CENTRAL OKLAH
COLLECTOR
50¢
Vol. 11 July 1985 No. 126

HOPPING AT HAMCOM

Just as sure as April Showers are followed by May flowers, so does the annual and benevolent hamfest season continue from Dayton to HamCom in "Big D." Dayton is quite contagious and there is really nothing to do except feed the habit. Much like heroin or some other addictive type drug, a brisk early morning walk through a flea market doesn't satiate an appetite, but merely wets it and the habit continued unabated. There have been times when I returned from the flea market at Dayton having spent more than I could easily afford and immediately begin making plans to attend the Dallas sidewalk sale the next week. This usually is the schedule since Dayton is held the last weekend of April (encompassing the last Saturday of April, that is. The Sunday of Dayton can, and has before, be May 1.)

This is not a habit to be litely treated. Failure to to properly "decompress" can lead to "bends" like symptoms associated with missed Fleamarkets. I generally try to come up slowly. K5JB makes a rapid ascent. I can start with Dayton, take in the sidewalk sale in Dallas the next week. Then plan on getting down to Hamcom the first weekend in Dallas. Usually the HamCom fleamarket is just a little bigger than the usual sidewalk sale and the cuttings are a little finer. I don't usually buy much because, after all, I have just been to Dayton. But this year the fleamarket at Hamcom yielded quite a few surprises. I think that I set a record for dollars expended, but it was all for a good cause. A recent acquisition of a computer had put me on the prowl for some dynamic memory and a hard disk. I also needed an extra floppy and a serial card. Surprisingly, I found all of these items at Dallas.

Half the fun of going to Dallas is to fly the airplane. Although this year, the flight was scrubbed by flakey weather (really wasn't, that is just what flight service kept hinting at broadly), we decided to drive and go anyway. WA5JXX, Roger, WA5LTM, Tim and KA5UPM, Chas were on the manifest. I had gone out the day before and checked over the airplane to make sure that the problem I had had with a battery a couple of weeks earlier did not occur again (I let it run down). Everything looked go, and we planned to leave about 7:00 a. m. the next morning after picking up a short bracer at the Doughnut Stop. After the flight was scrubbed, we strapped ourselves in the car for the drive down. It really didn't seem that long and I had a Ray Charles tape of greatest hits which kept WA5LTM tapping his toe and slapping the seat in time to the magical rhythm of "Hit the Road, Jack." This isn't really understandable when you consider that we were going to Dallas, the place where Ray sang for the Republican National Convention and here Tim was in San Franscisco for the Democratic Convention. Well, I guess music really knows no politics. Strange thing, Tim wasn't tapping his toe and slapping his thigh to Beethoven and in fact, kept complaining about the music being too loud. I am sure that Beethoven was a republican (small r), why didn't Tim like him? Guess Ludwig might have made Tim's hit parade if he had sung at the Republican National Convention.

Driving instead of flying slipped the timetable by about an hour and a half. However, there was still plenty of flea market to peruse once we got there. I started culling the inside flea area and WA5JXX and KA5OHU (we talked him into flying up for the occasion from a little vacation in Houston) started on the outside. They had not been there very long when Roger started calling me about one of the outside vendors have 128K dynamic RAMS suitable for the computer. And they were cheap. They also had a 40 Meg hardisk that would fit the IBM computer and the price was down somewhat from the new price that I had been quoted. Taking a deep breath and jumping in, I bought the Hard Disk to install when we returned to Norman. These guys were regular IBM encyclopedia. They had a ton of facts and figures under their belts. These items paid for the trip many times over.

Lunch at a Greek restaurant (it had a greek name although the people who waited on us looked more like they spoke Farsi than they looked like Zorba) was very good. By this time we had located WB5YWO, K5FVL, WB5DUC, WA5BQX and some others. Howard N4IDG (formerly W5UVI) had made a special trip down from Kentucky to hit Dallas and WB5YWO had his annual automobile breakdown in Dallas. This time it was the airconditioner and he, KA5OHU and a local friendly auto part salesman worked for several hours. This follows by two years Jim having radiator problems. He needs to quit going to Dallas to get his car serviced.

The Flea Market kind of tapered off after that for me. Buying a hard disk, a serial card, 256K RAM and a floppy took the edge off of any leftover Dayton decompression. I went into a lower energy mode for most of the afternoon. Oh, I found some things here and there to look at. BCD Electronics was selling some Plantronics headsets for dirt cheap prices and I bought one just to see what it was like and whether it would work or not in the airplane. I think that it will, but it will take a little surgery. Doesn't look to complicated though, I have modified a couple of fleamarket starsets made by Plantronics for aircraft service. I wrote Plantronics several years ago and asked them to send service data on the Starset. They did, including the aircraft model.

I found some other small parts and contemplated getting a briefcase, but backed away. Plans at this point centered on Dinner and at WA5JXX's suggestion, we went to TrailDust just a couple of stones throws from the convention site. Before it got too late, we headed back in the car after stopping by to say goodbye to WB5YWO and KA5OHU tackling the air conditioner problem. HamCom? Not bad this year and I am loooking forward to Ham Holiday before I have to go cold turkey until Dayton next year.

Micheal Salem N5MS

EDMOND AMATEUR RADIO SOCIETY

Not a whole lot new with the repeater as of the time of this writing. The repeater is working well although not quite perfect. Clarence, KB5RR, has built a wood base for the duplexer. The base also has room to hold a battery case. I haven't yet "hooked up" with Clarence to get the base to the repeater site but probably will have done so by the time you read this. Thanks alot Clarence for taking the time to take the measurements and build this much needed device.

Recently helped Ron, D5DEW, repair a Kenwood TS-430 that he had acquired at a super price. The rig worked fine except that it wouldn't transmit. A device called an "earth spring" between the shield of the PA section and the frame of the radio had found its way to the filter board and caused a short between the choke and coil of the xmit relay. The transistor driving the relay bit the dust. The short was removed and the tip of a screwdriver used to short the proper leads of the transistor in order to operate the xmit relay. Bingo! the xmit LED worked; then that sudden sinking feeling as the nose and eyes detect smoke! The drive was all the way down and a dummy load attached. The smoke was coming from the PA section, after five more smoke sessions and a little debate we finally figured which resistor was smoking. Further checking revealed that one of the PA final transistors was open from base to emitter. Ron managed to get a couple of new PA transistors and an ECG replacement for the relay driver, these parts were installed and our second smoke test was smokeless. Ron, or rather Kay (Ron's better half, KA5WFZ) now has a loaded Kenwood TS-430 with all of the options including FM.

The rig is really a nice unit with the continous receiver coverage. At one point we picked up a signal at 1.69340 mHz. Changed to AM and we were listening to someone's telephone conversation on one of the old style cordless telephones. For those of you who like to eavesdrop on you neighbors here are the frequencies per my cordless telephone manual: 1.690, 1.710, 1.730, 1.750, 1.770 all in mHz. Remember that you should not record or repeat what you hear! Might beat some of the re-runs on TV.

Although Bill, our club editor, has been covering this I would like to say that I and everyone that I have talked to are all impressed with the Amateur Radio classes that Bob Thomason, KA0CVK, has been giving. Actually part of Bob's success is that he has lots of good help such as: Amber Thomason, KA5VEK - Bob's wife; Ron Thomason, KA0CVJ - Bob's son; John Thomason, WB5SYT - Bob's brother. Bob has also had help from other club members and even the students. No one has dropped from their classes; in fact the classes have grown. They have been taking people from the ground up working towards General. I don't know the secret but I think that they will probably write an article for the C&E in the future.

Another item of merit is the slow net that Jerry, N5GVP, has been controlling in the novice portion of the 10 meter band a couple of nights a week. I even transmitted a little CW (with the help of a computer); even though N5DBM is over the hill his heart held out and the shock didn't cause any permanent damage. He thought that all I used my rig for was to set my watch with WWV. I even found that I could copy some of the code without the aid of the computer. The computer doesn't copy a poor fist very well so the ears do help! I might add that the computer had no problem coping Jerry's fist. Thanks Jerry for taking the time to help some of us learn and improve.

Any club members with articles they would like to be printed in the C&E can give same to me or Bill, K5SKA. I will type them if I can read or if your computer can send ASCII files 1200 or 300 baud, that will work also. The new format is 32 characters wide by 70 lines per page I believe. 73 BOB

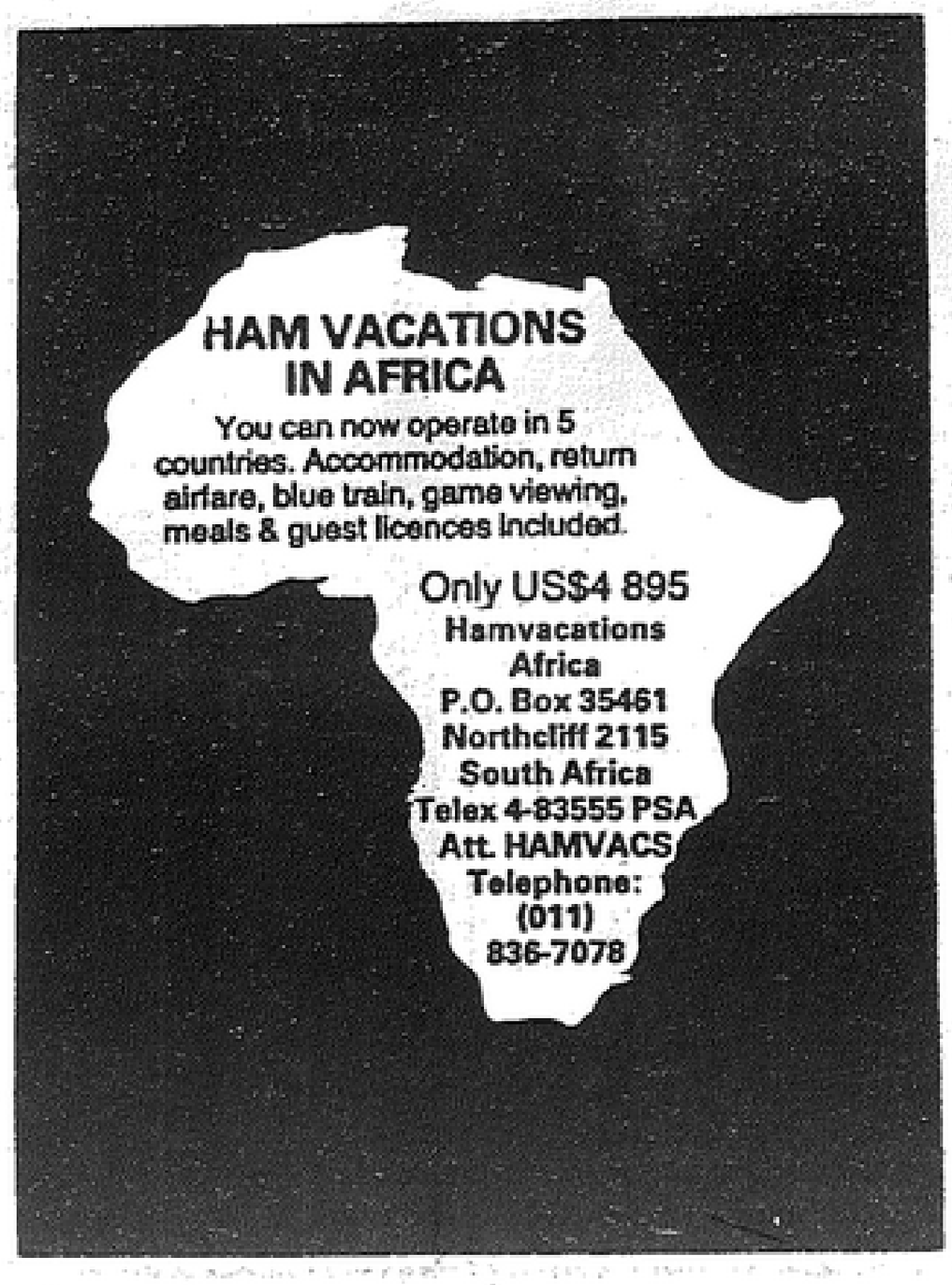
HAM HOLIDAY LADIES PROGRAM

9:30 am to 11:30 am
CAKE DECORATING DEMONSTRATION

11:30 am to 1:00 pm
LUNCH BREAK

1:00 pm to 3:00 pm
SILK FLOWER ARRANGEMENT

3:00 pm to 5:00 pm
BINGO - Lots of lovely awards



THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

1 AERONAUTICAL CENTER ARC

MEETS: FIRST THURSDAY, FLIGHT STANDARDS BUILDING, FAA, S. MACARTHUR

PR	JACK IMAN, WB5SVN	677-8537
VP	TOM MANGHAM,K5LDI	677-5291
SE	GLORIA SEIGNIOUS, WD5JPW	722-1740
TR	BOB PACE, WA5CJG	376-3569
EDITOR:	GLORIA SEIGNIOUS, WD5JPW	722-1740

2 CENTRAL OKLAHOMA VHF CLUB

MEETS: 10:00AM THIRD SATURDAY, RED CROSS. 10TH & HUDSON (BACK DOOR) OKLA CITY

PR	JERRY WETMORE, KD5IS	524-5080
VP	PAT SHERRILL, N5PS	943-3219
SE	JOE BUSWELL, K5JB	732-0676
TR	ELLARD FOSTER, W5KE	789-6702
EDITOR:	JOE BUSWELL, K5JB	737-0676

