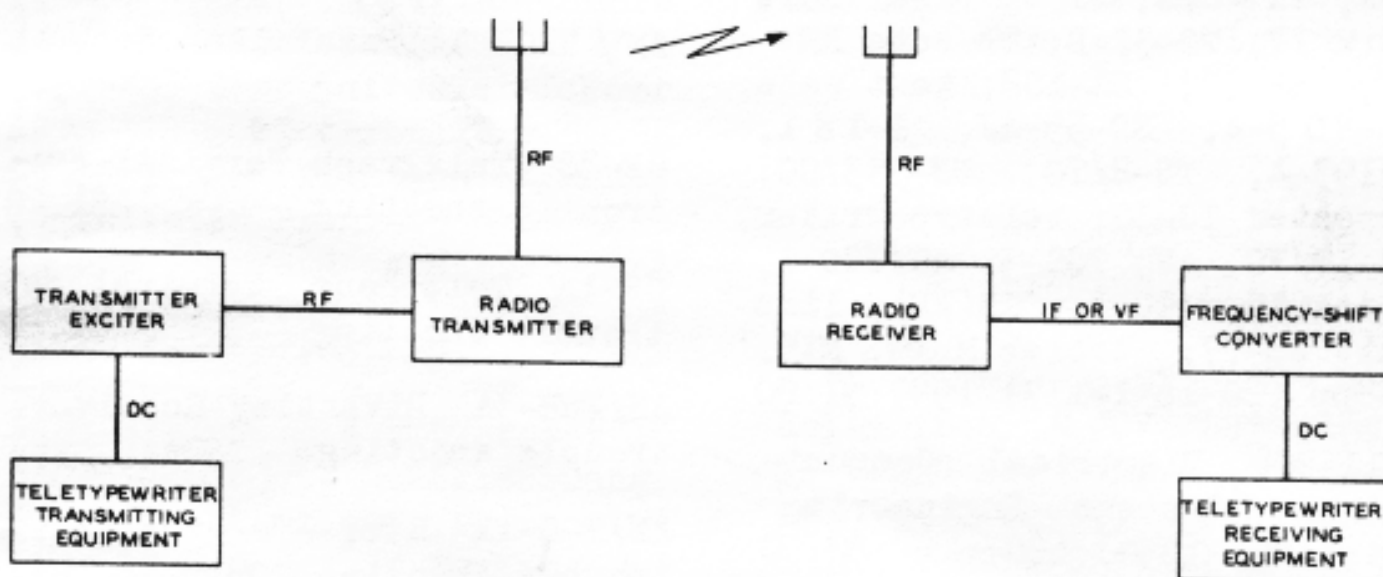


ARTS

43



FSK Radioteleprinter System

For frequency shift keying (FI or FSK) the sending teleprinter controls which one of two radio frequencies is to be transmitted. For amateur operation, the higher radio frequency is the mark signal, and a lower frequency is the space signal. Usual amateur shift between frequencies is 850 cycles, but may legally be anything from 0 to 900 cycles. The transmitting oscillator shifts between mark and space frequencies under control of the transmitting teleprinter.

Receiving frequency shift converters are of two general types: intermediate frequency

or voice frequency. I-f types must be built to match the i-f of the receiver, or a heterodyne of the receiver, or a heterodyne oscillator must convert the receiver i-f to match the fsk converter. Voice frequency fsk converters receive audio tones from the audio output of the receiver. The receiver's bfo must be used to heterodyne with received fsk signals to produce tones. The voice frequency fsk converter can receive AFSK signals (See ARTS 41, page 1), provided tones are compatible. When receiving AFSK, the receiver bfo is not required. For 850 c shift, 1100 c bandwidth is required.

B O O K S

Can't find any dope on RTTY? Try some of the following books for sale by ARTS.

Principles of Electricity Applied to Telephone and Telegraph Work (1953). This is Bell's "green book." \$4.75

TM11-680 Teletypewriter Circuits and Fundamentals. Neutral and polar circuits; phantom circuits; polar relays; regenerative repeater OA-3/FC; keyboard typing reperf TT sets TC-16, TC-17; reperf xmtr TG-26A, TG-27A; TT terminal unit Mark IV; TG-37-B; TT sets EE-97, EE-98, EE-102; test sets CA-40 5-A, ED-55-AJ, I-181, I-193-A, TS-2/TG, TS-383/GG; repeater TG-30; teletypewriter TT-10/FG, AN/TGC-3, AN/TGC-1, Model 15, TG-7, TB(WD); line unit BE-77; tables M-19, M15. 224pp (TO-16-1-117) 1947 \$1.00

TM11-486 Electrical Communications Systems Engineering (with C1, 1950) 660pp \$2.50

TM11-466 Radar Electronic Fundamentals \$1.25

TM11-467 Radar System Fundamentals \$1.25

TM11-662 Basic Theory & Applications of Electron Tubes. (with C1, 1955) 215pp \$1.00

TM11-661 Electrical Fundamentals, Direct Current 1951 \$1.00

Handbook Preferred Circuits, Navy Aeronautical Electronic Equipment (NBS for BuAer) 1956 202pp \$1.75

