



## ALTUS AREA AMATEUR RADIO ASSOCIATION

Greetings from the wonderful humid town of Altus...The AAARA meeting for the month of June 87 was held on Thurs. the 11th at the normal time and place...Good news, if any body sees Jim KB5LS they can tell him its safe to come out of hiding...We called off the kidnapping squad and the price on his head has been reduced to \$1.25...At this months meeting we railroaded, I mean elected by the democratic process, a new

President...congratulations going out to Ann KASNDY, the lucky winner...Her term of office will be until next Jan. or until the next train...The club coffers were raised by \$8.50, this being the proceeds of sales at the Lawton Hamfest of a few months past...The trip over to Lawton was a day well spent, was able to meet a few voices and put faces on thes...Was surprised at the number of non local hams who showed up...People from all over the state and the northern part of Texas...Loren WA5CBF says that there will be a Field Day so were waiting to here the final results...So far it will either be at the park, the lake or the city square and we will be using either the Red Cross disaster van or Mike W5VXU's noble home...As you can tell some of the details are still lacking...We will be on at least on HF SSB and most likely a novice CW station...If equipment is put together in time will also be active on 6mtr SSB and rag chewing on 2mtr fm...Speaking of 6mtr SSB, I have been trying my luck with the RUF and fighting

the local cable co. noise...So far running a borrowed IC-502 and using the built in antenna I have managed to work 6 states in about 2 weeks...Only problem it gets lonely...Maybe with my success others in the area will get on also...Still going forward with our last saturday of the month social breakfast...Last month wasn't to well mentioned so turnout was slight but myself, Loren WA5CBF and Rupert N4CIJ had a nice morning chat and meal and also got to meet a visiting ham...A KB6 who was in the area was in the next booth so introductions were made all around...As allways the club meets the last saturday of the month at a local eating establishment for a social breakfast, if you plan to be in the Altus area and are interested in attending contact any member for the location...It has been a bit of a slow summer so not to much more to add so for this month very best of 73's from the AAARA and Mike N7DNU.....

Attention 76ers!  
We are now meeting at  
THE KETTLE RESTAURANT  
I-40 & MUSTANG RD.  
(across from Xerox)  
If you have any interest  
in keeping this Club alive  
PLEASE! come to our next  
meeting on July 14 7PM

SEE YOU THERE

## LAKE CANTON, OKLAHOMA HAM RADIO EVENT PLANNED FOR JULY

Oklahoma amateur radio operators will conduct their fourth annual "Field Day" exercises Saturday and Sunday, July 11-12, at Lake Canton, Oklahoma. Activities begin at 2 P.M., Saturday, and continue through the night until noon Sunday. Events take place in the "Big Bend" picnic shelter.

Participation is open to all amateurs. Guests are welcome.

To highlight this special event, the Lake Canton Field Day Committee will provide a commemorative certificate for contacts with event stations WD5HPU, WA5LTH, and other amateur stations which officially operate from Lake Canton during the event. Those desiring commemorative certificates should listen in the general phone portions of the 40 - 10 meter bands. Operations will also be conducted on 6 and 2 meter SSB.

Contest enthusiasts should also note that Lake Canton, Oklahoma is in Blaine County, and that the field day event occurs in "Grid Square" EM-06 -- both the county and grid square are popular contacts when heard on the bands. For a certificate, send QSL and large SASE to Lake Canton Field Day, address information below.

Canton Lake is well maintained by the U.S. Army Corps of Engineers. Facilities include RV, camping, and 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.

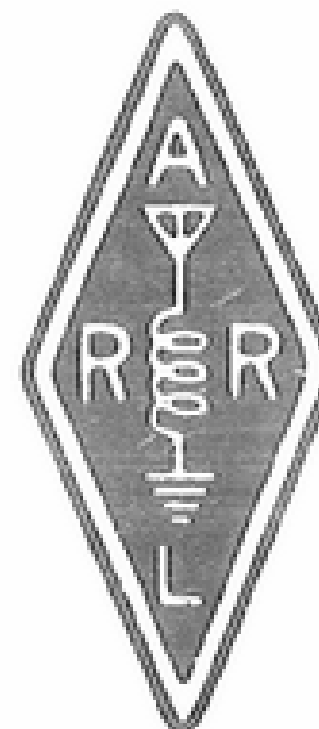
Talk-in frequencies are 146.52 simplex, and the Fairview, Oklahoma, repeater, 144.85 / 145.45. I-40 travellers should use the Calumet, Oklahoma, repeater, 146.01/ 146.61. For additional information contact Tim Mauldin, WA5LTH, Lake Canton Field Day, P.O. Box 19097, Oklahoma City, OK 73144, telephone (405) 521-5048.

**Pre-register Today! Ham Holiday**

# CENTRAL OKLAHOMA RADIO AMATEURS

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## HAM HOLIDAY

## State Convention

	BLUE ROOM	TIERED CONF ROOM	ROTUNDA ROOM	SEMINOLE ROOM
FRI				
7PM	not avail	*Oklahoma Weather Rick Tasetano	available	not avail
8PM	not avail	*Antennas: Will You Keep Yours?	available	not avail
9PM		*Eyeball QSOs		
	(maybe have refreshments available for purchase in Rotunda Room?)			

SAT				
8AM	(Dealer areas and Flea Market opens.....)			
9AM	Public	*Lightning	*MARS	VE testing
930	Demos	Dr. David Rust		
1000	Packet,	NSKCW, NSSL, Norman	*OKC Fire Dept:	
1030	Amsat,	*ORSI	Safety in the Home	till lunch
1100	ATV,		*Citizens against	
1130	WEFAX,		Crime	
1200		L U N C H . . . . .		
1PM	etc (hands on)	*ARES/RACES	*Pam Pryor, KTOK	VE testing
130			Current issues	
200	ALL		*Satin and Lace:	
230	DAY	*AMSAT,	Fashion Show	session 2
300		Al Brinkerhoff	*Manicure Seminar	
330		WBSPMR		
400	(public area)	*Packet, What's next?	*Traveling Zoo	till 5
430		Joe Buswell, K5JB		
500	convention area closed for day			OPRA (515pm)

eve	BANQUET			
SUN	Dealers/Fleas open 800AM			
8AM	QCWA Breakfast (Stars Room)		*CPR Course	
830			OKC	
900	Public		Red Cross	VE Testing
1030	Demos	*Baptist Hams	till	
1000			noon	
1030	throughout	*NTS/Public Service	anyone may	till lunch
1100		(Stars Room)	attend	
1145	day	L U N C H . . . . .		
100PM	"	*ARRL FORUM	*Crafts seminar	
215		Prizes, etc.		
		Stars		
500	CONVENTION CLOSES . . . . .			



FOREST PK., OK(NL) June 25, '87:  
Have put off this month's column 'til almost the last minute-vainly hoping for some last minute input from our "63-ers". The JUNE calendar (back page) reminds that the 26th is "Edit Night For C&E". Lots of activity this month-The aftermath of "FIELD DAY"(27-28 June); Independence Day; Regular Club Meetings and finally HAM HOLIDAY '87/ARRL State Convention convenes July 31st thru Aug. 2nd. Register early for fun & games-particularly "Eyeball QSO's". For the third year, running, Chapter 63 will expertly man the ARRL/QCWA booth. Be looking for an opportunity to volunteer your services (2 hours maximum) at the booth!! Also the QCWA/Old Timers Breakfast Sunday Aug. 2nd at 8:00 hours. Attendees-you do not have to be a QCWA-er nor do you have to be OLD. Further it is not necessary to be registered to attend. As in the past the Ladies/YL's are most assuredly welcome and hopefully many will attend-in spite of the somewhat early hour. It is interesting to note that, this year, the "Flea Market" will be in full swing Saturday and Sunday till 15:00 hours. Suggest you may have some goodies to dispose; surely someone will take them on for a nominal fee!! See you at "Ham Holiday '87!!

#### <<W5AS INFORMATION>>

QCWA Chapter 63's operation on-the-air during May 1987 as follows:

SESSIONS	5
CHECK-INS	196
TRAFFIC	17

NOTE: It is interesting and gratifying to see the "Check-In" count on the rise. This Net (as such) meets every Sunday morning at 8:00 hours-even before-on 3855 Khz plus or minus QRM. This is not an exclusive net for QCWA-ers. All are most welcome on a regular or sporadic basis. Express thanks to the small group who occupy this frequency before 8:00 and

always relinquish it at 8:00. They are most courteous; they exemplify the way that most Amateurs behave. (ED)

Following is our birthday list for July 1987. Well in advance special wishes to my spouse/YL, Margaret/Marguerite for July 29th. (ED)

01 Leslie-Les-Edmonds	W5G00
07 C.L. Hallmark Jr.	W5ZWM
09 Jean Bunce	YL W5DKC
10 Pauline Rea	YL W5AA
15 Margaret Benson	YL KA5DGY
20 Dan Engle	W5NDJ
21 Thomas Van Woody	W5FMX
22 Fran Miller	W5SNL
24 James-Jim-Skaggs	W5VSW
29 Mag. Boardman	YL W5NL

Special note to C.L., Dan, Fran & Ernie. We sure miss your sigs. on Sunday. Surprise us from Ponca, Seiling & Ardmore. The early check-in time from 8:00 to 8:30, or before, is always open. (ED)

Vy 73 Howard, W5AS

.....

#### <NAMES IN THE NEWS>

APOLOGY: Last month under "Silent Key Memorial" to Father John McGinty, I reported (par 2), "He was born in Chillicothe, Ohio, Aug. 10, 1987,...". Should read 1897. This mistake is definitely not my first & hopefully will not be my last!!

KUDOS: Just researched this word in the dictionary. This spelling is singular. The plural is "kudos" and others just like it. The following info. via Howard, W5AS.

(1) The gist of a letter from ARRL, Steve Ewald, WA4CMS, Assistant Public Service Manager, June 9, 1987. "Dear Howard: Congratulations on receiving the Brass Pounders League Medallion. Your dedication to public service is a prime example of the high calibre of people within the Amateur Radio Service". (The medallion is 1 X 3/4 inch bronze and has ARRL-BPL & Traffic Award...inscribed)

(2) The gist of a letter from William Goswick, K5WG, Oklahoma SM, 26 May 1987. Dear Howard: "Thank you for the reports that you have been sending. It really helps when the section-level leaders keep me informed about what is

going on in their branch. Par. I appreciate all that you do as Bulletin Manager and also appreciate all that you have done for the League and for amateur radio over the years. Please accept the enclosed Certificate of Merit as a small token of appreciation.....Thanks again for your tireless efforts on behalf of the American Radio Relay League".

