



HAM HUM

Published by
AK-SAR-BEN AMATEUR RADIO CLUB, INC.
Post Office Box 291 — Downtown Station
Omaha, Nebraska 68101



Vol. XXVI
No. 10-11

October-November 1976

NEXT MEETING

WHEN: FRIDAY, NOVEMBER 12, 1976

TIME: 7:30 P.M.

WHERE: C. W. A. LOCAL 7400
1920 South 44th Street
Omaha, Nebraska

PROGRAM: SOLAR ENERGY, TODAY! Practical/Economical

Mr. Virgil Wamsat, an architect with Virgil Wamsat and Associates, Omaha, Nebraska, is studying solar heating and cooling systems for application to commercial and home use. He has traveled as a consultant to many areas in the United States investigating different solar system designs, construction techniques, and civil laws affecting individual rights relating to solar energy users.

Fossil and nuclear fuel energy costs are continually increasing at a rapid pace. Solar energy is a practical and economical means in solving our energy and economic crunch. Virgil will present an informative program.

Involve yourself with the Amateur Radio Team. See you there. Hope to meet your "radiant" YL, MYL, OM, or a new friend! C U & 73's.

Ed Eichler, WBØBCB

HAM HUM is the official organ of the Ak-Sar-Ben Amateur Radio Club, Inc., of Omaha, Nebraska, mailed monthly to all members and to others upon request.

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Editor: Dick Eilers, WØYZV
Phone HOME: 397-3999
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Associate Editor: John Snyder, WØWRT
Phone HOME: 556-1538
BUSINESS: 397-3000 - EX 3761

Deadline for December issue is November 19th

New member initiation fee \$1.00
Quarterly for balance of year:
Regular member \$2.00
Regular member and XYL 2.45
Student member 1.00

September 23, 1976

Messrs. Elwin M. Larson and John R. Moakler
Public Works Department, City of Omaha
1819 Farnam Street
Omaha, Nebraska 68102

Gentlemen:

On behalf of the membership of the Ak-Sar-Ben Amateur Radio Club, Inc., I wish to express our deep appreciation for your efforts in obtaining the use of a "cherry picker" which allowed us to mount an antenna for use by the National Weather Service.

Ours is a strictly volunteer organization. Without help from people like you, we never could have completed this project. The continuous broadcasting of weather information will provide a great service to the citizens of Omaha, three years ahead of schedule.

Once again, outside help has allowed us to do "our thing." Thank you again from all of us.

Cordially,
Thomas L. Thiessen
Secretary

1976 MIDWEST DIVISION ARRL CONVENTION

The 1976 Midwest Division ARRL Convention goes to the record books as an astounding success, thanks to the total effort on the part of many members of the Ak-Sar-Ben Amateur Radio Club, Inc.

At the onset we established some objectives for this Convention to set it aside from all others. First, we agreed that this Convention should be a rewarding learning experience through the selection of the nation's foremost experts in their related fields. Secondly, we felt that all exhibitors should be recruited to participate as this is, in many cases, the only opportunity a Ham gets to "eyeball" with a dealer. Third was to start a trend toward making conventions more of a family affair in which the

Ham's wife may also find enjoyment. Fourth, but not least, was to offer all the above at a reasonable rate, similar to previous conventions, and still remain modestly profitable. These goals when met would be a source of pride for the Ak-Sar-Ben Amateur Radio Club as hosts.

We feel these goals were indeed met by the caliber of speakers (see Jim Peterson's article), by the quantity of fine exhibitors, and the Ladies' program (see Sharon Griffin's article). A financial report and statistics will be presented at the next club meeting.

At the risk of forgetting someone, we would like to acknowledge the following people for their work over the last year to make this the "Convention to Mention."

