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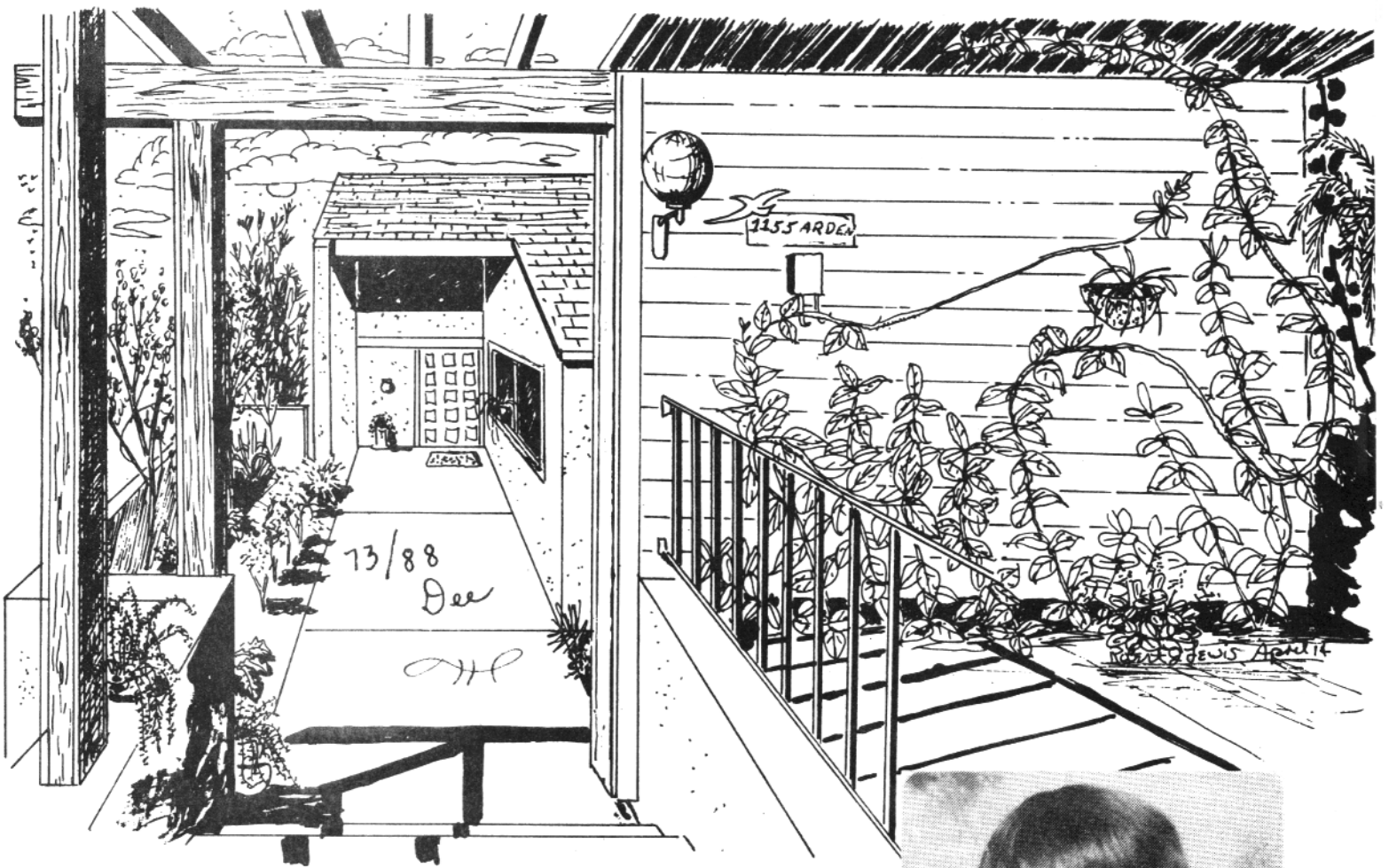

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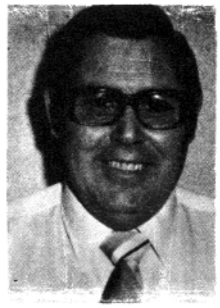
HITS & MISSES



GEORGE [illegible], [illegible]
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NO GROWTH

The FCC recently released statistics that the amateur population has remained virtually unchanged in the last two years. John Johnston, Chief, Personal Radio Branch, Special Services Division, PRB, FCC, states the number of "drop-outs" may be on the decline. The number of "dropouts" during fiscal year 1985 (ending September 30, 1985) was 14,709. Down over twenty-five percent from the number reported in fiscal year 1984. The number of newcomers to the amateur ranks was 17,373 during fiscal year 1985. The net gain was 2,664 amateurs even though down seven percent from fiscal year 1984.

The breakdwon of average age by class was very interesting. The average age was 46.1 years.

Novice	38.5 years
Tech	45.1 years
Amateur Extra	47.3 years
General	50.0 years
Advance	51.8 years

CABOODLE

The ARRL has really come up with a terrific idea. Here's how it works. The projects that appear in QST can now be purchased in three forms:

1. Full kits,
2. Simi-parts kits,
3. Assembled units.

This makes an easier way to jump into the home brew fun of amateur radio. It's a real hassle to price and assemble parts for a project, plus the added mess, and work, of etching a board. So lite off the old soldering iron and contact A & A Engineering, 7970 Orchid Drive, Buena Park, Ca, 90620, Telephone 1-714-521-4160. This would make great club projects and really start packing them in on club nights.

THE CONSIDERATE OPERATORS FREQUENCY GUIDE

1.800 - 1.825	CW only
1.825 - 1.830	DX window (no w/ve's)
3.590	RTTY DX
3.610 - 3.630	RTTY
3.790 - 3.800	"DX window"
3.845	SSTV
7.040	RTTY DX
7.080 - 7.100	RTTY
7.171	SSTV
10.140 -10.150	RTTY
14.080 -14.100	RTTY
14.230	SSTV
14.313	Maritime Mobile
21.080 -21.100	RTTY
21.340	SSTV
28.080 -28.100	RTTY
26.680	SSTV
29.300 -29.500	Satellite Downlinks
29.520 -29.580	Repeater Inputs
29.600	FM Simplex
29.620 -29.680	Repeater Outputs

The considerate operator should respect the fact that certain frequencies and modes and or activities are recognized on the above listed chart.