3 MID-OKLAHOMA REPEATOR, INC

MEETS: 8:00PM FIRST TUESDAY, OKLA CITY STATE CIVIL DEFENSE, WILL ROGERS BLDG., STATE CAPITOL

PR	BOB ALLEN, N5EPV	UNLISTED
VP	BOB GAMBEL, N5GRA	672-9294
SE	ELISE NORTHERN, N5HII	376-4287
TR	SID GERBER, W5KOI	737-1050
EDITOR:	ELISE NORTHERN, N5HII	376-4287

4 OK CITY AUTOPATCH ASSN.

MEETS: 7:30PM THIRD TUESDAY. OKLA CITY FIRE TRAINING CENTER. 800 N PORTLAND

PR	KATHY WHITED, WB5NDO	799-1457
VP	BOB NORTHERN, N5GWI	376-4287
SE	JOE HUSTAK, WA5INQ	789-8587
TR	RON RECER, KE5M	341-7030
EDITOR:	BOB NORTHERN, N5GWI	376-4287

5 OKLAHOMA UNIVERSITY ARC

MEETS: 7:30PM SECOND TUESDAY (SEP-MAY) 119 WILSON CENTER. 1334 S JENKINS

PR	LUKE NOAH, KA5BAY	325-1775
VP	JOHN MUSTENBERG, KE5N	325-2382
SE	PETER RICHESON, KA5COI	329-3217
TR	GREG SMITH, KA5LZN	366-1641
EDITOR:	GREG SMITH, KA5LZN	366-1641

6 ALTUS ASSOCIATION

MEETS: 7:30PM SECOND THURSDAY NORTH MAIN FIRE STATION (CD) ALTUS

PR	DWIGHT DENNIS, WB5KRH	482-2498
VP		
S/T	MIKE SCHENKLE, W5VIU	482-1797
EDITOR:	MIKE SCHENKLE, KB5IN	482-1797

7 BICENTENNIAL (76ers) ARC

MEETS: 7:00PM SECOND TUESDAY. OG&E BLDG. SE 3RD & E. K. GAYLORD BLVD.

PR	DONALD DUCK, AE5N	691-4199
VP	TED VANLANINGHAM, WD5JNT	262-1675
SE	JERRY SPROUL, N5AUH	354-2061
TR	TOM WEBB, WA9AFM	737-6716
EDITOR:	JIM SEALS, KB5IN	381-2005

9 WHEATSTRAW ARC

MEETS: 2:30PM SECOND SUNDAY. LOCATION VARIES. SEE CLUB SECTION FOR DETAILS.

PR	MARVIN STOKES, WA5JHB	893-2221
VP	VIRGINIA BENEDA, N5EMD	825-3302
S/T	GEORGE MASCHINO, K5GGL	263-7614
EDITOR:	RICHARD RUHLE, WD5GLD	375-4843

10 OKLA INDEPENDENT AR

MEETS: 7:00PM SECOND TUESDAY SOUTHWESTERN BELL IFFICES, PONCA CITY

PR	DAVE WHITE, WN5LUI	765-5707
VP	VERNON TREIBER, N5ANV	767-1571
SE	GLEN BISHOP, JR, KA5PUB	767-1031
TR	BIZ MICHY, WD0HCO	762-3297
EDITOR:	DOUG EVERITT, N5DUB	949-1928

11 EDMOND AMATEUR CLUB

MEETS: VARIES. SEE CLUB SECTION FOR DETAILS

PR	KEN STEPP, N5OBM	341-4874
VP	BILL DEMAND, K5SKA	751-5137
S/T	BILL WRIGHT, KC5GM	341-6076
EDITOR:	BILL DEMAND, K5SKA	751-5137

12 QUARTER CENTURY WA

MEETS: QUARTERLY AT VARIOUS PLACES.
NET: 3855 kHz SUNDAY AT 8:00 AM.

CHM	FRED BOARDMAN, N5NL	427-2505
VCH	RAY LONG, N5TY	942-4314
S/T	HOWARD BAKER, N5AS	721-5453
EDITOR:	ROBERT RUNYON, AA0O	373-1818

13 KAY COUNTY ARC

MEETS: 7:00PM THIRD THURSDAY PONCA CITY EOC

PR	PAUL DAVIS, N5HIC	765-2227
VP	MARSH PRONNEKE, WA5UBO	363-2526
S/T	DAVE LAND, KD5FI	762-8616
EDITOR:	DAVE LAND, KD5FI	762-8616

14 CIMMARON ARS

MEETS: 7::PM FOURTH MONDAY. PLACE VARIES. SEE CLUB SECTION.

PR	JACK DAY, WN5Z	227-3462
VP	LEO PEIL, KA5DUO	886-2996
S/T	REETA MARTIN, KA5SLY	227-3013
TR	DEBE BAILEY, W5FUN	227-2061
EDITOR:	RUTH SIMPSON, N5FUR	227-2791

15 SOUTH CANADIAN ARS

MEETS: 9:30AM SECOND SATURDAY. RED CROSS BLDG. NORTH OU CAMPUS. NORMAN

PR	DAVE EGLE, KD5IT	321-7570
VP	KEN ESADOOAH, N5BEW	329-4667
SE	JOE GREEN, KA5AIQ	364-4301
TR	MONTE BATEMAN, WB5RIZ	329-7485
EDITOR:	SAM BARRETT, WA5RPP	321-2601

16 EDMOND AMATEUR RADIO CLUB

MEETS: 7:00PM SECOND MONDAY. SEE CLUB SECTON FOR LOCATION AND TYPE

PR	MARK NORTHCUTT, WD5DYI	755-4672
VP	RON CRON, WA5EAI	681-0896
S/T	KAY NORTHCUTT, WA5DYJ	755-4672
EDITOR:	MARK NORTHCUTT, WD5DYI	755-4672

17 TRI-CITY ARS

18 GREAT PLAINS ARC

MEETS: 7:30PM FIRST TUESDAY CIVIL DEFENSE ROOM, WOODWARD COURTHOUSE

PR	GERRY FORD, NC5C	256-5342
VP	LEWIS PATTERSON, W5KFK	256-2111
SE	LOIS FORD, KA5PYA	923-7683
TR	FREIDA PATTERSON, N5EOX	256-2111
EDITOR:	LOIS FORD, KA5PYA	923-7683

20 ARDMORE ARC

MEETS: 7:30PM 2ND SATURDAY. CORRAL RESTAURANT
INFORMAL: EVERY WEDNESDAY, 221 9TH NW

PR	GENE SOUTH, WA5IJA	223-8252
VP	HOWARD ROBINSON, WB5FAJ	223-5726
SE	JIM CHILCOAT, W5JCX	226-6816
TR	JOHN MERLYN, WD5FZD	223-9543
EDITOR:	JACK GANT, W5GM	223-2619

CENTRAL OKLA RADIO AMATEURS

MEETS: 7:30PM FOURTH TUESDAY. RED CROSS BLDG. 10 & HUDSON OKLA CITY (BACK DOOR)

PR	REGGY WHITED, WN5WWI	799-1457
VP	DON SAUNDERS, WD5ISS	751-0404
SE	JIM BUSWELL, N5BEQ	236-0368
TR	LINDA CALLISON, WD0FTN	751-3620

CORA Collector & Emitter (USPS 116-150) is published monthly by CORA, INC, 1020 ARTHUR DR, MIDWEST CITY OK 73110. SECOND CLASS POSTAGE PAID AT OKLA CITY OK. SUBSCRIPTION:CORA member $3 other $6 yr

POSTMASTER: Send Form 3579 to:
CORA, P.O. Box 15013, Del City OK 73155.

EDITOR: Joe Harding, WA5ZNF 737-1044
CIRCULATION: Bob Graham, WB5WSV, 677-8685

OIDAR — OKLAHOMA INDEPENDENT AMATEUR RADIO

OIDAR SWAP-FEST and V.E. TESTING
Saturday, August 3rd at the Stark Aviation hanger at Ponca City airport, 9 a.m. to whenever. There will be no cover charge. Brodie Electronics will be there with tables of goodies. As for selling your own stuff: OIDAR is real short on tables, so if you have much gear, ya might bring your own card tables or larger tables, or "tailgate" your gear from your car. This is a low-budget swapfest, and the main idea is to have fun jabbering and hopefully unload ...er... sell that used gear from your closet. Bring your stuff and have a good time. There'll be a ticket drawing for an ARRL Handbook and a Repeater Directory.
• Tulsa ARC will be acting as VEs for amateur radio license exams early in the day. If you're planning to test, it would be helpful to bring pencils and a completed 610 with you. An extra photocopy of your license must be given to the VE.

FIELD DAY was held jointly with Kay County ARC out in the country 2 miles west of Ponca City. The clubs operated as class 3A, using Kay's W5HZZ callsign this year. Among the antennas used were an old abandoned railroad telegraph line, which made a whopping longwire, a 40m dipole, and Glen KA5PUB's tribander. Glen and Biz WDØHCO operated 2m SSB with stacked 11s. Phil KA2QIP provided a windmill-tower-type antenna support for the group.

The 145.23 and 145.31 machines are both holding up to this summer's lightning fest so far. Vern N5ANV and Dave WN5LUI expect to have the Ponca receiver at the new (somewhat more elevated) site before too long. The 145.23 Blackwell system will stay the same for now. The incredible mass of baling wire, clip leads and PL decoders which make up the intertie between the two machines seems to be functioning pretty well.

Two-meter RTTY / ASCII activity has reappeared on the 145.29 Enid repeater, including some RBBS/MSO activity. .29 is shared-use between voice and digital modes, so be sure to *listen* before you send (what a concept!). Mobile voice users should be given priority in the daytime.

OIDAR meets next on Tuesday, July 9th, at 7 p.m. at the Southwestern Bell offices in Ponca City. If you've got news to get out, drop a line to N5DUB, P.O.Box 76451, OKC 73147. All other club correspondence goes to OIDAR, P.O.Box 2582, Ponca City 74602. 73! Doug - **N5DUB**

5 ALIVE vs DC ANGELS
SLOW PITCH SOFTBALL GAME
Sat. June 29th - 12:00 Noon
Pre Game Activities 10:00 AM
Midwest City High Ball Park
FREE Computer Given Away

ADULTS $2.00 - UNDER 12 $1.50
A fund raiser to send the
ANGELS to World Series Tourney
677-8685 - CALL - 670-1535

OKLAHOMA CPM USERS GROUP

Meets at OSU Tech, 6 to 10 pm on the Second Thursday of each month, room AD100.
6:00 pm - Informal meeting
7:00 pm - Start meeting
8:00 pm - Program

July meeting will be a demonstration of Data Communications thru radio transmission. A means of high speed data communications that isn't really new.

Next month we will start a list of all the new public domain software available to club members.

The August meeting will be a program of How Hard Disk Drives Work and the usage of them.

CENTRAL OKLAHOMA RADIO AMATEURS

proudly invite everyone to attend

our *bigger* and *better*

EVERYONE INVITED!

HAM HOLIDAY

State Convention

Bring a Friend!

LINCOLN PLAZA INN

Oklahoma City

JULY 26 - 27 - 28

USE THIS FORM TO PRE-REGISTER

You may buy as many registrations as you desire *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!*

Last Name _____ First _____

Address _____ Call _____

City _____ State _____ Zip _____ $ 8.00

Non Ham family members @$4.00 Ea. (Not eligible for Prizes except Program attendance prizes.)

Name _____ @4.00 $_____

Name _____ @4.00 $_____

Name _____ @4.00 $_____

The following items available in advance only, and will not be available at the door

Reserve ___ Flea Market tables (Sat Only) @5.00 Ea. $_____

Reserve ___ Banquet tickets @14.50 Ea. $_____

Reserve ___ QCWA Breakfast tickets @$7.00 Ea. $_____

(Ham Holiday registration not Required for QCWA Breakfast or Banquet)

Will you be taking an FCC Exam? Yes No TOTAL $_____

If yes indicate Class of Exam _____ (Circle one)

NOTE! Your form 610 must be in by July 10th 1985, see instructions elsewhere on this page for instructions for mailing.

Send Pre-Registration with check or money order to:

HAM HOLIDAY 1985 P.O. BOX 60093 OKLA CITY, OK 73146

Note! Must be postmarked before July 10,1985

Please! No confirmations or refunds will be given

Please send your FCC form 610 to:

FCC EXAMS
%Chuck Wilhite
P.O.Box 32001
Oklahoma City,Ok 73132

N5MS TO OPERATE /5 FROM NEW QTH. BLOCK PARTY SCHEDULE AT OLD LOCATION, NEW NEIGHBORHOOD RESIDENTS BAND TOGETHER IN VIGILANTE OUTCRY.

