



THE BULLSHEET



Official News Bulletin of the

Texas DX Society

An ARRL Affiliated Club

founded 1970

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The Texas DX Society, PO Box 540291, Houston, TX 77254-0291

President	Ken Grabenstein, KE5IV
Vice President	Jim Lane, N5DC
Secretary	Linda Walworth, KE5TF
Treasurer	Chuck Coleman, K5LZO
Contest Chairman	Dennis Motzenbacher, KZ5M
Bullsheet Editor	Bill Schrader, K2TNO
DX Chairman	Bob Walworth, AK5B
Repeater Chairman	Jim Lane, N5DC
Field Day Chairman	Bob Perring, N5RP
Convention Chairman	George DeMontrond, NR5M

Announcements

Meeting Notice - The Texas DX Society meets on the second Friday of each month, except when the date is changed by the Board of Directors. This month the August meeting will take place on Friday, August 11 at St. Johns School, at the corner of Claremont and Westheimer Roads. Claremont is the name of Buffalo Speedway after it crosses north of Westheimer. There is a parking lot entrance just north of Westheimer; enter the lot and park down near the south end near Westheimer. The meeting will take place in the ground floor room across the lawn just east of the parking lot.

Program - Joe Staples, W5ASP, will present his memories of the ZF8 operation he did with W5VAH for CQ WPX CW in May. Also, Jim Carmody, NN5O, will present his video taped highlights entitled, "I'm OK, you're OK, and you're also 59 QRZ?", the story of his ARRL DX SSB effort from OK3.

Weekly DX and Contest net - Each Tuesday night at 9:00 local time the TDXS sponsors a net on 147.96/36 MHz. Participation by non-members as well as members is encouraged for the exchange of information of interest to DXers and contesters. The TDXS Packet Cluster DX bulletin board in Hempstead is up and running on 144.95 MHz. **FOLLOWING A SOFTWARE UPDATE THE CALL IS NOW KE5IV.** There is a digipeater north of Houston (ALD) for use with this cluster. This is the AK1A system; use AX25 Level 2 protocol (see article in the June issue of the 'Sheet for updated parameters). Also, a recent addition of another tnc now puts a second routing up and running: KE5IV is also on 144.91, and Kenny has a beam pointed at Houston on that frequency. It is linked into the same computer, so it is simply an alternate path. But with the beam many of us can hit that one direct, which is much faster! There are a couple of stations

acting as digis on the new frequency, not run by TDXS. Usually the cluster is linked into both Dallas and Austin for additional DX coverage. Frequently there are five or six nodes and as many as sixty stations linked up at nights.

Bullsheet Mailing List - TDXS wishes to provide the Bullsheet to all amateurs in the area with an interest in DXing and contesting. Donations to help defray publication and mailing costs are appreciated. Visitors to our club meeting will receive the 'Sheet for three months free of charge simply by signing the attendance list. Articles or other newsworthy items are hereby solicited by your editor. Send *brief* articles to K2TNO or via FAX (713-790-1275) addressed to "Dr. William Schrader." Longer articles on 5 1/4" diskettes in any routine word processor language or as ASCII files are acceptable too. Steve, WA9VLI, has generously volunteered his office typing abilities to input longer articles and the regular monthly columns in order to compensate for the incompetent typing of the editor. His FAX number at work is 713-872-3425. Please mark items to Steve Smothers' attention.

ClubPub

(de Bill, K2TNO)

This month is the last calendar issue. Only one response was received, and it contained only info already in the 'Sheet elsewhere. Thanks to all of you who help the club in so many ways for your support in this effort. You did not disappoint me.

News from the multitudes

Eric, NM5M, may soon be returning to TX for a job in Austin.

Dave, K5GN and Amy McCarty have a new young lady in the household, born in early June. Dave's been QSY'ing to Rochester for Chevron frequently.

Andy, K5/GW0ECO, has been rotated back to Wales by his company. SO, the longest call in the history of VHF repeaters is no longer there in the mornings. 73, Andy--see you for a contest sometime!

The club's sympathies to Bob, K5VMX, whose dad passed away in Indiana last month after a prolonged illness.