VISITS

This month I have had visits from amateurs from Alaska, Canada, Indonesia, New Zealand, Philipines and South Africa. This was a busy month for this old retired one.

BIRTHDAY

This year for my birthday I received a digital SWR and bar graphic power meter. The manufacturer is MFJ, Box 494, Mississippi State, MS 39762. The gift was from my wife Jeanne, who after long trips, suffers in silence with all the Amateur equipment in the car and trailer.

This unit is a fully automatic digital SWR/wattmeter. The unit reads SWR 1.1 to 1.9 directly and instantaneously. No SWR knob to set. The 0.6 inch bright orange digits make across the room reading easy. The 12 segment LED bar graph wattmeter gives instaneous PEP readings up to 200 watt RF output. The unit also has good - bad mismatch tri-color LED's to indicate SWR conditions.

To page 15 please

BY:Dick Uhrmacher, KØYKH
212-48th Street
Rapid City, SD 57702

MSO'S

Hi Gang! Welcome to Spring, Lawn mowing, tree pruning, garden planting and all of those other things that seem to rob us of our time at the keyboards! But, it is the time of the year to look over the old antenna farm, to see how it has faired during Winters onslaught, and to make what repairs are necessary. The Dayton HAMVENTION is here and gone, and I hope to have an indepth report of all of the happenings in the next issue.

AMTOR MSO'S?

I've had some requests recently for information concerning AMTOR MSO's. And to be truthful, I haven't a bit of information on their whereabouts, use, SYSOP's, etc. How about some input from you out there merrily chirping away, and of course I'll be more than happy to include any and all information on this subject here in the RTTY JOURNAL.

WHAT IS A MSO/CBMS?

Recently I've received several requests for information on MSO's and CBMS's, and with the very evident increase in use of Digital Communications generally, I think it's time to again provide some basic information on this subject.

Message Storage Operations (MSO), and Computer Based Mailbox Systems, (CBMS) are services provided by System Operators (SYSOP's) that allow remote users to avail themselves of many items. These remotely controlled systems have the capability to store messages in digital form, allow for deletion of messages contained in their Directory's, for re-transmission of messages, receipt and forwarding of RTTY Bulletins, DX Bulletins, etc., they may contain "library's" of technical information relative to digital communications, and other itmes common to "bulletin board" activities. The basic difference between a MSO and a CBMS, is that the MSO is usally a dedicated RTTY system used only for tnat purpose, whereas the CBMS is usually a personal computer in some form, adapted through the use of a RTTY interface and mailbox software to provide these services. In actuality there are little differences, the "command structure" being somewhat different in some systems.

MSO/CBMS's are found throughout the radio spectrum, but primarily on 20, 40, and 75 Meters, as well, as locally on VHF frequencies. Many of the systems have lists of the various MSO/CBMS frequencies, a nandy item to have in the shack when you're trying to locate a system. And, most all of these systems contain a "Help" message on file, which will provide a list of the operating commands for that system. Also, many assist the newcomer in utilizing the system. Newcomers are encouraged to read these files, as they are the accumulation of years of this type of experience, and will greatly assist the newcomer in exploiting these fabulous systems. (Do everyone a favor by turning on your PRINTER while copying these MSO/CBMS frequency lists and "HELP" files, so that they do not have to be repeated time and time again)! Traditionally, RTTY frequencies have been identified by the "MARK" frequency, (where the MARK tone is relative to the Carrier frequency). Two very popular frequencies where MSO and CBMS activity can be monitored by those interested are 14 085 625 and 14 095 375 Hertz. (Depending on your individual rig, your digital display may read 14 087 750 or 14 097 500, which is the carrier frequency, or 14 085 450 or 14 095 205, which is the SPACE frequency displayed by some rigs in the FSK mode).

If i could single out one item that is MOST important when utilizing the MSO/CBMS's, it would be the time honored requirement to LISTEN on the frequency BEFORE transmitting or activating one of the systems. The systems are most all crystal controlled and appear on the very same frequencies from day to day. You don't need to 'fish' for the MSO, you only need to have an accurately calibrated VFO on your end to successfully activate them. Turn off your receiver "RIT", and re-zero your VFO with the MSO frequently if your rig tends to drift. But LISTEN both on and near the frequency of the MSO/CBMS before activating it, so that you do not interfere with someone elses use of an MSO/CBMS, or another QSO near the frequency. And, ASK if the frequency is in use! Wave propagation may prevent you from hearing one side of a QSO or MSO activity, but if you ASK if the frequency is in use, most likely one or the other side will hear you. And finally, let others finish their use of the MSO before you jump in

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TOO GOOD TO BE TRUE?

PAKRATT™ Model PK-64
shown with enhanced HFM-64 option installed

★ MORSE ★ BAUDOT ★ ASCII ★ AMTOR ★ PACKET ★

FIRST FIVE MODE DATA CONTROLLER

The Pakratt model PK-64 by AEA is the world's first computer interface that offers Morse, Baudot, ASCII, AMTOR *and* Packet all in one box (hardware *and* software included) at a price many competitors charge for Packet alone (from $219.95 Amateur net). Do not let the low price fool you; coming from any other company but AEA it WOULD be too good to be true. The PK-64 works with virtually any voice transceiver. The Pakratt is the easiest of any to hook up and have operating in just a few minutes.

In Packet mode, the PK-64 offers virtually all the features of every other Packet controller on the market, plus many important features left out by others due to cost constraints. For example, we have included a hardware HDLC, true Data Carrier Detect (DCD), multiple connect with up to ten stations simultaneously and full implementation of version 2.0 of the AX.25 protocol.

Because the PK-64 was designed specifically for the Commodore 64 (or C-128 and SX-64) computer, we have been able to do many things not economically feasible with general RS-232 interface controllers. For example, the Pakratt includes true split screen operation with on-screen status indicators and an on-screen tuning indicator.