(3) In the July QST, Oklahoma Section, page 122. "Congrats to W5AS who has made BPL for three consecutive months" Two additional 63 members are also there: Harold-Gil-Gilbertson, W5RB and Carl Drumeller, W5JJ. Kudos's to all three. (ED)

KUDOS (2): Covered briefly in an earlier C&E the following to Larry J. Shima, W0PAN from July QST, page 51. "New Staff at HQ. Larry J. Shima, W0PAN, is the new HQ Controller. Larry was first licensed in 1953, and is a Life Member of ARRL. He served as ARRL SCM of Minn. and from 1970-75 as Director of the Dakota Division. Larry was a founding director of the ARRL Foundation and later as it's President. A Graduate of Iowa State University, he is a retired Lieutenant Commander in the Supply Corps of the US Naval Reserve and has also served as Controller and Personnel Director for several company". Congrats Larry; from Chapter 63. If you should read this, Larry, I also am from ISU (1930's) and grew up in Nevada; 9 miles east of Ames. (ED, W5NL). Wish I had become a ARRL Life Member-years ago-too late now.

KUDOS(3): Please recognize Bob Ashby, W5HXL, George Lagaly, W5NTL, Jim Williams, K5VRL and, of course Joe Harding, WA5ZNF & YL Frances + others for the mailing chores of your C&E the past two months, and perchance again for this July Issue. A super job and true Amateur spirit. I plan to join in for this upcoming session.

.....

#### <MINI EDITORIAL>

In the July 1987 QST "It Seems to Us", page 9, by David Sumner, K1ZZ is an excellent article "Pacifica, Howard

CONTINUED ON NEXT PAGE

## QCWA CONTINUED

Stern, and Amateur Radio". I urge that many will read all of the ramifications of "Obscenity and Indecency" as these words apply to all Communication Services.

If you listen to Commercial Radio & Television you are, no doubt, appalled at the increased usage of Bad Language and scenes on Television. If you listen on the many Amateur Bands, HF & VHF, the problem is there, but to a substantially small degree. Mainly sanctions to be imposed are aimed at protecting children. I feel that adults should be protected as well. Why cant we clean up the act for all.

I especially like the concluding paragraph of David Summers article. He asserts that "Unfortunately the FCC's action will trigger lots of on-the-air discussion....as to what is permitted and what isn't". Within Amateur circles it is hoped that every amateur will answer to a higher and simpler standard; one of which is best expressed in the Radio Amateur Code, ie: "The Amateur is Considerate...He never knowingly uses the air in such a manner as to lessen the pleasure of others".

This brings to mind that once-upon-a-time the "Wouff-Hong" and it's true meaning, was frequently demonstrated during ceremonies at conventions & hamfests all over the country. Perhaps it is time to renew its use on a more regular basis. Perhaps you will recall that the "Wouff-Hong is Amateur Radio's most sacred symbol and stands for the enforcement of law and order in amateur operation. It came into being originally in a story by The Old Man (T.O.M.) and many stories on "Rotten Radio". I think it had to do with bad operating practices (rudeness, lids, etc). While conditions have changed to include widespread Bad Language (Obscene, Indecent, Lewd) the principle of its use still hold true.

I sincerely believe that the QCWA membership, at large, is relatively free of this problem, but we should be on guard to protect our future stature in the Amateur Radio Community. Head in the sand attitude does not compute!!

LAST CHANCE  
To Pre-register



"Why shouldn't he come along? He inflated the raft for us, didn't he?"

101

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### PUBLIC SERVICE EVENTS

The June 6th Tri-Athlon went very well! There were plenty of hams to cover all the events. A great big thank you to all those who helped out.

Our next event will be the Ponca Grand Prix car races. We will be helping Dr. Paul with his work. An organizational meeting will be held sometime the week ahead of time. The races are July 4th AND 5th. Let me or N5HIC know if you can help.

Well the Jaycee raft race wasn't in June after all. It's in July instead! On the 11th, tune into the Monday nite 9pm nets for all the details.

Well thats about it for this month. See ya at Ham Holiday!!!! 73, KD5FX.

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Do it with EARS!!!

It seems that June is all but past and July will be here at last. June has been a good month for us. It started off with a vacation to Galveston Island. And then to Dallas in time for Ham-Com for the weekend. We had a great time and saw a lot of familiar faces at Ham-Com. It seemed as if there were EARS everywhere. There were lots and lots of bargains to be had. Myself, I got plenty of exercise from cruising at the flea market tables. Each trip through the tables I found that I had either missed some items or that new items were being put out. And the items that I went back to look at one more time were now gone. Many new items were also to be seen and bought at the dealers tables. A very large group of EARS and SCARS members went out to dinner Saturday night to the Stuart Anderson Cattleman's Restaurant. Every one had a good time. The expression on the manager's face when 30 people walked in wanting tables together was a sight to behold. After the prize drawing on Sunday it was time for the long trip home to Edmond. And to get ready for work on Monday. Unfortunately all good things must come to an end.

Just as soon as I woke up and realized I was at work it was time to make plans for the dinner meeting. We had our dinner meeting the 19th of June (which came around to soon.

The war started some time the Monday before the meeting. The calling committee was called into action to call up the troops. The troops were notified of the up and coming battle. We had to be combat ready by Wednesday evening to allow time for the cooks to lay in ample provisions. With several updated memos to the cook we were up to fighting strength, by Thursday evening. As dawn broke Friday morning I could sense the tension in the air. I had this uncanny

feeling that the battle would all too soon be upon me. As midday approached the static in the air increased to almost an unbearable level. As I peeked to the western horizon I could just make out the enemy's front line. With billowing clouds resulting from enemy action, I could even make out an occasional flash of light from their weapons, reminding me of their power and might. As the day SLOWLY passed by I became a nervous wreck, knowing that our troops would not be ready for battle until 6:30 P.M. Also knowing that all would be lost if the enemy arrived in force before then. As luck would have it the attack came around lunch time and layed waste to all of our plans. Now was the time for panic. It was clear that a change of strategy was needed. What was I to do?? Where could I house all our troops on such short notice? All accommodations in the area were too small to be of use. Besides the food was to be delivered to predetermined incampment. What was I to do with provisions for 72 soldiers? As time passed with no answers in sight there was a glimmer of light to brighten up an otherwise dismal day. There were reports from our reconnaissance team, mainly from N 5KLM, Rick. He reported that all intelligence reports he had collected and from his scanning devices that the enemy had made a grand attack, but without much strength. The enemy had moved on to the east and that there would be ample time to collect the troops and feed them at the appointed time. Rick was true to his word. We assembled at Chitwood Park and awaited the arrival of the cook and for the stragglers to arrive. Large quantities of food were consumed in short order. But as time passed the enemy reared its ugly head. To the west, although at a distance from us yet, threatened to interrupt the well deserved meal. We were a little weak in number as some of the troops were a little disoriented by the battle early in the day. It surely dampened their will to fight. But this was made up for by the spirit of those present. As promised as soon as the meal was complete-down to the

last crumb-the enemy hit. It let us have it with a thunderous roar and a blast of light. The troops scurried for cover and made hasty retreats were made. The battle intensified and the front line of defense was called out. The battle lasted for some time but was finally won and the troops were sent home to fight another battle, another day.

The picnic was a great success and fun was had by all. For dessert was a cake as part of our 30 year celebration. The cake was huge and was decorated with a drawing of our patch. The cake was provided by Edith, KASYPX.

This issue of the C&E will be too late to cover field day and the 4th of July so I'll just say I'm sure we will have a great time at both events. Look for all the details in the next issue.

We still need YOUR ideas to help us celebrate our 30 year anniversary of EARS. Your suggestions are most welcome. Please contact-Edith, KASYPX-Lee, NSHIR-Allen, WSERY-Nora, NSKDX-Karen, KASYPG-Mary, KASWHI-Gloria, KBSBGM or Jana, NSKMJ.

If you couldn't make it to EARS field day! You still have a chance to attend a field day and a campout at the same time. Show the EARS spirit and attend field day at Lake Canton. The following is part of an article in WORLD RADIO..

#### LAKE CANTON FD

Oklahoma Amateur Radio operators will conduct their 4th annual "Field Day" exercises Saturday and Sunday, July 11-12, at Lake Canton, Oklahoma. Activities begin at 2 p.m., Saturday, and end noon Sunday, the event will take place in the "Big Bend" picnic shelter.

The Lake Canton field day is held in conjunction with the annual IARU "Radiosport" DX Contest.

For more information contact Tim Mauldin, WA5LTM, Lake Canton Field Day, P.O. Box 19097, Oklahoma City OK 73144; (405) 521-5048.

Attention all EARS members!!! The constitution committee has

given notice that their intent is to change the constitution. Such changes will be voted on at our next business meeting. It will be Sunday July 19 at the Edmond EOC (council chambers) at 2:00 P.M.. Also at that meeting there will be a copy of the schedule of events for Ham Holiday 87. EARS will again handle the registration booth. There will also be a copy of the programs along with a schedule of time slots for working the booth. Check to see what programs you want to attend then fill in your preference of times to work the booth. We did a great job last year and I'm sure we will do the same this year. For more information about Ham Holiday tune in your rig to 147.135 and check into the Monday night info net at 8P.M. local time. See you at the meeting!

On June 13th EARS held their second garage sale of the year. It was a long hot day but a lot of fun was had by those present. The tiols of the day netted EARS another \$165.00 for the club station. On the same day several EARS members visited the local vampires and donated blood. Great going guys and gals!! We appreciate you. You can still donate blood at your convenience at any of the local locations of the blood institute. Just tell them you are from Edmond Amateur Radio Society and they will do the rest.

Lee Vaughn, KASWIS 73

N5BUJ Speaks...(or writes?)