For some time now, I have been looking for another location. Nothing urgent, just looking around and especially the last couple of months. The market for real estate in Norman is bad if you are selling and great if you are buying. Mortgage interest is down to around 10% for the right kind of loans and it just makes sense to look around. Besides, what can you say about a house that has served you faithfully since 1969. Adios, that's what. But I have planned a fix up party to give it a couple of coats of paint, redo the roof and fix the windows for the new tenant. I was still a freshman when I moved in and moving to me was a lot of work. I have marvelled at students through the years who move twice a year or even three times. That kind of activity can take a lot of energy. Energy that could be used for studying or radios. Having just relocated my offices about the first of the year, I was kind of through with moving for awhile until I started househunting. That took a week. I expect that moving the house will take about two weeks. Fortunately, I am in no hurry. The old house has served well, but it, ah, well, just was getting a little too crowded. I know why I never moved. First, the rent was cheap where I was. I had a kindly landlord and I was a perfect tenant to him since I was never home. That cuts down on a lot of the wear and tear on the old homestead. Another reason I didn't move is that after a while in the location, I had a lot of stuff to shuttle. I remember moving from the dorm room to this house. It took a couple of car loads. Nothing traumatic. Well, those carloads have grown. They were only the seed that germinated stuff in every room to the ceilings. The biggest item that I moved in the car was a small bookcase and that was no bid deal. I now have a rack six feet tall filled with books. And those are just the paperbacks and hardcovers. The magazines are a different story. They are just about everywhere.

For awhile I was a classic freak flea marketeer. Some people gave me things, I took them. I bought stuff. I even used to comb the empty flea market tables after everybody left to see what somebody didn't take home. Then something in me snapped. I then realized that I had some fancy boat anchors to study. And a bunch of it was really of no use to me. From the sheer weight of it, the back room floor would shake when I walked in. I decided to reconsolidate all my holdings and cull it. I begrudgingly put a small portion of it up for sale. I still had a ton of it left.

In order to combat this creeping electronic population growth, I finally adopted Salem's First and Second Rules of Radio Junque collecting. The first rule is that you don't buy equipment with vacuum tubes in it unless you had an immediate and pressing need for it right then (the Kahuna repeater met this exception and need). The second rule is don't buy anything that you cant carry in one hand unless you had an immediate and pressing need for it right then. The problem is that I have bought a bunch of these single handfuls. And all of them add up to a storage nightmire and when you decide to move to a new location, well, it was an operation reminding one of the movie "The Longest Day."

Books and magazines are also a problem. While I was going to school, I used to subscribe to several of the electronics magazines dealing with electrical products. I would read each one of them and this was about the time that Bingo Reader Service Cards became popular. I usually didn't bingo something unless I read about it and found it interesting, but then again, I read all of these magazines, usually from cover to cover. The materials that I got in the mail was volumious and came in useful on those occasions when I would dig up a transistor or some other part. Many is the time that I would pull stuff out for others because I just happened to have the literature. But, my days as a techinical librarian have dwindled as I have increasingly less time to do anything else, but quickly peruse the magazines. I still circle a couple of bingo cards, but it is just not like the old days.

The magazines themselves are rapidly becoming a storage problem. I have several of them back to 1971. The difficulty here in disposing of them is that many of them contain basic theory articles that never go stale. I didn't want to keep a whole magazine just on the chance that I might want to read some basic theory, so I decided to start razoring articles out of them and stapling them together. This worked OK but the magazines had a 10 to 15 year head start on me. It took a lot of work just to get about 3 years into the project and the collection keeps growing every month. The razor technique will not apply to the amateur radio magazines. Since magazines of this type have intrinsic value, I maintain and keep this collection. I have a complete collection of ham radio, 73 magazine almost complete except for just a couple of issues and QST stretching back to the mid 1960's with some bound volumes that were given to me that get me to around the mid 50's. I have either been a participant or a victim of the information explosion. When I ran out of shelf space, I began to stack them in the bedroom. A major reshuffling of the bedroom removed all the radio equipment and magazines, but only the radio equipment has managed to stay out. For everything except the radio magazines, anything over about 2 to 5 years will be tossed. The past 5 years will be razored. I will review the razorings to see if there is something that should go. I am really getting too old for this sort of thing.

Moving everything has not really been too difficult. I had some help for most of the big stuff like the bed, couch, desk and file cabinet. The giant wall unit in the living room also went easily, although slightly damaged in the move. The rest of the equipment and books has been slowly filtering over in the form of a triage (I don't have the english-french dictionary to look this up). I have separated out that stuff which is destined for the garbage heap from those items to

go to the house and those that will be sold or given away. WA5TOO has expressed a keen interest in my overage. I thought that I might pick a saturday and invite everybody over to pick over what is there. The rest will go to the happy electronic hunting ground at Darrell's house. If ever there was somebody who could probably warehouse the stuff, it would be Darrell. Darrell's collection habits provide a completely new source of inspiration to me anyway. He collects worse than I do and he doesn't mind, no he looks for stuff that has vacuum tubes in it. I quit that several years ago (reference rules above listed). I also draw further inspiration from the fact that Darrell has moved in the last couple of months (well, I guess that it was about 8-12 months ago) and he got everything in the new house. I keep thinking of this as I stand in the middle of the house looking at things that have not even been touched yet.

What do I have to get rid of? A variety of things such as small power supplies, transistor tester (the new one I bought at Dayton is superior, although the old tester will test incircuit), a small Sony TV, one of those early five inch screens is also slated for the heap. I have a variety of printed circuit boards that I never got around to stripping for parts. The pile of saleable material is getting slowly bigger and I haven't really made any serious inroads into the back room. It would have been more if I had not been culling the last couple of years. Got to keep the inventory fresh.

What about the new house? Well, it is not that there is a shortage of storage space, it is just that I am not sure I want to fill it with all the stuff I have collected. The new house has landscaping, fireplace, vaulted living room ceiling, almost a half an acre of grounds and trees. There are two patio areas and, oh yes, a recirculating fountain in the back yard. It also has a cranky air conditioner and a roof that is nearing the end of its life expectancy. But you have to take the good with the bad. I am slowly converting one of the bedrooms for the radio room and the planning for the the antennas is coming along. I might take about a month or so to really get the antennas the way I want them, but I would like for them to blen with the architecture. Oh yes, you don't need to ask. I looked at the restrictive covenants before I bought the house to make sure that there were no restrictions on antenna structures. There weren't. I even wrote it into the contract before I signed it. It was conditioned upon my examination of the restrictive convenants. The seller was confused about that paragraph, so I went over to the county courthouse and read the covenants and after I saw that there were none that would restrict my use of an antenna, I rewrote the contract and dropped the requirement. Less confusion that time.

Got to get back to the triage. Don't really have much time to write this week since the culling process calls me. I do enjoy the luxury of taking a couple of weeks to move since this is something that has needed to be done for some time. It might have been impossible to move everything in a day. Thank goodness there are no deadlines like that. I have started some fixup work on the old house anyway and left the airconditioner on. So what time I do spend there and in the event of a sale, at least it will be an airconditioned flea market.

Micheal Salem N5MS

FIELD DAY 1985

A little hitch in the moving this past weekend was Field Day. I have organized a couple of these for the OU Radio Club in the far past and participated in a couple of others. It is always nice to spend some time outdoors when you dont have to cut the grass. And if you have the excuse of taking some radios with you, then out of doors can become almost tolerable.

I always marvel at those people who go outside during the summer and play tennis, golf or in general work up a sweat. I like a little physical activity every now and then, but I usually maintain the minimum necessary for cardiovascular sufficiency. Don't usually have time for anything more. Some people are not merely content to engage in this activity out of doors. They must do it at the impossible hour of 6 O'Clock in the morning. To me, 6 O'Clock only comes once a day. When I started walking and jogging about 2 and a half years ago, I would usually get it done about midnight or thereafter, just about the time that I got home. At the old house, I had Jacob's Field at the University down the street with a measured quarter mile. It was almost 1/4 mile down to the field, about 8 turns around the track and then back. I kept it up through the middle of December until it got too cold. In January, I tried to learn to ski and managed to twist my knee. This kept me out of commission for almost two months. Now, I have been moving. Anything for an excuse to going around the track. Oh, I have joined Louis W5UZD a couple of times for his early morning 6 a.m. jaunt around Jacobs Field, but I don't think that I am nearly as dedicated to the early morning hours as he is.

Out-of-doors is different if it is the Dayton flea-market. It is fairly intense and this year I went into training for it since the knee was still hurting a little. It really helped the sore feet problem at the end of the Dayton tour.

Nice thing about Field Day, though, is that you don't have to do a lot of walking. KD5WA was the coordinator for SCARS for field day this year and he had things organized quite well. He also had some 200 amp hour batteries which ran the mobile rigs for a long time before halfway discharged. He then fired up the generator and charged them back up. Louis had it all set up at a pavilion at Reeves Park and this was a great location. He asked me to bring the packet station so that they could capture the extra hundred points or so from the packet bonus. I was in the process of moving, but told him that I would get it down there and simply held off moving the packet station until Field Day (I had already moved the rest of the station the first day). I figured that it would be a simple matter of gathering the TNC, radio, power supply, Model 43 and amplifier and heading over to the field day site, setting up, making a quick contact, then breaking it down and hauling it to the new house. Well, that is really not the way that it worked.

When I got to the site, I set up, but the antenna that we were using (a mobile mount) wasn't good enough to get to OKC for a connect to K5JB. Well, I had

to move the antenna anyway, so I went back to the house and took down the beam and 450 ringo. Hershell KA5KWM then volunteered to come over and pick it up and transport it back to the site. Louis and I strapped it to the upper floor of the pavilion. Then the strangest thing happened. I was apparently getting RF into the machine from the HF stations nearby. At some point the TNC went to never never land and would not reset. It was deader than a hammer. No amount of reset would restore its sanity. I suspected the RS232 interface, so a trip out for dinner with N5AMV and WA5TOO, a stop by the house and a pickup of the scope. Back at the site a couple of hours later, I spent some time going through the TNC with some heavy duty helpers. But all the hardware looked good. So, one of the assistants reasoned, correctly, that the machine must be lost somewhere in memory and couldn't get out. I executed a reset load from the memory just like bring it up from scratch and it reloaded everything and came back to life. Should have tried that first.

Having started on this project about 3 to 4 p. m., we did not make the first packet contact until about 9 that night. A quick connect to K5JB garnered the 100 points. Later, while hanging around the field site, I heard some packets flashing back and forth about 10 O'Clock or so. I turned the monitor on, thinking that I would catch K5JB in contact with some others, but found instead that it was W5EJP relaying through WA5AOH, his home station. He was at the Muskogee Field Day site! I asked him his location and he said that the relay station was 9 miles northeast of Fort Gibson. Not bad. I tried the connect and it worked. Picked up two extra contacts that way. The packet machine had to retry about 5 or 6 times what with the conditions and the HF boys going after it, but it was 100% copy. This just verifies the superiority of packet to other methods. Any teletype signal would have had about 10% copy or less under these circumstances. Packet was no problem.

The retry capability of packet really makes the difference. There were two HF stations going and each time one of them came on, it would wipe out the TNC. Plus one of the stations was CW. Still, it managed to get through even with the changing band conditions. It impressed me with the possibility of the use of packet for emergency use. Packet keeps at it while the other modes such as teletype would just give up. I thought that there might be somebody else around, so I left the packet beacon on for an hour or so before I left the field day site. I turned it off before exiting. I picked the equipment up the next day and brought it to the new house. Need to get started on the planning for the new antennas.

SCARS Field day went well and Louis should be proud of himself. What with the low power and battery multiplier, plus the packet contact, they might have a decent total. The TV stations with the publicity won't hurt either. He had help from several including KD5IT, KA5EFJ and others. Send in the score guys. And count me in for the packet for next year.

Micheal Salem N5MS

FIELD DAY II -- JULY 13 - 14

YOU ARE INVITED

JIM GREENSHIELDS, WD5HPU, AND TIM MAULDIN, WA5LTM, HAVE DECIDED THAT TWO FIELD DAYS ARE BETTER THAN ONE. THIS YEAR'S "LAKE CANTON FIELD DAY" WILL TAKE PLACE THE SECOND WEEKEND IN JULY -- 13TH AND 14TH. THIS IS THE SAME WEEKEND AS THE ANNUAL IARU DX CONTEST (SEE MAY ISSUE OF QST, PAGE 82).

LAKE CANTON FIELD DAY IS OPEN TO ONE AND ALL. OPERATING PERIOD IS FROM NOON SATURDAY, JULY 13TH, THROUGH NCON, SUNDAY, JULY 14TH. ARRANGEMENTS FOR A LARGE PICNIC SHELTER (COMPLETE WITH 117 VAC) HAVE BEEN MADE, AS WELL AS SPECIAL CAMPING ARRANGEMENTS. THE LAKE CANTON FIELD DAY WILL BE HELD IN "BIG BEND" AREA, WHICH FEATURES A PAVED ROADWAY, RESTROOM FACILITIES, AND A BOAT-LAUNCH.

LAKE CANTON IS WELL-MAINTAINED BY THE U.S. ARMY CORPS OF ENGINEERS, AND RARELY CROWDED. IT IS LOCATED 90 MILES NW OF OKLAHOMA CITY, IN THE NORTHWEST TIP OF BLAINE COUNTY.

