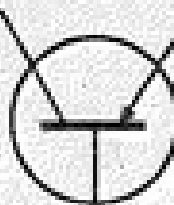


SECOND CLASS MAIL

Postmaster, see page 3

CENTRAL OKLAHOMA RADIO AMATEURS
COLLECTOR AND EMITTER



50¢

VOL. 12 MAY 1986 NO. 136

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TRANSCEIVER INSTALLATIONS

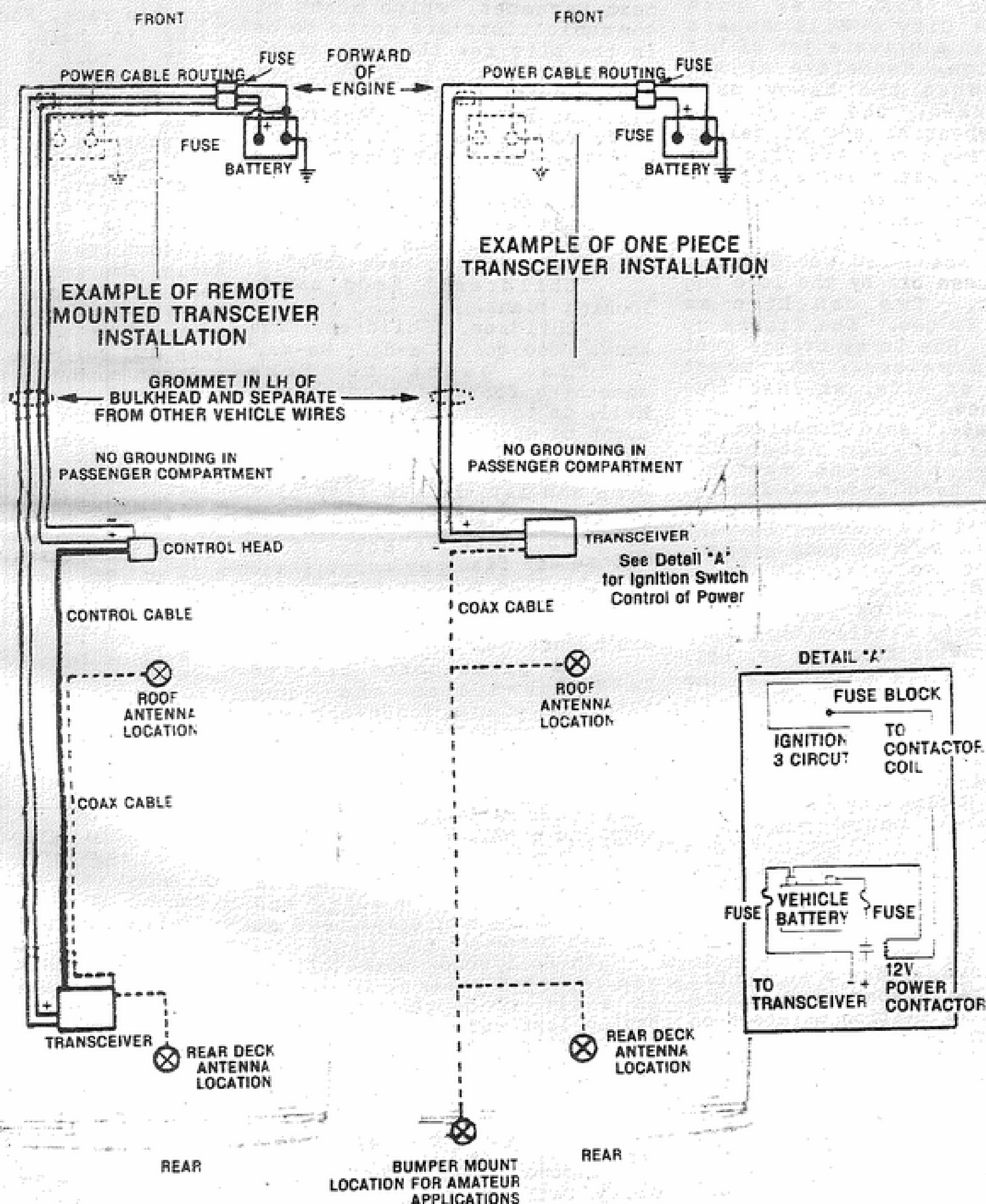


Figure 2. This diagram illustrates several methods of installing radio transceivers in GM automobiles. It is taken from a GM Note issued by their Electromagnetic Compatibility Department. I didn't even know that they had one.

**PREREGISTER FOR
HAM HOLIDAY/ARRL WEST GULF CONVENTION**

Q. R. Zedd

RUMORS ON ZEDD, TONDELAYO TRUE!

Rumors about a possible wedding that would unite Q. R. Zedd, the world's greatest DXer, and Tondelayo Schwartz, his blonde, nubile QSL secretary, were confirmed last week.

The world was agog.

Zedd, A5A, flew into Oklahoma City's Will Rogers Airport in a private jet of his own design, Tondelayo at his side. When the happy pair disembarked, the great man looked sheepish and Tondelayo was wearing a rock the size of a 40-meter crystal and a slender wedding band on the third finger of her left hand.

"It's true, boys," Zedd told the assembled world press. "I have been bit by the love bug at last. Two can live as cheaply as one. She lights up my life. She is my bridge over troubled waters. Ah, sweet mystery of life, at last I've found thee."

"Zowie," said Tondelayo.

"Darlin', go fetch the luggage and bring the car around," Zedd ordered fondly. "I got to fill the boys in on this deal. Oh, and buy me some Roitans at the counter on your way out, that's my good girl."

Tondelayo clattered off in her gold Candies, and Zedd, holder of all DX records for this planet, settled down with representative from the AP, UPI, Reuters, Women's Wear Daily, The New York Times, USA Today, the Wall Street Journal, and C&E. The great man looked tanned and fit, LEDs on his multiple-band scanning transceiver, chest-mounted, twinkling constantly. He said he would take all questions.

"Sir," said AP, "could you please tell us when and where you married Tondelayo?"

"Sure, boy," Zedd smiled. "We got married a week ago in the Vatican. That's an outfit over there in Rome that runs a one-operator station barefoot on the low bands."

"And is it true," asked USA Today, "that you married the darling girl because -- after activating the lost continent of Atlantis in January -- you felt there were no more DX worlds to conquer, and you might as well settle down?"

"Nothing could be farther from the dadburned truth," Zedd answered. "There is always new DX to conquer. Now, I admit that putting Atlantis on the air, all bands, all modes, was

the greatest feat ever. But they are creating new countries out there all the time, and changing prefixes and all. And if I am to stay No. 1, I got to work them all, all the time. There will always be new challenges in DX. Believe me.

"No," Zedd went on, stuffing fragrant latakia tobacco in his oom-paul, "I married Tondelayo for two reasons. First, she's been a loyal little thang and I think she's earned a break. Second, everybody agrees the solar flux is going to bottom out about next December, which means hf communications are going to be in the pits for the next three years or so. I figger, if you're going to get married at all, now is the time when there ain't a lot else to do anyways."

"How about children?" asked UPI.

"If they got a callsign, I'll work 'em," Zedd shot back.

"No, no, I mean are you and Tondelayo going to have any?"

"Children?" Zedd said, looking blank.

"Children. Children. You know. Goo goo. Da-da. Ma-ma."

"You ought to take something for that stomach gas. Well, as to children, probably I ought to sire some. I owe it to the gene pool of humanity, don't you think? Well, I'd better go down and let the old lady pick me up now, boys. She's got a lot of laundry and cleaning to do down there at Honor Roll before she fixes my supper, and then at nine o'clock she's gotta climb the south tower and check out why a couple of the strobes ain't working."

The press corps trailed Zedd downstairs and then outside, where Tondelayo was waiting in the Ferrari. With a jaunty wave and a hi ho silver, she gunned the racecar out of there, heading for Norman, from where Honor Roll Ranch is just a hoot and a holler south.

Contacted for comment in Mena, Arkansas, Zedd's momma chortled, "Goodie, goodie!" and was reporting the grand news on all ham bands.

In Hollywood, Joan Collins was reported seeing her shrink in a fit of depression about having lost out.

And in Moscow, Russian DX ace Boris Badenov was quoted as saying marriage was about what he would have expected from a decadent capitalist pig like Zedd.

Badenov said, "I will never marry Natasha Bullwinkle, my brunette, nubile companion from Box 881"

Natasha then stuck him with her knife.

--K05B

kay

Painting has been completed on the Emergency Communications Trailer and it looks as good as new. All that remains to be done is to install the public service and the amateur radios and the batteries w/charging system. The trailer should be ready for the June 7th CEA race. We still need some 2M mobiles and portables to work the race. For those who are going to help, you need to be ready to roll at 7:30am Saturday, June 7. If you would like to help, get in touch with Dave Land, KD5FX, and let him know. For those of you that help with the race, you will receive a free T-shirt.

For those of you who might be interested, C. L. is taking applications for the Amateur Radio Emergency Services (ARES) here in Kay County. There will be VEC Exams here in Ponca City on May 3 at 10:00am in the downtown ONG Building. This will be a great opportunity to upgrade.

The 37/97 repeater is going to be moved to a new location on the water tower off Lake Road in Osage County. This is being done to eliminate interference that has been causing some trouble at the present sight. Also the new location is about 200 feet higher, so this extra height should help out on the coverage.

The next meeting will be on May 15, 1986 at 7:00pm and will be located in the Pioneer Drive-In Bank on Lake Drive. Hope to see you all there.

73

KE5XY

GREEN COUNTRY HAMFEST

OKLAHOMA ARRL STATE CONVENTION

Sponsored by the Broken Arrow & Tulsa Amateur Radio Clubs in Cooperation with the Tulsa Repeater Organization will be held at the Tulsa County Vo-Tech School, 4600 S Olive, Broken Arrow, that's Oklahoma. May 16-18. Doors open at 9:00 am.

Pre-Registration is \$4.00, \$5.00 at the door. Flea Market tables: Pre-registration \$7.50 or \$10.00 at the door if available.

Amateur License Testing, Lunches available, Saturday evening BBQ dinner, Programs for every one, Dealer displays, Flea Market and all the usual Hamfest activities. Plenty of motels.

GRAND ARARD - KENWOOD TS-440
Contact: Broken Arrow ARC, PO Box 552, Broken Arrow OK 74013

THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

1 AERONAUTICAL CENTER ARC
MEETS: FIRST THURSDAY, FLIGHT STANDARDS
BUILDING, FAR, S. MACARTHUR
PR JACK INAN, WBSVN 677-8537
VP TOM HANSHAN, KSLDI 677-5291
SE GLORIA SEIGNIOUS, WDSJPM 722-1740
TR BOB PACE, WASCJ6 376-3569
EDITOR: GLORIA SEIGNIOUS, WDSJPM 722-1740

2 CENTRAL OKLAHOMA VHF CLUB
MEETS: 10:00AM THIRD SATURDAY, RED CROSS.
10TH & HUDSON (BACK DOOR) OKLA CITY
PR JERRY WETMORE, KDSIS 524-5080
VP PAT SHERRILL, WSPS 943-3219
SE JOE BUSWELL, KSJB 732-0676
TR ELLARD FOSTER, WSKF 789-6702
EDITOR: JOE BUSWELL, KSJB 732-0676

3 MID-OKLAHOMA REPEATER, INC
MEETS: 8:00PM FIRST TUESDAY, OKLAHOMA CIVIL DEFENSE
WILL ROGERS BLDG., STATE CAPITOL
PR DOC BOWERS, KXSW 942-7738
VP TIM REUSCHER, KSMUG 848-9910
SE MIKE SAMBUCCO, KASTSD 672-9176
TR SID GERBER, WSKOZ 737-1050
EDITOR: MIKE SAMBUCCO, KASTSD 672-9176

4 OK CITY AUTOPATCH ASSN.
MEETS: 7:30PM THIRD TUESDAY, OKLA CITY FIRE
TRAINING CENTER, 800 N PORTLAND
PR DON ROOKER, WOSH 721-2119
VP DON SAUNDERS, WDSIS 721-0404
SE CHARLES HOFFERBER, NSFNU 340-4468
TR ART HERNANDEZ, KFSOK 354-9724
EDITOR: DON ROOKER, WOSH 721-2119

5 OKLAHOMA UNIVERSITY ARC
MEETS: 7:30PM SECOND TUESDAY (SEP-MAY)
119 WILSON CENTER, 1334 S JENKINS
PR LUKE NOAH, KASBAY 325-1775
VP JOHN MUSTENBERG, KESN 325-2382
SE PETER RICHESON, KASCOI 329-3217
TR GREG SMITH, KASLZN 366-1641
EDITOR: GREG SMITH, KASLZN 366-1641

6 ALTUS ASSOCIATION
MEETS: 7:30PM SECOND THURSDAY
NORTH MAIN FIRE STATION (CD) ALTUS
PR DWIGHT DENNIS, WBSKRM 482-2478
VP
S/T MIKE SCHENKLE, WSVIU 482-1797
EDITOR: MIKE SCHENKLE, KBSIX 482-1797

7 BICENTENNIAL (76ers) ARC
MEETS: 7:00PM SECOND TUESDAY, OG&E BLDG.
SE 3RD & E. K. GAYLORD BLVD.
PR DONALD DUCK, AESN 691-4199
VP TED VANLANINGHAM, WDSJNT 262-1675
SE JERRY SPROUL, WSAUH 354-2061
TR TOM WEBB, W9AFM 737-6716
EDITOR: JIM SEALS, KBSIX 381-2005

CENTRAL OKLA RADIO AMATEURS
MEETS: 7:30PM FOURTH TUESDAY, RED CROSS
BLDG. 10 & HUDSON OKLA CITY (BACK DOOR)
PR DON SAUNDERS, WDSIS 751-0404
VP JIM BUSWELL, WSBEO 236-0368
SE KATHY WHITED, WBSNO 799-1457
TR SUSAN ST LAURENT, KFSLG 324-8180
CON/COM: CHARLES HOFFERBER, NSFNU 340-4468

9 WHEATSTRAW ARC
MEETS: 2:30PM SECOND SUNDAY. LOCATION VARIES.
SEE CLUB SECTION FOR DETAILS.
PR JOE GARLAND, WAFSLT (CALUMET) 893-2660
VP JOHNNY FISH, KSGBN (CALUMET) 893-2227
S/T GEORGE MASCHINO, KSGSL (OKARCHE) 263-7614
EDITOR: VIRGINIA BENEDE, NSEND (WATONGA) 623-7935

19 OKLA INDEPENDENT AR
MEETS: 7:00PM SECOND TUESDAY
SOUTHWESTERN BELL OFFICES, PONCA CITY
PR DAVE WHITE, WNSLUI 765-5707
VP VERNON TREIBER, NSANV 767-1571
SE GLEN BISHOP, JR, KASPB 767-1031
TR BIZ WICHY, WDOHCO 762-3297
EDITOR: DOUG EVERITT, WSDUB 359-0069

