



THE BULLSHEET



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Texas DX Society

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The Texas DX Society, P. O. Box 540291, Houston, TX 77254-0291

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Bullsheet Mailing List - TDXS wishes to provide the Bullsheet to those amateurs in the Houston area with an active interest in DXing and contesting. Donations to help defray publication and mailing costs are encouraged and appreciated. Visitors to our regular monthly club meetings will receive the Bullsheet for several months free of charge simply by signing the Attendance List and including their mailing address. Articles or other newsworthy items are hereby solicited by your editor. Articles should be submitted in the form of either ASCII files or as MS Word or WordPerfect word processor files. Files may be uploaded to the TDXS area on K2TNO's Bulletin Board at 713-798-4955, or sent to the Editor. If necessary text may be sent to via FAX to the editor by prior arrangement. Files or other messages may be sent to the editor via Internet users to 71045.2632@compuserve.com. For those with VHF Packet and having access to any of the local Digipeaters, or able connect directly, ASCII text can be sent directly to the Editor. Contact W5ASP at 713-974-3455 to arrange for either fax or packet transfers. Publication deadline is the first Friday of the month.

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 14, 1992**. The meeting will be held at the **Briargrove Park Center**. The building is located at **2301 Seagler Road**. This is just a couple blocks north and east of the intersection of Westheimer and Beltway 8. Seagler Road is the first street east of the Beltway running north off of Westheimer. North of Westheimer on Seagler are two large churches, one on either side of the street. Just past the one on the east side is the club house next to the tennis courts and pool. The name Briargrove Park Center is on the brick wall at the entrance. The parking lot is located between the tennis courts and the pool. The regular club meeting will begin at **7:30 P.M.** Visitors are welcome to attend the meeting and may obtain help in finding the location by checking in on **147.96/36 MHz**.

Special Notice - Tom, N5EA is offering a **REWARD** for any information leading to the location and recovery of a Kenwood TR-7730 2 Meter FM transceiver. This highly regarded member of the N5EA household was last seen leaving the premises in the custody of person or persons unknown. (Actually, Tom can't remember who he loaned the stupid thing to!) Anyone knowing the present whereabouts of this missing radio is asked to contact the owner at (713) 727-0939.

Monthly Swap Meet - A monthly swap fest is being held on the **3rd Saturday** of each month. This month it will take place on Saturday, August 15th starting at 6:30 A.M. and lasting until 9:30 A.M. in the large parking lot located on the northeast corner of the intersection of the Southwest Freeway and Murphy Road. It can be reached from the Southwest Freeway by exiting at Murphy Rd. Or coming from the Sam Houston Tollway, taking the Southwest Freeway outbound, exiting at West Airport Blvd., making the U-turn and going east on Murphy Rd.

The Prez Sez - de Bill, K5GA

Guess who is back!!! I apologize to all who opened their Bullsheet last month only to find that your fearless leader's column was missing!! Our Editor messed up on the deadline date, and I have reprimanded him for being irresponsible concerning our most revered newsletter. Shame, shame, Joe.

We have a new member within our ranks as of today! Ron, KB5NFN, is now an official TDXSer. Along with it goes, of course, the job of refreshing all of us during our meetings. It has been rumored that Mike, AA5NK paid off enough members to vote for Ron so as to relieve him of that low-life job. Congrats Ron!!

The Board of Directors met today to discuss the TDXS participation in the upcoming Houston ham convention scheduled for the first weekend in November. The general consensus amongst the board is that it is very important for our club to take active role in the convention, even beyond our Hospitality Suite and Raffle. The board understands that many of the members are up to their necks with activities and responsibilities with higher priorities. But we still must find a way to contribute, preferably in the form our annual DX and Contest Forum.

This means we need to come up with a quality program. I personally will attempt to organize a team of three or four members to fulfill this responsibility. This topic will be discussed at the upcoming club meeting. Please be thinking about how you can help me, and what sort of subjects we can present based upon the knowledge and experience of our own members. Keep in mind that the program does not need to be technically detailed, simply informative and entertaining.