Wow! how time flies when you're having fun, just seems like a few days ago when I last wrote a few words for the C&E. We went to Hamcom for the first time and had a real good time; in other words we got some new toys. Lots of the EARS bunch were down there and several won door prizes.

Autopatch use or abuse: I would like to remind all that the autopatch should not be used for any call in which business is conducted. Should you happen to hear a autopatch call that you think is of a questionable nature **DO NOT** take it upon yourself to shut off the patch. Only a control operator should terminate such a questionable call; the

control operator will then ask the offending party to contact them by telephone to explain the problem. Our control operators will not routinely shut off the patch (or repeater) except in cases of extreme violation. What you should do if you hear a questionable autopatch conversation is call the repeater trustee: Bill Wright, KC5GN, and explain the problem. Shutting off the patch for someone who is having trouble doing same is ok if you identify and let them know of your good intentions.

Putting people in their place? So you just heard some nerd doing something they shouldn't over the repeater. What do you do? Give them a call and set them straight? Call another station and talk about the nerd's problem or poor operating habit? Beat the family pet? Stay mad for a week or two.

None of the above are good ideas. The over the air methods only lower you to the offending party's level. You might try contacting one of the control operators, EARS officers, repeater trustee, or a mutual friend of the offending party. You might even call the individual over the telephone. I suggest that you let someone else handle the problem if you are mad about it; otherwise, a friendly telephone call might help. Cutting someone down over the air for any reason is tactless. If it isn't nice then don't say it (or however the saying goes!)

But you are wondering who pulled my string. No I didn't fall out of bed this morning, in fact I don't even remember this morning. I am a night owl, but the boss doesn't believe in paying me to sleep in the morning. The above dissertations on repeater congeniality are at the request of the EARS board of directors of which I am a member.

Edmond Amateur Radio Society is as fine an organization as you will find anywhere; that is why it bothers me to hear people complain about any aspect of EARS. Like the signs in some restaurants say,

"If you like us tell the world, if you find a problem tell us." It takes very little skill to set back and find fault with anything, it also takes less guts and courage to complain "behind someone's back." I admire anyone that can find fault yet find the time and patience to help solve the problem and keep their cool.

Use your callsign: By the way, please remember that you should use your callsign when accessing the features of the repeater. No you don't have to ID for every access out of a series of accesses but you should initially ID so that anyone listening will know who you are. You earned your callsign, be proud and use it. Thank you.

The repeater access codes have changed since the new controller was first installed. All members who have been reading the C&E or listening to the Monday night information net at 8 PM are fully aware of the above fact. There have also been two training sessions on how to use the repeater functions. The training sessions were well publicized and each lasted about an hour. A third session would probably be possible if there are enough requests. Some people have called Harold, WA5ZKX, and asked him to explain it all over the telephone. Folks, it just isn't possible. We do have a write up (written instructions) that we would be happy to mail to members along with a handy quick reference card of the emergency autodial numbers. To get a copy mailed to you send a SASE to:

Harold Wells, WA5ZKX  
806 Hawthorne Ln.  
Edmond, OK 73034

We are sorry if you couldn't make the meetings but we don't feel that we should spend EARS money on postage when we have so many other commitments, not to mention the chore of addressing ect.

RFI Committee: I still haven't had a volunteer for the committee chairperson. I have had the opportunity to practice some goodwill and attempt to correct a RFI complaint from one of my neighbors. Seems that she

knew that I was getting into her telephone and clock radio. I was automatically guilty because of several antennas on my roof. I was operating 10 meters at the time and it was probably me but.... I keyed up and identified on 10 meters while talking to her on the telephone and nothing was heard, a little later while she was talking to my wife we managed to be heard in the telephone but not quite as loud. I explained to her that just because I was interfering with her equipment (if I was?) did not mean that the fault was with my equipment but that I would do all I could to help her solve the problem. Ruined my evening in any case; I turned off the rig that I was planning on operating for another hour or two.

With RFI the first thing to do is make sure your own house is in order. I put some bypass capacitors on the mike elements of some of my telephones and ran the incoming telephone line through some large ferrite beads figuring if the RF was getting on the line in my house maybe I could keep it from traveling away from my house on the telephone line. I inspected my antenna and discovered that it had no reflected power most of the time. It would go from nothing to about 3 watts (100 forward) periodically; wind blowing something loose I figured. I was using a converted 11 meter vertical. The sections had been held together with rusty sheetmetal

screws when I obtained the used antenna. I had used aluminum pop rivets to hold the sections together when I re-tuned it. The rivets had loosened causing the intermittent reflected problem. I proceeded to split the outer sections where two met then used stainless steel hose-clamps to secure the sections. Live and learn.

I suspect that the poor joints in the antenna were causing the RFI problem. I plan to have my wife, KA5YPG, call the neighbor next time I am on the air to make sure there is no problem.

The RFI committee could have some real challenges because their first task may be to get the amateurs equipment in order, something that should be kept in proper condition anyway. From the number of hams I hear on the repeater that always think that a problem with them into the repeater or use of the patch has to be on the repeater end I seriously think we may have a bigger problem when it comes to solving RFI problems. One must first question and check that the problem (any problem) is not their own; those that

always point the finger elsewhere without evaluating the problem.... they are the problem!

Anybody out there that would like to take on a real challenge and head up the EARS RFI committee?

I hope that I haven't sounded too negative or offended anyone but sometimes the text may need to be less than jolly to rock some people into thinking.

Hope to see you at HH87, that is Ham Holiday 1987. The registration fee is less this year, two day flea market, and much more. Contact Lee Vaughn, KA5WIS, to help with the registration at the door. EARS has handled registration at the door the previous three years of HH. So relax and get back in shape after field day so you can make HH87. See ya there. 73 DE N5BUJ, Bob McCoy

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GO FOR IT

Bob Ashby, W5HXL, came up with a good idea. He suggested that I prepare a sample of what it takes to get something into the Collector & Emitter.

Well it doesn't take much! I received copy this month by Packet Radio, Coco Net, hand written, typed, and printed by a computer. You have doubtless noted the wide variety of type faces in this issue. Any kind of copy is acceptable, but there are a few things to take into consideration, if you want to make my job easier ---

1. ALWAYS type or otherwise prepare your copy using the

Actual width BEFORE printing  
3 inches

BLACKEST ribbon you have.

2. Prepare it 3 inches wide for one column, 6 1/4 inches wide for 2 columns, 9 1/2 inches for three columns.

3. Columns are 12 3/10" long. But leave 1" at the top of the first column for the club logo.

4. Pictures cost us \$7.50 for each one. The exception to this is; If you can furnish a PMT we can paste it right in.

After we get the copy and paste it up we give it to the printer and he reduces it to 64 per cent before printing.

The calendar goes to the

printer on Wednesday morning, the balance is picked up at 8:00 Friday night. If you have a special date you want on the calendar - get it to me by Tuesday. The time that we publish is always listed on the calendar, and varies from month to month. Look it up each month.

Get your contribution in as soon as possible after your meeting. It helps a lot if I can paste the paper up a little at a time - my joints don't work as well as they used to and it takes several "trys" to get it done.

TNX Joe, WA5ZNF



## Q. R. Zedd

### HOMER TRIES AGAIN, BLESS HIM

Homer Klott, whom our own Q. R. Zedd, A5A, vowed to make a radio amateur back in December, has been trying.

So far, Homer has failed his Novice exam in Norman, Tulsa, Oklahoma City (three times), Blanchard and Moore. It is rumored that he may be the first recipient of the FAC (Failed in All Cities) award, which could become as honored and rare as the CATT and coveted Yodar Kritch awards, the latter being held only by the legend of Richardson, Tx., WA5MLT.

Homer, however, is undaunted.

"I am undaunted," he proclaimed, arriving at Zedd's Honor Roll Ranch, just a hoot and a holler south of town, for another round of tutoring. "Heckfire, boy! I am determined I am gonna become one of them armature radio fellers an' git into all them neat stuff like packet an' Conoco."

"Conoco?" Zedd echoed sharply, dropping one of the unfiltered Camels he has started smoking lately in response to the stress of Homer's stupidity and Tondelayo's delicate condition. "What is Conoco?"

"Conoco!" Homer yelled. "You know, when you talk to them faraway radio fellers! You are the king of it!"

"That's DX," Zedd winced.

"Well, I knew it was one of them gas stations."

Zedd -- in case you are just back from Venus and don't know -- is the world's greatest DXer and all-around wonderful fellow. Holder of the nation's only 1x1 callsign, he was worked all stations on all bands, all modes, all frequencies. He is only operator from this planet to work Saturn, and he has a card to prove it. What he doesn't know about radio has not been discovered yet. He invented radar, single sideband, and the plastic milk carton. Son of the great, late Zepp Zedd, who died on a DXpedition to Tibet way back there, he is the only offspr-

ing of Constance Wilhemina Zedd, of Mena, Ark., world champion CW operator and break dancer. He is --

But most people know all this stuff and a lot more, and if you don't, you'd better just consult your *Who's Who*.

Zedd has never failed at anything he ever tried.

He has been trying to activate Homer's brain cells (or cell) since early January. His pride is on the line, and he, like Homer, doesn't want to give up.

Sitting Homer down in the Honor Roll hamshack, the great man tried to be calm. Somebody had already hidden his sixshooter.

"Now, Homer," began the great man, combing his fingers through rapidly graying hair. "Let's define a few terms, okay?"

"Forty roger!" Homer screamed. "Sock 'er to me, OP!"

"That's 'OM'," Zedd said through locked teeth. "It stands for 'Old Man.' See --"

"Sex discrimination!" Homer yelped. "I learnt all about them in my graduate seminar in hoomin relations there at OU! You gotta say 'Old Person' or you is some kind of sexual deviate or maybe even a laxative!"

Zedd went through drawers. "Who took my gun?"

"Fire me queries, not bullets, OP!" Homer chortled.

"Okay. -- Ground. -- Define ground in terms of the hamshack."

Homer frowned. "That are a hard one. Ground. Ground is what you put you feet on solid of, to be reponsible. It are also the thing you drive you a ground rod in, and it need to be deep, so the wave won't do a ground loop and mess up your valiant electrons."

"You --" Zedd began, smoke coming out of his ears.

"All ground are in the earth," Homer went on, "which is why you see a 'E' on Japanese steamatic drawings sometimes, unless you is in an airplane in which case you don't."