11 EDMOND AMATEUR RADIO SOCIETY
MEETS: 0DD MONTHS, 3RD SUNDAY, 2:00PM, EDMOND
EOC. DINNER, EVEN MONTHS, 3RD FRIDAY.
PR BOB MCCOY, JR., WSBUI 348-2032
VP LEE VAUGHN, KASWIS 348-2961
S/T AMBER THOMASON, KASVEK 478-4615
EDITOR: AMBER OR BOB

12 QUARTER CENTURY WA
MEETS: QUARTERLY AT VARIOUS PLACES.
NET: 3855 KHz SUNDAY AT 8:00 AM.
CHM ROBERT RUNYON, AA00 373-1818
VCH GENE NAILLEN, KSDLE 341-8289
S/T HOWARD BAKER, WSA5 721-5453
EDITOR: ROBERT RUNYON, AA00 373-1818

13 KAY COUNTY ARC
MEETS: 7:00PM THIRD THURSDAY
PIONEER DRIVE-IN BANK, PONCA CITY OK
PR PAUL DAVIS, WSHIC 765-2227
VP DAVE LAND, KDSFX 762-8616
S/T RICK LONG, KESXY 765-5487
EDITOR: RICK LONG, KESXY 765-5487

14 CIMMARON ARS
MEETS: 7:30 PM THIRD THURSDAY, NSFUD RADIO SHACK
827 S 13, FAIRVIEW
PR STEVE SCHOONMAKER, NSFUP (405) 886-3274
VP BILL SIMPSON, WSHOK (405) 883-5523
SE MADINE PAINTON, NSFPH (405) 764-3399
TR BETTY DAY, KASRTW (405) 227-3462
EDITOR: JACK DAY, WNSZ (405) 227-3462

15 SOUTH CANADIAN ARS
MEETS: 9:30AM SECOND SATURDAY, RED CROSS BLDG.
NORTH OJ CAMPUS, NORMAN
PR JEFF WYKE, KESB 329-6762
VP FRANK RIZZO, W2OCM 321-2899
TR MONTE BATEMAN, WBSRZX 329-7485
SE LINDA BRANDT, WSDWN 321-5081
EDITOR: DAVIS EGLE, KDSIT 321-7570

I bet that you could sell
an ad for the C&E. They are
just 45c a square inch.
Business cards are only \$30
a year. Try it.

16 EDMOND AMATEUR RADIO CLUB
MEETS: 7:00PM SECOND MONDAY. SEE CLUB
SECTION FOR LOCATION AND TYPE
PR MARK NORTHCUTT, WDSOYI 755-4672
VP BOB MOORE, KASETA 799-1765
S/T KAY NORTHCUTT, WDSOYJ 755-4672
EDITOR: MARK NORTHCUTT, WDSOYI 755-4672

17 OKCPM USERS GROUP
MEETS: 7:30PM, SECOND THURSDAY
OSU, ROOM 307
PR WILLIAM COOTER
VP JIM WHITE 364-5289
S/T JOY WELTON 789-0280
EDITOR: WILLIAM COOTER

18 GREAT PLAINS ARC
MEETS: 7:30PM FIRST TUESDAY
WOODWARD PUBLIC WORKS BLDG.
PR WINDLE HATCHETT, WAFPLW (FT. SUPPLY) 766-3561
VP LEWIS PATTERSON, WSKFK 256-2111
SE LOIS FORD, KASPYA 923-7683
TR FREIDA PATTERSON, NSEOX 256-2111
EDITOR: LOIS FORD, KASPYA 923-7683

TRI-CITY AMATEUR RADIO CLUB
MEETS: 1ST THURSDAY OF THE MONTH.
PLACE:
PR ROBERT DOLTON, KASRHU 379-2365
VP RON PHILLIPS, WBSUPU 382-1856
S/T J. B. BILLS, KESMU 379-3992
PO BOX 655, HOLDOENVILLE OK 74848
EDITOR:

20 ARDMORE ARC
MEETS: 7:30AM 2ND SATURDAY, CORRAL RESTAURANT
INFORMAL: EVERY WEDNESDAY, 221 9TH NW
PR GENE SOUTH, WAS1JA 223-8252
VP HOWARD ROBINSON, WBSFAJ 223-5726
SE JIM CHILCOAT, W5JCI 226-6816
TR JOHN MERLYN, WDSFZO 223-9543
EDITOR: JACK GANT, WSGM 223-2619

10 COCO
MEETS: 9:00AM SECOND SATURDAY, RED CROSS BLDG.
NW 10 & HUDSON. DUES \$10.00 PER YEAR
CH BOB PACE 376-3569
VC BOB HELMS 733-3429
S/T KAYE DERRYBERRY 681-0461
EDITOR: KAYE DERRYBERRY 681-0461

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CIRCULATION: Bob Graham, WBSNSV, 677-8685

GREAT PLAINS A.R.C.

W5HGH Repeater 146.13/73

The Great Plains Amateur Radio Club held the April monthly meeting on what turned out to be a very appropriate day. April Fools Day found us meeting with 15 members and 4 guests present. The meeting was held at the Northwest Electric Cooperative building in lieu of a forgotten key. When the old man and I arrived, late as usual, at the regular meeting place and found nobody there, along with another certain well known late arrival not yet in, we suspected foul play. Immediately we turned on the old 2-meter to announce to all concerned that the game was over and they could all come out from hiding. We were informed that due to unfortunate circumstances the meeting place had been changed to another location. "Ah Ha!!," we exclaimed "A wild goose chase is on the way!!" Or, in other words, an April Fools run around was in progress. "All right" said we, after deciding to go along with the flow, "Where's this mysterious hideaway?" So to pacify this joyful group, we headed out clear across town and needless to say, were thoroughly surprised when we reached our destination to find real live hams waiting on us. Some people I know would only say "Oink" to a situation such as this. (Guess what possessed me to say that Gerald?)

The meeting did go very well with no other unusual circumstances following-well almost none. Final plans were made for the forthcoming Eyeball QSO and it was voted on to help out again this year with the Gage Marathon to be held May 24th. Plans for this event will be discussed at the next monthly meeting. Now for the nitty gritty news.

GPARC EYEBALL QSO

Right off the bat I want you to know that you are reading the words of a real live "talking" ham. I along with 13 other lucky souls managed to pass the VE testing. I wish to say congratulations to everyone that did make it. I think I can stop patting myself on the back long enough to say to the ones that didn't quite make it to hang in there and keep trying. Just be thankful that you didn't have to sit through the story, as I did, of the little frog that was used to hardships. If you would, for some unknown reason, like to know more about this tale, contact Gerald Bowman, W5GZ, but bring your sleeping bag. It is believed by several of us that a

story telling contest might be a good program for next year's Eyeball QSO.

The QSO went very well this year as did the VE examinations. Some very notable hams were included in the list of the 200 plus attendees. Mr. Joe Harding, W4SZNF, Editor of the C&E was among the list of distinguished visitors. We were very honored, surprised and extend our thanks for all his efforts, and hope to see him next year. Dave Cox NB5N ARRL SM and Ray Miller, W5REC, ARRL Assistant Director and several other ARRL personnel honored us with their attendance. Gerald Bowman, W5GZ, once again was our Master of Ceremonies. Dave was kind enough to give a short but very enlightening speech. A drawing was held and 29 gifts were distributed.

We enjoyed visiting old friends and making new acquaintances. Our long distance attendees this year were Doug Fairbairn VK3DJX, and XYL from Victoria Australia. Our thanks to everyone that came from near and far, because you help us make this event such a pleasure, and so successful. Lee, W5HGH, mentioned that we were fortunate enough this year to have 39 tables for new and used goodies for your viewing and buying pleasure. And, of course, as usual the food was simply outstanding. I can say this even though I never did get another sample of N5EOX's super-duper peanut butter bars as was promised. I have this unnatural craving for those things, so maybe it was best that they did not appear. I might have checked NZ5T out a little closer though!

Bill Wyatt, KD5JR, did a super job at the Saturday night hamburger fry. It was rumored that a couple of steaks were thrown on the grill at the very last when we ran completely out of hamburger meat. (Don't you wish?) Anyway, thank you Bill they were delicious. A great big thanks goes to all the help we had in the kitchen from the ladies. It was quite a task this year. Actually it seemed for a while that we might sink but we must have been made from the same stuff as the Little Frog of Hardships.

NC5C, Gerry, I know would like to thank everyone who took part in the VE testing. Your help was greatly appreciated. To all the dealers who participated this year goes a Great Big Thank You and do join us again next year. Everyone! JOIN US AGAIN NEXT YEAR--We like it

In closing, I would like to say "Yes, Freida, I would accept frozen leftovers!"

73

Lois, KA5PYA

CIMARRON

C.A.R.A.'s meeting on the third Thursday of the month sometimes makes it tough to get a column together before the deadline.

That explains the absence of any reportable news for last months C&E.

I encourage all members to contribute to the column in any way they can. Try to get it in by the 15th of each month at the latest.

One of the best plugs for amateur radio this year was accomplished by Leo Peil, KE5TP, who is not only a member of C.A.R.A., but also of the Wheatstraw Club and the G.P.A.R.C in Woodward.

Leo is an outstanding Ham, in the best sense of the word. His radio station, in his home in Canton, is a model, and much of it was built or rebuilt by Leo himself.

Leo's Kenwood 820 is busy a lot of the time. Ostensibly retired, he actually gets in a pretty large week roofing houses and a host of other money making projects. In spite of that, Leo has Ham friends all over the world - many who QSO with him on a regular schedule. He has done especially good work with missionary relays for C.A.R.F., and recently had a great writeup in the papers for a QSO that Leo effected between a missionary in Bogota, Columbia and his long time friend - the pastor of Leo's church!

To Leo this was business as usual but the publicity and picture was the type of story that puts Ham Radio in the very best light possible, and is the reason it has survived in spite of the aggressive lobbying by commercial interests.

Leo's "Elmer", eight years ago was Ray Barnes, AB5Z, and between the two of them they have advanced the amateur's cause in our area by holding Novice classes, working as officers in our clubs, and willingly doing whatever opportunity presented, to make ARRL and amateur radio the respected public servants that they are. Leo and Ray - our hats are off to you both.

We can't help but feel proud of C.A.R.A.'s Ruth Simpson, N5FUR, and Nadine Painton, N5FMH, even though the code wall has twice beaten them. They are so gritty and determined that they are bound to succeed sooner or later, and it makes our procrastinators really look bad. Especially Ruth, who is seventy "hum" years young and when she makes it she will become, I

believe, the oldest woman Extra class. Cheers for Ruth and Nadine.

We do have a new Extra class in our midst. Denny Painton, WB5ECM, passed his written test at Enid and beat the 20 wpm wall at Mooreland. Congratulations, Denny.

Our resident electronics whiz, Major Bailey, KI5P, and Dede, N5FUN, are the proud parents of our youngest and newest Tech 3rad, KA5ROB, has two meter privileges now. Nice going, Brad! It is rumored that they recently upgraded their wheels. It will be interesting to see what happens to the radio facilities therein.

Club meeting in March produced some smoke but not much fire. It was voted to develop plans for field day, and it looks like the Ringwood farm of Bill Simpson, N5HQK, and XYL Helen, N5HQL, will be the QTH. No plans were made for the next Tech-General class but it may possibly happen after school is out.

Our Novice class produced two new card-carrying Hams. Bill Pool, KA5ZED, has served in many areas of law enforcement as well as service in the National Guard. I have a feeling that Bill will find his way into the A.R.E.S as well as the fun side. Our newest twelve year old Ham is Tim Buster, KA5ZEL. Tim is the son of Fairviews Baptist youth minister, Terry Buster and his wife Sue. Congratulations to Bill and Tim and welcome to Amateur Radio.

LAKE CANTON FIELD DAY

Oklahoma amateur radio operators will conduct their third annual "Field Day" exercises Saturday and Sunday, July 12-13, at Lake Canton OK. Activities begin at 2 pm, Saturday, and continue through the night until noon Sunday. Events take place in the "Big Bend" picnic shelter.

The Lake Canton Field Day is held in conjunction with the annual IARU "Radiosport" DX Contest. Simulated emergency operations, QPR contacts, solar power, fellowship and camping are among the featured attractions of the weekend. Participation is open to all amateurs. Guests are welcome.

Facilities include RV, camping, picnic areas, a beach, restroom/shower facilities, boat launches and paved roadways. Canton Lake is one of Oklahoma's highest -- 1638 feet above sea level, and is located 91 miles NW of Oklahoma City in northeastern Blaine County.

Talk-in frequencies are 146.52 simplex, and the Fairview OK repeater, 144.85/145.45. I-40 travellers should use the Calumet repeater, 146.01/61. For additional information contact Tim Mauldin, WA5LTM, P.O. Box 19097, Okla City OK 73144, telephone (405) 521-5048.



-FILE ZERO- MAY-1986

Chapter 63 Birthdays for May, 1986:

02 Gilla Wood	W5NUT
06 Dale Diehl	K5WUF
06 Ray Bryan	W5IQ
11 Claudine Heighecker	
	YF-W5EJ
15 Pauline Lagaly	YF-W5NTL
18 Jeanette Myrick	YF-NG5G
25 Helen Irwin	YF-W5NBH

Traffic count for March, 1986:

SESSIONS	5
CHECK-INS	205
TRAFFIC	23

THE MEETING THAT WAS...

Let me see if I can remember it all...

The quarterly Chapter 63 meeting was held on Sunday April 20, 1986 at Dodsons Cafeteria, SW59th & Penn, starting in the general area of high noon (plus or minus).

The room was packed, and overflowing. No one got a head count, but there was a bunch of folks on hand.

Let me see if I can reconstruct the meeting. We opened the meeting with the traditional prayer, followed by the Pledge of Allegiance. Following a short business meeting and Treasurers report, a drawing was held for three very lovely gifts for the ladies generously donated by Sam and Mary Stephens, W5HZD. Ina Miller (YF-W5HFU), Emma Hawkins W5PWN, and Pauline Rea (YF-W5AA) each were winners in the ladies-only drawing. Mary gave us six gifts, and they were so nice, Glo and I thought we would draw for three at this meeting, and three at a subsequent meeting. Sam indicated we could have brought all six this time, and he and Mary could probably find more for the next one. We will not have a drawing at the HH-86 breakfast, but should have a hum-dinger at the next meeting following that event.

Our business meeting produced a super idea from Norm Wilson, W5FLO, which he "volunteered" to follow up on. Goes something like this: There are several repeaters in the metro area with autodial emergency calling features. Each

repeater uses a different code for autodialing the various emergency agencies around, and it is difficult to remember which is what. So, Norm is going to contact the repeater organizations around the area, under the sponsorship of QCWA (in other words in the name of) and see if we can come up with some standard code for all repeaters.