CANTON LAKE IS ONE OF OKLAHOMA'S HIGHEST, AT 1638 FEET ABOVE SEA LEVEL. TALK-IN IS 146.58. THE GROUP WILL MONITOR THE CALUMET, FAIRVIEW AND ENID REPEATERS. A POTLUCK SUPPER IS PLANNED FOR 6 PM SATURDAY AND A POTLUCK BREAKFAST ON SUNDAY MORNING AT 7:30 AM.

LAKE CANTON FIELD DAY WILL EMPHASIZE CAMARADERIE AND THE OPPORTUNITY TO EXPERIMENT WITH TEMPORARY & EMERGENCY COMMUNICATIONS. PLANS INCLUDE QRP AND SOLAR. BRING YOUR GEAR, AND FOOD CHEST, OR JUST YOURSELF, AND VISIT SCENIC LAKE CANTON FOR FIELD DAY II!

FOR ADDITIONAL INFORMATION --

TIM, WA5LTM: 682-2929
JIM, WD5HPU: 321-9981 / 321-8319

Central Oklahoma Computer Organization

Chairman:
Bob Pace - 376-3569
Vice Chairman:
Bob Helms - 733-3429
Secretary/Treasurer:
Kaye Derryberry - 681-0461

Meeting held at Red Cross Bldg
NW 10th & Hudson
2nd Saturday of the month
9:00 A.M.
Club Dues: $5.00 per year

Meeting called to order by Bob Pace at 9:15 A.M. 73 members/guests attended the meeting on June 8, 1985.

1. COCO Swapfest - was held the 2nd Saturday in May in the parking lot of the Red Cross building. All who attended agreed that it was a success! Rumors indicate that we may do this again. Let us know how YOU feel about another Swapfest.

2. Ham Holiday - July 26-28. Bob Pace asked for volunteers to demonstrate computers. If you want to help give Bob a call.

3. Young Astronauts - Judy Holcomb presented information about a program aimed at youngsters ages 6-16 interested in learning more about NASA and the space program. Annual dues for a Satellite member are $10.00. Cost to LAUNCH a chapter in OKC would be $20.00 per year. Contact Judy or Hollis Holcomb if you would like more information.

4. TACO - Tinker Area Color Comnputer Organization meets the 3rd Thursday in the CCPC Bldg. 201W Area A at 4:30 in the main conference room.

5. FAA - An informal gathering of COCO owners takes place on Monday mornings at 9:30 AM in the executive dining room.

6. Door Prizes - lucky winners included:
Tom Mangham - fanfold paper
Harold Todd - roll paper
Jim Miller - flip 'n file box
Ron Bahner -joysticks
Bryan Kennedy- diskette
Thanks to Al Ingle for donating the fanfold paper.

7. Membership - The club has been carrying close to 300 members on our roster. Many people have not renewed their membership since 1982. As of June 8, 1985 anyone who has not paid dues since December 31, 1983 was dropped from the mebership list. Also there are close to fifty members who need to renew their membership if we are to continue carrying their names on our list of active members. This is the list that determines our C&E obligations.

THE BIG SIGNAL
OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

Due to a lack of interest shown by the membership, last month's proposal to set up a club table at the forthcoming Ham Holiday's flea market has been scrapped. Save your saleable items for a possible auction later in the year.

Jerry - N5GVP outlined a need for amateur operators to aid in communications at the Sooner State Games June 28-29. Contact him if you'd like to help.

Plans for the 1985 Field Day were outlined by Mac - K2GKK/5. It is hoped that members and friends will turn out in large numbers to setup and operate equipment in this event.

Art - N5GRI presented an excellent video-taped program titled "Looking to Being Attacked." Developed by Lt. Jim Bullard of the Memphis Police, the presentation suggested many ways women can defend themselves against attack. The program was well received by those present. (We take a moment to congratulate and thank Art for his unselfish efforts in bringing fine programs to our club meetings.)

Joe - WA5ZNQ

MORE COCO

COCO dues are only $5.00 per year. I do wish to emphasize that all persons interested in the COCO are always welcome at all meetings!!

8. Printers - If you are looking for a new printer you may be interested in the SG/10 which sells for $259. It has a near-letter quality print node and features a 2 K buffer which makes it print faster. I understand that the local warranty station is in Mustang and that you may purchase the SG/10 printer there also.

9. Chuck West presented an excellent demonstration of the MUSICA software using a COCO and a STEREO PAK. Thanks to Chuck.

10. A discussion concerning upcoming programs was held after the program. Suggestions were made for another series of programs on assembly language, a series of programs on using the COCO manuals, and disk file handling. If you have a special interest please let Bob Pace or Bob Helms know.

11. Thanks to Bob Helms for updating our information about COCONET in this months issue of THE RAINBOW tm.

Hope to see all of you on July 6 at our next COCO meeting!

Secretary/Treasurer
Kaye Derryberry

ALTUS AREA AMATEUR RADIO ASSOCIATION

The Altus Ham Club met in regular session, 13 June.

Those attending were: W5ZDI, WB5KRH, N5FJK, KA5WDY, WA5CBF, W5VXU, KB5LS, WA5TXG and KB6FLG.

Mike, W5VXU, announced that Ann Potts received her Novice callsign, KA5WDY, from the FCC thatweek and had joined the Club.

The financial report showed that we had $327.23 in the bank.

Then followed numerous discussions about such varied subjects as QRN, power line noise, transformers, as well as the upcoming Field Day. Dwight also gave the membership a final report on the status of the soon to beheld 4th of July Celebration at the AF Base.

Chip, N5FJK, introduced a motion to change the dues of the Club to come payable annually on 1 January instead of being scattered throughout the year. Jim, KB5LS, seconded this motion and it carried handsonely. The Secretary was instructed to update the constitution.

A check of the membership roster revealed that the Club now has 25 members with 16 belonging to the ARRL.

FOR SALE: 2400 HT with many extras, $250. ICOM 4AT 440 HT with many extras, $300. AZDEN 3000, 2M HT with extra items, $200. HEATH 10w mobile amplifier, 2M, $20. MFJ 949B antenna tuner, $50. HOMBREW 2M controller for repeater, mostly Spectrum boards, $200. A 25-1000 mHz frequency meter, $50. John, N6AJZ, 1421 N Crain, Altus OK. 73521, phone 405-477-0709 for more information.

MORE OR BETTER is not always the best way to success. Sometimes it's simply a matter of doing what needs to be done.

The trouble with some people today is that they are educated beyond their intelligence.

A WOMAN WAS describing her husband to a friend. "He's the kind of man who always hits the nail right on the thumb."

Club
NEWS

VILOT

Minutes of June Meeting

Meeting was called to order at 10:02 A.M. by Secretary, Joe, K5JB, with 12 members and guests present.

Bob, W5HXL, relayed the Treasurer's reporta for Ellard, W5KE.

The results of the previous month's antenna party were reported by Don, KA5UOS. The old antenna was disposed of by donation to Don who has some worthwhile plans for the materials it will yield.

Jerry, N5GUP, described his quest for volunteers to provide communications for the Sooner Games, known otherwise as the Oklahoma Olympics, to be held June 28 and 29.

Meeting ajourned at 10:15 A.M. and Charlie, WA5JGU, showed an excellent video tape, "At Any Moment", which was prepared by the Coronado Calif. Police Dept. and the ARRL, with funding from te Federal Emergency Management Agency. Joe, K5JB, Sec,y

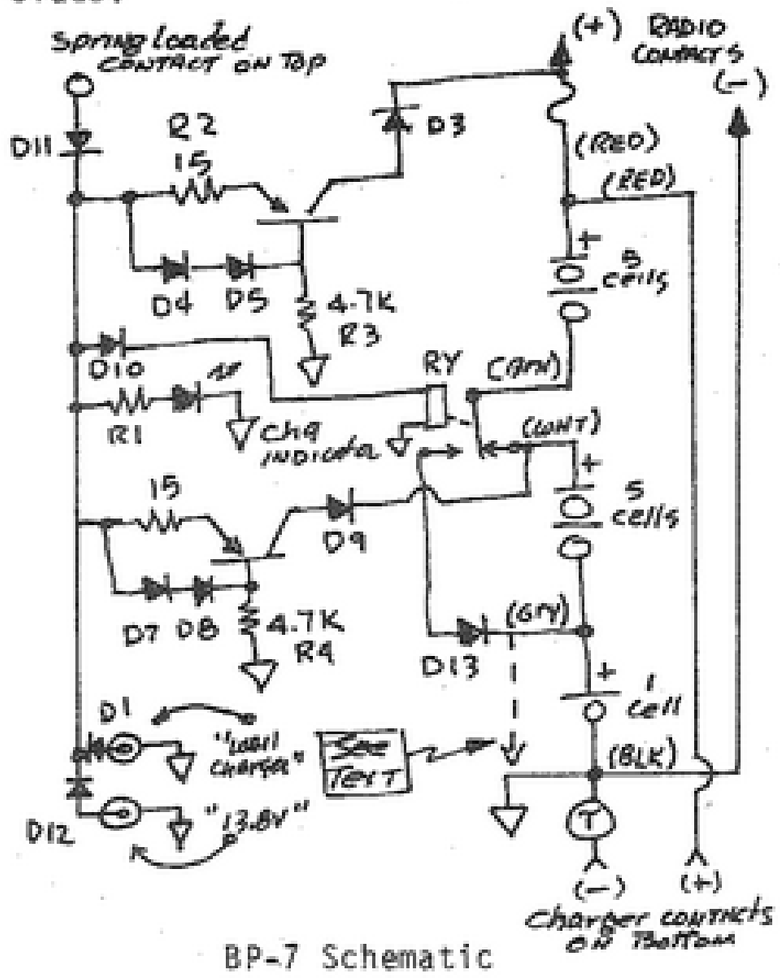
Icom BP-7 Battery Pack

During the heat of wheeling-dealing at the Dayton Hamvention, I managed to cheat (oops) ,er, trade, N5MS out of a BP-7 battery pack for my recently acquired IC-04AT. This is the battery pack that contains eleven cells, producing 13 Volts or so with 450 mAh capacity. It is the battery pack you use if you want to singe yer eyebrows with your portable RF torch. ("You cant work 'em if they can't hear ya...")

Well, the point of this story is not to brag on my new toy but to confess to my clumbsiness and how it resulted in reverse engineering, and modifying the thing to correct what I felt was a wiring error. The story starts with my meddling with the thing on the bench, trying to figure out why the battery terminal voltage drops when it is on charge, what is the difference between the two charging sockets, what does the little spring loaded button do, and why does it buzz if a battery charger for a little BP-3 battery is plugged into the charging socket??? Well, a little carelessness with the clip leads and I had another couple of questions; Where did the smoke come from? Why doesn't it work anymore?

With a flick of a screwdriver I was surprised to find a little circuit board with transistors and all kinds of stuff staring at me. Woe is me! The smoke could have come from one of those little black things with Japanese writing on it. It was beginning to take on the complection of a job for Super Kludge! After all, how exotic does a battery have to be anyway? "If yer circuit board offendeth ye, cut it out!", reasoned I.

With a little ohm meter work and a couple of generation of sketches to figure what all was going on inside the thing, I was relieved to find that the only thing fried was a trace on the circuit board. The Figure shows what I figured it did. I will leave it to you to follow the crazy paths through the thing but I can offer some clues.



BP-7 Schematic

The transistors are current regulators that control charging current to the two sections of the battery. I suppose the battery was broken into two sections to permit charging, and current regulation, from a voltage source that was not as high as the terminal voltage of the entire battery. The relay is in there to open the circuit in the middle of the battery chain and steer things around into two separate batteries for charging purposes. This answered question number one. Full battery voltage is not available at its terminals when the relay pulls in because it is broken into two batteries by action of the relay.

Several other questions were answered shortly. The little spring loaded contact on the top and the two battery charging sockets on the sides were all connected to the same place, though isolated with diodes. The relay was what made the buzzing noise if an unfiltered but rectified voltage was applied to the charging contacts.

I didn't quite understand one part of the circuit as I studied it but after repairing the burned circuit trace I put the thing back together to see if it would work ok. It did. My lack of understanding kept nagging me though.

The next evening I took it back apart again. This time I carefully retraced the wiring and found my diagram was correct. What bothered me was that the charge currents from the two 5-cell batteries were adding at the solitary cell. If the thermostat had anything to do with anything (which it doesn't) I would expect the solitary cell would be hotter than the rest and would signal something that it was time to back off. But, this is not the case. If a charger stand is being used to charge through the base contacts, current is flowing through the thermostat and it probably opens to signal end of charge. Charging current from any other sources does not flow through that little critter though so there is no reason to subject the single cell to twice the current of the other cells.

I disconnected the wires at various places on the battery and measured the charge currents. Each regulator holds its current to about 40 mA. Sure enough, the sole cell gets 80 mA. Well, I fixed that! Note the wire marked "grey" on the Figure. It got moved to the minus end of the sole cell and all was well. Current in the second battery (now 6 instead of 5 cells) still measured 40 mA.