DX Report

de Mike, AA5NK

Take a week's vacation and **D2CW** in **Angola** comes up on all bands! And this is a real "needed one" for me on the low bands. Since Rudi, DK7PE is supposed to be there until the 13th of August, it should not be a problem to get him on one or more of the lower frequencies. Look for him on ALL of the bands including the WARC bands. QSL to Rudi's home call.

There should be several others stations also active from **D2**. **D2/EA7EL**, mostly on RTTY; **F6BLQ/D2**, **D2/N4WRE** and **D2FGC**.

Bangladesh - **VK9NS**, Jim Smith has received official word from the licensing agency that amateur radio has been established. Look for much operation from this rare spot. There have been many foreign hams in Bangladesh for work projects that will now become active...at least legally.

PY0TUP on **Trindade** has been active on the low bands. Always a good one to catch,

Guinea-Bissau, with **J5UAI** is now active. I can remember working that for a new one, when Erik, SM0AGD came on the air with a J5 call for the first time with that prefix. I worked him thinking it was "something" in the Caribbean, i.e. "No big deal!" In fact I had my 2 element 40 M beam pointed due south from my home in Wyoming. He had an outstanding signal. Says something for the side rejection of my antenna, too! That leads to another story...but at another time.

When is the last time you worked or even heard **GJ**, **Jersey Island**? Hank will be there as **GJ/PA3FWU** between now and August 8th. QSL to P. O. Box 268, 3940 AG, Doorn, The Netherlands. **9A**, Croatia.

The ITU confirms that **9A** is proper for **Croatia** but official approval will not occur until August. The address for the Croatian QSL Bureau is HRS-QSL Bureau, P.O. Box 564, 41000 Zagreb, Croatia.

The DXCC desk is working on applications received in early March. They are running full out but an influx of many more applications than is normal has thrown them behind.

TY1IJ, **Benin** has been active. QSL to DJ5IO.

Look for the **Solomon Islands**, **H4** to be active August 7th to August 9th, celebrating the 50th anniversary of the battle for Guadalcanal. Call will be **H44GC**.

Interesting DX on some of the bands:

160 meters: **D2CW**

80 meters: **T30JH**, **BV0BSC**, **ZK1RS** (N. Cook)

40 meters: **D2CW** (of course!), **3B8CF**, **P29DX**, **VP8GAV**

30 meters: **3B8CF**, **D44BS**, **ZK1RS**and **D2CW** !

2nd Annual W5 DX Bash

de Ken, KE5IV

If you missed last year's DX Bash, you really did miss a good time. Ask anyone who attended last year:

1. The weather couldn't have been more perfect.
2. Everyone had a great time meeting new friends as well as talking to old friends.
3. The hospitality extended by Bryan, W5KFT, his Mother, and Barbara was superb.
4. You will also note--the Motel AK5B, KE5TF, K5LZO, W5SRUS, KE5IV, W5YKO, K5IU, es others stayed at last year is under NEW ownership!

5. Several people made the Fall Creek Winery tour and came back very impressed, some after seeing Napa Valley earlier in year.

6. Danny Weil will be there again this year, if you want a taste of DX before rubber radios, stacked mono-banders, no Cluster, no DX repeaters, Danny is just fun to listen to--numerous tales to tell!

Please let Bryan know you will be there by cutting out the Registration Slip so he can plan for lunch at the ranch! The Bar-B-Que at Big John's is pretty good too!

(See the full announcement of **W5 DX Bash** later in this issue..ed)

Packet Racket

de Ken, KE5IV

The DRSI boards and the 486-33 seem to be running along with no flaws, except when San Bernard Electric decides to switch grids around. Some time this month, I will have the U.P.S. system on line.

The only down side using the DRSI boards occurs during a contest where the announcements are coming out at one a minute during certain times of the day. The user having the most buffer space tied up will be disconnected. The only solution to this problem lies at the user's end. Each user must have his parameters properly set and a good signal to either the PacketCluster or the nearest Node.