Program Committee:

Jim Peterson, WBØQGV – Chairman
Joe Nanos, KØKES
Bob Lockwood, WAØDHU
Jon Penner, WBØGQT
Jim Wilson, Sr., WBØJPN
Frank Wolczak, WAØIWF

Exhibitors Committee:

Kay Ramsey, WØSBZ – Chairman
Jon Penner, WBØGQT
Al McMillan, WØJJK
Charles Juvenal, KØKKL
Ron Freeman, WØLPZ
Jerry McKay, KØFPM
Lowell Jackson, WAØHKT

Advertising Committee:

Don Taute, WBØPGS
Jon Taute, WBØMKN

Public Relations Committee:

Ed Eichler, WBØBCB

Hotel Accommodations:

Dick Eilers, WØYZV

Flea Market Committee:

Bob Neben, K9KAW/Ø

Special Interests Committee:

Bob Conley, WBØLYU

A very special thanks goes to Bill Leatherwood, WAØZUR, Convention Treasurer, who had the JOB of watching over the committees to make sure the overall budget set up in January 1976 was upheld. During the Convention, he worked long and hard to maintain up-to-the-minute records so that we could purchase more door prizes as the registrations kept coming. Because of his efforts and the dealers helping with various discounts, we were able to purchase such door prizes as Kenwood TS-520, Atlas Ziox, Dentron Super Tuner, Midland 13-500, Bird Watt Meter and many, many more.

There are many other people who added to the Convention. One of the most successful was Leo Meyerson, WØGFQ, who hosted the sing-along Friday night and the Reminiscence Hour on Saturday. These two events helped set the mood for the Convention. Others include the SAC Esprit de Corp Girls Drill Team; Lincoln Amateur Radio Club and 39ØØ Club for support in the ARRL Booth; Rich Harper, WBØMWB for Amsat Model Shipment; President Ed Eichler, WBØECB, for Public Relations efforts, and Congressman John Y. McCollister and Mayor Edward Zorinsky for their respective welcoming addresses.

Special thanks go to the F.C.C. John B. Johnston, K3BNS, Chief in Charge of the Amateur and Citizens Division, gave an excellent talk and aided in the exam process on Friday; John McKinney, WØAP, for his talk on Direction-Finding FCC style; Don Geortz of the FCC for showing off his craftsmanship in the fantastic monitor-

ing van; and last but not least, Mrs. Edita Songer for leadership in the FCC exam.

We fully realize that we have left out many names of people who at the Convention volunteered to help. We needed everyone and to you, thanks. Without you running the cameras, talkin station and hourly door prize drawings, we could not have done it.

All in all every goal was met and exceeded. It was both fun and enlightening for all of us involved in the planning. This Convention has set a trend and it is our hope that it will continue to grow and expand into a real family affair. To finalize everything, we, the Planning Committee, hope you found this a CONVENTION TO MENTION for years to come. Thanks for coming and being a part of it.

Mike, WBØDXA and
Marty, WAØGEH

MEMBER NEWS

Congratulations to Mary Lou Sherrerd who now has her call - WBØUID!

THANKS FELLOWS!

I would like to thank KØKES, WBØKHQ and others who spent about 30 hours and two weekends help me with my antenna farm. It was a job well done!

Jay C. McAleer, WAØLLQ

A WORD TO THE LADIES

The women's program for this year's Convention went over with great success. To all of you who attended, I would like to say thanks for coming and I'm so glad you enjoyed yourselves. To those of you who worked on the women's committee — I can't begin to thank you enough for all of your help. A special thanks goes to Kay Wilson, Marge Kelly, Jan Sinram and Ann Maples (who lives in Wisconsin but came down to the Convention and worked her legs off helping with all of the last minute details and problems). Without them and my Co-Chairman Carolyn Baily, this Convention would not have been such a great success. To all of you who made cookies for the ladies' hospitality room — WOW! We had such a fantastic turnout of cookies, it was unbelievable. I think it is safe to say that we had at least 100 dozen cookies. Since there was no way we could eat all of them, we froze the ones that were left to be used at a later date. I don't know who all of you are that sent cookies, but thank you very much; they were greatly appreciated. We had many requests for the recipe for the "Peanut Blossoms" that were brought by Leona Chereck so at the end of this article you will find the recipe for these cookies.