Zedd lit another Camel. His yellowed hands shook badly. "Tell me --"

"Some grid are grounded," Homer added. "But not the one at Owen Field, it is Tartan Turf or some like."

"Give me a frequency you can operate on with your Novice privileges," Zedd asked. "Any frequency."

"Three times a week," Homer shot back. "But if more often, you learn them CW faster because it is all in the head, and a matter of practice."

"What is Ohm's Law?"

"Serious!"

"How often must a station identify during a QSO?"

"At least ever' ten minutes, an' at the start an' end of the contact!"

Zedd fell out of the chair. Beer and cigarettes went everywhere. As he climbed back to his feet, there were tears in his eyes and he could be heard murmuring words of gratitude to the deity.

He composed himself. "Homer, you got one right. How did you do it?"

"I learnt 'em, OP!"

Zedd turned to your intrepid reporter, who was also dabbing at tears. "There may be hope!"

He turned back to Homer. "How about some CW?"

"Roger forty!" Homer cried. "E is short an' T are long! M are two an' Y are strong! Z are hard but O are level, an' you can learn Q if you work like the devil!"

Zedd clenched his teeth and sent good old Homer a T. Homer licked his pencil and frowned a lot and thought real hard, and he got it after only four minutes, and wrote it right down on his Big Chief tablet.

Zedd left the room to look elsewhere for his gun.

-- KU5B

The overweight woman was told by her doctor, "Under this diet you can eat anything you like. Now, here's a list of the foods you are going to like."

FOR TRADE: Hammerlund SP-600 JX17. A boat anchor yes but also one of the top HF receivers ever made. Coverage from the lower end of the broadcast band to 54 MHz. Equipped with ext. 10 channel crystal osc. Manual. Interested in trading for a HF transceiver, 6 & 2 meter SSB/CW gear, 110 watts out, can be separate TR/REC. Contact: Mike Sullivan, N7DNU, Box 426, Altus OK 73522



## HOW TO PASS AN EXAMINATION

For success in passing an examination you must prepare yourself at least three ways:

1. Physically. Don't spend a lot of hours before the examination trying to cram all night and arrive exhausted at the examination. Get a good nights rest, avoid drugs and alcohol.
2. Mentally. Relax at the time of the examination. Remember you don't have to get more than 3/4 to pass. Also remember there's another time coming. Taking the examination should be a learning experience.
3. Studying for the test. Use more than one source of study material and be sure it is up to date. This gets you acquainted with the words common to the field and how they are used. No two authors express the same thing the same way. Buy good material to study. Books are the cheapest part of an amateur's equipment. Class study is good.

In taking the exam:

- a. Don't read anything into the question that isn't there. I would say reading is about as important as knowledge of the subject.
- b. Go through the examination carefully, and answer only the questions that are obvious to you. Remember that you have plenty of time. As you go through the material you will find things that may help straighten out your thinking on the questions you left out.
- c. As you go through life you will find out that if you can't remember a name or some other thing that you know that you should know, if you let it simmer while you go on to something else and don't push too much, the brain computer will go to work on it and the answer will come. So it is with examination questions.
- d. In multiple choice questions with four or five answers, don't guess. The odds are against you. Eliminate the obvious wrong answers. If you must guess, at least narrow it down to two choices. Then you have a 50-50 chance.
- e. Don't change an answer unless you are sure. One of the FCC examiners told me that in checking over the answer sheets after the exams he found that persons who had changed their answers were wrong more times than right.
- f. Don't be afraid of failing. Taking the test doesn't cost a fee. Remember you can hit it again in 30 days. One ham I know took the General test six times. He finally lucked out and got a copy of one he had before.
- g. Make notes right after the exam of things you observed and what bothered you.
- h. Don't wait. Take the test over again as soon as you can. Get someone to go with you.

In conclusion I will relate the recent experience of a ham with a Novice ticket who had studied a little while for a General ticket. He applied to take the Technician exam. He told me he had no idea of passing the test but he just wanted to see what it was like. But he walked out with a new Technician license. He said he was completely relaxed and was also very surprised.

Good luck, 73

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A GDO AND A VOM ARE GREAT BUT DON'T OVERLOOK THE YF !

Every ham is familiar with a few of the more common tools of the trade such as the VOM and the GDP. But I often wonder how many realize what an invaluable accessory the YF could be...

Even though she may not have a ticket, used properly she may fill the void in the shack and make your operating more pleasurable.

As a for instance, let me relate this lovely incident that occurred at this QTH. Perhaps it will bring a lump to your throat. A definition of love and true affection could not be more dramatic, and if it brings a tear to your eye--it just proves the point.

It was a typical Wednesday evening with the sweet little thing in the living room, eyes glued to the Wednesday Night Movie on the mahogany knot hole... Meanwhile I tuned for some rare DX that was coming through on twenty meters. Suddenly, to my horror the rotor quit on me and naturally in a direction away from the DX. The beam refused to budge.

I rushed upstairs and explained my plight to the YF, but she refused to leave the movie. Later during a commercial she agreed to help. Almost at the same instant a flash of lightning and a clap of thunder rattled the house.

Undaunted, she donned her lineman's belt, and at that precise moment--I was proud of her--as she began her ascent up the four-inch pipe mast. After all she weighs only one hundred pounds, and the lineman's belt with cutters, pliers, hammer, small crowbar, twenty-five foot roll of RG8-U and a few other things she needed weighed forty-two pounds.

I watched her as she shinnied up the pipe, and I could see her quite well during the lightning flashes, and between rolls of thunder I could hear the rattle of tools as they dangled from her belt.

She yelled at me to turn on the flashlight and shine it at the top. She didn't need the light to find the top, because the only way to the top was up. Anyway, she knew the way to the top as she had climbed it many times before. Apparently she was not aware of the price of flashlight batteries.

It had begun to rain quite hard, and I yelled at her to get a move on up there because I was getting wet. She had finally reached the top and yelled down for some more light. I told her the lightning was so frequent that she could work during the flashes.

She got excited and dropped a hammer that almost hit me on the head. I scolded her for being so careless, and since I was getting wet, I was going into the house and dry off. As a nice gesture I watched the end of the movie so I could tell her how it ended as I was sure she would want to know.

When she came in the house she refused to talk to me just because I had yelled at her while she was up on the mast. She wouldn't even listen when I tried to tell her that the movie ended with John and Marcia getting a divorce because John was very mean and unreasonable.

What I originally started out to say is simply that the YF can be a valuable addition to the shack although at times they can be a bit difficult.

Since she is a bit miffed, please don't print my name or call. Better yet I wish this would self-destruct after you read it.

(from RANDSPREAD, Cedar Valley ARC)

# PEARR

## Met

on Saturday, June 13, at 9:30 am for the usual monthly meeting. The pre-meeting coffee was graced by none other than W5OU but he left after showing off his Peter I QSL cards. Actually there were thirty members who stayed for the meeting.

Mark, N5HZR, introduced several guests: WA5RAQ, Bill; KB5CZR, David; and VK6ZKA, Ken, from western Australia.

## The Ducat count

was certified as \$1169.54, according to Monte, WB5RZK. Expenses for the month included \$14 for parts, \$150 for a receiver, and \$280 for the ACC upgrade. All expenses were for the repeater.

## The new

treasurer of CORA is our own beloved president-Mark, N5HZR. Gary, WBSULK, brought us up to date on the preparations for Ham Holiday. Andi, WU5W, talked about the nonham(YL) programs which include a safety seminar, a craft seminar, citizens against crime seminar, and a style show. Arrangements are being made for a travelling zoo for the kids and a four hour cpr class is also scheduled. The National Severe Storms Lab van will also be at HH on Saturday. All nonham progs and demos are free admission. It sounds like quite a show this year so be sure and get your preregistration in early.

## The Repeater

has seen several improvements this past month sez Dave, KSPL. The in-town receiver now has a battery backup system, the new software and the delay line has been installed. The new software has cleared up several problems and allows the sysop to enter in more macros. Dave talked about the bulletin features which are being used for club news. Your SCARS repeater guide tells you how to access the bulletins. Another new feature is the use of different courtesy tones

for different WX conditions: one for normal conditions, a second to indicate a thunder storm watch, a third to indicate that the local area is under a tornado watch, and the three tone one to indicate that the repeater is being used by a directed net. Also a new radial feature has been added for patch calls

Dave also wanted to remind us to be sure and identify by giving your call before using the autopatch or activating any of the special features such as the touch-tone test or bulletins. It helps the control ops determine if the user is legitimate. A school for control ops will be held soon. If you are interested in helping the club in this way, contact Mark, N5HZR.

## Ham-Com

was a striking success in my opinion and everyone I've spoken to about it seems to have had a good time. The registration estimate was close to 7000 according to unimpeachable sources. There were lots of faces from the Norman greater metropolitan area. The flea market was immense, crowded, and had a number of bargains some few of which I couldn't resist. The dealer area was also well-stocked and I saw several SCARS members toting bags of new equipment.

A group from Norman drove down to Dallas on Friday, went out on the town Friday nite, spent all day Saturday at Ham-Com, and out again Saturday nite to celebrate the bargains. And celebrate they did! I heard reports of one SCARS member, of the fair sex, dancing on a table Saturday nite. Maybe she was conducting a net or trying to get enough antenna height to hit Norman on 2 meters. Whatever the reason it is a safe bet that the trip was fun. If you didn't go this year, well- too bad!

I went to the ARRL forum on Saturday morning to watch EARS Pres Phil, N5HIP, accept the ARRL award for an outstanding year. Jim Haynie, WBSJBP, presented the award-a mallet-to Phil. Among other accomplishments the EARS club doubled its membership, from 50 to 105, in one year.

ARRL President, Larry Price, W4RA, spent most of the hour filling us in on the functions of his job and the activities in which the League is active. He talked about laying plans for the next World Conference circa 1993-94; docket 87-14 which attempts to take a portion of the 220 MHz band from amateur radio; PRB-3, the suggestion to privatize special call sign issuance; the efforts regarding the 160 m band. He answered several questions which focussed on the 220 MHz band. It was an enlightening hour and worth my time.