Aviation Electronics Technician 3 and 2, Navy training course 1956 467pp \$1.75

Physics for Electronic Technicians, Navy 1954 378pp \$1.25

NAV PERS 10188 Electronics Technician 3, 1954 \$1.25

Radarman 3 and 2, Vol 1 (Navy) 1956 reprint 375pp \$1.25

General Communications (Navy) 1955, 111pp 75¢

Synchros and Servo Mechanisms. training manual (Philco) \$1.90

Electronic Circuit Directory. (Philco) \$1.35

AN/TXC-1 Facsimile Set, trouble shooting 90¢

CF-2B Telegraph Terminal Set. trouble shooting \$1.20

CF-1A Telephone Terminal Set. trouble shooting \$1.20

AN/FRR-3A Diversity Receiver. trouble shooting 95¢

AN/FGC-1X RTTY Terminal Set. trouble shooting 85¢

Magnetic Amplifier Circuits by William A Geygar, McGraw-Hill. Basic principles, characteristics, and applications. 277pp \$6.00

Magnetic Amplifiers Electronic Design and Development (Navy BuShips) 1954 40¢

Artying by Julius Nelson, (McGraw-Hill) 47pp. How to draw pictures on a mill. \$1.75

RTTY CALLBOOK 1956 24pp \$1.00 (Order Callbook from RTTY, Inc 3769 E. Green St, Pasadena 10, California)

ARTS BACK ISSUES AVAILABLE

Following back issues of the ARTS bulletin are available to subscribers:

ARTS 34: List of about 150 government techmanuals on TT.

ARTS 35: Reperforator automatic remote control circuit (ARTT* 2265). Construction variations of W2BFD electronic keyboard (ARTS-2266). Code & decode charts for TT code and TT keyboard layout.

ARTS 36: Tape transmitters & distributors (ARTT* 2085). JW-407 Tape TD with double sending faceplate (ARTT-2267 & ARTT-85) useful for Morse (See ARTS 37). TT chronology 420BC to 1833. Modification of Model 10 Bulletin Printer. Abstracts on SSB, forward scatter, and ratio-squaring diversity as used in AN/FGC-29.

ARTS 37: Simple subcarrier TT (ARTT-2602). Seattle Gang. Procurement lists, items 189 to 257. Copy of waiver of commercial intent. Abstracts. Morse from TT tape equipment (ARTT-2601). FCC petition for NFSK and technical discussion. CD TT in New York City.

ARTS 38: Autostart (ARTT-2279). Detroit Gang. Procurement lists, items 258 to 273.

ARTS 39: Chicago Gang. NFSK FCC Docket 11501. Polarity diversity. Receiving Army TH-5/TCC-14 (1225-1325 shift) on amateur panels. Chicago TT hamfest Oct 55. 16A reperf. Armed Forces Day 1955 results.

ARTS 40: Minneapolis Gang. FRA i-f type FSK converter. FSK oscillator with Hi-K capacitors. 0-900 c shift ok'd.

ARTS 41: AFSK system block theory. More on FRA conversion. FSK with standard FM equipment (ARTT-2485A). 50-UFS fm xmtr and 12-UF fm rcvr. Second annual NYC dinner (Mar. 56). Armed Forces Day 56 sked. Tuning fork oscillator. More on Morse from TT Tape.

ARTS 42: TT men in service. Armed Forces Day 1956 results. Lightweight military printer. General purpose a-f meter. TT keyboard layout.

Back issues are available at 25¢ each. Or you need send no money...we'll subtract any back issues you want from the end of your subscription, so you just renew sooner.

ARTS LENDING LIBRARY

FILM, 8 mm, 20 min. 2-Meter Relay from W4 JCV Leesburg Va to W2BFD New York. (Pay postage both ways.) (Produced by W3JMC Howard Snyder) black and white.

M A N U A L S:

(Because books are so easily lost, deposit will be required)

TM11-261 (TO 16-35CV31-15) Dual Diversity Converter CV-31/tra-7 (same as FRF)

TM11-300-Q Frequency Meter Set SCR-211-Q (1943)

TM11-2137 (TO 16-35TA182-5) Telegraph-Telephone Signal Converter TA-182/U (1952) (See ARTS 43 for schematic. Used with TH-5/TG, AN/TCC-14, etc

(Continued on page 8)

ARTS 43-3

Add Ontario Canada to all QTHs

VE3APK Fred M. Longstaff
34 Pearson Ave
Toronto

VE3AXX Phil H. Byrne
54 Glenridge Ave
St Catharines

VE3AYE R. C. Kenny
R R 1
Kleinburg

VE3BAD George E. Blanchett
10 Glen Muir Dr
Toronto 13

VE3DMU C. M. Spooner FRCS(C)
194 Sandringham Dr
Downsview, Toronto 12

VE3DYM David M. Wahl
74 Brookside Dr
Toronto 13

VE3GL R. E. Hadfield
14 Sunny Lea Ave E
Toronto 18

VE3IBM IBM Radio Club
IBM Country Club
R R 1, Todmorden, Toronto

VE3RA

VE3VG H. Livingston
47 Parkwood Ave
Toronto

R. Johnston
30 Overton Crescent
Don Mills

J. Paige
364 Prince Rd
Windsor

F. H. McGibbivary
435 Dougall, Apt 7
Windsor

ARTS 43-4

ONTARIO RTTY GANG IS GROWING

RTTY activity is growing in Canada, and especially in Ontario. Meet the Ontario Gang listed below. Buffalo should be well within 2-meter range of the Toronto Gang. (The Niagara Frontier RTTY net on autostart (147.5 Mc) has W2ALR, K2LPV, W2FAN, W2IUF, W2RUI, W2SSS, W2TKO, W2VLL, and W2ZOC Toronto, aim something towards Buffalo on autostart times.