Sounds terrific to me, so since I'm the trustee for the 146.85 machine (W5PAA) I told him we would participate in any such plan that resulted. By the way, in case you didn't know, auto dial through the .85 machine is as follows:

OKC Police	941
OK H'way Patrol	942
OKC Fire Dept.	943
AMCARE	944
OKC EOC	945

We will change them to what ever standard comes out of Norm's project. It would be nice if OKC had 911 service, but it looks like our "forward looking" community hasn't looked quite that far forward as yet. Maybe we need permission from the Racing Commission or something before we can get modern...

Our program was presented by Mr. Jim Seals, KB5XN, who is one of the local "Packeteroos" and something of a pioneer on the scene. I thought I had something of a basic grasp of this latest fast communication technology, but after hearing Jim's presentation I changed my mind. If anyone thinks we've seen it all with SSB, RTTY, AMTOR, and such... better think again. Now we are talking about communications windows of milleseconds and less to pass (and confirm) intelligence. Jim also is experimenting with packet communications via laser. Sometimes I feel like things are moving so fast, I'm getting technological jet-lag.

Thank you all for a most enjoyable meeting, for for the fine turn out to partake of the QCWA fellowship. See you next Sunday on the air at 3855MHz, 0800 local, and at HH-86 for Sunday breakfast. Norm will likely have a progress report on his repeater auto dial project, and I suspect we will have some other interesting progress reports on such things as our Air Space Museum undertaking.

73- Rob, AA00.

ED SED: "I'm saddled with a horse."

ED SED: "He who rests, rusts."

ED SED: "Reporters tell stories."



President Sam Murr called the meeting to order at 8:59 AM on April 12, 1986. Approximately 120 members and guests attended.

Announcements

1. Because of past pilferage, the Red Cross is taking steps to secure their building at all times. Consequently, when you arrive at the next meeting, you may find that the outside door is locked. There's a buzzer above the upper left-hand corner of the door. Press it and someone will let you in. Be aware, though, that the buzzer disrupts the meeting considerably, so please get to the meetings early!

2. Our beloved president forgot his gavel and the tickets that we normally use when drawing for door prizes. (Earth calling Sam!) The attendees had to put their names on pieces of paper for the drawing. Sam's excuse for his scatter-brained behavior seemed valid: he had just bought a new van the day before and that was all he could think of.

3. Sam recovered in time to discuss CoCoNet, the club's bulletin board, for the benefit of the first-time attendees.

4. Francis Doling recently attended a Color Computer meeting in Columbus, Ohio. He said that only 35 members were present, despite the fact that Columbus is larger than OKC. This just confirms my opinion that we're one of the largest CoCo clubs in the U.S.

5. Bob Helms had an article about the Multi-pack Interface published in the May, 1986 issue of 80 MICRO. Next month they'll publish another of his articles.

6. Speaking of Bob, this was his last COCO meeting, for a while at least. Later this month he's moving to Anchorage, Alaska. (Take a respirator with you, Bob.) We'll all miss him very much. Be sure to send me your new address, Bob, because your C & E subscription is paid up through the end of the year.

Old Business

1. Duane Woodson announced that the Enid area would soon have 20 new COCO, Inc. members. They will constitute our first satellite chapter, as discussed during the March meeting. Their first meeting was scheduled for Saturday night, April 12, 1986.

2. Martin Schiel reported on the findings of the CoCoFest committee. The committee recommended that CoCo, Inc. sponsor a festival on Saturday, July 19, 1986 at the Myriad Convention Center. The price of admission

will be \$2 for individuals and \$6 for families. (Family means a husband, a wife, and their offspring. Aunt Nellie, Cousin Cal, and Grandpa will have to buy their own tickets.) 1200 parking places will be available underneath the Myriad. Parking will cost \$2.00. Hotel rooms at the Sheraton Century Plaza (across the street from the Myriad) will cost only \$39 per night. The Sheraton will also provide some Deluxe rooms for \$85 per night. These rooms feature a concierge, free hors d'oeuvres, and complimentary sparkling wine each evening. We invited Tandy to be our sole hardware dealer. We will also send letters to 20 software dealers inviting them to attend. They will "pay" one piece of software for each table they request. Then, we'll give the software away as door prizes. We will provide tables (for \$1 each) to those individuals who wish to participate in the swap meet at the CoCoFest.

3. After several minutes of discussion, Rob Runyon moved that we stage a convention on July 19, 1986. He amended the motion to empower the CoCoFest committee to make whatever decisions are necessary in the course of duty. Paul Pape seconded the motion, which passed resoundingly.

4. Anyone who would like to volunteer to serve on any of the CoCoFest subcommittees, please contact the subcommittee chairmen.

Advertising --

Martin Schiel, 670-6891

Registration --

Archie Washington, 751-4162

Seminars --

Bob Pace, 376-3569

5. Next month we will hold our annual swap meet in the parking lot of the Red Cross. If it rains we'll have the event inside. Spread the word.

New Business

This month let's extend a welcome to new members Stanley Allvisi, Joy Bass, J. C. Folk, Greg Marzec, Harles McCoy, Mike Parish, and Randall West.

Hardware Problems

1. Dorothy Roberts has experienced problems with her Gemini 10X when trying to print emphasized, double strike, and enlarged at the same time. If anyone can help, please get in touch with her.

2. Jeff Landrith wondered if he could speed up his Radio Shack printer. Bob Pace suggested that he use a serial interface to handle the communication between the computer and the printer. That will free up the printer from having to communicate with the computer and will improve speed by about 20%.

3. Eric Roberts has written an RS-232 driver that works

perfectly at 300 baud and almost perfectly at 1200 baud, except for accurately transmitting the control-A and the space.

Software Problems

1. Raylon Rogers is having problems with MASTER YOUR DATA, a DBMS in the December, 1985 issue of HOT COCO. If anyone is familiar with this program, he would appreciate your help.

2. Don't use ELITE WORD in the 32K mode. Use EW64 instead. The old ELITE WORD didn't check for the end of the text buffer, so it would write over program code, crashing the program and causing you to lose all the text you had typed in. EW64, on the other hand, has a larger buffer, so you're not as likely to crash.

3. On a more serious note, Sam Murr was having trouble with DALLAS QUEST, an adventure game. He hasn't been able to get past Roger the Rogue Elephant. An attractive young lady in the back knew the secret, but she wasn't telling.

4. Paul Pape needs a Radio Shack printer driver to print graphics.

5. David Coburn wanted to know how to save a file to tape in ASCII format. Try this, David. To append, save, or read an ASCII file, return to the Main Menu and hit to return you to BASIC. Load your original TELEWRITER cassette into your recorder, and SKIPF past the boot program, TW64, and DEMO. Then, type CLOAD to read in the file called A (one of 11 identically named ASCII files on the cassette). Next, type RUN, which will display a menu on the screen. From this point on, everything should be self-explanatory.

6. David was also concerned about an apparent MABEL3 bug, which he noticed while trying to transfer a file to a friend. In his first version of MABEL3, Bill Holland made a slight miscalculation when computing the length of the file to be transferred. Bill suggested that David use the latest version of MABEL3.

7. Bob Helms warned COLOR PROFILE users to search on the same field which they used to sort the file. Otherwise, they may experience severe problems.

Doorprize Winners

Jim Freeman - OS9 PASCAL

Tom Mangham - hole punch

Frank Owen - hole punch

Bill Skipper - Color File

Randall West - RAINBOW on

Disk

Sam Murr - calculator

Nathan Roberts - calculator

Tony Parker - Flight Simulator

John Foss - OS9

Ron Goff - Chromasette

Huy Nguyen - 4-way serial switch

The South Canadian Amateur Radio Society

APRIL MEETING

The club held its monthly meeting on Saturday, April 12, at the Red Cross. Twenty members and one guest, Gerald Tiffin, WSVUK, attended the meeting.

ANTENNA SITE

In spite of the fact that we told you last month that the repeater would be back at the old site, it wasn't. However the powers-that-be assured the club that the antenna and cable was being erected at that very moment, and that by the time you read this, the repeater should be back at the old antenna site. Well --- we'll wait and see.

LAKE CANTON 1986

A group of local amateurs, led by WASLTM will conduct their own "field day" on July 12-13 at Lake Canton, Oklahoma. The fun begins at 2 pm Saturday and goes through the nite until noon Sunday.

The Lake Canton field day is held on the same weekend as the IARU Radiosport DX contest. All amateurs and guests are welcome.

Lake Canton is located 91 miles NW of OKC and has RV, camping, picnic areas, showers, and all facilities for civilized folks.

Talk-in frequencies are 146.52 and the 144.85/145.45 Fairview repeater. For more info, contact Tim, WASLTM, at (405)521-5048.

NOVICE CLASS

Just completing the 7th week of the SCARS novice class as this is being written, nine folks have passed the Novice CW test and four have earned their Novice tickets. The four are John Witt, Eddie Schimelpfening, Dennis Davis, and Clay Ford. Congratulations and welcome to amateur radio!!!

VE EXAMS

The next VE exam to be conducted by WASRPP, NSMS, KUSB, and WSOU has been scheduled for Thursday, May 1. The exam will start at 6:30 pm and will be held in room 229 Kaufman Hall on the University of Oklahoma's main campus. Kaufman Hall is on the North-East corner of the Dale Hall parking lot. The nearest entrance is at the corner of Parsons and Elm Streets, one block North of Elm and Lindsey

COCO CONTINUED

George Roberts - extension outlet
Martin Schiel - nothing (again!)

Program

This month several individuals showed off their systems during hardware month at COCO, Inc. Jim Seals demonstrated packet switching. Lewis Samples exhibited his 80 column display and his monitor driver which was feeding a color monitor and a black and white monitor concurrently. Duane Woodson demonstrated OS9. Bob Pace displayed the internals of a CoCo, a disk controller, etc.

Bill Holland & Son showed off COCOMAX, an amazing graphics program which turns the CoCo into an Apple Macintosh look-alike, but with color. To run the program, however, you must have a mouse (\$50) and a Y-cable (\$28) or a Multi-pack Interface (\$80). Also, because of hardware constraints, the program can't be bootlegged. Okay, you pirates, this is a challenge.

Marc Bosley and Paul Pape produced a videotape tutorial of a DS-69 digitizer cartridge. The program scans a TV picture and digitizes the image. Two options are available: 5-level and 16-level pictures. Both levels of resolution allow the user to adjust brightness and contrast. When you get an image you like, you can print it.

-- Martin Schiel

streets. If you need help finding the place, call KDSIT on 147.660/147.060 after about 6 pm on the nite of the exam. Walk-ins are OK but bring a copy of your current license and the \$4.00 fee. Call Sam, WASRPP, at 321-2601 for more information.

NEW STATION LOCATION

The club HF station was moved by the Red Cross to another room in the building on Halley Drive. The move was to a little smaller room but we don't share it with anyone else. Plans are to build a new bench with three operating positions. Sounds like a big improvement.

STORM SPOTTERS

Ken, KASEFJ, the Norman EC, reports that he has fifteen trained storm spotters ready for tornado season. These volunteers deserve your thanks because it's not easy to sit out on a hill during the rough weather. If you are interested in volunteering, see Ken next January so you can get in on the training.

----- KDSIT -----

VOLUNTEER EXAMINER PROGRAM

V.E. TESTS ARE HELD THE THIRD MONDAY OF EACH MONTH AT 6:00 P.M. AT THE OKLAHOMA CITY RED CROSS AT 10TH AND HUDSON. THESE SESSIONS ARE CONDUCTED UNDER THE W5YI PROGRAM AND ARE SPONSORED BY C.O.R.A.

SCHEDULED TEST SESSIONS FOR THE REMAINDER OF THE YEAR ARE AS FOLLOWS:

MAY 19	SEPTEMBER 15
JUNE 16	OCTOBER 20
JULY 21	NOVEMBER 17
AUGUST 1	DECEMBER 15

EXAMS WILL BE HELD ON AUGUST 1, 1986 IN CONJUNCTION WITH HAM HOLIDAY. THIS SESSION WILL BE HELD AT THE LINCOLN PLAZA AT 7:00 P.M.

AT APRIL'S TEST SESSION WE HAD SIX CANDIDATES WITH FIVE UPGRADES. THE BREAKDOWN WAS AS FOLLOWS:

- RODNEY BEAM WENT FROM NOVICE TO TECH (NO CALL YET), ALSO KASZJL FROM NOVICE TO TECH
- KASWGS FROM TECH TO GENERAL
- WASTAW FROM TECH TO ADVANCED
- NSIRJ FROM GENERAL TO ADVANCED

CONGRATULATIONS TO THE NEW UPGRADES.

WE WOULD LIKE TO REMIND YOU THAT THESE TEST SESSIONS ARE FOR ALL LICENSE GRADES; FROM NOVICE TO EXTRA CLASS. WALK-INS ARE ACCEPTED. WHEN ATTENDING A TEST SESSION, PLEASE BRING THE FOLLOWING:

1. A FILLED OUT FORM 610
2. PEN OR PENCIL
3. CALCULATOR (IF DESIRED)
4. DRIVER'S LICENSE (OR OTHER SUITABLE I.D. FOR MINORS).
5. ORIGINAL HAM LICENSE (YOU KEEP)
6. XEROX OF HAM LICENSE (WE KEEP)

IF YOU DO NOT HAVE A FORM 610, ONE WILL BE PROVIDED. A \$4.25 FEE WILL BE CHARGED, AND THIS FEE COVERS AS MANY ELEMENTS AS YOU SUCCESSFULLY CONTINUE TO PASS (YOU LOSE NOTHING BY AIMING FOR THE HIGHEST LICENSE AND IT GIVES YOU THE OPPORTUNITY TO SEE WHAT YOU MAY BE IN FOR AT FUTURE TESTS).

NOVICE TESTS ARE AVAILABLE AND ARE FREE OF CHARGE.

HOPE TO SEE YOU AT THE NEXT TEST SESSION.

RON -- ND5S

 * OKLOG PLUS CPM USERS' *
 * GROUP EQUALS *
 * *
 * OKCPM *
 * *

At an April joint meeting, the memberships of the CP/M Users' Group and the Oklahoma Local Osborne Group (OKLOG) voted unanimously to merge the two groups into a new CP/M oriented group called OKCPM. Final details regarding the merger will be resolved at the May meeting. This meeting will be the second Thursday of May, on May 8, 1986, at the OSU TECH CENTER near Portland and N.W. 10th Street in Oklahoma City. The meeting will start shortly after 7 PM. After the business meeting, there will be a presentation on communications, modems, bulletin boards, and related topics. This had been the scheduled topic for the April meeting, but these mergers can certainly stretch out a business session. The original May presentation on high order languages (commercial and public domain) will slide back into the June meeting.