I suppose the common ground point could have been hooked to the minus charging contact on the bottom of the case and the thermostat would sorta perform as intended, and maybe that is the way it is supposed to be, but I just couldn't see abusing that one cell. Besides, the charger circuit would have to be smart enough to sense the current interruption and stay off. Without such an arrangement, charge would just restart after the thermostat cooled and reclosed. Now, I know that around here somewhere there is something I could slip that little bugger into that would make a dandy charging stand; and a relay held closed by charging current would make a simple end-of-charge trip circuit... Joe, K5JB

Spread Spectrum OK For Amateurs

The FCC has authorized spread-spectrum techniques in the Amateur Radio Service. The new rules will permit amateurs to develop, test and operate low-cost spread spectrum systems in the amateur bands above 420 MHz. The Commission said that by removing regulatory barriers to innovation, technical advances in radio technology can be stimulated.

The FCC action will permit amateurs to experiment with, and take advantage of this technology which until now has been almost entirely limited to military applications. The effective date of the new rules will be 12 months after the Report and Order is released. This delay is intended to encourage the amateur community to develop voluntary standards for spread spectrum, as the standards for packet radio were developed. In the interim period, special temporary authorizations will be available to interested amateurs.

In a spread-spectrum system, an information signal is combined with a much wider bandwidth, noise-like signal to yield a transmitted signal that is both broad band and noise-like. At the receiver, a copy of the original "noise" signal is used to derive the

information signal. Because the energy of the transmitted signal is dispersed in the spreading process, it is less likely to cause interference in narrow-band receivers than a conventional signal of the same power. Spread spectrum systems were originally developed for military applications where covertness and jam resistance were the main goals.

The FCC said that while this proceeding (Docket 81-414) dealt with only the Amateur Service, the experience gained, especially on the subject of compatibility between spread spectrum systems and conventional narrow band systems, will be a stimulus to the general radio technology community.

The Commission also approved a limited authorization (Docket 81-413) for spread spectrum use by the Public Safety and Industrial, Scientific and Medical (ISM) Services. (From ARRL Letter, May 23, 1985)

Malicious Interference Bill Reintroduced In The House

Representative Jim Bates, D-CA, has introduced a bill, HR-2479, into the House of Representatives which would make malicious interference a statutory offense. The text is very close to that used by Senator Barry Goldwater in his Senate bill, S-66.

Mr. Bates has secured the agreement of 13 other Representatives to co-sponsor the bill: Tim Wirth, D-CO; Jim Slattery, D-KS; W. J. Billy Tauzin, D-LA; Dan Coats, R-IN; Edward J. Markey, D-MA; Mickey Leland, D-TX; John Bryant, D-TX; Henry Waxman, D-CA; Carlos J. Moorhead, R-CA; Howard C. Neilson, R-UT; Denny Smith, R-OR; Bill Dannemeyer, R-CA and Nancy Johnson, R-CT. Other Members of Congress can add their names as co-sponsors at any time. ARRL Letter readers are welcome to suggest co-sponsorship to their Representative. There are two possible courses of action for the bill -- hearings could be held on the bill itself, or it could be tacked on to some other communications bill in Congress. (From ARRL Letter, May 23, 1985)

Ham-In-Space Update

Word from Astronaut Tony England, WOORE, moves the launch of Shuttle flight 51-F up from July 15 to July 12, 1985 at 4:30 PM EDT (2030 UTC). Please update your planning accordingly.

Originally the amateur equipment on board Challenger was to have transmitted an automatic Morse code identifier at 5 words per minute. Astronaut England advises us that "WOORE/CHALLENGER" took too long to send at that speed, so the device has been reprogrammed to send the ID at 15 wpm. This ID will be used only when automatic slow-scan television pictures are being sent. Manned operation of the amateur station aboard the Shuttle will include voice identification.

NASA flight planners at Cape Canaveral say the launch time will carry a 75 minute launch "window." the altitude of the shuttle will be 232 nautical miles, at a 50 degree inclination. The plan now calls for a 7-day flight to end with a landing at Edwards Air Force Base in California.

Updates on this mission, involving youth groups paired with local ham clubs, will be issued as details develop. Please continue to encourage ham clubs to apply for preferred uplink frequencies to attempt to communicate with WOORE during this flight. Applications should be sent to ARRL Hq., attention HAM-IN-SPACE mission. (June 6, 1985 ARRL Letter)

FCC Proposes to Allow F2A on 10 Meters

In response to a petition filed by ARRL, the FCC has proposed to allow F2A (FM telegraphy) in the 10 meter repeater subband, 29.5 to 29.7 MHz. This would allow FM repeaters on 10 meters to identify in that mode.

In the Notice of Proposed Rulemaking (NPRM) in Docket 85-168, the FCC said that they knew of no valid reason why F2A should not be authorized on 10 meters, but "Neverthelesss, we invite comments from interested persons about any adverse effects on amateur communications that would occur by allowing this additional emission in the 10-meter repeater subband." Comments are due by August 14, 1985, and formal comment requires the filing of an original and five copies to: Secretary, FCC, Washington DC 20554. Copies of the NPRM are available from ARRL Hq. for an s.a.s.e. with 39 cents postage affixed. (From June 6, 1985 ARRL Letter.)

Orange County Hams Win Exemption From $1200 Tower Fee

In a dramatic turnaround, the Orange County, California, Board of Supervisors has exempted licensed radio amateurs from a new antenna ordinance that requires a costly "use permit" for any antenna more than 45 feet high in many residential areas of the county. The new antenna ordinance now applies to amateurs only when their antennas exceed 70 feet in height.

Under the new ordinance, anyone except a licensed amateur must pay fees of up to $1200 for permission to put up any antenna that is more than 10 feet above the height limit for buildings (35 feet in most residential areas). The original ordinance contained no exemption for amateurs. When Orange County amateurs became aware of the ordinance, they were quick to act. Frank McGill, the county planner who drafted the original ordinance, listened to the amateurs' concerns and agreed to draft an amended version of the ordinance that would allow amateurs to put up antennas as high as 70 feet without going through the "use permit" process.

Perhaps a key factor in county officials' willingness to amend the antenna ordinance was the fact that no one appeared at either meeting to speak against the 70-foot provision for licensed amateurs. The local amateurs, on the other hand, conducted an extensive campaign to educate county officials about Amateur Radio. (via N6NB, June 6, 1985 ARRL Letter)

Meteor Scatter Video Breakthrough

Two amateurs in the U.K. have achieved what is believed to be the first picture transmission using meteor scatter. At 0640 UTC May 7, Jeremy Royle, G3NOX, in Saffron Walden, Essex, England, transmitted composite, high-definition, single-frame color SSTV to Chris Tran, GM3WOJ, in Rosemarkie, Ross-shire, Scotland, on 50 MHz via meteor scatter. GM3WOJ received a single burst of the G3NOX test signal at 5-9+ over 100 seconds, long enough to produce a very good image. This and subsequent tests are being carried out as part of a 50-MHz propagation experiment under special permits granted to some U.K. operators. A similar test is being arranged with Norwegian stations who also have permits to use the 50-MHz band. (June 6, 1985 ARRL Letter)

Arizona Adopts 20 KHz

Arizona is in the process of implementing the "Pacific Northwest" 20 kHz band plan for 2 meter repeaters. Arizona will proceed with the implementation slowly, and will coordinate new repeaters on the 20 kHz frequencies only when a signed written agreement is obtained from all the repeater owners who will be displaced by a re-coordinated repeater on 20 kHz. No new requests for coordination on the old "odd frequency" pairs will be accepted. Conversion to the new plan is voluntary -- new frequencies become available only when the existing repeaters agree to move. (4/25 ARRL Ltr)

Automatic Control Above 29.5 MHz

As reported in the latest issue of the ARRL Letter, the FCC has proposed to allow automatic control for all amateur operations above 29.5 MHz. Designated Docket 85-105, the proposal should pave the way for computer bulletin board operation on VHF frequencies. The proposal raises some questions, however. The wording of the Notice seems to prohibit the passing of any third party traffic through a station under automatic control. For example, would two stations, each operating with a control operator, be able to pass third party message traffic through an automatically-controlled repeater

Also, prohibiting "third-party traffic from any amateur station under automatic control" could be read as prohibiting computer-based message systems (CBMS) since these computer bulletin boards by their very nature pass third party traffic. Yet, the Commission specifically mentions CBMS operations as a technological innovation

radio amateurs should be able to further develop.

In November, 1984, the ARRL filed a Petition for Rulemaking (RM 4879) requesting that the FCC authorize automatic control for digital communications above 30 MHz. The ARRL request was very specific and stated that "the level of amateur experimentation with digital communications has progressed to the point that automatic control of digital communications is both feasible and necessary to facilitate further development of such experimentation." For more on the ARRL request, see the November 20, 1984 issue of the ARRL Letter, and Happenings, January 1985 QST.

The FCC chose to take the ARRL request a step further, and permit automatic control for all amateur operation above 29.5 MHz. The Commission states "We believe that now may be the appropriate time to expand automatic control to all amateur operations, prohibiting its use only in those situations where there is a justifiable reason why automatic control should not be allowed."

The Commission invites amateurs, particularly those with automatic control experience, to submit comments documenting any problems that may arise from authorizing automatic control for all amateur operations above 29.5 MHz. The FCC notes that they do not want to introduce any innovations that would significantly change the character of the Amateur Service. Comments are due by June 25, 1985, reply comments by July 25. Formal comment requires the filing of an original and five copies to The Secretary, FCC, Washington DC, 20554. Copies of the NPRM are available from Hq. for an s.a.s.e. with $.39 postage affixed. (4/25 ARRL Ltr)

RTTY on 160

The FCC has issued a Report and Order that authorizes amateurs to use RTTY on 160 meters, but the rule amendment does not become effective until June 17.

The ARRL filed a petition with the FCC (RM 4774) requesting that the Commission authorize RTTY on 160. The Commission responded with a Notice of Proposed Rulemaking, PR Docket 84-959, in which the Commission proposed to authorize RTTY, FAX and SSTV on 160, in addition to the CW and phone already authorized. For more on the Commission's original proposal, see Happenings, December 1984 QST.

The FCC has chosen to authorize these emission types without without specifying exclusive subbands. ARRL has volunteered to develop a band plan, and the FCC urges amateurs to adhere to the ARRL bandplan. The FCC again cautions amateurs that this rulemaking does not in any way affect the outcome of the decision to allocate 1900-2000 kHz to the radiolocation service, Docket 84-874. FAX, RTTY and SSTV will be authorized on 160 as of June 17, 1985. (From 4/25 ARRL Letter)

Common Packet Radio Questions

The following was originally prepared by Rick Whiting, WOTN, and contributed by Dave, KD5FX, who got it off of a computer bulletin board. I edited it a little to update it and add frequencies peculiar to Oklahoma.

Q. Why should I be interested in packet radio?

A. For many, the appeal of packet radio lies in communication with other hams. Not just ordinary hams but exciting people doing exciting things and who are attracted to this new mode of communications. For others, the essence is the learning experience, heightened by being in on something new.

Still other hams are attracted to "packet" to take advantage of bulletin board systems providing up to the minute information and electronic mail service 24 hours per day.

Another aspect of packet radio that attracts many amateurs is its networking capability. While networks are in their infancy now, it will soon be possible to establish communication with amateurs around the world using very modest stations indeed!

Yet another aspect of "packet" is accurate, high speed communication that makes it the ideal link for activities using, or related to, personal computers. Perhaps that is why so many hams interested in computing or digital communications are also QSOing on packet radio.

In fact, there are just about as many reasons to get on packet radio as there are amateurs.

Q. What is packet radio?

A. Packet radio is a means of digital communications somewhat similar to RTTY or AMTOR. The major differences are:

(a) Many people can be communicating at the same time on the same frequency without interference. A standard 1200 bps packet channel can support about 15 QSOs simultaneously and each will have the equivalent thoughput of at least 60 wpm.

(b) It provides accurate point to point communications. No "garbage" is seen on the screen or printed. Text or computer programs can be transferred without errors. (AMTOR can also provide error free transmission.)

(c) It has intrinsic networking capability. Communication links can be automatically formed through many stations, instantly, or in a store and forward mode, to allow even a modest station to reach anywhere in a network.

Packet radio works like this: You type a command to your radio modem, usually referred to as a terminal node controller (TNC), telling it to connect to someone and wait for a few seconds. It will respond by telling you "*** CONNECTED TO WA5xxx". At this point your two stations are connected together as if by telephone. Whatever data you send appears at the other end and whatever the other station sends appears at your end. No one else on the frequency is interfered with by your transmission. Many people can be using the frequency simultaneously and not know it. Many QSOs can be in progress on the same frequency and get good throughput on each one!

Through all this, your TNC is breaking your transmissions into pieces called "packets", each up to 256 characters long. Each packet contains a "header" that tells who the packet is for and from whom it came. It also contains additional information to make it possible for the receiving TNC to determine if the information has been damaged so that the TNC can determine whether to reject the flawed packet. In this way, packet radio is much like AMTOR, only it transfers data at a much greater speed and several stations can operate simultaneously on the same frequency.

For those interested in computer communications, the high speed and accuracy of packet radio are ideal for sending computer programs and data from one station to another. Also, it does not cause garbage to print out on the screen or paper of those to whom it is not addressed.

Q. What code is used?

A. At the terminal side of the radio modem, ASCII is the standard character set used, but some TNCs will interface with Baudot/Murray code machines. Most TNCs have a transparent mode wherein any code may be sent between stations. On the radio side of the system, a modified form of ASCII is used.

