



HAM HUM

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



Vol. XXX
No. 4

April 1980

OMAHA AMATEUR CENTER

2565 Dodge Street Omaha, Nebraska 68131 (402) 346-5530

Ray Kydney, WAØWOT

Loretta Kydney, WBØMNL



Larsen Antennas



NMO-150-K



NLA-150-K



JM-150-K



LM-150-K



NMO-450-K

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.

Full permission is granted for reprinting articles appearing in this official organ provided a credit line is given to HAM HUM and in reprinting, to the author and publication from which the article was taken.



Dues-Annual Basis

(Due and Payable each January 1.)

New member initiation fee \$ 1.00
Regular member \$10.00
Regular member and spouse \$12.00
Student member \$ 4.00

Published by:

AK-SAR-BEN AMATEUR RADIO CLUB, INC.
Post Office Box 291
Omaha, Nebraska 68101

President Richard D. Jugel, K0DC
Phone: 572-9491
Editor Dick Eilers, W0YZV
Res.: 397-3999
Phones: Bus.: 342-1402, X-200
Assistant Editor . . . John Snyder, W0WRT
Res.: 556-1538
Phones: Bus.: 397-3000, X-3542

Copy deadline for May issue is April 15th.

Dues-Quarterly Basis (For each quarter or part thereof for balance of calendar year.)

New member initiation fee \$1.00
Regular member \$3.00
Regular member and spouse \$3.60
Student member \$1.05

NEXT MEETING

WHEN: FRIDAY, APRIL 11, 1980

TIME: 7:30 P. M.

WHERE: HOLIDAY INN - 72ND AND GROVER - OMAHA
MAIN BUILDING—ROOM EMPIRE D
(Enter 72nd Street side, main door or north door.)

PROGRAM: SENATOR DAVE NEWELL will give us a talk concerning the Nebraska legislative process and in particular will discuss the permissible and possible effective lobbying techniques by special interest groups.

VISITORS WELCOME

THE PREZ SEZ

The midwest tornado season was kicked off at the March meeting with the annual severe weather watch program. Jim Zoller and his staff from the National Weather Service and Major Bill Elmer from the Strategic Air Command 3rd Weather Wing presented another fine program.

In addition to a training movie, slides of actual tornado formations were shown. The mechanics of the "birth and death" of tornados along with valuable safety information for volunteer spotters, was presented by the NWS staff. The ARES honchos handed out updated computerized rosters and checkpoint maps, and KMTV provided excellent news coverage of the program on the 10:00 p.m. news. KMTV, I might add, is to be congratulated on the story - they "scooped" the other two local T. V. stations on this one!

One other point I want to make while on the subject of T. V. news - I think it is fantastic the way our local stations, all of them, can edit and present local news stories of outstanding calibre, especially considering the tight deadlines they have to meet! It seems to me that the difference between good to average and excellent news coverage has to be measured more in terms of artistic ability rather than technical capability.

Special thanks from the club go to Jim Sanford, NØAIH, for his work on the new club emergency generator. If Jim can manage to break free of his welding, painting, drilling, and bolting activities for a few minutes, we should have an article on a project progress and system specifications for this issue. Jim has been instrumental in securing donations of material and labor to see this project through to

reality. He still needs a few items, like trailer tires and batteries, so if anyone can help him out, don't hesitate to call! We mounted the generator on the trailer Sunday, and actually fired it up. Let me tell you, that is some beaut of a machine!! The trailer has been completely rebuilt, from the axle up, and the generator is in like-new condition. This baby will supply the club with oodles of emergency and field day power for many years to come. Hats off to Jim, and the many local firms and individuals who have made this system possible.

Had a request from several members after the March meeting concerning security. They suggested that we place armed guards at each entrance to the Red Cross building to frisk people for baseball bats.

Got a very, very special secret deal planned for the April meeting, in addition to the program, but can't tell you about it till then. You'll all just have to show up to find out what it is!

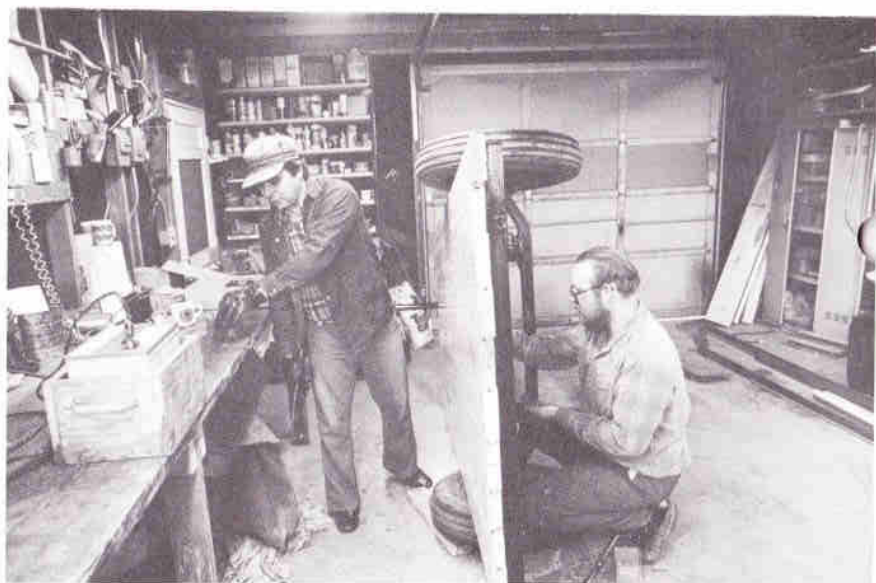
Let's see - I also need some more suggestions for topics of interest for club meetings. One member had an excellent idea on the physical effects of lightning, but I did not get the name and call sign. Please call me at 572-9491 so we can set it up.