Now to those of you who did not attend. I know that many of you think, "Who wants to go to some jamb convention and spend all of that time looking at ham gear or listening to some guy talking about antennas." Well this year we went out of our way to keep the women so busy with their

own programs that their husbands would begin to wonder where they were for a change. We provided a hospitality room that was open during the men's programs where you could sit down with a cup of free coffee and some cookies (lots of them!), play cards, games, etc. or just talk with the new friends you made. We also had a program by Stewart Beauty Salon on hair care which was very interesting; a demonstration of Mideastern Dancing by three local dancers; a talk and demonstration by Wicks 'N' Sticks from the Westroads; free coffee and donuts on Saturday morning; and Saturday afternoon a double-decker London style bus took us all to the Westroads where we enjoyed a delicious lunch and amusing play for only \$3.50. The next morning we had an informal breakfast around the swimming pool while our husbands took in some more programs.

Besides the programs, we gave away hundreds of dollars of prizes including a microwave oven. If you didn't want to be separated from your husband or if you are interested in hamming, you could take part in any of the programs for the ham operators. If none of the above interested you, you could wile away the time around one of the two swimming pools in the Hotel or take advantage of the game area or go down to the exhibition hall and look at all of the booths with items of interest to the ladies (there were at least 10 of them). In addition to all of the fun we had, everyone who attended made some new friends — someone who knows what it's like to have to set up a **schedule to talk to your husband, or how it feels to go for a ride in the car**

and have your husband talk constantly – but never to you or without using a mike. Ham radio conventions can be fun even if you aren't interested in ham radio. Next year go along with your husband and meet some of those voices you hear over the air all the time, talk to wives of other Hams, or just take that time to relax around the motel for a few days and enjoy being away from home and the kids. Maybe you'll even find something about ham radio that you really like. I'll be at Wichita next year for the convention and I hope to see you there too.

Sharon Griffin

Peanut Blossoms by Leona Chereck

1 pound Hershey's candy kisses

1/2 cup white sugar

1/2 cup brown sugar

1/2 cup shortening

1/2 cup peanut butter

2 Tablespoons milk

1 Egg

1 Teaspoon Vanilla

1-3/4 Cup flour

1 Teaspoon Soda

1/2 Teaspoon Salt.

Beat all together except 1 cup flour. When well beaten, add remaining flour. Roll or shape into small balls, roll in sugar and bake on ungreased cookie sheet for 10 to 12 minutes at 375 degrees. Remove from oven and top each cookie *immediately* with one candy kiss. Press so cookie cracks around the edge and cool.

DECISIONS, DECISIONS

Well Midwesterners, your Convention has come and gone. The Program Planning Committee hopes you enjoyed the presentations and will make use of the experiences brought to you by the speakers.

Certainly other things occurred at the Convention and we hope you enjoyed it all. Our intent was to pick and deliver the best available speakers and make it difficult for you to choose the one you wished to attend.

If you had trouble deciding, then we feel that the goal was accomplished. All ten call areas were represented at the podium during the 29 hours on Saturday or the 6 hours on Sunday. Some programs were repeated to give you an option and if you read ahead, you saw the programs that interested you the most.

We feel our speakers were the best around for their particular specialties, and that each and every talk was worthy of your attendance and admission price. When the time comes in your QSL to pass along some knowledge you gained, we hope you will credit the speaker and again Mention the Convention.

de Jim Peterson, WBØQGV, and
the Program Planning Committee

An Excerpt from letter to Zero QSL Bureau:

Enjoyed the Convention very much and of course was overjoyed in the shared honor I received.

73,

Dick Pitner WØFZO

Doyle D. Kernes, WBØIUT
AMSAT Area Coordinator

THANKS FROM TROOP #430

Ak-SAR-BEN Amateur Radio Club
Convention Committee

Oct. 22, 1976

Dear Chairman:

This letter is to congratulate you on a fine Convention, and to thank you for all of the help and cooperation received while there.