Carl, **WB5DDP** and **Harry**, **N0CCW** have my DRSI 1200-9600 board, Kantronics Data-engine, modem, and D4-10 radio trying to figure out the best means for me to set up the TEXNET Node here. Carl has been on the road 12 of the last 14 days with work so he has had little time to play. He has found out the DRSI board doesn't want to talk to TEXNET and has the people at DRSI working on that. In the mean time, Carl is going to start playing with the Kantronics equipment. By this year's contest season, everything should get put together!

Little did the users on my Cluster know that they would be in for a continuing beta-test for the last 4 years. Thanks for hanging in there!

I am now running the G7-144 vertical on 144.990 MHz to watch the path there. On 144.910 MHz is a pair of 4 element Cushcraft's, one being pointed toward Houston and the other at Bryan-College Station. The reason for trying the vertical at the top of the 15M stack is that I am about to put up the Diamond X-500 dual-bander for the BPQ Node as user ports. I will use the 7 element DB Products antennas toward MAGBPQ and BRAZOS on the backbone frequencies. I seem to have better gain out of the DB Products 7 element than the 11 element Cushcraft, but the Cushcraft's were not really designed for where I am using them.

There is another project that some of us have to address before the contest season. A day project at **K5WA**'s to make **K5DX** a viable PacketCluster Node. Rich has the X-200 Diamond and at 95 feet, and VHF frequency to be decided on at a later date. **K5DX** would then become a nice addition for the users in S.W. Houston.

Upcoming Events

- August 14.....Texas DX Society Meeting
- August 15.....North American QSO Party SSB
- August 28.....New Orleans DX Convention
- September 05.....All Asian DX Contest SSB
- September 06.....NCJ NA Sprint CW
- September 11.....Texas DX Society Meeting
- September 12.....European (WAE) DX Contest SSB
- September 13.....NCJ NA Sprint SSB
- October 10.....W5 DX Bash, Lake Buchanan, TX

Propagation

de Roy, AD5Q

The doldrums of mid-summer DX are still with us, and absorption continues to limit the usefulness of 10 and 15 for daytime DX. This phenomenon diminishes during August, so we can expect improved conditions on 15 by end of month. It will take an additional month for good propagation to return to 10 meters.

This fall's season will be more sensitive to variations in solar flux than in recent times. Many have gotten used to 10 being open, because the flux was consistently high enough to open most paths anytime the band was in season. Most DX activity in August will still be on 20. The night time paths are very reliable, but there are also DX opportunities during the day. The band is loaded with Russians during the evening, with European openings in late afternoon and late evening.

For the first few hours after sunrise, we get a greyline pipeline into the exotic parts of Asia. Long path propagation is a daily occurrence, but many of the most popular paths are out of season. These include the morning antarctic paths to India, Russia, the Middle East and Europe; and the afternoon paths to VK and Asia.

Summer is the peak season for morning long path to the Indian Ocean and the southern part of Africa. There is also a path across Asia to rare countries in the south Indian Ocean (FT, ZS8, Heard). The northerly long path to Antarctica seems to peak at either equinox. Summer QRN is an annoyance on 40 meters, but signals are good and DX is very workable. There is little reason to spend time on 80, but during contests it is always possible to work Europe and Asia in mid-summer. Major expeditions also make an effort to work all bands, and will often announce their 80 (or 160) meter operating times if you listen to them on 40.

Look for the return of 15 Meters as a reliable DX band by the end of August. This fall 15 will be the primary day path band during periods when the flux is too low to open 10. Good night path propagation should not be expected, since this occurs primarily in late spring.