## New calls

resulting from the last Novice and Upgrade class and VE exam are:

Bob Jeffrey.....	N5KUG
Dan Jones.....	N5KUH
Koichi Takase.....	N5KUI
David Perry.....	N5KUJ
Ken Brown.....	N5KUK
Don Russell.....	N5KUL

## We'll miss 'em

Sam and Paula Barrett, WA5RPP and N5IAA, and 2 harmonics are moving to Maine. Yes folks that's right-Maine. Sam has a fantastic opportunity in a medical center there-I think in the Northeast part of the state, way up in the boonies. Need Maine? Watch for a sked to be announced here, that is, if Sam can still get his antenna up. Sam was a long-time contributor to SCARS. He edited the C&E column for several years and has been the lead VE for Norman for the last 3 or 4 exams. Did a great job for us, Sam; good luck in Maine.

## The next

meeting will be on Saturday, July 11, at 9:30 am in the Norman Red Cross building, 1205 Halley Drive. Hope to see you there.

-----KD5IT-----

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# Salem

## HAMCOM FOLLIES (Doing Dallas)

It's growing. There are good things going on in Big "D" the first Saturday of every June. Hamcom can fit several descriptions. First, for those of us who like the monthly First Saturday Flea Markets down at the Electronic Center (and on to and under the Interstate highway) Hamcom is a mere covered extension of that activity. Sort of a sidewalk sale with a thyroid problem. Oh, you can chunk in the commercial exhibits. You don't get those at the sidewalk sale, unless you want to walk in and pay the Electronic Center full price. But, if you are going to Dallas for the Saturday morning sale, pack a sandwich and make a day of it. Texas Towers is up the North Central Expressway several miles. And there might be a couple of surplus places of note. I notice more and more computers and computer crap turning up in the sidewalk sale. For those who like good prices on the new stuff, Soft Warehouse is a good bet.

I don't think that I have missed a Hamcom, yet. They rapidly outgrew their old location at the Northpark Inn. Getting there was easy, though. Just point the car down I-35, take the LBJ Expressway (I-635) over to the North Central Expressway and watch for the Northpark Inn. If the weather was good, the 3 and a half hour drive shrunk to about a hour and a half flight including taxi time to and from the fixed base operators. We used to coordinate with people already at Hamcom for rides, but it got easier to just simply call a cab. Besides, the savings in time was significant. Generally, you can get a cab out to Love Field in a couple of minutes.

Hamcom is now in Arlington. Last year, the weather looked bad, so Roger WA5JXX drove.

I couldnot believe it when we even talked K5JB into going with us. I think that he even had a good time. Especially when we planned the evening meal at Southern Kitchen. This year, it just seemed a natural to fly. But Arlington is a tricky place to fly into especially with the TCA in place for DFW. (It actually was a lot easier than I thought). A quick check of the map showed that you could scoot around the protective zone and come in low. When the weather started looking good for the flight, I even made a couple of calls to try to talk to some of the fixed base operators to pick up a couple of insider "tricks."

On Saturday morning, the weather looked great. The plan was to try to get off early enough so that we would be coming through area before 8:00 a.m. On occasion, the controllers at approach will let you scoot through the TCA without having to slide around. But you have to get there early enough before they start getting busy. And that is exactly what happened. I could only muster 2 of my original 4 passengers. Chas KA5UPM and his son, Sean, were the only ones on the manifest. By the way, Sean managed to do quite well at the prize drawing (we did not stay to attend), he won an IC-03AT. Not bad. Now, somebody needs to put up a repeater for all the novices.

Once on the ground, it was a slightly different story. I don't think that the people were either helpful or particularly friendly. Additionally, I think that I probably got several gallons of gasoline added "inadvertantly" to the bill. It is funny that my airplane uses 8.5 gallons an hour persistently and consistently before this flight and 8.5 gallons an hour after the flight (this past weekend), but because I flew into Arlington, the gas usage went up about 4 gallons. Must be the humidity in the air.

Cab rides were also a little hard to arrange. A cab was there, but he got a fare just as we arrived. I asked the person behind the desk to call us a cab and was told the other driver would be back very soon. After another 15 minutes, I again asked them to call a cab and was told that the other guy would

be back before another cab could be dispatched from the central point. They were right, he arrived about 10 minutes later. The moral is to "call for your own cab" when you get to Arlington Airport. Next year, I think that I will check out Grand Prairie. They are a little closer to the convention site and John Graham and Dean N5AMV flew in there and found they were pretty helpful.

It was amazing to me that it takes people at the Hamcom front desk so long to take money from people and give them back a ticket. The ticket is cheap looking enough. I mean the line ran down and around and back up, but I felt lucky in comparison to those poor unlucky stiffes who preregistered, but had to pick the ticket up at the site. That line was twice as long as the one we were in.

I didn't have any particular purchase plans in mind, but there were a couple of things that I was looking for. First, I wanted to buy some 3.5 inch diskettes to go with a new IBM PC Convertible that I got at the Computer Connections auction. They only gave one with the computer. Second, Toshiba makes a drive that will plug into many of the PC's, XT's, and AT's (as well as the clones) and I wanted one of those for use with my AT. This way, I would be able swap disks and programs between the AT and the portable. Boy, what a problem this was. Third, I wanted to look at the new ICu4AT radio. As it happened, several of them had just arrived and were being doled out among the commercial exhibitors. I actually bought one, but later sold it to N5HZR. I think that I might dig up another one later. The radio is impressive. Mark and I checked the sensitivity when I got back. It appears to be about .2 uV for 20 db of quieting. Full quieting signals come with about .3 or a little better. That is very impressive for a UHF radio.

Several people got UHF radios at Hamcom, including Davis KD5IT and Dave K5PL. I am not so sure about current Icom quality control. Davis showed me his radio last week and the audio seems to distort badly at high volume settings. The first ICu2AT I bought at Dayton would receive, but would not transmit.

It was deader than a hammer on transmit. I probably would have been really upset if I had gotten that radio in the mail. As it was, it was a waste of time to go back and exchange it. The dealer was interested in current sales and not exchanges that reduce working stock in the inventory. It took almost 45 minutes of playing second fiddle to the current sale to complete the exchange. Besides, that was 45 minutes of prime flea market time that I missed. Since it rained at Dayton on Friday (I bought the radio) and Saturday was gorgeous, they really wasted my time.

There were a variety of 3.5 drives available with prices from 10 to 60 dollars. But, these offered no documentation or mounting hardware. Toshiba made a drive with mounting hardware that is made to put in a PCAT, XT, or A TT or even a compact. The price is \$129 generally, at discount. The problem is that nobody had them except one person and I bought the last one. Mark was also looking for one of these since I bought two of these convertibles and he got one of them. He later ordered his from Softwarehouse.

I had a heck of a time getting the drive to work. Still not sure if it will work. It was intermittent for a long time. I finally traced it to my controller card. I ordered another one. Boy, I am telling you. If that is not the problem, I don't know what is keeping the drive from working. All I know is that I have been wrestling with the problem since about the 8th of June.

The commercial exhibits were OK. One of the more interesting is the Public Domain software that is coming available. The \$5.00 a disk people were there and the stuff that you get is just about phenomenal. I took one of their catalogs and will probably pick something up later. Some of the subjects are really interesting, such as the Census Data. They have the 1980 results on disk and you can search the files with a little controller. I think that the guy told me that it was in some form of DBASE file.

Fred W5YI was there. I really enjoy reading his report when I have time. It is always useful and interesting. Fred lets the clubs reprint it if they want. That takes guts because hams can be the biggest mooches in the world. I have seen some of the exchange publications that we get simply reprint the same pages wholesale. Of course, people who get used to reading Fred's report probably might be inclined to subscribe if the local publication quits reprinting.

All the Dallas ham stores plus one or two from around the country (and Houston) were there. The stuff was discounted and there were lots of display models to look at. I even took a look at the new Icom 761. It is an impressive and heavy radio.

I wandered back through the flea market, then waited in line only 4 deep (well after lunch) for about 30 minutes just to get a drink and some chips. Nobody was in any hurry to serve you and people had only one speed and much wasted motion. First, they would come over and ask you what you wanted. Then they would bring it to you almost one item at a time. Then collect the money and another return visit to the cash register and back to you. Food facilities were very poor. Many opted to leave and eat elsewhere. The outside prices were also an encouragement. Fortunately, a friendly candy machine down a secret corridor allowed me to complete my meal ticket in about 2 minutes. I think that they would have been better off at the food booth to simply put about 5 candy machines and 5 sandwich machines for people to use. There is no doubt that they would serve more people.

After some noodling around and some advice from Ron Moore at Moore Logic, I shied away from some of the floppy drives for 3.5". Many of them were for some form of nonstandard setup and they had no controller. I also found disks and bought some DSDD disks and HD disks for about rock bottom prices. The flea market yielded yet another find in the form of some multiple extensions AC power extension cords. They are a little strange, but can be adapted to work with about anything.

Programs? I didn't see any of them. Not that I didn't, there simply wasn't time, what with the food line and ticket

line and getting wooled around at the airport. I also did not plan on staying overnight. That defeats the purpose of taking the plane. The idea is to quickly scoot down to Texas, take in the flea market or sidewalk sale and get back to Norman at a decent hour. We thought about coming back early, but decided to stay and have dinner with Tim WA5LTM. We met a nice waitress who was studying for cosmetology school. Tim took us back to the airport and we were back in the air by about 7:30 p.m. or so. Norman was just about an hour and a half away.

Hamcom continues to grow, but I tell you this, they better get a handle on their food and other facilities. They are also losing a lot of money. There were a couple of times that I wanted to just get a coke to swig while walking the aisles, but didn't do it because it was just too much trouble. Still, it can be a worthwhile trip for those of you who like the DFW area. And the sidewalk sale moves just a little west each year for the event.

Micheal Salem N5MS

#### I AM V'GER

I was thoroughly fascinated by the nonstop flight of the Voyager last December. Most of us are observers only of history in the making and must actually depend upon news reports and other sources which are only second hand. With Voyager, anyone with a receiver and a proper antenna system was able to sit and listen to the conversations between Dick Rutan and Jeana Yeager on the HF bands. I found the frequencies in an issue of the ARRL letter and set up several evenings listening. Sometimes there was a lot of activity as the flight crew would sit and chat with family members in an apparent effort to keep going or stay awake. I set several of the frequencies in the memory channel of the IC-751 and left it scanning. Whenever I would hear some noise in the radio room, I would dash in and listen. I called a couple of friends and we sat and listened on the phone patch

as I piped the receiver output down the line. This happened several times for Joe K5HMD and Roger WA5JXX, neither of whom had General Coverage Receivers. The conversations were generally small talk, but still very fascinating.