Q. What hardware do I need?

A. All you need is:

(1) A transceiver that will operate at the proper frequency, (2) A video (CRT) terminal, teleprinter, or personal computer with an appropriate interface (usually RS-232 serial port), and (3) A terminal node controller (TNC).

Many hams already have the first two items and need only acquire the TNC.

Q. Do I need to write any software?

A. No. Any terminal will work. However, if you wse a personal computer for a terminal, you will need a program to make it act like a terminal. You will benefit from a more fully featured terminal program that is capable of up and down loading to disk or cassette.

Q. Is there any standardization of

packet radio protocol?

A. Yes. The ARRL has adopted the AX.25 protocol as standard. An earlier protocol, developed by the VADCG group in Vancouver, B.C., is now obsolete. However, some TNCs such as the TAPR have the ability to operate with either the Vancouver or AX.25 protocols.

Q. How reliable is it?

A. Due to the nature of packet radio, anything that makes it all the way to the destination station's TNC is probably error free. Packets can be reliably transferred even when the channel is somewhat noisy. This is one of the unique characteristics of packet radio.

Q. Do we need a special repeater?

A. No. Packets can be sent through any other packet station acting as a single frequency repeater ("digipeater"), without disrupting the digipeating station's normal operation. Note that no duplexer is required by the repeating station since it is not transmitting and receiving at the same time. Packets can be also repeated by a standard voice repeater.

Q. Will there be anyone else to talk to?

A. There are many active packet stations (146.415 MHz in Oklahoma City, 145.01 MHz elsewhere). There are also bulletin boards operating in many areas of the country.

In addition to terrestrial communication, there is also a dedicated packet frequency on AMSAT OSCAR-10 (145.830 MHz scientific channel).

Q. Speaking of satellites, I have heard of something called "PACSAT". What is it?

A. PACSAT will be a new satellite designed for packet radio. The bird will have a microprocessor and 4 million bytes (characters) of memory. A ground station can send a message intended for another ham to the satellite. PACSAT will store the message until the other ham checks in and retrieves his or her messages.

PACSAT will be in a low earth polar orbit (400-600 miles high) providing coverage of the entire earth. Because it will be in low orbit and because it will use a form of wide shift FSK, there will be no need for large steerable antennas and doppler correction. This makes automatic operation very simple and relatively inexpensive. You will need only about ten watts and a ground plane antenna to reach the satellite.

Q. Do I have to operate in the VHF spectrum?

A. No. There is packet activity in the HF spectrum. Below 21.25 MHz speeds are limited to 300 bauds unless you get Special Temporary Authority (STA) from the FCC. The FCC has been granting these waivers with some regularity and it is expected that the 300 bauds limitation will be lifted soon.

The frequencies used for packet on HF are:

7.097
10.147
14.103

SSB transmitters are usually used with 1600/1800 Hz tones (200 Hz shift) to generate FSK. Frequency stability is critical. Drift should be kept under 20 to 30 Hz.

Q. How do I get a TNC board?

A. You purchase an assembled unit or build a kit. Assembled, ready to operate units are available from:

Advanced Electronics Applications (AEA), P.O. Box C-2160 Lynnwood, WA 98036 Phone (206) 775-7373. Their TNC, the PKT-1 is based on the original Tucson Amateur Packet Radio (TAPR) design. Amateur radio dealers usually offer discounts on the recommended list price.

Kantronics, 1202 E. 23rd St., Lawrence, KN 66046, (913) 842-7745. The Packet Communicator was designed to operate similarlly to the TAPR unit though it uses different hardware design.

GLB, 1952 Clinton St., Buffalo, NY 14206, (716) 824-7936). The PK-1 generates and decodes the packets without specialized hardware. This TNC is most suitable where one does not intend to transmit large computer generated files. It will not handle terminal and radio input/output simultaneously.

Other TNC sources include Bill Ashby & Son (Box 332, Pluckemin, NJ 07978, (201) 658-3087); and the Vancouver Digital Communications Group (818 Rondeau St., Coquitlam, BC, Canada). In addition, the Amateur Radio Research and Development Corp. (AMRAD) has done some work on a "packet adaptive modem" that may be of particular interest for HF work (1819 Anderson Rd., Falls Church, VA 22043). It is recommended that you discuss these boards with local active packeteers before purchase. These boards have some advantages for special applications but appear to have disadvantages for typical "home station" use.

If you have a TRS-80 Model I, III, or IV, you may be interested in a software package that turns your computer into a smart TNC. This software was developed by Robert M. Richardson, W4UCH, 22 North Lake Dr., Chautauqua Lake, Ny 14722.

The only current source for TNC kits is Heath which is offering the HD-4040 which is a slick packaged TAPR TNC. The original TAPR TNC, now referred to as the TNC-1 is no longer in production by TAPR. That group is Beta testing a new design based on a Z-80 microprocessor and using a SIO as a packet "state machine" rather than using the special IC as in the TNC-1 and HD-4040. Limited quantities are expected to become available in July but it is estimated that the available supply will meet only about 25 percent of the demand. No lists are being kept and phone orders will be accepted only after availability is announced.

Q. Is there any place where I get more information?

A. Sure! The ARRL (225 Main St. Newington, CT 06111) publishes a bi-weekly newsletter, GATEWAY, ($8.00 per year for members, $9.00 for non-members) that contains latest news on packet radio. Those with telephone modems can get electronic versions off of Compuserve's Hamnet. The most current copy is usually available on the Color Computer Club's computer bulletin board, COCONET in Oklahoma City (at their pleasure, I might add). The Tucson Amateur Packet Radio (P.O. Box 22888, Tucson, AZ 857334 - $12.00 per year) publishes newsletter, Packet Status Register, for members. It is technically oriented. Also, AMRAD (P.O. Drawer 6148, McLean, VA 22106 - $15.00 per year) publishes a technically oriented newsletter.

The July QST has an article by Harold Price, NK6K, that is very informative. Also, one of the best Newspapers in the country, the CORA Collector and Emitter, regularlly publishes packet radio information. Joe, K5JB

Packet Odds and Ends

There are some newcomers on packet in Oklahoma City. Stan, WB5UIY, set up a heck of a station in Northwest side of town with equipment borrowed from Leo, KOLOT, and me. He is a regular gateway because he can easily access stations I could previously hit only with difficulty during certain times of the day. He is using TAPR TNC, an IC-22S, ISOPOLE at 50 feet and an Apple computer. He doesn't need it but he has a 100 watt amplifier to invite neighbors over for a demonstration!

Bob, WA5CJG, has a Heath HD-4040 ready for construction. He and Jim, KB5XN, ought to be able to launch signals off to the Southwest.

In New Jersey, Radio Shack Model-100 portable computer has gone on sale for $275. It makes a heck of a packet radio terminal. I talked to a local RS salesman and he didn't know anything about plans to put them on sale here. (If you are interested, badger a manager for information.)

If you aren't into computers, I learned from a very reliable source that one of our local entrepreneurs will soon have available CRT terminals at a heck of a deal price. They might be available for Ham holiday.

JOE, K5JB

=FILE ZERO=

Somewhere I recently read a clever little piece by someone concerning equipment component failures.

It seems the writer has developed something he calls the "smoke theory" to explain most, if not all component failures in electronic equipment.

The idea is that all component manufacturers use a common secret ingredient in their components, whether the component is a transistor. capacitor, resister, diode, or wire. All components contain the ingredient SMOKE. Each component has a measured amount of SMOKE sealed into it.

The writer went on to develop the idea that in each case of component failure, the cause was due to an escape of the ingredient SMOKE, and to nothing else. SMOKE it seems, is essential for the proper operation of all components, and if it gets out of the component, the component can no longer function as designed.

This theory sounds quite plausible to me... I have personally observed components failing when SMOKE escapes from them. I have noticed that some components are constructed in larger sizes to accomodate larger quantities of SMOKE, and that when SMOKE escapes from these larger components they often fail in rather more spectacular ways than the smaller components.

I'm quite certain that many readers of this column may have observed the ingredient SMOKE escape from various components over the years. Invariably almost as soon as the SMOKE escapes from the component, the component fails. What is really impressive is the speed with which the failure occurs after the SMOKE gets out. Almost simultaneously as it were.

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I'm still young enough to have "days off". My days off are Saturdays and Sundays. These days have been set aside for me, and millions of others like me, to engage in something called recreation. Since I, and many of those millions like me, are not in the "creation" business, it is often difficult to RE-create. Most of us don't know how to "create" much. I know I certainly don't. But then I am sort of peculiar any way, and I may be the ONLY one around not creating. However, on my days off, I do the best I can.

I re-create on the lawn, and in the garden, and in the garage, and in the shed. Some of that activity is hard, but I really try to do my part, and not shirk my responsibility to use my off-time in a productive recreational way.

When re-creating I must admit to a tendency to engage in a lot of napping, snoozing, and layingdownonthejobsleeping (thats all one word). Those are my favorite ways of recreating.

Recently, however, Glo (my XYL) and I have been recreating in my "study". My study is a combination hamshack, office, shop, storeroom, and computer center. I spend quite a bit of time there. We've lived in our present QTH for about ten years. When we moved in, we didn't have to move very far, so there was none of the usual thinning out of accumulated odds and ends and junk associated with changing one's address.

The clutter in my study has been approaching critical mass for quite some time. Glo is just about ready to win the battle for new carpet, so the house must be cleaned out a bit. The study has been carefully managed to accomodate the junk I brought in ten years ago, and the accumulated debris of an active life. So far, we have hauled some seven or eight pickup truck loads of stuff to the dump from the garage and shed. Some of the material included such valuable items as my carefully preserved pole pig, several 813 tubes, 866A rectifiers, chokes, filament transformers, and hundreds of pounds of capacitors, wire, meters, nuts, bolts, iron chassis parts, etc.

All through this recent activity there has been a sacred cloak drawn around the stuff in the study. The study contains all the "prime" collection. A couple of old TV chassis, a collection of "sorted" resistors, speakers, sub-chassis assemblies, an old oscilliscope, several VTVM's, and stuff of that type. She finally made the break through this week end, and we have started cleaning out the study.

It all started with the purchase of a new computer table. The old one was simply too small to hold the collection of peripheral equipment, diskettes, software documentation, printer paper, etc.

Normally there shouldn't be any problem replacing something like this. However, when I broke down the stuff on the old table, and removed it from the room, a couple of piles of other stuff like magazines, and several boxes of assorted coffee cans full of irreplaceable goodies collapsed into the space vacated by the computer table.

I could probably have tolerated that, but the other stuff collapsed on top of the computer equipment thus putting me out of business for such important activities as balancing the checkbook, playing checkers, gin rummy, and writing this column.

That gave Glo her chance, and we are now launched on a long overdue cleanup campaigne in the study. The last bastion of my hoard of accumulated junque has finally fallen. I really can't believe the stuff I'm throwing put. In wholesale quantities, no less! We are trimming it down, and probably just in the nick of time too. I've often thought that if the "hoard" ever collapsed with me in the room, it would probably create an implosion effect which might crack the earth's crust. I'm actually running into stuff I've saved from the '30s in here. The only person benefiting from this project is my oldest son who I have trained well. About half of the really good stuff is going into his collection. I don't know where it will go from there at the proper time. He has no heirs, so he will probably have to pass the loot on to a nephew,cousin.

This entire train of thought started as an introduction to something I had said a couple of months ago about a clever little thing titled "How To Know When You're Growing Older". I couldn't find it then, but it turned up in the "cleaning" of the study, so here 'tis:

The following information is from Howard, WSAS via the landline:

QCWA birthdays, July 1985

1	Leslie A. Edmonds	WSGOO
4	Bob Jensen	KSTQV
9	Jean Bunce	XYL-WSDKC
10	Pauline Rea	XYL-WSAA
15	Margaret Benson	XYL-KASDGY

20 Dan Engle WSNDJ
22 Fran Miller W5FNL
22 Lillian Jensen XYL-W5TQV
29 Margaret Boardman XYL-W5NL

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QCWA Capter 63 operation on the air during May 1985:

Sessions	5
Checkins	145
Traffic	19

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Howard normally mails me copies of these reports. This month, something went haywire, and I didn't get 'em. So, we did it by telephone. After we got this info in the computer, we got to talking a bit, and I found out something interesting about Howard that you might like to know, so I'll share it with you.

Howard Baker, W5AS, holds the 5BWAS (5 Band Worked All States) award. Now, that ain't bad all by itself. That award represents a whole bunch of hard work, and is pretty prestegious. However, Howard also holds the 5BWAC (Worked All Continents). More hard work and dedication (not to mention plain old operating skills). The story isn't over yet. Howard has recently picked 5BDXCC!

Not bad you say? Not bad at all I say... Read on:

Howard has never owned a directional beam antenna. Howard has never owned a horizontally polarized antenna. Howard did it all with a vertical antenna system. Howard did it all in the last eight (8) years, and all on CW (A1) mode only. He tells me he did use a kilowatt amplifier quite a bit of the time though.

Now, that really ain't half bad... is it?

That's it for File Zero this month.

We really need your support for this column. Just pick up the past issues, and see who the contributors are. If your station call is not W5JJ, you ain't a regular contributer. Get out the pens, pencils, typewriters, and/or telephones guys. Gimme some help!

73, de Rob-AA0D

The following is from Carl Drumeller W5JJ, reproduced here with thanks.

