

FIRST CLASS MAIL
Amateur Radio-
Teletype Society

4 4 3 WEST 4 7 STREET
NEW YORK 36, N Y

FORM 3547 REQUESTED

Charles Obert W1VIY
47 Morris Ave.
Trumbull, Conn.



IMPORTANT NOTICE TO OUR MEMBERS
BATCH OF TELETYPE MACHINES AWAITING PICKUP IN NEW YORK

It has not been practical, until the present, for the Society to maintain a "stock" of printers for "off-the-shelf" service for members. For amateurs at considerable distance from headquarters our best method is still to arrange for shipment direct from the communications company. Strictly for the convenience of those of our members who would like to pick up their machines in New York and save on the transportation and packing, we have made arrangements to have a considerable number of Model 26 machines delivered to the Society's headquarters at 38-06 61st Street Woodside 77, N. Y. and stored for us at a local Long Island warehouse. These machines, coming from a nearby source, can be had for \$70 each, uncrated, available at once to any bona-fide radio amateurs. Contact our Secretary, W2BFD, at the above address in Woodside, N.Y.

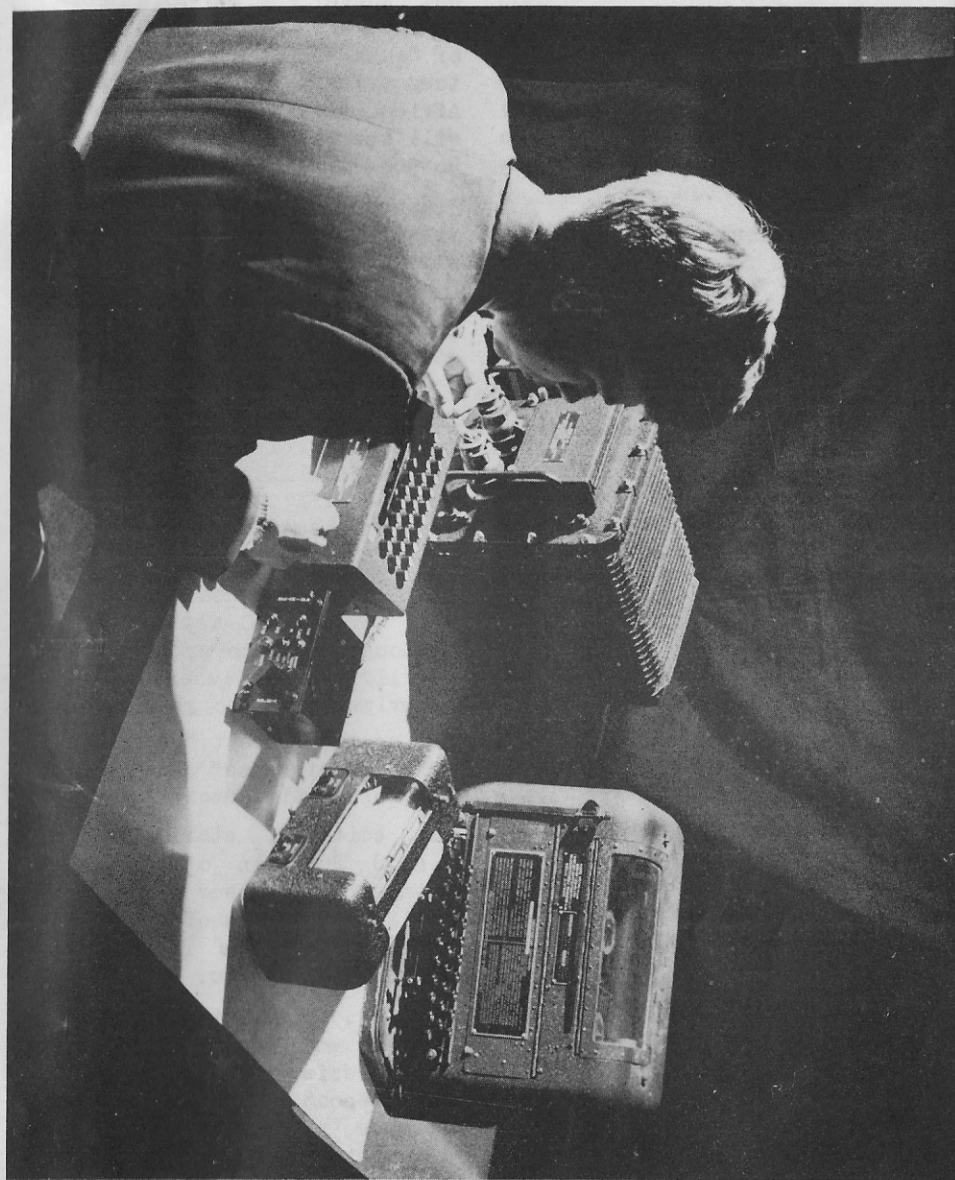
K2WAI K2WAI DE NSS FB OM SORRY YOUR XMTR IS ON FRITZ OUT THERE WHO IS ON CQT THIS EVENING??? YOUR SIGNAL IS FINE W1NAI W1NAI DE NSS SORRY I HAD YOUR CALL WRONG BEFORE WE READ YOU FINE AND THANKS FOR NICE REPORT...WE HAVE RHOMIBCS POINTED WEST AND AM SURPRISED THE SIGNAL IS AS GOOD UP YOUR WAY AS IT IS...BACK TO AUGUSTA ME K1NAI K1NAI DE NSS PSE USE BUG I WILL COPY YOU HI

K2HHJ K2HHJ K2HHJ DE NSS NSS GOOD EVENING OM. SIGNALS VERY WEAK HERE AND LOTS OF GARBLE WILL TRY TO COPY YOU...