So, until next month, may the wind always be in your face (so you can spot those tornados instead of letting them creep up behind you).

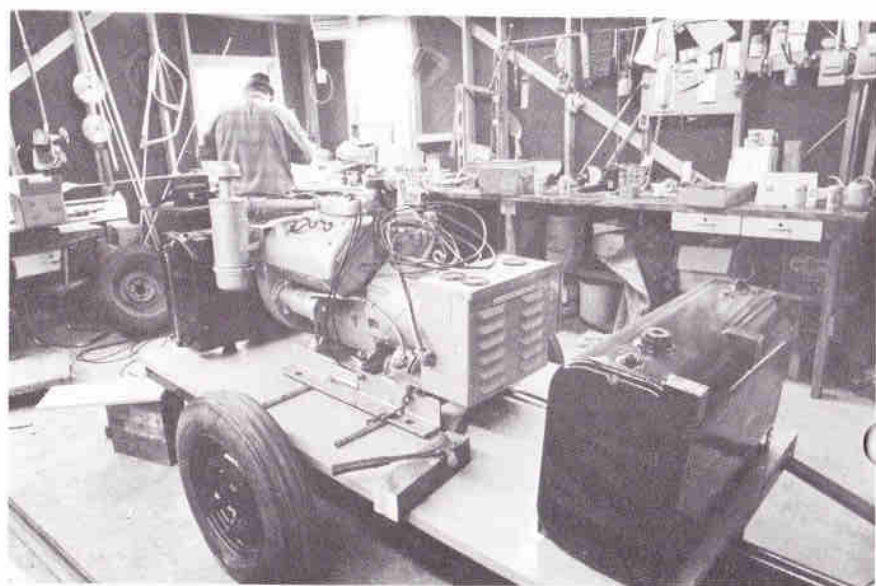
De KØDG

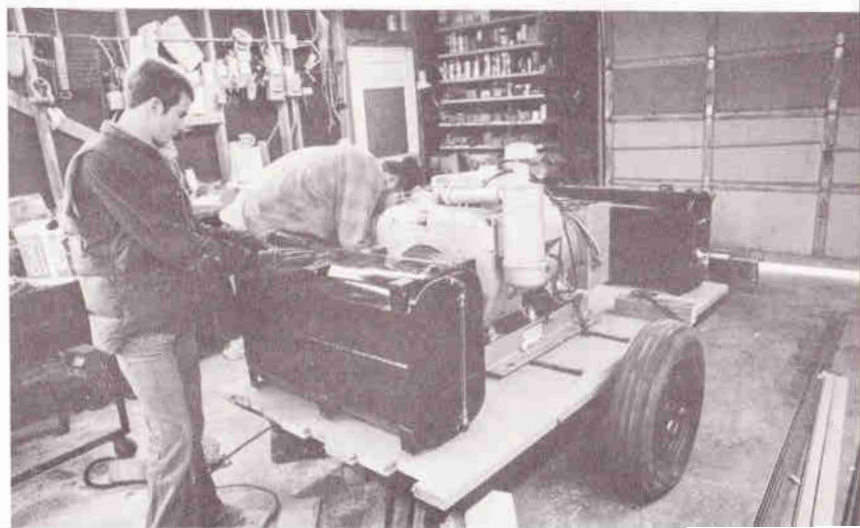
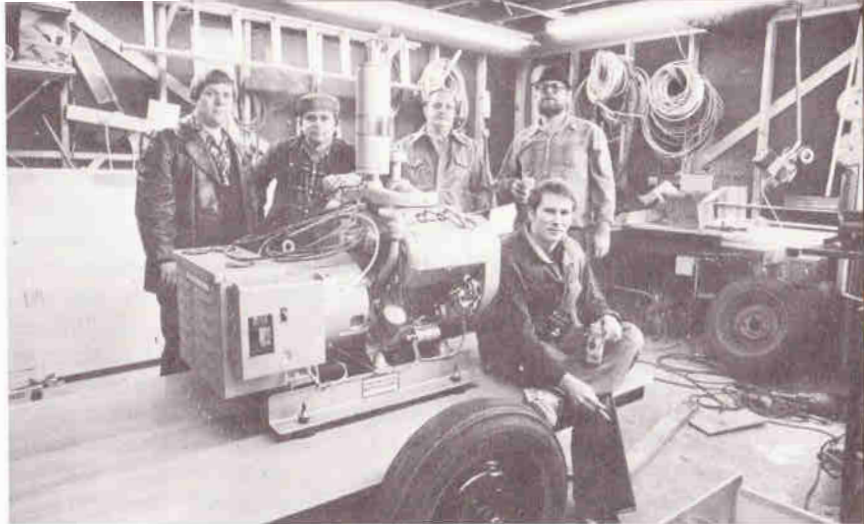
See trailer rebuilding pictures
on pages 4 and 5.





