



founded 1970

# THE BULLSHEET



Official News Bulletin of the  
Texas DX Society  
An ARRL Affiliated Club

May, 1987  
Volume XI  
Number 5

=====

### Officers and Contributors

President: K5TU Kim Carr                      Repeater Chairman: NM5M Eric Silverthorn  
V. President: K5GN Dave McCarty              Bullsheet Editor: KE5FI Chuck Dietz  
Secretary: KE5IV Ken Grabenstein              Legal Chairman: KN5A Al Vacek  
Treasurer: KG5U Dale Martin                      Field Day Chairman: K2TNO Bill Schrader  
Contest. Chairman: NT5D Brent Levit              DX Chairman: WI5P Bill Wibker

=====

### LEE NORMAN

The entire club was saddened to learn of the death of Lee, W5DOZ. He had recently undergone a series of operations and succumbed to a resulting coronary complication early Sunday morning, May 3rd. He was very active in TDXS affairs, a regular on the Club repeater and seldom missed a club meeting.

Lee was a very active amateur radio operator being first licensed in 1934. He held many different calls including DX calls from Romania, Israel and other countries in Europe, North Africa and the Middle East. K5DX recalls meeting Lee for the first time when Lee was operating from Yugoslavia. Lee held DXCC Honor Roll and had over 165 countries on RTTY.

Lee was also an avid computer buff. He started with a Radio Shack TRS-80 when PC's first hit the market. He authored a version of contest duping software used by many of the area contesters.

Lee was retired from Dresser Industries here in Houston and is survived by his wife, Eula. They would have celebrated their fiftieth wedding anniversary in November of this year. Services were held on Tuesday, May 5th at 10:00 A.M. at Niday Funeral Home.

TDXS FIELD DAY  
(de K2TNO)

Field Day will be upon us before you know it. This year the club is shooting to win Class 4A, operating from W5SJS's ranch south of Brenham. This is an excellent radio location, plus it has a pond for fishing and swimming and his house if you want to escape from the heat for awhile.

By goal this year as Field Day chairman in to improve our organization and assignment of tasks. In that way I hope to cut down on the excess work and duplication of effort that saps the troops' energy. Please mark your calendar now and plan to help out the weekend of June 26 - 28. We'll have the usual assortment of antennas, KVs and radios.

This year we will assign operating berths a bit differently. Everyone with an assigned task will get an equal crack at choosing operating slots, regardless of whether you arrive Friday with the shock troops or Saturday (or even Sunday morning). The names of all ops with assigned tasks will be placed into a hat and drawn on Saturday morning. (If you can't be at the drawing, have a buddy draw for you.) The first name drawn gets first choice of times and so forth. I hope this plan will encourage everyone to pitch in.

The station captains this year have the additional task of assembling a team to raise and take down the station's antennas. If one of them asks you to help, please get on a team. The object this year is to have everyone know in advance who is going to do what (and to whom).

Got a novice friend or junior op? Bring 'em along and let 'em get a taste of Field Day operating TDXS style. It will drive them either to stamp collecting or contesting!

TDXS ANNOUNCEMENTS

BILLSHEET MAILING LIST- The Club provides the Billsheet free of charge (however, donations to compensate for the mailing and printing expenses are greatly appreciated) to all amateurs with an interest in DX and/or Contests. To subscribe, send your name and address to TDXS, P.O. box 540291, Houston, Texas 77254-0291.

BILLSHEET ARTICLES- Articles and other newsworthy items are hereby solicited by the editor. Please send them to Chuck Dietz, KE5FI, 1520 Geosource Plaza, 2700 Post Oak Blvd., Houston, Texas 77056. The Billsheet is assembled on an IBM computer using the "Wordstar" word processing program. If articles can be submitted on a disk it would be greatly appreciated. (79 columns wide).

WEEKLY DX AND CONTEST NET- TDXS sponsors a weekly DX and Contest net on our 147.36/147.96 repeater each Thursday night at 9:00 P.M. The purpose of the net is to exchange DX, contest and club information. Participation is solicited from non-members as well as members. Your active support of this net is welcomed.