Contest Scores

Claimed

IARU HF Championship

GM0ECO.....1800 Q x 138 Z
K5GN.....1100 Q x 155 Z
W5ASP.....350 Q x 52 Z

NA QSO Party CW

K5GN.....420 Q x 160 M
KI3L/5.....423 Q x 157 M
W5ASP.....432 Q x 141 M
K5GA.....227 Q x 106 M
K5WA.....152 Q x 85 M
K5RC.....414 Q x 146 M
K5LZO.....111 Q x 58 M
AC5K.....250 Q x 116 M

'92 CQ WPX SSB

ZF2NE/ZF8 (W5ASP) 6.54 M #9 DX SO/AB

Results

Jan '92 NA QSO Party SSB

Texas DX Society #1 (W5ASP,K5RC,K5GA,KI3L,KE5FI)
2nd Place

Texas DX Society #2 (K5DX,N5RP,AK5B,KC5CP) 8th

W5ASP.....771 Q x 170 M 131K
K5RC.....570 Q x 180 M 103K
K5GA.....500 Q x 170 M 85K
KI3L/5.....475 Q x 170 M 81K
K5DX.....452 Q X 165 M 75K
KE5FI.....466 Q x 80 M 37K
N5RP.....305 Q x 112 M 34K
AK5B.....254 Q x 104 M 26K
KC5CP.....160 Q x 105 M 17K
NZ5I.....151 Q x 70 M 11K
N5DC.....135 Q x 47 M 6K
KH5H79 Q x 46 M 4K

Jan '92 NA QSO Party CW

W5ASP.....324 Q x 114 M 37K
K5RC.....263 Q x 137 M 36K
K5GA.....130 Q x 80 M 10K
KI3L/5.....130 Q x 66 M 9K

Feb '92 NA Phone Sprint

Texas DX Society 2nd Place

(K5GA,W5ASP,KV6O,KI3L,K5RC,K5DX,KE4GY,NZ5I,K7GM)

K5GA.....300 Q x 51 M 15K
W5ASP.....267 Q x 47 M 13K
KV6O/5.....264 Q x 45 M 12K
KI3L/5.....275 Q x 42 M 12K
K5RC.....259 Q x 44 M 11K
K5DX.....185 Q x 46 M 9K
NZ5I.....159 Q x 39 M 6K
K7GM/5.....86 Q x 29 M 2K
KE4GY.....183 Q x 44 M 8K

Feb '92 NA CW Sprint

Texas DX Society 5thPlace

(K5GA,K5RC,AD5Q,W5ASP,K5TU,AC5K,KV6O,KN5H,NZ5I,KE4GY)

K5GN.....349 Q x 48 M 17K
K5GA.....309 Q x 43 M 13K
K5RC.....267 Q x 48 M 13K
AD5Q.....276 Q x 44 M 12K
W5ASP.....205 Q x 43 M 9K
AC5K.....208 Q x 40 M 8K
NZ5I.....99 Q x 33 M 3K
KN5H/8.....129 Q x 36 M 5K
K5TU/0.....214 Q x 39 M 8K
KV6O/5.....197 Q x 38 M 7K
KE4GY.....151 Q x 36 M 5K

Ham Radio Bulletin Boards (BBS)

de Ron, KB5NFN

(This is the first of a two part article discussing telephone access amateur radio oriented bulletin boards. This month Ron has some general information on two of the local boards. Next month he show us how to actually navigate on an Opus BBS..ed)

Let me start out with a question. Who read the article on **Landline Bulletin Boards** in the August issue of QST starting on page 45? If you did, **EXCELLENT!** If not, why not? The article presents a wealth of information about Landline BBSing. I won't deal with this subject in any detail here, but I highly recommend reading the article to all who have even a vague interest in BBSing. Pay careful attention to the discus-

sions about FidoNet. Both of my BBSs here in town make that feature available for your use.

Now, you may ask, "Both of his BBSs?". Yes, both! Most all of you are familiar with the Cell Bio BBS I'm running in conjunction with Bill, K2TNO at the Medical Center. Those who frequent this board should have noticed the special notice that I've got running there announcing my new BBS. USS Pegasus is now running on my home computer under Desq-View/X, using the same software as on Cell Bio. That way, there's no new interface or menu commands to learn. Everything appears just about the same.