Photos by WDØDLN





FIELD DAY FEAST

For those of you who attended last year's Field Day activities, you know that we were treated to some of the finest "roughing it" chow in the world! This was due in great part to the efforts of cook tent chairman Ed Hoffman, WDØHBY. I'm pleased to announce that Ed has been coerced into (volunteered) heading up the cook tent again this year!

Ed is asking for everyone's cooperation this year in planning the meals. Because of the ever rising cost of food, Ed would like to get an idea of how many people will be at the Field Day site for any particular meal. Please keep in mind that this is not a firm yes or no commitment, but a guide for Ed's purchasing the food we need.

Please use the form below, and Place an "X" in the box or boxes next to the applicable meal. Return the form to Ed at the club meeting, or mail it to Box 291.

FIELD DAY MEAL CHECK LIST

Friday evening

Snack

Saturday

Breakfast

Lunch

Supper

Midnite Snack

Sunday

Breakfast

Lunch

Call: _____ Phone: _____

MINUTES OF THE GENERAL MEMBERSHIP MEETING
HELD MARCH 14, 1980, AT THE RED CROSS BUILDING
38th & DEWEY AVENUE, OMAHA, NEBRASKA

The meeting was called to order at 19:30 hours by President Dick Jugel, KØDG.

Meeting started with the Pledge of Allegiance.

Motion by Cecil, WØRMB, and seconded by Dick, KAØAAB, that the following new members be admitted to the Club: Scott E. Nanos, no call; LeMoine M. Menshik, WØNNW; Richard Citarella, N9AIC; Father James Kelly, KAØGTQ; Rev. James Tsapelas, KAØGTS; David D. Arp, KØQCV; and Darrel McCallister, KAØGTR. Motion carried with unanimous approval.

President Jugel handed out Membership Certificates to several members present.

Jim, NØAIH gave a report that the Auction on April 13 is in good order and that he feels everything will be going smoothly. The new ARES Roster packets were given out to the ARES members present.

Ed, WDØHBY gave the report for the Repeater Committee. John, WBØCMC is working on the "noise" that is on 34/94. He does not think it is intermod but that it has something to do with the power lines. Does anyone have blank 8-track cartridges that could be used for our taped recordings? There is a new tape on #1. On mike identifying - ID when you key the mike and once every ten minutes. Clear with the person with whom you are speaking. If you don't get the party, you clear with the repeater. Be brief as there may be emergency traffic waiting. For lengthy transmissions try direct on 46/46 or 52/52.

Jim, WBØJPN read several interesting articles from the HR Report.
April 1980

Congratulations to Lysle Renne, KAØDKO on the upgrade to General.

There is a change in the call letters of Bob Miller, KAØEAG, to KBØLE.

Business meeting adjourned, motion by Lysle, KAØDKO and seconded by Jim, WBØJPN. Motion carried.

Program for the evening

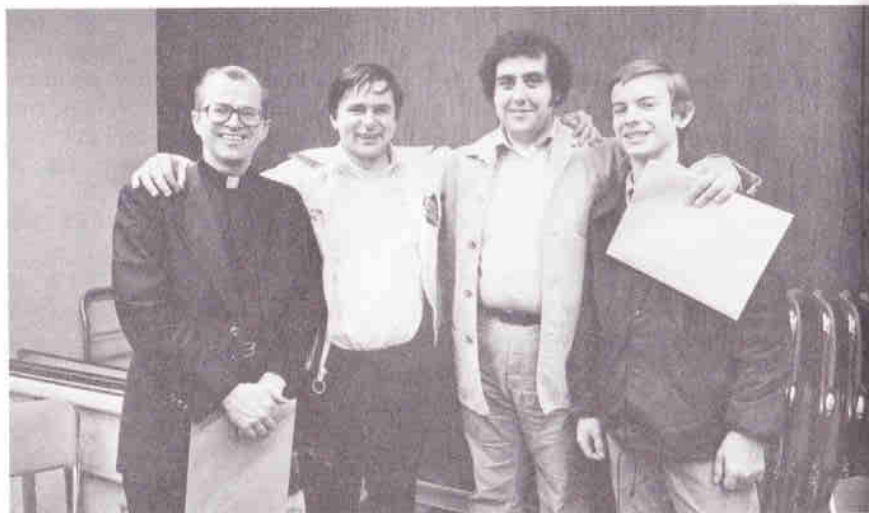
Severe Weather, Jim Zoller and several meteorologists from the National Weather Service had a very informative program with many slides and sound film describing the techniques for spotting tornados. This was well attended and I'm sure many left more knowledgeable about our Midwest storms.

Coffee and doughnuts followed.