All members of the former OKLOG and CP/M Users' Groups are urged to attend the May meeting. Anyone and everyone interested in CP/M software or hardware is also cordially invited to drop in. Dues for the new OKCPM group will be \$15 per year. The major business item will be exactly when to start the new club business year -- maybe something like July 1 would be a good idea.

This merger caps the end of several months of negotiations and joint meetings. It seemed like a good idea in the beginning, and it certainly seems like a good idea now. The merger assures the survival of a HIGHLY viable group that will be able to provide its members with many valuable services, including technical tips, informative presentations, a public domain software library that now easily tops 100 volumes, and one of the best bulletin board systems in this part of the country (dial us up at (405) 848-5347). The board has over 40 Mb of hard disk storage and is an official part of the national First Osborne Group (FOG) RCPM system, which links fifty boards across the country. Members of OKCPM will have access to the complete FOG library. Even casual users will still have access to mountains of public domain software as well as the news, philosophy, and small talk on the bulletin board. And obviously, with over 40 Megs of storage, there is

THE BIG SIGNAL
 OKLAHOMA CITY AUTOPATCH
 ASSOCIATION, INC.

CONGRATS: To the winners of the Crazy Antenna Contest. First prize in the "directional" category was won by Dave, N5GQY, for his "horizontal directional J-pole." "Non-directional" honors went to Joe, WA5ZNO, who exhibited a "pot-able ground plane." The "just plain crazy" category went to Frank, N5FM, for his "gas-filled, three-element spherical." We all enjoyed the craziness. A fitting meeting for the crazy month of April.

THANKS: To the judges of the contest, Jerry, WSUGM, Mike, WASPDH and Buddy, KE5LD, without whose expertise and fine equipment the contest would have been difficult to decide.

THE SKED: Our May meeting will consist of a Field Day warmup and Sooner State Games warmup. This meeting will take place at 3501 North MacArthur in the Mutual Federal meeting room. THIS MEETING PLACE IS FIRM FOR THE MONTH OF MAY. This is a very nice meeting room with tables, chairs, drink machine and complete kitchen facilities.

CLUB NOTE: The reason for trying a new meeting place is that our sponsor at the present location says he will soon retire. His retirement means we

plenty of room if you want to upload a message or some neat new public domain program.

OKCPM welcomes anyone with any experience with (or even interest in) CP/M. Our current membership includes people that use or have used systems from your classic S-100 homebrew to Heath/Zeniths to Kaypros to Superbrains to ZORBAS to Morrows to Commodore 128's to Osbornes. Our members have used operating systems that range from CP/M 2.2 to CP/M 3 to CP/M-86 to various types of CP/M emulators on MS-DOS machines (YES -- that's right. You don't even need CP/M hardware to run all those great pieces of CP/M software). OKCPM obviously makes no fetish over any particular hardware system: We just want to help established CP/M users get the most out of their systems and to help newcomers discover the many rewards of CP/M. So come to the next OKCPM meeting on May 8, 1986, at the OSU TECH CENTER starting at about 7:00 PM. For further information, call up our bulletin board at (405) 848-5317 or call me, Bill Cooter, at either 360-2141 (home) or during weekdays at 521-2384 (work).

must search for new quarters since he will no longer be able to sponsor us.

If any club member knows of any available meeting facilities, please let your club president or other club officer know. We will need a permanent new location soon.

WELCOME: New club member James Harmon, KFSBQ. Welcome aboard, James.

REMINDER: The Executive Committee takes care of most of the club's business at a separate monthly meeting. Anyone wishing to attend an exec meeting will find us at the CECO Company offices at 7401 N. Broadway Extension on the Wednesday preceeding the regular club meeting. We try to get started at about 7:30. If you have trouble finding the place, ask for directions on 146.82.

73 de N05M

OCAPA MAILBOX DIRECTORY APRIL 1986

THIS IS A LIST OF MAILBOX USERS ON OUR 146.82 REPEATER. THIS LISTING IS NUMERICAL BY CALL AREA STARTING WITH "0" AND THEN ALPHABETICALLY BY CALL SUFFIX. CONTACT DON, N05M OR BUDDY, KE5LD FOR CORRECTIONS OR FOR ANSWERS TO YOUR QUESTIONS.

KK0D...	51	N5GVN...	28	K5SXJ...	38
WA0GLD...	43	N5GVP...	27	WB5TMW...	45
AD1S...	35	N5FSH...	42	K5TTH...	49
K2GKK...	46	N5HLJ...	53	K5UAB...	99
KASBJS...	06	KASHRH...	37	WSUGM...	20
WD5CSM...	11	N5HVG...	17	K5URJ...	25
KASDAU...	61	KCSIH...	34	KX5W...	16
N5DBR...	32	N5IJX...	47	NDSW...	30
WB5DJQ...	02	WD5ISS...	22	WB5WPB...	15
KF5DK...	31	N15J...	44	KC5WZ...	84
WASEAI...	40	N5ITW...	03	KB5XM...	77
KF5EB...	23	K5JL...	00	WA5ZNO...	12
N5EEB...	52	WB5KAK...	36	K9KV...	13
W5EMB...	60	KE5LD...	26		
KASETA...	76	KE5M...	48		
KASEUB...	41	N05M...	73		
NX5F...	55	NW5M...	58		
N5FEX...	33	K5MKW...	14		
N5FM...	10	KASNAV...	56		
N5FMU...	19	WN5NWX...	18		
N5FZK...	21	WASPDH...	50		
W5GDL...	54	WB5PWY...	66		
N5GGT...	24	KE5QN...	88		
K5GL...	39	KASRVM...	63		
N5GQY...	29	KAS5QP...	01		

ESTATE SALE: Ham radio estate of Gary, W5GNV. TS- 830S Kenwood XCVR, IC-730 Icom XCVR, CNW-516 Diawa Tuner, Bird-43 Wattmeter, FT-208R Yeasu XCVR, TA-33 Tri-Band Antenna, MLA-2500 Dentron Amplifier, Rohn 25/48 "Fold over" tower, Kenwood TR-9000 XCVR, AEA-Moesematic MM1 keyer, Simpson 460 series 3 volt Ohm milliammeter, DS1 3600A Frequency Counter. Many other items too numerous to list. CASH ONLY. Fri, Sat Sun May 2,3,4. 9am-5pm. 308 West Jarman Drive, Midwest City OK 73110.

CENTRAL OKLAHOMA RADIO AMATEURS

proudly invite everyone to attend our *bigger and better*

HAM HOLIDAY/ARRL WEST GULF CONVENTION

GRAND AWARD

PRE-REG AWARD



**KENWOOD TS-940S ALL
MODE TRANSCEIVER**
LIST PRICE \$1799.00



**ICOM IC-735 COMPACT
TRANSCEIVER**
LIST PRICE \$849.00

AUGUST 1, 2, 3 LINCOLN PLAZA OKLAHOMA CITY

INFORMATION & RULES FOR HAM HOLIDAY

FACILITIES: HAM HOLIDAY/ARRL WEST GULF CONVENTION will be held in the Convention Center of Lincoln Plaza, 4445 N Lincoln Blvd, Oklahoma City OK. Commercial exhibits may be set up Friday night. Security has been arranged.

PROGRAMS: Something to interest everyone. There will be the usual displays, forums and seminars, from Beginning to Extra. There will be programs on DX, Antennas, Satellites, FN, Computers, Packet Radio and many others. Special groups will hold meetings: ARRL, Night Owls, Oklahoma Repeater Society, SMIRK, MARS and CORA to name a few. There will be many programs for ladies - they will be kept busy.

FLEA MARKET: (Non Commercial Only). Every Pre-Registrant may rent ONE table for \$7.00 (to cover our cost). Additional tables are available on the Pre-Registration form. (Tables MAY be available at the door for \$10). The 30,000 sq ft area is indoors and Air Conditioned, with easy access doors for setting up. No displays or "tailgating" will be allowed in the parking lot.
7:00 Open to registrants for setup. Back doors.
9:00 Open to all REGISTERED people.

4:00 CLOSE. Start to clear tables.
5:00 Tables will be removed. People who want tables together should order them through one person. This includes clubs or individuals. Submit Name & Call Sign of persons sharing tables to NSFNU. Only exhibitors will be allowed prior to 9:00am. You may set up any time after 7:00. No flammable liquids, explosives or weapons allowed.

PARKING: There is plenty of FREE parking surrounding the convention site. Several eating places are nearby. Free parking for SELF CONTAINED RVs.

HOSPITALITY ROOM: It will be there, but, the Lincoln Plaza Staff will handle the coffee and eats.

AWARD POLICY: The winner and/or his ticket MUST be present to claim any award EXCEPT the Pre-Registration award. You may sign your ticket for someone else to hold for you. Unclaimed Pre-Registrations will not be deposited for the main drawing - only for the Pre-Registration drawing.

TRANSMITTER RESTRICTION: In order for any ticket holder to be eligible to win a AMATEUR TRANSMITTER he/she must hold a valid amateur license, or there

must be a licensed ham in the family.

PRE-REGISTRATION: \$10.00 with attached form. All envelopes must be postmarked not later than July 23, 1986 to be eligible for the Pre-Registration award. Packet with necessary tickets will be held at the door. To AVOID REGISTRATION LINE: Include 50c, before July 10, and registration(s) will be mailed to you between 7/16/86 and 7/23/86. No limit on number of tickets you may purchase. No refunds. Winner need not be present, for this award only.

ADMISSION: \$10.00 Pre-Registered. \$12.00 at the door. Registration tickets must be worn in plain view for entry into ANY area, including exhibit halls, program areas, flea market, commercial exhibits except Smorgasboard, Early Bird Breakfast or Night Owl Net.

SMORGASBOARD & QCWA BREAKFAST: Smorgasboard will be held at the Heritage House, on Northwest Highway, west of Portland, at 7:00 pm Saturday. The QCWA Breakfast will be held at the Lincoln Plaza at 8:00 am Sunday.

LAST NAME _____	FIRST _____		
ADDRESS _____	CALL _____		
CITY _____	STATE _____ ZIP _____	@ \$10.00	\$10.00
(Additional Registrants. Same address. Eligible for everything.)			
NAME _____	CALL _____	@ \$10.00	_____
NAME _____	CALL _____	@ \$10.00	_____
NAME _____	CALL _____	@ \$10.00	_____
RESERVE-----FLEA MARKET TABLES (SATURDAY ONLY)		@ \$7.00	_____
RESERVE-----ADULT SMORGASBOARD TICKETS		@ \$8.00	_____
RESERVE-----CHILD'S SMORGASBOARD TICKETS (6 TO 12)		@ \$5.00	_____
RESERVE-----QCWA BREAKFAST TICKETS (AT LINCOLN PLAZA)		@ \$7.25	_____

ARE YOU A C O R A MEMBER (YES) (NO)

SEND PRE-REGISTRATION WITH CHECK/MONEY ORDER TO:

HAM HOLIDAY P.O. BOX 60084 OKLA CITY OK 73146

MUST BE POSTMARKED BEFORE JULY 23. PLEASE! NO REFUNDS. AVOID REGISTRATION LINE! INCLUDE 50c BEFORE JULY 10. CHECK THIS BOX () AND REGISTRATION(S) WILL BE MAILED TO YOU BETWEEN 7/16/86 AND 7/23/86.

TOTAL AMOUNT ENCLOSED _____

Will you be taking an FCC Examination YES ()

Indicate CLASS OF EXAM:

YOU MUST ENCLOSE:

Check for \$4.25 Exam Fee _____

Form 610 (Completed)

Xerox of current license (if any)

BRING WITH YOU ON TEST DAY

Pen or Pencil

Calculator (if desired)

Drivers License (or other

suitable ID for minors)

ORIGINAL of your current license (You get it back)

FRIDAY NIGHT at Lincoln Plaza

AUGUST 1 7:00pm

Please send to:

FCC EXAMS

DON KELLEY, KA5UOS

703 W 8th St

Edmond OK 73034

Use a separate envelope-
Separate check for Exam.

EDMOND AMATEUR RADIO SOCIETY

UPCOMING ATTRACTIONS

Saturday May 3 12:00 Siren Test

Monday May 5 8:00pm Infor. Net

Saturday May 10 Garage Sale
Signal Ridge Office Area
1720 S. Kelly 7am to ?

Monday May 12 8:00 Infor. Net

Sunday May 18 2:00 Club Meeting
at Francis Tuttle Vo-Tech
12777 North Rockwell, OKC

Monday May 19 8:00 Infor. Net

Monday May 26 8:00 Infor. Net

Wow what a busy and fun time to be an amateur radio operator! Antenna work, hamfests and club picnics seem to be the mode for the active ham. The EARS installments in the Collector and Emitter have become to recognized for excellent content and exemplary journalistic style. Here is hoping the present editor of the month continues the same fine effort. Please feel free to pass on your assessment.

The May scheduled events for EARS are reflected at the beginning to clearly let you know what EARS is doing. Mark your calendars and participate!! Before we go onward be advised of the dates Saturday May 17 and Sunday May 18. On these dates the Green Country Hamfest/ Oklahoma State ARRL Convention will be held at the Tulsa County Vo-Tech, Southeast Campus. The address is 4600 South Olive, Broken Arrow. Contact Dave Horn, KK5I, at 918-492-5286 for more information.

The remainder of this article will focus on three areas. These topics are EARS activities with the League, recent club functions and finally exposure to items which our club will be working on. A stray thought may be thrown in here and there but hopefully some continuity will be evident.

EARS & ARRL

Has the bond between EARS and the ARRL changed? To help you answer this mini interrogation a phrase from Ken Stepp, N5DBM, will be reused. Unless you have been living in a cave you know EARS & ARRL are working together in a way that defines bond. Webster (1984) describes bond in a manner which is consistent with our present use: to arrange in a pattern that gives strength, to connect, hold together, or solidify. Does that accurately articulate our obsession with the

ARRL? While engaging in a bit of a mental exercise think about this one: do the means of our League oriented activities justify the end result?

You are probably ready to cease with the rhetorical muttering. Toward the end of calendar year 1985 we became re-affiliated with the ARRL. The purpose was to establish ourselves as an active entity while developing a base to build a solid foundation of quality growth. This re-affiliation process initiated telephone and written communication with the League section and headquarters staff. Occurring parallel was C & E EARS articles which began to describe the high octane nature of your amateur club's accomplishments. In this regard Amber Thomason KA5VEK, Bob McCoy N5BUJ, and poor picked upon Ken Stepp N5DBM, did a superlative job in chronicling EARS. Your club was being applauded and encouraged. The recognition was and is based upon the quality and quantity of amateur activities which your club is achieving. With this level of performance EARS was requested to apply for Special Service Status. This solicitation is an honor of which you should be proud! Bill Foster NJ5Y, the Affiliated Club Coordinator, for Oklahoma asked EARS to apply for SSC. The application has been submitted. Presently we are awaiting a decision from ARRL headquarters. The field staff has approved our application. Included in this approval has been Bill Foster, Dave Cox NB5N, Oklahoma Section Manager and Raymond Wangler W5EDZ, West Gulf Division Director.