That is why I was especially interested in an article in the June 1987 issue of Microwaves and RF entitled "Behind the Scenes with Voyager's Support Team." It describes the equipment used by Voyager during its flight, relates some of the principals involved in planning and details some problems experienced during the flight. The article is a little over 4 pages of text and just fascinating.

Voyager mission control in Mojave, California was located in a small trailer just about the size of a mobile home. From there, the communications team and weather forecasters planned and coordinated the flight. There were a total of 40 volunteers broken into four flight-support crews: weather, headed by the chief meteorologist Len Snellman (who earned almost blind trust from Rutan with his accurate predictions); aircraft performance, headed by Jack Norris; communications, headed by Dick Blosser; and overall operations, headed by Larry Caskey. One amazing point is that many of the volunteers in the support crew took off from their regular employment to work full time during the flight and were unable to participate in dry runs. This means that many of the crew had never worked together, nor had there been any shakeout practice runs.

The communications equipment consisted of a mixture of satellite, HF and regular aircraft radios. The Department of Defense permitted Voyager to use their UHF satellite communications network. Motorola then provided two model LST-5B lightweight satellite transceivers, one for mission control and one for the aircraft. The antenna was a .5 meter' collapsible antenna manufactured by Dorne and Margolin of New

York. Motorola also monitored the flight and provided communications support.

The UHF system was a little less than optimum, but formed one of the main links. When using the UHF link, Yeager had to manually point the antenna since it was not mounted externally on the aircraft. The antenna and system could not be used when the satellite was less than 30 degrees above the horizon. In this instance, either the aircraft or Rutan's body would shield the antenna from the satellite prohibiting communications. The UHF satellite was also a band transponder type of satellite which meant that it translated a certain band as a repeater. Unfortunately, the output of the satellite was fixed at 20 watts and when other stations were using the satellite, the output of the linear transponder would decrease that portion of the signal of the satellite output containing the Voyager.

King Radio of Olathe, Kansas also supplied about \$120,000.00 worth of aviation electronics and also provided engineering support to install and modify the equipment for Voyager use. One example of the modifications required included the King KAP-150 autopilot. It had to be changed to compensate for the dramatic changes in the flight characteristics of the weight of the plane changed from 4400 Kg at takeoff to 1225 Kg on landing. Besides the donation of some KX-165 Nav/Coms for VHF Aircraft work, King also donated a 150 watt KHF-990 HF radio with a 2.5 Meter whip antenna that mounted on the aircraft. This became the primary method of communications between the plane and mission control.

The Voyager obtained a license from the FCC to use six HF frequencies: 3,004 Mhz, 5,469 Mhz, 6,550 Mhz, 8,822 Mhz, 10,045 Mhz, and 13,312 Mhz. It seems to me that not all of the frequencies were published. The UHF satellite link had an uplink in the 290 Mhz to 320 Mhz region and the downlink was in the 240 to 270 Mhz region. The precise frequencies are not available because it is a military satellite system.

Other equipment included a King KNS-660 long-range navigation system which used signals from eight VLF stations in the Omega navigation system to calculate the position of Voyager by triangulation. The 660 would display Voyager's position, calculated course and distance to various navigation points on the flight plan, automatically read this information into the autopilot and compute aircraft ground speed and velocity of the winds aloft. They also had a King KWX-58 weather radar which would display precipitation ahead in four colors at distances up to 370 Km. The radar was also used for navigation since it could see coastlines 160 Km away.

The mission control was also equipped with a "micro earth system" which acted as a link to feed weather information from various public, domestic, international and satellite sources. Processing Systems of Belmont California provided a Digital Weather Image Processing System (DWIPS) which allowed stored data to be played back in sequence to that storm formation, movement and strength could be plotted. The DWIPS primarily used data from three geosynchronous satellites, GOES-6 for coverage of the western atlantic, North and South America, the Japanese GMS satellite and Europe's Meteosat.

The article contains other details regarding difficulties experienced during the flight including some unexpected problems. Obviously, accurate weather forecasting was a primary difficulty. The initial flight was planned for September, but was scrubbed due to a bent propeller. December was a much more dangerous to fly because of greater weather difficulties.

Some problems were fairly mundane. For example, the use of either the UHF or HF radios affected the operation of the autopilot! You would have thought that those King Engineers would have brought some ferrite beads and .001 ufd capacitors, for RFI control. Why even Louis W5UZD knows about that!! In any case, it was a masterful job well done and the story is interesting reading. Kudos to our fellow hams, Rutan and Yeager.

Micheal Salem N5MS



### June Meeting Minutes

Meeting was called to order at 10:17 a.m. by Secretary Joe, K5JB with five members and guests present.

Bob, W5HXL, gave the CORA update regarding Ham Holiday plans.

Motion passed that we cancel the July meeting because of Ham Holiday nearness; also, that we ask the Aeronautical Center Club to join us in a watermelon feed in August in lieu of our August meeting. It was suggested that the feed be held on the third Friday in August (the 21st), subject to availability of the shelter at Bethany Lyon Park, N.W. 36th and Glade, which is between Council and Rockwell.

Meeting adjourned for an informal discussion of the Red Cross move. Joe, K5JB, Sec'y

### Antenna Farm Cultivation

I finally got around to doing some long-needed antenna work around my place. The occasion that prompted the burst of activity was a need to get another functional antenna up to play packet on a third frequency. Several of the Greater Oklahoma City area packeteros decided to try a local net operation on 145.05 and I wanted to get in on the action without giving up the kibitzing on .01 and the Bulletin Board operation on 146.415.

I once had my six and two meter antennas about 90 feet in the air and had just enough coax to reach from the radios to the antennas. But, they have not been at that lofty height for a long time. The two pieces of Belden 8214 coax that ran to them were 125 feet long and had been since connected to two meter and 450 MHz beams, vertically polarized, on a shorty roof mount. The long pieces of coax were neatly coiled at the base of the shorty. I hated to cut the things, thinking perhaps that the antennas would again see the lofty perch.

Well, It will probably never happen. If it did, I wouldn't use those pieces of coax anyway. In preparation for the antenna re-arrangement I did some loss measurements and discovered it was time to do something differently. They both showed about -5 dB loss on two meters. New they were less than -2 dB, as I

remember, and after several years in the sun had crept up to about -3 dB. Belden 8214 is foam coax that has what is called a contaminating jacket. In order to make the coax more flexible, plasticizers are added to the vinyl outer jacket. These compounds migrate into the dielectric (insulation between the outer and inner conductors) and cause it to become more lossy. (It is the evaporation of plasticizers that makes vinyl, like used in seat covers, become stiff and brittle over a period of time.)

At the Green Country hamfest, I got a chance to look at the newer types of coax available. One of them, the Belden 9913, looks really good. Instead of using foam dielectric, to achieve semi-air dielectric characteristics, it uses a solid polyethylene cylinder with a spiral of polyethylene inside it. The spiral is against the center conductor, supporting it somewhat like the helical support in Heliax. It uses a foil shield inside of the braid to form the outer conductor and thus has 100% shield coverage. (By interpolating the Belden charts, I get about -1.5 dB attenuation for the 9913 and -2.3 dB for the 8214 at 150 MHz.) Even though the new coax looks good, I didn't have any so in a compulsive burst of energy, I took a different route.

First thing I did was to chop the excess length from the coax going to the two meter beam. By taking the shortest route from the antenna, through the roof, into the ceiling of the closet behind my radio stack, I suppose it wound up being 35 to 40 feet long. I didn't measure the resulting coax loss but I would guess it to be around -1.5 dB. Results were immediately improved. Using WA5FLT in Calumet as a test victim, I found his signal up but at least 3 dB.

I then went up the tower with some tools and took down the Ringo Ranger, the two meter dummy load with incidental radiation, and in its place installed a Butternut (Model 2MCV-5, "Super Trombone"). The swap of a +3 dB gain antenna for a -3 dB gain antenna made an immediate improvement but I wasn't finished yet. I didn't test the old coax but I suspect it had the same -5 dB as the other two pieces of coax going to the shorty mast, since it was about the same length and vintage. In its place I hoisted an old dusty, crusty chunk of 7/8 in. heliax. With the pigtails on each end made from the coax cut off of the first project, the end to end loss of this transmission line was about -0.8 dB. Now, I could really tell a difference. The omni on top of the tower

(about 50 feet) was performing about as well as the pair of elevens at the lower elevation. I could hit ole Joe, WA5FLT, with about equal ease with either one. The only disadvantage of the omni on top is the clarity with which it picks up power line and other disturbances from ALL directions. With the beam, it is possible to discriminate against some of the noise when the chips are down.

But I still hadn't run out of energy. There was still that old Ringo. One of these days I am going to try and modify the thing to get the decoupling of the later models, and perhaps get some reasonable performance out of it, but not yet. I mounted it to a piece of pipe extending just above roof level and connected a minimum-length piece of old 8214 to it. Its purpose is to serve as a low antenna, less susceptible to lightning strikes.

I am now set up with four two meter antennas, the Butternut, the pair of elevens, the Ringo, and the old faithful DB-264 on the side of the tower. Through all the experiments the DB Products antenna has proven to be the best all around antenna I have. Its only shortcoming is that it is almost omni directional (has a slight null to the east) and there are some chronic noise sources to my Northeast that occasionally cause me problems. The center of this antenna is about 25 feet off the ground so it is not all that high. It is an honest 6 dB gain antenna and has convinced me that the commercial users know what they are doing when they choose this (and the cousin, DB-224) for VHF use.

One thing these various antenna options has caused at my station is unpredictability! I am always swapping them around and others who try and digipeat through me never know what to expect. For example, I used to keep the beam pointed at WA5FLT, which happens to be the direction of the WFOR (Weatherford) digipeater. The result was that I could almost always hear Weatherford (but couldn't always work it). My antenna also pointed right down the throat of Cliff, WD4LPU, in Yukon (YUK). Lately, the beam has been pointed at Dave, WB5FWE, in Norman (OU) and Cliffie had to do some drastic antenna shuffling to get into my system. (Adversity toughens the spirit, eh Cliff?)