ENHANCED HFM-64 MODEM OPTION

The standard PK-64 will operate all modes with a phase-lock-loop (PLL) detector roughly equivalent to all popular packet modems in the marketplace (except we have included extra filtering). The enhanced HFM-64 modem option offers true independent dual channel filtering with A.M. detection (like the famous CP-100 Computer Patch™). The enhanced HFM-64 option also offers a hardware LED tuning indicator (like the CP-100) and a front panel variable threshold control for setting maximum sensitivity under various band conditions. We recommend the HFM-64 option for anyone keenly interested in weak-signal heavy-QRM HF operation. For anyone desiring to operate FM RTTY with the standard North American tone pair or CW receive, the HFM-64 is required. The HFM-64 is field installable with no soldering or test equipment required.

WORKS WITH THE POPULAR C-64 COMPUTER

AEA designed the PK-64 around the low-cost C-64 because of the special architecture features making it especially suited to Amateur Radio applications. The C-64 should not be viewed as a mainframe, but rather a very economical accessory to your data communications system. Many owners of expensive computers such as IBM, TANDY, APPLE, KAYPRO, ATARI, etc., are now buying the low cost C-64 and dedicating it to their operating position. They simply cannot find software for their machine that even approaches the power and user friendliness of the PK-64. Plus, think of the convenience of having only one controller and keyboard to go from one mode to another without having to redo cabling!

The PK-64 is so complete that all you need to do is wire up a microphone connector to the end of a cable (provided) and you are ready to go. There is no need to track down special terminal software, cabling or even a power supply. It all comes with the PK-64. So do not be the last on your block to own the most exciting new product in years. See the PK-64 at your favorite dealer or write for our specification sheet now.

Prices And Specifications Subject To Change Without Notice Or Obligation

Advanced Electronic Applications, Inc.
P.O. Box C-2160, Lynnwood, WA 98036-0918
(206) 775-7373 Telex 6972496 AEA INTL UW

AEA Brings you the Breakthrough!

DX RTTY

BY: **Roy Gould, KT1N**
POB DX
Stow, MA 01775

Hello fellow RTTY DXers. Well, the RTTY JOURNAL contest is behind us and now the BARTG is history. Lots of activity but no new ones worked from here. Even missed Africa and Oceania, oh well!

Did manage 402 QSO's though on all bands, activity was great on 20, but very little on 80 and 40 and 15 never really opened to Europe. Jeff 9H1EL was going great guns and looks like the guy to beat. John, ON4UN was trying to catch him but I think Jeff who had some nice multipliers on 15, was impossible to catch. I will have all of the scores here when available from BARTG. In the mean time if you would like, drop me a note and I will list some scores from this contest as well as any others. Kind of like talking about it on 75 meters after it is all over.

As I write this and send it off to Dee, the first issue with a column by me, is probably just getting to you so I really do not have any inputs as far as letters to share with you. I do have a large RTTY DX Bandpass though that a few have been kind enough to send my way either direct or on the air or via MSO's. SO.. please drop me a line and let me know what you are doing.

What I would like to start as a monthly feature is a write up each month on a RTTY DXer. So send along a pix of yourself, what you do, family, what got you into Ham radio, what drew you to RTTY, your station and your DX totals. And anything else you want to include. Each month we will run one. what do you say?

I think some of you have forwarded to Joe, your Worked and Confirmed RTTY totals, I have a note off to him asking to send those to me. As for the rest of the gang, send me your latest worked and confirmed totals and I will compile it all and do a listing here in the column on a semi-annual or annual basis, so please get those into the mail to me.

MAILDROP

Seeing how this is a communications hobby, I have also begun an ARQ Maildrop on 14.072.5 (Mark frequency). My Selcall KKTN. George, W1DA (WWDA) when he can, will have an ARQ maildrop on the same frequency with an antenna on Europe. So drop by leave any DX INFO that you can. Or drop me a note in one of the mail boxes on 14.087.750, as I check most of them for mail.

PACKET

I recently purchased a PK64, the AEA Controller for the C64. I just sent it back for a software upgrade as the version I have dated OCT will not let you change channels if there are un-acknowledged frames on the channel you are on. Their latest version dated DEC allows this, so AEA said to send it in to them. Perhaps as more of us get into Packet, that may be the place to put a maildrop on HF. I am not really up on Packet on HF so would be interested in what is out there for DX and all, any inputs along those lines PACKETEERS?

I believe that Dee is still looking for someone to write a PACKET column for the JOURNAL. [ED: yes yes yes]. Any takers???

We have a lot of heard and worked to give you in this one. QSL info is given if known. I did receive a nice note over the air from John, TG9VT and Gary, AG0N as well as a lot of Bandpass info from my good friend George, W1DA. W5HEZ called me on the land-line to tell me that AP2KS was active on RTTY, and before I could get a chance to tell George the next day, George had worked him!! If it is out there George works it. Bad bands or not, George tells me he has worked 31 new RTTY DXCC countries from September to April 1. This brings his total to 163 worked in two years. WOW!

John, TG9VT also passes along that he had a nice chat with Tom, UD5NG and Tony A4XJQ. Tom said that the mail situation is terrible and only about 30 per cent gets through to him. He said to QSL via Oliver, G4TYI. And they will listen for stations when they are done with their daily sked which is at 1345 UTC on 14.084. This is different info from that we have had recently which has WA1ZFS as manager where W5HEZ reported he had success. Also I hope you all were able to grab Ron, KP2N, who was scheduled to be on from The BVI as VP2VAA on April 12 to 13, a strictly RTTY DXpedition. QSL to K8OHC.

DXCC

Congrats to new members DL7WL and PT2BW on making the club. There is room for many more!

