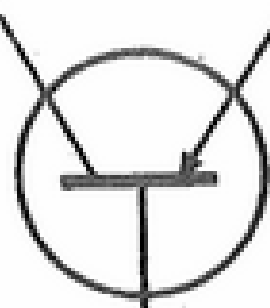


CENTRAL OKLAHOMA RADIO AMATEURS COLLECTOR AND EMITTER



50¢

Volume 9

MAY 1983

Number 100

F.C.C. APPROVES 20 METER PHONE EXPANSION - 22 MAY

Yes sir, there is life below 14.200. In fact, now there will be fifty more KHz available for A3 type operations on the twenty meter band. The F.C.C., in response to popular public opinion, has revised the phone 'subband' for 20. The new breakdown looks like this:

Extra class - 14.150 to 14.175
Advanced class - 14.175 to 14.225
General class - 14.225 to 14.350

You will note that there is now an exclusive Extra class subband for 20 phone. In addition, General class operators receive and extra fifty kilohertz also. Of course, any higher class licensee may also use the lower license class segments. This is a move considered to be long overdue by many, although it met with considerable opposition as well (mainly from foreign operators and many C.W. types).

If this new format turns out well in practice, we may see similar moves on other H.F. bands, with the exception of forty meters. The new twenty meter plan does not go into effect until May 22 at 0001Z, so don't start transmitting down there until then.

I sure hope everyone is aware of the imminent no code license. It should be upon us soon. Just imagine, soon thousands of individuals who know absolutely no morse code at all will infest our V.H.F. and U.H.F. amateur bands. Rumor has it that while the F.C.C. has received an overwhelming majority of negative comments regarding this new license, they will go ahead with it anyway. I could not make any sense out of this. It was my understanding that the government was influenced by the peoples' opinion; not the other way around. However, the real reason for this is probably that F.C.C. personal radio chairman James McKinney wants a no code license; so that's the way it's going to have to be. Boy...Carlos Roberts, where are you when we need you?

The other big question about the no code license: How are our no-code good buddies going to understand the repeater C.W. id (or do all the clubs have to buy voice iders)?

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AUTOPATCH CLUB'S 2nd ANNUAL AUCTION AT MAY 17 MEETING



May 17 (the third Tuesday) is the date reserved for the Oklahoma City AutoPatch Association's Second Annual Olde Tyme AUCTION!

Everyone is invited. This is an open event for all amateur operators and anyone else interested in coming out for an evening of old fashioned fun. We extend a special invitation to newcomers in the ham community and to visitors from other clubs.

The AUCTION will be held at OCAPA's regular meeting place - the Fire Department Training Center at 800 N. Portland (between 10th St. and Reno). We will open the doors at 6:30 so that there will be plenty of time to get all the merchandise ready for the auction to begin promptly at 7:30.

Auction chairman this year is George Adkins (AD1S), and he has devised some procedures that will help things roll smoothly and efficiently. We will have an experienced auctioneer, Jack Stewart (WD5FKE), who is sure to keep the action lively and fun.

Everyone is encouraged to bring things to sell at auction, and everyone is, of course, encouraged to bid! You may set a minimum starting bid for your items if you wish, and OCAPA will get a 10% commission on all items sold. For complete details, see "The Big Signal" column inside this issue. Check-in begins at 6:30.

Remember, you only have about two weeks left to gather up all your goodies and not-so-goodies you want to get rid of at the May 17 AUCTION. It's your best chance to sell it, you know. Our Autopatch club will gladly accept donations, and, in the spirit of fun, reserve the right to decline any item offered.

Members and non-members are looking forward to this event, so bring a carload of friends and a trunkload of your best "junk", and come out for a good time. Sell something, buy something, and enjoy the jokes that abound with seeing who ends up with what!



CORA COMMENTS

It must be that a lot of CORA directors, remember each club is supposed to send three to represent their club, have not heard that CORA meets the Fourth Tuesday each month - not at the Red Cross Bldg. but at the OKC Fire Training Center at 800 N. Portland. Six clubs, VHF, MORI, OCAPA, ACARC, 76'ers and Wheatstraw were represented but the crowd was barely twice that number. All right there was a thunderstorm forecast but it was peaceful and calm inside. Clubs within the Metro area should help - Ham Holiday is upon us.

The following was discussed and/or acted upon:

Ray Wangler has assured that ARRL will have a good technical program. Great Plains ARC and Ardmore ARC will "man" the ARRL booth.

The contract with the Myriad was received but had left off some space so Don will go back to them, get the corrections and then sign.

The special Ham Holiday issue of the Collector & Emitter will be edited on 23 May and mailed as soon as it is back from the printer. This will give everyone time to pre-register. This edition will require a work party, hopefully the 28th. I will issue a call as soon as everything is ready.

Don Duck reorted that the radio for the National Weather Service, a Kenwood TR 7950 was on hand. He still needs \$139.00 to finish paying for it and all clubs that have not sent in their contribution are urged to do so as soon as possible.

The thunderstorm didn't show up either.

Joe, WA5ZNF

R A D I O G R A M - 23 MAR 1983 - OKC:

WATCH FOR AND ATTEMPT TO LOCATE: ONE EACH OF
AZDEN PCS 2000 2M w/Power Supply #56025

TEMPO S-1T 12-button TT pad, Motorola clip,
#000561, Black-anodized nameplate on ft.

" S-2T 12-button TT pad, "M" clip - no "M"
#311542, nameplated same as above

" S-4T 16-button TT pad, Motorola clip w/
"M" covered, nameplate as above, sub-
audible-tone encoder DIP switch in PTT
lever, #303219

ICOM 2A-T 12-button TT pad built-in, bend on
metal belt clip reversed at top (hangs
lower on belt than stock) #5625

WELLER 100/140 W Soldering gun kit with wire
cutter, slimnose, dikes, knife in green
plastic carry case w/"Pflash" sticker on
front

MICRONTA 4-scale voltmeter, two pairs probes

WARD'S Powr Kraft Rotary Tool Kit, white box

BLUE TOOL CHEST, two red drawers, full of misc
hand tools

GREEN-cased 1/4" Socket set w/ long screwdriver

BLACK-DECKER grey 1/4" electric drill in grey
carry case with complete bit set in case

" orange jig saw in black carry
case with assorted blades

RCA WHIRLPOOL 2500 BTU window air conditioner.
220 V. ca.1965

report any and all information re above to
OCPD ref incident number 830317542 & jim n5beq

no rewards are offered nor implied...



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146.025 / 146.625 REPEATER

FEEL FREE TO USE IT

THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

1 AERONAUTICAL CENTER ARC
MEETS: 8:00pm First Friday. Flight Standards Bldg., FAA, S. Macarthur
PR K5LDI Tom Mangham 677-5291
VP AF5X Jess McKenzie 329-1543
SE KA5JCX John Mooney 794-8519
TR K5RJR Larry Norheis 798-9629
EDITOR: John Mooney, KA5JCX 794-8519

2 OKLAHOMA CENTRAL VHF CLUB
MEETS: 10:00am Third Saturday. Red Cross. 10th & Hudson(Back door) Okla City.
PR WA5HTL Paul Asplin 787-4286
VP KD5IS Jerry Wetmore 524-5080
SE K5JB Joe Buswell 732-0676
TR W5KE Ellard Foster 789-6702
EDITOR: Joe Buswell, K5JB 732-0676

3 MID-OKLAHOMA REPEATOR, Inc.
MEETS: 8:00pm First Tuesday. Okla City EOC. 4600 N Eastern
PR N5EPV Bob Allen Unlisted
VP KD5DL Holly Stewart
SE KA5CXW Fred Taylor 528-1537
TR W5KOZ Sid Gerber 737-1050
EDITOR: Susie Atkinson, KA5FED 842-8014

4 OKLAHOMA CITY AUTOPATCH ASSOCIATION
MEETS: 7:30pm Third Tuesday. Okla City Fire Training Center. 800 N Portland
PR N5IH Henry Israel 722-3848
VP K2GKK D. C. Macdonald 672-4947
SE W5NDO Kathy Whited 799-1427
TR K5GL Guy Liebmann 787-9545
EDITOR: "Mac" Macdonald, K2GKK 672-4947

5 OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB
MEETS: 7:00pm Second Tuesday(Sep-May) 119 Wilson Center. 1334 S Jenkins
PR KA5BAY Luke Noah 325-1775
VP
S/T KA5LZN Greg Smith 325-3218
EDITOR: Greg Smith, KA5LZN 325-3218

6 ALTUS AREA AMATEUR RADIO ASSOCIATION
MEETS: 7:30pm Second Thursday North Main Fire Station (CD) Altus
PR KA5MPK Gary Alexander 482-0857
VP
S/T KA6RTX Bill Flattery 482-1155
EDITOR: Bill Flattery, KA6RTX 482-1155

7 BICENTENNIAL (76ers) ARC
MEETS: 7:00pm Second Tuesday. OG&E Bldg. SE 3rd & E. K. Gaylord Blvd.
PR N5BFD Jim Hopkins 947-0043
VP WD5JNT Ted Vanlaningham 262-1675
SE N5AUH Jerry Sproul 354-2061
TR WB5VBE Dale Moore 721-6142
EDITOR: Bruce Goff, KC5CR 751-7192

9 WHEATSTRAW AMATEUR RADIO CLUB
MEETS: 2:30pm Second Sunday. Location varies. See club section.
PR KA5FUU Tom Johnson(El Reno) 262-5631
VP KA5DUO Leo Peil (Canton) 886-2996
S/T WA5PFK Ralph Wilder(Watonga) 623-4521
EDITOR: George Maschino, K5GGL 263-7614

12 SHAWNEE AMATEUR RADIO CLUB
MEETS: 8:00pm Second & Fourth Tuesday Shawnee City Hall (EOC)
PR KD5NX Jay Tingler 273-3033
VP N5CGZ David Stanley 273-4226
S/T W5TQZ Herbert Holton 598-5984
EDITOR: Earl Couch, WB5ZBA 589-3212

13 KAY COUNTY AMATEUR RADIO CLUB
MEETS: 7:00pm Third Thursday Ponca City EOC
PR WA5UBO Marsh Pronneke 363-2526
VP WB5NQT Pat Burnham 765-7229
S/T WB5YRN Delbert Foiles 762-4479
EDITOR: Tony Congram, WD5EAA 405-363-2217

14 CINMARON AMATEUR RADIO ASSOCIATION
MEETS: 7:00pm Second and Fourth Mondays. Place varies. See club section.
PR KI5P Major Bailey 227-2061
VP WB5ECM Dennis Painton 764-3599
S/T N5FMH Nadine Painton 764-3599
EDITOR: Jack Day, N5FMQ

15 SOUTH CANADIAN AMATEUR RADIO SOCIETY
MEETS: 9:30am Second Saturday. Red Cross Bldg., North OU Campus. Norman
PR K5KDR Bill Oliver 329-6333
VP KA5MIZ Bob Rabin 360-6996
SE KA5EFJ Ken Neptune 321-7789
TR WD5GTC Gene Johnson 321-6759
EDITOR: Sam Barrett, WA5RPP 321-2601

16 EDMOND AMATEUR RADIO CLUB
MEETS: 7:00pm First Thursday. See club section for location and type.
PR WD5DYI Mark Northcutt 755-4672
VP WB5MLX Glen Cochran 942-7148
S/T WB5UIY Stan Van Nort Unlisted
EDITOR: Stan Van Nort, WB5UIY

18 GREAT PLAINS AMATEUR RADIO CLUB
MEETS: 7:30pm First Tuesday Civil Defense room, Woodward courthouse.
PR WB0PGD Ron Tice 994-2138
VP KOCIO Larry Ellis (316) 582-2889
SE WB0QGW Carla Tice 994-2138
TR NC5C Gerry Ford 256-5382
EDITOR: Carla Tice, WB0QGW 994-2138

19 SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN.
MEETS: 7:30pm Second Monday. Location varies, contact a club officer.
PR WB5TTU Ron Henson 326-5418
VP WB5ULI George Weldon 326-5672
S/T WD5FUE Orville Kaley 326-3650
EDITOR: Ron Henson, WB5TTU 326-5418

20 ARDMORE AMATEUR RADIO CLUB
MEETS: 8:00pm First Wed. Red Cross Bldg. Informal, 8:00pm other Weds. 221 9th NW
PR W5HJ Tom Banks 226-3350
VP WB5VBK Fred Innis 223-1709
SE WA5YOM Tim Vandagriff 223-3582
TR W5BLW Charles Dibrell 226-0589
EDITOR: John Merlyn, WD5FZD 223-9543

CENTRAL OKLAHOMA RADIO AMATEURS, Inc.
MEETS: 7:30pm Fourth Tuesday. OKC Fire Training Center. 800 N Portland
PR WD5JNT Ted Vanlaningham 262-1675
VP K2GKK D. C. Macdonald 672-4947
SE N5BEQ Jim Buswell 236-0368
TR K5GGL George Maschino 263-7614

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Bob Graham, WB5NSV, 677-8685

Q. R. Zedd

THE GREAT ZEDD AND CUTE TONDELAYO TELL PLANS

Last month the DX world (and most of the rest of the civilized planet) was stunned and delighted to learn at last that the rumors are indeed true. Q. R. Zedd, Oklahoma's own world champion DXer and only holder of a modern 1x1 callsign, A5A, will wed Miss Tondelayo Schwartz, his blonde, nubile, now-20-year-old QSL secretary.

The nuptials are scheduled for June 18 at Zedd's Honor Roll Ranch, just a whoop and a holler south of Norman. Invitations, in plain language, CW, and ASCII, have been sent. The lucky few hundred who will attend the social event of the DX season are already making their plans, and there are rumors that the event will be telecast through special arrangements with CBS Television in conjunction with AMSAT.

Virtually on the eve of the grand event, we were privileged to visit Honor Roll and see some of the preparations. And what a sight it was! Pink carnations will adorn every tower and mast; special CW versions of Zedd's favorite songs, "Red Sails in the Sunset" and "Boomer Sooner," will be broadcast from a hundred special loudspeakers. The helicopter landing pad is already in place for the arrival of such dignitaries as the Rev. Billy Graham, who will officiate, and famed DXers Boris Badenov, Soviet Union; Bill Blast, proprietor of the justly famous Blast-Off DX Net; Dingfod Armstrong of Texas, and Shawnee's own W5NUT/PJ7. Rumors that the president will attend have drawn an official "no comment" from Walter Cronkite, brought in by Zedd as the official news spokesman and PR man for the event. It is known, however, that the entire ARRL in Newington will be closed for two days to allow that organization to attend en masse.

Zedd himself, relaxing in Levis, a faded blue workshirt and lizard boots, met us at the door to the ranchhouse and escorted us into his comfortable den, away from the maddening clatter of the rigs. The lovely Tondelayo, demurely clad in a pale fuchsia sundress cut at mid-thigh, with five-inch silver spikes, awaited us there. Zedd (who never touches the strong stuff or allows a dirty word to cross his lips) served tomato juice cocktails and we settled in.

"Mr. Zedd," we said, justifiably nervous in the presence of such greatness, "the world is agog about the impending nuptials. Can you and the lucky girl tell us how this romance bloomed and finally reached this happy conclusion?"

"Sure, boy," Zedd smiled, stuffing tobacco in his meerscham carved in the likeness of Marconi (his maternal great-grandfather). "Tondelayo is the sweetest, purest, nicest, truest girl that ever lived, just as I am, if I say so myself, the finest, truest, greatest DXer ever lived -- in the words of the song about me, don't you know -- and so I decided it was only logical for us to get ourselves hitched. Besides, predictions are for a major downswing in the sunspot cycle in mid- to late June, with many solar flares. For that reason I won't have much else to do anyway."

"I understand you proposed via amateur radio?"