Also, when I first brought Pegasus on-line, I duplicated the user database from Cell Bio on it. That means your password on Cell Bio will work on Pegasus. Unless of course you changed it after I moved the Cell Bio userbase to Pegasus. In that case, it's your old password that would work now on Pegasus.

Like Cell Bio, Pegasus has access to the Houston area Sale/Swap message area. In addition, it carries a great number of nationwide amateur radio related message areas. I'm waiting for approval from the Houston area net to echo all the national amateur message areas over to Cell Bio. Soon, all those messages will be available there as well. Pegasus caters not only to amateur radio, but to other topics as well, and some of you may find them of interest. Please feel free to make use of the resources available.

Here are the details for each of these boards.

Name: USS Pegasus
Number: (713)777-0821
Hours: 24hrs
BaudRates: 9600(V.32)4800(V.32)2400,1200(V.42,MNP)
Software: Opus
Sysop(s): Ron Marosko, KB5NFN

Name: Cell Bio BBS
Number: (713)798-4955
Hours: 24hrs
Baud Rates: 2400, 1200, 300 baud
Software: Opus
Sysop(s): Bill Schrader, K2TNO; Ron Marosko, KB5NFN

Kenwood TS-930/940 RF Amp Failures

(The following article was provided by Jim, N5DC, who ran across the article and by Dennis, K2UA, who entered the text into the computer. With the high concentration of 930/940 Kenwoods locally it seemed of sufficient interest to pass on to the deserving..ed)

Modifications to Kenwood TS-930/940 Power Supply and Power Amplifier Boards de George, NJ6O

After some trying personal experiences with the failure of the RF power amplifier board and the resulting failure of the power supply on Kenwood TS-930S, we would like to share information which we believe will be helpful to other Amateurs with this equipment.

The Kenwood TS-930S contains MRF 485 transistors on the power amplifier boards (circuit designations Q2 and Q3) which are drivers for the final amplifier. When the MRF 485s failed, it resulted in the power supply pass transistor failure (circuit designation Q1 and Q2 - 2N5885s.)

Going through past International Radio, Incorporated Newsletters, we discovered that when the power supply pass transistors fail, the voltage on the 28 volt buss raises to the full voltage of the power supply. This, in turn, destroys numerous

components including transistors, zener diodes and voltage regulators.

Looking at the circuit diagram for the failed components, we were able to obtain generic replacement parts for the following:

1.) on the power amplifier board: a.) Q2 and Q3 (MRF 485s); b.) diode D1 (Zener diode BZ-192); c.) diode D5 (1S1555)

2.) on the power supply heat sink: a.) pass transistors Q1 and Q2 (2N5885)

3.) on the power supply board: a.) Q1 (2SA-1021); b.) diode D7 (Zener diode BZ-320)

Upon powering up the system with these replacement components, the MRF-485s failed immediately. Once again this caused a failure of the power supply. However, the fuse, which is to protect against failure, never opened. We originally believed this to be a fuse malfunction and therefore tested the fuse out of circuit. It failed at 15 amps. This indicated to us that the amount of current necessary to blow this fuse was never reached. Since the pass transistors output goes directly to this fuse, it is our opinion that the power which caused the components to fail was not heavy enough to blow the fuse.

In December 1991, we called the Kenwood Service Center and spoke to the technician for the TS-930S. He was unaware of any past MFR 485 failures. We then called RF Parts, a California parts supplier, and he informed us that we need a low beta transistor. Therefore we ordered Yellow Dot MRF 485s.

After rebuilding the circuits, installing the Yellow Dot MRF 485s and adjusting the biases for these new parts, the unit failed within 15 minutes. We called RF Parts again and they were out of stock on lower beta devices.

In early February 1992, RF Parts called and forwarded a copy of the Kenwood Service Bulletin (Number SB-988, dated January 16, 1992 - Subject: TS 940S MRF 485 Driver Transistor Notes). Kenwood recommended certain changes in the varistor/temperature compensation circuit in the unit. The circuit and components lay-out for the TS-940 is identical to the TS-930S. Therefore, these changes to the TS-940S also apply to the TS-930S.