Many thanks and a tip of the hat to Bill and Dave for their support and guidance for enhancing our club. With their assistance we will procure the recognition and continued growth which EARS members deserve. Hopefully in the near future Raymond Wangler can visit our club and experience in a vibrant way the EDMOND AMATEUR RADIO SOCIETY!!

Now to explain the meaning of a Special Service Club designation. An SSC club is the blue-chip, the Eagle-Scout of ham clubs or perhaps more simply stated the top-performers. It is a designation for clubs which set the highest standards for themselves. An SSC club has that "extra little bit" which distinguishes them from other amateur clubs. They are the leaders in the Amateur Radio community.

Sorta sounds exciting just reading about it doesn't it? Contact Amber Thomason if you want to be a part of the EARS excitement. Her telephone number is 478-4615.

The Special Service Application contains seven specific areas which EARS has identified as either current or planned projects. These are in the areas of:

- Public Relations
- Emergency Communications
- Training
- Technical Advancement
- Operating Activities
- ARRL Membership Recruitment
- Miscellaneous Activities

Quite a hefty undertaking! You can see why SSC is not for every club! So, keep your fingers crossed and we will let you know when we hear. Two final comments before we leave this section. Acknowledgment and appreciation is expressed to those who joined the League as of late. Your willingness to do this a tough economic time is the icing on the cake in our pursuit of SSC. Leo Kluger WB2TRN, ARRL Club Program Manager, your resiliency and direction to us is commendable! Thank You Leo.

RECENT CLUB FUNCTIONS

Three areas of particular interest were enjoyed by club members during April. These were a Craft sale, Lawton Swapfest and the Search and Rescue Training mission near Sulphur, Ok.

Edith Vaughn, KA5YPX, developed and worked more than any one person should on behalf of EARS to have a craft sale. This was on Saturday April 5. Our club members certainly have some talent in making crafts. If you missed this one you failed to see some mighty creative products which illustrated talent of envious levels. The craft sale provided an opportunity for a public relations effort. An amateur radio station was set up at the site of the craft sale. Bob Thomason, KA0CVK, your effort in this area is recognized. Our club had a front page article in the Edmond Sun on the day previous to the sale. To those that participated in the craft sale: THANKS!

On Saturday April 12 several EARS members traveled to and enjoyed the Lawton Swapfest. Several members came back with trunk loads of equipment- now you believe that don't ya? There was rumors of EARS members coordinating their individual purchases so well together that everyone was able to get just what they wanted. You recall the line about some swap land in Florida? Anyway quite a

good time was had by all with laughter the most frequent activity. You can work our repeater from Mt. Scott which is near Lawton. Contact Cal KB00U for confirmation. Speculation is that special QSL cards may be obtainable if you worked Cal while he was atop Mt. Scott in his vintage vehicle.

Saturday April 19 saw several hearty souls (aka EARS Members) gleefully participating in a Search and Rescue Training Mission. One item was omitted from the exercise goals and objectives. The general concept of the omission had to do with learning Search and Rescue skills under slightly inclement conditions. Contact Lee Vaughn KA5WIS for details on "slightly inclement". Now to be honest. The stated purpose of the exercise was to provide amateur communications for other volunteer groups who were physically involved in the search and rescue of a missing person. Involved in the mission were the Edmond Amateur Radio Society, Edmond Civil Defense, Civil Air Patrol and an Explorer Post. In spite of the monsoon the function seem productive with smiles and laughter a constant companion. Ken Stepp N5DBM, our Emergency Coordinator, did a fine job in planning and implementing this mission.

PLANNED EARS ACTIVITIES

You likely noticed at the beginning of article mention was made of an EARS information net. This will be on Monday nights at 8:00 pm. The purpose of the net is to communicate club functions as well as items of general interest to Amateur Radio operators. Frank Tassone KA5WGS, will be net manager. Before we go further, CONGRATULATIONS to Frank and family for their new son-TYLER EARL born April 11. We are also proud of you passing the General licensing exam. Expect Frank to call upon you to assist in the net. This would be to either be net control or provide information on the net. Club Officers and Directors this should make things simple for you. Organize your topics, check in to the net and share.

Currently efforts are underway for EARS to sponsor an Official Bulletin Station. Larry Traub N5IXV, is giving it a trial run for a couple weeks. Larry will need members who can also copy the WIAW Bulletin. These bulletins will be given on the weekly information net. Get with Larry for more information. Howard Baker W5AS, Oklahoma Bulletin Manager, has worked

closely with us on this project.

Mary Wells KA5WHI, is heading up a club logo committee. Should you have ideas communicate these with Mary. The goal is to have one or more logo's which can be voted on at the May club meeting. Clothing, caps and other items can be developed using the logo. Mary, your creative touch is appreciated.

Have you priced the cost of a college education? A.C. Adams KA5WGV, is serving as amateur radio college scholarship information coordinator. He will soon have the scoop on sources and the application process.

There are more items but these will be sandbagged for a later time. One final mention of another way EARS is being of service to its members. Our club secretary is developing a list of license renewal dates for members. Please advise Amber of your date to renew. Then you will get another reminder besides the string tied to your finger.

WB5SYT John Thomason

FROM the PRESIDENT....

I would like to thank all the members (and their family in many cases) that helped with the Arts & Crafts fund raiser. We are much closer to our goal for the purchase of the ACC RC-850 repeater controller. Give Edi Vaughn, KA5YPX, your thanks for organizing the sale.

The next fund raiser will be a garage sale. Bill Wright, KC5GN, is in charge of this event. The garage sale will take place next door to, Ron Moore, N5DEW's business: MOORE LOGICAL. The location is about two blocks south of 15th & Kelley in the Signal Ridge Shopping Center in Edmond. The garage sale will take place May 10, the second Saturday of the month. Thank Ron for securing the use of the vacant business area next door to him, it even has a "garage" door! Plan on bringing your items to the location the Friday before, if it don't sell you get to pick it back up. I think it is airconditioned?...

I want to apologize on behalf of the club if some of our members feel that they have been nickle & dimed (no such word in the dictionary - but what the heck) with respect to some of our fund raising. The board of directors

has decided that there will be no more fund raisers after the garage sale with the exception of operation Santa Claus at the end of the year. We do plan on asking for donations, via pledges, at the May meeting. Your pledge if any will be confidential; only the club treasure will know who gives what unless you decide to divulge your amount. Many of our members may not be able to give money but usually they offer their time and service to the club and community; a far more valuable asset. I thank you for what ever you can give.

A few of our past members have not kept their membership current. Please continue to use the repeater and join us at the club meetings; hopefully, perhaps you can join again. Sorry but the autopatch is closed to non-members.

Why the ACC RC-850? Do we have to have it? Do we need it? What will it do for me? These questions were answered at the March meeting. The RC-850 is the computerized controller controlling most of the repeaters in the OKC area. It works. It is reliable. It has many features we now do not have: legal reverse patch, timed announcements, voice ID, different CW IDs, and many other features. No we don't have to have it...our repeater is working fine. Yes we do need it if we are to continue to be a progressive club and maintain state of the art equipment. You will be advised of the current state of the repeater fund at the May meeting; if we don't get enough pledges to place the fund at our target for the RC-850 we will maintain the fund until after the Santa project and all pledges will be considered void. It is your repeater and choice. We would rather wait until we have enough money for the RC-850 rather than buy a lesser model, this is the plan if enough can't be raised this year.

The club is now going so many directions and has so much going on that bi-monthly business meetings are not enough. We plan to discuss having monthly business meetings at the May meeting. We would still have the bi-monthly dinners (no business). Think about it.

73 de N5BUJ-Bob McCoy 348-2032



(Secretary's note. Because of my extensive travel, I missed the last two club meetings. Bob, W5HXL, being the good old boy that he is, has been watching over things. These minutes are through his courtesy. K5JB)

Minutes of March Meeting

Meeting was called to order at 10:30 A.M., by President Jerry, KD5IS, 13 minutes late because the Secretary was not there. There were nine members present. New member, Richard, KA5TTA, introduced himself. (Welcome aboard Richard, Sec'y) Ellard, W5KE, gave the Treasurer's report and showed the letter he drafted to send to delinquent members as a reminder. It was approved. Ellard also gave the CORA report.

The group discussed the current severe weather reporting procedures in preparation of the coming storm season.

Jim, K5VRL announced plans for a simulated emergency test involving Civil Defense, state agencies, hospitals, etc. It was to be held April 18 at Deer Creek school and involve a simulated tornado strike.

Meeting adjourned at 11:03 with a bad joke by El Presidente. Bob, W5HXL, for the Secretary.

Minutes of April Meeting

Meeting was called to order at 10:06 A.M. by President Jerry, KD5IS, with ten members present. Ellard, W5KE, gave the Treasurer's report and reported that he had sent out the dues reminder letter with the result that several members sent in their dues.

Bob, W5HXL, and Charlie, WA5JGU, gave the CORA report. Charlie also reported on the results of the April 18 Civil Defense simulated emergency test, as observed from Red Cross Headquarters. Earl, N5AWE, was located at the Deer Creek school site and reported on the event from his perspective.

Meeting adjourned at 11:09. Bob, W5HXL, for the Secretary.

Honest Mutha Nature, It Wasn't I!

My mad electrical engineering friend said "Well, are you going to put transient suppressing devices on your power circuits now?" I had just related to him how my latest Ben Franklin experiments (without the kite) had turned out.

About six weeks ago I was setting at this kitchen table doing some work on my income taxes when a bolt of lightning hit real close by. Simultaneously with the BANG! the lights went out. 12 COLLECTOR & EMITTER + MAY 1986

I idly thought how I was setting at this same table about 20 years ago (studying for my amateur radio license test, by the way) when a similar thing happened; the lightning bolt, the lights, and all. I remembered on that occasion I thought the power was out until I got up and absent mindedly flipped on a light switch and the light came on! I found that every light bulb that had been turned on was burned out by the lightning generated pulse. I got up from the table and started flipping light switches. Sure enough! It had happened again. About five light bulbs were burned out!

I looked over the equipment in the ham shack. All the stuff on the 12 volt bus looked normal, all the antennas were disconnected and the only thing unusual was one of the packet radio TNC's was winking its LEDs. It was running from the 12 volt bus but the transient had knocked its little operating program off its rails. After resetting, it started working normally. The Apple 2c computer (also 12 volt) connected to it didn't even need a program reload.

Back in the kitchen, I found an unfamiliar sight. The old faithful Teletype Model 43 was just setting there with no lights on. That machine had been on since about November or December 1974, faithfully recording my packet activity, riding out all kinds of weather and I was almost convinced that it was bullet proof. I pulled the fuse out and checked it with an ohmmeter and found it open. A new fuse turned on the lights but they displayed a strange pattern, like there was an interruption from the device on the other end, hmm. I ran a printer test and it did its little thing ok so I went to the TNC connected at the other end to see if there was anything wrong with it.

It is the original TAPR TNC1 and I never did put it in a case. Instead, I mounted it on a piece of clear plastic so it would be easy to do show and tell. It displayed an odd pattern on its LEDs so I turned it off and back on. Its LEDs didn't do their normal winking trick so I made a quick check of its power supply voltages and found them normal. Things were looking serious.

I fired up an Apple II that I use as an alternate terminal when I am actively packeting and it couldn't talk to the TNC. Out came the break-out box, one of those wonderful little gadgets that lets you look at all the lines in an RS-232 circuit so you can tell at a glance what is, or is not, going on. Looked like trouble in River City. Lines that were supposed to be high were low, and vice versa. All three gadgets hooked to that RS-232 cable, the Teletype machine, the Apple computer, and the TNC looked like they were in distress.

In order to keep from swapping plugs around, I have arranged the computer and the TTY terminal so that either

one can be selected by flipping a switch that routes the RS-232 signals to the TNC. It seemed like everything on that circuit had been gonzoed by the lightning zap.

I didn't have much time to do any trouble shooting that day, because I was preparing to leave town. Instead, I dragged out the GLB PK1 TNC and the Radio Shack Model-100 and connected them so I could maintain my watch on 145.01. For the next two weeks, all I could do was worry a bit about problems I might have getting the Teletype machine running because I don't have any repair information on it. When I returned, I contacted my man on the inside, who I imagine would prefer to remain anonymous, and prepared him for a possible deluge or questions about the beast. He said he would stand by in case I needed to call in the reserves, and for that I am grateful because it gave me courage to tear into the thing with the knowledge that he held the safety net.

As it turned out, the EIA interface board was pretty simple and contained only a few ICs. They were house numbered but the two of them that handle the input and output signals appeared to be wired like the 1488 and 1489 combination commonly found in the plus and minus 12 volt RS-232 environment. In fact, the number on one of them even contained one of those four numbers embedded so my suspicions were reinforced. The ohmmeter indicated that all was not well with those devices. Each one of them has four sections that should be identical. They showed all kinds of resistance variations so I concluded, at least for starters, that they were bad.

The TNC uses the same kind of devices. The ohmmeter showed variations like the devices in the TTY so I added two more ICs to my shopping list.

The Apple was the simplest one to fix. The ohmmeter found a shorted collector to base junction in a 2N3904, about the most common transistor there is. It was already available in the junkbox so it went into the computer and the computer went right back into service.

The next weekend featured a hamfest at Timonium, MD where I was ready to do some looking for ICs. I suppose 1488s and 1489s are available at the corner Radio Shack store, but that wouldn't make the story very interesting, would it? Besides, I needed something to give the folks in Washington to do (Hoss, WA5ZAI, and Chuck, KCOJP) so they could sharpen their skills for Dayton.

The Timonium hamfest was a really nice one. It was raining and the outside flea market (called tailgating there) was the pits but the hard core made out all right. The commercial exhibits were in two buildings, similar to the ones we have at our fairgrounds. There were a lot of computer dealers there, mostly folks selling \$600 IBM

clones. The radio dealers were abundant but since I have one of everything (except a BP-8 battery for Dayton) I didn't spend much money with them. I did pick up that BP-8 though. I toughed it out in the flea market and wore down a seller and relieved him of his AEA PK-80 TNC for \$160. That gave immediate relief from problems I might have getting the TNC1 running.

Well, to make a short story shorter, the TTY was fixed by replacing the 1488 and 1489 and ditto with the TNC. Not without a first getting a word of discouragement from Mike, N5MS, who did a Lazarus job on a lightning struck Icom IC-720. Mike, you see what clean living will reward you with?