"Yes, sir, I did, I sure did, uh-haw. You see, Tondelayo was working the No.2 position in a contest, and I was of course No. 1, and something busted and my rf started getting into her receiver, and she was so sweet about it, my heart just plumb melted, and right there, while I was QRMing her, so to speak, I decided why not, so I ast her."

4 CORA Collector & Emitter May 1983

We turned to the blushing bride-to-be. "Tondelayo, you must be thrilled about this wedding."

"Mah goo'ness!" the darling girl gushed. "Ah guess ah'm the LUCKIEST girl in the whole wide world! Q. R. is jus' the DARLINGEST man, an' I jus' love him to PIECES!"

"Are there plans for a honeymoon trip, Tondelayo?"

"Why, yay-us! We plan to visit the headquarters of Ham Radio, don't cha know, an' then go by the station at the UN, an' for a really BIG thrill, we'll go from there straight to the World Crystal Set Museum in Patterson, New Jersey."

"It sounds indeed like an idyll, Tondelayo. But now let me ask both members of the happy couple a question. Will the president be in attendance?"

"Ah believe --" Tondelayo began, but Zedd gently put his hand over her mouth, effectively making her go conversationally QRT.

The great one then told us, "It would be premature to initialize any public conceptualization to the effect that a visit, nuptialwise, was being contemplated or considered, as it were, by any h gh official of the government. You understand me, boy?"

We thought we did. It seemed clear that Zedd was speaking for the record in carefully couched government language that must have been prepared for him at the highest levels of Washington.

We were left with our speculations. When Oklahoma's greatest DXer begins talking like General Haig, can the president be far behind?

-- KU5B

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TEN METER WHAT? FM YOU SAY!

If you are one of the proud owners of a Kenwood TS-430, Yaesu FT-102, or an Icom IC-740 HF rig you may have noticed the availability of an optional FM board for ten meters. Before you leap into this mode you might just like some idea about what goes on up there.

Almost all FM activity is confined to 29.500 MHz and above. However with normal + or - 5 KHz deviation you may operate from 29.000 MHz to 29.700. There are two international calling frequencies 29.600 and a secondary frequency of 29.500 MHz. 29.600 is by far the most active and crowded frequency. It is the primary and in theory calls should be made there, contact established and another frequency chosen to QSY to. However since many rock bound stations and remote base outputs exist on 29.600 one often hears many on going QSO's in progress. Remote bases are simply a ten meter rig and a two meter or a UHF rig tied together via a carrier operated relay set up to gain access to ten meters. Some remote bases are tied into two meter, 220, & UHF repeaters.

Ten meter repeaters also inhabit the band, but they must stay above 29.500 MHz with their inputs and outputs. The generally accepted band plan is as follows:

29.520 in - 29.620 output
29.540 in - 29.640 output
29.560 in - 29.660 output
29.580 in - 29.680 output

There are some odd split repeaters around such as 29.510 in and 29.690 out but these are few and far between. Make note of the repeater inputs and don't make the mistake of going to one of these frequencies or you might bring up a repeater in the Virgin Islands (29.56/66) or in Long Island. I am sure you can see how you could stir up a hornets nest.

Continued on page 5

CIMARRON A.R.A.

EDITOR: Jack Day, N5FMQ

CARA sends greetings to all from the gateway to No Mans Land...where HF is King..Two Meters a necessity..and everyone has to furnish their own Tom Cat!

We had better start right off by making it known that CARA's regular meeting night has been changed from the second and fourth Tuesday to the second and fourth MONDAY of each and every month. There was some discussion of a single meeting night per month but that issue was tabled for now. The last meeting in March was held in the home of CARA President, Major Bailey, K15P and his XYL, Dede, who has a new call sign that is the envy of all..N5FUN!

New call signs were the event of the month. N5FMQ became KD5YB, Steve Schoonmaker, KA5PKN became N5FUP, Ruth Simpson KA5PKR became N5FUR and Fred Simpson KA5PKM became N5FUO.

The first meeting of April has held at the home of Mr. and Mrs. Leo Peil of Canton. Leo, KA5DUO, is both a valued member of CARA and an officer of the Wheatstraw Club. We wish to thank Leo and his gracious wife Ann for having us into their home.

Sixteen people were present at this meeting including WD5JNT Ted Van Laningham, President of C&E, K5GGL George Maschino, Treasurer of C&E and Sue Barnes, XYL of AB5Z Ray Barnes of Longdale, who were guests.

Ted explained the workings of the C&E and welcomed CARA into the fold. We were invited to attend the HamFest in OKC July 29, 30, and 31st at the Myriad. Quite a few plan to attend. Field Day activities were also discussed and it was determined that CARA would rendezvous that weekend at the Dennis Painton Farm for the annual orgy. For most of CARA this will be their first Field Day and we are all looking forward to it. We want to thank Dennis and Nadine Painton WB5ECM and N5FMH, for their gracious invitation.

KD5YB is planning a trip to Honduras and Tom, KA5HZD of McAllister, tipped him on the 40 meter line, that if he wanted permission to use his HF rig in Honduras to call 325-916 in Tegucigalpa and ask for Ann. That turned out to be Mrs. Ann Hernandez at the American Consulate and she is indeed the one to call. Thank you Mrs. Hernandez for being a Hams best friend in Tegucigalpa.

The next CARA meeting will be held at the home of Walt and Shirley Harris of Lahoma on April 25th.

A 10 MINUTE TIMER- THE EASY WAY

This is probably as easy a timer circuit as you'll ever find. Construction is straightforward and not in the least critical. After assembly, Juggle the value of R1 to achieve a nine minute timing cycle. Now you'll never have to worry about how long it's been since you last identified.

Circuit Operation

U1, a NE555 timer, is configured as a one-shot. U2, also a NE555, is an audio oscillator. Pressing S1 begins the timing cycle. The output of U1 goes high, causing the timing capacitor, C2, of U2 to be disabled. When the timing cycle is completed, capacitor C2 returns to a low state, initiating the audio oscillator.

Hope you have fun with this project. We'll try to include a simple circuit each month.

- C1- 33 uf (tantalum recommended)
- C2- .1 uf disc ceramic
- C3- 10 electrolytic
- R1- 7 to 12 Meg. Dependent on true value of C1
- R2- 15K
- R3- 1.5K
- U1,U2- NE555
- Speaker- .25 watt 8ohm
- S1- Normally open spst pushbutton

73, Major, K15P

10 METER FM (continued from page 4)

Now where do you go after having made contact? Well 29.500 is fairly quiet depending on how good propagation is and it is commonly used. 29.630, 29.670, or 29.690 MHz can be used if you don't mind competing with repeater outputs when the band is open. Be carefull about going below 29.500 because between 29.300 and 29.500 MHz the satellite people have some OSCAR downlinks going and they get upset listening to F-3 instead of Mr. Oscar. I often QSY to between 29.200 and 29.300 which seems to used rather sparsely.

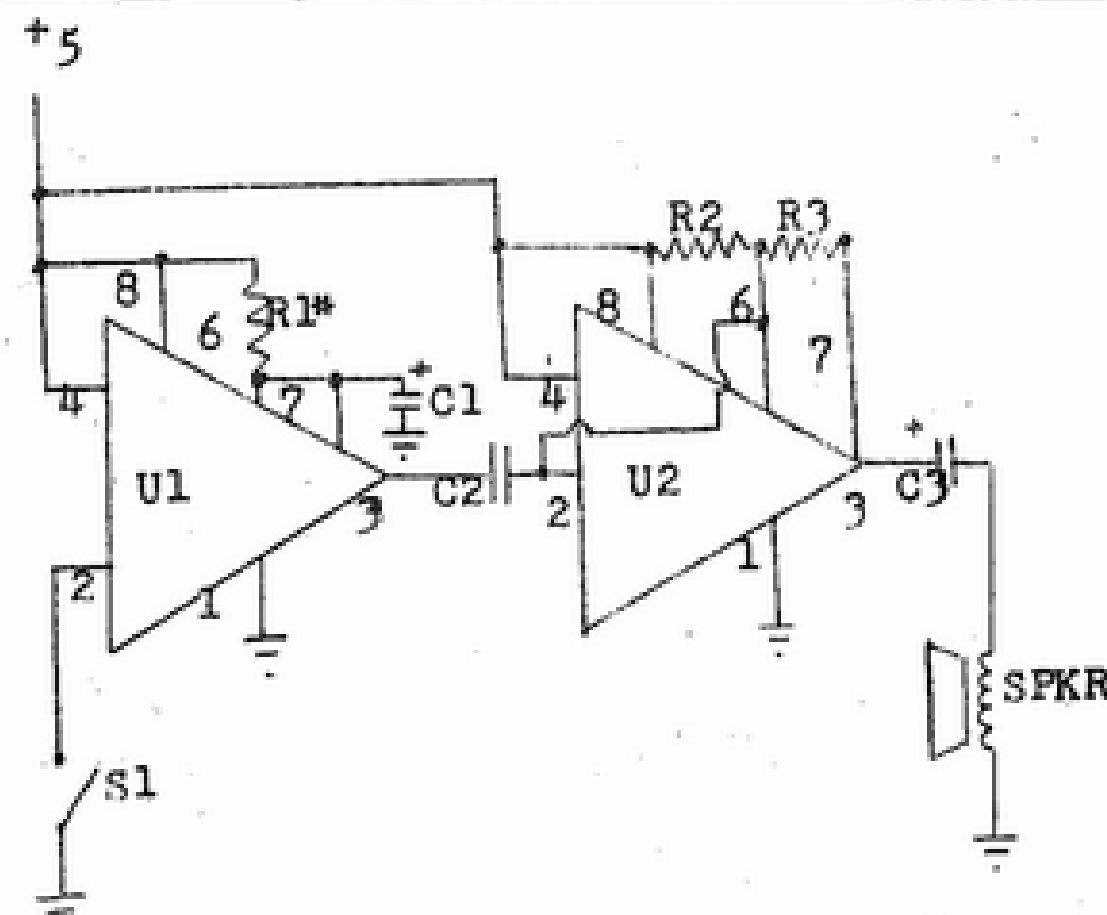
To make contact on ten FM most stations simply ID as if on two meters. Long CQ's are usually not needed and I tend to fall asleep listening to them. Propagation is still fairly good especially north — south to south America. One doesn't want to forget sporadic E propagation (which I am fond of personally) which can sometimes last until late at night. As of April 12 the Virgin Islands repeater comes in nicely most days. I operated mobile quite a bit last fall using a Comtronix FM-80 rig and a Ten Tec model 405 amplifier running 50 watts to the antenna. I worked many stations and ended up having a G3 call me. Which I am not used to using an indoor dipole at home.

Antennas for ten FM are just about anything you want to use. However many repeaters and remote bases use verticals to enhance ground wave when the band is dead. Some remote bases even use fixed monoband beams. I use a vertical and a horizontal antenna to cancel out phase distortion which is much more pronounced on FM. By switching back and forth I can peak for minimum distortion.

Getting on the air cheaply can be done by converting certain CB's. I converted one myself just to see if I could do it and it wasn't too bad once I fixed what I burnt up trying to convert it. There is a place by the name of MELCO, INC P.O. BOX 26 Marisa, Illinois that sells the CB board with case and all for about 70.00 for those not inclined to shell out for a TS-430 just to get on ten FM.

In conclusion ten meter FM is an interesting mode and can be a lot of fun especially if you can home brew or convert an old Midland CB to the band. Just ask KD5DL (who helped me very much) or contact me and I will help all I can if someone would like details on the types of CB's that will convert readily to ten meter FM.

N5BEW Ken Esadoosh





OKLAHOMA CABLE TELEVISION ASSOCIATION

March 7, 1983

Dear fellow Amateurs:

There has been a great deal of talk, a considerable amount of coverage in amateur journals, and even legislation regarding the unintended interface of amateur radio and cable television. CATVI has become a "buzzword", if not a threat to amateurs as well as cable television operators.

Cable television operators in Oklahoma, through the Oklahoma Cable Television Association, saw signal leakage (CATVI), either out of or into, cable television systems as a significant problem that must be resolved at a local level. Late last year our state association formed a working committee to; 1) set up programs to educate cable operators as to causes and cures of CATVI, 2) provide a liason between the amateur and cable communities, 3) provide an awareness program for amateur operators, 4) provide technical assistance on difficult interference problems.

Preservation and conservation of the radio spectrum is of vital interest to both amateurs and cable operators. We know that the key to elimination of CATVI is mutual cooperation to acheive a common goal. We want you to know that we are here to help. If you have a CATVI problem, first call your cable operator. If the problem persists, or you have a question regarding CATVI, contact one of us, our phone numbers are listed below and we would be glad to assist you.

For the Oklahoma CATV Association

Stan Wigh WB6UYG
Cox Cable Oklahoma City
405-525-2771

Ilene Hammack K5IH
Microcom Inc.
405-544-2424



GENE NAILON - K5DLE
Avionics Manager

OFFICE 405-681-2331
HOME 405-341-8289

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OKLAHOMA CITY, OKLA. 73122
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ASSEMBLIES EQUIPMENT ELECTRONICS

4/1

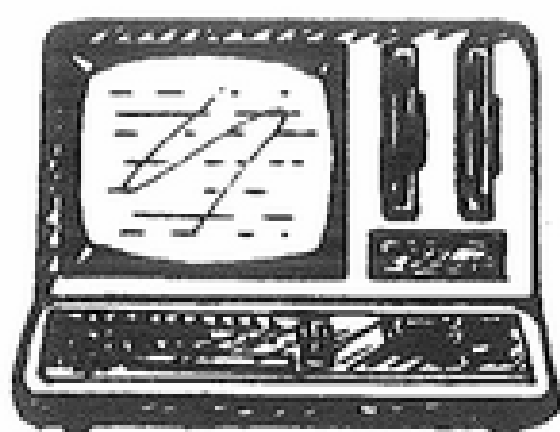
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Choctaw, Okla.

MOBIL HOME WINDOWS 5-4



Computerfest



H H '83



State Convention

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proudly invite everyone to attend
our *bigger and better*

HAM HOLIDAY '83

JULY 29,30,31

Myriad Convention Center
Downtown Oklahoma City

See Other Side

PRE-REGISTRATION DEADLINE: Postmarked by July 17,
to be eligible for Pre-registration award

Registration packet will be held at the door. Please do not request refunds or confirmations.

USE THIS FORM TO PRE-REGISTER

You may buy as many registrations as you desire at \$6.00 each. All participants and all guests over age 12 will be required to register to enter any area. Tickets at the door are more expensive, so pre-register the whole family!

Please pre-register _____ people (over 12) @ \$6.00 ea \$ _____

Saturday Night Buffet & Dance _____ people @ \$11.00 ea Door Awards \$ _____

Dance ONLY Saturday Night _____ SINGLE @ \$3.00 _____ COUPLE @ \$5.00 \$ _____

ONE Flea Market Table @ \$1.00 (Strictly Non-commercial) \$ _____

_____ Additional Flea Market Tables @ \$4.00 \$ _____

NOTE: Flea market tables not reserved on this form will be sold
to door registrants @ \$5.00 ea, subject to availability.

Reserve my table(s) for SATURDAY _____ SUNDAY (Circle one or both) \$ _____
Total amount enclosed

Name _____ Call _____

Street/Box _____ Apt # _____

City _____ State _____ ZIP _____

Names of additional registrants, paid for above.

_____ Call _____

_____ Call _____

_____ Call _____

PLEASE INDICATE YOUR INTEREST IN: (How many?)