R. Johnston, Don Mills: My 26 is working, receiving only as I have not a station license. Have picked up American amateurs on the 80 meter band and some commercial stations. Have been rebuilding my converter using toroids and a bandpass filter. My main problem seems to be drift of my receiver, a war asset R1155 of English manufacture. I work for the Bell Telephone Co of Canada. They have discarded all their model 26 machines, having found them unsuitable for continuous operation. I have worked on TT apparatus for about 14 years now, both for the RCAF during war, and with my company.

I am presently an instructor of TT maintenance, and also a maintenance inspector... My work keeps me out of town a bit. Despite continuous association with TT at work, I find I am still as interested in it as when I first started on it years ago. RTTY has opened up a new field for exploration.

CHICAGO CALLS ALL RTTY HAMS

Chicago area RTTY gang are holding a "get-to-gether" of all amateurs interested in amateur RTTY on Sunday and Monday, Sept 30 and Oct 1, 1956. There is no admission, registration, or other fees--- only cost will be for your own food and refreshments. This Chi RTTY Hamfest will be similar to the successful one last year. If you missed last years, see the write-ups and pics in ARTS 39, Oct 55 RTTY, and Dec 55 CQ.

This hamfest is timed in connection with the National Electronics Conference to be held in Chicago Oct 1-4. Most of the program is skeduled for Sunday to avoid conflict with the conference.

Formal program starts Sunday Sept 30 at 1 pm with a general technical session at the Halcrafters Co plant at 4401 W Fifth Ave. Latest amateur RTTY developments will be demonstrated by well known RTTY amateurs. Bring your problems you need help on. Many models of printers and tape gear will be on display and operating.

Sunday evening, for those who like to eat and talk, the group will gather for dinner.

Monday Oct 1 inspection trips include Teletype factory and possibly Kleinschmidt.

If you arrive in Chicago early contact one of the committee so a visit can be arranged. The committee will be on tap from Saturday on. Notify the committee as soon as you plan to attend so dinner reservations can be made.

Ray Morrison W9GRW and George Boyd W9SPT are co-chairmen

with Boyd "BeeP" Phelps Wo BP on the technical sessions.

Contact any of the following on arrival in Chicago:

W9JBT Bob Chicago CA-7-8035
W9SPT George Chicago BU-1-4979
W9GRW Ray Skokie toll OR3-0016
W9OCV Burt Western Springs
toll CH-6-1463

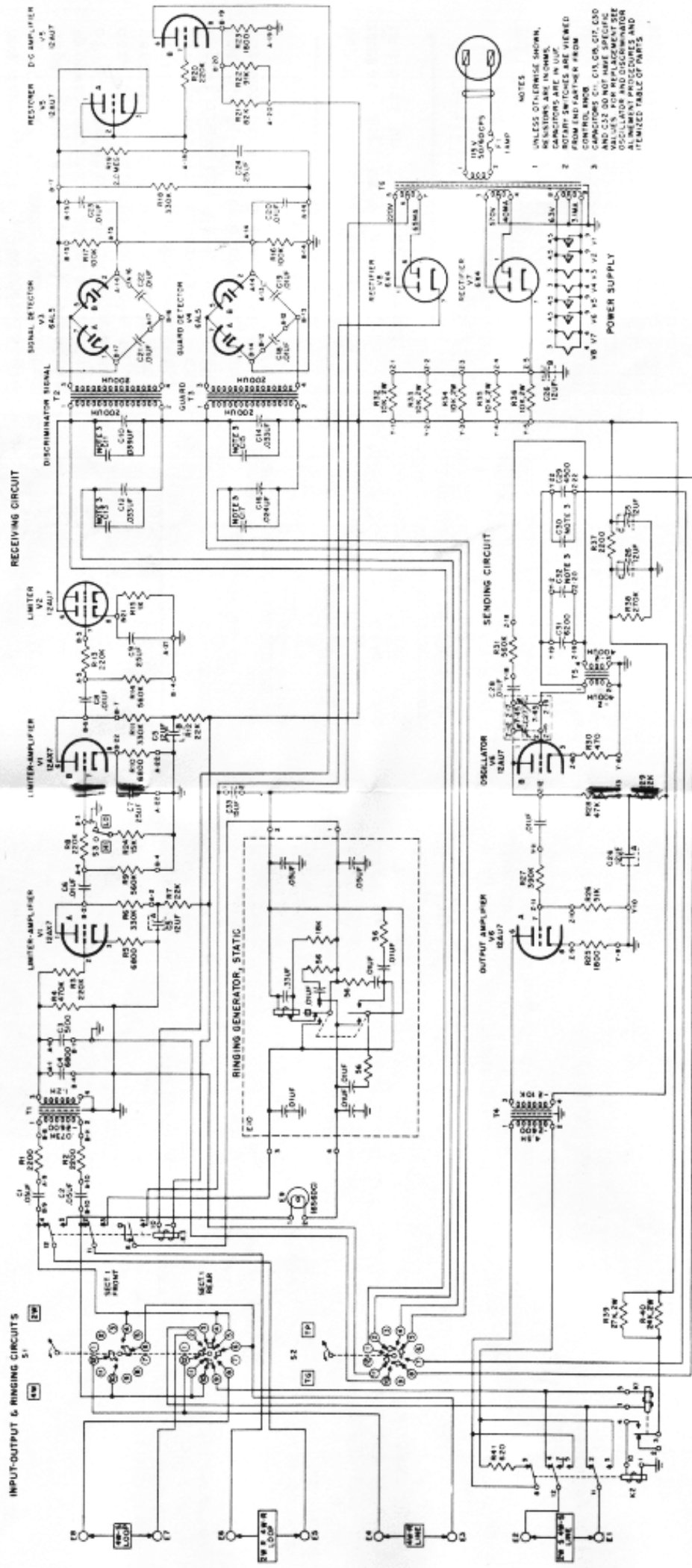
K9PBQ Charles Garvey is vacating his present radio room to make bandwidth for a harmonic. He is moving gear to a basement hamshack, then after he gets up a beam, Charles may find time for RTTY.