Club Secretary,
Ellen Morrissey, WBØHWF

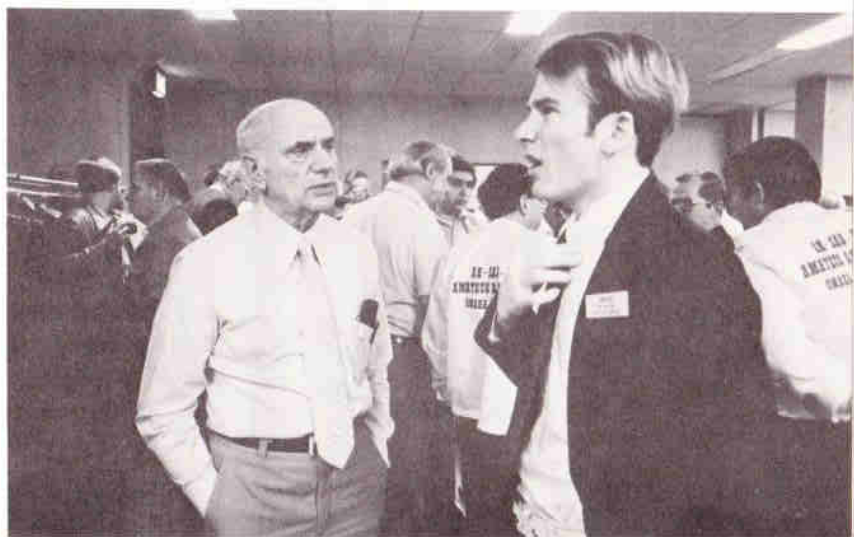
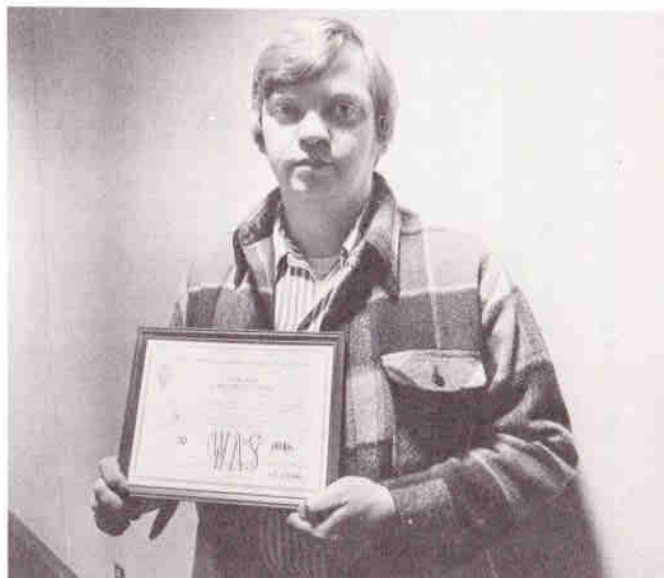


"I've gotten a dozen offers for
the farm since I built it."





MARCH
MEETING
Photos by
WDØDLN



HEATHKIT ELECTRONIC CENTER >>> 9207 MAPLE STREET >>> 402-391-2071
SALES AND SERVICE ON THE ENTIRE HEATH LINE

WE ALSO STOCK

A LARGE SELECTION OF SAMS TECHNICAL BOOKS
TEXAS INSTRUMENTS DATA BOOKS
TI/MCGRAW-HILL 'UNDERSTANDING' BOOK SERIES
SELECTION OF MAGAZINES FOR THE AMATEUR
ARRL AND AMECO PUBLICATIONS
JIM-PAK ELECTRONIC COMPONENTS
MAXON (FORMERLY DIXON) MASTER TOOLS
WELLER SOLDERING IRONS AND TIPS
PANA-VISE PRODUCTS FOR THE COMPLETE WORKBENCH
MEMOREX 8" AND 5" FLOPPY DISKS

SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS

HN-31 DUMMY LOAD HANDLES 2KW
ONE GALLON TRANSFORMER OIL
REG. PRICE 19.95 + 4.95 = \$24.90
SAVE \$3.90 >>> NOW ONLY \$21.00
PHONE ORDERS ACCEPTED
ADD \$2.00 SHIPPING AND HANDLING
SPECIAL ENTIRE MONTH OF APRIL ONLY
FOR HAM-HUM READERS ONLY_____

YOU MUST ASK FOR THE SPECIAL PRICE
NO LIMIT TO HAM-HUM READERS

^ LOWEST PRICES IN TOWN ON FLOPPY DISKS
^ MEMOREX BRAND DATA DISKS IN 5" & 8"
^ # 5" 10 SECTOR FOR HEATH SYSTEMS
^ # 5" SOFT SECTOR FOR TRS-80 & APPLE
^ # 8" IBM COMPATIBLE FORMAT
^ >> NOW SPECIAL SAVINGS ON 5" DISKS
^ BUY A BOX OF TEN DISKS >> REG. PRICE
^ OF \$35 GET **FREE** 5 PLASTIC DISK
^ HOLDERS THAT HOLD 10 DISKS FOR EASY
^ RETRIEVAL IN A THREE RING BINDER
^ \$40 VALUE >> ONLY \$35 >> APRIL ONLY

SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS-SPECIALS

HEATHKIT ELECTRONIC CENTER >>> 9207 MAPLE STREET >>> 402-391-2071 >>> OMAHA, NEB
LET US PROVE THAT LOCAL SALES AND SERVICE IS A BIG PLUS FOR YOU!