QCWA Breakfast, Downtown Holiday Inn Everyone Welcome YES NO

LADIES Saturday Luncheon & Fashion Show YES NO

Bus tour to shopping center, Walking Tour of Downtown YES NO

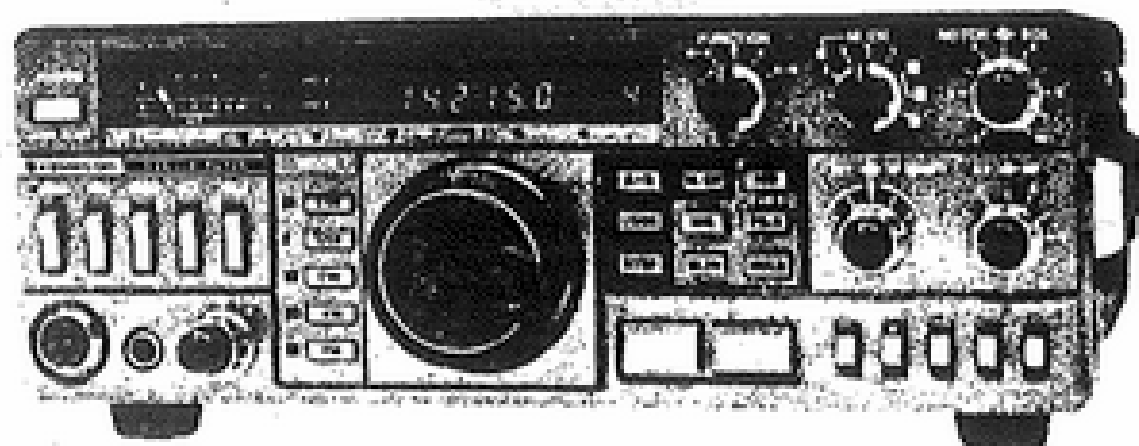
Make check/money order (No Cash Please) to CORA Ham Holiday and mail to:

CORA, P.O. Box 14268, Oklahoma City OK 73113 before July 17, 1983

CORA Collector & Emitter May 1983 7

- **HAM HOLIDAY '83**
- **COMPUTERFEST**
- **ARRL STATE CONVENTION**

**JULY
29,30,31**



**MUST BE
PRESENT
FOR ALL
AWARDS***

**GRAND AWARD - \$1200 Value
KENWOOD TS 430 S & Power supply**

PRE-REGISTRATION: \$6.00 with attached form. All envelopes must be postmarked not later than July 17, 1983 to be eligible for the pre-registration awards. Registration packet with badges and tickets will be held at the door. No limit on number of tickets. No refunds or confirmations. Winner need not be present for this award only.

ADMISSION: \$6.00 pre-registered; \$7.00 at the door. (Same price as last year.) This price is for everyone attending - visitors, wives and teenagers - licensed or not. Children age 12 or under admitted free with parent, but are not eligible for awards. Badges must be worn as proof of registration for entry into any area, including exhibit hall, flea market, coffee lounge and banquet/dance.

FACILITIES: Ham Holiday activities, except buffet/dance, will take place in the northwest area of the Myriad Convention Center in downtown Oklahoma City (same as last year). All events on Friday will be held on the main floor while commercial exhibits are being set up. Security has been arranged to protect the area at night. Upstairs meeting rooms will be open all day Saturday for demonstrations, forums, and ladies programs. The Buffet/Dance Saturday night will be held at Quality Inn, Reno at I-40, a few blocks east of the Myriad.

PROGRAMS: Something to interest everyone. There will be the usual displays, forums and seminars and amateur oriented computer programs from beginning to advanced levels. There will be programs on DX, antennas, satellites, FM, alternate energy sources and many others. Special groups will hold meetings: ARRL, Night Owls, Oklahoma Repeater Society, SMIRK, MARS and CORA, to name a few. There will be QLF and QRM programs. The ladies will have plenty of interesting things to do.

FLEA MARKET: (Non-commercial only) Every pre-registrant may buy one table for \$1.00. Additional tables listed on pre-registration form. The 30,000 sq. ft. area is indoors and airconditioned, with easy-access loading doors on Sheridan St. for setting up.

ACCOMODATIONS: The Sheraton Hotel, across the street, and the Quality Inn have offered reduced rates. Tell them you deserve the Ham Holiday rate.

AWARD POLICY: The winner and/or his ticket must be present to claim any award except the pre-registration award. You may sign your ticket for someone else to hold for you. Unclaimed registrations will not be deposited for the main drawing - only for the pre-registration drawing.

PARKING: Ample underground parking is available under the Myriad at their regular rates. In addition, there is substantial on-street and off-street parking close by.

See Other Side

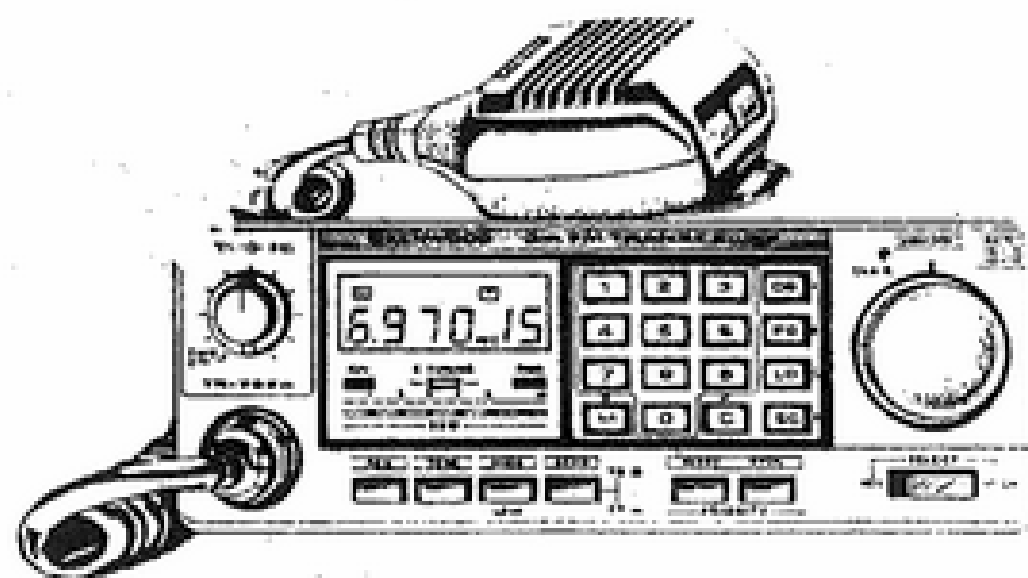
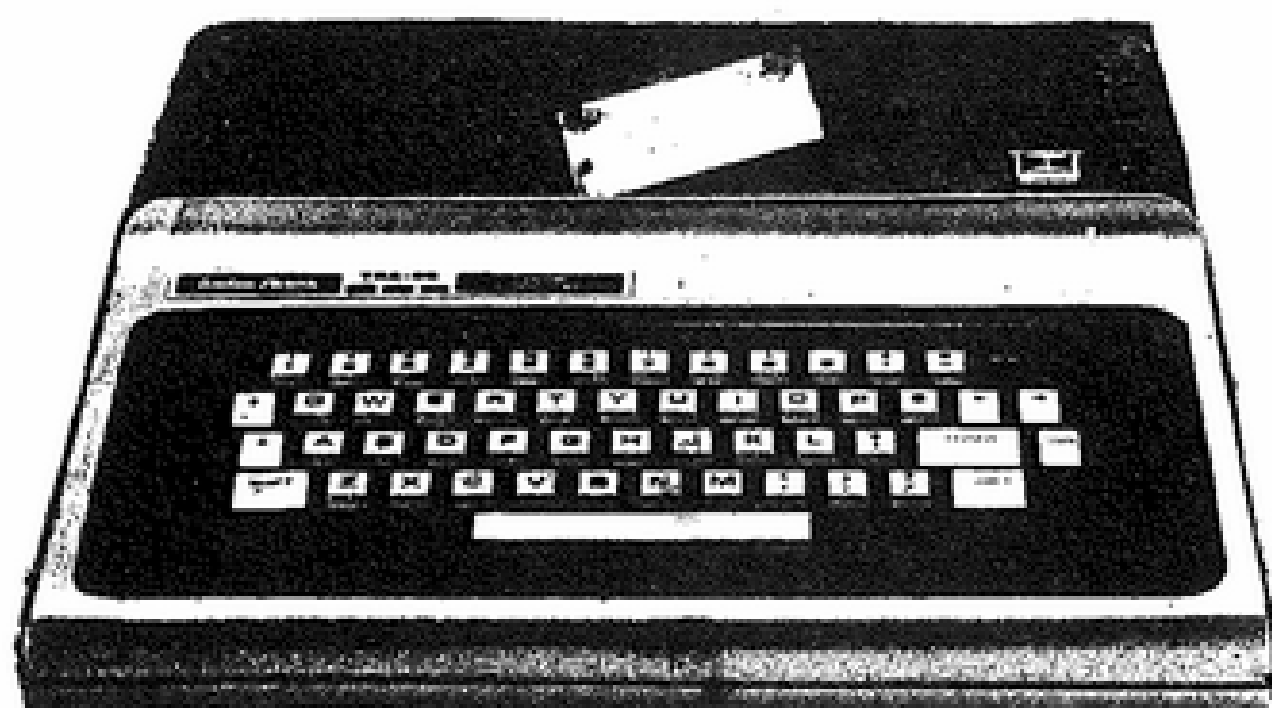
Preregistration Award

TAKE YOUR CHOICE

TRS-80 COLOR COMPUTER

OR

KENWOOD TR 7950



kay

COUNTY ARC

EDITOR: Tony Congram, WD5EAA

ALTUS AREA



AMATEUR RADIO
ASSOCIATION

Springtime greetings from Kay County! Yes, it looks like we've finally made it into springtime after the unwelcome floods, winds, and frost of this years pseudo-spring. There is getting to be something in the air that makes one anxious to put up that new tower, replace those wind-whipped dipoles, or install that new beam that's been boxed up all winter.

Kay County ARC's April meeting was held the 21st at the Pioneer Motor Bank in Ponca City. The main thrust of this meeting was storm-watch organization and procedures. President Marsh-WA5UBO, and Emergency Coordinator C.L.-W5ZWM outlined this years procedures which will involve more detailed condition reports and a new map and grid system. New maps are being prepared now and will be distributed to everyone when completed.

In a related topic, Marsh advised that he has received a favorable response from Tom Montgomery, Ponca City C.D. Director, on the possibility of getting a complete ham station for the E.O.C. in the city budget for next year. Only time will tell, but it looks hopeful. It's great to see that Ponca City C.D. is taking such an interest in our club.

FIELD DAY REPORT:

Just as thoughts of warm sultry days and cool mosquito filled nights come into mind, so does Field Day. Kay County ARC will indeed be gung-ho again this year under the direction of Dr. Paul-KA5PYG, Rick-WD4CEP, Dave-WN5LUI, and Chuck-KA5PYR who will make up this years F.D. committee. Field Day this year, by the way, will be on the 25th and 26th of June.

R.A.C.E.S. :

Applications of Radio Amateur Civil Emergency Service are available from W5ZWM. A number of club members signed up last meeting, and anyone interested is urged to do so. Being a RACES member in time of disaster allows the amateur much more flexibility of operation and allows him or her to be of much greater value in assisting with communication problems.

ARES TRUCK:

Marsh has been spending a lot of time working on the truck lately and reports it is now running again. He also has made considerable progress in construction of the operating positions and the tower mounting structure. Upcoming plans include a complete tune-up, and sandblasting and painting of the exterior.

RED CROSS:

After some re-activation and reorganizing, the Western Kay County Red Cross Chapter is forming a disaster response team. Ed Walcher, team coordinator, has advised that he would like amateurs in control of the communications team. Anyone interested in making a commitment to serve in a communications position should advise WA5UBO or WD5EAA.

OKLAHOMA CITY LINK FOR 37/97:

Some talk around lately about a possible linking set-up between PNC and OKC for emergency use. Stay tuned for further news.

NEXT MEETING:

Mark your calendars now--Thursday May 19th, 7pm, Pioneer Motor Bank. Order of business includes ELECTIONS. Be there to defend yourself. Don't let the "Midnight Special" catch you setting at home!

Don't forget about the Kay County Net-- Monday evenings at 2100 local**

Greetings to all from the Altus area amateurs. Already, another month has gone by, and we inch a little closer to the thunder-bumper season. As I sit at this typewriter, storm clouds are beginning to brew up north. This could be a busy weekend. If you made the recent club meeting, we hope you enjoyed it and will come again. Gary Alexander opened the meeting at 1930 hrs, 14 April 1983, give or take 15 minutes (hi hi). The topic of ARRL Special Service Clubs was brought up and a vote was made by the members present not to become an ARRL Special Service Club at this time, due to our involvement with weather watching. The vote was unanimous. The "no code" license was discussed for a few minutes. It seems to be a "hot" item at the present, but it's kind of like the weather... you can watch it and talk about it, but you can't do much about it.

This month's "show and tell" was presented by Charles Davis WA5PGV. His helper, who was in attendance by only "marks and spaces" was Mike Schenkel W5VXU. Both live in Altus. Charles gave us a simple, but technical discussion on radio teletype, known as RTTY. The highlight of the program was a demonstration of RTTY operation. A Heathkit computer with disc drive was used. AFSK (audio frequency shift keying) was sent over 2-meter FM to W5VXU, who in turn, answered the QSO and then returned the calling. Did you know it's possible to have RTTY capability with a small computer for about \$100??? No more thrashing machines. Even the XYL might get interested.

I'd like to welcome two new members to the Altus Ham Club. Phil Mahnken WA2JXD, resides in Altus. Phil and I have had several QSO's on 6 meters. He's presently in the process of setting up his station, but probably won't be operational on HF for a few more months. Next is Herb Maas N5FQR from Mangum. Herb became a ham in February of this year when he received his general class ticket. Herb has been to several of the past meetings. Each time he comes, he always brings a new gadget. He has brought a talking watch, talking calculator, and I don't remember what else. His HF rig even has a voice module to "speak" the frequency to which it is tuned. Herb is blind, but through dedication of area hams and help from the FCC, he has been able to join the ranks of Amateur Radio Operators. Again, a big hearty welcome to both and please take the time to meet them, next chance you get.

The meeting was adjourned at 2100 hrs and all joined in for some good refreshments. A big "thank you" goes to Charles Davis and Mike Schenkel for their time and efforts in demonstrating radio teletype. I believe everyone present, thoroughly enjoyed it. A big "thanks" to Joe McDonald W5CCV and his XYL, for the tasty refreshments.

Attendees for the month of April were:

N5FQR Herb Maas	W5CCV Joe McDonald
WA5TXG Sherwood Harris	WA5ZAR Bud Smith
N5AIF Bob Bratton	N5EOZ Steve Sappington
N5DKZ Charlie Woodworth	WA2JXD Phil Mahnken
W5ZDI Clyde Smith	KA5MPK Gary Alexander
KA6RTX Bill Flattery	WB5KRH Dwight Dennis
W5UVX Les Brown	WA5PGV Charles Davis
W5VXU Mike Schenkel	KA5KVU Dennis Ratzlaff

Next month's activities include discussions on antennas. The field is wide open, so we'd like your comments. Be ready to talk about your favorite antenna or even the one that flopped. There's plenty of chalk and a nice big chalkboard. This should be a good subject as field day is just around the corner. See you next month.

B111 KA6RTX

FOR SALE- KENWOOD TR-7800 2-Meter FM Transceiver. 15 memories, scans the entire band or the memories, automatic offset, 5 or 25 watts output, mobile mount included, but never used mobile. Excellent condition. Internal nicads retain memories if you lose power or move from car to home. TT included. Call for details-- George Adkins (AD1S) 722-6195 nights or 947-0511 during the day. \$225.00

CORA Collector & Emitter May 1983 9

GREAT PLAINS A.R.C.

By the time you read this the May 1st Eyeball QSO and Swapfest will be here and gone. I sure hope you could it this year. Due to the mail service, my article didn't reach the office in time alain last month to let everyone know by C & E.