G3JNG: British teleprinters can be obtained, but American ones are very expensive and accessories are difficult to obtain. I have a model 14 with a 2-tone unit. Enclosed \$3 in UNESCO coupons for ARTS... We have trouble in getting foreign currency here. I believe I am the only amateur RTT enthusiast in the UK. --H Harris

W2EBZ Clay was a guest speaker at the IBM (Poughkeepsie, NY) Radio Club on August 21. The 50 members of the club enjoyed the 2-Meter Relay movie sent by Howard Snyder W3LMC of Baltimore. W5UGY Royce Simmons is now with IBM, Poughkeepsie.

W2ANB has two 15's working on a local circuit, and is building a W2BFD converter.

W1PBS should be putting a good signal on 80. He has an FRA, a 26, 310 exciter, and 500 W.



"Common Language" Autocoder

You have probably thought at one time or another about possible application of electric typewriters to teleprinter work. (That is, until you priced the electric mills!) Now the Telequipment Corporation of America has come up with a "Common Language Coder" to turn out punched tape from a standard electric typewriter. The gadget consists of a code stack which mounts under the mill, and connects to a perforator for use in data processing systems. The perforator is controlled entirely by the typist from the keyboard, punching 5, 6, 7, or 8 channel tape for any or all of the typed copy.



(cartoon courtesy QST)

WoFQW Des Moines is in the market for tape gear. Lyle has been on 1-f over a year.

(Continued from page 3)

TM11-2239 Telegraph-Telephone Terminal AN/TCC-14. (Telegraph terminal TH-5/TG--see ARTS 29 ARTT 4054 for theory and schematic; filter assembly F-98/U--see ARTS 29 for theory and description)

McElroy Automatic Transmitter XTR-442-B (1944) (Keys in response to Wheatstone perforated tape.)

ARTS and W2EBZ have moved. Note the new QTH: 443 W 47 St New York 19. Now it's your turn to remember a new QTH. Ye editor has been busy keeping files up to date when subscribers jump around.

PS: When you write, PLEASE give your call sign. We still don't have a complete cross-file of last names, cities, nicknames, calls, and allergies. So give your call and make our job easier.

W2ZKV Felix is taking a vacation to Cuba. He expects to talk to several amateur groups and hopes to get RTTY started down in Cuba.

No. 43. Bulletin of the Amateur Radioteletype Society, Sept 1956
Published at 443 West 47 St, New York 19 for all radio amateurs interested in radioprinter, radiophoto, and automatic radioteletypegraphy. Subscription rate: \$3.00 for twelve issues.

ARTS 43-8

PUBLIC DEMONSTRATIONS OF AMATEUR RADIOTELETYPE

RTTY DOES NOT NEED TO BE "SHOVED DOWN THE THROAT" OF RADIO AMATEURS. AS A MATTER OF FACT A RECENT CHECKBACK SHOWED THAT MOST OF THE MEMBERS WHO HAD INITIALLY BEEN "HIGH-PRESSURED" INTO THIS BRANCH OF THE AMATEUR RADIO HOBBY WERE THE FIRST TO DROP OUT. THE FASCINATION OF CONTROLLING A DISTANT MACHINE IN ITS EVERY MOTION MUST COME UPON US WITHOUT PROMPTING. WE WHO ARE ALREADY "SOLD" ON THE IDEA NEED ONLY PRESENT THE FACTS TO AN AUDIENCE OF RADIO AMATEURS AND WE WILL IMMEDIATELY FIND AN ENTHUSIASTIC GROUP WHO CANNOT BE RESTRAINED FROM ENTERING RTTY. THE BALANCE OF OUR AUDIENCE WILL EITHER BE BORED SILLY OR JUST MILDLY INTERESTED.

THERE WERE THOSE, BACK IN 1946, WHO WANTED TO KEEP HAM RTTY EXCLUSIVE, A PLAYTHING OF A PRIVILEGED FEW, WITH NO "PROPAGANDIZING" OR "CAMPAIGNING" FOR NEW MEMBERS. IT IS A SAFE BET THAT MOST OF THE PRIVILEGES WE ENJOY TODAY WOULD NOT HAVE BEEN AVAILABLE TO US IF WE HAD FOLLOWED THIS COURSE. AS IN ALL OTHER FORMS OF AMATEUR RADIO, OUR ENJOYMENT INCREASES IN PROPORTION TO THE NUMBER OF SIMILARLY-INTERESTED AMATEURS WE CAN WORK.