What Kenwood suggests in their bulletin, in our opinion, does not correct the problem. We found more profound errors on the final amplifier board which could cause the above failure of the higher beta MRF 485s.

On the schematic, the choke coil L7 connects between the 28 volt buss and the center tap of T3. T3 is connected to Q2 and Q3 collectors. However, the circuit board diagrams (and the actual lay-out of the components) indicate that the choke coil L7 connects between T3 and collector Q7, in turn connecting to the 28 volt buss through choke coil L17. Therefore, a feed-back situation occurs which is aggravated by the higher gain MRF 485s. Lower gain MRF 485s would be less susceptible, but could still cause instability. Therefore, disconnect choke coil L7 from the junction of collector Q7 and choke coil L17. Now connect the free end of choke coil L7 to the 28 volt buss. This will remove the possibility of the unstable condition.

There is another discrepancy between the schematic and the circuit diagram (however, less detrimental). The schematic shows R-35 connected to choke coil L3 and then connected to the collector Q1. However, the circuit diagram (and board lay-out) shows this to be reversed (choke coil L3 connected to R-35 and then connected to collector Q1). Although this is an error, it should have no detrimental side-effects. (Continued on page 5)

The next problem which needs to be addressed occurs with the power supply pass transistors and the resulting high voltage

 TDXS DX COMPETITION

Well folks, it's been five months now since we announced the TDXS DX competition, and it's about time to give a status report on what's been on, and possible point totals. To recap the rules: work as many DXCC countries not on the ARRL field checking list, on as many bands and modes as possible through year-end. The winner with the highest point total, wins a gift certificate from Madison Electronics for \$100. That's nothing to sneeze at! A number of DX-peditions have given us a windfall of points on all bands and modes. Don't forget to check your contest logs for needed points, and check out the WARC bands for extra points. I haven't heard much talk lately about claimed point totals, so either the big-gun DX-ers are keeping mum about what's in their logs, or very few people are chasing this. We have lots of time before the competition closes at year-end, so it's not too late to start. (No Mike, your contacts from SU don't count!). I've checked the various QSN reports in DX newsletters and packet reports, and have noted the following. The list is not complete, and I've no doubt missed some goodies, but this should give you some idea about potential point totals as of August 3rd.

BANDS: 160-80-40-30-20-17-15-12-10 C=CW S=SSB R=RTTY/AMTOR

1A0	Knights of Malta								
1S	Spratley								
3B6-7	Agalega & St. Brandon								
3C0	Pagalu								
3V	Tunisia	17C,	15CS						
3W,	XV Vietnam		15S						
3X	Guinea	80CS,	40C,	30C,	20S,	17C,	15CS,	10CS	
3Y	Bouvet								
3Y	Peter I								
4J1	M.V.	160CS,	80CS,	40CS,	30C,	20CSR,	17CS,	15CSR,	10CSR
5A	Lybia								
5R	Malagasy						15CS		
5U	Niger				20S		15S	12C	10S
5X	Uganda								
70	Yemen								
7Q	Malawi	80C,	40C,	20CS,	17CS,	15CS,	12S,	10C	
9G	Ghana								
9U	Burundi								
A5	Bhutan								
A6	UAE			20S					
C9	Mozambique		20CS			15S		10CS	
CE0	San Felix								
D2	Angola		20S					10S	
EP	Iran		20S			15S			
ET	Ethopia								
FO	Clipperton	160CS,	80CS,	40CS,	20CSR,	17CS,	15CS,	12S,	10CS
FR/G	Glorioso				20S				
FR/J	Juan de Nova								
FR/T	Tromelin			20S			15C		