I still like to signal sap on .01 so I leave the high omni connected to a rig on that frequency. When I am not swamped with noise it does a respectable job, for an omni. Even when I lock out the Oklahoma Bulletin Board stations, I log about 50



to 75 thousand characters through a typical night, from 10:00 p.m. to 5:00 a.m. (One night when I forgot to lock out the Bulletin boards doing the forwarding I logged 650,000 characters, whew!)

I plan on doing some more improvements in the coax department. As soon as I get some of the 9913 stuff I will replace a couple of the feedlines and get a tiny bit better performance. I plan to modify the Ringo Ranger with the information promised by Jim, KB5XN, and maybe get it up to at least 0 dB, HI!

In the mean time, I am enjoying the brapping on all three of the TNCs with a little stouter signal levels than before. Joe, K5JB

#### More Packet Radio Stuff

The following advice is currently being passed around to some of those who are having some difficulty getting a fine tune on their packet radio performance. It is not new advice, having been published in December 1986 Packet Radio Magazine, but it is good:

Proper VHF radio interfacing techniques by Eric Gustafson, N7CL

Since about 1982 I have been helping new packet stations get on the air here in the Tucson area. This has revealed 2 major problem areas for the newcomer who is putting a packet station on VHF narrow band FM.

These are:

1. Excessive deviation resulting from overdriving the radio microphone input stage.
2. TNC timing parameter settings which are incompatible with the transmit/receive changeover delay time of the radio being used. Also, settings which are incompatible with the DWAIT, RESPTIME or FRACK settings in use by others of the packet channel.

Since there is usually plenty of help available on the air for TNC parameter setting problems, I will restrict myself to the radio interface problem here.

Lately I have been answering a lot of questions like "Gee, I can copy Jim FB on phone but not on packet ...why is that?"

I have also noticed that almost every single newcomer I hear is grossly overdriving his microphone input. I thought this was just a lack of sophistication on the part of the new packeteers until I went to Dayton this year (1986).

At Dayton I had the unique opportunity to use a communications analyzer to observe signals from most of the manufacturers in the packet radio business. In one two hour period I copied 16 different call signs. These included my own and those of all the manufacturers who had stations on the air at the show. Only one of those signals (mine) had the deviation set anywhere near the proper levels for packet operation. In fact all but 2 were actually sending square wave tones! All of these signals were overdriving the microphone input stage enough to cause the modulating tones to be distorted by deviation limiter in the transmitter.

Since even the manufacturers apparently don't know how to interface their packet equipment to radios, I am not surprised that few of the users do.

I have written this to provide some help to newcomers to packet radio in the area of getting their new packet gear interfaced properly to their VHF radios.

As currently configured in the TAPR TNC and clones, modem output levels are much too high for driving microphone inputs. This is so severe that in most cases the level control in the TNC cannot be set to a non-zero level which will not overdrive the microphone amplifier stages.

So what is a reasonable deviation level to use for packet? And how does one cure this problem?

To answer the first question I must digress a bit and talk a little about one of the characteristics of NBFM. Don't panic, I'm not going to get carried away with a lot of fm theory. There are plenty of sources of information on the mode starting with the Radio Amateur's Handbook if you want to understand all the technical details.

If you have been on VHF FM for any length of time, you will have noticed that as a signal fades into the noise there are actually 2 noticeable thresholds that are crossed.

The first is the transition from absolutely no noise to a slight hiss in the background. This is the point at which the minimum amplitude excursions of the signal are no longer above the limiting threshold of the receiver. Generally, the signal is still perfectly readable (and on packet) until the second threshold is reached. As the signal level falls toward the second threshold, the hiss gets a little louder, but remains just a back ground hiss. The second threshold is the onset of

a pulse type noise or popping sound. This is the point at which the phase demodulator in the receiver can no longer follow the carrier frequency correctly 100% of the time. Every time the demodulator loses track of the carrier, you hear a pop in the receiver audio output. I call this popcorn noise. The popcorn noise threshold is the limit for copying packets. Below this threshold the AFSK demodulator (anyone's) cannot recover error-free data. However, because of the powerful signal processing algorithms used by the brain, these noise pulses are only a minor irritation to the human ear. This is usually why Jim is readable on voice but not on packet.

Why all this stuff about noise thresholds?

Well, it is because the popcorn noise threshold varies when there is modulation present on the carrier. In general, the more deviation, the more signal level is required to get above this threshold this effect is small with low values of deviation but increases dramatically above about 3 kHz deviation. In the commercially available NBFM transceivers that I have had a chance to measure, it appears to be an increase of about 5 dB when going from 3 kHz to 5 kHz deviation (assuming a properly pre-emphasized signal).

You can get carried away with running reduced deviation, however, and too little deviation can cause problems too. This is because the signal-to-noise ratio presented to the AFSK demodulator in the TNC is degraded as the tone level approaches the hiss noise (remember the first threshold?) level present at the receiver output. You aren't in much danger from this effect unless you are running significantly less than 2 kHz peak deviation.

The answer (finally) is to take steps to assure that you are running somewhere between 2 and 3 kHz deviation. If you are measuring deviation while modulating with a single tone, use the high tone (2200 Hz).

The cure for the excessively high modulator output level is simply to put a resistor in series with the AFSK output of the TNC. I have been using this method with great success. A capacitor can be used in conjunction with the resistor to correct the audio response of those transceivers which do not properly pre-emphasize the modulating audio.

If you are indeed an average amateur and don't happen to have a communications analyzer laying around the shack, don't despair. There are a couple of methods you can use to at



least get in the ballpark.

The easy way to is to identify someone in your local area who has had his packet station correctly adjusted using the proper equipment. Then by monitoring your signal and his signal on a second receiver, you can adjust the level of the AFSK tones from your TNC to minimize the difference.

This was edited from the December issue of Packet Radio Magazine which is published by F.A.D.C.A.

Please note that even if you have no problems with packet operation, you still might be over-deviated and not know it. On weak signal conditions or noise troubled conditions, it can render your signal useless to the receiving station or DP. Hope that this tidbit has been of some help.

from WB5RZX BBS

#### Footnote:

I usually give some simple advice to the newcomer who is trying to get his transmit audio level set. I suggest to him that he listen on another receiver while he uses the calibrate function of the TNC to make a tone. Then listen to the sound while turning the level up and down. The distortion is not detectable by ear when the receiver is close to the transmitter but if the level is reduced until the volume is decreased noticeably the resulting deviation will probably be close to 3 or 4 KHz. Actually this is true only when the transmitter's limiter is holding the deviation to about 5 KHz, or maybe a little more, but with modern rigs this simple procedure seems to work real well. We used MUCH more sophisticated methods in the early packet days because we had some phase modulated rigs that were really hard to tame. The "turn it down until you can hear it drop" method has worked fine every time I have used it. The only TNC I have that is still calibrated is the TNC-1 on 145.05. It should be deviating about 3 KHz. The others are tuned by comparing their levels to that TNC's.

There is an additional explanation for the poor performance caused by overdeviation, even if it is undistorted. The energy winds up exceeding the typical 20 kHz bandwidth of the receiver's filters. Result: There ain't enough signal left to work with! Joe, K5JB

#### Portable Packet

In case you are interested in running a Radio Shack Model 100 as a portable packet terminal, here is a message off of Compuserve's Hamnet I

thought you might like to read:

From: David Bartholomew WB6WKB  
To: Arnie Podolsky KR8S

To use the TRS-100 on packet, you can use the TELCOM program (supplied in ROM on the unit). Set your STAT for 58N1E (1200 baud, 8 bits, no parity, 1 stop bit, and XON/XOFF enabled). Set your TNC terminal baud rate for 1200 baud. This works just fine. Suggest for best use set (in your TNC) NULLS 20 and NULF ON. Sometimes a lot of blank lines will catch the '100 off a bit so this helps. Set MFILTER to ignore Ctrl-L (12) because they tend to appear in transmitted text and clear the '100's screen.

I have used my TRS-100, IC-02AT and MFJ-1270 several times in portable operation. I used a 12V lantern battery to power the TNC (a gel-cell would have been better but I didn't have one), and the radio used it's own battery pack (a BP-8). For the computer, I got a 4-cell D-battery holder from Radio Shack and wired up a plug for powering the '100. (The AA-cells run out a little too fast for my liking).

In short, the TRS-100 makes a dandy portable packet station. Have fun and good luck with it!

- Dave WB6WKB (@ WB6YMH-2).

#### White Pages

(from Compuserve's Hamnet)  
WP stands for "white pages" and is a directory system for packet radio mailboxes. It allows remote query and updating of a data base that lists the users of RLI-compatible mailboxes and their home bbs. To use the program, a message is sent to "WP" at WD6CMU. The message can have several lines (a single message can contain several queries/updates), but each line must have one of the following formats:

(callsign) QTH?  
(callsign) QTH (mailbox)  
DE (callsign) @ (mailbox)

The first form is a query and will return the home bbs of the person with the given callsign. The second form adds or changes the entry for the given callsign, storing his home mailbox with his callsign. The third form provides a return address for the requested information. If the message does not contain a line of the third form, the WP program will try to get the return address from the forwarding headers. This will work as long as the mailboxes in the forward path use the NK6K format for forwarding headers.

Replies will be sent to the origina-

ting station at the mailbox specified as described above. The reply will be generated a few minutes after the message is received at WD6CMU. Currently, the WP program is run every 15 minutes, so that is the maximum wait for a reply. Of course, queries sent from other mailboxes will have to make their way through the forwarding system, as will the reply.

For example, suppose you wanted to find out where KE6AD was located? You would send a message to WP like this:

Msg# TR Size To From @ BBS  
2005 PN 11 WP WD6CMU

Date/Time Title  
0319/1207 A query

ke6ad qth?