THE FIRST TWO AMATEUR TELEPRINTERS WERE WIRED UP IN IDENTICAL INSTALLATIONS IN 1946 BY W2BFD AND ONE OF THE SETS, COMPLETE WITH RTTY CONVERTER AND RADIO TRANSMITTING AND RECEIVING UNITS, WAS DISPLAYED IN OPERATION AT VARIOUS RADIO CLUB MEETINGS IN THE W2 AREA. PROGRESS IN RECRUITING NEW "MUX" MEN WAS DISCOURAGINGLY SLOW. FOR THE MOST PART RADIO AMATEURS ADOPTED A "TONGUE-IN-CHEEK" ATTITUDE AND W2BFD SOON FOUND THAT INVITATIONS TO LECTURE ON RTTY WERE ONLY RECEIVED WHEN THE CLUB WAS DESPERATE FOR A SPEAKER. A POLITE WAY OF SUGGESTING THAT A MAN WAS MENTALLY DERANGED WAS TO REFER TO HIM AS A "RADIOTYPIST". DESPITE ALL THIS, HISTORY OF THE SOCIETY SHOWS THAT, SLOWLY BUT SURELY, WE DID GAIN A FEW CONVERTS AT EACH LECTURE, A COLLECTION OF HARDIER (THOUGH NOT NECESSARILY WISER!) SOULS, WHOSE PREOCCUPATION WITH THE "IRON HORSES" MADE THEM IMMUNE TO THE JIBES OF THEIR FELLOW AMATEURS.

THE HARDEST PART OF THE BATTLE IS WHEN YOU ARE THE ONLY AMATEUR IN YOUR AREA INTERESTED IN PRINTER OPERATION. YOU HAVE TO STAGE YOUR DEMONSTRATIONS SINGLE-HANDED AND ALL OF THE RESPONSIBILITY FOR PLANNING FALLS UPON YOUR SHOULDERS. IF YOU ARE CONTEMPLATING A LECTURE OR DEMONSTRATION AT A LOCAL CLUB MEETING YOU CAN GENERALLY COUNT ON THE CLUB "FATHERS" TO GIVE YOU A HAND WITH THE PHYSICAL "CHORES" OF MOVING HEAVY EQUIPMENT AND MAKING PRELIMINARY TESTS. SOME OF THEM WILL EVEN PROVIDE PRINTED LITERATURE AT THEIR EXPENSE, WITH YOU FURNISHING THE COPY. IT IS ADVISABLE TO TALK OVER, IN ADVANCE, JUST WHAT AID YOU MAY EXPECT FROM THE "COMMITTEE" IN STAGING YOUR EXHIBIT.

THE FIRST THOUGHT THAT OCCURS IS TO HAVE A COMPLETE RADIO SETUP IN OPERATION, RELYING ON RADIO SIGNALS, TUNED IN AT RANDOM, FROM RTTY STATIONS IN QSO. UNLESS THE DISTANT STATION TRANSMITS BY PREARRANGEMENT YOU ARE LIKELY TO BE EMBARRASSED BY NOT FINDING A SATISFACTORY SIGNAL AT THE RIGHT MOMENT. EVEN WHEN THIS IS DONE A CHANGE OF PROPAGATION CONDITIONS MAY UPSET YOUR PLANS. A VERY ATTRACTIVE DEMONSTRATION CAN BE MADE BY TUNING IN A HIGH-SPEED COMMERCIAL NEWS-HANDLING STATION SUCH AS THE EUROPEAN TERMINALS OF THE A.P. AND U.P. NETWORKS. THE FACT THAT YOU ARE RECEIVING THE NEWS BEFORE IT ARRIVES AT THE DESK OF AMERICAN EDITORS IS A POINT WORTH MENTIONING.

THE VERY BEST DEMONSTRATION, HOWEVER, IS A GOOD RECORDING OF HIGH-SPEED RADIOTELETYPE SIGNALS, PLAYED BACK TO YOUR RTTY CONVERTER WHILE A SPEAKER PERMITS THE SPECTATOR TO HEAR WHAT IS "MAKING THE WHEELS TURN". USE OF THIS SYSTEM ELIMINATES THE VAGARIES OF PROPAGATION COMPLETELY AND ALLOWS YOU TO PREPARE A "MESSAGE" FOR YOUR AUDIENCE. NOW, OF COURSE, THE "MESSAGE" COULD BE ON PERFORATED TAPE, AND IT IS RECOMMENDED THAT A PERFORATED TAPE INSTALLATION BE MADE IF TIME AND EQUIPMENT IS AVAILABLE, BUT IT WILL GENERALLY BE FOUND THAT A SOUND RECORDING WILL MAKE A MUCH MORE EFFECTIVE DISPLAY OF RECEIVING RTTY SIGNALS AND, FURTHERMORE, WILL NOT REQUIRE AN ATTENDANT TO LOAD TAPES CONTINUALLY. IT ALSO WILL ELIMINATE THE HAZZARD OF A SNAGGED AND TORN TAPE "LOUSING UP" YOUR EXHIBIT. THE CONVERTER EMPLOYED SHOULD BE OF THE AUDIO-FILTER VARIETY, PERMITTING FSK AND AFSK RECEPTION AND FACILITATING SOUND-RECORDED PLAYBACK OF RTTY

SIGNALS. IF AT ALL POSSIBLE AN AUTO-START "PANEL" SHOULD BE CHOSEN, SO THAT START AND STOP SIGNALS MAY BE RECORDED ON THE SOUND TAPE (OR WIRE) ALONG WITH THE PRINTER SIGNALS. THIS IS A "SHOW-STOPPER" AND ALWAYS IS THE REASON FOR AN EXCITED CROWD HANGING OVER THE PRINTER.

IF AN EXHIBIT IS BEING MADE AT A HOBBY SHOW OR SIMILAR FUNCTION, WHERE YOU MAY BE RUNNING THE RTTY BOOTH SINGLE-HANDED, PLAN A SELF-OPERATING SETUP, CONSISTING OF A SHORT-WAVE RECEIVER WITH THE DIAL ILLUMINATED AND A CONCEALED SOUND RECORDER ACTUALLY FEEDING THE RTTY TERMINAL UNIT. THIS WILL OPERATE WITHOUT ATTENTION ON YOUR PART AND PERMIT YOU TO USE THE TIME THUS SAVED FOR CHATTING WITH SPECTATORS AND GIVING THEM THE PERSONAL STORY OF AMATEUR PRINTER OPERATION.