WE GUARANTEE YOUR COMPLETE SATISFACTION

HOURS ARE FROM 9:30 A.M. TO 6:00 P.M. TUESDAY, WEDNESDAY AND FRIDAY
9:30 A.M. TO 8:00 P.M. ON THURSDAY
9:30 A.M. TO 5:00 P.M. ON SATURDAY >>> CLOSED SUNDAY & MONDAY

NOTES FROM THE BOARD OF TRUSTEES MEETING

March 7, 1980

Present were: President, Dick, KØ-DG; Charlie, WØQQN; Ed, WDØHBY; Frank, WAØIWF; Ellen, WBØHWF; Mac, WAØBMJ; Mike, NØAON; Jim, WBØJPN; Tom, KØPQR; and Dave WDØDLN.

Guests were: Sandy, KAØBAK; and Jim, NØAIH.

Treasurer's report was read by Mac, WAØBMJ and was unanimously accepted.

Motion was made to extend our subscription to the HR Report for an additional four years at \$90.00 thus giving us five years of the Report.

Motion made to allocate additional money of \$600.00 for our trailer in order to put the generator in operation.

Motion made to pay \$58.71 for printing some ARES materials.

Dave, WDØDLN wants help with the jacket and emblem project.

Motion made that the Auction Committee receive \$50.00 to pay the auctioneer.

All motions were approved by the Board.

Meeting was adjourned at 21:55 hours.

Ellen Morrissey, WBØHWF
Club Secretary

THUNDERSTORMS— IGNORE THEM!

There have been a lot of scary stories in the literature lately about what to do when thunderstorms loom up over the horizon and I'd like to pass along my own long-standing policy about thunderstorms and lightning—which is, simply stated,
Page 12

IGNORE THEM!

It's been 48 years now since I strung up my first dipole and I've had antennas up every summer since, from high locations in St. Paul including the East Side and especially at my former QTH at 641 South Saratoga Street in Highland Park (one of the high spots in town). There I had a variety of antennas strung on and from a 40 foot windmill tower. Right now in West St. Paul it will be the fourth summer coming up that my 67 foot vertical 40-meter halfwave dipole has been connected directly to the input of my solid state Heathkit receiver, 24 hours per day, regardless of the weather. Not once in all those 48 years has any of my equipment suffered one speck of damage from lightning, static electricity or anything else.

You know that lightning rods, which have been around for a long time and must be of some value, aren't suppose to attract lightning—they work on the principle of dissipating a charge before it can build up high enough to become a full-fledged stroke, and that's what an antenna does if you give it a chance! The few inches or feet you move cords and connectors around inside the shack in disconnecting them don't mean a thing if a real lightning bolt decides to come along. In fact, you may be doing more harm than good by removing the opportunity for it to drain off gradually.

I don't know—maybe lightning is like a mean dog; if the dog knows you're scared he'll bite you, otherwise he'll look around for easier game!

By Bob Kuehn, WØHKF
de Ground Wave

OSL CORNER

In a previous QSL Corner article, the foreign QSL handling was discussed with some speculation as to what the Bureau stamps meant which so often are found on incoming cards.

Early morning 5-9 QSO with JA10WP shed some light on the JARL QSL Bureau operation. In Japan you must be a member of JARL to receive or send your cards via the Bureau. Up until about two years ago, the outgoing cards required a JARL stamp to be handled; however, this has been discontinued and any stamps now found on cards are probably leftovers and are being used up; The stamps were worth 2 yen which was equal to 1 cent. Cards received by the JARL for nonmembers are held for six months, and if the intended recipient does not become a member in that time they are destroyed. This is quite a contrast to our United States equivalent ARRL which handles all incoming cards, members or not, and all that is required to get your cards is an SASE in the Bureau. The ARRL Bureaus also hold cards for at least one year before they are destroyed. This system using volunteers works well and we hope it continues for many years to come.

By Charlie, W0QQN

De N0AON

Thanks go out to KMTV for their coverage of our March club meeting; and to Jim Zoller of NWS for his good words on our behalf. Channel 3's Bev Chapman was quite impressed with our organization, and the report she put together did a super job of reminding the public of the efforts of the A.R.E.S. members during the weather watches. . . .

April 1980

"As I was saying before I timed out. . ." Users of 34/94 remember - you must let the repeater output drop at least once every 2 1/2 minutes - or else! The timer is there for a purpose - and that is to discourage monologues. By pausing to let the timer reset, you also give an opportunity for others to break in. This is especially important during peak traffic hours when repeater use by mobile units is at its maximum (generally 6-9 a.m., and again at 4-7 p.m.). This doesn't mean you have to shorten your QSO. Just make the individual exchanges a bit shorter, and encourage others to break in if they so desire. We all have good reason to be proud of the coverage and overall quality of our repeater, so let's not discourage transients from utilizing it because they can't get a word in edgewise.