I am pleased that you included AMSAT on your schedule, and I hope now that it is over, that you are not disappointed. The help on the Satellite models was really appreciated, because without it, there would not have been any models. As you may know, all of the work done for AMSAT, is volunteer.

I personally, was pleased with the booth. I think that we had a good deal of interest shown, in an area that is of interest today to the Amateur Radio Fraternity. This interest was again brought out by Armond Noble, in his speech. While on the subject, I feel that your selection of Mr. Noble was an excellent one.

I can not list everyone that helped me at the Convention, but I do think Rich Harper deserves a special thank you for his "service beyond the call of duty." You made it definitely the "CONVENTION TO MENTION."

73's

Doyle

Seems like every time history repeats itself, the price goes UP.

-Service

On behalf of Boy Scout Troop #430 in Millard, I would like to say thanks to WBØTWE Bill, WBØRTD Mel, KØKES Joe, WBØMNK Jon and WBØFTU Charles for the time they spent at the Southroads Shopping Center providing HF communications for our Jamboree-on-the-Air display Oct. 16th and 17th. They gave each of our scouts an opportunity to visit with other scouts throughout the country. Our scouts have passed on to me how much they enjoyed the weekend, with a few that have expressed an interest in ham radio and started this week on my code tapes and the license manual.

A special thanks to WBØRTD Mel, because after spending half of Saturday at the Southroads, he went home and spent the other half running phone patches for us and somehow patched us into the Air Force Looking Glass in the air over South America where each scout and myself had the opportunity to talk to them and ask questions.

The scouts visited with scouts from VE5 stations in Canada to Florida, from California to the Scout Headquarters in New Brunswick, N.J. (K2BSA), and a 19-year-old scout in Alabama who made arrangements with a few of my scouts to trade patches.

Again thank you.

Don McMullen, WBØMUC
Scoutmaster, Troop #430

ANNOUNCING 1977 CODE AND THEORY CLASSES

Volunteer members of the Ak-Sar-Ben Amateur Radio Club will conduct code and theory classes again in 1977.

WHEN: First week in January 1977. Classes to run 15 weeks.
Exact date to be announced later.

WHERE: Creighton Prep, 7400 Western Avenue, Omaha.

WHAT: Novice classes and General and Advanced Classes.

Complete details to be released in December 1976 HAM HUM.

Letter of appreciation from Carter Lake Water Ski Club, Inc.,
Omaha, Nebraska.

September 6, 1976

Dear Members of the Ak-Sar-Ben Amateur Radio Club:

On behalf of the Carter Lake Water Ski Club I would like to thank you for the great great job you did in helping us with communications for our tournament. The excellent communications we had helped us put on one of the smoothest run tournaments yet. We never could have done as well without all your fine help.

Thank you very much. It was greatly appreciated.

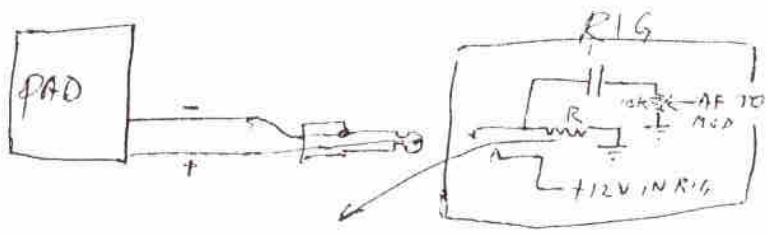
Best Regards,
Howard Silberg, President
1814 North 59 Street
Omaha, Nebraska 68104

