more natural finger position change during keying. This key weighs 2.2 pounds, has solid brass posts, contact screws and lever, has a smooth feel and is fully adjustable. The VSL key is not advertised yet, a brochure can be obtained from W9WBL or I can provide a copy to anyone who sends me a SASE.

¹ Proper morse code timing is described in the ARRL Handbook, Chapter 19, "Digital Communications" (1993 edition). For a dot length of 1 unit a dash is 3 units, letter spacing is 3 units and word spacing is 7 units.

² Ten Tec transceivers (made in U.S.A.) do not exhibit this problem and are the first choice among many serious CW operators.

³ "Iambic Keyer Paddles" by John Rehak, N6HI, 73 Amateur Radio Today, December 1992, pp. 36-46.

TRW/ARC Ancient History Department

The January 1993 issue of Crosstalk included a request for articles from Old Timers concerning club history. Since I fall into that category, I will try to answer some of the questions asked in the request. I retired at the end of August 1992 after 29 years with TRW, and have been a club member since 1964.

I have a six-inch thick stack of club bulletins that go back to the first issue in January 1968. It is reasonably complete through 1981, at which time my filing system fell apart. I hope that some other more ambitious club member has taken up the cause and keeps a complete set of our bulletins. Perhaps some day, we can merge the files and have a complete history of the club, at least back to 1968.

In paging through my collection, I was impressed by the number of activities that our club has carried on over the years. To note a few, we put together an impressive club station, went out for Field Day every year since 1968, put up a club repeater and supported other employee activities with communications.

It was sad to note that over the years, many of our members became silent keys. Others left the club when cut-backs and lay-offs took place due to reductions in company business. Last but not least, there are quite a few of us who were lucky enough to survive to a normal retirement.

With our editor's permission, I'll try to put together a few articles along the way that would be of interest to the membership, and to stir the memories of some of our Old Timers who might wish to contribute their recollections of the early days of the TRW/ARC.

Here are a couple of tid-bits that I dug out of my file:

- 0 The name of our club bulletin on its first day of issue in January 1968 was very unique: "BULLETIN"
- 0 In July 1968, the name was changed to "PHASE SHIFT" (probably to avoid copyright infringements!)
- 0 In September 1968, it was noted that our phase was not shifted after all, and our publication was re-named "Cross Talk".
- 0 The club's first call was WB6WPO.
- 0 Doug Freeman, W6NHX (ex-WA6AZW) led our first Field Day participation in 1968 to fourth place in Class 6A!

I'll try to crank out some more for the next CROSSTALK.

73, Ed Thornley, W6RXD

Ventura County Amateur Radio Club Presents: **Conference 93** 1993 West Coast VHF/UHF Conference May 21-23

Ventura Holiday Inn, 450 E. Harbor Blvd., Ventura CA 93001



- ☐ State-of-the-art **TECHNICAL TALKS** all day Saturday.
- ☐ **VENDOR EXHIBITS** Saturday and Sunday.
- ☐ **SWAP MEET** Sunday morning. This year even larger - and indoors!
- ☐ **BANQUET** with speaker, Saturday night(advance reservations required).
- ☐ **BREAKFAST** with speaker and awards Sunday morning.
- ☐ **NOISE FIGURE MEASUREMENTS** - with N.F. vs frequency pen plots.
- ☐ **ANTENNA RANGE** - Gain measurements, plus pattern pen plots for all.
- ☐ **NO-CODE TECHNICIAN** weekend class by Loraine McCarthy, N6CIO.
Class fee of \$125 includes materials. Contact Loraine at 714-979-2633.
- ☐ **AWARDS** - pre-registration and Banquet awards.

Mark Your Calendar Now To Attend

- Friday, May 21: Registration begins at noon. Hospitality Room opens.
 Saturday, May 22: Registration, Talks, Exhibits, Banquet, Awards, Noise Figure, Hospitality Room.
 Sunday, May 23: Breakfast, Swap Meet, Exhibits, Antenna Range.

The Ventura Holiday Inn is right on the beach, has a heated pool, free parking, exercise room, game room, laundry, free HBO, gift shop, and is within walking distance of Ventura's famous Antique Row, pier, Mission, and museum.

SPECIAL HOTEL CONFERENCE RATE OF ONLY \$58! (Per night, double occupancy, plus room tax. Be sure to mention the Conference. Valid until May 7.) **Hotel reservations: 1-800-842-0800**

Register early - last year the hotel was sold out!

EVENT	COST	QUANTITY	TOTAL
Registration (by May 7 for pre-reg Awards)	\$15	x _____ =	_____
Banquet (Advance reservations required)	\$25	x _____ =	_____
Breakfast (reservations received by May 7)	\$10	x _____ =	_____
Proceedings (available at conference)	\$10	x _____ =	_____
			TOTAL \$ _____

Make checks payable to Ventura County Amateur Radio Club. Your cancelled check is your receipt.
 Send to: VCARC, P.O. Box 2103, Oxnard CA 93033. Info: 805-647-4294

Name _____ Call _____
 Street _____
 City _____ State _____ Zip _____
 Phone _____ Occupation _____

NOTES: Banquet and Breakfast reservations are required by May 7, as tickets may not be available at the door. Don't miss out on the prizes! No refunds after May 7. For exhibit space call 805-264-1978. For Swapmeet space call 805-485-4462.