W6AEE W6AEE W6AEE DE NSS NSS MERRILL YOU NOW BEING BURIED UNDER FOREIGN QRM PSE QSY SEC W6AEE DE NSS NSS K

W6WIX W6WIS DE NSS DO I HAVE CALL RIGHT OM BK BK BK ITS KEN ISNT IT? YOU OLD SON OF A GUN I THOUGHT CALL SOUNDED FAMILIAR W6WIS W6WIS IN SAN FRANCISCO DE NSS

W6FDJ W6FDJ W6FDJ DE NSS NSS GOOD EVENING OM AND THANK YOU FOR THE CALL YES WE CAN READ YOU BUT UP WHERE BOB IS IS A BETTER PLACE IN THE BAND THO BETTER NOT TAKE TIME NOW TO QSY HI W6FDJ DE NSS



47

ARTS

LOSS OF 11 METERS IMMINENT

DOCKET 11994

Amateurs should file comments on the FCC proposal to delete the frequencies 26 960 - 27 230 kc from the amateur service before JUNE 10, 1957 with the FCC in Washington.

Amateurs should file comments on this FCC proposal with their member of the ARRL Board of Directors at once so that the Board may take appropriate action at the May 16-18 Meeting of the Board in Hartford, Conn.

An FCC proposal on about 6 Apr to implement the FCC order of Sept 19, 1956 (split channels) proposes to reallocate the band 26.96 - 27.23 mc from the Amateur Service to the Citizens Radio Service, retaining the Industrial, Scientific, and Medical (ISM) frequency of 27.12.

Note that this is the only amateur band below 30 mc open to A2, A4, and A0 emission. Deletion of these 270 kc from the amateur service would hamper development of the radio art by removing these types of emission from a band suitable for skip propagation.

The Telecommunication Convention (Atlantic City, 1947) Radio Regulations Chapter III, Article 5, par 171 provides "The frequency 27 120 kc/s is designated for industrial, scientific and medical purposes. Emissions must be confined within the limits of $\pm 0.6\%$ of that frequency. Radiocommunication services operating within those limits must accept any harmful interference that may be experienced from the operation of industrial, scientific and medical equipment."

ARTS 47-2

Par 172: "In Region 2" (North and South America), in "Australia, New Zealand, the Union of South Africa and the territory under mandate of Southwest Africa, the amateur service will operate within the band 26 960 - 27 230 kc/s"

Inasmuch as international radio treaty provides for amateur service in this band;

And for "scientific" use of this band, and many amateur activities may be classified as scientific;

And as full development of the radio art will be advanced by the availability to the amateur service of A0, A2, and A4 emission on a band below 30 mc;

And as the average amateur station on this band is probably under 100 watts power, although more power should be legally available where amateur experimentation so requires;

And as the present "subject to ISM interference" arrangement has been satisfactory;

The editorial staff of the ARTS Bulletin opposes any change in amateur frequency assignment, types of emission, or power for the frequencies 26 960 - 27 230 kc.

However, if the Citizens Radio Service can accept the "harmful interference" that may be experienced from the amateur service, as well as from the ISM service as proposed, we see no objection to the sharing of these frequencies with the Citizens Radio Service.

New bases for 215 or 255A relays, postpaid, \$1.29

Felix Esteban, W2ZKV
84-24 57th Av, Elmhurst 73, NY

ONERAHI, NEW ZEALAND

I have just returned from a "quick" tour of Auckland City. As usual, I had a very, very FB stay... I fulfilled an appointment with the Senior Telegraph Engineer at the Auckland GPO... I had the privilege of visiting the USS Curtiss which was in port returning from Antarctica. I toured the CAA Teletype receiving station at Musick Point as well, being shown the "ropes" by one of the technical staff. Some 18 months ago they received my initial FSK signals, when I first started out on amateur RTTY.

I then met acquaintances at the Teletype terminal of Mechanics Bay, Auckland, and was invited to "assist" one of the TT techs to service 10 Model 15's. We travelled 40 miles in the CAA service van to accomplish this. Mostly the machines were at Whenuapai Airport, used by Met, RNZAF, TEAK, ATC, PAA, and NAC Airlines. This was very interesting...

I made my appointment, and was quickly ushered into the teletype (Creed) maintenance and repair workshop. They all showed immense interest in the 1-A tape head which John, 2BFD so kindly sent me. One fellow, an old hand, had not seen its likeness for over 20 years, but most had never previously seen one! The "old-timer" was very taken with it, and showed me how "we used to adjust them." He even did just that for me.