PAD CONNECTIONS

By—John Gebuhr, WBØCMC
Repeater Committee Chairman

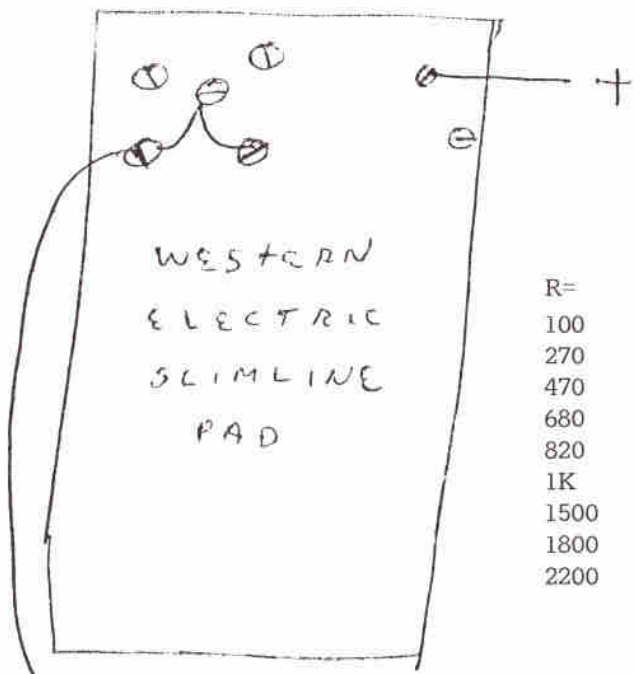
The following circuits are for connecting the two common types of Western Electric Touch-Tone[®] pads for operation with a transmitter. Typical operating current on the two types is 9 ma ± 1.5 ma on the slim line and 11 ±

2 ma on the large style. Circuits as shown are cathode follower fashion cancel hum and noise especially in mobile use. Also a recommended mobile hookup. Wire does not need to be shielded.

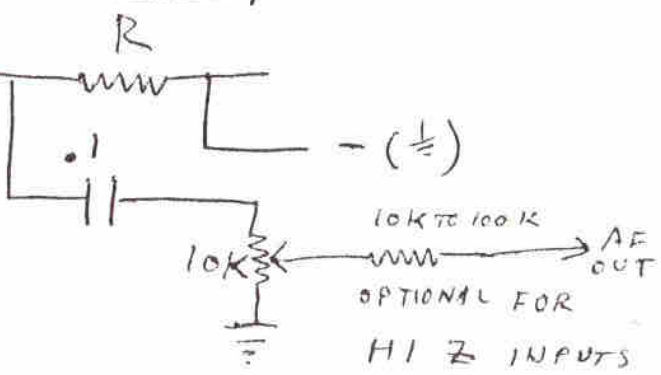


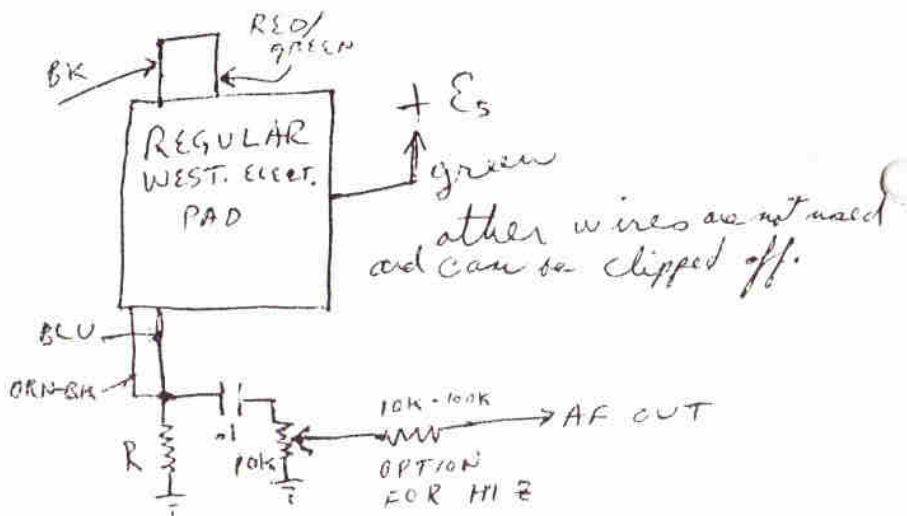
For Slimline 1K

For regular 680Ω



R=	E _s =
100	1.1-3V
270	3-4
470	5-7
680	6-8
820	7-10
1K	9-13
1500	12-16
1800	15-19
2200	18-24