AVAILABLE FROM NATIONAL RTTY HEADQUARTERS (WRITE SECRETARY W2BFD) ARE HIGH-SPEED NEWS AND "PROPAGANDA" MESSAGES, RECORDED ON SOUND-TAPE AND WEBSTER-WIRE SPOOLS. THESE RECORDINGS ARE MADE FREE-OF-CHARGE FOR ANY MEMBER, OR GROUP OF MEMBERS, PLANNING TO STAGE AN RTTY EXHIBIT OR DELIVER A LECTURE ON AMATEUR RADIOTELETYPE. IF TIME IS AVAILABLE FORWARD TO THE SECRETARY THE REQUIRED NUMBER OF SPOOLS OF TAPE OR WIRE AND MENTION THE SPEED OF PLAYBACK IN THE CASE OF TAPE (3-3/4 I.P.S. OR 7-1/2 I.P.S.). STANDARD-FREQUENCY PHONOGRAPH DISKS ARE ALSO AVAILABLE, CONTAINING TELETYPE MESSAGES, BUT ARE NOT RECOMMENDED FOR THE CONTINUOUS TYPE OF SERVICE THAT MAY BE REQUIRED AND, ALSO, THE LENGTH OF MESSAGE IS TOO LIMITED. IF SUFFICIENT TIME IS NOT AVAILABLE THE COST OF TAPE OR WIRE SPOOLS MAY BE SENT TO RTTY HEADQUARTERS AND THEY WILL BE PURCHASED LOCALLY AND RECORDED FOR YOU. IF SPECIAL MESSAGES ARE DESIRED, INSERTED WITH THE REGULAR "PROPAGANDA", COPY SHOULD BE FURNISHED AT THE SAME TIME.

REMEMBER NOT TO "PLAY-UP" ANY SPECIFIC MODEL OF TELEPRINTER SINCE, IF THE AVAILABILITY PICTURE CHANGES (AS IT ALWAYS DOES), YOU MAY HAVE ACTUALLY PERFORMED A DISSERVICE TO AMATEUR RTTY BY SUGGESTING A TYPE OF MACHINE NOT, AT THAT TIME, BEING RELEASED. EXHIBITS FEATURING SUCH "LUXURY" ITEMS AS MODEL 28 AND MODEL 100 PRINTERS ARE DUBIOUS IN THEIR WORTH SINCE THEY ARE NOT TO BE HAD BY THE AVERAGE AMATEUR. THE PRESENT STRUCTURE OF HAM RTTY SHOWS A COUPLE OF THOUSAND AMATEURS WITH MODEL 12 EQUIPMENT, SEVERAL HUNDRED WITH MODEL 24 AND 26, SEVERAL SCORE WITH MODEL 100 AND ONLY A COUPLE OF DOZEN WITH MODEL 15. A SUDDEN RUSH FOR A LESS-COMMON STYLE OF MACHINE HAS ONLY THE INEVITABLE RESULT OF A LONG "WAITING LIST" AND EVENTUAL GRUMBLING BECAUSE OF THE DELAYS. A MUCH BETTER PLAN IS TO URGE PROSPECTIVE MEMBERS TO ACQUIRE THOSE MODELS EASIEST AND QUICKEST TO OBTAIN. THEN, AFTER LEARNING THE INTRICACIES OF THIS NEW FIELD, THEY CAN PASS THE MACHINE ALONG TO ANOTHER NEWCOMER AND GRADUATE TO ANOTHER MACHINE.

FROM SAD EXPERIENCE, GAINED AT SEVERAL CONVENTIONS AND LARGE PUBLIC DISPLAYS, ONE OF THE THINGS THAT SHOULD NOT BE DONE IS TO ALLOW THE GENERAL PUBLIC TO COME IN AND TYPE ON THE KEYBOARD IF THERE IS ONLY ONE PRINTER INSTALLATION AVAILABLE. THE SLOW AND PAINFUL TYPING THAT GENERALLY ENSUES, AND THE AWKWARD AND IMPROPER OPERATION OF THE MACHINE, QUICKLY BORES THE AUDIENCE AND THEY DRIFT AWAY. IF A GOOD DEAL OF EQUIPMENT IS INSTALLED A "TIE-LINE" CIRCUIT CAN BE RIGGED UP WITH A COUPLE OR MORE SETS OF PRINTERS AVAILABLE FOR PUBLIC TRIAL.