FT8W	Crozet							
FT8X	Kerguelen							
FT8Z	Amersterdam/St. Paul							
HK0	Malpelo							
KH1	Baker/Howland							
KH5	Palmyra, Jarvis							
KH5K	Kingman							
KP1	Navassa							
KP5	Desecheo							
PP0-PY0	Peter & Paul							
S0	W. Sahara							
S2	Bangadesh	40C,	20CS,			15CS		10CS
SV/A	Mt. Athos							
T33	Banaba							
T5	Somalia			20CS				
TN	Congo			20S				
TT	Chad	30C,	20C,	17S,		15C,		12S
TY	Benin			20S,	17C			
VK0	Heard Is.							
VK9M	Mellish							
VP8	S. Georgia			20S,		15S		10S
VP8	S. Orkney							
VP8	S. Sandwich	40CS,	20CS,			15CS,	12S,	10CS
VP8	S. Shetland							
VU	Andaman, Nicobar							
VU	Laccadives							
XF4	Revilla Gigedo	80S,	40S,	20CS,		15S		10S
XU	Kampuchea			20CS,		17C,	15CS	
XW	Laos							
XZ	Burma							
YA	Afghanistan	40C,	30C,	20CS,	17C,	15CS		
YI	Iraq			20S				
YK	Syria			20S				
YV0	Aves Is.			20S				
ZA	Albania		40C,	30C,	20CS,		15CS	
ZK1	N. Cook	80S,		30C,	20S,		15S,	12C, 10S
ZK2	Niue							
ZK3	Tokelau							
ZL8	Kermadec			20S,		15S		
ZL9	Auckland							
ZS1	Penguin							
ZS8	Marion Is.							
ZS9	Walvis Bay			20S,		15S		

Note: some spots may be for stations awaiting accreditation. If you worked all the above spots, your current score would be 143. How many do you have to date? In spite of lousy propagation numbers, there's still plenty of qualifying contacts to be made. Don't forget to milk the WARC bands, and look for new modes like RTTY or AMTOR. We'll announce the winner at the TDXS January 1993 Banquet. Good luck to all, and let's see some real action!

73 & G'Day Mates de Steve WA9VLI/VK3EVW.

and current out on the 28 volt buss line. This situation was also discussed in the International Radio, Incorporated Newsletter Jan 1984 Issue 40 page 60 by Bill Thomas, W4CG. He recommends the use of a crow-bar as we do. When the voltage on the output of the pass transistors increases, it will be sensed by an IC over voltage sensor (MC3423P1) which will trigger a SCR (silicone control rectifier). This rectifier, when triggered, will take the power supply to ground and, in turn, blow the fuse.

An ideal over voltage protection circuit is shown in the ARRL Radio Amateur's Handbook referencing their 28 volt high current power supply (page 27-10, Chapter 27, 1990-present). This circuit will work well in this incidence.

Further to protect components Q1 and Q2, on the heat sink of the power supply, from thermal run-away, we recommend that the fans mechanically connected to the heat sink and RF amplifier be turned on permanently. There are various methods, choose whichever works best for you. With the above mentioned modifications, you should have a relatively trouble-free unit for many years.

Note: My TS-930S was in service for ten (10) years before this failure occurred.

(The following is the "text only" portion of Kenwood Service Bulletin SB-988..ed)

Kenwood Service Bulletin # SB-988 Amateur Radio Division Subject: TS-940S MRF-485 Driver Transistor Notes, dated: January 16, 1992.

Some MRF-485 transistors are being supplied by Motorola with a Green or Blue color ranking. If these transistors are installed without modifying the driver bias circuit there is a very strong possibility that they will fail within a very short time frame. These high gain transistors cause the circuit to become unstable which can cause the circuit to break into self oscillation, and therefore self-destruct. RECOMMENDATIONS: Use of Red, Orange, or Yellow hfe color ranking is recommended. These lower gain transistors work just fine and do not suffer from the circuit instability problem. If you are only able to obtain the higher gain transistors you will need to modify the varistor/temperature compensation circuit on the final unit (X45-1400-00) by changing R16 from 1.2K to 2.2K ohms. During its production the TS-940S used two different varistor values. The original part was an STV3H(O). It was changed in mid-production to an SV-03YS. R15 was changed from an 820 ohm resistor to a 1K ohm resistor at the same time. Therefore the countermeasure differs depending upon the serial number of the radio.