Repeater Update

(de Jim, N5DC)

Bob Evans is busy making a living, so I thought I would pass along where we are, and where we are going with the TDXS Repeater. As most of you know we are operating with our old Spectrum Repeater from a backup site. This will continue for at least another week or ten days, so all you folks south and east of the repeater will not get good coverage. Those of us who are "Yankees" will be in better shape for a while...right Chuck????

The primary repeater will be undergoing some much needed surgery at Bob Moormans place, and will go back up at our Greenway Plaza location on Friday, Aug 11 (we hope!). Among other things we will improve the control system, and be able to bring the repeater down and access our backup repeater with a better system. *We will, repeat, will get rid of the internod, that plagued us at the primary site.* In addition, we are adding 2 fans for additional cooling on the final. Never let it be said that TDXS ran any RF device at less than 120% of full rated output!

We owe a lot of thanks to Bob Moorman for all his assistance, not only for a primary and backup site, but for doing most of the surgery. One final thought in closing, we are going to be on an emergency power circuit at the primary site, so should be in very good shape.

The President's Corner

(de Ken, KE5IV)

It seems hard to imagine, but the NCJ September Sprints are only a month away. After the Club only submitted 3 logs in February, I wouldn't be surprised to see some of the members defect to the paper teams.

What has happened to the TDXS in the last several years? We haven't had a serious effort in November Sweepstakes since 1983. The last major Club effort was XE2FU for ARRL DX Contest in 1984. Since then, we have come up with some neat ideas, but no follow through to the end. I am open to suggestions.

I am starting to put elements together, round up hardware, and check out rotators at Radio Hempstead. Hopefully in a couple of weeks I can ask for help to get NR5M put back in shape over a few Sunday afternoons. Major problems are: the rotator on the top 20, reflector tip on the bottom 40 on the stack, and the 2 directors on the top 10 on the stack. I will have to check the coax and connectors for lightning damage.

The PacketCluster has the Club needlist on it. The syntax is SH/NE. The callsign of the cluster is now KE5IV; my latest AK1A updated software has my call on it. By the way, K5FP now has a Cluster up and running on 144.970 to cover Galveston County. As soon as he has v2.85 installed in his KPC-4, they should be joining us.

Hope to see all of you at the meeting!

TDXS SURVEY OF DX OPERATIONS BY MEMBERS			
Have you operated as a DX Station? If so, please complete this questionnaire and return it to Jim Lane, N5DC. We would like very much to get QSL cards from each TDXS member's operation for display in the Hospitality Suite each year.			
Your name: _____			
Your present call: _____			
Year of Operation	Call letters Used	QTH (city, country)	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DX REPORT

(de Bob, AK5B)

Stations/Countries To Look For In Aug/Sept

Wallis Bay, ZS1: August 27th for about two weeks, to be put on by ZS1IS, KC1AG, K1NTR, F6HIZ and ZS3DM. Application for new country status for DXCC credit has been sent to the ARRL, so maybe another new one.

Chad, TT8CW: now till the 31st of August.

Turkey, TA3/DL5XX: August 5-17.

Sable Island, CYO: August 6-13. Bob Winn, W5KNE and VE crew are off again to those northern islands. This will be the same group that put on St. Paul last year.

Burkina Faso, XT2CW: August 6-12th. Use to be Upper Volta, will hopefully be put on by DK7PE. Listen for him mostly on CW.

Keep Your Fingers Crossed Type Stuff

So. Sudan, STO: Last of August by PA3CXC followed by a trip to Ethiopia ET for a shot at getting a license.

Spratly Is.: A fall operation being planned by a group of U.S. operators.

Bouvet, 3Y: being planned for the end of the year by LA1EE, LA2GV, and LA6VM. Should be a great operation if anything like their Peter Island one.