Our April 5 meeting was called to order with 28 members and guests present. The treasurer's report and the minutes of the last meeting were read and approved.

WB5OVT brought 3 designs for the flyers for the Eyeball QSO. After explaining each design discussion followed and a decision was made. The committees gave reports on their progress.

WA5OUV, assistant director for the West Gulf Division discussed the no code proposal. He explained what needs to be done and suggested ways of doing it. He also explained the new ARRL format stating the reason is to get more people involved. A question and answer period followed.

WB5EGZ stated High Plains is interested in radio theory classes. It may be possible to come out with a commercial license.

WB5OVT said that the chamber of Commerce has set the Gage Roadrunner Marathon for May 28 and would like to have GPARC furnish communications. N5CCV made a motion we help with the maration. W5NDJ seconded and the motion carried. N5CCV also suggested that speakers be set up at the starting line so the crowd can hear the amateurs work.

K5OJ introduced his son Bryon. He said that there is a Computer Users Group sign up at Radio Shack for anyone interested.

73's WBØQGW Carla

The March GPARC Meeting opened with 21 members and guests present. The treasurer's report and the minutes of the last meeting were read and approved.

WB5MZZ and WB5OVT are going to get together to work on club letter heads.

WBØQGW read the five options FCC is proposing on the no code license. Discussion followed with further explanations of FCC reasoning.

Jim Phares K5YZK gave a short talk on the CCD antenna stating the article is in the July 1981 73 magazine.

Kd5JR gave an update on the radar stating that the 20 foot tower pedestal is set and 80% of the wiring is hooked up.

WB5OVT made a motion the meeting adjourn and WA5PLW Seconded. After the meeting was concluded KD5JR showed his slides of their trip to California for the radar.

OTHER HAPPENINGS

February was definitely the month for antenna parties.

KD5JR and a group of amateurs now have the radar antenna on the tower and Bill is working almost round the clock trying to get the project completed.

Another group went to KC5OU's and worked on his antennas and hooked up a new talking rotor for Harry.

The same week end a group met at WBØPGD's and made good progress on his HF antennas. We still have 80 meter to go but weather permittting it will soon be up also.

We have another new amateur in our midst. Al Ellis has passed his code test, taken the theory and is now playing the waiting game! I know you can hardly wait Al, we'll be waiting to hear your new call. Dad Ellis, KØCIO, is going to have competition for the mike!

73's Carla WBØQGW

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Salem

DAYTON--THE REAL BIG APPLE

I am not one to gloat or point with glee, but more than likely, by the time these words are read, Dayton will have come and gone and for those of you with a sense of history, I will be there. Oh, I know, you read my rantings about Dayton these past 7 years or so and there has been some improvement in attendance from this area the past couple of years, but come on folks, let's get with the program! Lets pull out those calendars for next year and circle the last Saturday in April. That is Dayton weekend. For goodness sakes, they even cancelled the OU Varsity-Alumni game this year because of Dayton (Well, this might be a slight exaggeration, but they did cancel the V/A game).

I will probably start sometime in November looking to make the room reservations. Tickets can be ordered anytime up to a couple of weeks before. And I can be sure that I will start bugging the airlines sometime in January looking for the cheapest fare. If anything has changed over the past 8 years, it has been the cost of transportation to Big D. The first couple of years, it was quite reasonable for air travel, averaging somewhere over \$100.00 for the private flight. Even worst case a couple of years ago only totalled in about \$150 for private. The last couple of years a group of us have flown commercial and the cost has gone out of sight. K5JB and I made some plane reservations a couple of times when we planned the commercial as a backup to the private flight. The first time the flight was only about \$150 or so for some special rate on Delta. Not true anymore, the special (if you can call it that) is now about \$300.00. Kind of made that private plane flight somewhat urgent. I remember one time we called and cancelled the reservations from Dayton and told the reservation counter that we probably would not be able to make it to Tulsa in time to catch the flight!

The last couple of years, I have not been able to get anybody fired up for a private flight up to Dayton. The most economical point is three people and it seems like everybody wants to fly commercial. The trip is quite simple. Last year, it got all out of hand. The cheapest flight was from Tulsa. It was much cheaper to drive to Tulsa, board a Delta flight and fly from there rather than pay the local air pirates from OKC. This year, Delta came to OKC and the flights were available, so we will get to spend part of an evening in the Atlanta airport on Thursday on our way to Dayton. Coming back, we had to do a little fancy footwork because Delta moved one flight from 3 p.m. to 2 p.m. requiring us to leave the HARA arena at least 2 hours before the drawing was over. Now, this is prime flea market time. I leave my ticket with K5JB inside and I am outside seeing what I can do to relieve people of the necessity of carting the big stuff home for thief type prices on my part. Fortunately, Joe WA5FLT had a hankering to talk to a female voice, so he decided to call the Delta reservation agent just to "confirm" our reservations. He found out about the flight leaving earlier and that Delta had made the change, so he called me. We called Delta and batted around some alternatives, the best of which was to take a TWA flight back that left at 5 p.m. The normal cost for this would have only been \$13.00 more, but Delta realizing that the time change was their scheduling problem offered to pay the difference (after being asked) for the flight. The TWA flight leaves at 5 p.m. or so, thank you.

Sooo, what does Dayton have to offer this year? Not much except the premier hamfest in the country, if not the world. And the fleamarket doesn't quit. Considering the economy this year, it seems that

everybody will clean out the junk box probably including choice items just to raise some cash. I might take a few items extra myself.

Dayton is a commercial venture. If you have a reasonable amount of material, you can probably sell it or if there is something you want, you can probably buy it. Last year, I tried to get rid of a couple of extra walkie talkies, Motorola and whatnot and believe me, it was hard to do. In fact, I didn't sell a single radio even though there were several on the table. Oh, I did get rid of a few small items, but the radios hurt. In the face of all the cheap Japanese synthesized radios, it is difficult to sell a high quality yet rock bound commercial quality radio. Sigh. This year I think that I can do it though. I have a HT-100 which I will build up before I go to take with me. This will get rid of one of the radios. HT-100 (especially a UHF that puts out about .7 watts, most HT100 only run 100 mw in the stock version) radios are still very rare and I expect that there will be some takers at that price. I also plan to take a couple of touchtone decoder boards with me. I was going to have some extra made up before leaving, but that deadline passed a couple of weeks ago. The cash flow problem also mitigated against that plan. Instead, I decided to build up a couple of the extra boards that I made and hawk them to see what will happen. Might get a couple of takers.

In any case, one thing is for sure. I will write about it as soon as I can when I get back and you will probably have to read about it next month. That is, those of you who don't have the guts to go. Got to get your mouth watering so you can make plans to go next year.

I might even attend a program this year. I usually don't. In fact, I have sat through only one program since I have been up there and that was last year. This year, I was invited to sit on one of the panels at the last minute with Chris Imlay and Jim O'Connell. I asked if I could get a free ticket for this and was told that probably not. They did offer me a banquet ticket, but big deal, I have never gone to the banquet before. So I will have an extra banquet.

I especially look forward to seeing all my friends like Keith WA8ZWJ and Hoss WA5ZAI. Bob, and the host of others have apparently planned a party for Friday night for the event and have even gone to the trouble to send out invitations. Whoopeeee. John WB5FZD found the keg of beer last year at the house and spent the balance of the evening holding it up. We spent the evening holding John up after leaving. It was apparent that he slept soundly that night until Stan tested the smoke alarm. John returned the favor the next night and raised the ante to a bucket of water. Hey, who can resist this kind of fun. The licks you get in can last a lifetime. The Holiday Inn we stayed at was fancy and expensive and I didn't even take my swim suit. Don't think that I will make that mistake again.

So as they say, Dayton Hamvention world's largest. Film at Eleven. Watch this space next month. Baring unforeseen circumstances, I let you know what is happening.

Micheal Salem N5MS

CROSSTALK EDITOR CAUGHT IN CROSSFIRE!!

I have been sitting on a letter from Phyllis M. Gilmore KE6TC that I got back in January and just got around to publishing it. Sorry Phyllis, but it went to the bottom of the stack and I had to execute a reset routine to find it (that's computer talk for all the COCO members out there, just to get their bootstraps fluttering). Phyllis apparently took exception to an article I wrote many months ago in which I poked gentle fun at the various names of the CORA Collector & Emitter May 1983 11

exchange newsletters we get from around the country. Phyllis is the Editor of Crosstalk, the newsletter of the TRW Amateur Radio Club in Colton, California. I have examined some of these publications in depth and have concluded that with some of them Joe WA5ZNF made a very bad deal to exchange newsletters. Cross talk does not fall in that category. It is a very excellent publication. I merely suggested several months ago that when I first picked up a copy of Crosstalk I thought that I was reading a religious pamphlet. Ahem. Well, I got a letter and I am not one to stir up trouble where none previously existed, but I do appreciate knowing that somebody actually reads this stuff. So in the best tradition of the letters from Mout Ida made famous by Charlie Weaver (aka Cliff Arquette), here's Phyllis:

Dear Mike:

I resisted the urge to respond to your article on newsletters for a while, but I felt I had to say something after Rosemary Willis wrote in.

I am the editor of Crosstalk, the newsletter of the TRW Amateur Radio Club, with the now infamous club station callsign of W6TRW.

No, we did not apply for our callsign right after WWII--since the esteemed company we work for didn't exist until the fifties. (Well, parts of it did, but not as TRW.) Nor was this the result of blind luck.

As some old-timers will recall, it was once possible to apply for a specific call sign and get it (this was B.C. --before computers). A recent article in some publication or other I subscribe to points out that this system stopped because some of the folks were taking bribes. Sigh. (My nickname is "the Kid"; I would have killed for any callsign ending in KID.)

It took, and I quote, "some 18 months of patient waiting and hand wringing" for one club member to pull off the feat of getting TRW W6TRW. How we succeeded where the main corporate offices in Ohio failed to get the similiar call, I dont know. Maybe it was blood, sweat and tears. Anyway, the September 1974 issue of Crosstalk was the first to report the good news.

73,
Phyllis M. Gilmore, KE6TC
Editor, Crosstalk

There you have it. Where I come from, this is called a "written confession." I don't have anything against having your name or initials for your call, ahem. After all, I waited a long time before being able to apply for N5MS. I was lucky that my initials were available under any circumstances since W5MS was held by some club in San Antonio. K5MS almost was available about the time I applied, but was gone when my application was processed. I suspect that the great two letter callsign giveaway will never occur again. Indeed, the computers have no sense of humor at all.

Now Phyllis, about that call. I heard about those bribes. In fact, read a story about them and the criminal results that occurred. As I recall, TRW makes nifty type of electronic devices. And if it just so happens that somebody at TRW was involved in this little shenanigan, then I am not sure that I would want to talk about it in public and writing me is just like talking in public. Besides, I am not sure that the Statute of Limitations for bribing a federal official has run. In any case, congrats, if somewhat belated, to the group of TRW for their resourcefulness? and cleverness. And yesss,

Phyllis, there is a Santa Claus, but he obviously doesn't work at the FCC anymore. Better luck on the call next time. Here's looking at you, KID.

Micheal Salem N5MS
The CAD

TROUBLESHOOTER'S TEXTBOOK

I thought about finding a Dick Tracy Logo to put by this section, but it is way too late at nite to go out. I thought that I would mention a couple of problems I recently encountered as I was sifting through the pile of equipment at my house that doesn't work. What is unique about these problems is that the source of the problem appears way down stream or in a completely different area from where the symptoms are. It is a simple lesson to tell you that when trouble shooting equipment, a logical and organized approach is necessary for the tough ones.

The first thing to check is the power supply. It is always the first thing to check. The reason is simple. Power Supply components are frequently the only interface to the outside world with most equipment. Further, most power supply components are designed under marginal circumstances. They probably form the area with the least margin of safety. Even low level power supply components can give signs of different voltages from optimum that should give you some indication of the problem.

The case in point is my HT-100 that I just built up. This radio was a slimline purchased in a flea market in Dallas many moons ago. I also bought the HT-100 case parts at Dallas Hamcom quite some ago. The slim had blown the squelch wide open and would not close. I set it aside about a year ago and didn't get back to it until I needed it. I dropped it into my HT-100 case parts to build up a .7 watt tiny radio.

Now, I know that the Motorola is a rock bound radio, but darn it, the problem was not in the crystal section. We had a radio with intermittent sensitivity or no sensitivity and the squelch blown open. I popped the radio open and decided to start in the squelch circuit since I have had a similiar problem in other HT's and generally found a open squelch switch or some such. I reproduce the Motorola squelch circuit for the HT-220 on the next page.

Now this circuit is not as tough as it looks, honest. Everything below the dotted line is the squelch circuit. Everything above is the audio amplifier. Audio from the discriminator enters from the left and is split off between audio circuit and the squelch. The audio is coupled through the capacitor C55 and the RC network C56 and R31. Q8 is the squelch amplifier. When no signal is present, noise is amplified by Q8, then fed through the squelch control R36. The noise is then limited and clipped by Q9, then detected to produce a DC level by Q10, the Squelch Detector. This DC level which is the rectified and filtered noise from the Squelch Limiter is then used to turn on Q11, the Squelch Switch which then grounds the base of Q12, the 1st Audio Amplifier. When the noise goes away, for example, when a carrier is present, the output from Q10, the Squelch Detector drops off and this turns off Q11, the Squelch Switch which permits the base of Q12 to go high and conduct the audio through.

Now, that wasn't so bad. That is a tour through a noise operated squelch circuit. It is not so complicated when you think about it. The presence of noise causes a DC voltage which is then used to drive a squelch switch and short the audio to ground.