I was shown thru the big room, where I saw much, ancient and modern, in the way of Creed equipment. I examined the complex device which converts 2-condition Teletype to 3-condition cable code, for despatch thru the world-wide cable circuits...

Prior to this, I undertook to drop into see an amateur in Papakura, 20 miles south of Auckland, who I understood to be a "suspect" for RTTY enthusiasm. He was very glad to see me, and learn from me a little about RTTY. I have sent him spare dope about it, which I have here. He intends to photograph articles out of my publications, too! He is Ron Sykes, ZL1 AHO of Papakura, a very knowledgeable, and clever fellow...

Currently I am on 7140 with FSK, and I am monitoring each of the amateur bands RTTY-wise. I am very anxious to partake in the next RTTY SS scheduled for this weekend (March 1-3). It should be extra good this time. I had a spot of contact bounce plus RF trouble with my MAB during the last one, but reception was very good indeed.

---Bruce ZL1WB

SECURITY OF COMMUNICATIONS

The FCC is notified of all points that are authorized to copy AP radioteletype transmissions. Only regular AP members and subscribers have this authorization, and transmission schedules are furnished only to these subscribers.

Schedules and frequencies are not fixed, and change from month to month. At the present (March) frequencies generally are between 18 and 24 mc during the day, and down to 10 mc at night.

--Hal Carlson, Ch Engineer, AP

Is there a RED corner on the back cover? If so, your subscription is expiring. Send \$3 to renew for 12 issues

ARTS 47-3

KLEINSCHMIDT 46-LB RTTY SYSTEM

(cover photo)

Kleinschmidt Laboratories, Inc has developed an airborne RTTY system for the Air Force that weighs 46 pounds, for long-range transports and long-range bombers such as the B52. The system is being tested at the Communication and Navigation Laboratory, Wright Air Development Center.

The system is compatible with conventional equipment operating at 60 wpm.

The 4 units of the system are shown on the cover. The Teletypewriter TT-4/TG (upper left) is shown for size comparison. The TT-4/TG is also made by Kleinschmidt.

The printer uses a hammer and a 1½-inch diameter typewheel. Pressure-sensitive roll paper is required. The four units of the system are the printer, control box, keyboard, and terminal unit. The largest unit, the TU, is 10-3/8x10-1/8x17 inches. The control box provides for receiving, keyboard sending, keyboard to storage, and sending from storage. Messages up to 600 words can be stored in a magnetic storage unit and transmitted later. A selective call system is being tested.

RTTY has been used in aircraft for about 15 years, but the bulk and weight of early sets prevented use except in large aircraft. Kleinschmidt's new system, constructed in 4 units, allows flexibility in installations.

215A relays, roll paper for 14 and 400 tape printers.

W2ZKV, Elmhurst, N Y

ARTS 47-4

3RD ANNUAL IRE-RTTY DINNER

Attendance at the third annual dinner in New York on 18 March 1957 was 47 as follows:

W1ATN Tom Howard
Boston 1, Mass
Alltronics-Howard Co

W1BGW Jack Berman
Dorchester 21, Mass
NCS East Coast RTTY Net

W1EVZ James W. King
Holyoke, Mass.

W1OUG Gordon Stanys
Stamford, Conn
National Broadcasting Co

W1RBF Kenneth Payne
Plainville, Conn
General Electric Co

W1WEW Horace "Ranny" Ransom
Newton Center 59, Mass

W1ZXA/K2SKK

W2AKE Andrew Stavros
South Ozone Park 20, N Y
Kollsman Precision Instruments

AF2ANB John Longley LtCol AFR
Slingerlands, N Y

W2AVI William H. Kunzler
Ozone Park, N Y

W2BDI Edward S. Clammer
Merchantville, N J

K2CSC Charles "Bud" Rogers Jr
Bould Brook, N J

K2CSI Joe Wright
Yonkers, N Y
Ward Leonard Electric Co

Clayton Cool W2EBZ
New York 36, N Y
McGraw-Hill Book Co

W2GHH Kern M. Bowyer
Bronxville, N Y

K2HHH George Vivian
Westfield, N J

RCA Tube Division

(continued on page 7)

ALL TELEGRAPH PRINTER EQUIPMENT AND ACCESSORIES SECURED THROUGH THE SOCIETY ARE PURCHASED IN ADVANCE WITH OUR MEMBERS' MONEY FROM THE VARIOUS MAJOR COMMUNICATIONS COMPANIES WITH WHICH PROCUREMENT CONTRACTS ARE HAD. THE ACTUAL SALE OF EQUIPMENT IS MADE BY THE INDIVIDUAL COMPANIES, YOUR SOCIETY SELLS NOTHING. PLEASE NOTE!:- CONTRARY TO THE BELIEFS OF SOME NEW-COMER MEMBERS, UNFAMILIAR WITH OUR OPERATIONS, THE SOCIETY DOES NOT STOCK EQUIPMENT, ALTHOUGH A CONSIDERABLE QUANTITY OF REPLACEMENT PARTS ARE MAINTAINED, SOLELY AS A COURTESY TO OUR MEMBERS, AT HEADQUARTERS.