DX COLUMN CONTINUED

Following is heard and worked, QSL info given if known:

CALL	TIME/DATE	FREQ.	MODE	QSL
AP2KS	1229/2 Apr	14.091	Bau	CBA
DU1KG	1335/12 Mar	14.095	Bau	CBA
9M2GV	1611/6 APR	14.077	ARQ	CBA
9V1JY	1414/30 Mar	14.093	Bau	CBA
9V1WN	1335/12 Mar	14.095	Bau	Herman Brauckman, 2 Swiss Club Ave. Singapore 1128
UR1RXO	1414/18 Mar	14.089	Bau	Box 88
LA1AD/JW	1400/15 Mar	14.094	Bau	??? Reports say he may be a pirate..
HL4CCM	0055/19 Mar	14.085	Bau	CBA
4X4KM	1453/21 Mar	14.091	Bau	CBA
A22BW	1657/22 Mar	21.080	Bau	DK3KD
6W1BL	2345/25 Mar	14.081	Bau	Jack Bonnafous, POB 400, Dakar, Senegal.
YB1ZW	1331/ 2 Apr	14.090	Bau	
	1231/29 Mar	14.080	Bau	Jojo, POB 79, Mataram, Lombok, 83001 Indonesia.
P29JW	1351/2 Apr	14.090	Bau	CBA
J73EH	0037/4 Apr	14.081	Bau	
	0155/31 Mar	14.081	Bau	Errol Harris, POB 389,Rosouseau, Dominica.
UA3TT	1206/6 Apr	14.085	Bau	Box 88
UA9PP	1322/4 Apr	14.094	Bau	Box 88
UAØLCZ	2225/2 Apr	14.090	Bau	Box 88
T30AT	1219/29 Mar	14.092	Bau	
TL8KH	2237/4 Apr	14.084	Bau	W2MZV
	2125/6 Apr	14.088	Bau	W2MZV Note:This station listens 300Hz down from his transmit frequency.
FO8EM	0254/29 Mar	14.089	Bau	CBA
FP5HL	1251/5 Apr	14.084	Bau	Henri Lafitte, POB 1107, Pierre, Et Michelon.
J28DQ	2024/5 Apr	14.084	Bau	Silvain, POB 2720, Djibouti
FO8LQ	0237/6 Apr	14.089	Bau	F6CEE
HV2VO	1141/24 Mar	14.090	Bau	CBA
3D2ER	0436/6 Apr	14.090	Bau	Raj Singh GPO Box 184, Suva, Fiji.
SV5TS	2045/6 Apr	14.090	Bau	POB 252 Rhodes Island, 85100 Greece.
V4KAC	2307/6 Apr	14.091	Bau	WB2LCH
ZK1CG	0230/7 Apr	14.087	Bau	CBA
ZK2JB	0230/7 Apr	14.087	Bau	CBA
	0050/2 Apr	14.092	Bau	CBA
TZ6FE	2206/7 Mar	14.080	Bau	DL4BC
T30BY	1309/11 Mar	7.077	Bau	CBA
3C1MB	2230/10 Mar	14.083	Bau	EA7KF
6W1BL	2106/6 Apr	14.088	Bau	CBA
9U5TN	2100/11 Mar	14.098	Bau	C.F.E., POB 24077, Usumburu, Burundi.
GI4LKG	2031/12 Mar	14.0735	ARQ	CBA
GM4XJY	2113/12 Mar	14.0735	ARQ	CBA
GW2DUR	1632/11 Mar	14.0735	ARQ	CBA
TA1F	1916/23 Mar	14.090	Bau	CBA
VK5CV	1202/02 Apr	14.092	Bau	CBA
9K2KA	1105/02 Apr	14.070	FEC	CBA
	1503/10 Mar	14.076	FEC	CBA
9K2MQ	1507/10 Mar	14.076	FEC	CBA
ZL3NF	0400/07 Apr	14.088	Bau	CBA
OY5NS	1206/12 Mar	14.091	Bau	CBA
A35PP	2252/09 Mar	21.088	Bau	CBA
J37BG	2100/02 Mar	14.091	Bau	CBA
4U1UN	0025/05 Apr	14.082	Bau	W2MZV
4Z4NL	1546/29 Mar	21.085	Bau	CBA
3A2EE	1450/18 Mar	14.085	Bau	CBA

PACKET

JA1DSI	2333/20 Mar	14.1035	PKT
JA3DAU	0026/21 Mar	14.1035	PKT
LA5EF	1750/20 Mar	14.1035	PKT
LA6OCA	1807/20 Mar	14.1035	PKT
PY2WT	0014/21 Mar	14.1035	PKT
VK2BVS	1619/21 Mar	14.1035	PKT
5V7JS	2140/19 Mar	14.1035	PKT
7J1AEE	2131/21 Mar	14.1035	PKT

Other notes of interest: UA3TT reports that he will be going to UF6 land in October for the WAE RTTY test. Other countries known to be active on RTTY, but no sightings are; AH9, 9M6, and 3U6.

Good luck and good DX. See you all next month.

KOVKH TECHNICAL LIBRARY CONTINUED

PG 20 continued ...

without over-striking the previous line, both a carriage return, (CTRL-M) and a line feed (CTRL-J) must be inserted at the proper point. If you desire to over-strike a line, do not insert the line feed (CTRL-J), but insert the carriage return. Subsequent data will then be over-struck on the same line.

If you would like a demonstration of this capability, I have developed a short test program that will show this over-striking feature. Since the SOC memory in my system must be modified, you will have to make prior arrangements with me in order to successfully copy this file.

with your activities.

Like it or not, the FCC requires that we ALL properly identify our stations. Don't be bashful about your use of the systems and fail to properly identify. Sending your ID prior to commanding the systems not only fulfills the FCC requirement, but it also gives the MSO/CBMS demodulator something to 'chew' on before receiving a command, which has proven to be beneficial to system response. One of the most common problems SYSOP's deal with on a day-to-day basis is the remote user who fails to "left justify" their commands to the MSO/CBMS. Since each system requires a unique symbol or designator to differentiate commands from the normal text, this left-justification is essential to proper operation of the systems. A very easy way to insure that your commands are received by the MSO/CBMS on the left-most margin, is to: -1- send your station ID; -2- send two CR/LF's (carriage return/line feeds); -3- finally send the command, preceded by whatever distinctive designator is used on that system). Try it, you'll find it works very well!

When writing files to a MSO/CBMS use a "file name" that will make it easy for anyone to determine who the file is for. The last three letters of the callsign are hard to beat. For example, ABC:XYZ is easy to interpret as being for ABC, from XYZ. "Funny" file names may be cute, but when "scanning" for file names with your callsign in them, they often will be missed.

And speaking of "scanning" for your callsign, many of the systems have features that allow you to scan for only files with your callsign (or part of your callsign) in them. Please use it, as it will greatly shorten the amount of time the MSO/CBMS spends transmitting the contents of its "Directory"!

The listing of "For Sale" and "Wanted" items is generally discouraged in most MSO/CBMS's, and your co-operation in this area is solicited. And finally, be sure to properly close (or EXIT) the MSO/CBMS when you are through using it. It really causes a lot of problems when two systems are responding to remote commands at the same time!

