HAM HUM

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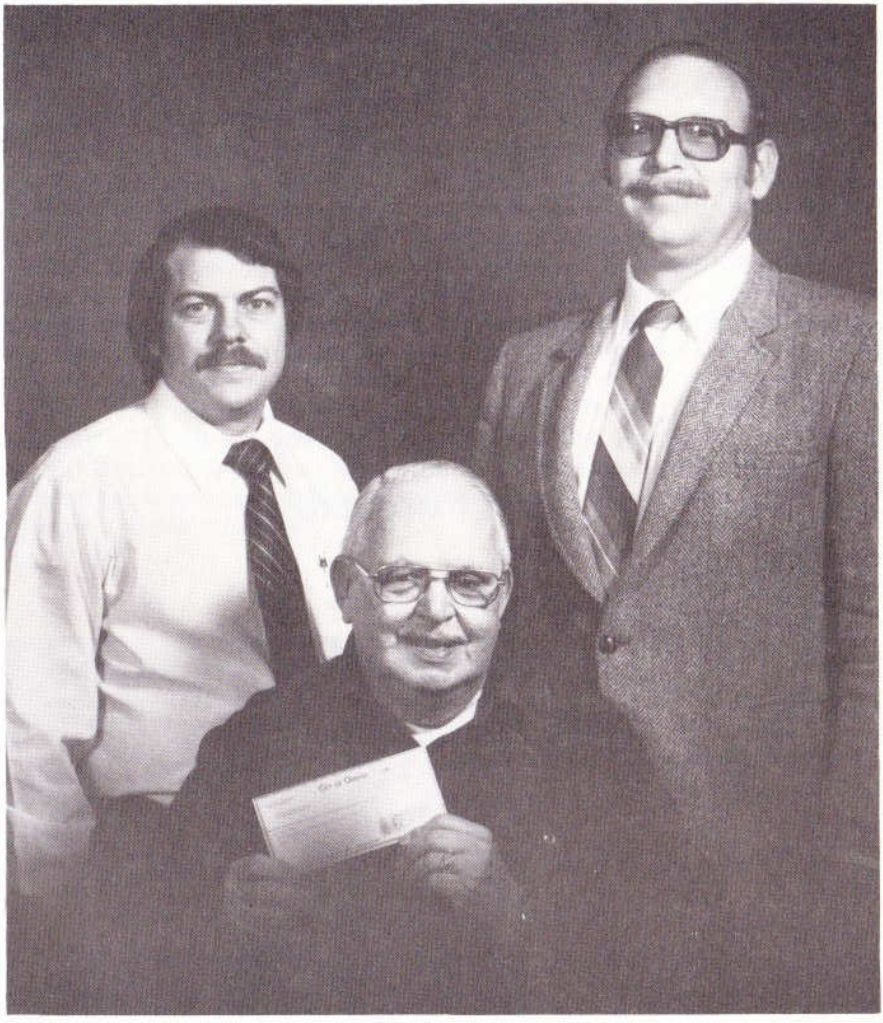

THE CHECK PHOTO BY: NØCLW

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Regular member $3.00
Regular member and spouse....$3.60
Student member $1.05

NEXT MEETING

WHEN: Friday, February 10, 1984

TIME: 7:30 P.M.

WHERE: Heartland Chapter
American Red Cross
38th and Dewey Avenue
Omaha, NE 68105

PROGRAM: The Union Pacific Quartet will perform.

Lots of refreshments!

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PREZ SEZ

A new year has come again! We have several new and exciting projects this new year and we have great expectations for our Club this new year!

The E.O.C. is going along according to schedule. Bid forms have been mailed to prospective bidders and bids will be received on February 15, 1984. We have now received the funds from the City and we owe a big "Thanks" to Walt Brown, Jim Sanford, Brian Zdan and Mitch Gagne for getting all of this going.