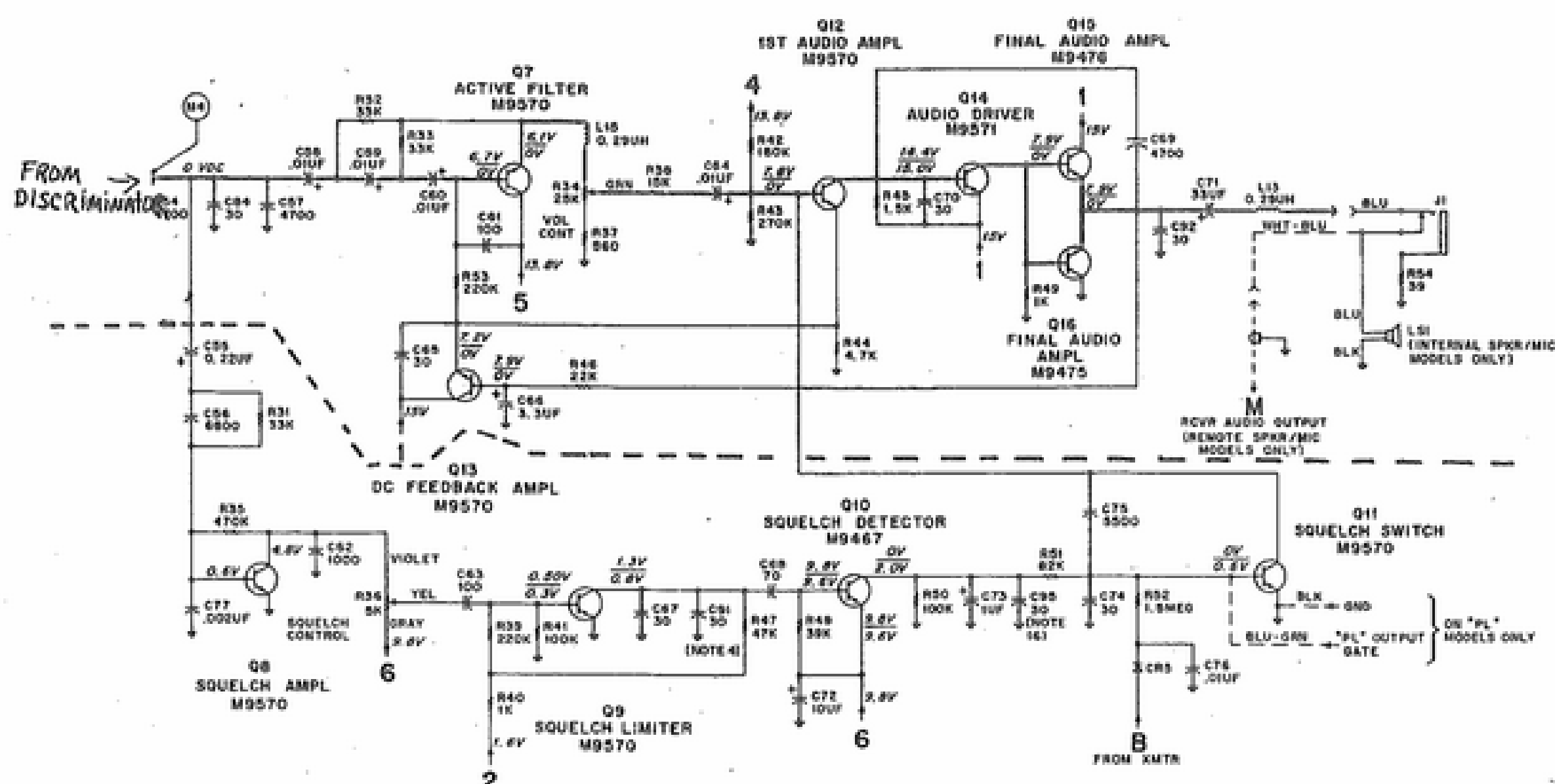


FIGURE 1 - Motorola Audio and Squelch Circuit from HT-220 UHF Radio

When the noise is gone, so is the DC voltage which drives the transistor that shorts the audio, hence the transistor turns off. Logically, there are several things that can happen when the squelch does not close. First, the squelch control might be set too low, thus allowing the noise to be heard. Second, I have had radios that had low IF gain which did not produce enough noise and thus the squelch would not work without getting the IF gain back up. In the instance of my HT-100, I determined that there was plenty of noise to drive the squelch circuit, but it just wasn't doing the job. If the DC voltage is missing from Q11, the squelch will not close. I took a power supply and found a common ground and touch the + lead to the base of Q11, the Squelch Switch. The squelch snapped shut immediately. Well, that much is OK. I next checked the detector by generating a audio signal which I then touched through a 10K resistor to the base of Q10, the Squelch detector. Again, the squelch snapped shut. So far, so good. Checking out the squelch limiter, Q9, was a little more difficult. Putting an AC signal on the base of Q9 didn't do anything. More particularly, the voltage on the collector of Q9 was about .8 volts even though it should have been about 1.3 volts with noise coming through. I did some diddling around and replaced Q9, but this didn't solve the problem. I thought that C67 or C91 might have developed some shorts to ground and was pulling the collector voltage down, but this did no good.

I then followed the voltage at R40 back through Point 2. Hum, this was also low, about .9 volt also. The problem was further upstream. Point 2 comes from the DC distribution of the radio from a point located closed to the front end RF Amplifier. The voltage is generated across a special diode CR1 and current limited through R2, a 100K resistor (See Figure 2 on next page). This voltage is also fed into Q1, the RF Amplifier through R1 as the base current source.

I pulled R1 out of the circuit to see if a current drain in the base circuit was pulling too much current through point 2 (I have circled this area on the schematic). The squelch then operated normally and voltages on the squelch limiter Q9 were all normal. So now it appeared that some partial short or short in the RF Amplifier Q1 was dragging the voltage at Point 2 down to the Point that it would not allow the Squelch to operate normally. I checked for shorts and partial shorts in the front end, but to no avail. I suspected that C3, C7 or similiar capacitor had been nicked and developed a partial

short pulling down the voltage at Point 2. No luck in checking with an Ohmmeter. I next checked the voltages on Q1. The emitter voltage was low (.6 Volts instead of .98 Volts) and the base voltage was also low. There was no voltage on the Collector.

This was the problem. The tap on L5 inside the aperture coupled filter had corroded and was not making good contact, hence there was no collector voltage. This meant that there was no current drop across R55, the base resistor due to the current in the collector circuit. This meant that the voltage at the emitter was low and this threw off all the voltages clear back to Point 2 and the squelch circuit. The solution to a voltage problem in the squelch circuit was traced all the way back to the RF Amplifier base bias circuit!

The fix was quite simple, but became a little elaborate because of the fact that I had epoxied the squelch control to the top of metal can in which L5 was in. I had to break the epoxy off, then pry the can off the top of the filter. I just had to touch a soldering iron to the tap point to fix the problem and everything worked great.

The things that are significant from this little exercise are really kind of important. First, the solution to the problem may not lie in the original area that is the most obvious. Here, the squelch remaining open was not a malfunction of the squelch circuit but was a malfunction in a circuit completely different from the squelch circuit. Also, don't be quick to try to make a quick fix without figuring out what the problem is. This is especially true in small radios where the printed circuit can't take a lot of horsing around. The crowded space is another factor that makes a replacement a real problem.

Finally, adopt a logical method of trouble shooting. Look for voltages that aren't right. In something like a Motorola radio, the voltages shown on the schematic are probably going to be very close to the actual voltages in the radio because they are very intensively engineered with close tolerances. The voltages in your stereo might vary somewhat because they may not be as tightly engineered. Also, use your ohmmeter when the radio is off and trace out bad circuits. I put an ohmmeter lead on the collector of Q1 and the other lead on the bottom of L17, the choke coming out of 3 section front end filter and got no reading. I didn't believe the reading and didn't verify this until I decided to measure the voltage on

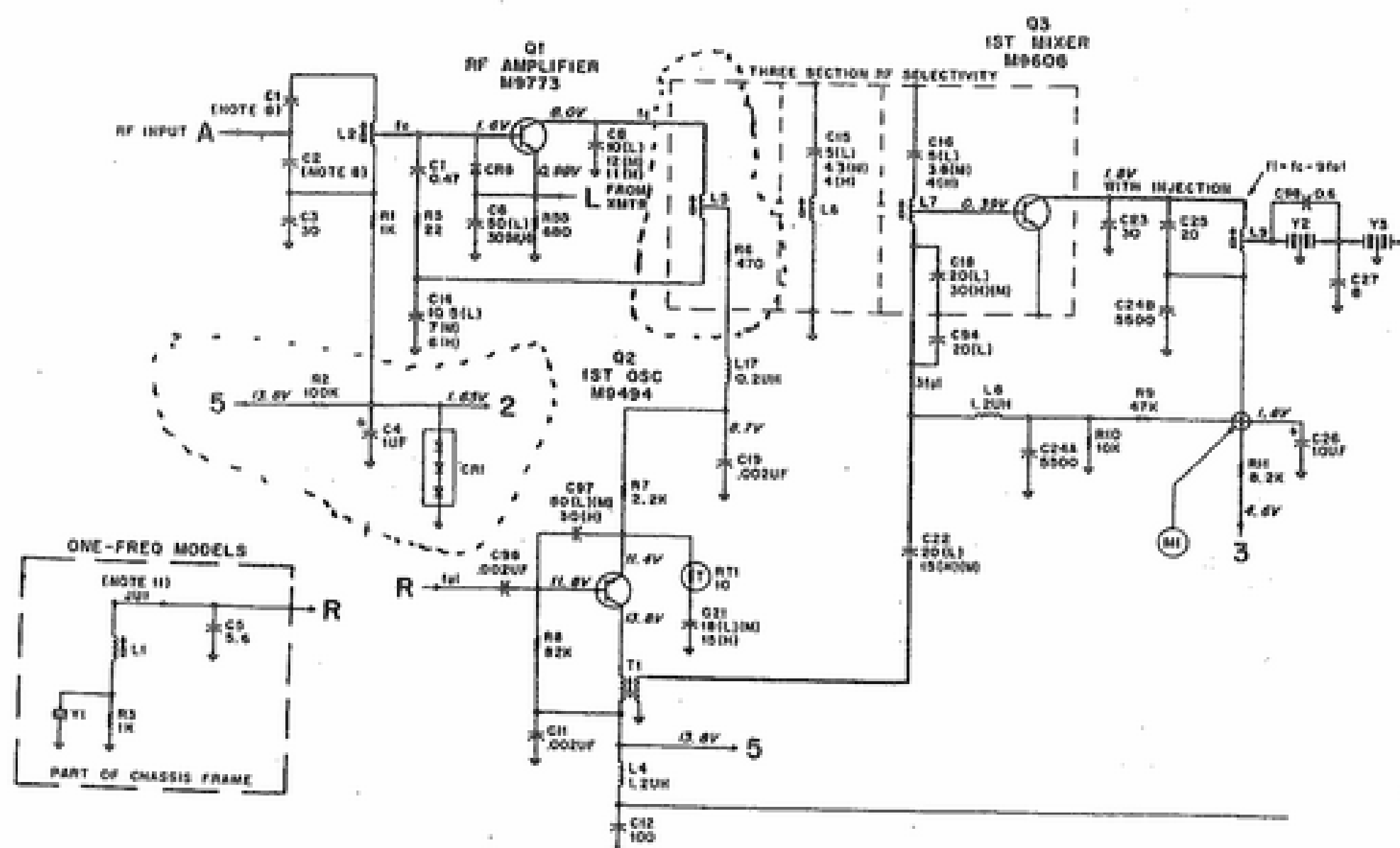


Figure 2. The Front End of a Motorola HT-220. The dotted area in the lower left of the schematic is a little voltage regulator which also feeds the squelch limiter Q9 through Point 2. This voltage also forward biases the base of Q1, the RF Amplifier. The second dotted area in the center of the schematic is within the Aperture Coupled filter and was the source of the problem. Of course, the lid of the filter had been used to epoxy the squelch control for the radio and had to be broken off before repair could be effected inside the filter.

the collector itself. A lot of people like K5JB can trouble shoot using just a VOM. I like to have a scope for a little extra help. It can save a lot of time.

This brings up another problem. When the meter readings say something is wrong, stop and look. About two years ago, I bought a radio that had been waltzing with a lightning bolt during a thunderstorm. I didn't know what was wrong with it, but it was an IC-720 and I had been wanting one of these for a long time, especially when K5JB got one. I decided to get into the radio and pay what I thought would be a bargain price, much less than half of retail. Usually lightning takes out power supplies first. Well, the damage was more extensive than that and I spent about 75 hours resurrecting that radio from the dead. But it worked for quite some time after it was fixed. In fact, I didn't have any trouble with it at all until this past week and it was not the radios fault. A bad cable between the radio and the watt-meter was preventing me from getting full power out. The cable prevented a ground connection and I noticed that I could only get about half the power out that it should have. Nevertheless, after tuning up to half power, I spent about 40 minutes talking to WB5YWO on 75 meters. I should have known something was wrong, but was just not paying attention. I tried to use the radio again and this time I twiddled with the tuner to try to get out full power. It finally tuned up, but something went "belch" inside, the 10 M FM radio started squealing and the keyer started keying by itself. The transmitter then died and would only put out an occasional burst of power, then quickly die off.

I had had a previous warning, but chose to ignore it. Now I had gazorrched my radio. I found the cable problem and fixed it. The lack of a ground had permitted RF to float all around the radio and kill some RF sensitive component. No amount of banging would restore its operation. Well, on to Plan B. I thought that I had zapped the finals and that could be an expensive proposition. Fortunately, a couple of quick checks with the scope revealed that there were problems coming into the final. I finally reluctantly took the cover off the radio and checked the driver. Hum, the problem was even

earlier than that. The next step is the RF module, but it is buried down inside the radio and I skipped it and went to the module closest to the top, the IF module. Well, it looked like the intermittent problem was inside this module.

I had spent a great deal of time previously waltzing around inside this radio, but that was about 18 months ago. I scratched my head and remembered that I had replaced the balanced modulator inside the radio once previously. For some reason, it was susceptible and I couldn't figure out why. The balanced modulator took the carrier signal and the audio signal and produced the double sideband suppressed carrier signal. There was a strong carrier without any flickering going into the modulator and the audio appeared to be OK, but the output was intermittent. Looks like the RF got the balanced modulator. There is a transistor that controls the carrier suppression and I think that one of the leads comes close to the module cover. RF might jump the gap and zap the mixer. I replaced the modulator and the problem seemed to go away, but reoccurred for just a minute. Then I couldn't get it to occur again. I don't know if that was the fix, but it is at least working. There might be a marginal component now inside the radio just looking for a time to fail, but that could have been what caused the failure in the first place. It was quite nice of ICOM to put a SWR protection circuit in the form of a fusible link in the balanced modulator to tell errant operators they had better check their antenna ground leads.

The point to this is that unless you have some other reason not too, believe the meter readings and investigate when they are not right. Don't just bully straight ahead and wait until something really goes bad. I would have found the connection quite early if I had taken the time to investigate the low meter readings. And if Icom had not designed with infinite SWR balanced emitter Final transistors, I would be dashing off an order to Bellevue for a rather large chunk of change for replacements. Something I definitely don't want to do before Dayton. It's bad enough I dropped a contact lense the other day (the first I ever lost) without having a radio expensively pooping out. Fortunately, I had some spare balanced mixers.

Micheal Salem N5MS



Club
NEWS

Vol. 17
The New Radio Amateur

MINUTES OF APRIL MEETING

Meeting was called to order at 10:15 A.M. by President Paul, WA5HTL, with eight members and guests present. Because of the Lawton Hamfest, many of the regulars were absent. Bill, WA5GOF, made a rare appearance, with his brother, Clayton, and presented several of the members with custom-made coffee cups. The meeting was conducted informally and adjourned at 10:45 A.M. Joe, K5JB, Sec'y

STEVE LOOKING FOR TRANSFORMER

Steve, W5VCJ, is looking for an appropriate transformer to restore a battery operated receiver. It needs a single plate-to-grid transformer with one-to-three turns ratio, input impedance of maybe 4000 ohms, and two inch center to center mounting configuration. If you have one, or a lead on one, call Steve at 341-8486.

A.R.T. WORKSHOP

Amateur Radio Technique workshop was not held after the last meeting because of the small number of members present. So, unless someone comes up with a better idea, the subject of May's workshop will be power supplies, the subject that was originally scheduled for April. If someone has experience with switching power supplies, they sure would be welcome. The only exhibit I could get my hands on weighed about 20 pounds (and the advantage of switching power supplies is supposed to be light weight!). With a little luck a better one might pop up but someone with experience in designing or building them would sure be welcome. Bob, W5HXL, expressed interest in high power switching circuits for AC (like in light dimmers, only bigger) so if you have any information, bring it along. Most of my recent experience is with moderate current, low voltage, regulated variety, so other experience is needed to make the workshop less academic and more practical. Joe, K5JB

PACKING FOR DAYTON

It's time to get excited about the annual trek to Dayton for the Hamvention again. This year there are a bunch going by all modes of transportation, except maybe mule and rail. There are six, I think, booked on the Delta Dump truck who will be stifled by the old fogey Federal Aviation Regulations, or somebody's regulations, from jabbering on the radio all the way to Dayton about "Going to Dayton". I think one of my favorite trips was when we had a 2-meter rendezvous, near Terra Haute, with the contingent from Omaha and thence, a 40-M relay into Dayton.