IN THE CASE OF LARGE DEMONSTRATIONS AND NATIONAL CONVENTIONS, WHERE THE WORK IS PERFORMED AND EQUIPMENT SUPPLIED BY A LARGE COOPERATIVE GROUP, A TRAFFIC CENTER MAY BE ESTABLISHED AND MESSAGES HANDLED. IN THIS CASE THE TRAFFIC SHOULD BE PERFORATED IN TAPE BY AN OPERATOR WHO IS SKILLED. AMONG RADIO AMATEURS MAY BE FOUND MANY WHO ARE EMPLOYED BY COMMUNICATIONS COMPANIES FOR TAPE-PUNCHING. EVEN IF THESE AMATEURS ARE NOT, THEMSELVES, INTERESTED IN HAM RTTY THEY MAY FREQUENTLY BE INDUCED TO DO THE TAPE-POKING FOR YOUR "SHOW". BECAUSE OF THE SHORT "LIFE" OF SUCH CONVENTIONS IT IS RARELY WORTH THE FUSS TO SET UP TRANSCONTINENTAL TRAFFIC SCHEDULES TO GET RID OF THE MESSAGES. IT HAS BEEN FOUND FAR MORE EFFECTIVE TO PIPE THE SIGNALS BY VHF (PREFERABLY) TO THE SHACKS OF REGULAR TRAFFIC-HANDLING AMATEURS IN THE VICINITY. CW AMATEURS WILL GENERALLY COOPERATE IN THIS DEAL IF YOU MAKE A NEAT INSTALLATION OF A PRINTER ON HIS PREMISES. THE MESSAGES ARE TORN OFF THE PRINTER AND DISPATCHED, VIA CW, TO THAT PART OF THE COUNTRY THEY ARE ADDRESSED TO. THE CW OPERATOR SOMETIMES BECOMES "INDOCTRINATED" IN RTTY BY THIS ARRANGEMENT!

DURING THE FIRST SUCH NATIONAL CONVENTION IN WHICH RTTY PLAYED AN IMPORTANT PART (THE 1949 ARRL HUDSON DIVISION CONVENTION IN NEW YORK) A VHF "REPEATER" RELAY LINK WAS ESTABLISHED WITH WIAW IN HARTFORD, CONNECTICUT. THE HUNDREDS OF MESSAGES WERE TRANSMITTED FROM PERFORATED TAPE ON 2 METERS AND RELAYED AUTOMATICALLY BY "REPEATER" STATIONS PLACED EVERY 50 MILES OR SO. A PRETTY YL (W3PUD) SAT IN AT THE KEYBOARD PERFORATOR. BEING A CRACKER-JACK COMMERCIAL TELETYPE OPERATOR THE TAPE WAS PUNCHED AT AN IMPRESSIVE SPEED AND WITH GREAT ACCURACY. EXHIBITORS AT SUCH SHOWS NORMALLY ARE RESTRICTED TO ONE LOCATION IN A BOOTH. A PRECEDENT WAS ESTABLISHED AT THAT CONVENTION, FOLLOWED IN MOST OF OUR LATER SHOWS, OF SCATTERING TONS OF TELETYPE MACHINES AROUND THE CONVENTION AT STRATEGIC LOCATIONS AND IN OTHER EXHIBITORS' BOOTHS. A JACK PANEL AT THE RTTY BOOTH PERMITTED THE SCATTERED PRINTERS TO BE CONNECTED TO THE MESSAGE CIRCUIT OR THE SEVERAL "PROPAGANDA" CIRCUITS. THE "PROPAGANDA" CIRCUITS WERE FED FROM A SOUND RECORDER AND TELETYPE TERMINAL UNIT AND GAVE FREE "ADVERTISEMENT" TO THE VARIOUS EXHIBITORS IN WHOSE BOOTHS THE MACHINES WERE LOCATED. A MACHINE WAS ALSO SITUATED OUTSIDE THE TICKET-ENTRANCE TO THE SHOW WITH A PRINTED RUNNING-COMMENTARY ON THE ATTRACTIONS TO BE FOUND WITHIN, TO INDUCE "HOLDOUTS" TO COME IN. FREQUENT MENTION WAS PRINTED ON THE MACHINES INVITING THE SPECTATORS TO TEAR OFF THE "COPY" AND TAKE IT WITH THEM.

IN SEVERAL OF THE CONVENTIONS A DEAL WAS MADE WITH OTHER AGENCIES EXHIBITING RTTY, SUCH AS MARS AND THE NAVY, TO TIE THEIR CIRCUITS IN WITH THE AMATEUR LINES SO THAT "PROPAGANDA" FOR BOTH SERVICES COULD BE DISPLAYED ON ALL THE MACHINES. IN THIS WAY, AT A LARGE SHOW, THE SPECTATOR IS FACED WITH RTTY NO MATTER WHERE HE TURNS. IN ONE OF THE CONVENTIONS A MARS DEMONSTRATION OF RTTY COMMUNICATION FROM AN AIRPLANE IN FLIGHT WAS PIPED OVER OUR AMATEUR FACILITIES ALSO.

IT CANNOT BE TOO STRONGLY URGED THAT THE RTTY GROUP SHOULD HAVE A DEFINITE AGREEMENT WITH THE CONVENTION COMMITTEE IN WRITING. SUCH THINGS AS FREE BOOTH SPACE OR, IF THE BOOTH IS "DONATED" BY A COMMERCIAL EXHIBITOR, HOW MUCH OF HIS ADVERTISING YOU WILL BE OBLIGED TO DISPLAY. IF THE COMMITTEE PROMISES MENTION OF RTTY IN THEIR PROMOTION THEY SHOULD BE REQUIRED TO FURNISH A DEFINITE STATEMENT OF THE EXTENT OF "MENTION" YOUR GROUP GETS. IF YOU ARE TO DELIVER A LECTURE AT A RADIO CLUB MEETING IT IS WISE TO KNOW IN ADVANCE TO WHAT EXTENT YOU CAN DEPEND ON ASSISTANCE WITH THE "FETCH AND CARRY". IN CASES OF EXTREMELY LARGE VOLUMES OF MESSAGE TRAFFIC (THOUSANDS OF MESSAGES) IT IS PERFECTLY ALL RIGHT IF THE CONVENTION COMMITTEE, OR THE EXHIBITOR "DONATING" THE BOOTH, PAYS TO HAVE A NON-AMATEUR COMMERCIAL OPERATOR POKE TAPE FOR YOUR INSTALLATION, PROVIDED THAT A LICENSED AMATEUR PUTS THE SIGNAL ON THE AIR.