Dates to Remember

- August 12-13 European CW Contest
- August 26-27 All Asian CW Contest

Field Day Report

(de Bob, N5RP)

From the same team that did NOT get his column in on time last month comes the belated FD report. Excerpts from the cover letter attached to the ARRL copy:

"We had a capability of 25 simultaneous stations. We had two stations in reserve, just in case the official W1AW bulletin might authorize 30 meters (right, and tell us Jimmy Hoffa is still alive -- ed.) for activity. Some stations had zero results. They were, however, viable stations, for which QSO's could have been made, had propagation or atmospheric conditions been more facilitating. (Hey Mr. Lunt! Come over here! Here's a log summary from TDXS this year that exceeds even THEIR usual blatant lying! They want points for NO CONTACTS! --ARRL FD log checker).*

*Our reply to him: 'Do we get extra points because there were NO DUPES in the logs with no Q's?'

The transmitting power source consisted of twelve size 8D batteries which were fresh out of the box and charged at the site Friday night. They did not require re-charging during FD. The batteries were on loan from a company owned by the author Precision Powered Products. (specialists in sales of used batteries to unwitting clients -- ed.). Our goal at an extremely large score was greatly thwarted by an inadequacy of station operating manpower. During FD a tropical depression was very active in the Houston area, giving the indication that we were probably going to be inundated (KSYCP de K2TNO: "flooded") by a torrential downpour at any moment. Actually, the storm did little more than give our operating location a steady but very faint drizzle and overcast skies. These conditions were a welcome relief from normal TDXS FD's which are generally suffered through under a very hot Texas sun. For a bunch of QRO-type DXers, I venture to say that the new game of hunt-and-pounce QSO's via QRP was a most enlightening experience."

Final All-accumulated Grand Slam Driveout Total

- 1146 CW x 2 = 2292
- 2180 SSB = 2180

Total QSO points: 4472 x 5 (power 5 watts or less) = 22360
 ● Add'l bonus points: = 2900

Grand Total = 25260.

Thanks to all who participated, even Bob, K5VMX who fought with K5LZO for the title of "unhappiest camper." Also Ross, N5HHS repeated his effort of last year at the ten meter Novice/Tech station using his call.

Scoring Breakdown:

BAND	CW	SSB	Bonus Point Category	Points Claimed
160	0	0		
80/75	0	17	100% Emergency power (23 xmtrs x 100 pts/stn)	2300
40	130	16	Media publicity	100
20	519	683	Location in public place	0
17	20	55	Information booth	0
15	388	276	Message to SM	100
12	8	19	W1AW Message	0
10	72	526	Receive & QSP 10 msgs	100
6	2	93	SAtellite QSO	100
2	4	10	Solar power QSO's	100
1.25	0	0	Packet Radio QSO's	100
70 cm	0	xxx		
Nov/Tech	0	456		
Satellite	3	xxx		
VHE Packet	xxx	29		
Totals	1146	2080		Total: 2900

Please see the CQ questionnaire, being circulated by John Dorr, K1AR, the new Contest Desk Editor for CQ Magazine (Good luck to you, John, from TDXS!)

Fill in and mail promptly, for inclusion in the results for the November issue.

P.S.: They have a few open trophy donor slots.

For Sale: Kenwood Power Supply Model PS 430, new in box, for TS140,440. Price \$150. Contact Bill, K2TNO, at 713-665-6298 (eves); 713-798-6231.

Contest Corral

(de Bill, K2TNO)

Copy was not received from KZ5M this month.

Here are the results of CQ WW WPX CW, held last weekend of May.

BAND	EA8ACH		6D2A		ZF2NE/ZF8		DJ0SI	
	QSO's	Mults	QSO's	Mults	QSO's	Mults	QSO's	Mults
160	0	0	0	0				
80	13	2	8	2				
40	224	67	488	136				
20	582	164	401	88				
15	589	232	876	249				
10	207	30	48	15				
Total	1615	495	1821	490	2652	682	1235	512
Score	2,749,230		2,507,820		4,650,000		1,390,000	
Oprs.	K2TNO		KG5U, KZ5M WB5N NT5D + others		W5ASP W5VAH		NZ5I + others?	