Hoss, WA5ZAI, forwarded our estimated arrival time to Keith, WA8ZWJ, who beat it out to the airport in time to meet us as the prop stopped, and the fun began! This year they will not have the precise arrival time at hand, the closest approximation being plus, or more than likely, minus, one hour of the rough estimate in the airline guide. Never-the-less, plans are made for the clan to meet at about 9 P.M. after coming from Omaha, Washington D.C., and Oklahoma City. Ron, WA5EAI, has his bags packed and his 40 meter mobile antenna tuned. I haven't checked around too well so I have no idea who else is going, but if it is like years past, there should be a bunch from this area. Full report(s) should be available next month. Joe, K5JB

BOOK REVIEW - TV TYPEWRITER COOKBOOK

I have long been a fan of Don Lancaster, the author of TTL Cookbook and CMOS Cookbook.

Each of these works contain more information in one place than a whole bookshelf full of reference works on the subject. I have Don to thank for a large amount of my understanding of TTL devices, and the way they are used. Many of my home-brew projects contain ideas gathered from his works. (I don't know so much about CMOS, but that is because I stocked up on TTL and have to use 'em up!)

When the TV Typewriter Cookbook was spotted on the shelf of one of the Amateur radio stores in Maryland, I had to take a peek at it, even if I wasn't too interested in TV Typewriters and it wasn't hardly hot off the press (first published in 1976). Starting from the back (of course) and flipping quickly through the thing, I scanned a bunch of pictures of video waveforms, character generator circuits, etc., and screeched to a halt when I spotted a circuit of what's in a telephone. Hey! What's that doing there? Well, I read a few sentences and continued flipping. What's this? Selectric typewriter stuff! Hmm, read a few more sentences. (If you paid attention last month, you would know that I got one on line with the computer recently. Only the long suffering home-brewers, like WA5LFN, know that I am still hassling an older machine and trying to get its little head to nodding in the right direction, at the right time.) Well, that reference to the Selectric was all it took. I parted with my \$11.95, plus tax, and put the thing in my goodie bag, happy to know I would enjoy the flight home, reading a good book.

Well, that flight home wasn't long enough to read the book. In fact, I have had the thing for a month and still haven't scratched the surface. In preparation for this article, I got it out and started reading about TV displays (subject of the book, in case you had not noticed). Other information about printers such as Baudot and ASCII Teletype machines, dot matrix (impact and otherwise), various keyboards, and the "standard" wire line communication circuit methods had previously kept me occupied and distracted from the main subject of the book. In one place, I finally found simple explanation of the different circuits commonly found in electronic equipment lash-ups requiring inter-communications. The 20 and 60 mA current loop, RS-232, RS-422, IEEE-488 and TTL circuits were all covered, along with typical device characteristics for each. For the first time, I began to get an understanding of the strengths and weakness of each.

There is a particularly useful section on various code systems, including Baudot, ASCII, DTMF (that's Touch-Tones but I don't have my typeball with the miniature TM in the machine so I can't call it that). I found the Baudot code table pretty useful in unscrambling some code that got hits from noise when I was punching tape 10 years ago. (That should make an article in itself but I hate to write about computers.) Unfortunately, there was nothing on EBCDIC code used by some obscure company called IBM. Don's book includes other Bell (here we go again) signalling standards such as used by the 100 and 200 series modems. Did you know there is a 400 series modem standard which uses DTMF tones? The tone pair must exist for 40 ms, the minimum time between tone pairs is 40 ms, and the maximum character rate turns out to be 12 per second, just barely enough to outrun your ASR-33. Wouldn't that drive the 2-M repeater listeners bonkers to hear something like that?

Unfortunately, Don didn't cover anything on the full duplex 1200 baud stuff (212, I think). As long as I am dreaming of building something, I think that would be interesting because the off-the-shelf stuff is rather expensive.

Meanwhile, since the main topic of the book is TV text displays, I have gotta say that anyone

who wonders how the things work should pretty well understand them if he reads only a little bit of this book. There is enough information to build just about as elaborate a system as one would want.

I found the section on modification of TV sets to get direct video entry interesting, having recently converted a TV to do just that. I found out why my modification is critical on the vertical sync setting. I am lucky it works at all!

There is a thorough explanation of different character generator sets and the trade-off necessary to get a readable display on an ordinary TV set. Modification of commercial equipment to get high quality (he calls it "premium") 80 column upper and lower character displays (direct video only) is not for the faint-hearted. Now that 132 column displays are available, the more ambitious may be incited to make really "premium" modifications to the Color Computers and the Vic-20's.

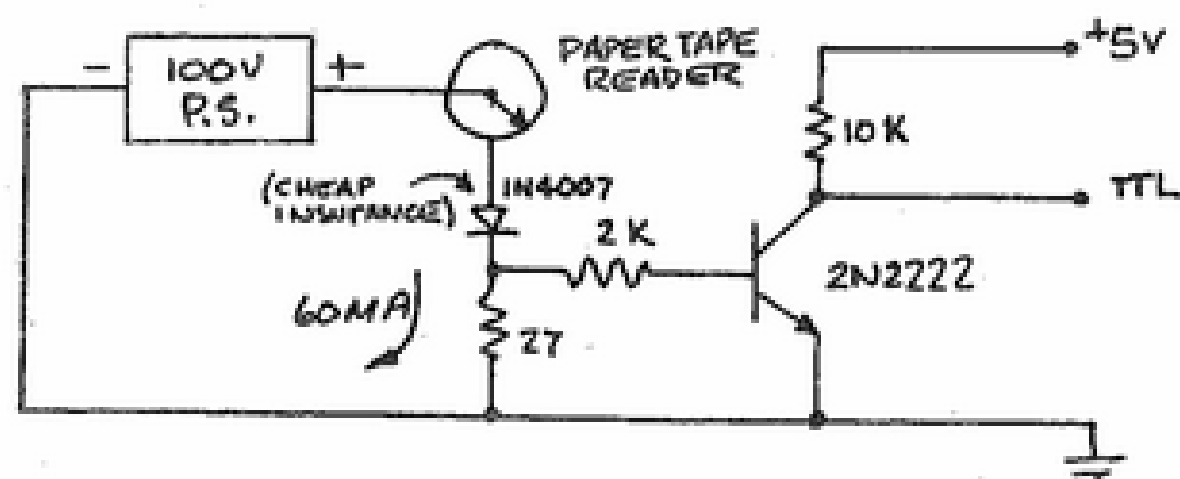
It is getting a little aged but the information contained in the TV Typewriter Cookbook is still very much current if you want a good reference of digital circuits that are closely allied to amateur radio. Joe, K5JB

RTTY RESURRECTION

The last few weeks around the K5JB shack has been rather noisy, and there has been a fairly strong odor of oil in the ham shack, but the sounds coming from the old Model 19 were happy ones as the sacks of punched tapes were dusted off and run through the tape reader to see if they were worth putting back on the air. Boy! Were they! I forgot how good those WA6P1R centerfolds looked! My favorite picture was not one of the centerfolds, but one of a Siamese pussy cat called Fluff. It was overlined and the quality was so good one could see that the poor thing was cross-eyed. (Aren't they all?).

Overlining is a problem with a computer screen but with a little trickery most printers can be made to accept a carriage return for what it is and not add a line feed also. A little work with a word processor program made short work of the ASCII files generated and additional line feeds were added in all the right places. But that is not the reason for bringing the subject up. What I had fun with was mixing and matching the technologies of the 100 Volt, 60 mA current loop of the TTY machine with the teeny weensey 5 Volt TTL signal the converter (computer) needed.

Being a little bit timid about putting the 100 Volts on the computer, I left it off and tried to let the distributor in the TTY switch the TTL level signals. This worked for a while before I had to get into the TD, cleaning and lubricating to reduce the number of "hits". After the first 100k, or so, of converting little Baudot things into ASCII things, I finally realized there had to be a better way.



TTY to TTL Converter

The figure shows the simple way the two systems were wired together. My fear of the 100 volts rearranging the little TTL things was laid to rest by putting a sturdy 27 ohm resistor in the loop and firmly grounding the TTL circuit to one end of it. On mark, about 1.6 V develops across this resistor and that is

sufficient to get the transistor to turn-on. The 2k resistor limits the current to the base-emitter junction and the 10k resistor keeps radio room noise from tripping things when there should be a logic High at the TTL input.

I know that I could have used one of the new fangled opto-isolator gadgets but it seemed just too simple to hook up the circuit shown. The advantage of the 60 mA current loop became obvious as I continued to read tapes hour after hour with very few hits. One of the pictures took four hours to read at 45 baud (60 w.p.m.) and there couldn't have been more than 5 or 6 errors on the whole thing. If you think home movies might be boring, imagine four hours on a teletype printer chunking out a picture of Caernarvon Castle. Why? Cause it was there I guess. Joe, K5JB

OLD RTTY TAPE DEPARTMENT

Here is one straight out of the RTTY files. I didn't have room for a picture, so this will have to do...

ELECTRICAL ENGINEER'S COMMANDMENTS

1. Beware the lightning that lurketh in an undischarged capacitor lest it cause thee to bounce upon thy buttocks in a most ungentlemanly like manner.
2. Cause thou the switch that supplieth large quantities of juice to be opened and thusly tagged that thy days may be long in this earthly vale of tears.
3. Prove to thyself that all circuits that radiateth and upon which thou work are grounded and thusly tagged lest they lift thee to radio frequency potential and cause thee to make like a glow lamp.
4. Tarry thou not amongst those fools whomsoever shall engage in intentional shocks for they are surely non-believers and are not long for this world.
5. Take care thou useth the proper method when thou taketh the measure of a high voltage circuit so that thou dost not incinerate both thee and thy Simpson; for verily, thou hast no plant account number and can easily be replaced. The Simpson doth have one and as a consequence bringth much woe unto thee.
6. Be sure thou tampereth not with interlock safety devices for this incurreth the wrath of thy fellow workers and bringeth forth the mighty fury of thou supervisor upon thy head and shoulders.
7. Work thee not on energized equipment for if thou dost thy fellow workers will surely be buying beers for thy widow and consoling her in certain ways not generally accepted by thee.
8. Verily, verily, I say unto thee never service equipment alone for electrical cooking is often times a slothful process and thou might sizzle in thy own fat upon a hot circuit for hours on end before thy Maker sees fit to end thy misery and take thee into His fold.
9. Trifle not with radioactive tubes and substances lest thou commence to glow in the dark like a lightning bug and thy wife be frustrated and have no further use for thee except for thy wages.
10. Commith thou to memory all the words of the prophets which are here written down on this tablet and which giveth out with the straight dope and consoleth thee when thou has suffered a ream job by thy ever watchful supervisor.

Author unknown. Obtained from W5BLX. Reworked and converted to ASCII by Joe, K5JB.



BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

76ers Minutes

The April Meeting of the 76ers was called to order at 7:15 P.M. by Pres. Jim Hopkins.

Introductions followed. There were 12 members and guests present.

SEC. Report: The Minutes were submitted as printed in the last issue of the C&E. Motion made and seconded to accept as printed.

TREAS. Report: The Secretary was not present so we did not have a treasurer report.

C.O.R.A. Report: None of our official representatives were present but Ted WD5JNT gave a report of the proceedings. The Grand Prize has been selected as a new TS430 From Kenwood.

New Business: George K5GGL purchased a video tape to use for our Field Day film. A motion was made to reimburse him for it. Motion Carried. A hat was passed and more than enough was collected.

Meeting adjourned for a short break.

Meeting resumed and the Program was shown.

The program was the showing of the Field Days films for the 1981 and 1982 outings.

After the meeting Dick Baker the FD83 chairman asked for volunteers for Tent Managers and etc. We had some to volunteer but others are badly needed. If you want to help this year there are several jobs open. See Dick if you can help. Call Him on the 76 repeater in the mornings. or about 5:00 pm each day Dicks call is WB5TMW.

Meeting was adjourned.

Jerry N5AUH Sec

REPEATER CONTROL CIRCUITRY: SHAPING UP

The new repeater control circuitry is taking shape nicely, thank you. In fact, it on display before a select group just last month (the April 76ers meeting). It shouldn't be but a couple more months before it's ready to be installed. By now your'e probably saying "So what? I never controlled the repeater anyway.", but your'e wrong. There's something in the new system for everyone. For example, the new control unit will allow us to reactivate the autopatch. How about that, eh? In addition, the new circuit will facilitate the use of satellite receivers to increase the range of the repeater. Also, there is the possibility of an ASCII 'mailbox' as well. The possibilities are endless.

While the new autopatch is much closer to becoming a reality than the other things mentioned, our technical staff is working hard around the clock to update our present system. It shouldn't be too much longer....

By now, everyone has seen the pre-registration form for Ham Holidays. I know it seems a long way off, but it is easier for C.O.R.A. to make certain decisions if they have an early idea of who's going; so if your'e planning to go, fill out the doggone registration sheet and send it in! He who hesitates is lost in the shuffle. Incidentally, the address on the form (box 14268) is for pre-registration matters only. Please do not send non-Ham Holidays related matters to that address. Other C.O.R.A. type correspondence goes elsewhere.

HAM HORRORSCOPE

Teaser Apr. 29-May 20 You are imaginative and can find DX stations at the bottom of any pile-up. Your talent is particularly adept when following OSCAR stations around as they shift frequency. You do get confused now and then and work your own station.

76ERS FIELD DAY

Field Day is just around the corner, and there is perhaps no better group to have it with than the 76ers. Last year the group finished first in state and call area. In addition, there is always good food and good fun all around. No group in Oklahoma has come close to the 76ers in past years on Field Day. Now is your chance to be associated with the contenders for the national championship (2A Battery). Think about it. After all, if you operate field day at home, your'e missing the whole point of the event. This is your big opportunity to see what you've been missing all this time. Just ask anyone who's been at a 76ers Field Day and he will tell you. Interested persons should attend the 76ers meeting for either May or June for more details. Those wanting to make contributions of time or equipment contact Dick Baker WB5TMW.

We will probably operate at South Oklahoma City Junior College again. There is a barbecue on Saturday night, with drinks and eats available afterward. There's nothing quite like station set-up when the clock strikes twelve (boy, there's nothing like station set-up). Some call Field Day a monument to Murphy's Law, but it wouldn't be any fun if we didn't have a surprise or two anyway. Remember, it's the last weekend in June. Other inquiries should be directed to the 16/76 repeater. Don't miss it!

I kept racking my brains trying to figure out why the Commission is adding to its already heavy (and underbudgeted) burden by adding a new amateur license, which would add to its already strained budget. Then I was informed of the new F.C.C. proposed examination program, which will be an all encompassing volunteer examiner program. The A.R.R.L., in its infinite wisdom, has recommended such a move and seems anxious to run the whole program. Soon, the F.C.C. will cease giving amateur exams altogether and turn this job over to the A.R.R.L.

Sounds nifty, right? Well, think about this. Under the new program, tests will be administered only under the supervision of a three ham 'examination board'. Each examiner must hold a the class of license equal to or greater than that of the class of license for which the test is being given. This means that an applicant for an Extra class license will have to get three Extras together to take the test. Have you ever tried to get three Hams together to do anything? This is sure a new variation on incentive licensing. I won't even mention the tremendous potential for abuse this exam program has.

I can still remember six years ago when federal courts ordered the F.C.C. to justify charging filing fees on its examinations. When the F.C.C. was unable to account for every penny, the federal courts ordered them to suspend all examination fees immediately, and since that time the Commission has made no attempt to charge fees of any kind for such tests. Could they do so if the money were used properly? I don't know.

That court order in 1977 was hailed by many as the greatest government decision handed down since the repeal of prohibition, but who could have predicted that soon the F.C.C. would soon approach bankruptcy, partially because of that event back during the C.B. radio craze.

Is the volunteer an aftershock of that court order? I think it is; at least in part. Apparently, the F.C.C. has decided to start washing its hands of the whole business (starting, of course, with amateur exams). I always thought that the filing fees were fairly reasonable (nine dollars for an examination), and most people would probably not object to fees that were used to keep the program above water. Write the Commission if you agree. Write me if you don't.