THINGS WHAT AIN'T

"I never operate a CW transmitter. All my operation is on 'phone."

Sorry, old chap, but you're misinformed.

All radio transmitters in the Amateur Radio Service today are Continuous Wave transmitters. Discontinuous Wave or Damped Wave (spark) transmitters were outlawed in the latter 1920s. Continuous Wave transmitters can be (and are) modulated in many ways to achieve radiotelephony transmissions, of course.

"I communicate only on CW. I've never had a microphone in my station. CW forever!"

Sorry, old chap, but you're misinformed.

Nobody has ever communicated by Continuos Waves. To convey intelligence, Continuous Waves must be modulated by some means. The basic means of modulation is by make-and-break radiotelegraphy.

"My beam antenna has 8 db gain."

Sorry old chap, but you're misinformed.

An antenna (or radiator) is a passive device. All it can do is radiate all the energy fed into it. Some of this radiated energy is in the infra-red spectrum; some in the Radio Frequency spectrum. A radiator can be so configured as to have directivity, that is, to radiate a greater portion of the incoming energy in a desired direction. The total amount of energy radiated remains unchanged. Almost all configurations for achieving directivity involve additional metal conductors. These cause a somewhat greater portion of the total energy input to be radiated in the infra-red spectrum, thereby leaving a lesser amount to be ratiated in the Radio Frequency spectrum.

W5JJ

THE ULTIMATE OF MURPHY'S LAWS

That esteemed publication, Amateur Radio, gives us, in its February issue, a whole page of Murphy's Laws! You may want to borrow the copy from ACARC's clubroom and Xerox the page. It's worth the trouble!

And while you have that issue at hand, don't miss the opportunity to read the utterly fascinating account of how an Australian POW in a German prison camp devised from garbage heap components a device to aid those who planned to escape the camp. It well illustrates the ingenuity a Radio Amateur can exhibit under the most trying circumstances.

W5JJ

Right on again Carl. Thanx. How about letting me have a listing of the Murphy's laws? I believe Amateur Radio allows re-publication with credit for their stuff (-ed.).

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PRE-SILENT KEY AGGREGATE DISPOSAL. Being of sound mind and well aware I'm not immortal (shh---don't mention immoral), I hereby announce my intention to dispose of 60-years accumulation (of) radio and radio related parts, components, and just plain junk. Money in recompense for the more valuable objects will be thankfully accepted, but much you can have just for digging it out of the storage shacks and carting it off. No one item of earth shaking value but just one heck of a lot of small items. At one time these were choice treasures; to part from them will be heart-wrenching ..... but you can't take them with you! Call me at 789-3788.

Carl, W5JJ

How well I know... How well I know...(-ed.)

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FOR SALE: QUASAR Model VR-1000 Video Tape Recorder and 85 (count 'em) 85 cartridges, with old movies recorded on 'em. The tape transport mechanism needs adjusting. The video circuits are in perfect working order. I understand the tapes (old style VHS) are quite valuable to the right party. I don't know the right party. Do You?? $100.00 buys it all. ROB AA0D, 373-1818 evenings, or 686-2169 days.

Forest Pk.Ok.(NL)Jun23,'85:Just a few last ditch NEWS BRIEFS. Our super NEWS EDITOR, Robby,AA0D, has apparently come forth with an abundannce of "FILE ZERO" copy--so I have been informed by Joe,WA5ZNF; possibly enough to necessitate some carry-over to Aug. C&E!!. If so, Robby, you are to be commended for following your reminder and plea in the May issue.

The FIRST and Paramount "NEWS BRIEF" item was transcribed via Telecon between Ray Long,W5TY and myself. Ray, it is almost verbatum except for a few (Sub Ed's)!!.

CORA COLLECTOR & EMITTER

QCWA
BREAKFAST

Our Featured Speaker, DR. VERNON Y. SISNEY has a most enlightening message for all QCWA Members & Guests--who are very sincerely invited (and urged) to attend our annual HAM HOLIDAY, "QCWA BREAKFAST". The subject of Dr. Sisney's talk is titled "THE TROUBLE WITH PEOPLE".

Those who have heard Dr. Sisney know we are in for a real treat; in addition to being very informative, Dr. Sisney keeps his audience laughing with his wit & humor. He, as a Professional Psychologist is a NOTED Counselor and Speaker. We are most fortunate to have Dr. Sisney; recognizing that he is very much in demand as an After-Dinner Speaker. In addition to his primary theme, we feel certain he will also allude to Senior Citizens using his Coined-Phrase--"It is better to retire TO SOMETHING rather than FROM SOMETHING.

Many will remember that Dr. Sisney spoke to our chapter (63) several years ago; thus we feel that a common bond is in the making. At that time, his informative and humerous talk embraced the subject-SEX. I feel safe in saying-"the OM's and Gals were equally impressed".

Continuing: Dr. Sisney is a native of Oklahoma. He received his Doctor's Degree from the University of Oklahoma. Ivan Miller,W5HFU informed me that he was a Champion Lt. Weight Wrestler during his undergraduate years. Also, he is an avid Stereo enthusiast, and has the equipment to prove it.
Final Note: Y'ALL come.

73-RAY, W5TY

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Reading from May (C&E): Pre-Registration submittals must be postmarked before July 10,'85. Pre-Register form is in the May & Jun C&E. Please note: "(Ham Holiday registration not required for QCQA Breeakfast or Banquet)"--Sooo order NOW!!. The breakfast will convene Sunday, Jul 28 about 08:00 hours; served @ 08:15 so that the program can commence W/O undue delay. Please spread the word that all interested are sincerely invited (Amateurs & Non Amateurs)--especially the GALS, who, have generally stayed away in past years (Possibly the early hour!!). But this year, the rules are changed and we promise Amateur Radio Stuff will be kept to absolute minimum!!.

73--Fred, W5NL

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A 2ND recent and important "NEWS BRIEF" is here presented. To me, it flavors as a good Hot Stove (front burner) item. See July QST (Pages 9 & 52)--"It Seems Tc Us": Subj. Novice Enhancement & "Minutes of Executive Committee (No. 418, May 18,'85, Par.2.6)). Fancy this will become a Key Issue item at ARRL Forum @ Ham Holiday; if not before. Borrowing from Carl, W5JJ's oft used "Thumbnail"---"It was decided to recommend expansion of the existing 28-MHz Novice band to permit Morse, RTTY and data up to 1200 Bauds in 28.1-28.3 MHz; Morse & SSB voice in 28.3-28.5 MHz."...voice and data modes Plus Morse (220-225 MHz-25 Watts output,max)----Novice ops iin 1246-1260 MHz (5 Watts output,max). The all in-betweens needs to be savored by reader. The Executive Committee cannot be accused of dawdling over their lunchtime food (Sub Ed. note). A definite Accolade for much more than usual homework!!.

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BITS N' BYTES:

(1) To Tom Banks,W5HJ: A very special thanks & plaudit for your truly fine article--we appreciate it--entitled "THIS IS NO RUMOR-ITS A FACT". (May C&E). Many readers were impressed!!. Could it be you were the first (RM), Railroad Mobile???. If you can recall, pls send circuit diagram-we will reproduce it.

(2) To Leland Smith, W5KL: We certainly appreciated your check-in and very appropriate comments on our/your Sunday Meeting-on-the Air. Sorry that yourself & Helen will not be present at this year's Ham Holiday/State ARRl Convention. We shall miss you both. Tnx again for your super participation last year.

(3) QCWA Election: Chapter 63 as TELLERS have so far tallied approximately 4300 ballots; nationwide and overseas. Special thanks to all of our volunteer vote counters who have assembled at Red Cross (10th & Hudson) on four occsassions-although the first was kind of a trial/training session to ascertain Bugs,if any. Unless we are surprised with a big late vote input, we visualize only one more big session. The mail-ins are merely a trickle. Will be calling volunteers when we have enough ballots for a session. The biggies (ballot mailings) are Florida, Texas, California. Estimate a number from Oklahoma who have not yet voted--Please cast your vote & mail!!!

(4) ARRL Booth-Ham Holiday'85: Chairman, Herman (Tiny) Irwin, W5NBH; 4345 S.E. 12th St.,Del City, Ok.,73115, Tel.677-1309 still looking for a few more volunteers. Two hours max per two man team is all it takes. Coffee will be furnished via the Hospitaly Room (adjacent); they are not licensed for anything stronger. Tiny, did not have to twist hard to enjoin Cecil Cash, W5PML, Lawton as a "Very Possible" and of course we thank Frank Phillips, AB5J, Lawton who has the expertise as a former booth participant.

All for this issue--73 Fred W5NL. C.U. at Ham Holiday'85/ARRL State Convention!!!. Robby I Promise to get you my File early next month, but know you'll not hold your breath-waiting.

FOR SALE: Ten-Tec Argonaut band switching SSB/CW QRP rig in very good condition. Includes model 208 CW filter. $150.00 negotiable. Rob AA0D, 373-1818 evenings, or 686-2169.

He who is slowest in making a promise is often the most faithful in its performance.

WE ARE only young once, but we can continue to be immature indefinitely.

The impossible: what nobody can do until somebody does.

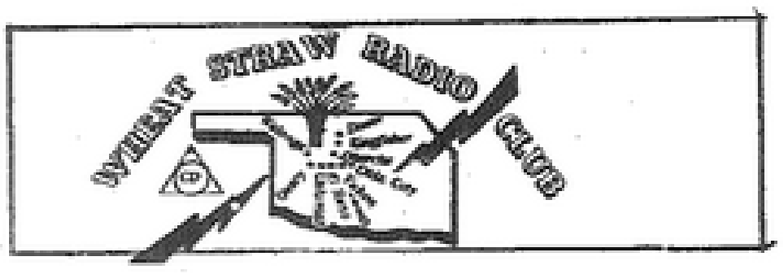
No executive has ever suffered because his subordinates were strong and effective.

PETER DRUCKER

OKLAHOMA AMATEUR RADIO OPERATORS

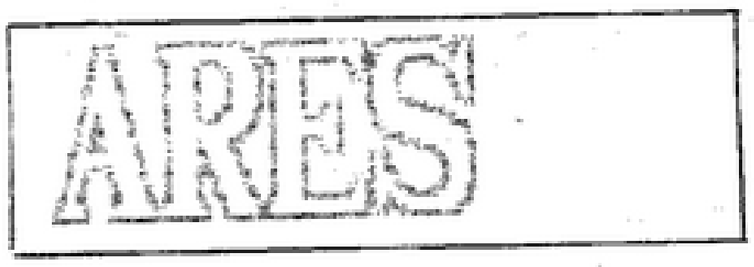
At the 1-26-85 ORSI meeting, the society voted to decide the 15 vs 20 kHz 2K spacing question this summer. Only ORSI members will vote on the question.

However, the society will poll repeater groups statewide in order to determine their preference. This and other information will be presented at the summer ORSI meeting held at HAM HOLIDAY on 7-27-85. If the 15 vs 20 kHz question interests you, let your local repeater group know your preference. The ORSI wants to make the right decision based on repeater group comments



The Wheatstraw club held our June meeting on Sunday the 9th which was hosted by the Kingfisher group of Amateurs. The meeting was held in the new community room of the Peoples Bank. Thanks to K5LLX Ray and Verlena, WA5GHK Joe & WA5VNF Mary Ann, N5FMO Scotty & Virginia, and to my wife Lori for the great refreshments. The meeting was called to order by Pres. Marvin WA5JHB with a small group of 19. Including N5FMO who had to leave but thoughtfully left a cake behind for us to sample; don't worry Scotty it really was delicious! Most of the meeting business concerned Field Day activities with arrangements to be made for getting everything in working order and discussion on the use of HF frequencies along with the normal VHF & UHF operations under the call K5GBN. The club will also have the annual hamburger fry that Saturday evening out at the usual field day site. After all the meeting business was finished the program was turned over to K5GGL who showed us a video tape replay of the Wheatstraw 25th anniversary dinner. This is an excellent tape and should be viewed again sometime in the near future so everyone could watch (from the camera's view) the great time had by all who where there. At the end of the tape George captured the changout of the old repeater with the new one and how much difference there is between the two, and also some of the first QSO's made off the new machine.

The next meeting will be held in Watonga with WA5PFK as host and also net control station for this month. See everyone on 01.61 Wed evening's at 09:00.....73..WD5GLD



I hope everyone had a chance to listen to the North American Radio Teleconference Net on the 14th of June. This was an excellent program and should have answered alot of your questions about the Radio Amateur Satellite program. Many special thanks to the Edmond Amateur Radio club and their excellent repeater WD5AII for the link-up with the TRN. These are special broadcasts that can enrich our knowledge in learning more about the new technical advances in amateur radio. This teleconference was moderated by a dedicated group of professional Amsat volunteers who are very familiar with all aspects of the satellite programs; from Phase 3 (oscar 10) to the planned Phase 3C, Phase IV, and PACSAT satellite projects. Anyone interested in this new frontier in amateur radio would have gained valuable information. The next Teleconference will discuss the uses of ACSSB or Amplitutude Compandered Sideband techniques. Project Oscar now has circuit boards available to anyone wanting to experiment with ACSSB and these boards are yours for a small donation to Project Oscar. The annual gathering for Ham Holiday 85 is almost upon us and I sure hope everyone can get time to visit the Amsat booth this year, we had a great crowd last year and enjoyed meeting everyone. We plan to have some interesting items on display including some new graphics software for the more popular computers, these programs will let you display any satellite (including the STS missions) in real-time with color displays of the earth and orbits. One program will control the rotors for complete control and is available for almost all computers. We'll look forward to seeing you there.