Technical Topics: Radiation Patterns

(de Bill, K2TNO)

From the New York Times "Science Times" (July 11, 1989 pp 19-20) comes word that should be very useful to you antenna-design engineers in our audience. The device shown below should be an excellent high-angle radiator, based upon the E- and H-plane orthogonality of this radiative device. The antenna radiates largely in the infrared; output at any frequency can be calculated from the equation $E = hv (\nu)$. So, if you're asked by the other antenna experts "What's new?", you can tell them "it's E/h". [The proof of this theorem is trivial and is left as an exercise for the student]

Scientists Debate Health Hazards of Electromagnetic Fields

Uncertainties abound, but risks from electrical appliances and wires can no longer be ruled out.

By WILLIAM K. STEVENS

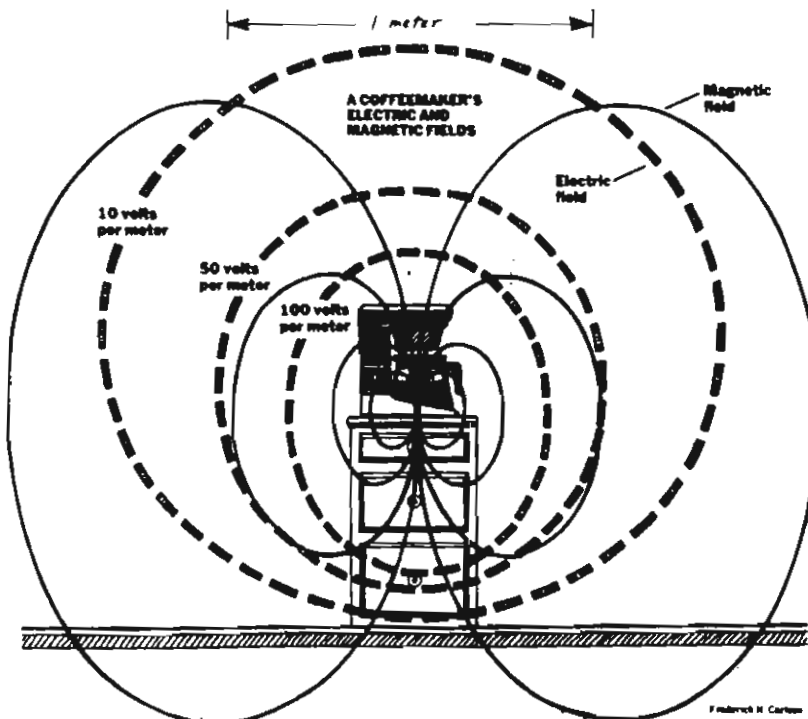
In the century since electric power revolutionized human existence, most people have scarcely thought, if at all, about whether it is safe to live with the electromagnetic fields radiated by the cables, wires, fixtures and appliances all around them. When the question did come up, scientists generally assured the public that there was no danger to health.

They are no longer so certain. While virtually all experts still say no proof yet exists that electromagnetic fields pose any health threat, accumulating scientific evidence has convinced many that there is cause for concern.

Laboratory studies on animal cells have shown that electrical current alternating at 60 cycles per second, or 60 hertz, the kind that comes into almost every American home, emits radiation that can cause biochemical changes. Some of the changes might conceivably cause adverse health effects if the cells in the human body are similarly affected. And three epidemiological studies have demonstrated a statistical association between exposure to power distribution lines and cancer in children, although two other studies have not.

The rising sense of concern — and the uncertainty engendered by ambiguous and often contradictory data — was brought into sharp focus in a comprehensive background paper issued last month by the Congressional Office of Technology Assessment. "The emerging evidence no longer allows one to categorically assert that there are no risks," said the report, prepared by a team at Carnegie Mellon University. "But it does not provide a basis for asserting that there is a significant risk."

"It is now clear that 60-hertz and other low-frequency electromagnetic fields can interact with individual cells and organs to produce biological changes," the



Everyday Devices

If everyday electric and magnetic fields turn out to pose a health risk, small sources like the coffee maker at left could play a major role. The most intense magnetic fields in the home are found near such appliances, although the fields extend only a few feet.