The February meeting promises to be a different and fun meeting. The U.P. Quartet will perform and we will have a buffet-type food spread rather than our usual coffee and donuts. Sandy, NØCLQ, has agreed to be in charge of the food, so all the XYL's should call her at 493-1390 to volunteer help by way of donating cookies, candy, brownies, etc., or by helping the night of the meeting. By the way, we will make the business part of the meeting as short as possible — just this meeting only — hi.

Elsewhere in this month's issue is a list of Committee Chairmen who have agreed to serve this year. Please volunteer to help on one of the committees or, you can always be a Chairman — we still have Education, Auction and Field Day Chairmen open. Also, if you have any suggestions for meetings this year, please notify Jim Sanford or me.

Also in this month's issue, we are including a postcard to which we are asking all members to respond. We have tentatively reserved the October, 1985 Midwest Convention. However, before we can confirm this reservation, we need to make sure the membership is in support of the project. Please complete your card and mail or bring it to the February meeting. We must have your response prior to March 10, 1984.

We are still in the process of checking into the possibility of a "Club House" at the radar sight as was proposed at the last meeting. Hopefully, we will have something definite on this at the February meeting.

See you at the meeting.

73's
Dave, NØCLW

Left to right:
NØAZF, KAØDMB, NØAIH

PHOTO BY: NØCLW

MINUTES OF THE BOARD OF TRUSTEES MEETING
January 4, 1984

The meeting was called to order by the President, Dave Hamilton NØCLW, at 7:35 p.m. at the Red Cross Building, 39th and Dewey.

The Treasurer's report was given. It was moved and seconded the report be approved as read.

Minutes of the December Meeting were given and it was moved and seconded they be approved as read.

It was moved and seconded and unanimously approved to elect Sam Kaplan WDØBVH as Treasurer.

It was moved and seconded and unanimously approved to elect Virgil Wamsat KBØBW as Secretary.

Present at the meeting were:

Board Members
Duke Humphrey WDØEWH
Marlene Jugel
Brian Zdan KMØY
Greg Zimmerman NØBTN
Sam Kaplan WDØBVH, Treas.
Virgil Wamsat KBØBW, Secr.
Jim Sanford NØAIH, V. P.
Dave Hamilton NØCLW, Pres.
Ellen Morrissey WBØHWF, Exec. Secr.

Guests
Walt Brown KAØDMB
Frank Bruner KØSST
Ray Fink WDØGIL
Dick Fehrman KAØAAB

The President appointed Duke Humphrey to keep the hat and shirt sales.

The President appointed Chuck Rush NØAZ as Equipment Chairman.

The President asked that everyone who wishes to become a volunteer examiner for licensing to let him know.

Jim Sanford informed the Board that the Club will receive $11,000 from the City of Omaha to provide VHF, UHF, HF andd RTTY Communications systems in the City/County Building Emergency Operations Center (EOC). Obtaining these funds were largely due to the efforts of Walt Brown, Jim Sanford and Mitch Gagne.

Moved and seconded and unanimously approved that the President make appointments to committees to develop EOC communication plans.

Moved and seconded and unanimously approved that the Club hire a commercial firm to find the problem or problems with 34-94 repeater with a maximum expenditure of $300.

The meeting was adjourned at 9:45 p.m.

Respectfully submitted,
Virgil Wamsat KBØBW, Secretary

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MINUTES OF THE GENERAL MEMBERSHIP MEETING
January 13, 1984

The meeting was called to order by President Dave Hamilton NØCLW at 7:50 P.M. He led the members in the Pledge of Allegiance. The President asked for guests present to introduce themselves and four people responded.

It was moved and seconded that the minutes as published in Ham Hum be approved. Motion carried.

It was moved and seconded that the Treasurer's report as published in Ham Hum be approved. Motion carried.

It was moved and seconded to accept Dennis KAØRWC and Thomas WAØHCJ into membership. Motion carried.

President gave his report on appointments to committees. He still needs an Education Chairman and Field Day Chairman.

Walt KAØDMB gave a report on the Courtesy Committee activity.