73..WD5GLD

The South Canadian Amateur Radio Society

Davis, KD5IT

Here are some of the highlights of the June meeting.

CONTROLLER FUND

We unintentionally omitted the following contributors in the last issue. An asterisk indicates a new member.

N5DWN	LINDA	N5GMS	ED*
N5HTS	TERRY*	N5FFO	MIKE*

Welcome to the new members. The total SCARS membership is now up to 55.

BY LAWS CHANGES

Several changes in the by-laws affecting the Trustees responsible for the club station and the club repeater were suggested and approved at both the April and the May meetings. The trustee for the repeater station remains W5OU and N5BEW was approved as the alternate trustee for the repeater. A trustee and alternate trustee for the HF station are yet to be selected. Anyone interested in those positions, contact KD5IT.

NEW CALLS

The novices and technicians who passed the exams on April 24 received their new calls. Here are some of them:

N5HZR	MARK	N5HZS	RON
N5HZT	HARLIN	N5HZU	HOWARD
N5HZV	JEAN	N5HZW	EARLE
N5HZX	FRED	N5IAA	PAULA
KA5WIJ	AARON	KA5WIK	JUSTIN

FIELD DAY

By the time you read this, SCARS will have won the Field Day contest!! At least that's what Louis, KD5WA, Field Day director is predicting.

SCARS invited all of the novices and technicians in the Norman area to an on-the-air practice session at the Red Cross on Saturday, June 8 and June 15. About ten showed up on the eighth and several made their first QSO at that session. Mark, N5HZR, had his first QSO with a Novice in Minnesota who was having his first also! A DOUBLE first QSO. How often does that happen?

REPEATER LINK

SCARS is working on a second input to the 06/76 repeater. The antenna will be located in an ideal location in Norman and will use 146.460 MHz for input. The new input is intended for low power inputs and will be tied to the repeater by a 440 MHz link. The plan is to make it easier for low power handi-talkies to get to the repeater.

Dave, K5PL, has been pursuing this project along with N5BEW, KD5WA, and KA5EFJ. The group picked up three(3) 440 receiver transmitter boards at Ham-Com and have ordered crystals for the 2 meter receiver SCARS now owns.

HAM HOLIDAY

The club will be renting two tables at Ham Holiday on July 27. Any club member can put items for sale on the table BUT must also agree to work at the table for part of the day. Jerry W5MCJ, reports that pre- registering for Ham Holiday helps to increase the prizes. So send in your registration form now.

CPR CLASS

The Red Cross has scheduled a CPR class for members of SCARS and their guests. The class will be on two successive Saturday mornings, July 13 and July 20, from 8:30 am till about noon. Enrollment is limited to twenty folks. Call Davis, KD5IT, to reserve your place in the class.

GREAT PLAINS A.R.C.

WØHGH Repeater 146.13/73

Fifteen members and four guests were present for the June 4th meeting of the Great Plains Amateur Radio Club. There are several new hams moving into our area, and we are very happy to see them showing up every now and then. We hope they will feel free to join us anytime. A large portion of the meeting was spent formalizing our communication plans for the Woodward Harvest Days races to be held June 8th.

The date for next year's Eyeball QSO and Swapfest will be Sunday April 13, 1986. VE testing will tentatively be conducted on the afternoon of the 12th with the hamburger fry to be later that evening.

Our plans for upcoming Field Day activities were discussed and assignments made. There seems to be a lot of interest in this activity this year.

We had a very good turnout for the Gage Roadrunner Marathon and 10K race with 18 hams participating. A hamburger fry followed with 27 hungry people eating hamburgers with associated goodies and commenting on one delicious odd-named cake. Also, the club had two hams, Gerry Ford, NC5C, and Rod Ford, WB5OVT, who weren't satisfied with helping to provide communications and decised to participate in the 10K race. The outcome follows:

THE RACE OF THE FORDS
OR
SIDE BY SIDE

One day in may, a race was on
with two Fords running in a Marathon
When the shot rang out they were at it
side by side.

These two were thinking like Thunderbirds
but in Model T bodies
that's quite absurd
and not even a single warning would they abide.

Sharon and I jumped in the car,
and away we flew,
hoping there was something that we could do,
like when they fell apart we could throw em
in the trunk and go hide.

But neither Ford was gonna give in
they just threw us a wink and a silly grin
they couldn't back down, they were
trying to save their pride.

Then Gerry spit and sputtered
and began to gasp
and we thought perhaps he was out of gas
but yet when offered he refused to take our ride.

Rod somehow forged ahead a mile or so
then his engine got hot and tires got low
and for all concerned we thought that he had died.

When the race was over
sitting under the trees and these guys told you it had been a "BREEZE!"
You know the truth now, how it is, that these two lied.

They say another race is due to come again
and they're gonna run and they're gonna win
after all the pain and suffering
and tears they've cried.

Well, they've got guts and a lot to show
and we've decided, being their wives, you know
we're gonna bury their bodies in a bar ditch
side by side.

RADAR BILLY NEWS

KD5JR claims that he amd the radar, after a few minor adjustments, are working better than ever now. Bill says a fund raising campaign will soon begim to purchase new parts and equipment for the radar. Bill had a very interesting presentation which included a tracking map of the toronados in our area last April 20th. This served to remind a few of us are how close we actually were to the storm path itself. WHEW!!!

ARRL APPOINTMENT

One of our nembers, Myron Lusk, N5HRA, has recently been appointed as the ARRL Assistant Technical Coordinator in this area. This job sounds like it could get very involved and and Myron is to becommended for his willingness to serve. Congratulations, Myron.

CLUB PROFILE

QUIDO SHULTISE, K5OJ

The subject of this and next month's profile is one of our most experienced radio communication (and not only amateur radio) personnel. Quido Shultise was first qualified for an amateur license in March of 1917 in Los Angeles CA. Lecense as such were not issued during this time because of the impending World War I conflict. Quido remembers using a key and spark coil to transmit, a silicon detector and tuning coil to receive, and iron or copper wire antenna, as the wireless equipment in his station during this time.

His first call, 9NX, was issued to him at Wichita KS by the Department of Commerce in early 1920. Licensing at this time was conducted by a radio inspector who worked for the Department of Commerce. Quido recalls that Herbert Hoover was the head of the department at this time. Calls issued in this time frame marked the opening of ham communication after World War I.

Quido maintained the call 9NX for only three years, allowing it to lapse because of his involvment in commercial radio. In the Spring of 1922 he became a 2nd grade Commercial Radio Operator and a 1st grade shortly thereafter. For the next few years he became very involved in radio. For instance, he recalls building and operating broadcasting station WAAP in Wichita, working aboard ship, making several trips abroad, and building a CW point-to-point communication system for Skelly Oil. All this was accomplished from 1923 to 1928.

His travel and employment was even more varied during the depression. In January 1929 he was narried and in Octoberof 1929 he was employed in Chicago by Universal Wireless which was a successful operation for a while and had plans to rival Western Union with radio stations all over the country but the depression put them out of business. He worked for numerous broadcast stations during the depression, obtaining a full set of commercial licenses which he was thankful to have during this harsh period. Two of the stations were KTAT in Ft Worth and KFH in Wichita. Also during this period he worked for Phillips Petroleum in Bartlesville as an operator of one of their three CW point-to-point network stations. These stations were assigned frequencies around 1750 kilocycles.

After graduating from Cal Tech (at age 37-married, and two children), he worked during the World War II period as a civilian radio engineer for the Signal Corps, Squier Laboratories, Ft Monmouth NJ.

Next month we'll continue our article on this interesting gentleman.

73, Lois, KA5PYA

Q. R. Zedd

ZEDD STRIKES BACK AT AN ILLEGAL

Q. R. Zedd's concern about illegal power on the ham bands has become well known. As the world's greatest DXer as well as the holder of the only 1x1 callsign, A5A, and being a really nice guy, Zedd -- as we reported in earlier issues -- took it upon himself this spring to do something about the problem.

Spurred by a report that the FCC had gotten nasty with some DXer for running about 35,000 watts, Zedd took three historic steps:

ONE -- He began preparing for a personal experiment in QRP operation.

TWO -- He decided to publish his own views on the subject of illegal power. (This document has now gone into the Congressional Record under the heading, "Great Moments in DX.")

THREE -- He got onto the airwaves personally in his own enforcement operation.

Your reporter has been kept so busy reporting on items two and three, as well as chopping his dandelions, that he has not yet had time to fill in the world on the results of Zedd's own QRP experiments. Of course many tens of thousands of amateurs around the globe already know what happened, and have the QSL cards to prove it.

We will try to update readers on the QRP operations in a future issue, just for historical record-keeping purposes. In this issue, however, we must report on how Zedd completed his courageous, one-man fight against illegal power on that fateful day last May when someone had the temerity to challenge him.

Of course it happened on 20 meters.

Zedd, you may recall, had just quieted 75 for all time with his calm and rational intervention during a squabble between some frequency hogs running high power.

He then tuned to 20, and promptly got a few boys in a Zone 19 pileup to calm themselves and cool their tubes a little.

All was going well, and those of us honored to be in the radio shack at Honor Roll Ranch, just a hoot and a holler south of town, were wiping our eyes of the tears brought by the overwhelming emotion of witnessing such greatness.

But then Zedd swept down in frequency to the CW portion, and a signal blew the needle clean off his signal strength meter, knocking a hole in the side of the metal case and impaling itself in the left elbow of onlooker W5MCN.

Zedd gave Leland a bandaid, then sighed in exasperation and went to his dummy load, through which the incoming "CQ DX" call was only twenty over nine.

The signal was out of 2-land, and the operator was going along about 35 words a minute. Zedd of course can copy up to 100 in his head, but fortunately for those of us of lesser skill, he also happened to have a personal computer in line and it displayed the Morse on a VDT.

The first time the Dxer in 2-land sent a couple of Ks, Zedd reached to his Bencher and dropped his callsign a couple of times, hoping for a reponse. We report the next portion of the contact as seen on the screen:

A5A, QSY QSY. CQ DX CQ DX CQ DX CQ DX CQ DX DE (deleted) K

(Deleted), A5A A5A

LID IDIOT MORON (deleted) QSY FREQ IN USE CQ DX CQ DX CQ DX CQ DX CQ DX DX KN

(Deleted), A5A ... REDUCE POWER REDUCE POWER UR OVER LEGAL MAXIMUM ES SPLATTERING SO PLS

FREQ IN USE FREQ IN USE. QSY LID QSY

Zedd's face started to get a little red.

"Well, boys," he sighed, "there are times when direct action of a more dramatic nature is clearly called for."

With that, in a gesture that struck chills to the marrow of our bones, the great one slowly turned the control which rotated his big array onto the azimuth of the offending station. With his other hand, he slowly adjusted the loading on his big linear amplifier.

The lights dimmed. All over central Oklahoma.

The guy in 2-land was finishing up another transmission.

Zedd checked his DX direction-finding program in the Epson he got for a Christmas present last year, then touched up both his beam heading and linear loading.

He poised his hand over his key.

The Dxer sent a K to his wonderful contact in England, or maybe Germany.

"RIP," Zedd said, and depressed his key.

Bolts of lightning screamed off the beam array. Clouds rolled, sort of like in "Close Encounters" when the big ship was finally coming in.

Somewhere -- or was it only our imagination? -- we thought we almost heard the scream.

Zedd got off the key and listened to the frequency again.

The British station was trying to raise the DXer on the east coast.

The 2 was QRT, or worse.

Subsequent investigation by the proper authorities on the east coast revealed that an amateur radio operator on the outskirts of a major city was rushed to a local hospital shortly after Zedd's retaliation. The police reported third-degree burns over most of the operator's body.

He was found sitting near a window beyond which there was a great puddle of melted aluminum, as if ferocious heat had somehow melted not only a Yagi but a 70-foot tower.

As for the amateur's rigs, police found two smaller puddles of molten metal on the charred operating table, and a smoking black clinker that might have once been a D-104.

The operator will live.

Zedd had Tondelayo send flowers.

Twenty meters is nice these days, isn't it?

KU5B

CORA COLLECTOR & EMITTER

HAM HAPPENINGS REFER TO CLUB SECTION FOR SPECIFICS

SUN	MON	TUE	WED	THUR	FRI	SAT
	1	MORI Great Plains 2	3	4 INDEPENDENCE DAY	Aeronautical Center ARC 5	6 COCO
7	EDMOND Club 8	76'ers 9	10	ALTUS AREA 11	12	SCARS ARDMORE 13
Wheatstraw 14	15	AUTOPATCH 16	17	KAY County 18	RADIO TELE CONFER-ENCE 19	VHF Club 20
21	CIMARRON Central Oklahoma Radio Amateurs COLLECTOR - EMITTER 22	CORA 23	24	25	26	27
28	29	30	31		JULY The managing editor assumes no responsibility for the data contained herein.	