ASTRONOMY BBS

The Burke Baker Planetarium maintains an astronomy BBS for those who are interested and have a PC and a modem. If you are interested, fire up your computer and check in. There is a "questionnaire" for your personal info. They verify your info and clear you for full access within a few days. The data number is 526-5671.

# MADISON SPRING FLING

New rigs and old favorites, plus the best essential accessories for the amateur.

3621 FANNIN ST  
HOUSTON, TX 77004-3913

CALL FOR ORDERS  
1-713-520-7300 OR  
1-713-520-0550  
TEXAS ORDERS CALL COLLECT

ALL ITEMS ARE GUARANTEED OR SALES PRICE REFUNDED

## EQUIPMENT

Kenwood TH205AT	Trade in your old HT
Kenwood TS 440	Call for trade
Icom R7000 25-2000 MHz	949.00
Icom IC735	849.00
Ten-Tec 2510 (Easy OSCAR)	439.00
KDK FM 240 NT	279.00
Mirage Amps	15% OFF
Tokyo Hy-Power HL 1K AMP, no 4Cx250B	699.00
New Kenwood TM-221A, 45W, mobile	Call
VJ Amplifier, VHF, built in England, 1 in-100 out,	
3-100, 5-100	(ea.) 269.00
10 in-100 out	229.00
25 in-160 out	319.00
All models include preamp	
Lunar 2M4-40P	109.00

## ACCESSORIES

B&W VIEWSTAR ANTENNA TUNER	89.95
Hail HC4/HCS	Stock
Hail BM10 Boom Mike headset	CALL
Tri-H 5000A Remote Phone	\$189.00
Daiwa NS680A 30/300/3000 watts	135.00
Alinco ELH 2300 - Excellent buy	88.00
Nyo MB5-A (for the big boys!)	529.00
Shuo 444D	54.95
Ameco PT-3	Soon
New Tokyo HC 200A	115.00
Nel-Tech Labs Digital Voice Keyer DVK 100	335.00
Astatic Silver Eagle & Base	88.00
Ten-Tec Mobile Switch 30001	17.00

## BELDEN

9913 low loss, solid center, foil/braid shield	51c/ft
8214 RG8 Foam	45c/ft
8237 RG8	39c/ft
8267 RG213	55c/ft
8000 14 Ga standard copper ant. wire	13c/ft
8448 B conductor rotor cable	33c/ft
9405 Heavy duty 2-16 Ga 6-18 Ga	56c/ft
0258 RG8x	20c/ft
9269 RG-62A/U	18c/ft
8403 Mic Cable, 3 condctr & shield	45c/ft
100 feet 8214 w/ends installed	54.00
8669 7/16" tinned copper braid	1.00/ft

## AMPHENOL

831SP-PL259 Silverplate	1.25
UG178 reducer RG8x	.30
831J Double Female UHF	2.00
82-81 N Male	3.00
82-97 N Female Bulkhead	3.00
82-63 Inline Female N	4.00
82-98 N elbow	9.00
31-212 BNC-RG59	1.50
31-216 UG201 A/U N Male-BNC Female	2.00
31-2 BNC-RG58	1.50
34025 N Male, RG58	3.00
34125 N Female UHF male	9.00
3128 BNC Female PL259	3.00
4400 N Male 50-239	7.00

## PARTS

1.5 Amp/400V full wave bridge rectifier	1.95
2.5A/1000PIV Epoxy diode	.29 each or 19.00/100
.0015/10KV or .001/20KV	1.95 each
3N201	.95
4 inch ferrite rod	1.95
365pF cap	1.95
Sanyo AAA, AA Nicads w/tabs	2.00
2, 4, 5, 6, 8 pin mic plugs	3.00
1/8, 1/4, wait carbon resistors	.05 each
Motors: 0-3000 VDC 2 1/2" Square 0-1 Amp DC	9.95
Drake - Collins mike plug	2.00
Thousands of panel meters	3.95 up CALL
MICA Cap. 0004/3KV	1.00 others CALL
Close out on rigs & accessories. All the time	Call
We may have what you're looking for.	
Diodes 3A/1000 PIV	.29
Duracell 9 Volt Battery - 2 Pak MN1804	3.49
DC Fan 3 1/2" Sq. x 1"	9.95
CINCH 12 pin conn. fitz (Drake etc.) female	3.00