E_s	R
2V-3.8V	39 Ω
3-5	82
4.5-6.5	270
6-8	330
7-9.5	470
8.5-12	680
11.5-15	820
14-20	1K
19.5-24	1500

Operation of either pad over 24V is not recommended.

OMAHAWKS By—Hal, WØFHA

Ed, WØBCB, our hard-working President, made a "ham radio" presentation to the Omahawks (radio control model airplane club) on Friday, September 24th. With about 50 members present, the interest centered around 6 meter operation (53.1-53.5) and the effort and know-how needed to legally operate in this frequency spread. Ed, as usual,

built enthusiasm as he progressed, resulting in many questions.

Three Omahawk members are licensed hams and two more are now enrolled in the current novice class.

As a member of both clubs "thanks Ed" for a job very well done.

WØFHA—Harold D. Wetzel
2905 North 97 St.
Omaha, NE 68134

AUTOPATCH EMERGENCIES

By—John Gebuhr, WBØCMC

It has come to my attention that there is a problem with use of the autopatch on 911 calls. On several occasions a call has come through where the caller has gone on for several minutes giving the nature and location of the incident and the 911 operator kept saying "We have that call, we already have that information, etc., etc.," not realizing the one way at a time nature of the call.

To solve this problem, when you make a 911 call on a repeater:

1. Tell the 911 operator you are on a mobile telephone. Don't be concerned that the operator may think you are a CBER or a Ham. In an emergency the communication, not the communicator, is the important thing. By identifying as a mobile tel station, the 911 operator knows instantly he can't talk when you are.

2. Initially state only the (a) nature of the emergency; (b) location; (c) then listen. The 911 operator will tell you whether or not it has been reported or tell you to go ahead with further information.

3. As in all emergency communications, keep your transmissions short and to the point.

4. If it is a fire you are reporting, when the operator answers, tell him you want the fire operator. He doesn't want location or any other information because he has to transfer you to the fire board.

5. If you use the 22/82 repeater, 911 will not work. You should dial 444-5802 to get Omaha emergency service. Remember 22/82 is on a

Council Bluffs exchange and 911 does not work on it. 911 is a good number only on Omaha exchanges.

6. Use common sense. This will speed help to the area best.

TAPE INFO SYSTEM

By—John Gebuhr, WBØCMC
Repeater Committee Chairman

When using the tape information system on 34/94 (or any of the other repeaters with their various functions) you must identify your station. The law requires it and by not doing so you are not only putting your own license on the line but that of the repeater and the control operators of that repeater.

We have caught three button-pushers in the last two months and have sufficient data to go to the FCC on all three. We have at our disposal some fairly sophisticated ECM equipment and it only takes a few seconds to identify a radio so keep your operation legal and don't spoil what we have for anyone else. If operation of this nature persists, we will take whatever action is necessary when an illegal station is caught.

I have also noticed some rather crass comments on the female voice on some of the tapes which should not have been on the air. Remember there are a vast number of people who listen to 34/94 who are not hams (scanners, etc.) and the individual operators on the repeater reflect on all amateurs. There are many more ears in this area than you suspect.