SYSOP'S obviously enjoy providing MSO/CBMS services, or they would find other ways of enlarging their electric bills! Don't hesitate to use the systems as I'm sure you will enjoy their sophistication. To page 15 please..

Chairman's Welcome Welcome to the hams from all over the world who will be joining us in San Diego. We are making this "Early Bird" offer to get you to mark your calandar now for a great vacation in Southern California this fall!

Walt Hicks, W6UZL, General Chairman

1986 ARRL NATIONAL CONVENTION!

HIGHLIGHTS

- ARRL, MARS, FCC Forums
- Technical Sessions
- Special Youth Activity
- Public Service Sessions
- VEC License Exams
- Banquet - WØORE & K6DUE
- Ladies Luncheon - W6NAZ
- Alternative Activities
- Old Town & Tijuana Tours
- New Products & Exhibits
- Freq & Deviation Clinic
- Antenna Gain Contest
- World Class "T" Hunt
- Spark Gap Radio Demo
- Hospitality Suites
- Hourly Prizes

YOUTH FORUM

Lead by WØORE, Astronaut Tony England. Experts will expose teenagers to the latest in ham radio "high tech" with hands-on demos.

DINNER DANCE CRUISE

Friday Evening - Romantic boat tour of San Diego bay, open bar, dinner, dancing.

CONVENTION SCHEDULE

Friday September 5

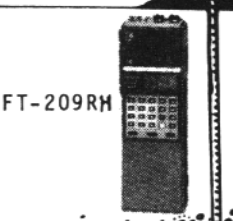
1500 Exhibits Open
1830 Dinner Dance Cruise
2100 Exhibits Close

Saturday September 6

0800 Special Interest Group Breakfasts
0900 Exhibits Open
0900 Tech Sessions & Forums Start
1130 Ladies Luncheon
1300 Old Town & Tijuana Shopping Tours
1300 WØORE Youth Forum
1600 ARRL FORUM
1700 Exhibits Close
1830 Social Hour
1930 Banquet
Midnight Wouff Hong

Sunday September 7

0800 Special Interest Group Breakfasts
0900 Exhibits Open
0900 Tech Sessions & Forums Start
1300 "T" Hunt Starts
1300 Convention Closes



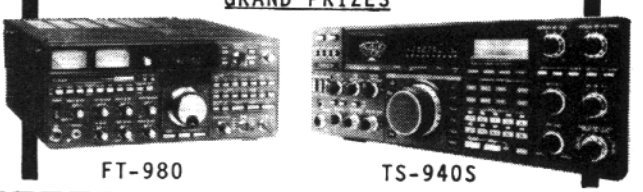
EARLY BIRD PRIZES

YAESU AND KENWOOD ARE DONATING TOP-OF-THE-LINE RADIOS

ADVANCE REGISTRATION PRIZES

FT-2700 TR-2570

GRAND PRIZES



FT-980 TS-940S

ARRL 1986 NATIONAL CONVENTION
September 5, 6, & 7, 1986
REGISTRATION DATA FORM (Print or Type)

Name _____ Call _____
Street _____
City _____ State ___ ZIP _____

Make Badges As Follows:

Call _____ Name _____ City _____
Call _____ Name _____ City _____

Pick up Tickets and Badges at the Door.

For reduced Airline fares or To Reserve a Room at the Convention Site, Call T & C Hotel and ask for ARRL rates. Toll Free: California (800) 542-6082, USA (800) 854-2608
CONVENTION INFO: (619) 292-7918

MEETING SITE
TOWN & COUNTRY CONVENTION CENTER
SAN DIEGO, CALIFORNIA

How Many		Cost	Amount
____	Advance Registrations	@ 7.00	_____
____	Registration After 8/15/86	@ 10.00	_____
____	Banquet (Prime Rib)	@ 25.00	_____
____	Ladies Lunch (1st 100)	@ 10.00	SOLD
____	Dinner Cruise (1st 500)	@ 33.00	_____
		Total Enclosed	$_____

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NEWS-NEWS-NEWS Amateur Radio's Newspaper "WORLDRADIO". One year Subscription is $11. Send to: WORLDRADIO, POB 271309, Escondido, CA 0770.

HAL COMMUNICATIONS STRIKES AGAIN! If you have an IBM-PC, then you want to utilize the new HAL PCI-2000 interface and software to turn it into the ultimate in a computer based RTTY system! Morse, Baudot and ASCII, 103/202 modems, all speeds/shifts, split screen and a host of other features. Write or call Dick, KØVKH, DIATLA AMATEUR RADIO SUPPLY, 212-48th St., Rapid City, SD 57702. 602/343-6127. Our prices can't be beat!

HAM RADIO MAGAZINE. The no nonsense state-of-the-art technical magazine. Subscribe now and see for yourself. 1 year $19.50 in USA. $21.50 Canada and foreign surface. $28 airmail Europe, Africa,Japan area. Ham Publishing Group. Greenville, NH 03048.

FOR SALE: Teletype 28 RO (no hood) $70 - Compact 3 speed RO $125 - 3 speed transmission $30 - 28 RS console with paper tape $150 - facsilise converter $100 - Teletype converter $125 - short wave receivers 390A $275 - converter SSB $125 - 392+ power supply & speaker $225 - receiver $160. Send SASE to Marcel Audiat, POB 386, Rescue, CA 95672.

HAL CWR6850 Telereader, 12 VDC or AC, cost $995, sell $400. Robot 800 W/Amdek 100 13" B/W monitor, cost $800, sell $300. Dennis, N6BB, 619/277-6780 X 2777 M-F...

WANTED-TELETYPE Repair parts, unused. Sell gears, parts, manuals, supplies. SASE list. TYPETRONICS, Box 8873, Ft. Lauderdale, FL 33310. N4TT. 305/583-1340 after 9PM EST.

PACKET/ASCII/BAUDOT/CW for IBM-PC and equals. Split screen and buffers beaucoup. Bigger and better than ever! SASE to: Emile Alline, NE5S, 773 Rosa Ave., Metairie, LA 70005.

FOR SALE-Fredericks equipment: 1200, 1202, 1203, Demods 1500A, 1500, 1500B, receivers 1250, 1251, Displays, EIA/Loop modification kits. Large SASE for listing. Turbo Inc, RFD 1, Box 1520N, Skillman, NJ 08558. 609/466-0721.