THE NEWS BUREAUS, RAILROADS AND TELEGRAPH AGENCIES ALL VARY IN THE EXACT METHOD OF RELEASE OF THE SEMI-PRECIOUS TTY GEAR BUT THE FOLLOWING IS THE GENERAL RULE:- INDIVIDUAL ITEMS OF EQUIPMENT ARE GENERALLY SHIPPED DIRECTLY TO THE AMATEUR PURCHASER FROM THE WIRE COMPANY. DELIVERY IS COMMONLY WITHIN SEVERAL WEEKS, WITH THE DELAY MOSTLY DUE TO RED TAPE OF THE "CHAIN-OF-COMMAND" SORT (LETTERS FROM ARTS-VHFTS GO TO THE HEADQUARTERS OF THE COMPANY AND THEN GO TO VARIOUS DEPARTMENTS UNTIL IT FINALLY WINDS UP IN THE DISTRICT OFFICE, FROM WHERE IT IS FINALLY DISPATCHED, IN THE FORM OF A SHIPPING ORDER, TO THE PARTICULAR WAREHOUSE LIBERATING THE MATERIAL). GROUPS OF MATERIAL OFFERED TO THE SOCIETY ARE HELD UNTIL THE SOCIETY HAS FORWARDED THE TOTAL PAYMENT AND THEN SHIPPED. THIS RESULTS IN A DELAY FOR THOSE MEMBERS WHO WERE PROMPT AND WHO RESPONDED TO THE SOCIETY'S BULLETINS BY SENDING THEIR MONEY RIGHT ALONG. THE BATCH DOES NOT GET SHIPPED UNTIL THE LAST "STRAGGLER" HAS SUMMONED UP COURAGE TO SEND IN HIS MONEY ORDER. WE, OF COURSE, DO NOT HAVE TO WAIT. WE COULD TAKE HALF OF A LOT. THE CONSEQUENCE OF DOING THIS WOULD BE THAT THE WIRE COMPANY WOULD DESTROY THE UNPURCHASED BALANCE TO UNUSABLE CONDITION, AS TRADITIONAL POLICY, AND DISPOSE OF IT AS SCRAP METAL.

SOMETIMES THE RELEASE TAKES PLACE FROM A WAREHOUSE, INSTEAD OF A NEWS-BUREAU OR OTHER TELEGRAPH OFFICE. WHEN THIS IS THE CASE THE EQUIPMENT MAY BE A "HODGE-PODGE" OF SEPARATE KEYBOARDS, TYPING UNITS, COVERS, TABLES, TAPE TRANSMITTERS, ETC. UNDER THESE CIRCUMSTANCES THE SOCIETY MUST DO THE SORTING AND SHIPPING, SINCE A MEMBER MAY GET A KEYBOARD FROM BOSTON AND A TYPING UNIT FROM DETROIT, WITH HIS TABLE COMING FROM SOMEPLACE ELSE. THESE ASSORTED BATCHES ARE SHIPPED TO THE SOCIETY'S HEADQUARTERS IN WOODSIDE, N.Y. WHERE AN ARRANGEMENT IS HAD WITH A LONG ISLAND PACKING AND STORAGE COMPANY TO PICK UP THE APPARATUS AT THE LOCAL FREIGHT YARD BY TRUCK AND UNCRATE AT THE WAREHOUSE. TAGS PREPARED IN ADVANCE WITH ADDRESSES ARE THEN ATTACHED TO THE PROPER ITEMS AND THE COMMERCIAL PACKER REBOXES AND RESHIPS BY INSURED RAILWAY EXPRESS AGENCY.

ANOTHER CAUSE OF DELAY IS THE MAILING OF REQUESTS AND PAYMENT TO THE BUSY OFFICES OF THE PUBLISHER OF OUR A.R.T.S. BULLETIN, INSTEAD OF DIRECTLY TO THE HEADQUARTERS OF THE SOCIETY AT 38-06 61ST STREET, WOODSIDE, N.Y. THIS NECESSITATES REMAILING AND REHANDLING. A WEEK OR MORE MIGHT BE LOST THIS WAY IF THE MAILBAG IS HEAVY AT THE EDITORIAL OFFICE. ALL MAIL RELATING TO THE SECURING OF EQUIPMENT THROUGH THE SOCIETY MUST BE DIRECTED TO THE WOODSIDE HEADQUARTERS, ALSO LETTERS ASKING TECHNICAL QUESTIONS ABOUT PRINTERS AND RADIOTELETYPE MATTERS. SUBSCRIPTIONS, RENEWALS AND MATERIAL FOR PUBLICATION IN THE BULLETIN CAN BE SENT DIRECT TO THE BULLETIN OFFICES OR, IF TIME IS NOT AN ELEMENT, MAY BE INCLUDED WITH LETTERS WHICH, BY THEIR NATURE, MUST GO TO RTTY HEADQUARTERS.