Power Lines Under New Focus

Much attention has focused on high-voltage transmission lines, but epidemiological studies have linked childhood cancer with exposure to magnetic fields from smaller distribution wires.

Frederick H. Corson

SOME IDEAS ON WARC BAND ANTENNAS

(de Joe, W5ASP)

GENERAL

Simple wire antennas will suffice for most WARC band operations. Band activity is low and few use beams or run amplifiers. Dipoles, slopers, quad loops, and inverted-v's are easily constructed and erected. Most modern transceivers will handle either 50 or 75 Ohm coax feedline. Baluns are a nice touch, but not necessary.

Since the WARC bands are so narrow (100kHz max.) the difference between CW and SSB should not be an important consideration. (The SSB activity is above 18.110 on 17 M and 24.930 on 12 M; no SSB is allowed on 30 M.)

Don't forget the folded dipole using 300 Ohm twin-lead. You can pick up a 100' length at most of the local "discount" hardware stores at a bargain price. A single roll will provide enough wire for a folded dipole for each of the three WARC bands. Another roll will give you all the feedline you need. (Also check the prices of Romex...50' gives you 150' of good copper wire.)

Use an antenna tuner or 4:1 balun to match it to 50 ohms.

Table I gives the appropriate demensions.

TABLE I

Band (MHz)	Half Wave Dipole	Quarter Wave	Quad Loop (1 side)	Inverted Vee
10.1	46' 4"	23' 2"	24' 9"	45' 11"
18.1	25' 10"	12' 11"	13' 10"	25' 8"
24.9	19' 9"	9' 4"	10' 1"	18' 7"

If the quad loop is selected, a 1/4 wave length (Table II) of 75 Ohm coax should be used to center feed the lower side of the "square", with 50 Ohm coax then running to the rig

TABLE II

Band (MHz)	Solid Dielectric (Vel=0.66)	Foam Dielectric (Vel = 0.8)
10.1	16' 0"	19' 4"
18.1	8' 11"	10' 10"
24.9	6' 6"	7' 10"

VERTICAL ANTENNAS

A 1/4 wave vertical on 30 M can be used as a 5/8 wave vertical on 12 M, and a 1/4 wave 40 M vertical as a 5/8 wave for 17 M. See Table III.

Table III

Bands (MHz/MHz)	Height	1/4 Wave Radials (Length)	5/8 Wave Radials (Length)	Inductance (1)
7/18.1	32' 4"	32' 6"	13' 0"	1.36 uH
10.1/24.9	23' 4"	23' 6"	9' 6"	0.99 uH

(1) An air wound 2" Dia. coil of 10 Turns No. 12, one end to the antenna with the tap to the center conductor of a 50 Ohm coax. The shield of the coax is connected to the radials. For a Ground Plane (elevated) vertical, droop two radials each band at 40 degrees to give a 50 ohm match. For a conventional ground mounted vertical spread multiple radials for each band about the base of the antenna. Short out the inductance for 40 and 30 M operation.

MOBILE ANTENNAS

The Hustler RM-10 resonator with a 13" tip and a 50 to 100 uf silver mica shunt capacitor will work on 12 M. Just extending the 10 M tip to its maximum length and using an antenna tuner should also do the trick. The Hustler RM-10 with a 39 3/4" tip is supposed to work for 17 Meters. Also, try a tap between the 15 and 20 M positions on your Bug Catcher as a possiblity. The Hustler RM-20 resonator with an extended tip probably can be made to work on 30 Meters.

CAUTION

Keep in mind that using an antenna tuner with an existing beam or other HF antenna system to get on the WARC bands can be deceptive. A low SWR at the rig does not always indicate adequate power to the antenna itself. A little extra effort will often pay off greatly in operating success.

Good Luck...See you in the WARC FEST!!!!

WARCFEST Rules

(de Joe, W5ASP)

Date: Sunday, Sept 10, 1989

Time: 1800 - 2400Z

Where: WARC Bands, 24890 - 24990; 18068 - 18168; 10.1 - 10.15

Why: To observe the Tenth Anniversary of the WARC Band allocation and to promote the expanded use of these vital frequencies.