ICOM 28H/TTM 399.00

## ANTENNAS

Isopole 144 MHz	44.95
AOP-1, Complete Oscar Antenna	149.95
Butt-out HF6V, 80-10 vertical	125.00
HF2V, 80 & 40 vertical	119.00
HF4B	189.00
Hustler G7-144	119.95
Hustler 6BTV	139.00
KLM HF World Class Series Antennas	Call Don
ALPHA Delta DX-DD	63.00
Coax Seal	2.00/roll
B&W Dipoles	Less 10%
KLM KT 34A	399.00
W2AU, W2DU	Now Available
NEW KLM 1.2-44LBx	129.00
1296 Power Divider	Soon
Create CD-78 + BS 80 75/80 rotatable dipole	349.00
GS-RV	44.00

## OTHER ANTENNAS

Distomat U-130 Disccone 25-1300 MHz	79.00
Larsen Kuldick	17.00
Larsen 2M 1/2 wave telescope ant	25.00
Avanti AP151 3G on Glass Antenna	36.00
Anteco 2M 5/8, Mag Mount, Comp	25.00
Orion 2M 1/2 wave Handy Antenna	19.00
Van Gordon SLA-1 160-90-40 Sloper	44.00
Valor AB-5 Mobile	79.95
Stoner DA100 D Active Rx Antenna	190.00
DC Termination Hitch 3/8-24 Thread	
Fits 3/4" trailer hitch	29.95

## KEYS

Benchler & Vibroplex	Less 10%
Benchler is now engraved. Screws & springs all stainless steel and extra hand polishing.	
Nye ESK-001 Keyer	58.00

## TUBES

Collins & Drake Replacement tubes	Stock
GE 6146B	12.95
3-500Z	109.95
GE Industrial Tubes	Call
GE 12BY7A	7.00
GE 6JS6C	12.95
GE 8950	16.00
12JB6 Sylvania	6.00
Hard to find Tubes 50-90% off list	
6J86A	9.95
6JE6C/6LQ6	9.95
572B	69.00
8KD6	10.95

## BOOKS

We stock SAMS, TAB, ARRL, RSGB, Anteco Radio Pubs.	Call
Now 1987 Radio Database Book - International SW plus reviews	12.95

## PACKET POWER

AEA PK-232	299.00
Kantronics Packet II	149.00
MFJ 1270	125.00
MFJ 1274	149.00
AEA PM-1	149.00
New AEA UDC-232 Firmware, No modem.	
List 279.00	249.00
New Kantronics KAM	299.00

## SERVICES

Complete KWM 2 Retube	179.00
Flat fee Collins rebuild	Call

## USED EQUIPMENT

All equipment used, clean, with 90 day warranty and 30 day trial. Six month full trade against new equipment. Sale price refunded if not satisfied.

Call for latest used gear list  
(800) 231-3057

## TOWER ACCESSORIES

1/4" EHS Guy cable, Rohn US 1000 ft	250.00
3/16" EHS cable, Rohn US, 1000 ft	210.00
1/4" Guy Cable, 6100 #7 x 7 strand, import	18c/ft
3/16" Guy Cable, 3700 #7 x 7 strand, import	15c/ft
3/8" x 6 F&J Turnbuckle	7.95
3/16" Wire Rope Clips	40
1/4" wire clips	50
1/4 Thimbles	45
Porcelain 500D Guy Insulator (3/16)	1.99
Porcelain 502 Guy Insulators (1/4)	3.39

## POLICIES

Minimum order \$10.00. Mastercard, VISA, or C.O.D. All prices FOB Houston, except as noted. Prices subject to change without notice. Items subject to prior sale. Call anytime to check the status of your order. Texas residents add sales tax. All items full factory warranty plus Madison warranty.

## NEW AMPLIFIER LINE

Coming soon. How to buy a portable transceiver. The factors in order are: size, features, reliability, parts availability outside USA. Call for information.