AMERICAN COMPUTERS

Have you ever wondered what a microcomputer could do for your business?

Let us show you at our FREE Apple business seminars, held every Wednesday morning at 10:00 A.M. Please phone for a reservation as space is limited.

Personal service to hams from hams . . . Jim, K0DXU, and Bruce, W0RIN.

4442 South 84 Street
Omaha, Nebraska 68127
Phone: 592-1518

De NØAON

Spring is in the air at last! The snow is melting, birds are chirping and flowers are blooming. . . .

Spring is the time when most ham's thoughts turn towards fixing antennas! And with this upsurge in repair activity - accidents happen. So take some time to carefully plan out your fix-it work. And don't forget about safety! Always work with someone else whenever climbing towers or trees. Not only is this a bright idea from the safety standpoint, but look at all the climbing up and down you'll save yourself when you suddenly remember that the 7/16 socket you need to adjust those beam elements is still in the tool box . . . and you're already 40 feet up the tower! If you're going to head up that tower, don't forget to obtain a climbing belt - and use it! No matter how experienced you may consider yourself with tower work, remember that it only takes one mistake, and you may wish you had that belt on. Take these seemingly trifling precautions. You may thank yourself later!

CQ Contest, CQ Contest . . . Congrats to the crew at KAØEBD for their fine showing in the ARRL DX' test on

March 1st and 2nd. In the photo below: Front: WBØWOT, KAØDMB, NØBNY. Back: NØAZF, KAØEDB, WDØGIL. The guys operated the entire 48 hour contest period, chalked up over 400 QSO's, and worked over 50 countries! Good Show! . . . What's your call? . . . During the contest weekend, heard many of the DX stations struggling with the newfangled extra class Zx1 callsigns. It wasn't uncommon to hear . . . "KA4G, what's your complete suffix?!!!" As if the stateside calls weren't goofy enough, imagine all the Americans going bananas trying to figure out where 6D2 or 5K or Y23 were at! (CQWPX, anyone?)

And finally for this month . . . Last month's club meeting was well attended, and the program from the folks at NWS and 3rd WW was well received by the audience. There were lots of questions asked - and that's exactly what the annual weather meeting is for! Hopefully, many of those who were heretofore a bit shakey on their spotting abilities absorbed some very valuable information out of the presentation. Equally hopefully, those of you who got bored and left early will never be in situation where you



may be called upon to make a judgment during a severe weather watch! Public Service is the name of the game. Nobody ever said it was easy, or wouldn't require training and a degree of dedication. But face it - Public Service is the primary reason that Amateur Radio exists and retains such a high international reputation. If you're one of those people who thinks that an amateur license is a free ride, and you figure someone else can go man the watchpoints, or handle the traffic . . . think again! You're not only making a fool of yourself, but you are making everyone else work that much harder to pick up your dead weight.

Public Service is not a maybe yes, maybe no business - it is everyone's responsibility! So wake up, Mr. Apathetic ham. Your time is coming - and just try justifying your license by pointing to the QSL's on your wall. They won't mean a thing to your neighbor. But a little time spent helping others may go a long, long way!

Till next month, 73!

Mike NØAON

MEMBER NEWS

Dear Gang: 18 March 80

Sorry I'm so delinquent in renewing my membership. I returned to the U. S. late last year, and lost track for a couple of months. After that, just plain lazy.

I'm now stationed in the Pentagon and live in Woodbridge, Virginia. After those years in Japan, nothing left in the shack except ICOM, DAIWA, YAESU and NAGARA - except my 1941 Lionel J-36 bug. I'm on fairly frequently in the evenings on 10-15-20 CW, always looking for Omaha.

April 1980

Again, sorry for being so slow. I continue to value my association with the Club, including those I've not met since I left in 1975. I may still come back that way to live and renew old QSO's.

Dave Wells, K5QJG/4
2407 Alden Ct.
Woodbridge, VA 22192

ADDITIONS TO ROSTER

David D. Arp, KØQCV
6221 Ogden Street
Omaha, Nebraska 68104
Phone: 571-6532

Richard R. Citarella, N9AIC
13102 Jefferson Circle
Millard, Nebraska 68137
Phone: 896-8902

Rev. James F. Kelly, KAØGTQ
13923 Gutowski Road
Boys Town, Nebraska 68010
Phone: 498-1111

Darrell G. McCallister, KAØGTR
442 Franciscan Circle
Boys Town, Nebraska 68106
Phone: 498-1742

LeMoine M. Menshik, WØNNW
R. R. #1
Pacific Junction, Iowa 51561

Scott E. Nanos
8803 Parkview Blvd.
LaVista, Nebraska 68128
Phone: 339-7865

Rev. James Tsapelas, KAØGTS
229 Thomas Road
Boys Town, Nebraska 68010
Phone: 498-1131

AK-SAR-BEN MOBIL POWER SYSTEM (AMPS)

Our new AMPS is taking shape. The system represents an excellent example of community support. More than a dozen commercial and industrial suppliers from the Omaha area have donated equipment valued at almost \$10,000.00!