How: Operate single op only, either CW only or Mixed mode.

Exchange: Operator's first name + QTH (ARRL section, or VE province or DXCC country) + antenna type*

*single word descriptor, e.g., dipole, yagi, sloper, etc.

Conditions:

1-hour time period minimum per band

Stations may be contacted once per band-mode

Existing restrictions on WARC bands must be observed, such as license class, power and mode.

Reporting: Send summary sheet ONLY by OCT 15 to

Contest Operating Ethics Survey

Your Call Area/Province/Country (optional): _____

Years of Contest Experience (optional): _____

1. In general, do you think leading contest operators use operating ethics similar to those of the "small guns"?
YES _____ NO _____
2. XU1SS calls you in the last 10 minutes of the CQ WW Contest for a double multiplier. You give him his report and he doesn't reply. Would you log him anyway?
YES _____ NO _____
3. 4U1ITU is running Europe on 7045. Would you say to him "Listen for Stateside" on his transmit frequency?
YES _____ NO _____
4. You have been on 14276 for 3 minutes and someone comes on your frequency and says, "You are QRMing the Chernobyl Family Hour Net . . . Please QSY!" Would you:
a) QSY from the frequency
b) Zerobeat the net
c) Tell the guy to move in a less than friendly manner (hi)
5. You have just finished duping your log and find that you are 1,109 points below a new category record. Would you add a few QSOs into the log to increase your score past the old record?
YES _____ NO _____
6. You have been calling BY4AA for 10 minutes and can't work him. Would you "push the upper button" on the amplifier just this one time?
YES _____ NO _____
7. You have just discovered 9M8ZZ on 14133. Would you work him assuming no one will notice you that far out of the band?
YES _____ NO _____
8. WB7XYZ, in Wyoming, just called you for a "clean sweep" in the ARRL SS contest with only 4 minutes to go. Unfortunately, you copied everything but his check. Would you write in something in your log to keep the QSO?
YES _____ NO _____
9. Would you knowingly take over someone else's frequency (e.g., a weak backscatter signal on the band edge that has a slower rate than you could generate)?
YES _____ NO _____

10. Have you ever used packet radio spotting and still claimed single operator?
YES _____ NO _____
11. You are tuning the bands and hear your friend running Europeans. Would you stop and ask him, "Hey, Joe, are there any good multipliers on the band?" or "What frequency is he on?"
YES _____ NO _____
12. Would you allow a friend to hold your frequency while you run up the band to chase a new multiplier?
YES _____ NO _____
13. You just passed 9Q5XX to 20 meters for a new multiplier. All you hear are a few mumbles that sound like him. Would you log him?
YES _____ NO _____
14. You are in the process of analyzing your Multi-Single log for 10-minute rule violations and find one that results in a lost multiplier. Would you change the time in your log to allow the contact to count?
YES _____ NO _____
15. Have you written in a few calls in your log during a big run, assuming that no one will be able to find them?
YES _____ NO _____
16. HA1XYZ just calls you on 20 meters for the fifth time. Would you change his call into a valid QSO out of frustration?
YES _____ NO _____
17. 5Z4XX works someone with a very similar callsign to yours. Just as you figure out what he is doing, he moves on to the next call area. Would you log him?
YES _____ NO _____
18. Would you look at a friend's log after the contest to find callsigns or other log information that you can correct in your own log after the contest?
YES _____ NO _____
19. Have you ever changed a callsign in your log to cover a duplicate contact?
YES _____ NO _____
20. Have you ever changed the time in your log to extend your operating time limit?
YES _____ NO _____

Comments: _____

(use additional sheet if necessary)

Deadline: October 1, 1989

Return survey to: CQ Magazine
Contest Column Survey
76 North Broadway
Hicksville, NY 11801

August 1989

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11 TDXS MEETS	12 WAE CW
13 WAE CW	14	15	16	17	18	19
20	21	22	23	24	25	26 AllAsia CW
27 AllAsia CW	28	29	30	31		

September 1989

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 Labor Day	5	6	7	8 TDXS MEETS	9
10 WARC-fest	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30 RoshHashan