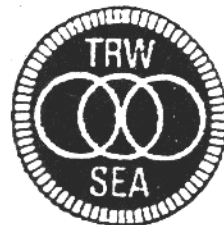




CROSSTALK

A Publication of the TRW Amateur Radio Club



AUGUST 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

Aug 3: Eyeball QSO meeting, Upper Crust Pizza, corner Manhattan
Beach Blvd & Inglewood Ave, 5:30 PM

Aug 7-8: ARRL UHF Contest

Aug 10: Emergency Communications Team meeting, R3/1413, Noon

Aug 10: Executive Board Meeting, E2/1200, 5:30 PM

Aug 20: Technical Chairman's Meeting, Bldg 65 Shack, Noon

Aug 28: Swapmeet, NW corner Aviation & Marine, 7-11 AM

Aug 31: 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.

The Novice license is being brought under the VEC system effective 1 July 1993. General class VE's will be permitted to administer the Novice exam elements. The ARRL VEC will not charge a fee for Novice exam elements. If any club member is interested in becoming a VE I have a limited number of application forms.

FIELD DAY

Well - Field Day 1993 is over. I think by everyone's account it was a rousing success! There were at least 47 participants and quite a few visitors. Everyone put in a first class job and almost all the bands increased the scores over last year and we got all the bonus points available. The new transmitter bandpass filters seemed to really help the cross band interference problem. Our rough score is a little over 13,000 as compared to 10,810 from last year. I think we have a good chance to win in our class and probably a good shot at being in the top ten over all scores - we'll see in the November QST.

I am still working on getting the exact score. Last year there was some differences between the dup sheets and the log sheets so I have decided to enter all the contacts into a computer logging program and make sure we get every point. I will have a full accounting for next month's Crosstalk but just a few highlights:

The Friday afternoon load up went great! Ray Enriquez talked facilities out of much bigger truck and it sure made things easier. Most of the stations were set up by Friday evening and our food crew (Betty N6TRL and Marilyn) made fresh carnitas burritos with Betty's special recipe beans. Saturday morning Xerox ARC showed up in force and quickly finished the last few stations. There were some typical problems and creative solutions. The 40 Meter vertical should have been made with thick wall instead of thin wall tubing!! At least it was easy to bend it back into shape. And I'm sure the "squatting S" shape it made when it finally was up helped to improve its performance greatly!! Putting up the 2 element 40 Meter wire beam is always a challenge but "Bob's Boomer" really got the contacts. Ray built a great "gateway" to the site - complete with our banner! Using the groundrods to hold up the ribbon caused some confusion but what the heck!! The 15 meter CW band captain (Steve WU6C) had an explosion at work and could not show up - so the Xerox ARC "volunteered" to do 15 CW. Snakes were seen near the restrooms (previously see on the upper floors of E2 on pigeon patrol?). The flag holder broke on the 15 SSB station so it ended up upside down and some of the neighbors thought were we in distress.

Next month I will have a final score, some lessons learned, and more highlights!!

John WB6VYX
W6TRW Field Day Chairman

Back to the Dipole

by Bill Shanney, KJ6GR

I first started in amateur radio when I was in high school back in 1961. My first antenna was a 40 meter dipole fed with 600 ohm home-brew ladder line. It was only 25 feet up, not being very knowledgeable about antennas I didn't realize it was a real "sky warmer". I lived in New Jersey then and have fond memories of getting up at midnight and sneaking down to the shack to work some DX, like California.

When I came back to the hobby in 1988 I again started with dipoles. The lure of shiny aluminum soon got me searching for that special antenna that would make DXing more enjoyable. I went through a series of antennas over the next several years including a Butternut Butterfly Beam, Cushcraft R5 vertical, Cushcraft A3 triband beam and a Lightning Bolt triband quad.

I also got interested in antenna analysis and have thoroughly analyzed the relative performance of these and other antenna types. The best performer was the quad (@ 48') with the A3 (@ 42') a close second. The computer analysis showed a 6 dB (or so) gain over a dipole for the quad. This is only one S-Unit and the quad is a big, bulky antenna that needs periodic maintenance. My interest in having a pileup busting antenna decreased along with the solar flux and I found myself thinking more and more about putting up a dipole in its place.

During the next few years there will still be considerable DX opportunities. The difference is that the length of the DX openings on the higher bands will be shorter and signal strengths a bit lower. A good propagation program like MINIPROP-Plus (W6EL) will predict these openings for quiet ionospheric conditions (i.e.: no geomagnetic storms or absorption events). A quick check with WWV for the solar flux and ionospheric conditions is all you need and the program will tell you band openings by time to desired areas of the world and expected signal strengths.

There is another significant change in the bands that occurs during the solar flux downturn, they get less crowded. Since there is less QRM and less competition for the DX on the bands it is easier to work them now. Due to the political changes in eastern Europe there are new DXCC countries coming on every week. These stations are easy to work on 20 meters late at night (early morning to them) and have signal strengths of S-4 to 7 on a dipole. Good openings to the South Pacific and Australia are routine on 15 meters in the early evening hours. This is really a good time of the cycle for those with patience.