One conclusion that can be drawn from this experience is the ability to fix problems in fairly complex equipment shouldn't necessarily be impeded by lack of sophisticated test equipment. Not once did I need anything as exotic as an oscilloscope. The RS-232 breakout box made troubleshooting quick but a multimeter would have detected the exact nature of the problem better than it did.

Another conclusion that I drew was that my mad electrical engineering friend is right. I need to install transient suppressers on the power lines to my house. It can be done for less than \$50. I am gonna do it! I don't want to delay too long either, before I know it, another 20 years will pass and I am going to take another hit!

I haven't been around much to pick up on the local news but I will have a few updates on packet radio, naturally, and a couple of related tid-bits off Compuserve's Hamnet regarding the Japanese satellite JAS-1 and the Tucson Amateur Packet Radio Network node controller being designed and tested. Then we will look at some items from the April 11 ARRL letter. Joe, K5JB

Packet Racket

I guess the most significant thing to happen in the packet radio world lately has been the scare the FCC threw into packet bulletin board operators by "deregulating" the things so they would be virtually worthless. It looked like the issue was third party traffic. Naturally, everything on a bulletin board is third party traffic as far as the station licensee is concerned. The requirement, under the proposed rules was that no automatic operation would be allowed. The ARRL threw quite a fit and asked how in the world the operator at the switch could be held responsible for other's screw-ups at the rate data is transmitted and received from a packet station. The FCC saw the light and allowed as how amateurs leaving messages for each other wouldn't cause Halley's comet to fizzle, or anything bad like that.

Stan, WB5UIY, still seems to be having

fun with his Apple bulletin board and there is talk about putting others on, though I haven't heard any of the critters yet. I run the program on 145.01 when I am home. I keep the ARRL Gateways (a packet radio newsletter), ARRL petitions, and other bulky information available for those within range to make a solid connection.

There are some dandy digipeaters on the air, operated by the hard core DXers, like Bob-Robert, WA5BQX. His DP in Chandler is permitting a real window into the East. I haven't had time to explore it but I have heard others having a lot of fun with it. Maybe next month I will publish the list of packet radio operator's calls to give you an idea of Who's Who. It now contains 95 calls, with more being added every time I get home.

There is not much to report in the way of new packet radio hardware available but I may bring back some information on the new MFJ unit if it appears at Dayton. A lot of operators are waiting to see how they look at their \$129 suggested list price. There is some news regarding the code in the TNC1 ROMS and some TAPR modification information available for improving HF packet operation.

If you want to get the hard core packet news, it is available by prearrangement from my packet station. The following three items are from HamNET.
Joe, K5JB

TAPR TNC/Clone HF Packet Improvement

Recently Eric Gustafson, N7CL, and I re-examined the 300 baud HF modem demodulator circuit and concluded that the main reason people have difficulty tuning in HF packet with the standard 300 baud modem is that it tunes too critically. We have come up with what we think should be very close to the optimal performance of the 2211 demodulator circuit.

To change the standard 300 baud demodulator circuit to this improved version, locate header U34 on TNC1 and U19 on TNC2. The standard 300 baud version of this header contains a 226K resistor and a 510K resistor. These should be replaced by 180K and 750K, respectively. The result of these changes is that the tuning range should open up from about 10 Hz to around 50 Hz. Thus, you should experience reliable demodulation when the frequency tuned is within plus or minus 20 Hz or so of the true signal frequency.

We urge all HF packeteers using TAPR TNCs (original or clone boards) to make these changes as soon as possible. We also remind everyone that HF is becoming alarmingly crowded, and that unless sensible operating practice is followed, the channel will be useless. Some suggestions concerning HF operation are:

1. Try to keep all packets below 80 characters in length.

2. Set MAXFRAME to 1. This will minimize transmission time.
3. Avoid multiple connections and digipeated packet operation.
4. QSY away from the standard calling frequencies as soon as possible.
5. Set FRACK to a sensibly long value.

We hope these modifications improve matters on HF, and would VERY GREATLY appreciate hearing from any of you who make this modification and are able to compare the new behavior to the previous behavior.

73, Dan Morrison, KV7B and Eric Gustafson, N7CL

Sb: TAPR NNC Update March 29, 1986
Fm: HamNet*SYSOP Scott W3VS 76703,407
To: All

(This message relayed via DRNET.)

To: Anyone interested in NNC progress
Fm: Lyle
Re: NNC Update for 25 March 1986

The "final" prototype PC boards were fabricated and a sample supplied for assembly. Last night I finished assembling it and performed preliminary testing. So far, everything works!

Both async ports (CONsole and AUXiliary) send and receive data. The operating system boots and runs. All four HDLC ports have been exercised at 76.8 kbaud in a polling environment and work flawlessly. The parallel port, with supporting circuitry on board, properly drives the OkiData 93 printer using Mode 2 interrupts on the CPU.

The floppy boards are now being delivered to TAPR for the Alpha and Beta testers. The digital board is undergoing electrical test, and a misalignment in the plotting on an inner layer in the board is being corrected at the CAD facility. Most parts are in hand for the test units.

About half the people who volunteered have returned the letters of agreement to participate in the testing. If you have received a letter, please sign it and return it, or send me a note acknowledging receipt if you decide not to participate. I really need to hear from you!

Sb: JAS-1 Update Feb 9, 1986
Fm: HamNet*SYSOP Scott W3VS 76703,407
To: =TAPR NEWS=

At today's TAPR annual meeting, Tak, JA2PKI provided an update on the significant progress that's been made on JAS-1, a Japanese amateur satellite scheduled for launch in August of this year. JAS-1 is a joint project of the JARL and JAMSAT. It will provide both analog and digital packet radio transponders. The packet radio transponder will function as a bulletin board

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system. It uses a Z-80 based (NSC800 CMOS) computer with 1.5 mb of RAM memory (1 mb of which is usable due to error detection/correction).

The satellite will contain one receiver (2m), 2 transmitters (70 cm - one digital, one analog) and weigh a total of 110 lbs. It's is small in size (16"x16"x18.5") and there is a total of 8.5 watts power available onboard the spacecraft. The satellite will ride the Japanese H-1 launcher (2-stage).

Both of the digital links runs at 1200 bps. The digital uplink channels will be 145.85, .87, .89, and .91 MHz. A ground station with 100w eirp will be required to work the satellite. The digital downlink (a single channel) will be on 435.91 MHz. The ground station receiving system design point is 15 dbi. The uplink station will need to use a Manchester encoding scheme to transmit to the satellite. The downlink from the satellite will use PSK modulation. TAPR and JAMSAT are discussing the possibility of TAPR providing a modem to accomplish this as a TAPR kit project.

Of the 1 mb of usable system memory, some 32 kb will be used for the operating system. The remainder of the memory will be available for message storage.

The analog transponder will use 145.9-146 MHz as the uplink channel and 435.9-435.8 MHz for the downlink. A beacon will operate on 435.795 MHz.

JAS-1 will be launched into an orbit similar to shuttle orbit - approx 50 deg inclination. It should pass over the same place on earth some six times/day and be visible for about 20 minutes on a pass.

(Next four items from Apr 11 ARRL Ltr)

Hands Across America

Amateur Radio has been selected to provide primary communications for "Hands Across America." On Sunday, May 26, 1986 some 6,000,000 Americans will join hands in a line stretching over 4000 miles from New York City to Los Angeles. These are the plans of "Hands Across America"; a group formed by the same people that sponsored the U.S. Aid for Africa benefit last year. This endeavor is designed to benefit the hungry and the homeless here in the United States, and is co-sponsored by Bill Crosby, Kenny Rogers, Pete Rose and Lilly Tomlin. The national Communications Coordinator for "Hands Across America" is Charlie Kosman, WB2NQV. In 1984, WB2NQV organized the communications for the Olympic Torch Run across America that lasted 82 days in what he called the longest running net ever assembled for a special event. Now says Kosman, "...we are going to do it all at the same time, linking the east and west coasts by Amateur Radio." According to WB2NQV, the "Hands Across America" people need volunteer Amateur Radio operators every mile of the 4100

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mile link, as well as 210 command posts. That comes to between 4300 to 4500 hams equipped with VHF and/or UHF portable gear. On May 25, The line of hand-holding Americans will pass through the following ARRL Divisions.

Atlantic Division: Delaware, Eastern & Western Pennsylvania, Maryland-DC, and Southern New Jersey.

Central Division: Illinois & Indiana

Delta Division: Arkansas and Tennessee

Great Lakes Division: Kentucky & Ohio

Hudson Division: New York City - Long Island, Eastern NY and Northern New Jersey

Midwest Division: Missouri

Rocky Mountain Division: New Mexico

Southwestern Division: Arizona and Los Angeles

West Gulf Division: North Texas

The assembly of participants will begin many hours prior to the 3 P.M. eastern time that all will join hands from coast to coast. In total, each ham who volunteers for this operation must commit to making himself available for about six hours. Amateurs who wish to take part in this massive communications effort are advised to contact their ARRL Section Manager or the individual appointed by him to handle this event. Addresses and telephone numbers of SMs are listed on Page 8 QST.

Mir Space Station

Amateurs worldwide have been monitoring the progress of the new Russian space station, Mir, launched 19 February. Hundreds of observations on the easily accessible VHF frequency of 143.625 MHz have been reported. Russian language voice emissions, apparently the voices of the crew, have been heard by listeners using even primitive equipment. The VHF FM signals are quite strong according to observers.

Numerous reports of visual observations have also been made. Mir has been easily spotted because of its large size and high reflectivity. Its magnitude is estimated to be about +1 to +2. Complicating the radio and visual tracking activity has been the extensive maneuvering performed by Mir in recent days. The maneuvering was initially to circularize the orbit at about 330 km. Later there was additional maneuvering to facilitate docking with support shipment launches. Frequent updates to tracking data will likely be necessary to pinpoint Mir so long as the current active maneuvering phase continues.

Sources indicate Amateur Radio activity from Mir is quite likely soon. AMSAT will sponsor its Second-Ever Chicken Little Contest to predict the decay from orbit of ISKRA-4 after its launch from MIR. The contest will be started only if ISKRA-4 carries a transponder or beacon in the Amateur bands so it is trackable by Amateurs.

VE Gets the Shaft

The judge hearing a suit brought against Jack Ravenscroft, VE3SR, seeking damages for interference to a neighbors electrical appliances from his amateur radio operations, has decided the case in favor of the neighbor bringing the suit. The judge granted a permanent injunction prohibiting VE3SR from transmitting radio signals from his property and assessed damages and costs amounting to \$2558 Canadian. The judge said that while VE3SR had a legislative right to use his equipment because he was licensed by the Canadian DOC, if he should interfere with the enjoyment of his neighbor's electronic equipment then VE3SR is liable to a civil suit for nuisance. The unexpected outcome of the suit is a severe blow to the amateurs of Canada, and poses a threat to the operators of any licensed radio transmitters in that country. VE3SR has 10 days to decide if he wishes to appeal the decision. His decision will be based in part on whether adequate financial support for an appeal appears to exist in the amateur community. For more information on this case, see Canadian Newsfronts in QST for October, 1985 and February and March 1986. The address of the fund set up to help VE3SR is; The Jack Ravenscroft RF Susceptibility Defense fund, Box 8873, Ottawa, ONT, Canada K1G 3J2.

Simplex Autopatch Advertisements

ARRL members are reminded that it is legal to operate a home simplex autopatch transmitter by remote control from a mobile rig in auxiliary operation within certain constraints. The station in auxiliary operation must confine the control link frequency to 220.5 MHz and above (except 431-3, and 435-8 MHz). ARRL policy requires that ads describing the features of simplex autopatches include the following statement: "Use of this device with a transceiver operating in the 2-meter band, or on any frequency low 220.5 MHz is not permitted unless a separate control link is provided." Some advertisers in other publication are advertising devices which contain a simplex autopatch feature, and stating that any VHF/UHF portable or mobile can be used to control these devices. ARRL members are reminded that control via a 2- or 6-meter rig is illegal. It is exactly this sort of confusion which the ARRL policy was intended to address.

Dayton Here We Come!

Leaving this Thursday. Should provide some grist for next month. Joe, K5JB

Salem

MOBILE RADIO INSTALLATION (Away We Go.)

I have seen some of those photographs of the guy who lugged 200 lbs of equipment into an old 1938 DeSota or something like that and then became the first amateur mobile station while using a 20 foot tall antenna. I don't remember where or when, but fortunately, those days of the one ton truck with two tons or so of radio equipment constituting a mobile are fortunately way past us. Nowadays, mobile operation, especially on the VHF/UHF Bands comes very easy. I remember the first time that I applied for call letter license plates. I read the application and it mumbled something about it being a requirement that you have an amateur radio mobile station in the car. The obvious point being that the state was not going to put some of its finest criminal talent to work just to make you a license plate for the measly price of \$2.30 a year unless there was an incentive for you to install a mobile station in the car and the state therefore receives the benefit of another vehicle equipped with radio that could be used in an emergency. I thought about the application a little and signed the application even though I had no radio mounted in my car. At the time I was carrying a Motorola HT-220 VHF model (still have it) that had been converted to a 12 frequency transmit/8 frequency receive monster. Still fit on the hip although it had a tendency to stretch my belt halfway to the ground. It seemed to me that all pertinent times that I was in the car, that radio was with me and, to me, that constituted a mobile radio installation. I have never really had a permanently mounted radio in my car. The closest I came was my HR2A which I placed under the seat so it would be out of the way of potential owners who would consider a trip inside my car along with a broken window just for chance that the radio might be worth something. It was never permanently attached to anything except the antenna cable and power cord, but it was also never stolen. Come to think of it, maybe nobody wanted a Regency HR2A.

While radios have never been permanently installed, antennas are a different story. Back in 1970, unless you wanted to use a gutter clip mount

the rest of your life, you were required to drill a hole in the car. If I owned the car, OK. But if my father owned the car. Well, . . . there was a problem. Fortunately, by the time I got a car that was more or less for my use, my Dad gave it to me and indicated that I could basically do with it whatever I wanted to as long as it did not cost him money. With that thought firmly in mind, I borrowed a drill and a 5/8" Bit from him and promptly installed a two meter antenna. Then, since that worked out so well, I ran power cables all the way to the trunk and put an amplifier back there. Using the Ht and about 15 to 20 watts out of the amplifier, I had the equivalent of most mobile rigs.

The Avanti on-the-glass antenna changed many of my antenna habits in the mobile. These were easily installed and although I didn't really believe that it would stick on the glass through all the weather that we have in Oklahoma, I thought that it was worth a try. For the most part, it stayed stuck except that the matching box on the inside fell off a couple of times. This was solved by drawing a bead of RTV around the edge of the matching box before installation. The silicon sealant did just that and kept moisture and air from drying out the adhesive on the double sided sticky tape. The outside antenna fell off once (found it in the parking lot at the office), but that really didn't count since the antenna hit a low lying branch from a tree every time I pulled into my driveway. Even I would fall off after a hit like that.