System specifications are as follows: the power plant is a Wisconsin V-4 air cooled gasoline fired, 34 horsepower engine with mechanical governor and fuel pump.

The alternator is an Oshkosh, reconnectable field with solid state battery charge circuit and voltage regulator, rated at 15 kw, 18.75 KVA at .8 p.f., 120/240 volt, 1 phase 60 Hertz. Accessories include battery charge rate ammeter, AC voltmeter, AC ammeter for each phase, running time meter and frequency meter.

Fuel system consists of two 38 gallon storage tanks with levelometers, flow control, and drain cocks.

The electrical distribution system is comprised of a 120/240 volt 60 amp main circuit breaker load center panel-board with twelve output circuits supplying a variety of mounted receptacles.

A permanently mounted lighting system is included for nighttime operation. Tool and spare part storage, and cable reels for the distribution cables are added luxuries.

The trailer is a totally rebuilt platform of 2x2x3/16" angle iron frame, with 2x6 T & G bed, plywood superstructure, leaf springs and 8-ply tires. Safety chain, commercial grade coupler, and trailer lights make up the final package.

There will be a training session scheduled for those persons wanting to be checked-out on operation and maintenance of the AMPS. Hope-

fully, the AMPS will be on display at the next club meeting.

I want to express my gratitude to the following companies for their generous contributions of equipment and material.

Anderson Equipment Company
Paxton-Verling Steel Co.
Gateway Steel Co.
Sutherland Lumber Co.
Spring Service Co.
Central Sales Co.
General Electric Co.
Missouri Valley Machinery
Goodyear Tire and Rubber Co.
West Dodge Electric Supply Co.
Omaha Rim and Wheel Co.
Hubbell Electric Co.
Mittauer Associates

Standby for further information in future issues of Ham Hum.

Jim Sanford, NØAIH
Project Doer

RECENT CONTRIBUTORS

Ham Hum Postage

John E. Amdor, KØZQ and
Joyce Amdor, WBØZQC
Joseph D. Connell, WØLHZ
Richard W. Pitner, WØFZO

Repeater 34/94

Earl K. Bacon, WBØWYA
Joseph D. Connell, WØLHZ
Mitch H. Gagne, NØAZF
Paul S. Sherrerd, WBØBKZ and
Mary Lou Sherrerd, WBØUID

Repeater 22/82

Joseph D. Connell, WØLHZ
Paul S. Sherrerd, WBØBKZ and
Mary Lou Sherrerd, WBØUID

Repeater 40/00

Earl K. Bacon, WBØWYA

Darrell J. Bermel, KAØEAS

Joseph D. Connell, WØLHZ

Douglas D. Halbert, KØBOY

C Paul S. Sherrerd, WBØBKZ and

Mary Lou Sherrerd, WBØUID

Richard H. Swig, WAØZQG

Sincere appreciation to all!

IF YOU THINK YOU HAVE TVI TROUBLES

Guglielmo Marconi needed police protection from people who threatened to kill him because they thought his radio waves were harmful. The frightened people complained that the radio signals were passing thru their bodies and making it impossible for them to sleep. A wealthy woman charged that the waves made her feet itch. A German man publicly made plans to go to England and shoot Marconi but he was turned away by British authorities.

The hostility toward the inventor came after years of being ignored. In 1894, the 20 year old electronic pioneer coaxed his crude equipment to send a signal a few feet across his room. Next year his signals spanned the length of his father's home in Bologna, Italy. When Marconi patriotically offered his invention to the Minister of Posts and Telegraphs, he was snubbed.

Marconi packed up his equipment, and with his Irish mother, sailed to England. Surely, he thought, the world's greatest maritime power could use ship-to-shore communications. British customs officials ignored his

frantic efforts to explain that his radio was not a bomb. The delicate instrument was damaged by their forcing it open.

The following year a family friend helped him gain the attention of the British postal authorities and he demonstrated that he could send a signal from the General Post Office to a nearby building. The press and public showed no interest in the feat.

Marconi then constructed a bamboo tower that thrust his transmitter 90 feet into the air and sent his wireless signals nearly two miles. He had built something too big to be ignored and the press took notice. Years later, he sadly observed, "The calm life is over."

The publicity aroused fears in a previously indifferent public about the possible harmful effects of radio waves. A flood of crank mail - some containing threats on his life - came pouring in. Guarded by police, Marconi moved his operation to Wales in 1897. Soon he was transmitting signals out 25 miles, then to 150, and in 1901 had spanned the ocean with his wireless signals.

It was more than two years after this that the public outcry diminished enough for Scotland Yard to withdraw the police guards protecting the man who developed radio for the world.

From the Two Rivers ARC (Pennsylvania) "Spark Gap".

Via Mike & Key
Hal Gruber, W8MGP
Editor

video assoc., Inc.

VIDEO TAPE

- ALL STANDARD FORMATS
- VHS OMNIVISION
- BETAMAX

VIDEO SYSTEMS

- SALES
- ENGINEERING
- SERVICE
- INSTALLATION

SECURITY SYSTEMS PRODUCTION INDUSTRIAL TRAINING

... complete line of equipment and accessories by major video and audio manufacturers...