Caution: If using a Green or higher hfe rank one of the above countermeasures must be taken depending upon the serial number of the set. After replacing the drivers check the bias current. We recommend transmitting for 1 hour in the SSB mode with no modulation into a dummy load. After this time frame check the bias current. It must not exceed 300 mA on the original radio. If the current changes you must change R16 from 1.2K to 2.2K ohms.

1992 TDXS Field Day

de Mike, KC5CP

Another year at the W5SJS Burns' ranch with a Class 2A Field Day effort, including a Novice station, was successful but with minimal participation. I remember when this group would gather together in late June and put up 200 feet of tower and a dozen antennas, but those times are in the past. We had a total of fourteen operators that made contacts as K5DX. A few others did show up but did not make any contacts. I want to thank those that never made it to the site for helping us pass

the messages, and a big thanks to Bob, W5SJS who had to fight a fire at his lumber yard, while we played radio. The CW station was set up in the Burns' RV and was organized by Bob, N5RP. We put up a TH5 tribander along with a two element 40 meter beam for this station. The AK5B computer support at this station was a very nice addition. The computer used the NA contest software to log and send CW. The computer interface worked well, but a few CW ops that had never used NA before had to learn quick! Helping Bob was Chuck, K5LZO; Bob, N5RP; and Sharp, K5DX. The SSB station captain was Dave Sarkozi, WB5N who along with Ron, KB5NFN and myself set up the station in the utility shed next to the windmill that pumps water into the "cooling off" tank. The utility shed worked out well even without air conditioning! The station had a TH6 tribander, a two element 40 just like the CW station and a 75 meter dipole. The packet and satellite radios were set up along with the SSB station in the utility shed. The packet radio beam was an 11 element on a pushup pole and the satellite was 440 Mhz up and 145 MHz down-link mounted just at ground level. Helping with the SSB station were Sharp, K5DX; Troy, K5JND; Phil, K5RVK; Mark, N5YYY; John K5EC; Don, N5DX; Ron, KB5NFN and myself, KC5CP. The SSB station operated all night, but the CW ops just could not hack it, they slept for 4-5 hours and the Q's show it! The CW station had a total of 919 Q's and I made 1 CW contact on satellite for a total of 920. The SSB station had a total of 1332 Q's, including the 5 packet contacts. As I mentioned earlier, the turn out was light compared to past years. Maybe it was the thought of the heat in June and all the other things that you have to do at FD, like work, that keeps the other members away, just not sure. The Friday night get-together went well as we fed ourselves at the traditional late dinner at the local steak house. The rain Saturday morning did delay us somewhat but all the big towers were up by the start of the contest. KB5NFN, Ron did most all of the contacts with the novice station and he had some help from Mark, N5YYY who was recruited by Bill, K2TNO. The novice station turned in 284 points with most all of these on 10 meter SSB. The bonus points this year were just about the same as last year. So no bonus points from our public relations team. We accumulated 800 bonus points. The two generator stations were 100 points each and the solar power panels fed a TS120 and we made the minimum 5 contacts on 20 SSB for another 100 pts. I made two satellite contacts and five packet contacts for 200 pts. Sharp copied the FD message for 100 pts and I sent a message to the section manager and ten messages to various club members for another 200 points. The power multiplier was a 2 since we were running low power. The scoring went as follows K5DX @ 6,344, KB5NFN @ 284; Bonus @ 800; Total = 7,428 points. These scores are well down from past years, but no one was going for a national win, or didn't I tell you that before we started? The FD site work would have been easier with more help but we did manage to get out of the site quicker this year than last! What about 1993? The only thing I can guarantee is we will be a year older and we still need more energetic members to pull off any record. The down turn in sun spot activity for the next few years will keep the records in tact, but I doubt we can set a new one without more participation for the group. Thanks for everyone's help.

Due Dates

(Contest Logs must either be postmarked (*) or received (!) by the dates listed...Get Your Logs In!)

August 12 (*).....IARU HF World Championship
August 31 (*).....North American QSO Party CW