Mobile installations have changed substantially in the last several years. Heathkit used to make a tiny Kilowatt Mobile amplifier. I still see them in the flea market, but at greatly exorbitant prices. They are highly prized. Of course, to run something like that in a modern vehicle would be something sort of disastrous. The new computers in most cars would absolutely go berserk with that much RF floating around the chassis. Many cars are simply not equipped to take that kind of field. Besides the computer, the ignition system probably would go south and if my FM radio in my Bonneville is any indication when I key on my 50 watt two meter amplifier, you probably should observe quiet hours on the commercial radio.

The other day at lunch, Joe K5HMD and Roger WA5JXX and I were discussing mobile installations. I remember the first time that Roger installed a 45 amplifier for his two meter

HR2A. While 45 watts didn't seem like all that much power, it made a big difference to the electronic ignition of his Volvo, especially when he located the amplifier under the passenger seat, close to where Volvo put a computer that helped control the ignition. When Roger would key the amplifier, the car would hiccup and cough and wheeze. To me, this is a mobile example of the FCC Regulation that one should use the minimum power to achieve the communications necessary. In these days of 70 watt mobiles and crowded bands, too many people leave the high power switch in gear.

The worst problem I ever had in a car was just a little broadcast interference (bci) when I keyed on the amplifier. But this was nothing compared to K5HMD's problem with his Heathkit Mobile Kill - O -Watt. Joe used to run this baby on HF and use a loaded whip. Unfortunately, the needle point of the antenna generated a giant corona that would key in step with the modulation. Joe finally found a giant metal ball that he placed on top of the antenna to spread the charge and eliminate the corona. For those of you who remember the old bug catcher type antennas with their 15 foot antennas, you must recall that there generally was a lot of metal waving around back there. After he fixed the corona problem with the metal end ball, Joe thought there were no more problems until he drove to a local gas station to gas up. As he drove under the canopy he knew something was wrong especially when he got out and saw that he had broken out every fluorescent light under the canopy with the newly installed corona ball. The lights were perpendicular to the path of the car and the ball got every one of them it crossed before Joe stopped.

With all the problems you can have in mobile installations, I guess that is why I was interested in a brochure I picked up somewhere (probably at Dayton) that detailed some guidelines for the installation of Radio Telephone/Mobile Radio systems in GM Products. Did you know that

General Motors has an Electromagnetic Compatibility Department? I didn't either. Apparently, it has its own building since the complete address is:

Electromagnetic Compatibility
Department
EMC Bldg. 40
General Motors Proving Ground
Milford, Michigan 48042-2001

The brochure I had is issued by this department. On the first page, they indicate that the installation of radio equipment can adversely affect the vehicle operations such in engine performance, driver information, entertainment and electrical charging systems. Of course, GM disclaims any costs associated with the cure of any of these problems, but do outline some things that will help with minimizing the difficulties you might experience.

drop or very little on the way to the amplifiers. I also drop the power connection off in the passenger compartment in case I decide to use a radio there. I also put a fuse block with about four fused connections up under the dash.

GM recommends that you use a Side Terminal Adaptor Package (See Figure 1). This makes for a very neat installation. I would also suggest that you immediately fuse this connection almost as soon as it leaves the battery. A short could be disastrous. A regular #3AG fuse would probably be OK for the average under the dash car radio, but if you are going to be drawing about 10 amps or more, you might invest in something a little bigger. Motorola makes a large fuse that is made to screw into the metal and has insulated ends and the fuse is completely enclosed (another good idea). A dropped tool on a fuse and wire connected directly to the battery could

direction and probably do compromise coverage behind you. But since the antenna is an end fed half wave dipole with an input impedance of about 3000 ohms or so which the matching network matches right at the base of the antenna, the existence of a ground is a lot less critical than with a quarter wave antenna. The Avantis are also easy to tune if you have a Bird wattmeter (if you don't have one, well, be careful of the cheap SWR meters they can also rise up and bite you. If you trim too much, well, you know that story).

GM mentions antenna tuning and I agree with them that it is important. The existence of spillage currents around the car will mean that stray voltages and currents could be induced

Auxilliary Electrical Equipment GM Recommended Installation

AC-Delco Side Terminal Adaptor Package 1846855, when combined with the longer battery bolt (P/N 7803) and spacer (P/N 7804) will provide the simple, tight, corrosion resistant connection illustrated.

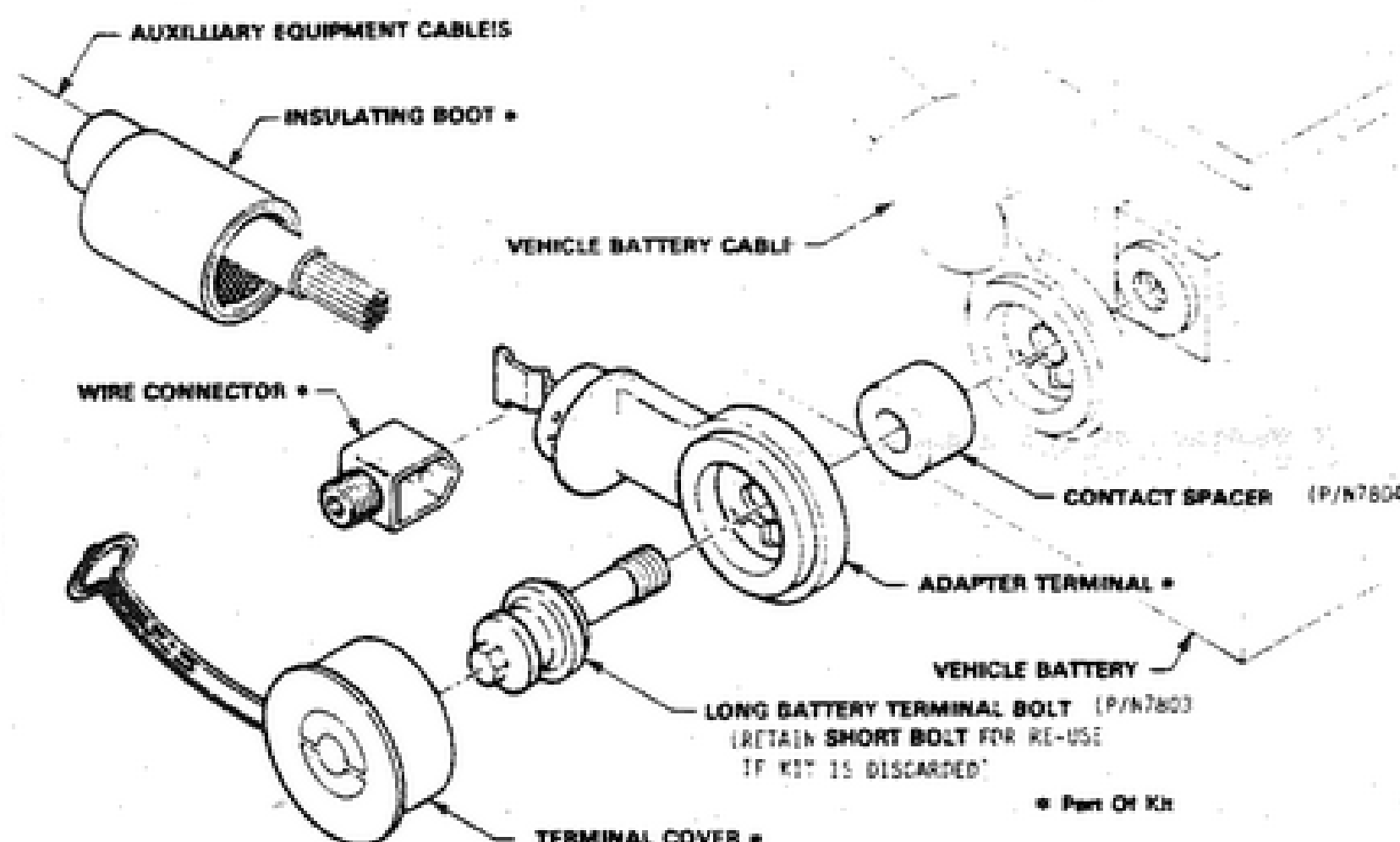


Figure 1. GM recommended Battery Installation for Mobile Radios

One of the more persistent problems is how to route the cable. For a long time, I simply powered the radio from the cigarette lighter. Being a non smoker, except for big thick cigars, on the occasion of a hamfest or late night tea drinking party, that was no problem. But the quality of the power installation affects the RF performance. A poor power connection and poor ground can affect operation by allowing ignition and other noise to enter the radio. This is true even for FM especially when the limiter of the station's signal you are listening to might be a little weak. With my most recent installation, I made a direct connection to the battery and routed a large 10 gauge wire all the way to the trunk. This way, there is no voltage

make for an early Fourth of July celebration.

I can't think of any simpler way to explain them and considering that I am just about out of time, I reproduce the Installation Guidelines in toto on the page following the Transceiver Installation. I think that even if you follow these that you can still have some problems that might have to be solved on a case by case basis, but there is no reason that you can't learn from a little experience of others.

With regard to Antenna Placement, I really like the Avanti antennas since they mount up on the glass and really get out of the way. They can also use the top of the car as a ground plane, at least in the forward

in the various electrical devices of the car.

When I routed the wires through the firewall into the passenger compartment, I took the simplest method. I hired Bruce down at the local radio shop to do it and just paid for it. He was a really nice guy about it and I know that he was paying me back a favor, but I learned a lot watching him. He brought the cables from the battery and drilled a hole in the firewall and used some tubing to prevent the wire from chafing against the sides of the hole. He then tore the hell of of the carpet and back seats, but got them all back together perfectly and made it look great. I also got him to route a 20 conductor ribbon cable

INSTALLATION GUIDELINE
(refer to the enclosed figures during installation)

1. Transmitter Location

- A. Locate transceiver for remote radios on driver's side of trunk as near to the vehicle body side as possible.
- B. One piece transceivers should be mounted under dash or on transmission hump where they will not interfere with vehicle controls or passenger movement.

2. Antenna Installation

- A. The antenna should be a permanent mount type located in the center of the roof or center of the rear deck lid. Glass mounted antennas should be kept as high as possible in the center of the rear window or windshield. If a magnetic mount antenna must be used, care should be taken to mount the antenna in the same location as a permanent mount type. If a disguise mount antenna is used, great care should be taken to shield tuning network from vehicle electronics and wiring, or mount tuning network in an area completely clear of vehicle electronics and wiring.
- B. Each vehicle model and body style reacts to radio frequency energy differently. When dealing with an unfamiliar vehicle, it is suggested that a magnetic mount antenna be used to check the proposed antenna location for unwanted effects on the vehicle. Antenna location is a major factor in these effects.

3. Antenna Cable Routing

- A. Always use a high quality feedline (at least 98% shield coverage) routed away from the ECM and other electronics modules.
- B. Care should be taken to avoid routing feedline with any vehicle wiring.

4. Antenna Tuning

- A. It is important that the antenna be tuned properly and reflected power be kept to a minimum, (VSWR < 2:1)

5. Radio Wiring and Connection Locations

- A. Transceiver Battery and Ground:
These connections should be made directly to the battery itself, including the ground or to the jump start block on vehicles so equipped. The transceiver power feeds should be #10 AWG wire or larger, twisted if possible. Again, the ground wire should not be attached to the body at any point. In-line fuses should be located as near as practical to the battery. See "5B" for ignition switch control of one piece transceivers.

note:

It is recommended that a fuse be placed in the transceiver ground lead to prevent possible damage to the transceiver, in the event the battery to engine-block ground is inadvertently disconnected.

- B. Handset or Control Unit Battery and Ground:

It is preferable that the handset or control unit battery lead be connected

directly to the battery. Any ground lead from a handset or control unit must return to battery negative. If it is necessary that the transceiver power be controlled by the ignition switch, then handset or control unit battery lead may be connected to the ignition 3 circuit at a terminal so labeled on the vehicle fuse block. A sketch of the fuse block is located in the owners manual. For ONE PIECE TRANSCEIVERS, where ignition switch control is necessary, a 12v power contactor must be installed in the transceiver battery lead. The contactor should be located at the vehicle battery with the coil of the contactor driven from the ignition 3 circuit at the fuse block. The coil of the contactor must return to battery negative.

- C. Connections for Multiple Transceivers and Receivers:

If multiple transceivers or receivers are to be installed in the vehicle, power feeds (+12v and ground) to the trunk or under dash should be terminated in covered insulated buss bars. All transceivers or receivers may then have their power feeds connected to the buss bars. This makes a neater installation and reduces the number of wires running to vehicle underhood.

6. Wire Routing

- A. The power leads should be brought through a grommet on the driver's side firewall. For trunk mounted transceivers, the cables should continue on along the driver's side door sills, under the rear seat, and into the trunk through the rear bulkhead. If the battery is located on the passenger side, battery leads should cross the vehicle in front of the engine. All attempts should be made to maintain as much distance as possible between radio power leads and vehicle electronic modules and wiring.
- B. For police vehicles, radio power leads should be routed in the conduit provided with the option package.

7. Troubleshooting

- A. Should vehicle problems develop following installation, the source of the problem should be determined prior to further operation of the vehicle.
- B. Possible causes of vehicle problems include:
 - 1. Power feeds connected to points other than the battery.
 - 2. Antenna location.
 - 3. Transceiver wiring located too close to vehicle electronic modules or wiring.
 - 4. Poor shielding or connectors on antenna feedline.

8. Contact and Feedback

- A. GM vehicles have been designed and extensively tested for immunity to known sources of RF energy. However, it is impossible to test for every source, installation, or combination of sources. If a persistent condition is encountered,

WRITE TO:
EMC DEPT.-MR
BLDG 40

GENERAL MOTORS PROVING GROUND
MILFORD, MICHIGAN 48042-2001

Figure 3. Guidelines for Installation of Mobile Radios.

from the passenger compartment all the way back to the trunk. I figured that it would be all the control wires that I would need between the radio in the front and any amplifier or antenna installation in the trunk. Since it is a ribbon cable, it layed flat under the carpet.

This was going along so well that I also routed 5 sets of RG58U between the trunk and the passenger compartment. I counted on a VHF and UHF antenna. I also thought about a separate 10 meter radio and perhaps an HF antenna and radio installation some day. The others were spares.

The power cable in the trunk terminated in another fuse block. I figured that I could connect to it for each separate amplifier for VHF and UHF and still have a couple of extra power connections for a HF antenna tuner if I later installed it or something like that.