Duke WDØEWH told the members that the T-shirts are in and cost $11 each. Lined warm-up jackets are also available with a minimum order of 25 priced at $28.70 each.

Sam WDØBVH asked for volunteers to help on the Budget Committee. If you are interested get in touch with him.

President discussed the Volunteer Examiner proposal and asked for volunteers.

President discussed the 34-94 repeater problems and informed the membership that the Board had authorized a maximum of $300 to hire a commercial firm to find a solution to the problem. He also stated that additional sites are available for a backup repeater.

President reported that 2500 to 3000 sq. ft. of building space with a 99 year lease at $1.00 per year is available with heat and electrical services provided. This would require some repair and cleanup. The site is the Radar Site at 72nd and Crown Point.

Jim Sanford NØAIH reported that the City of Omaha has given $11,000 to the Club to provide funds to purchase and install equipment and supplies to provide VHF, UHF, HF and RTTY communication systems in the City/County Building Emergency Operations Center (EOC). The President appointed the following to committees to affect the installation in the EOC:

Co-Chairmen:	Dave Hamilton
	Walt Brown
Trustee:	Bob Lockwood
Finance Officer:	Sam Kaplan
Legal Advisor:	Bryan Zdan

Sub-Committee Chairpersons:

Project Historian:	Ellen Morrissey
UHF Station:	Frank Wolczak

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(Continued from Page 5)

VHF Station:	John Bruckner
HF Station:	Mitch Gagne
Computer/RTTY	Dick Jugel

Jim NØAIH gave a report on the 1985 Midwest Convention sometime in October 1985. We are on record as the convention site and need a minimum of 75 people from the Club who are willing to work on planning and providing manpower during the convention. $2,000 has been set aside from the 1976 convention to use for the 1985 convention.

Jim NØAIH reported on the Kearney convention for 1984 which will be held March 30 and 31 and April 1, 1984.

We were informed that a 220 repeater is up and operational on 223.34/94. Please use it.

Walt KAØDMB has arranged for the Union Pacific Quartet for the February meeting program.

Two meter RTTY is up and running on 146.05/65. A net will start on January 18 at 7:30 p.m. The net will be called River City RTTY Net.

A very interesting program was given by Joe WAØWRI on VHF/UHF propagation.

The President presented a framed picture of Walt Brown and grandson to Walt.

It was moved and seconded the General Membership Meeting of January 13, 1984 be adjourned at 9:45 p.m. Motion carried.

Respectfully submitted,
Virgil Wamsat KBØBW, Secretary

****

2M SSB ACTIVITY

de Rich Swig WAØZQG

With a 2M SSB rig on 144.250 and a beam, you might hear one of these nets:

Day	Time	Area	Net Control
Sun.	9:00 p.m.	Minnesota	WØKRX
Tues.	8:30 p.m.	So. Illinois	KA9HDZ/N5AFL
Wed.	9:00 p.m.	IA/MO/IL	WBØSWD/WB9WMM
Thur.	9:00 p.m.	Oklahoma	WB5GZQ

The Lincoln Communication Society discusses VHF/UHF, Computers, Controllers, or Antenna Experimentation on 144.250 Sundays at 9:00 p.m. For further info, call me at 322-7775.

****

DONATIONS

34/94

Theodore Parsons, Jr.	WBØTYB
Lowell W. Jackson	WAØHKT
Walter J. Brown	KAØDMB
Gary W. Berneske	WØRHU
Gregory C. Zimmerman	NØBTN
Mitchell Gagne	NØAZF
Charles A. Michel	KØQVL
Lawrence R. Merriman	KVØG
Virgil Wamsat	KBØBW

40/00

Lowell W. Jackson	WAØHKT
Walter J. Brown	KAØDMB
Gary W. Berneske	WØRHU
Gregory C. Zimmerman	NØBTN
Lawrence R. Merriman	KVØG
Ed Lawlar	WØTHA
Theodore Parsons, Jr.	WBØTYB