SELL, RTTY JOURNALS 1972 thru 1985 except January 1980. Kilkenny, 3127 Oriole Dr., Louisville, KY 40213.

PG17

MODIFICATION OF THE TRANSMITTED AUDIO QUALITY. KENWOOD TS-930S

The transmitted audio tonal quality of the Kenwood TS-930S may be improved by the following adjustment. (This is a Kenwood recommended adjustment, #867).

1. This adjustment applies ONLY to Kenwood TS-930S transceiver with serial numbers prior to 3080001. If available, please refer to page 64 of the Kenwood TS-930S service manual. This adjustment is made to VR2, on the "final" circuit board.

2. Set frequency to 14.175 MHZ, upper side band, with mike control set at minimum.

3. Desolder L7 lead and connect ammeter in its place, minus side to L7 side.

4. Place standby switch in "send". Adjust VR2 for 70 MA (seventy milliamps). Resolder L7 lead. This completes this adjustment. (Specification is 70 MA, plus/minus 10 MA).

5. Adjust VR1 to minimum. Disconnect connector in final unit, 28V line and connect ammeter in its place. Place standby switch in "send".

6. Adjust VR1 to 1.3 amps. This completes the adjustment procedure. (Disconnect ammeter and reconnect 28V connector after adjustment). (Specification is 1.1 to 1.5 AMPS).

PG18

INTERFACING THE MPI-88G PRINTER TO THE HAL DSK 3100 PARALLEL PRINTER PORT.

The following information pertains to interfacing the 'MPI' 88G Dot Matrix Printer to the 'HAL' DSK3100 disk drive system. The MPI 88G printer has both a serial and parallel printer port, and this information will deal with only the parallel input port.

1. Switch SW2-1: "off". This switch allows the selection of either serial or parallel data input to the printer. If this switch is "on", the printer will accept serial data, and if "off", the printer will accept data in the parallel mode

2. Switches SW2-2, SW2-3, and SW2-4: "off". In the parallel data mode, (switch SW2-1 "off", these switches must also be "off".

3. Printer interface cable requirements are as follows:

HAL DSK-3100 CABLE CONNECTOR

Strobe	- Pin 1
Data bit zero	- Pin 2
Data bit one	- Pin 3
Data bit two	- Pin 4
Data bit three	- Pin 5
Data bit four	- Pin 6
Data bit five	- Pin 7
Data bit six	- Pin 8
Data bit seven	- Pin 9
Busy	- Pin 11
Chassis ground	- Pins 14 thru 25

MPI 88G PRINTER CABLE CONNECTOR

Strobe	- Pin J4-1
Data bit one	- Pin J4-3
Data bit two	- Pin J4-5
Data bit three	- Pin J4-7
Data bit four	- Pin J4-9
Data bit five	- Pin J4-11
Data bit six	- Pin J4-13
Data bit seven	- Pin J4-15
Data bit eight	- Pin J4-17
Busy	- Pin J4-21
Chassis ground	- Pin J4-33

Nctes: 'HAL' calls the first of these eight data bits "data bit zero", where 'MPI' calls the first one "data bit one". Pins J4-2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 27, and 31 are all "signal grounds". Chassis ground should not be connected to these grounds.

4. The 'HAL' end of the interface cable should have a standard "DB-25" male connector installed.

If you require information on interfacing this Dot Matrix Printer to "Serial" data inputs, please let me know and I will provide that information.

PG 19

DRIVE RECONFIGURATION, 'HAL' DSK3100

It is quite easy to reconfigure the 'HAL' DSK3100 disk drive unit so that disk drive one (1) becomes "drive 2", and disk drive two (2) becomes "drive 1". In case disk drive one (1) should fail, should need alignment, or you would like to compare disk drive operating features using drive two as the primary drive, this procedure can be easily implemented.

PG 19 continued ...

The DSK3100 is a complicated device and the user should be extremely careful in identifying components BEFORE making changes.

References: Page 59, Figure 17, DSK3100 instruction manual.

Tools required: Crosspoint screwdriver and long nose pliers.

1. Remove the top cover of the DSK3100. The most difficult part of this procedure is identifying the "drive select" connector pins on the disk drive circuit board. Refer to page 59, Figure 17, of the DSK3100 instruction manual. Position this figure so that the words "DSK3100 interior arrangement" are at the top of the page. Drive two (2) is now shown on the right half of this page. At the rear center of the drive two drawing find the cable connector marked "B". The "drive select" connector is a set of four (4) pins on the circuit board, located at the lower right hand corner of this cable connector. Once you have located the drive selector pins on the drawing, locate them on the drive two circuit board. The letters "DS3, DS2, DS1, DS0" are printed on the circuit board immediately below this connector.

2. As shipped from the factory, the "drive select" pins on drive two (2) will have a jumper on the pins identified as "DS1". Using a small pair of long-nose pliers, carefully remove this jumper by pulling straight upward. Re-install this jumper on the pins marked "DS0", (DS zero). This now identifies your old drive two (2) as drive one (1).

3. Carefully remove the four screws from the "disk controller board", which is mounted over the left hand disk drive. Once these four screws are removed, carefully lift the front end of this board upward, allowing room for the connectors on the rear of the board to become disengaged from their slots at the rear of the cabinet.

4. Again locate the "drive select" pins connector on drive one (1). Remove the jumper, and re-install it at the location marked "DS1", (DS one). This now identifies your old drive one, as drive two (2).

NOTE: You must NOT have two drives identified as the same drive number, (two as DS1, DS0, etc), as the system will not work in that configuration.

5. Carefully re-install the disk controller board, being careful not to pinch any wires, or the interconnecting cables, and re-install the top cover. The "D1" L.E.D. will still light while data is being written to drive one, and the "D2" light will light when data is being written to it. REMEMBER ... you still must have your drive 1 diskette mounted on drive 1 ... but, drive 1 is now the right hand drive, and drive two is now the left hand drive.

PG 20

TRANSMITTING/RECEIVING RTTY PIX WITH THE 'HAL' DS3100.