Remember that the installation guidelines are just that. And GM wrote them in mind for use by commercials. Nothing that has been suggested here implies that they will work or even be satisfactory for amateur radio. But they appear to be reasonable and if you look between the lines, you can see some of the problems that GM is trying to address. By routing cables away from the computer box located under the right side of the car in the passenger compartment, you know that they are trying to avoid having your radio pick up RF from the computer and also keep RF out of the computer. I have noticed that I can hear the computer on certain 2 meter and UHF frequencies if I move the radios to certain points in the car. There appear to be standing waves around the vehicle. Usually getting rid of noise is just a matter of shifting the radio. But the lesson from this is important. Check the radio installation first before you bolt it down. It might be a lot more trouble to move that transceiver once you have

bolted it down, after you have noticed that the radio makes a lot more noise or breaks squelch when the ignition is turned on. Place the radio in place where you intend to mount it and turn it on. Then set the squelch and start the car. If the squelch opens, do something like move the radio or add some grounding. It may also be something that you will not hear unless there is a weak signal on the receiver. Tune to that low power repeater or simplex station and then turn the car on and off to see what the difference is. You might be surprized. I figure that part of my problem with the walkie talkies in the car is that the radio is ungrounded and inside the passenger compartment. The computer is pretty well shielded. I really doubt that you will have a problem like this with an outside antenna and the precautions and guidelines mentioned herein.

Micheal Salem N5MS

N5MS STATION HLJINKS!!!!

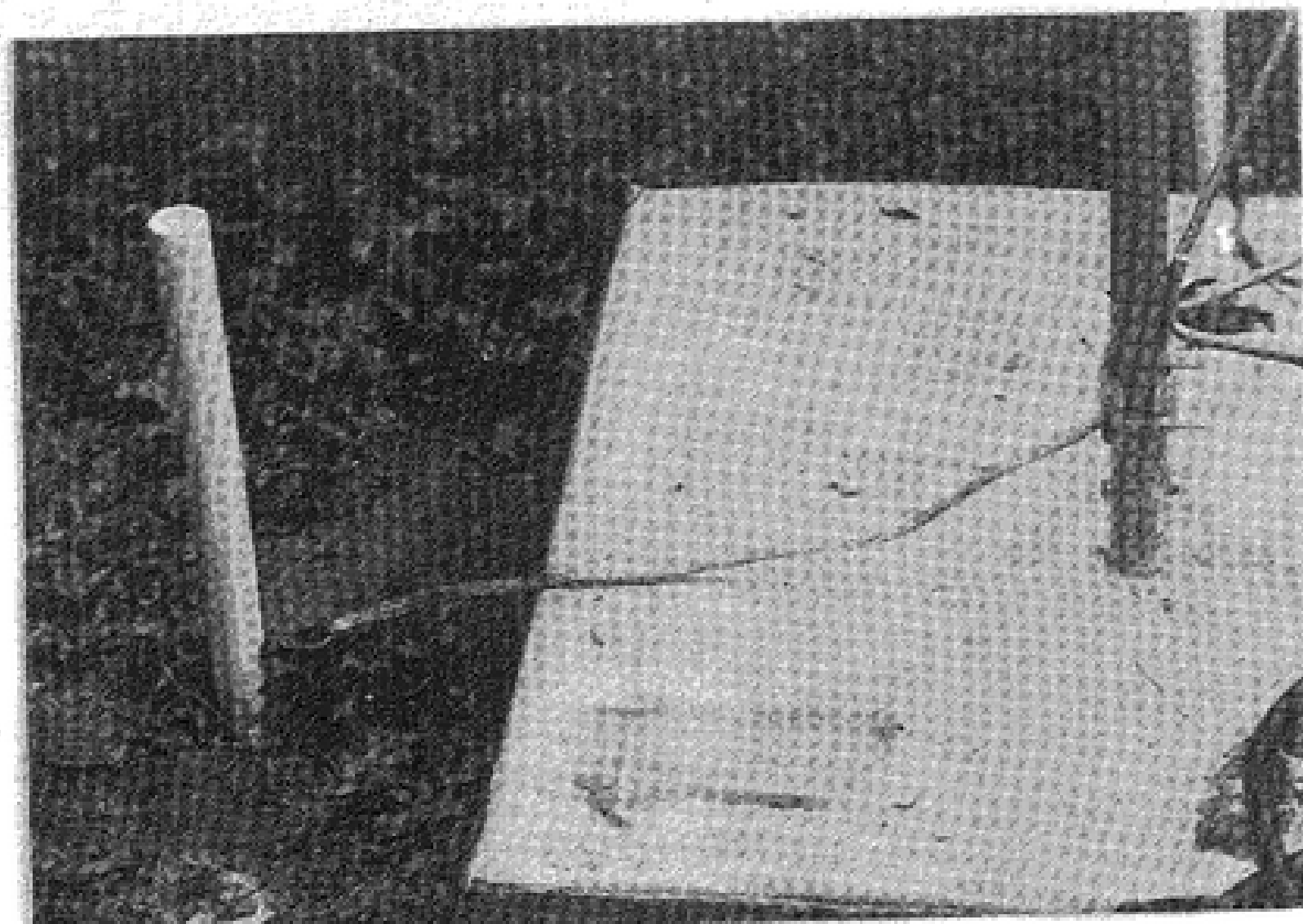
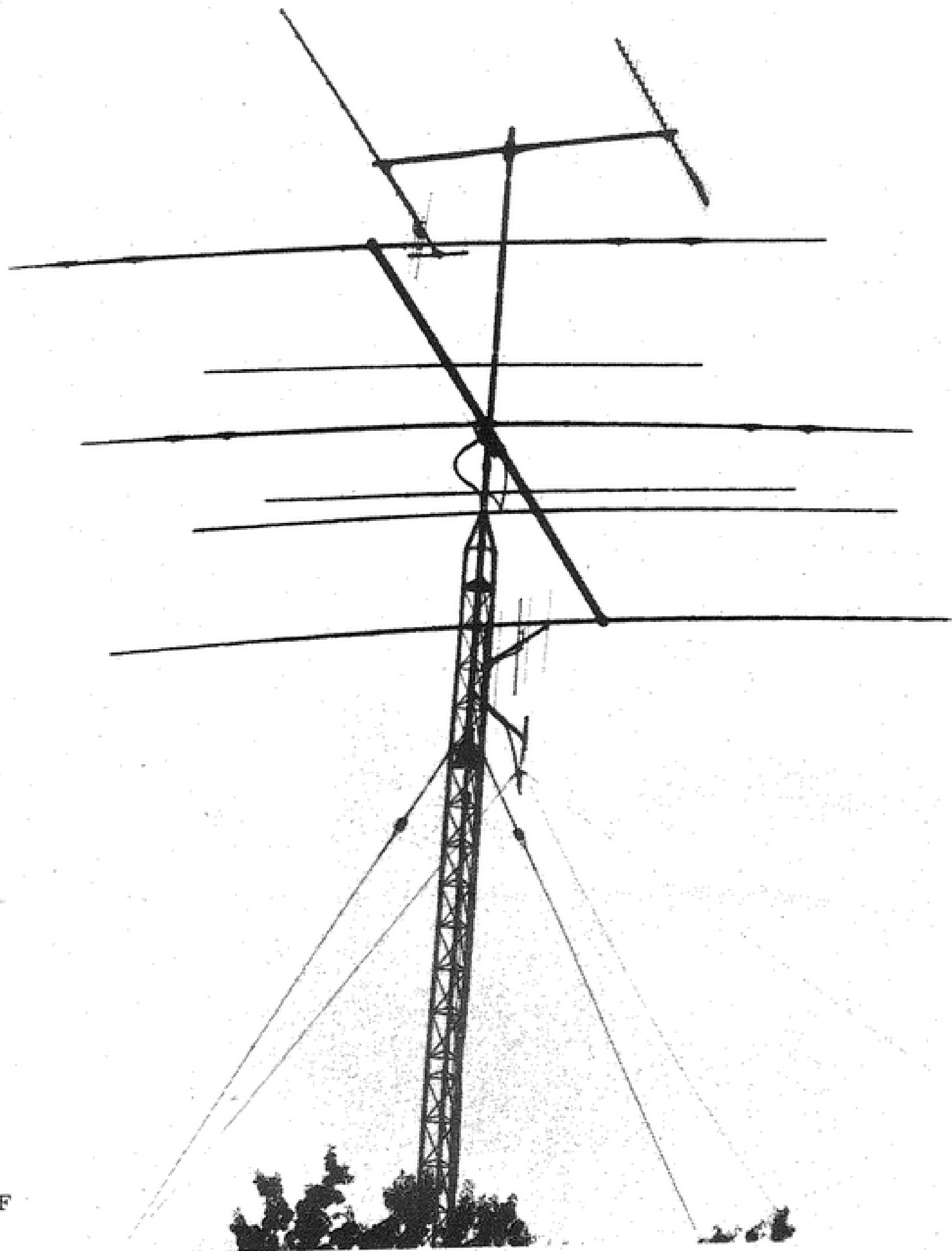
I decided to shoot up a roll of film the other day just to get a couple of shots that I needed. It was a cloudy day, but some of the pictures came out pretty good. Sooooo, with the assistance of Jim Greenshields of Greenshields Magic Power and Light, we present the enclosed visual trips into the wonderland of amateur radio at N5MS.

On the right is the antenna installation. At the very top is the VHF/UHF array. On the right is the 440-27 KLM 27 Element antenna. It has about 14 db of gain from 420 to about 460 Mhz and is a favorite of ATVers. The Antenna on the Left is the Cushcraft 215WB. It seems to be working pretty well. The antennas are balanced by weight on the crossboom, but there is a slight difference in their wind loading.

Below is the Telrex TB6EM six element triband antenna. Below it is a 3 element two meter antenna used for packet and below that is an 80/40 Meter Inverted V antenna. The Telrex is at about 60 foot and the VHF/UHF antennas are at 70 Foot. I am using 1/2 inch LDF and Spiral Heliac for the UHF/VHF antennas and have some 7/8 LDF ready to go up the tower after I get back from Dayton. The rotor is a Tailtwister.

To the right again is a ground installation that I am trying out. I am using one inch braid from the tower clamp to the ground rod. The ground rod is eight foot long and was driven into the ground after I had dug a five foot post hole. I pounded the rod in for the last three feet, then placed a piece of Schedule 40 PVC pipe about 4 inches away and filled the hole with water, copper sulfate and rock salt to within 2 foot of the ground. The top two feet is just dirt. The plastic pipe has holes (about 16 every foot and spaced equally around) on the bottom) in the bottom three feet. I fill it with rock salt and copper sulfate. Some ground rods actually are hollow and have holes in them and you can do this same thing.

Micheal Salem N5MS



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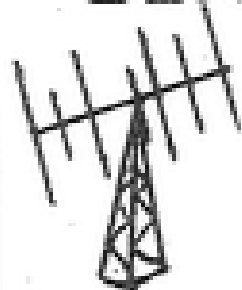
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WA5YTI

Come to the May 6 meeting to see two videos presented by the CORA communications coordinator, Charles, N5FMU. One will be on the Sooner State Games, and the other on ARRL Field Day -- which is quickly approaching.

Speaking of approaching, Ham Holiday will be upon us soon. Take a look at your calendar, and notice that our August meeting is only two days after all that good fun and excitement (read as exhausting!). President Doc, KX5W suggested that we have a cookout instead of a normal meeting and/or change the meet date. If you have any ideas or comments, come voice them at our next meeting!

On the agenda for the program in June is a presentation on ATV (Amateur Television) by WB5SRX, O. J. Watkins.

Thanks to Bob Shaw, WB5BQX, for his packet radio demonstration last meeting. I think a few packet fires were kindled -- now if only the price of TNC's would go down some more!

SI SEZ: "Bald is beautiful."

ED SED: "The garbage business is picking up."

ED SED: "Careless drivers get carried away."

ED SED: "Bookeppers are very calculating."

NOTICE - NOTICE - NOTICE

I'm sorry that I didn't give you the address of the company that is selling Icom 2AT's for \$50.00 each in my article last month. I called him and he has a few left so if you are interested call me and I will give you the address. Mike Salem, N5MS

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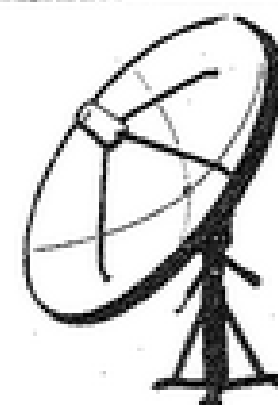
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11 Wheatstraw	12 EDMOND CLUB	13 76'ers O U OIDAR	14	15 KAY County CIMARRON	16	17 VHF Club
18 EARS	19 VE EXAM RED CROSS BLDG. 6:00 PM	20 AUTOPATCH	21	22	23 COLLECTOR - EMITTER 	24
25 The managing editor assumes no responsibility for the data contained herein.	26	27 CORA	28	29	30	31

HAM HOLIDAY MAIL

IF YOU SENT YOUR PREREGISTRATION IN FROM LAST MONTHS C&E AND IT WAS RETURNED, PLEASE RESUBMIT IT. THE POST OFFICE WAS ALL MIXED UP. JERRY ORDERED THE BOX IN CORA'S NAME BUT IT HAS BEEN CORRECTED - SO - SEND IT IN TODAY TO:

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ARNS Bulletin

10 MHz STATUS

But we are secondary in the 10 MHz band, aren't we? Yes and No. In the International Table of Frequency Allocations, the Amateur Service is secondary to the Fixed Service and we must avoid causing harmful interference to the Fixed Service operating in the band. The FCC is obliged to regulate the Amateur Service in this country so as to avoid such interference, to the point of withdrawing the privileges if this became necessary. But because the U.S. as a matter of policy no longer assigns frequencies in the 10.1 - 10.15 MHz band to stations in the Fixed Service, our domestic status is primary.

The "bottom line" is the same: We must avoid causing harmful interference to the Fixed Service at 10 MHz. But we don't want to lose sight of the fact that by giving us primary status within its jurisdiction, the FCC has made the band much more useful than it otherwise would

be, and has fulfilled to the best of its ability the pledge made during WARC-79 preparations to gain a useful 10-MHz band for the Amateur Service.

The ARRL Newsletter

THERE WILL BE ANOTHER AMATEUR TEST SESSION, NOVICE THRU EXTRA

DATE MAY 3rd

TIME 10:00 am

PLACE KF Industries (Plant Lunch Room), 1500 SE 89th. One mile East of SE 89th and I-35.

PRE-REGISTRATIONS NOT REQUIRED
(WALK-INS ONLY)

PHONE CONTACT 794-7398 Hal, NX5I after 5:30. 672-5564 George, NX5E after 5:30. 631-1533 Orle or Hal 8:00 am to 5:00 pm.

The fee has been advanced to the tune of \$4.25 for all test except NOVICE.

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