THERE IS AN ODD, BUT VERY HUMAN, TENDENCY TO MAKE NO MENTION OF SATISFACTORY SITUATIONS BUT TO SCREAM VERY LOUDLY WHEN THINGS DO NOT GO WELL. THOSE AMATEURS, OF THE HUNDREDS YEARLY EQUIPPED GRATIS BY THE SOCIETY, WHO GET PROMPT DELIVERY INVARIABLY FORGET TO MENTION IT IN THEIR LETTERS OR OVER THE AIR TO OTHERS. ON THE OTHER HAND THE SMALL PERCENTAGE WHO ARE UNFORTUNATE AND ARE FORCED TO WAIT ARE VERY LOUD IN THEIR DENUNCIATION. PLEASE UNDERSTAND, FELLERS, THAT YOU ARE DEFINITELY NOT DEALING WITH A MAIL-ORDER HOUSE BUT, RATHER, WITH A GROUP OF AMATEURS LIKE YOURSELF WHO VOLUNTARILY DONUTE THEIR TIME FOR YOU WITHOUT THE SLIGHTEST COMPENSATION FOR THE MANY HOURS WEEKLY THAT THIS INVOLVES. NOTE THAT IT IS NOT THE PRACTICE OF THE SOCIETY TO MAIL ACKNOWLEDGEMENTS TO REQUESTS AND PAYMENTS FOR EQUIPMENT, OTHER THAN TO MAIL EITHER A BLANK "WAIVER" FORM (IN CASE ONE IS NOT ON FILE) OR A COPY OF THIS FORM LETTER. IMPATIENT MEMBERS ARE URGED TO PURCHASE THEIR GEAR COMMERCIALY (WHICH ALSO MEANS AT 3 TO 4 TIMES THE COST OF SECURING IT THROUGH THE SOCIETY). ONLY COMPLETE COOPERATION ON YOUR PART MAKES THE AT-COST METHOD POSSIBLE.

RTTY CONTEST RULES de WoBP

Contests need rules to keep competition. The rules were printed a long time ago in RTTY but recently some misunderstandings have crept in. From my central location (W9BP and WoBP) I have participated in several RTTY sweepstakes, working up from 7th to 3rd place, and generally observing operation from both coasts.

Several ideas below on contest rules are submitted for discussion. Some of these have been taken for granted.

1. Stations shall be legally licensed and operated. Except for required code or voice identification, all contest messages shall be by RTTY. Crossband operation is not permitted. Calling on more than one band at the same time presumes more than one operator and scoring will not be competitive with single operator stations.

2. Messages shall consist of a message number, originating station call, check or RST report of 2 or 3 numbers, ARRL Section of originator, local time (0000-2400 preferred), date, and band used (meters or megacycles).

3. Scoring will be one point for a message sent and acknowledged entirely by RTTY, and one point for a message received and acknowledged by RTTY. Relaying or repeating by a third station disqualifies the message. The message points multiplied by the number of ARRL Section computes the final score. Two stations may exchange messages again on a different band for added message points, but the section multiplier does not increase when the same section is worked

on another band. ARRL Sections are listed in QST (usually on page 6) covering Canada, USA, and some possessions. Each Foreign country not included as a section but regarded by ARRL for DXCC credit is treated as a new section for RTTY multiplier credit.

4. Entries to a contest must be mailed within 15 days of its close, and must contain a tabulation of complete message data required by paragraph 2, both for messages sent and received. It should clearly indicate each new section worked, total section multiplier, total message points, computed score claimed, and a signed statement of compliance with contest rules. At the suggestion of any amateur or contest judge, the judges may request the original printer copy from any contestant. (It is interpreted as record message communication within the meaning of FCC rule 12.136(h) and to be retained for one year.

5. Certificates of award will be issued to the highest scoring station in any state in which there are 3 or more contestants. An exception may be made where home-state or home country competition is not available, provided the contestant requests the award, and has operated at least one-quarter of the contest time, and his score is above the lowest one-fourth of the contestants. The decisions of the judges are final.

6. Contest hours may change from time to time. Currently they are:

Start: 2100 EST Friday (0200 GMT Saturday)

End: 0300 EST Sunday (0800 GMT)

7. As the contest near Feb. 20 commemorates the anniversary of amateur FSK, only F1 emission will be used and on bands between 3.5 and 30 Mc. In the November contest A1, A2, F1, or F2 emission may be used in any bands permitted by government regulations. The judges will consider any contacts above 30 Mc as AFSK unless the contestant otherwise states. Separate lists will be published or other designation made of stations augmenting their score by nearby VHF or UHF contacts.

Please submit comments on these suggested rules to Boyd Phelps WoBP, 4232 Scott Terrace, Minneapolis 16, Minn.

KC4 LITTLE AMERICA RTTY DX

At last some of the frozen RTTY gear WAY down under will be placed on the amateur bands. KC4USV McMurdo Sound and KC4USA Little America are making an RTTY sked with W2KCR in Syracuse, N Y, using 14,030 or 14,350 kc and 850 c shift.

Because of space and weight, TT gear could not be taken on the expedition specifically for amateur use. Now, as another expression of the Navy's long and continued cooperation with the amateur service, ham RTTY skeds are being tested. Let's hope that this circuit proves efficient for handling the load of hamgrams from the expedition.