## DON'S CORNER

We will be glad to do your Kenwood Warranty repair, even if you did not purchase from us. Send your rig, copy of your receipt and return address. 2-3 weeks turnaround.



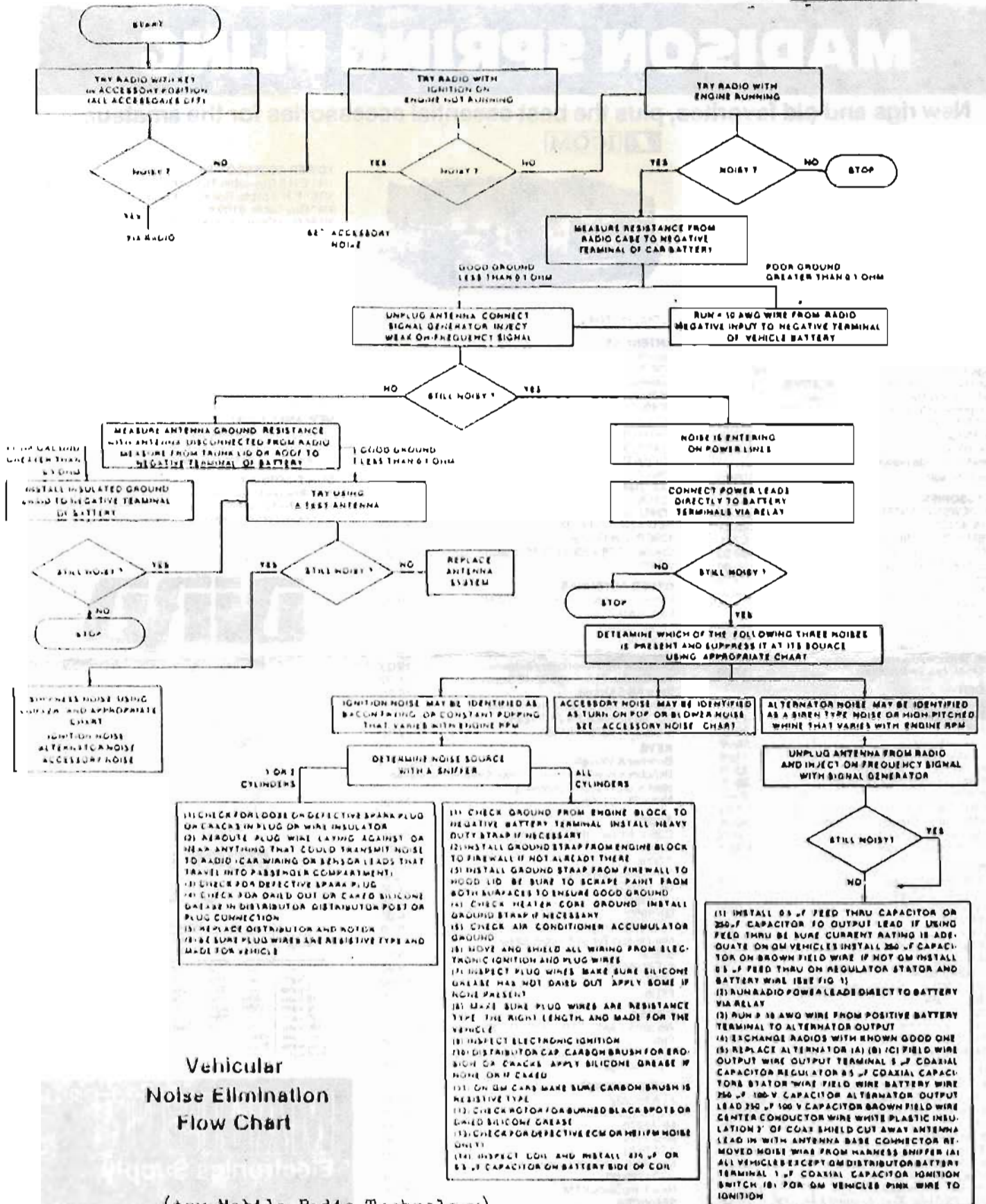
## STOCK ITEMS CALL

Power Range	Frequency Bands (MHz)					
	3-30	35-60	58-125	100-250	200-500	600-1000
1 watt	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
100 watt	50H	50A	50B	50C	50D	50E
300 watt	100H	100A	100B	100C	100D	100E
250 watt	250H	250A	250B	250C	250D	250E
1000 watt	500H	500A	500B	500C	500D	500E
1500 watt	1000H	1000A	1000B	1000C	1000D	1000E
2100 watt	2100H	2100A	2100B	2100C	2100D	2100E
3100 watt	3100H	3100A	3100B	3100C	3100D	3100E