Bruce KC5CR

CORA Collector & Emitter May 1983 17



W5PAA

APRIL MINUTES

ACARC

The April meeting of the ACARC was called to order at 8:00 PM on Friday, April 8, 1983 by President Tom Mangham, K5LDI, with 39 members and guests present.

Don Rooker K5SJV gave the CORA report and pointed out that preregistration forms for Ham Holiday were in the April C&E.

After introductions, Larry K5RJR gave the Treasurer's report.

Under the topic of old business, Bob Pace WA5CJG reported that the repeater desense problem had been corrected by using a commercial exciter module to replace the original Hamtronics exciter.

When the floor was opened to new business, Rob AA000 briefed the club on Carl Drumeller's (W5JJ) involvement in founding the ACARC and made a motion to make Carl a lifetime member. Larry K5RJR won a handrace with a host of others to second the motion, and after a brief discussion, the motion carried unanimously.

The site for this year's Christmas dinner was discussed and it was decided to investigate having it at Duff's.

At 8:25 the meeting was turned over to George McFarland and Allen Pease who gave a program on Home and Auto Security Systems. The topic generated a great deal of spirited discussion and proved very stimulating to all. Thanks George and Allen.

The program was completed at 9:30 and the meeting was adjourned for coffee, doughnuts and conversation.

John KA5JCX
Secretary ACARC

February "AMATEUR RADIO"

A hands-on account of the TS-430S highlights this issue. "Antenna Tuners" (really transmission-line matchers) are shown in several forms. There's more on the G5RV antenna, plus a bit on the co-axial dipole for those who believe in such. "POUNDING BRASS", the section for radiotelegraphers, pinpoints commonly-made goofs made by newcomers as well as some who should know better. These, plus a stack of other interesting articles make it well worth your while to read the issue in the ACARC Clubroom library.

W5JJ

FOR SALE: 75-ohm transmitting twin-lead. Will handle a kW with ease. 19-inch relay rack panels. Rack screws. Vacuum tubes of the late 30s through the early 60s. Old RCA aircraft receiver (commercial). Much, much other stuff. All priced low. W5JJ, 729-3788.

FOR SALE-- RADIO SHACK TRS-80C COLOR COMPUTER-64K RAM. Only four months old. I have two of these outstanding computers but only need one...willing to sacrifice in order to get a deserving ham on RTTY-CW-ASCII while you enjoy the benefits of a full 64K computer system. This is NOT a 'toy' like some of the cheapos being sold. I will include the Kantronics 'Hamsoft' software board to go with the Color Computer (a \$60.00 item). All you need to operate CW-RTTY-ASCII is a terminal unit or inexpensive interface. Computer and software--both for only \$400.00! Call George Adkins (AD1S) 722-6195 nites 947-0511 during the days.

For Sale- YAESU FT-208R HANDI-TALKIE...excellent condition. Ten memories, scans, LCD display, TT controls, works good. Nicads and charger included. \$200 Call George Adkins (AD1S) 722-6195 nights, 947-0511 during the day.

FOR SALE: Regency HRT-2 5 channel, 8 crystals, all local + 52. Touch-Tone pad. Spare batteries. \$100.00. Single Motorola HT-200, single channel 28/88. Spare battery. \$50.00. Don Graham, WA5TAW 364-9457.

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NEXT MEETING
(3rd Tuesday)

A U C T I O N A U C T I O N A U C T I O N
17 May 1983

The May OCAPA meeting will be the annual auction. The auction will start at 1930 at our regular meeting place at the Oklahoma City Fire Department Training Center on Portland between N.W. 10th and Reno. Try to be there in time to get your items checked in and tagged, etc. before the auction begins. Maybe 6:30 or 7:00? ?

The rules below are modified from those published in the April C & E, so please read them again:

1. Everyone is invited: members, visitors, families, Come One - Come All!
2. All items to be auctioned must be registered with the auction committee before 1930. Please be early enough to get it done by then.
3. Donations of items for auction will be accepted by OCAPA until the auction begins, and we reserve the right to accept or deny any item offered for donation.
4. Payment for all items sold is to be arranged between seller and buyer.
5. Seller may specify a minimum acceptable bid and/or a starting bid, and must advise the auction committee of the minimum prior to the start of the auction.
6. Seller will pay to OCAPA a 10% commission on the final sale bid. No commission will be charged if minimum bid is not reached.
7. Commission to OCAPA must be paid in cash. (Please try to have change).
8. Some amateurs will not sell transmitting equipment without proof of license, so it might be wise to have yours with you.
9. OCAPA assumes no responsibility for the condition or performance of any item from any source.
10. Everyone WILL have a good time! ! !

The 449.3/444.3 repeater is out of commission due to damaged control cables on the tower. We suspect the damage occurred when the Channel 13 feedline came loose on the tower in early April. Until the Channel 13 feedline is fixed, our own climbers can't get on the tower to correct our problem. Terry Shoemaker (N5AUE) is now the head of the UHF Technical Group.

The patch on 81/21 is still messing up. One pin of an IC in the logic circuitry is "floating" instead of being a HI. The cause of the 22/82 failure was that the driver tube gave up entirely.

Dennis Patterson (WD5CSM) brought the OCAPA Emergency Trailer to the April meeting and set it up for display. It is a really impressive item for disaster or emergency work. Additional items and capabilities are in the works but as of now the trailer boasts a 5KW propane powered generator, a 25 foot fold-out tower, 2 Meter Ringo Ranger, 40 Meter dipole, and a 5 band trap vertical. Also carried is an assortment of lighting equipment, including incandescent, fluorescent, mercury vapor and quartz fixtures. We still need a second propane bottle, a small 2 meter beam, a 75 meter dipole, 50 foot lengths of RG-8 coax with connectors, and heavy duty AC extension cords. If you have any of these items you could donate, it sure would be a big boost to our emergency capabilities.

We are trying to drum up some interest in a Field Day effort this year to exercise the emergency equipment.

Well, that's about it for this time. Remember to come to the auction, bring money, bring gear to sell, come early, and have a whole lot of fun.

Until next month, good QSOs to everyone,

Mac
K2GRK/5

OK DX

De AD1S.

THE NEXT MEETING OF OK-DX will be held on the FIRST MONDAY of May...May 2, 1983 at HENSON'S RESTAURANT, N. Meridian (between Reno and 10th Street). We usually start around 6:00 PM, in time for the free munchies and well-water, and stay as long as you like. Bring all your latest DX stories... we are easily impressed and everybody has a good time.

The following is a reprint of an article from the April 18, 1983 edition on the DX Bulletin... (P.O. Box 873, Vernon, Ct 06066)

"On Sunday, April 10, four German amateurs, four additional boat crew members, and their 51-foot sailboat, vanished without a trace near Amboyna Cay, in the South China Sea. The Expedition, which left Singapore earlier that week, aimed to activate the DXCC "country" known as "Spratly". Several amateurs in the general area monitored and taped the final radio transmission from the boat, which had come within one nautical mile of Amboyna Cay. Their last words before contact was lost were that they had been fired upon and a fire had broken out aboard the catamaran.

The German team consisted of Gero Band, DJ3NG, Baldur Drobnica, DJ6SI, Diethelm Mueller, DJ4EI, and Norbert Willand, DF6FK. Two of the crew members are known to have been owner Peter Marx, and a woman, Jenny Toh.

Amboyna Cay, as well as the main Spratly Island and others in the area, are well known to be occupied by Vietnamese civilians and military personnel. An official in the Maritime Division of the U.S. Department of State was quoted as saying that a "Maritime Warning" has been in effect in the area for years, and he admitted that this incident will probably cause the warning to be strengthened.

Owners of the catamaran, based in Singapore, sent a small aircraft to search for the boat on both April 12 and 13, both times coming up with no sign of it. Their overflights revealed "many people and buildings" on Amboyna Cay, which is about 125 miles ESE of Spratly itself. The owners have requested assistance from the Philippine military to aid the search, possibly using helicopters. Amateurs closest to Amboyna Cay, in Brunei, were at first instructed by their government to say nothing about the incident, and later allowed to transmit, but only official government press releases. The Japanese government and the U.S. Coast Guard contingent on Guam were also notified, but their part in the search remains in doubt.

Some West German newspapers were reporting as early as Wednesday, April 13, that all aboard the boat were presumed dead, but these reports were unsubstantiated."

The above news was spread among the attendees of the April OK-DX meeting, and after the shock was recognized, the general response was, "It's only a hobby..."

Several outstanding German hams and sailors from Singapore MAY have sacrificed their lives for the goal of the "rare one..." We all hope that this story will have a happy ending with survivors turning up in some neutral port near the South China Sea.

HEARD ON THE BANDS--

BY8AA and BY1PK left the air from about March 28, 1983 until April 18, 1983 but were heard once again at the usual times (around 0100 UTC) and the usual frequencies (14.048 and/or 21.048 Mhz) on a nightly basis. Their three-week absence was an apparent reaction to the official ban on "all cultural exchanges" between the United States and the People's Republic of China following the granting of political asylum to a Chinese female tennis star. Hopefully, amateur radio will be considered "Sport" (as it is in the Soviet Union) and there will be a continuing flow of contacts between the U.S. and Chinese hams. Your editor was very fortunate to work BY8AA on March 21, but still no QSL card as of April 20, 1983.

FB8WI- CROZET has been showing up regularly on 20 meter CW, around 14.020 at 1300 UTC. Good signal and the pileups are manageable.

KG4DX- GUANTANAMO has reappeared after an absence of nearly a year. Apparently a couple of licensed sailors are now assigned to GITMO Bay, and they have been very active between 2300 and 0100 UTC on both 15 and 20 meter SSB and CW. Pretty good operators.

VK0- HEARD ISLAND QSL cards have been received from the Jim Smith operation...nothing yet from the VK0CW or VK0HI group.

Still no sign of the CHAD QSLs from TT8AC or TT8BC. Carl Henson will be at the Dallas, TX "HAM-COM" again this year, so perhaps we'll ask him to autograph a QSL for us... Sorry, no lists!

PY0- TRINDADE has been strangely absent during the past few weeks...surely he didn't read my comments in April C & E. We finally worked this one, but no QSL yet. PY1EFM/PY0Twas scheduled to return to Brazil about May 5, 1983, so listen closely if you still need Trindade. No word about PY1RR's announced plans to operate this island.

Good DX'ing and we hope to see you at the May meeting of OK-DX! De AD1S.

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SCR Crowbar Overvoltage Protection

An interesting aspect of circuit protection using the reliable zener diode is the protective circuit known as the crowbar.

In a circuit that is handling large amounts of power, it may become impractical to employ zener shunt protection because of the large current it would carry. the crowbar technique can be effective in these circuits. the zener diode is still the detection component, but it is only required to carry the gate current for SCR turn on, while the SCR will carry the bulk of the shunt current. When the incoming voltage exceeds the zener voltage, the zener avalanches, supplying gate drive to the SCR, when fired, causes a current demand that will trip the circuit breaker. Resistors are required for current limiting so that the SCR and zener ratings are not exceeded, see figure 1 for AC circuit operation.

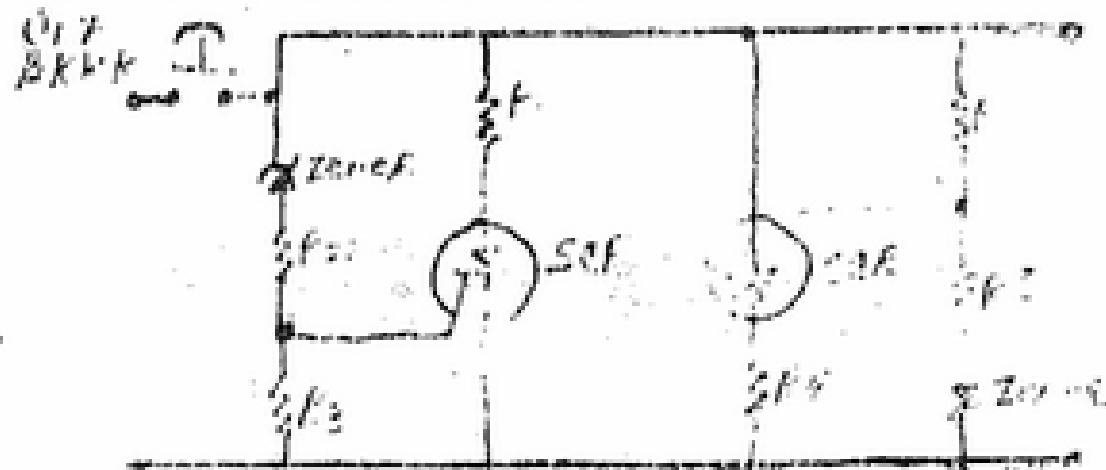


FIG. 1 SCR CROWBAR for AC

The SCR longterm current overload protection, is designed to disconnect the supply in the event a specified load current is exceeded. This is done by means of a series resistor and a compatible zener to turn on the SCR, see fig 2. When the voltage across the series resistor, which is a function of the load current, becomes sufficient to break over the zener, the SCR is fired, causing the circuit breaker to trip.

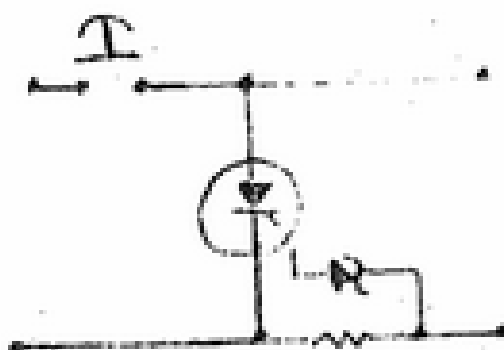


FIG 2 SCR LONGTERM CURRENT PROTECTION

THE MOST COMPLETE MEMORY MAP YOU'VE SEEN!

HEX	DEC	DESCRIPTION
0000	0	
0001	1	Allowed delimiter integer from INT(FPAC1)
0002	2	Allowed delimiter.
0003	3	Basic buffer length
0004	4	
0005	5	dim flag
0006	6	Variable type: \$00=number, \$FF=string.
0007	7	\$00 if string garbage not tidied
0008	8	Mask= \$80 to prevent array assignment.
0009	9	\$00 = INPUT, non-zero read.
000A	10	
000B	11	MSB next string-stack pointer
000C	12	LSB (reset at \$AD33)
000D	13	MSB current string VARPTR.
000E	14	LSB " " " "
000F	15	Scratch (used in print using)
0010	16	MSB Popped "FOR" Varptr
0011	17	LSB " " " "
0012	18	FPAC3 exponent.
0013	19	Msb FPAC3
0014	20	NSB FPAC3

20 CORA Collector & Emitter May 1983

0015	21	NSB FPAC3
0016	22	LSB FPAC3
0017	23	MSB Number of elements in
0018	24	LSB current DIMension.
0019	25	MSB BASIC start pointer.
001A	26	LSB " " " "
001B	27	MSB next BASIC pointer
001C	28	LSB " " " "
001D	29	MSB next variable pointer
001E	30	LSB " " " "
001F	31	MSB Next array pointer
0020	32	LSB " " " "
0021	33	MSB stack top pointer
0022	34	LSB " " " "
0023	35	MSB Next string-space pointer
0024	36	LSB " " " "
0025	37	MSB Start of last string
0026	38	LSB in string space
0027	39	MSB HIGH\$
0028	40	LSB (protected memory pointer)
0029	41	MSB CONTINUE line pointer
002A	42	LSB " " " "
002B	43	MSB Scratch usage
002C	44	LSB " " " "
002D	45	MSB CONTINUE statement pointer
002E	46	LSB " " " "
002F	47	MSB Pointer to start of
0030	48	LSB current statement
0031	49	MSB Current DATA line number
0032	50	LSB " " " "
0033	51	MSB Current DATA item pointer
0034	52	LSB Current Data item pointer
0035	53	MSB pointer to buffer for INPUT
0036	54	LSB or data for READ
0037	55	MSB Variable name
0038	56	LSB Variable name
0039	57	MSB Variable pointer
003A	58	LSB Variable pointer
003B	59	MSB Scratch Variable pointer
003C	60	LSB Scratch Variable pointer
003D	61	MSB Pointer to BASIC operator
003E	62	LSB algorithm
003F	63	BASIC operator.
0040	64	Scratch FPAC exponent
0041	65	MSB Scratch FPAC
		-1 for encode 2nd vocabulary table
0042	66	NSB Scratch FPAC
		Token build byte
0043	67	NSB Scratch FPAC
		"Variable encode" Flag.
0044	68	LSB Scratch FPAC
		"DATA encode" Flag
0045	69	# of digits after decimal point
0046	70	-1 if decimal point in ascii

I'll continue this next month, untile its complete. MSB= most significant byte, NSB= Next significant byte, LSB= less significant byte.