This file discusses the procedures to utilize for copying RTTY Pix on the 'Hal' DS3100, and a Dot Matrix type printer. As normally configured, the DS3100 automatically inserts line feed characters, which prevent most printers from copying 'over-lined' material used to 'shade' RTTY Pix. (Where a line of RTTY text is over-struck more than once). Modifying the 'special option character' (SOC) memory of the DS3100, plus ensuring that your printer does not automatically insert line feed characters, will allow you to copy these Pix nicely. The following procedures apply:

1. Set bit four (4), of SOC one (1), to "one".
2. Set the DS3100 to the "full duplex" (FDX) mode.
3. Set your printer controls so that it will not automatically insert a line feed upon receipt of a carriage return.

Copy RTTY Pix as normal. The sending station will provide the required carriage returns and line feeds. Absence of a line feed will cause that line of text to be over-struck, providing the required 'shading'.

Creating and transmitting your own RTTY Pix with the DS3100 requires that the SOC memory be modified as above, and that the DS3100 be in the 'Full duplex' mode. However, when these RTTY Pix are created, you must ensure that both the 'carriage return', and 'line feed' characters are inserted in their proper places. For example, to start a new line,

Just returned from the Dayton Hamvention..took the scenic way home, leaving on Monday from Dayton, went to Cincinnati by Greyhound from there to Newark, New Jersey by plane and from Newark to Los Angeles by plane. Missed the train to home so John, KA6NYK drove the 100+ miles to collect me. It is a good thing that my OM is also my best friend, LAX is no place to ask anyone to find you, even if given an exact place to meet. Home never looked so comfortable and quiet!!!

The recuperation is almost complete and I can Now go out in the world without a cringe when facing more than three people head on, and I do not get panicky if I do not have a dime in my sweaty hand for the restroom. Home sweet home....

Dayton was ..Dayton. If you have been there you know what I mean, if you have never been there no one can paint an adequate picture of just what takes place there. It is something that only a T-shirt I saw there can explain. The T-shirt said, "I survived Dayton Hamvention". There were no NEW products revolutionizing the scene, the earth neither opened up nor shook because Wayne Green was there. The Miami River did not part but there may have been some expecting it to, I suppose. There was a plot to steal Greens' life size cutout to counter his query on the cover of 73 Magazine, "Will Wayne Green Steal Dayton?" Wish it had materialized, I probably would have been in on it..

The RTTY Forum was not too well attended this year. Why the powers that be cannot do better than place the RTTY forum on at the same time as the Packet forum is just beyond me. Speakers for the forum included: Bill Henry, K9GWT; Roy Gould, KT1N; Dale, W6IWO; Jerry, W1IUF;& N6ELP.

Perhaps 150 attendees saw Bill Henry (HAL Communications) receive a long overdue plaque for his contributions and dedication to RTTY. It could not have found a more deserving recipient. Bill puts out some of the best RTTY equipment around. His motto is, "you get what you pay for." Must be true for I have three items from HAL and they have never given me a minutes grief.

In bidding adieu to the assembled RTTYers, I must admit it was an emotional experience. Most of the audience had been there back in 1978 when I was first introduced as Publisher/Editor of the RTTY JOURNAL. After they got over the shock of my wearing a dress, most welcomed me. (There are those few chauvinists around still who took umbrage, but I have managed to ignore them). Most RTTYers (bless you all) have been very kind and helpful. When I had no Amateur license and didn't know much about publishing and editing there were Elmers around to help. Bill Henry, Skip Tenney, Chuck Edwards, W6MNO, George Hammon, W6CQW, Skip Prinsen, then WB6CYA, now KG6CM, these were my Elmers and I owe then a lot for just keeping my spirits up when everything was bleak. They encouraged me to get my license and I did, and I have received my Advanced and will work on Extra now.

Don, W6KCW took over the RTTY JOURNAL in May of 1977 and died shortly after that. I took over the chores and now will be handing it on to Dale Sinner, W6IWO of Fountain Valley, California. Dale is competent and has been in RTTY for as long as I have known him, which goes back to W6KCW days and a Los Angeles RTTY club that W6KCW was President of, and later Dale Sinner became President of. You will probably have Dales' complete resume in next issue of the RTTY JOURNAL.

Dale spoke at the RTTY Forum and later spoke at the RTTY dinner as well. He speaks well and knows RTTY and with your help will be Editor for a long time to come. Make no mistake though. Dale will need your help in the form of advice, what do you want to read in the JOURNAL?? He will need input in the form of "How to" articles. Please send pictures of your shack (with you in them to make it more personal), black and white are preferred, but some color (not Poloroid) may be utilized. Help Dale with stories of DXpeditions, expeditions to the local mall or fairgrounds or field day where RTTY was utilized. Feed Dale tidbits of info on anything pertinent to RTTY. You may think that that little gizmo you added to the whatyamaycallit that made your RTTY equipment do something it originally was not intended to may have no interest to anyone, but you would probably be wrong.

Last night I read a paragraph in my local Amateur Club Bulletin "The Scope" on "Southern COUNTIES AMATEUR TELEPRINTER SOCIETY NEARING EXTINCTION"! Of course I sat up and reread the paragraph again. While true, the SCATS club has been having its problems its demise is quite a surprise to its members (of which I am one).

EDITORS LOG CONTINUED

RTTY certainly is not dying out,as witness activity on when ever the bands are open, speaking of which, try calling CQ some time on a band that you "think" is not open. This is one case where one line of CQs and your call 2-3 times is not enough. Call, as above, wait, call again and wait..You may be in for a pleasant surprise in that the band was open no one bothered to jump in there break the ice and find out!!

Dale will be fortunate in that he has been able to corral a writer on the Packet mode (I have been unsuccessful for over a year). While Packet is the rage at the moment, RTTY will never be replaced by it..it just doesn't 'feel' the same. There are those of us who will never give up our 28s (I for one) and there are those of us who think AMTOR is 'clickish and clanish' (I for one) and there are those who think Packet is a flash in the pan (not me). I do believe that RTTY will be around for a long time, perhaps not as strong on 2, 220 etc., but 10 through 160 will certainly have RTTYers habituating the bands.