# MADISON Electronics Supply

3621 FANNIN  
HOUSTON, TEXAS 77004  
1-713-520-7300 OR 1-713-520-0550

Call on line (800) 231-3057



**Vehicular  
Noise Elimination  
Flow Chart**

(Inx Mobile Radio Technology)

FROM THE...  
...  
(1954)

SIX  
METER  
CLUB  
OF CHICAGO

# ANTENNAS



<b>2 meter mobile</b> .....	2 M squared for 6SB	45.00
...	MM-1041 Mag Mount 5/8	25.00
...	AP151.3G on glass mount	36.00
...	Larson.....	Call
...	Antenna CR2A 2m Magmount.....	40.00
<b>220 mobile</b> .....	Larson antennas.....	Call
...	Antenna CR3A 220MHz Magmount...	39.00
<b>70 CM</b> .....	Larson.....	Call
...	Antenna CR4A 440MHz Magmount...	36.00
<b>Dual-band 144/70cm</b> ...	Diamond 5/8both.....	39.95
<b>Base</b> .....	AEA Isopole 144 .....	49.95
...	Ringo Ranger II 2M.....	39.95
...	AEA Isopole 440.....	48.30
...	Diamond Dual 6DB 144/8DB 440..	104.95
...	Diamond Dual 4.5db 144/ 7.2db 440.....	79.95
<b>HF mobile</b> .....	Bugcatcher 80m 250w.....	34.00
...	80m 1kw.....	48.50
...	40m 250w.....	28.50
...	40m 1kw.....	34.00
...	Valor AB5.....	85.00
...	AB3.....	43.00
...	Stainless steel mast 3/8 2'.....	9.95
...	3/8 3'.....	10.95
...	3/8 4'.....	11.95
<b>HF</b> .....	TET Beams ( <u>CLOSE OUT</u> ) 3F 350H.	175.00
...	3F 370H.	295.00
...	Butternut HF4V (prepaid).....	222.00
...	Butternut HF6V (prepaid).....	128.00
...	Butternut HF2V (prepaid).....	128.00
...	Other Butternut,VHF,scanner.....	Call
...	Cushcraft A4.....	310.00
...	Cushcraft A3.....	230.00
...	Cushcraft A743/A744 30/40m kit.	79.00
...	Spi-Ro Dipoles	
...	D32-20,15,10m.....	54.95 PPD
...	D42-40,20,15,10m...	59.95 PPD
...	D52-80,40,20,15,10.	64.95 PPD
...	D162-160,80m.....	79.95 PPD
...	Spi-Ro Vertical or Slopers	
...	VS-31 20,15,10m.....	42.95 PPD
...	VS-41 40,20,15,10m.	44.94 PPD
...	VS-53 80,40,20, 15,10m.	69.96 PPD
...	VS-64 160,80,40, 20,15,10,..	89.95 PPD
...	Antenna HI-Rizer Low Profile CR4010A 40-10m...	117.00

Smiley Antennas for HT's:  
"The Hand Tuned Performance System"

2m from 12.95  
220MHz from 12.95  
440MHz from 17.95



## MISSION COMMUNICATIONS

11903 Alief-Clodine Suite 500  
HOUSTON, TEXAS 77082

(713) 879-7764  
Telex 166872 MCON UT



PROPAGATION REPORT  
(de KE5FI)