After several months of thought and several dozen pages of comparative antenna plots from MININEC I finally decided to go back to dipoles. During the sun spot minimum the bands above 20 meters are only of secondary interest. My main operating consists of rag chewing on 30 and 40 meters with North American stations. The following chart outlines my requirements for a new antenna farm:

Band	Primary Interest	Primary Directions	Frequency of Use
40 M	Ragchewing	E - W	often
30 M	Ragchewing DX	All	often
20 M	DX	All	often
17 M	Ragchewing DX	All	occasional
15 M	DX	All	occasional
12 M	DX	All	seldom
10 M	DX	All	seldom

I put first priority on the 30 meter band and put up a WARC band rotary dipole at 48 feet (replacing the quad). For 40 meters I kept my dipole at 40 feet but now feed it with coax and a balun for single band operation with no tuner. I installed a pair of 20 meter dipoles at right angles with each other to cover the remaining bands. They are both fed with 450 ohm ladder line to separate antenna tuners in the shack; this allows me to tune them for the same band and switch between them depending on the location of the desired station.

How do they perform? I'm impressed with the rotary dipole and have received several "big signal on the band" reports from Europe on 30 meters. I still have a good signal on 40 meters (I also have a vertical on 40M for Dxing). I hear and work plenty of DX on 20 meters. The front-to-side ratio is 2-3 S-Units (12-18 dB) so having two perpendicular dipoles is helpful. I even break pileups on 20 in 3-4 calls using 100 watts. Will I ever put my quad back up? You bet I will, the added gain, front-to-back and front-to-side rejection are sure nice during a DX contest or in a really big pileup. The quad is also a quieter receive antenna (sometimes).

The 20 meter dipoles tune easily on 15 and 10 meters but I haven't tried operating these bands yet. I'm also seriously considering adding a second rotary dipole for 20/15/10 meters for convenience not performance. I'll let you know more in a future article.

To: Bill Shanney, KJ6GR, Crosstalk Editor

From: Jim McWilliams, W6RTG

Hi Bill, It seems that Bill Dews, K6AWO, using our 7 Mhz TRW Net (that usually meets on Mondays, Wednesdays and Fridays at 2:00 pm local) has suggested that we submit any items to you for the Crosstalk that may be of interest to your readers.

Consequently, I'm sending you a one page item regarding some of the history related to the recommended phonetics to be used by radio amateurs.

I'm sure there has been much more to the history of the phonetic alphabet than this - but we still hear a lot operators using the WWII phonetics and I'm still do when I am in a hurry or am unaware that I've done so.

The 1937 edition of the ARRL Handbook is the first handbook that I ever owned - it cost me one dollar, and it took me a long time to save a dollar for it. As a result of reading the handbook and learning the code, I was able to get my call W6RTG in 1939.

Hope that this item may be of interest to you and your readers.

73



Jim McWilliams, W6RTG
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Copy to: Bill Dews, K6AWO

SOME HISTORY RELATED TO THE DIFFERENT PHONETICS WE HEAR

ABLE BOY	ADAMS BOSTON	ABLE BAKER	ALFA BRAVO
CAST DOG	CHICAGO DENVER	CHARLIE DOG	CHARLIE DELTA
EASY FOX	EDWARD FRANK	EASY FOX	ECHO FOXTROT
GEORGE HAVE	GEORGE HENRY	GEORGE HOW	GOLF HOTEL
ITEM JIG	IDA JOHN	IDA JIG	INDIA JULIET
KING LOVE	KING LINCOLN	KING LOVE	KILO LIMA
MIKE NAN	MARY NEW YORK	MIKE NANCY	MIKE NOVEMBER
OBOE PUP	OCEAN PETER	OBOE PETER	OSCAR PAPA
QUACK ROT	QUEEN ROBERT	QUEEN ROGER	QUEBEC ROMEO
SAIL TARE	SUGAR THOMAS	SUGAR TARE	SIERRA TANGO
UNIT VICE	UNION VICTOR	UNCLE VICTOR	UNIFORM VICTOR
WATCH X-RAY	WILLIAM X-RAY	WILLIAM X-RAY	WHISKY X-RAY
YOKE ZED	YOUNG ZERO	YOKE ZEBRA	YANKEE ZULU

NOTES: #1 #2 #3 #4

- #1 Recommended phonetics for radio amateurs in the 1937 (15th) edition of the ARRL Radio Amateur's Handbook, page 396.
- #2 Listing of the Western Union phonetics, again referenced in the 1937 edition, ARRL Radio Amateur's Handbook, page 396.
- #3 A listing of the Military Phonetics used during WWII - from my memory. As can be seen from comparison of the first two lists, the WWII phonetics appear to be derived from them.
- #4 ITU recommended phonetics list, from the 1992 ARRL Radio Amateur's Handbook, page 37-7.