22/82

Gary W. Berneske	WØRHU
Virgil Wamsat	KBØBW

Ham Hum

Harold Cook	WØKNT

****

NEW MEMBERS

Dennis G. Long KAØRWC
3859 Martha
Omaha, Nebraska 68105
556-7583
Bus. 536-4419

Thomas L. Williams WAØHCJ
2820 South 99 Avenue
Omaha, Nebraska 68114
391-5438
Bus. 390-4540

****

1984 Committee Chairmen

Program
Jim Sanford, 571-2704
Dave Hamilton, 493-1390

Equipment
Chuck Rush, 333-1148

Special Events
Greg Zimmerman, 895-5219

Club Shirts and Jackets
Duke Humphrey, 455-5402

E. O. C.
Walt Brown, 451-1072

Courtesy
Walt Brown, 451-1072

Repeater
John Gebuhr, 553-5296

Budget
Sam Kaplan, 551-5658

Education

Auction

Field Day

****

Before you can score, you must first have a goal.

Greek Proverb

****

FEATURE ARTICLE
de Larry Workman KAØJRQ

Introduction

Welcome RTTY Hams to the MSO (Message Storage Operation) or sometimes referred to as the "Mailbox."

The band is two meters and the frequency is 145.650 MHz. The MSO is on weekday evenings from 6:00 p.m. till the early hours of the morning, and from Friday evening thru to Sunday evening (unless of course some unforeseen circumstances would preclude it). We will operate at 60 words per minute (45 baud rate) baudot RTTY code so that most all RTTY rigs can be capable. We realize there are many machines from model 15's on up still in operation. All RTTY Hams are encouraged to join in and use the MSO.

Beginning Wednesday, January 18 at 0130 UTC or 7:30 PM CST a RTTY net first call under the name of "River Cities RTTY Net" was to be made. It is important we build this net to an efficient size capable of not only handling ham business, ham fun, traffic and the like, but the RTTY mode is needed in the new setup of emergency operations. Since being the mode it is, gaps can be filled that were not possible before. We think this antenna will accommodate the area needed on two meters — the usual surrounding cities being in Southeast Nebraska and Southwest Iowa. SO YOU ARE NEEDED!!! Checking into the River Cities RTTY net on Wednesday night will be simple. Just call your NCS giving your name, call and QTH. There will be "on net training" and the rest of your procedures will come naturally. These training messages will also be available in the MSO for you to use at your leisure. And maybe we can work a way to get copies of the needed material to one and all. If I can be of any help, here is my address and phone number:

Larry Workman KAØJRQ
1206 17th Avenue
Council Bluffs, IA 51501
Phone: 322-8753

The following rules to start you in the MSO also apply to HF frequencies.

First time users need to know these basics:

— Have your transmitter set to the MSO frequency. Frequency tolerances are usually quite tight within 20 to 50 Hz of the the correct frequency to make the access.

— Be sure you have the correct polarity, baud rate, and code selected. In general, Mailboxes use normal polarity (LSB T mode-mark is the lower audio tone), 45 baud, and baudot code. You may use sync idle or word mode - they will not affect the operation of the Mailbox.

— Know the proper access code for your MSO. In the setup of codes many SYSOPS use MSO or ZW because they never show in a word

or are found together in normal use. The following is a good format to use in calling this MSO:

KAØJRQ DE WØZZZ two line feeds
.MSOJRQ line feed
Turn transmitter off
Now you should be hearing the MSO...

— Use left-justified dot commands. Always precede all MSO commands with one or two line feed operations before the period.