12-POUND TELEPRINTER DEVELOPED

Teleprinter Corp, Hackensack, N J announces the development of a 12-lb teleprinter. The unit, called the Mite, is 5x11 x11 inches and operates at standard speeds up to 100 wpm. Primarily developed for WU,

the armed services are also interested in the unit. The Mite is far less costly than standard machines. WU will lend \$200,000 to Teleprinter to help defray costs of testing and pre-production.

EXPIRATION NOTICE

If the back cover of this bulletin has a red corner, your subscription expires with number 47, 48, or 49. Please excuse us from being specific on the exact issue, but to save office labor, we are only checking the list every third issue at the present. So, if you see a red corner on the back page, send \$3 to renew your subscription for 12 issues.

DINNER from page 4

W2IRT Anthony Landry
Yonkers, N Y
CBS-TV

W2JAV Phillip Catona
Hammonton, N J

W2JTP Byron Kretzman
Erco Radio Laboratories
Huntington Station, N Y

W2KDW Donald S. Scher
Irvington, N J
RCA Tube Division

W2KFM

W2MIB Harry "Doc" Evans
Elmont, N Y

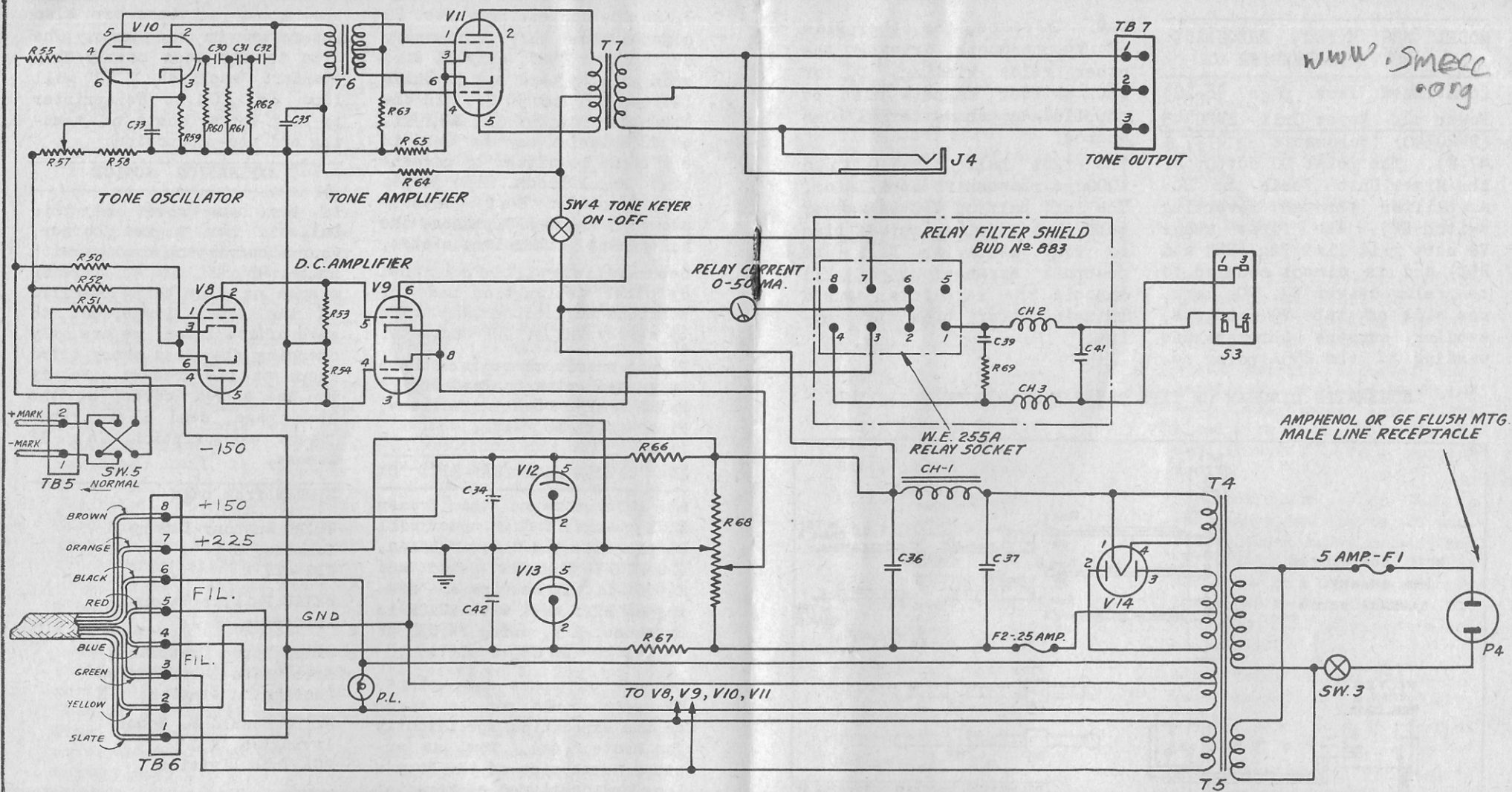
W2NSD/K2PMM Wayne Green
Brooklyn 30, N Y
CQ Magazine