Oh, I received a phone call last night from a club member that has just received "ZAKZUND" and between all the ranting and raving I got the impression that its as good as DATA SOFT said it was!

Last meeting was sure enjoyable. From the questions I was asked in the "beginning" class, it is obvious that many members are advancing beyond me, and thats good. Shows the club as a whole is improving. See ya' next month!

Holly

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The South Canadian Amateur Radio Society

SCARS MEETS IN APRIL.....

Just when you think that nothing is happening, everything happens at once. The South Canadian Amateur Radio Society held its April meeting on the 8th of the month, and a very good number of members attended.

Jack, KU5B, talked concerning his new role as Cleveland County Civil Defense Director. Then AF5X, Jess, gave a talk on his plans to re-activate the Cleveland County Emergency Service. See the roster elsewhere in this issue.

The club gained 3 new members at the meeting. They are: Mike Bradshaw---WA5YQM
Warren Cotts---KA5NOD
Jay Kelso-----W5QC

Also, in the area of membership, W5AVK was awarded a lifetime, paid-up membership in SCARS in recognition of his welcome donation to the new repeater. John has been very interested in SCARS obtaining a good machine, and when the repeater fund faced a deficit, he stepped forward with a very generous donation. Thank you, John.

REPEATER-REPEATER-REPEATER.....

Once again this month, the report is that the new repeater is not yet in use. However, this

CLEVELAND COUNTY EMERGENCY COORDINATOR DISCOVERS ALPHABETICAL ORDER PUBLISHES NEW ROSTER

Festung Norman: April 6, 1983

CALL #NAME	REG	HOME	ALTERNATE
W5ABC *John Stehr	H	308-8761	xxx-xxxx
W5AIP *Ford Michael	H	321-4301	xxx-xxxx
W5ALG *Bob Fields	H	329-7391	xxx-xxxx
W5AVK *John Nelson	H	321-8566	xxx-xxxx
W5BEN *Ken Esadoosh	H	329-4667	xxx-xxxx
W5SCH *Chuck Warner	H	364-9561	321-4219
W5EMH *Linda Brandt	H	321-5081	xxx-xxxx
KA5EPJ *Ken Neptune	H	321-7789	325-6511
KB5EK *Vade Anderson	H	794-5144	236-6495
KA5LEN *Greg Smith	H	325-3218	325-2864
KA5NOD *Warren Cotts	HB	822-8098	329-0400
W5BOD *Hugh Reynolds	H	329-3861	xxx-xxxx
WD5HAM *Bonnie Speer	F	321-7302	xxx-xxxx
WD5HPU *J. Greenshields	H	321-9481	321-8319
KA5J *David Gibson	?	329-8863	xxx-xxxx
K5KDR *Bill Oliver	H	329-6333	686-2196
K5LDE *Fred Chapmen	H	364-5595	321-6858
W5HCS *Jerry Broody	H	329-0262	xxx-xxxx
W5UCH *Leland Black	H	329-0262	xxx-xxxx
KA5NIZ *Bob Rabin	H	360-6996	360-3620
W5NLT *H.O. Townsend	H	329-4426	xxx-xxxx
W5NE *Mike Salem	H	321-5453	360-1302
W5OU *Gordon Jones	EH	329-6075	xxx-xxxx
W5PPA *Lloyd Williams	W	288-6641	xxx-xxxx
KB5QU *Chris Royce	H	364-3848	xxx-xxxx
WD5RAP *Fred Beck	P	527-3032	527-3100
W5RPP *Sam Barrett	EH	321-2601	xxx-xxxx
W5UAX *Glenn Basinger	H	364-0330	xxx-xxxx
W5UCH *Willy Kennedy	EH	xxx-xxxx	xxx-xxxx
WD5UNX *Charles McCown	H	321-1061	xxx-xxxx
W5UZD *L. deStwolinski	H	321-3344	xxx-xxxx
WB5WJW *Bob Elb	H	364-5523	329-8025
AF5X *Jess McKenzie	H	329-1543	686-4861

[LEGEND:EH=EAST OF NORMAN, H=HOORE, HB=HOBLE
H=HORNAN, P=PURCELL, W=WASHINGTON]

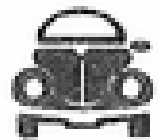
INSTRUCTIONS: This is a temporary listing, based on some knowledge of your current status, and a lot of guesswork. Please note:
(a). If two or more amateurs reside in one household only one of them is listed....
(b). Some people have been left off this list for a variety of reasons, including my ignorance. (c). Lots of typos may be present.

time some tangible progress has been made and as of this date (this is written Apr. 18), the new machine is being peaked up in preparation to its move to Norman. The new crystals have been obtained thanks to the efforts of Bill Oliver, K5KDR, and the repeater is at the home of one of the hams of the Aeronautical Center club for re-tuning. Hopefully, it will be on the air by the time that this is read.

APRIL BUSINESS CONTINUED.....

In a piece of news that was omitted from the above meeting report, the club voted to award an Honorary Membership to W7UGA, Barry Goldwater. At the time of this writing it is not known if the honoree will travel to Norman to receive the award.

-wa5rpp-



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1-2

THEREFORE: 1. Please check for your entry. 2. If it is there is it correct??? 3. If it isn't there do you want to join up? 4. Call AF5X or one of the AECs to add your name to the roster or to make corrections. The amended roster, and a telephone tree will appear in the next C&E, so let us know of changes/additions IMMEDIATELY. There will not be time this season to make a third roster and a new tree. Assistant Emergency Coordinators are: KC5CU, K5KDR, and WA5RAP.
NOTE: Jack Dickham, KU5B, is not on this roster for a very good reason: he is Cleveland County's new Civil Defense Director and thus will be wearing a non-ham hat most of the time. The good news is that we will be working more for him than for the City of Norman; that is, most of our activities will be full-bore county operations. Jack wishes all of the county's hams to know that he will be calling on them. These calls will be made through ARES. Therefore, if you wish to participate in ham operations, get in touch with me or one of the AECs; DO NOT CONTACT JACK DIRECTLY, as he will only refer you to ARES.

NOTE TO HAMS OUTSIDE THE COUNTY: In the past we have always kept our emergency weather nets open until all areas represented on the net were clear of bad weather. This practice will continue.

73,

Jess, AF5X

PS: Caught in proof, WD5GTC. Thanks, Gene.

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CORA Collector & Emitter May 1983 21



I think I have been volunteered, K5GGL called and reported his computer room was under modification and since I had his extra typewriter maybe I could get an article together for the C&E. Seems like Leo KA5DUO and myself have the darndest friends.

A very warm and sunny Sunday afternoon found a large group of "Hams" at Calumet for the monthly meeting of the Wheatstraw Amateur Radio Club. We certainly thank the Calumet group for ordering such a fine day to have us out to the meeting.

It was such a pretty day Tom KA5FUU had a hard time getting us all inside for the meeting at hand. After introductions we had a short business meeting. It was decided to change our procedure of electing net controls for each month. Instead of one person (notice I didn't say "man") being the net for the whole month the net control will now come from the area that will host the next meeting. It is hoped this will allow some of us that can not be sure they will be available for the whole month to at least control the net for one Wednesday evening.. Maybe we will be hearing a new voicerecording the nets.

We had 3 very good programs. Most clubs have trouble coming up with one and here we get three of the rascals.

Joe WA5FLT gave a short demonstration of a new board he has been working on. It is just one of a series of boards to make a digital control system for Repeater operations.. The board he had was the touch tone decoder board. It takes the tones from "Ma Bell's" touch tone identifies the number and outputs it in two forms. One being binary number so the computer will know what it is and the other a decimal number so we will know whether it is the right one or not. If I had one of these I could find out what the number Joe WA5FLT dials then I could call her back later. hi! hi!

I don't know whose closet or maybe someone's dusty attic Johnny K5GBN might have cleaned out but he sure came up with some "good ole stuff". He had a carpet stretcher that was used back before carpets were invented. It had a magazine to load with tacks for rapid fire tacking. He also had a real early vacuum cleaner. This thing was before they even invented the vacuum cleaner salesman, it's hard to describe but if you came home after work and the rug had been vacuumed you had better notice.

Frank Beneda, the other half of Verginia N5EMD showed off some of his rock collection. He had pieces of early articles made of rock that we now use made of steel. Things like rock spoons and rock knives to spread your butter. He also had several arrow heads and even a pipe made from rock. Most of these items he had found in the Northwest part of Oklahoma. He said you look along the side of steep hills where the wagon would have to go real slow and lean over then these small articles would fall out and not be noticed. I wonder how many hours he spent wondering around those hills, just looking for rocks. You have our sympathy Verginia. He also cuts and polishes rocks to be worn for jewelry. Frank brought a belt buckle OR a lovely brough for a door prize. We will expect to see Rosalie WA5LZD to wear her brough at our next meeting. He is saving the belt buckle for a better looking bunch of guys.

We do want to thank Leo KA5DUO for volunteering for net control this month. Our summer Net time is 9:00 each Wednesday night. The net is open to all amateurs on the 146.61 repeater. Will see you there.

Ted WD5JNT

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MORI SECRETARY'S NOTES

MEETING OF 5 APRIL 1983

President Bob Allen N5EPV opened the meeting promptly at 8 PM to greet a full house. We met in the alternate room with many familiar faces on hand. WA5JGU brought his rocker as usual, with the usual wry grin of the accompanying W5HXL making room.

After a brief secretary report we heard, with pleasure of the good work of K5VVZ, KB5KT (many hours of work), KD5DL, WA5GAM, K5VRL and yours truly in modernizing the repeater and putting it back on the air and the revised receiver back up the KTVY tower. Many noted the loss of Ken's winter pallor, replaced by a rosy glow on the top of his head. He admitted a trip to Hawaii with XYL Rosemary caused the aberration. HI

K5SJV earnestly appealed for continued vigilance on the 34/94 Siren Test he assists. OKLA CITY C.D. to monitor. Many of us make it a regular public service event by stationing ourselves nearby a siren so that we make report its operation..

KD5DL Stu, provided a discussion of the FCC Proposed Rulemaking Docket 83-28 which will allow some kind of codeless license if passed. He advocated retention of the present system which the membership concurred. Carl, W5JJ suggested that we write (original and 5 copies) in a businesslike, unemotional manner quickly to: William J. Tricarico Secretary

FCC
Washington DC 20554

Ref: Proposed Rulemaking Docket 83-28

We enjoyed the fellowship, the good coffee and donuts...and the drawing for door prizes. N5ARV brought 'em all this time. Thx June...

May 3 program will be an interesting visit from Tinker AFB Disaster Control expert Cliff Howell, so don't miss the next MORI meeting.

Fred KA5CXW

TELECONFERENCE NET JUNE 2 7:30 p.m.

"Antennas and Antenna Systems, Where Is The State-of-the-Art Going" will be the subject of the Teleconference Radio Net (TRN) to be aired on 2 June, 7:30 p.m. CDT, on nearly 100 Amateur Radio repeaters and HF stations across North America. More than 75,000 amateurs are expected to be tuned into the net, and many of them will have the opportunity to talk directly to the speaker.

The speaker will be Joe Reisert, W1JR, a principal engineer at Wang Laboratories and author of many articles on EMF, UHF, antenna design and TVI.

An added feature of the 2 June net will be a bulletin direct from AMSAT officials on the status of the Phase IIIB launch scheduled for the following day.

Net control station for the June net will be Dave Meldrum, KA1MI. Lou Appel, KO1UQ, will be the teleconference bridge engineer.

The teleconference Radio Net is a service of the Honeywell Amateur Radio Clubs of Minneapolis, Blåerica and Phoenix. Further information and requests to link into the net should be sent to Rick Whiting, W0TN, Net Manager at 4749 Diane Dr. Minnetonka, MN 55343(SASA please).

We do hope that the Edmond Amateur Radio club will be able to get a link into this teleconference as they did on the first one. If they are it will be on the 147.03 repeater. We hope to see you there.

Ted WD5JNT



UNIVERSITY OF OKLAHOMA

Amateur Radio Club 146.28/.88

NEXT MEETING - TUES. MAY 3,
7pm

Our next meeting will be a week earlier than usual due to final exams which are slated for the week of May 9th thru the 13th. I hope our student members will be able to attend instead of having to miss the meeting due to finals. This is our last regularly scheduled meeting of the semester. The OU Club traditionally meets from September to May to coincide with the normal academic year. The first meeting of the fall semester will be September 13th.

The Campus Corner Street Festival was held Sunday, April 10th and we tried to help with the bicycle races. But we weren't called until the day before. Our turnout was light but we had fun anyway. KD5WA was there for a while and I talked to WD5HPU a couple of times. KA5BAY got in a lot of exercise walking around the race track and we both saw a few spills. There were lots of scrapes but only one or two more serious injuries. These riders were treated by members of the Norman Police Department's Emergency Medical Service who

were on hand. We are also planning to join with OU REACT for the 89er Day Parade in downtown Norman, April 23rd.

This has been an active year for the club. The rainy bike races and new antenna kept us busy last semester. Let's think of some new activities for fall semester 1983. Also mark your calendars for May 10th; The FCC will be in OKC unless budget restrictions have done away with tests outside of Dallas. To be honest I haven't heard for sure if they will be here.

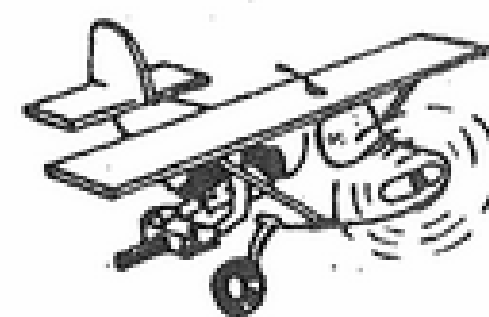
I hope everyone has a great SUMMER and will be back in September; (or August if you plan to take classes).

'73
KA5LZN

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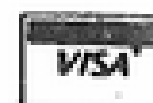
DR. DON BOWERS, M.P.H., D.C.

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HAM HAPPENINGS

REFER TO CLUB SECTION FOR SPECIFICS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	OK-DX	M O R I Great Plains	ARDMORE	EDMOND Club	Aeronautical Center ARC	C O C O
1	2	3 Okla Univ	4	5	6	7
Wheatstraw	SEOARC CIMARRON	SHAWNEE 76'ers		ALTUS AREA		SCARS Green Country Hamfest
8 Mother's Day	9	10	11	12	13	14
		AUTOPATCH AUCTION		KAY County		VHF Club
15	16	17	18	19	20	21
	CIMARRON EDIT CENTRAL OKLAHOMA RADIO AMATEUR COLLECTOR - EMITTER	CORA				
22	23	24	25	26	27	28
29	30	31 SHAWNEE				MAY



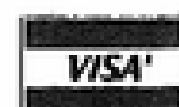
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