Following these simple rules will put you into the MSO and once you are this far the rest will come together. If you just follow the menu the MSO will give you the "help" command. You can have lots of fun experimenting with the different commands, leaving test messages, etc. The usage of the MSO is only limited by your imagination...so have fun!

de KAØJRQ

****

MESSAGE STORAGE OPERATION — PART I

de Larry Workman KAØJRQ

By definition, MSO is just that — a message storage operation. Whether it is a WRU and SEL-CAL operation, a Heathkit computer that recognizes access codes and commands, a Radio Shack TRS-80 in MSO service, or a HAL designed to allow remote monitoring of RTTY communications. This permits the remote user to command specific functions to be acted upon by the MSO and can be utilized for the ultimate function — to communicate with friends, acquaintances and other amateur radio operators. The differences between systems are usually defined by degree of technical complexity. Some like WRU/SEL-CAL which is less technical in nature, and others like the HAL system which exhibits a high degree of technical sophistication. In the end, MSO's all proved to have the capability of receiving and storing information to be utilized on a delayed basis. The more sophisticated systems additionally provide the ability to call from memory those messages left at some previous time and this demonstrates a quantum leap in technology. It is this feature of the MSO which most readily describes the state-of-the-art and which provides a service to all users that was not available just a short time ago.

The general concept of message storing is most certainly not new. It has been utilized in both commercial and amateur radio fields for many years. Only recently has a sizeable interest been seen in this area. This increased interest can be directly attributed to technological advances in computer sciences, technical expertise, and individual pioneering efforts in installing and maintaining these systems. The availability of personal

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and minicomputers has also had an impact on sophisticated RTTY systems as well. Actually, what we now see as the "ultimate machine" will be considered as passé in the near future.

We have used several "buzzwords" in the first part of this message so now it's time to define them a bit. First WRU and SEL-CAL. These two systems are usually used in conjunction with each other. WRU simply means "Who are you?" in typical WRU mode. A RTTY station is designed so that it will receive and decode a set of alpha/numeric characters on a specific frequency. When these characters correspond to a predetermined code (the actual WRU code), the receiving station's transmitter is activated, it replies with some form of identifying information, then turns itself off. The basic purpose of a WRU system is to allow a remote station to determine whether or not a distant RTTY station is monitoring some particular frequency. When a distant station's transmitter is heard replying to the WRU code, it is assured that the station's receiving equipment is monitoring that frequency as well.

Now that we are assured the distant RTTY station's equipment is monitoring, it is time to activate a SEL-CAL system. SEL-CAL is an abbreviation for selective calling. It is merely a system designed to receive and decode a set of alpha/numeric characters and to activate some further device to record whatever data follows the SEL-CAL code. Typically, the receipt of the SEL-CAL code turns on a printer, cassette recorder, or some like device. Or it may, in more sophisticated systems, cause received text to be stored in RAM or other memory devices. After the SEL-CAL system has done its job of recording received text, it is returned to its monitoring state, usually by receipt of some "off code" (four n's in a row being typical of one such code). The system is now back to its original monitoring state, patiently waiting for another WRU interrogation. This is most likely the simplest form of message storing, yet it does require considerable expertise to be reliable on a routine basis. What separates it from the next step in RTTY message storage evolution is its lack of ability to provide stored information in the reverse direction, that is, information for the remote user. It simply tells you that it is capable of receiving text, receives the text, and repeats the cycle.

The next step in MSO evolution allows the remote user to "command" the MSO, thus providing the capability to activate, utilize, and deactivate several functions in one system. The MSO "talks back" to the remote user, informing the user of such items as what messages are stored in memory, what commands are available to the remote user, and even what mistakes the remote user has made while utilizing the system. Most significantly, it permits the remote user to retrieve previously stored information or messages in its memory device and to store additional information or messages in its memory. These two actions are what really "separate the men from the boys"! In most cases these MSO's are computer based, some being controlled by personal computers with "MSO Software" and others being "dedicated" RTTY systems, computer based but dedicated only to MSO service. Each has advantages and

disadvantages and this writer declines to debate the virtues of either, since the purpose of this message is to provide information concerning use of these systems and not to extol the virtues of any one system.