K2OBJ/W4ZC Stuart Davis
Union, N J
Potter Aeronautical Corp

W2PAU E. Miles Brown
Westmont, N J
RCA-Victor

(Continued on page 11)

www.smeccl.org



RESISTORS

- R50 500K OHMS 1WATT
- R51 500K " "
- R52 1000 " "
- R53 120K " "
- R54 120K " "
- R55 500K " "
- R57 5000 OHMS POT.
- R58 50K OHMS 1WATT
- R59 1.2K " "
- R60 500K " "
- R61 500K " "
- R62 500K " "
- R63 150K " "
- R64 50K " "
- R65 300 " "
- R66 2500 20 WATTS
- R67 10000 20 WATTS
- R68 25000 80 WATTS
- R69 1000 1WATT CARBON

CONDENSERS

- C30 .0001 MFD. MICA
- C31 .0001 MFD. MICA
- C32 .0001 MFD. MICA
- C33 .1 MFD. 600 VOLTS
- C34 .25 MFD. 600 VOLTS
- C35 8 MFD. 450 VOLTS.
- C36 4 MFD. 600 VOLTS DYKANOL A
- C37 4 MFD. 600 VOLTS DYKANOL A
- C39 .1 MFD. 600 VOLTS
- C41 .01 MFD. MICA
- C42 .25 MFD. 600 VOLTS.

VACUUM TUBES

- V8 65N7GT
- V9 6N7
- V10 65L7GT
- V11 65N7GT
- V12 VR150-30
- V13 VR150-30
- V14 5Z3

MISCELLANEOUS

- 53 JONES SOCKET
- T4 POWER TRANSFORMER KENYON 244
- T5 HEATER TRANS. THORDARSON T19F81
- T6 TONE OSC. OUTPUT TRANS. KENYON T104
- T7 TONE AMP. OUTPUT TRANS. THORD. T61526 OR KENYON T105
- CH1 KENYON T175 CHOKE
- CH2 NATIONAL R100 RF CHOKE
- CH3 NATIONAL R100 RF CHOKE
- PL 6.3 VOLT PILOT LIGHT
- J4 SINGLE CIRCUIT JACK
- SW3 & 4 TOGGLE SWITCH SP5T
- SW5 TOGGLE SWITCH DPDT
- RELAY AND SOCKET W.E. 255A

Power and Keyer Unit

RW20345 (RW20340)

Part of Model FRS (FSC)
Frequency Shift
Converter

MODEL FRS (FSC) FREQUENCY
SHIFT CONVERTER

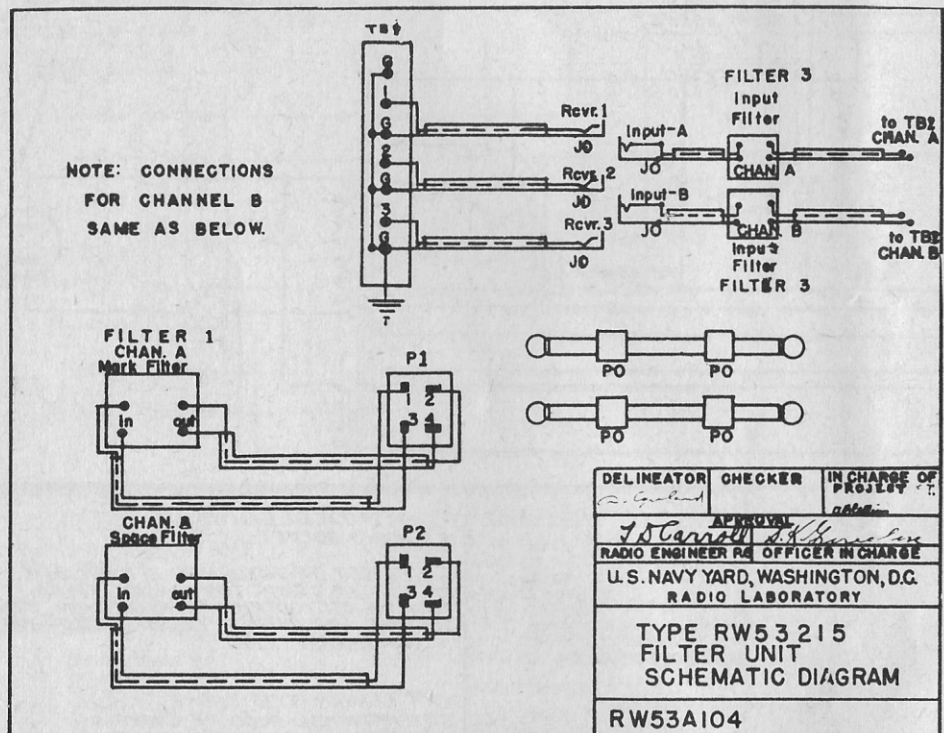
(continued from page 46-10)

Power and Keyer Unit RW20345 (RW20340) (Schematic pp 47-7 & 47-8). The polar DC output of the Mixer Unit feeds the DC amplifier through reversing switch SW5. The first stage V8 uses grid limiting (R50 and R51) and is direct coupled to the relay driver V9. On mark, one side of tube V9 conducts, sending current through one winding of the 255A polar re-

lay. On space, the other side of V9 conducts, driving the other relay winding. DC for the printer magnets must be supplied by an external 60ma source.