ADDITIONAL "SHOW-STOPPERS" CAN BE THOUGHT UP. ONE OF THE CONVENTIONS, IN WHICH OUR MEMBERS STAGED A SHOW, HAD A MOBILE RTTY INSTALLATION IN A STATION-WAGON CALLING IN FROM VARIOUS LOCATIONS FROM TIME-TO-TIME AND "PATCHED" INTO THE PRINTER CIRCUIT IN THE CONVENTION HALL. IF FACSIMILE GEAR IS ON HAND IT CAN BE SHOWN QUITE EFFECTIVELY THE "KINSHIP" BETWEEN "FAX" AND "TTY". A DIAGRAM OR PHOTO CAN BE TRANSMITTED BY RADIO-PHOTO AND A WRITTEN DESCRIPTION MAY PRECEDE OR FOLLOW ON THE TELEPRINTER. TELETYPE "ART" WORK MAY BE TRANSMITTED OVER THE PRINTER. (TELETYPE "ART" WORK IS THE BUILDING UP OF PICTURES ON A PAGE PRINTER OUT OF LETTERS, FIGURES OR PUNCTUATION). DEMONSTRATIONS OF THE VARIOUS SPECIALIZED GADGETS, DESIGNED FOR USE WITH PRINTERS, SUCH AS MORSE-TO-TTY AND TTY-TO-MORSE CONVERTERS, ETC. MAY BE DISPLAYED. VARIOUS TYPES OF TELETYPE TERMINAL UNITS CAN BE DISPLAYED ALSO, BUT CARE SHOULD BE EXERCISED OR PROSPECTIVE MEMBERS MAY BE FRIGHTENED OFF BY THE "COMPLICATION" PRESENTED. A "SIMPLEST-POSSIBLE" CONVERTER SHOULD BE ON EXHIBIT TO SHOW THAT RTTY IS NOT NECESSARILY COMPLEX.

IT SHOULD BE NOTED THAT THE NATIONAL ORGANIZATION, AMATEUR RADIOTELETYPE SOCIETY, DOES NOT STAGE OR PARTICIPATE IN THESE VARIOUS CONVENTIONS, EXHIBITS, SHOWS OR DINNERS, BUT ACTS, RATHER, IN AN ADVISORY CAPACITY. SHOWS, LECTURES AND RTTY DINNERS ARE RIGHTFULLY GIVEN BY THE LOCAL OR REGIONAL GROUP OF THE AREA. IF THERE IS NO LOCAL OR STATEWIDE GROUP IN THAT LOCALITY IT MAY BE THE UNDERTAKING OF A COOPERATIVE GROUP OF AMATEURS WISHING TO PUT THEIR STATE OR REGION ON THE RTTY MAP. MORAL (AND ACTUAL) ASSISTANCE CAN BE HAD FROM THE NATIONAL SOCIETY BY WRITING HEADQUARTERS AT 38-06 61ST STREET, WOODSIDE 77, N.Y. THE SOCIETY WILL ALSO FURNISH "GIVE-AWAY" LITERATURE IF ADVISED IN SUFFICIENT TIME.



Amateur Radio- Teletype Society

4 4 3 WEST 47 STREET

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FORM 3547 REQUESTED

(Continued from page 11)

A GREAT OBLIGATION RESTS ON THE SHOULDERS OF THE SPONSORS OF SUCH SHOWS OR AFFAIRS. THIS IS THE OBLIGATION TO SEE THAT YOUR RTTY HEAD-QUARTERS IS ADVISED IN AMPLE TIME, AHEAD OF THE ACTUAL FUNCTION, SO THAT MENTION OF IT MAY BE MADE IN THE ARTS BULLETIN. MANY NEWCOMERS OF RECENT YEARS TO OUR RANKS HAVE NOT REALIZED THE EFFORTS MADE IN THEIR BEHALF, SINCE 1946, TO PAVE THE WAY FOR THEIR ENTRANCE INTO OUR MUTUAL HOBBY. IT IS NOT UNCOMMON IN THESE CASES TO SEE MENTION MADE IN LOCAL BULLETINS AND "DOPE" SHEETS, WITH THE SOCIETY GETTING LATE SECOND-HAND INFORMATION. MOST AMATEURS ARE APPRECIATIVE THAT AMATEUR RTTY WAS MADE POSSIBLE FOR THEM ONLY THROUGH THE UNREMITTING LABORS OF THE "FOUNDING FATHERS" OF THE SOCIETY, BUT DO NOT REALIZE THEY IT IS NOT A ONE-WAY DEAL. YOU NEED THE SOCIETY AND THE SOCIETY NEEDS YOU. DURING THE EXHIBIT OR CONVENTION PROFESSIONAL PHOTOGRAPHS SHOULD BE TAKEN AND GLOSSY 8 X 10 ENLARGEMENTS SHOULD BE PROMPTLY SENT TO HEADQUARTERS. ON A SEPARATE SHEET OF PAPER A "READING-FROM-LEFT-TO-RIGHT" DESCRIPTION OF WHO AND WHAT IS IN THE PICTURE SHOULD BE FURNISHED. DO NOT WRITE ON EITHER THE FRONT OR BACK OF THE PHOTOGRAPH. INTERESTING PICTURES WILL BE PUBLISHED IN THE NATIONAL BULLETIN WITH PROPER CREDITS.

ARTS 43-12