Earliest versions of these MSO's contained memory banks of RAM in somewhat limited size. With some units, power outages, power line spikes, and other anomalies caused loss of RAM data at times. This was and is frustrating to both the system operator (SYSOP) and the remote users alike. Fortunately for all, battery backup devices (RAM that retains memory when power is off) and computer disk drives are now used. In the most sophisticated of all devices, MSO amnesia is a thing of the past!

(PART II will be carried in HAM HUM next issue.)

de KAØJRQ

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ANNOUNCEMENT

There will be a special meeting for all ARES members and other interested radio amateurs on February 11, 1984 at the Heartland Chapter, American Red Cross, 38th and Dewey, at 1:00 P.M. The topic of discussion is the upcoming possibility of flooding in our area. Roy Osugi, a hydrologist from the National Weather Service in Omaha will address this very important subject. Please make it a point to attend.

Mitch Gagne, NØAZF
Douglas County Emergency Coordinator

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ARES NET REPORTS

Midlands ARES report January 1, 1984 check ins 26 traffic or ANCC 5

Midlands ARES report January 8, 1984 check ins 28 traffic or ANCC 2

Submitted by WDØEWH (Duke) Net Mgr

****

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GRENADA
THE NEWS AND AMATEUR RADIO

Only one word describes media attention to Amateur Radio during the Grenada crisis — incredible! Newspaper, television and radio reporters looked to ham operators to provide the latest word on what was going on in Grenada. If a TV or radio station couldn't find a local ham, the reporters called ARRL Headquarters. Headquarters, in turn, got the reporter a contact with League officials in the field. The League's public information network of volunteers had their hands full, but from all indications performed well.

One of the questions that came up, however, was to what extent the radio amateurs should allow a reporter to *"participate"* in the monitoring. There were also some questions raised as to whether it would be proper to allow a reporter to talk over an Amateur Radio circuit directly with the station in Grenada. Other radio amateurs wondered whether it was proper for broadcasters to even retransmit the signals being monitored over the amateur airwaves.

The FCC clarified the situation by issuing a Public Notice on Wednesday afternoon, October 26, stating that *"Radio and television stations need not obtain prior authorization from the Federal Communications Commission before retransmitting Amateur (Ham) Radio transmissions."* The notice explained further that while broadcasters were free to air the ham transmissions they were monitoring, they *"must not become actively involved in the amateur transmissions."* In other words, the Commission did not want reporters conducting interviews over the air.

There were a few scattered reports of broadcast reporters applying pressure on hams to enlist them as a tool for some part, however, hams kept the media coverage in the proper perspective. Reporters were welcomed into ham shacks across the country, and they were free to monitor whatever contact the radio amateur had. It was not proper to conduct any solely media-initiated contact with Grenada, and most reporters, didn't even ask. There was enough excitement to cover.

The ARRL LETTER

****

These days it seems to take more brains to make out your income tax return than it does to make the income.

—Unknown

****

HAM HUM SWAP

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

FOR SALE: From the Estate of Fred Genovesi

Yaesu ditigal display)
Yaesu land liner phone patch) Station $600.00
Yaesu FT101-B)

Astatic Lollipop Mic. — $30.00
12 V power supply — $15.00
Two brass CW keys — $10.00 each
Cal Comm SWR bridge — $10.00
Ham 4 rotator — $125.00
Nye Viking low pass filter — $10.00

Call Dave Hamilton, NØCLW, 493-1390

FOR SALE: HYGAIN 2 el. 40M beam — $80.00.

Bernie, WBØEYT, 731-0128.

FOR SALE: Heath HW-101, HP 23 A power supply and SB 650 Digital Frequency Display with manuals — $350.00.

Heath HW-12, solid state power supply and mike, with manual — $125.

SCR-284A learner's receiver with power supply and manual, make offer.

Harold Cook WØKNT, 6950 Lexington, Lincoln, NE 68505; phone: 466-4033.

FOR SALE: M.O.V. Lightning Supressor. Absorbs 6500 amps for 20 msec. Biggest made. $1.50, installation extra. (Looks like large disc cap.)

Rich WAØZQG, 322-7775.

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