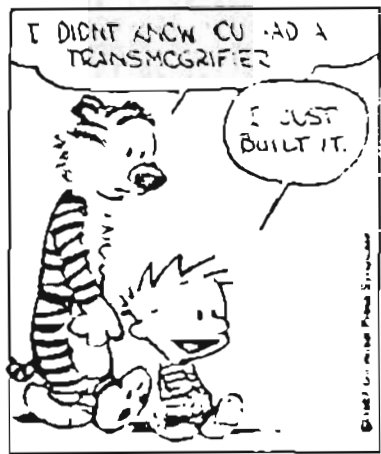
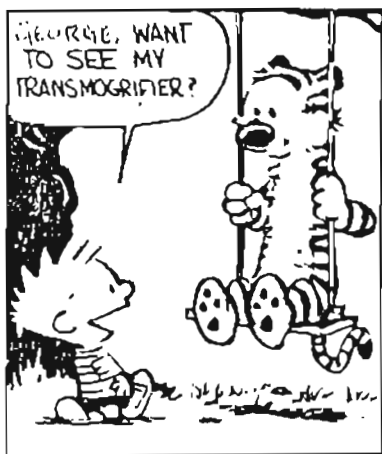
WOW! Have we ever had some high flux levels! The solar flux climbed right out of the doldrums to 100 on April 9th, stayed there on the 10th and then climbed to a 101 value on the 11th. All this was caused by a group of spots in solar regions 4786 and 4787. (The regions are numbered to give the spots a "name" to refer to.) The flux stayed at the 97 to 99 level for four more days and then a flare in the 4787-4790 regions pushed the reading to 105 on April 16th. The flux began its decline thereafter dropping back into the more characteristic 70's by April 21. The A index was comparatively low on all these days and the DX rolled in. All in all, the flux stayed over 90 for a total of 13 days last month. By the time you read this it will already have returned to high levels. While the levels may not be as high as April, I expect May to have a number of days above 90 between May 5th and 17th. Look for over the pole openings to Russia on 20 and perhaps even on 15.

For those of you who want the latest up to the minute reports during the contest, the NOAA has instituted a PC type BBS which contains a 24 hour HF propagation forecast and a couple of other solar reports. No password is required and "browsing" is encouraged. Access is free, but the number is long distance. Give it a try: 1-303-497-5000.

CONTEST CALENDAR

Don't forget CQ-M on the weekend of May 9 and 10, details were in last month's sheet. CQ WPX (CW) comes around again this month on the 29th - 31st. This is a great contest and several multis will be on begging you to come out. Lets get in there with some big scores. Remember to put "TDXS" on the cover sheet so it will count for the club aggregate score. Also remember the new TDXS Megapoint Award. Be the first on your block to amass over 1 million points in qualifying contests and win one of these beautiful and highly coveted awards. Can't get on at home? You can get credit at multis too!

Calvin and Hobbes



TDXS MEETING NOTICE: The next TDXS Club meeting will be held on Friday, May 8th at Demontrond Motor Homes at 6015 Hillcroft. The location is just south of the Southwest Freeway. Its the place with all the motor homes in front! Directions can be obtained on 147.36.

HOW TO CHECK A BALUN  
(de Bill, K2TNO)

Baluns frequently fail, even right out of the box. You can't tell if they are bad with an ohm meter or by visual inspection. They must be checked with RF. Most baluns are 1:1 or 4:1. I will describe an approach for both.

**BEST WAY:** Using a noise bridge. For a 1:1 balun connect a 50 ohm resistor (or dummy load) across the output terminals. For a 4:1 balun use a 200 ohm resistor. Connect the noise bridge to the input connector and measure the null on the receiver. If the balun is ok, the bridge should null at  $X=0$  and  $R=50$  ohms. The frequency is not important, but the measurement should be made over the frequency range of the balun's intended use.

**ALTERNATE WAY:** Using an SWR bridge. Use the same load resistor set up as above (non-inductive), except the resistor must be able to dissipate enough RF power to give a full scale reading on the lowest range of your SWR bridge. The dummy load will work for the 1:1 balun, but for the 4:1 balun you will need a resistor. Four 2-watt fifty ohm carbon resistors in series will work if your SWR bridge is sensitive enough. For a good balun, the SWR will be 1:1 or the reflected power will be zero. An alternative that works well when two identical baluns are available is to wire the output terminals of one balun to the output terminals of the second balun. RF can then be put into the input connector of the first balun and the input connector of the second balun can be jumpered to the dummy load. This works for 1:1 and 4:1 baluns provided both are identical. If both baluns are good the SWR should read 1:1 or the reflected power will be zero. If a third identical balun is available, a bad balun can be isolated.