Notice that case is insignificant within the message. If the station was not on file, WP would send you a reply that looked like this:

Msg# TR Size To From @ BBS  
2006 PN 74 WD6CMU WP

Date/Time Title  
0319/1207 Reply to WP query

KE6AD no record, sorry.  
73 DE WP @ WD6CMU

If you happened to know that KE6AD was at N7EQN, you could tell WP that. Let's say you also wanted to look up N7EQN. The message would look like this:

Msg# TR Size To From @ BBS  
2007 PN 27 WP WD6CMU

Date/Time Title  
0319/1208 ke6ad qth n7eqn

ke6ad qth n7eqn  
n7eqn qth?

The reply from WP would be:

Msg# TR Size To From @ BBS  
2008 PN 85 WD6CMU WP

Date/Time Title  
0319/1208 Reply to WP query

KE6AD QTH N7EQN QSL TNX  
N7EQN QTH N7EQN Redwood City, CA  
73 DE WP @ WD6CMU

The data base is in a growing state so it may not contain the callsign you're interested in. If you wish to add an entry, please make sure that the information is accurate.

That is about the crop of shenannigans from packet radio land. If you haven't yet joined in on the fun, Come On Down! Joe, K5JB

# Central Oklahoma Radio Amateurs

The regular meeting of CORA was called to order by President Jim Buswell, N5BEQ, at 6:36 p. m. on May 26, 1987. Directors present were:

ACARC---Tom Mangham, K5LDI;  
Charlie Greene,  
WA5JGU  
VHF-----Bob Ashby, W5HXL;  
Ellard Foster, W5KE  
MORI----Nora Ward, N5KDX  
76'ers--Jerry Sproul, N5AUH  
EARS----Lee Vaughn, WA5WIS;  
John Thomason, WB5SYT  
SCARS---Monte Bateman, WB5RZX;  
Gary Skaggs, WB5ULK;  
Don Schader, KB5ABS  
OUARC---David Medders, K5PL;  
Louis Russell, KD5WA;  
Marshall Maddox, WU5P  
EARC----Lee Ward, N5HIR; Phil  
Wolfenbarger, N5HIP  
C & E---Joe Harding, WA5ZNF

Visitors present were Susan St. Laurent, KF5LG, former Treasurer, and Gary Norris, KA5BQS.

On motion by Don, KB5ABS, second by Nora, N5KDX, the minutes of the April meeting were approved as distributed.

Sue, KF5LG, reported no changes from April on the Ham Holiday Account (balance remains \$864.58); error in deposit to C & E Account (\$102.55). Balance in C & E Account is \$900.64. All bills have been paid; Accounts Receivable balance is \$687.75 (Aeronautical Center, MORI, OUARC, 76'ers).

Lengthy discussion followed concerning the \$900.00 Sue had removed from CORA's bank account and deposited elsewhere without the knowledge or consent of the Board. Also discussed: The "lost" \$500.00 check to Lincoln Plaza and the fact that, had it been presented for payment, it would not have cleared with the \$900.00 removed; when the Kenwood rebate coupons were mailed in relation to when the money was removed; the 4.16% per annum interest earned as opposed to the 5.25% rate possible with a passbook savings account (during this discussion Sue

left the meeting;; how much risk is involved in a situation of this type; whether a treasurer should have unlimited control over CORA funds; and the possible legal repercussions if something of this nature should happen again. Phil, N5HIP, said no organization allows a member to take money from the treasury and commingle it with personal funds; he also said he had consulted his attorney who had confirmed what had happened was fraud.

The President said Sue told him at the time what she had done because she did not want it to be done in secret, or to appear to have been done in secret, because it did appear to be shady. He did not feel it was necessary to make it a point of Board discussion, pointing out the amount of time "already wasted on it."

Louis, KD5WA, quoted Article 7 of the CORA Constitution: "All matters of CORA shall be decided by a majority vote of the Director Members present at any meeting." Board consensus was to direct future treasurers to abide by the guidelines so presented.

On motion by Bob, W5HXL, second by Dave, K5PL, the Treasurer's Report was approved as presented.

Joe gave his report on the Collector and Emitter. Gary then commended Joe for the excellent job he does in publishing the C&E; the Board concurred. There were no reports from the communications committee and the VE program.

## HAM HOLIDAY '87 COMMITTEES

### FACILITIES/SECURITY:

Dave reported everything is fine. He said the only areas that will be secured are the Western Room (flea market), the dealer area, and the program rooms. There will be two professional security guards for the dealer and flea market areas Friday and Saturday nights.

PROGRAMS: Gary reported all going well. John, WB5SYT, said he has talked with several people with ARRL, and either Mac Griffin, assistant

manager of the League VE program, or Lee Hayford, Club Services department manager, will be here.

The President asked the Board if CORA wishes to hold its traditional meeting in conjunction with Ham Holiday. Motion was made by Joe, WA5ZNF, seconded by Marshall, WU5P, that the Board dispense with the traditional Ham Holiday meeting. Motion carried.

Motion was made by Gary, WB5ULK, and seconded by Phil, N5HIP, that all CORA Board members be identified as CORA officials at Ham Holiday '87 to be held at the Lincoln Plaza Convention Center, using some method to be determined at a later date. Motion carried.

BREAKFAST: Don, KB5ABS, said he had received word from QCWA that the breakfast contract has been arranged with Lincoln Plaza at a price of \$8.00.

DEALERS: No committee report. Don said he had talked to someone at Memphis Radio, who expressed interest in attending. Phil said John, KE5MT, had not been contacted yet. Following discussion concerning whether the dealer committee was on schedule, Don said he would contact the committee to find out who they have contacted and see about getting letters out to others.

FLEA MARKET: Louis reported that not much has been done to this point, but everything is under control.

NON-TECHNICAL PROGRAMS: Gary reported the committee has arranged for speakers from the weather service, Citizens Against Crime, and someone from the fire department to present a fire safety program. When questioned about bingo, Gary said he did not think they were planning bingo. Joe said the bingo is the most important thing for the women, and he feels the committee should rethink the matter because bingo always turns back money to Ham Holiday. Gary agreed to discuss the matter with the committee.

PRE-REGISTRATION: Jerry, N5AUH, reported one person had pre-registered so far.

SUN	MON	TUE	WED	THU	FRI	4 INDEPENDENCE DAY
<b>JULY</b>			1	AERONAUTICAL 2 TRI CITY	3	<b>4 JULY</b>
5	6	MORI New location See page 3 7 GREAT PLAINS	8	ALTUS AREA OKC/PM 9	10	8CARB COCO 11 LAKE CLANTON
WHEATSTRAH 12 LAKE CLANTON "FIELD DAY"	EDMOND CLUB 13	OIDAR 76'ers 14 NEW LOCATION	15	CIMARRON KAY COUNTY 16	17	VHF CLUB 18
EARB 19	VE EXAMS RED CROSS 6:00 PM 20	AUTOPATCH 21	22	23	EDIT NIGHT FOR C & E 24	25
26	27	CORA MEETS AT LINCOLN PLAZA 28 7:00 PM	29	30	<b>HAM HOLIDAY</b> 31	

#### RACE COMMUNICATORS

Saturday morning, May 23, 1987 at zero dark thirty (translated to 6 am) found several members of the GPARC anxiously awaiting the start of the Gage Roadrunne Marathon. Our club has provided communications for this event for many years. The race sponsors tell us that their events are widely known as well organized and that our participation is, in a large part, responsible. This years major culprit was not high temperatures. Quite the contrary. The unseasonably cool and wet weather was responsible for even a mild case of hypothermia! Because of wet socks and shoes, blisters were also another major problem endured by the 26 mile 285 yard runners. By 9:00 am the starting time of the 10K Race, conditions were much better and only a light mist was falling. Amazing as it may seem, only one participant dropped out of the marathon and another from the 10K Race. Speaking as a member of the Gage Chamber of Commerce, I can readily say that our participation is deeply appreciated and is an important part of the Marathon Day festivities. Our thanks to all who helped.

Saturday morning one week later, and I understand not nearly as early, several of our members provided communications for the annual Woodward Harvest Days 10K Run. This event is held at Woodward's Crystal Beach Park. The OM had Marine Reserves at OKC so we had to miss this one.

Probably for the better as he hobbled around for three days after running in the Gage 10K. He's getting to where his recuperation time is longer and longer-almost a year in fact. At any rate, we understand, things went very well and our club's communication support was appreciated.

#### GOTTA HAVE A QUORUM

The monthly meeting of the GPARC for June fell on the 2nd. Several of our members were out of town, some had forgotten, and to make matters worse, some were involved in watching thunderstorms in our area. None amateurs were present for the meeting which did not satisfy the minimum requirement of 10. A hasty call was placed to Gerald, WGSZ, who dropped whatever he was doing, quickly cranked (literally?) his trusty vehicle and headed for the meeting. Upon his and daughter Tammy's, KB5CZU, arrival, a quorum was achieved and the meeting was called to order by Vice President Ron Tice, WBOPGD. The possibility of forming a 10 meter voice net in the novice portion of the band was discussed and Gerald will pursue the matter further. Plans for upcoming Field day activities were also discussed. Upon adjournment, several members met at The Taco Factory for some great food and more fellowship.

#### FOOD, TALES, & THUNDERSTORMS

The OM and I invited the members of the Board of Directors over to Gage, America Thursday evening June 11 under the pretext of providing all the hamburgers and

hot dogs they could eat. Our real reasoning involved trying to pawn off our old pop-up camper on the unassuming members. The OM took them on a tour and pointed out all the reasons why the club should obtain the trailer for use as an emergency vehicle. He further mentioned that it would be great for Field Day activities and would get some attention if pulled in local parades. (Boy, would it ever!). At any rate, all this activity coupled with the late hour worked up some fair appetites. The OM finally got the grill going and started cooking. He managed to drop a couple of hamburgers and ate the hot dogs as fast as they were ready for quite a spell. (Strange that Gerald never said a word about his hamburgers tasting gritty). Everything eventually turned out fine, we certainly enjoyed some great covered dishes and heard a few tall tales in between. By the time we were finished, darkness had set in and with it a thunderstorm. A brief business meeting was held and the participants scattered before the rain showers started. We had planned to interview Lewis, W5KFK, so his profile could be completed but there just wasn't enough time with the bad weather getting closer. Luckily the storm didn't amount to much and everyone present seemed to have a good evening. We need to do this for the entire club to show our appreciation of their help with the Marathon-if the OM ever recovers from hot-dog poisoning. Lois, N5JGQ