FROM THE EDITOR'S DESK

Being a licensed Amateur Radio Operator is both an honor and a privilege. Sure we earned our right to the frequencies we use and to most of us Amateur Radio is more than just a hobby because it becomes a part of our lives we are very proud of. Have you listened to "CB" lately? Here is created chaos (FCC) that is hard to believe. With millions of "CBers" and only a few hundred thousand Amateurs, sheer numbers alone will force the FCC to move or expand "CB" as it is today. "CB" is here to stay! It is a service that many people need and want. It may get worse before it gets better, but I do believe that "CBers" themselves will in time police their own ranks to eliminate the "Funny Farm Operator." They have to if they want to stay on the air. On the other hand, we as Amateurs have a public relations job to do. Let us explain to our friends and those around us the difference between Amateur Radio and "CB." Condemning it can only give us a bad publicity in return. We talk to the World — let's tell the World about Amateur Radio Service!!

de LERC, Burbank, CA.

EDITOR'S LAMENT

Getting out this paper presents problems.

If we print jokes, people say we are silly;
If we don't, we're too serious.

If we clip things from other papers,
We're too lazy to write it ourselves.

If we don't stick to the job all day,
We ought to be out hunting up news.

If we do go out and try to hustle,
We ought to be on the job in the office.

If we don't print contributions,
We don't appreciate true genius.

If we do, the paper is filled with junk.
If we make a change in a fellow's writing,

We're too critical;

If we don't, we are asleep.

Now, like as not, someone will say
We swiped this from some other paper

WE DID!!!

. . . . from Static Sheet!

Lame Duck: politician who is in
the process of becoming a cooked
goose. —Service

RECENT CONTRIBUTORS

Ham Hum Postage

John W. Allen, W5RFY
and Bea Allen, WN5VVZ
Ora J. Ballard, KØJRH
and Edward F. Kind, WØKYM
William F. Boeckenhaupt, WBØBMB
Donald G. Renze, WAØRBG

Repeater 22/82

Bernie Chap, WBØEYT
Loren F. Chase, WBØQYK
Richard H. Swig, WBØZQG

Repeater 34/94

Bernie Chap, WBØEYT
Loren F. Chase, WBØQYK
Russell Crenshaw, WØYWD
Ray T. Howerter
Richard H. Swig, WBØZQG

Repeater 40/00

Ray T. Howerter



Armond Noble, W6AJY, of
Worldradio News



Convention Co-Chairman Mike McAllister, WBØDXA,
presents long-stemmed roses to Sharon Griffin,
Chairman of the Ladies' Program

PHOTOS

1976

MIDWEST DIVISION

ARRL CONVENTION



Harry J. Dannals, W2TUK,
President ARRL



Convention Co-Chairman Marty Griffin,
WAØGEH, and XYL Sharon



ARRL President Harry J. Dannals, W2TUK,
congratulates Bob Lockwood, WAØDHU,
for his educational activities

HAM HUM SWAP

- FOR SALE: Midland 505 with touch tone pad and factory crystals – asking \$250.00;
Teleprinter, Model 15, complete (was reconditioned by West Union) – asking \$50.00 – comes with other unit for parts;
Have many 4CX250B's for sale – \$10.00 each; also 4-400 at \$25.00 each;
1 – Hammarlund FM50A, good for two meter base station – \$20.00;
6 Muffin fans, 110 volts AC – \$3.50 each;
Many additional items to sell.
Leonard D. Stoner, AFC8LCU, 6239 Wilson Circle,
Omaha, NE 68107; phone 294-5322 between
8:00 AM and 4:30 PM.
- FOR SALE: Hy-Gain Model 2BDQ Doublet antenna for 40-80 meters with balun, etc. Also have amps, mics. for P.A. systems. Will sell or trade.
Bernie Chap, WBØEYT, 2811 Bonnie Street,
Omaha, NE 68147; phone 731-0128
- FOR SALE: Heathkit HW 202, with 6 sets of Xtals. Excellent condition.
Robert D. Duncan, KØABI, 1004 Lincoln Ave.,
Plattsmouth, NE 68048; phone (402) 296-5988
- WANTED: Would like to borrow a copy of the schematic for the Heathkit Monitor Scope, Model HO-10, in order to make myself a copy.
Thanks!
V. K. Ramsey, WØSBZ; phone 571-7541,
6115 Kansas Avenue, Omaha, NE 68104
- FOR SALE: Bearcat IV. Xtal include 146.94 and 162.40. Range 30-50, 2 meters to 174, 450-470, 470-512 MHz.
Alan Lee Fleming, WØBNY, 1169 South Street,
Blair, NE 68008; phone (402) 426-2380
- FOR SALE: Duobander 84 and PS; Eico 752 DC Supply;
Galaxy DC3 DC Supply; Model 19 TTY;
GE 2 mtr desk top base stn 34-94 propline
Don Renze, WAØRBG; phone Omaha 572-7557