**HINTS:** Don't assume the balun is ok just because it's new. At NR5M we have found several new KLM 5 kw baluns bad from the factory. Its easier to check the balun before the beam is up!

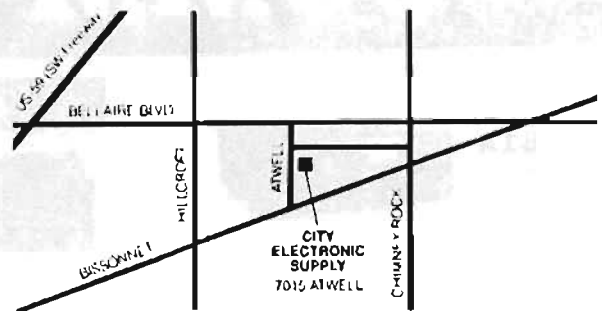
Any time a beam has been operated at a high SWR (loss of an element, short in phasing straps, wrong frequency) the balun can heat and fail. Once cooked, the ferrite core is irreversibly ruined.

Adolph

Alex-WA5UHT

## CITY ELECTRONIC SUPPLY

Store Hours Mon-Fri 9:00-5:00 Sat 9:00-12:00  
7015 Atwell  
Houston, Texas 77081 663-6066



ARRL PUBLICATIONS  
B & W INDUCT.  
BUG CATCHERS  
2M SQUALO'S  
MINI BOXES  
CABINETS  
CHASSIS  
WIRE  
MAGNET WIRE

FERRITE CORES  
FERRITE BEADS  
TOG SWITCHES  
ROTARY SWITCHES  
PC SUPPLIES  
METERS  
MUFFIN FANS  
AUDIO CONNECTORS  
RF CONNECTORS

HARDWARE  
BATTERIES  
FUSES  
HEAT SHRINK TUBING  
SOLDERLESS TERM'LS.  
TOOLS  
MAGAZINES  
CORDS



1620-A Directors Row, Houston, Texas 77092 • 713-957-8011  
TDXS Bulletin P.O. Box 540291 Houston, Texas 77254-0291

# TEXAS COMM-CENTER

## ICOM



**IC-751A**  
"NEW"

- 100 KHz-30 MHz
- FM Standard
- 32 Memories
- QSK (Nominal Speed 40 WPM)

## ICOM



- IC-12AT**
- 140-163 MHz
  - 10 Memories
  - 1W, 1.5W optional
  - 32 tones built in

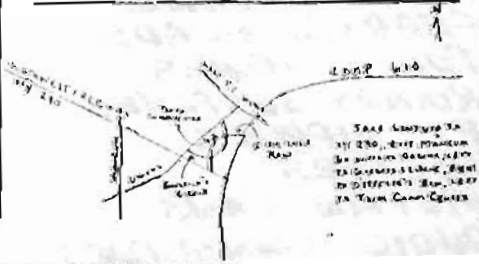
- IC-03AT**
- 220 to 224.995 MHz
  - 2.5W, 5W Optional
  - Built in sub-tone
  - 10 Memories

## YAESU



**FT-767GX** HF/VHF/UHF BASE STATION

- Add Optional 6m, 2m & 70 cm Modules
- Dual VFO's
- Full CW Break-in
- Lots More Features



## KENWOOD



**TS940S**  
"DX-celence"

- Programmable Scanning
- High Stability, Dual Digital VFO's
- 40 Channel Memory
- General Coverage Receiver

## KENWOOD



**TR2600 "SPECIAL"**

- 2.5 W/300 MW 2 Meter HT
- LCD Readout
- 10 Memories
- Band And Memory

**SPECIAL PRICE!**

C.O.D.'s Welcome

4120-A DIRECTORS ROW, HOUSTON, TX • 77092 • 713-957-8011