New Technologies

10135 J Street Omaha, NE 68127 331-1883

GATEWAY REALTY

BETTER HOMES AND GARDENS
MLS

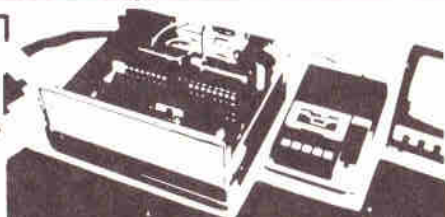
Kent Sinram, WBØBOR
Associate Broker
G.R.I.

Specializing in Residential Sales
Nebraska and Iowa

333-9000 Office
571-7423 Home

2835 South 132nd Street, Omaha

- Appointments Calendar
- Shopping Lists
- Daily Diet Planner
- Recipe Expansion
- Household Inventory
- Burglar & Fire Alarms
- Financial Planning & Budgeting
- Special Occasion Mailing Lists
- Environmental Control



Have the Home
of the Future Today!
HOME COMPUTERS

10am-9pm Weekdays ·
10am-6pm Sat · 12-5pm Sunday

BYTE SHOP
the affordable computer store

8523 Park Drive
339-7350

Next stoplight south of 84th & Q

HAM HUM SWAP

NO CHARGE FOR SWAP ADS (NON-COMMERCIAL) SUBJECT TO SPACE LIMITATION. MUST BE SUBMITTED IN WRITING TO P.O. BOX 291. SEE COPY DEADLINE PAGE 2.

FOR SALE: ICOM IC-RM2, remote control unit for IC-211 or 701. Like new!

Dentron W-2 dual wattmeter. Reads forward and reflected watts. Like new!

Heathkit HM-2102 VHF wattmeter. 0-25, 0-250 watts and swr. Works great on 2 meters.

Astatic D-104 mic, stand, straight cord. Good condition.

CDE Ham III rotor. 1 and 1/2 years old - needs repair.

All items best offer. Call Dave, WDØDLN, 493-1390

FOR SALE: Kenwood TS-520 with CW filter, VFO-520 (remote VFO), SP-520 (external speaker), TV-502 (2M transverter). Have original shipping boxes, plus have complete shop service manuals. Will sell only as complete unit. \$700 firm, cash or certified check only. Call Casey Smith, KAØBTH at 592-4108 after 6:00 P.M. 7 days a week.

american
national
RED
CROSS





BOX 344 1601 AVE. (D)
COUNCIL BLUFFS, IOWA 51501
(712) 323 0142

KENWOOD
... pioneer in amateur radio



A compact transceiver with FM/SSB/CW plus... TR-9000

Kenwood's done it again! Now, it's the exciting TR-9000 2-meter all-mode transceiver... complete with a host of new features. Combining the convenience of FM with long-distance SSB and CW in a very compact, very affordable package, the TR-9000 is the answer for any serious Amateur Operator! Versatile? You bet! Because of its compactness, the TR-9000 is ideal for mobile installation. Add on its fixed-station accessories and it becomes the obvious choice for your ham shack!

- FM, USB, LSB, and CW - all popular modes
- Compact size - only 6 11/16 inches wide X 2 21/32 inches high X 9 7/32 inches deep
- Digital dual VFOs - with selectable tuning steps of 100 Hz, 5 kHz, and 10 kHz, convenient for each mode of operation
- Digital frequency display - five, four or three digits, depending on selected tuning step

- Extended frequency coverage - 143 9000 - 148 9999 MHz
- Five memories - M1 - M4 for simplex or \pm 600 kHz repeater offset - M5 for nonstandard offset (memorizes transmit and receive frequency independently)
- Scan of entire band - automatic busy stop and free scan
- SSB/CW search - sweeps over selectable 9.9 kHz bandwidth segments, for easy monitoring
- UP/DOWN microphone (standard) - "beep" sounds with each frequency step
- Noise blanker - eliminates pulse-type noise on SSB and CW
- Low-noise, dual-gate MOSFET and two-stage monolithic crystal filter for improved receiver front-end characteristics
- RIT (receiver incremental tuning) for SSB and CW - effective even on memory channels
- RF gain control
- CW sidetone
- Automatic selection of AGC time constant with MODE switch (slow for SSB and fast for CW)
- Improved power module for reliable and stable linear RF output
- Selectable power outputs - 10 W (HIGH) / 1 W (LOW)
- Mobile mounting bracket - easy to mount, with quick-release levers
- LED indicators - ON AIR, BUSY, and VFO
- Accessory terminals on rear panel - KEY, BACKUP DC, STBY, EXT SP, DC TONE INPUT and ANT

REGULAR PRICES:
TR-9000 - \$499.95
PS-20 - \$ 74.95
BO-9 - \$ 39.95
SP-120 - \$ 39.00

Write-call for a DEAL! **+ UPS**

MATCHING ACCESSORIES FOR FIXED-STATION OPERATION:

- PS-20 power supply
- SP-120 external speaker
- BO-9 System Base - with power switch, SEND/RECEIVE switch for CW operation, backup power supply for memory retention (BC-1 backup power adaptor may also be used for this application), and headphone jack