FOR SALE: Sell for \$150.00 — Recency HR-2B, crystals
for

<u>Transmit</u>	<u>Receive</u>
146.34	146.94
146.94	146.94
146.16	146.76
146.22	146.82
146.52	146.52
146.46	146.46
146.40	147.00

Robot Slow-Scan Equipment, Model 80A camera, Model 70
Monitor, complete with tripod and tape recorder — \$450.00.
Jay C. McAleer, WAØLLQ; phone 339-3448

FOR SALE: 1 Model 720, Eico, 90 watt C-W transmitter, perfect condition,
\$50.00;
1-WRL Globe Scout transmitter Model 680, 90-watt, never used,
\$50.00;
1-WRL-VFO Model 755, perfect condition, \$25.00;
1-WRL Multi Pak Power Supply, Model PSA-63, \$30.00;
1 Bug, \$25.00;
2-J-47 transmitter key, \$1.00 each;
1-J-37 transmitter key, \$1.00;
4-J-38 transmitter key, \$1.00 each;
4-Miniature ceramic rotary switch, 6 section, 12 position, \$1.00
each.
Call any Sunday 553-0116; ask for Joseph McNulty, WØUIX.

FOR SALE: Teletypes with tables, TG7-B (model 15), rewired and ready for
RTTY use.
Steve Baily, WAØGQG; phone 333-2698

WANTED: I just bought a GT-550 and need a VOX and CW filter.
Darrell Easton, P. O. Box 192, Akron, Iowa 51001;
Bus. phone: (712) 568-2784; home phone: 568-2458

FOR SALE Mini-Quad antenna with rotor.
OR TRADE: F. Hilton Norton, phone 493-2493,
10609 Hilltop Rd., Omaha, NE 68134



SPIRE TOWERS

Money

Saving

Packages

on

40 & 48 Foot
Spire Towers
IN STOCK

↓ \$50 OFF ↓

BUY A 40 OR A 48 FOOT
HI-SPIRE TOWER; A HAM-11
ROTOR; AND ANY MOSLEY OR
HY-GAIN TRIBAND BEAM IN
STOCK AND SAVE \$50.00 NOW!
.....LIMITED OFFER.....



HAM-II

Rotor
"VALUE!"

"THE BEST
TOWER"

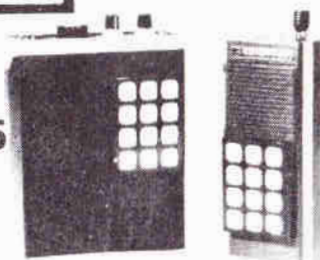
PLATE XFMR

NEW, INDUSTRIAL GRADE PLATE TRANS-
FORMERS; OIL FILLED, 115/230VAC
PRIMARYS/ SEC. 6336VAC-CT IT
DELIVERS 3KV, CONSERVATIVELY. FOB
H. I. CRATED-SHIP TRUCK COLLECT



\$49.95

CES TONE PAD



\$49.95

- ♦ STANDARD PHONE DUAL FREQS.
- ♦ USE 7 TO 35 VOLTS DC
- ♦ NO POWER EXCEPT WHEN KEYS
- ♦ CRYSTAL CONTROLLED ACCURACY
- ♦ HIGH R. F. IMMUNITY
- ♦ SIZE: 2.25" x 2.875" x .375"