RTTY DINNER AT DAYTON

What a nice group of distinguished people..... Thirty-three signed up, fifty-one came and some of the 33 could not make it!!! The hotel did have to set up two additional tables to accomodate us. I don't know how they managed it, but Irv W6CG, and Dean, WA6PJR had a table for two! The rest of us made do with tables of eight Hi Hi. I shall try to remember all attendees but I know I have forgotten many, not intentionally, but I never have had a good memory (one reason that the Bash books were not of any use to me!) As hostess of the event I almost forgot to ask the assemblage to stand up and introduce themselves. Found out we had a DL and a HC call. One Amateur had his son with him, the boy (9-10 years old) got up and said,"I'm here just for the dinner!" Right on! WØLHS formerly of RTTY JOURNAL DX COLUMN fame, now of WORLDRADIO fame told some DX stories and managed to 'hit' lightly on mailboxes. WØHAH, Bob tried to match Bills' stories.
WØHAH, bob is retired from AT&T and now literally clowns around under the name of 'RAGS'. I met Bob on the way home from Dayton a few years ago and was given a tour of Minneapolis that few others are priviledged to receive. I lived in St.Paul and went to school at U of Minn. but never did get to see such as the inside of the Fochett tower! Impressive! I also had the pleasure of meeting with Bob in California during the 1984 Olympic Torch Relay where Bob spent weeks watching/sheperding the Relay runners. I chased from San Diego to Oceanside and became part of the proceedings north of Oceanside when no one could find the repeater that the advance party for the Torch was using. I was going the right way and going to meet the advance party so became the designated "link" of the Torch Relay. I got to San Clemente and found Bob and the Communications Van and they said they knew what was what and were going to have lunch and invited me to join them, which I rapidly accepted. I managed to 'hold' the 'eternal flame' from which the torches were lit and had a fine time visiting with Bob. My alma mater is in Minneapolis but never did run into such nice folk as Bob while there!

Dick, KØVKH spoke little at Dayton, claimed he had laryngitis and guess that is as good an excuse as any to not be in the 'spotlight'. He is getting better he said. He is at least on the right mode with RTTY...

K9GWT, Bill, modest as usual. The host of next years RTTY dinner, Jerry, WA1IUF was his own irresponsible self. (The FCC was there Jerry!!) Doug Horner always found at the QCWA booth.

Two of the last folks I remember, I have saved for last. Tony, KI4X suprised all of with his genuine alligator meat samples (tastes something like chicken) Thanks from all of us Tony. And, last, but certainly not least, John, W3BE who can tell stories along with the best of them.

I know so many more where there but cannot remember names or calls for them, please forgive me for that, all of you.

At Dayton I was asked what I was going to do A RJ (after the RTTY JOURNAL), I MAY write a book, I MAY revise the RTTY HANDBOOK, I MAY get a job with the Federal Government..... I WILL be active on RTTY, I WILL be active in PR work with RACES, ARES, Animal Rescue Reserve Com Unit. I will be a participant in any event I can be (usually all of them) connected with RACES, ARES and Animal Rescue Reserves.

I WILL be doing more gardening, answering of mail, long neglected, Will finally be able to have that portion of the house given over to the JOURNAL back as house again. I won't have to stumble over mailbags, have dings in my tables

HITS AND MISSES CONTINUED

The unit is designed for full automatic operationn by means of an on-off switch. Turn it on and this unit will operate. When your transceiver is in standby the bar graphic power meter will indicate only the figures 0.1.

When it is on the air the bar graph power meter will be illuminated in a bright red and at the same time, the digital SWR meter will indicate the value of SWR.

Quality connectors are used to minimize insertion loss, gold plated "N" type for UHF band and silver plated "M" type for VHF and the HF band.

The unit is small, 5½ x 4¼ x 1 inch and operates on 110 AC or 12 VDC. The unit is a natural for home or mobile use.

SO LONG FOR NOW

This will be my last column for the RTTY JOURNAL for as you now know the JOURNAL has been handed on to Dale Sinner, W6IWO. Dale will be heading up this column and I know he will do a bang up job, both with the column and the RTTY JOURNAL, as we go back many years.

I do wish to thank all of you personally for your support, help and most import of all, your friendship. The years pass so quickly. The clock starts ticking at birth and how we spend this time is so precious. We all start out with this bank of time and some squander it, there are no night deposits, no double up or slowing down of the relentless withdrawal of our time. I hope I can use the time left to me wisely and well.

I would like to publicly thank Dee for her unfailing support. I was always given a free hand to write on,any subject of my choosing, concerning Amateur Radio. This editorial freedom has been greatly appreciated.

MSO COLUMN CONTINUED

That's it for this month Gang! Hope to see you on one of the systems soon!

Best 73! DE: Dick, KØVKH . .....

EDITORS LOG CONTINUED

from mailbags (we did the labeling of the JOURNAL here in the dining room). I will finally get to read some of the articles, put away for later reading, that have accumulated in five apple boxes. I'll have my computers back for doing things other than the JOURNAL. I may even get my desk cleared of the stacks of.. priority..must answer..attention...and one of these days mail. I'll hand over to Dale all of the certificates I have for WAS, WAC etc. and the records thereof.

Perhaps I will have time now to really get to know my computers (all four of them) maybe I'll have time to take the house apart and put it back together again, literally.

I do know that I will miss writing notes to some of you each month.. I probably will miss the mess (strange but true). I'll miss all of your notes to me each year, with your subscription renewals. And John says, he'll miss 0. of it. Oh well!

Keep in touch, I'll be at the same addresses as before, and have the same telephone. Will be on the air more. I'll be deeply into the making of the San Diego Convention, September 5, 6 and 7, 1986. BE THERE!

LAST WORDS

You may find many faults with ARRL, no one is perfect. You make not like Government-rules and regulations are restricting. B-U-T..without ARRL as THE voice of Amateur Radio and without the FCC there would be chaos on the bands.

Instead of complaining to each other of the wrongs of our hobby, why not help to your fullest capability those that can do something about the perceived wrongs therein? Without the ARRL we are, each of us, ONLY individual voices heard but faintly in the crowd. With ARRL we can be one concerted voice heard and listened to. Take your choice and be prepared to live with it.

Let the FCC know, preferably through ARRL, what your wishes concerning our hobby, are. They can't help if they don't know what the problem is.

Keep in touch by RTTY, mail, or dogsled/pony express whatever, I will always look forward to RTTYers letters and will answer each one of them.

Stay happy, healthy and on the air..
To each of you 73/88 de DEE, N6ELP.

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