The right half of V10 is a 1000cps phaseshift oscillator. The left half of V10 is a keyer tube that supplies cutoff bias to tone amplifier V11. The pushpull arrangement of V11 cancels the keyclicks caused by using cutoff bias for keying.

SCHEMATIC DIAGRAM OF TYPE RW53215 FILTER UNIT



BULLETIN No. 47 of the AMATEUR RADIOTELETYPE SOCIETY. Published at 443 West 47 St, New York 36, N Y. Clay Cool, W2EBZ, Editor APRIL-MAY 1957. Subscription Rate: \$3.00 for 12 issues.

DINNER from page 7

W2PBG Robert J. Straub
Bayside 61, N Y

W2PEE Elston Swanson
Glen Head, N Y
Instruments for Industry, Inc

W2QGH/K2AVP William T. Knott
Larchmont, N Y

K2SKK/W1ZXA Paul B. Boivin Jr
Orange, N J/Central Falls, RI
RCA Tube Division

W2SMX John H. North
Farmingdale, N Y
Grummen Aircraft

W2SSS John J. Schueler
Buffalo 15, N Y

W2TAM Raymond De Vos
West Trenton, N J
State of New Jersey

W2TBD T. A. Stewart

W2UAE Donald G. Field
Trenton, N J

W2ZKV Felix Esteban
Elmhurst 73, N Y

A3NQA/W3NQA Dick Gilson

W3PLG Harry Rappaport
Sharon Hill (Philadelphia), Pa
Pennsylvania RR Co

W4EHU Don Wiggins
Gainesville, Fla

W4NYF Fred Schmidt
Fort Lauderdale, Fla

W5UHV Edward F. Aymond, Jr
Dallas 19, Texas
Edward F. Aymond Co

W6AEE Merrill Swan
Arcadia, Calif
Cannon Electric

W6BEX Don Davis

W6CQK John Pitts
Summit, N J
Bell Telephone

W6FDJ Roger Wixson
Oakland, Calif

W7NVV/K2V00 Arthur Brothers

W9NOE Dean Cortright
Union Thermoelectric
Chicago, Ill

Joe Brumbach
Union Thermoelectric
Chicago, Ill

Fritz Franke
The Hallicrafters Co
Chicago, Ill

Most of the above stopped at the shack of W2EBZ for cocktails before heading for the hotel for the dinner.

W6AEE Merrill reported that early results of the March 1-3 RTTY sweepstakes show W2RUI ahead with 35 to 40 sections, and Brownie W2PAU running second.

The west coast net on 3620 kc Wednesdays has 15 to 20 stations, the 2 meter Tuesday net on 147.850 has 30 to 50. The MARS net on 3265 kc Mondays has 46MSG as Net Control. The 6th Army MARS also has a net on 148.010.

A3NQA reported that 2nd Army MARS has a TT net near 5300kc.

AF2ANB John Longley reported on MARS TT activity.

W2QGH Bill Knott reported on CQ TT activity and plans.

W1BGW Jack reported that the east coast RTTY net has about 12 stations each Wednesday night on 3620 kc.

W2JTP Byron displayed his transistorized fork oscillator (See page 196, Feb 1 1957 ELECTRONICS magazine).

Bruce Z1LWB New Zealand sent his very best 73 to the RTTY dinner via amateur RTTY and WoBP Minneapolis.

Beep forwarded his proposed contest rules for discussion (see page 6).



ARMED FORCES DAY PROGRAM
18 MAY 1957

A radioteletypewriter (RATT) receiving competition will feature a special joint message from the Chief Signal Officer, U. S. Army; Director, Naval Communications; and the Director of Communications, U. S. Air Force. A letter of acknowledgment will be sent to each amateur participant who submits a copy made from the radioteletypewriter transmission of this message. Transmission will be at 60 words per minute on the following schedule:

Time: 2230EST 18 May 1957

(1930PST, or 190330Z)

Call and Frequency (kc):

WAR, Washington, D C	3347
NDC, Norfolk, Va	7375
AIR, Washington, D C	7915
NDS, Great Lakes, Ill	7375
NDF, New Orleans	7375
A5USA, Ft Sam Houston	5302.5
NDW2, Salt Lake City	7375
NDW, Treasure Island	7375
AF6AIR, Hamilton AFB	7832.5
A6USA, San Francisco	6997.5

Each transmission will commence with a period of ten minutes of test and station identification to permit amateurs to adjust their equipment. At the end of the test period, the message will be transmitted. It is not necessary to copy more than one station, and no extra credit will be given for so doing. The message should be submitted "as received." No attempt should be made to correct possible transmission

ARTS 47-12

errors. Copies should be mailed to

Armed Forces Day Contest
Room BE1000
The Pentagon
Washington 25, D C

Time, frequency and call sign of the station copied should be indicated as well as the name, call sign and address of the amateur or individual concerned.

MILITARY TO AMATEUR TEST:

Military station NSS Navy Radio Washington will be on the air from 181800Z to 190500Z on 18 May 1957 to contact and test with Amateur RTTY stations. Contacts will be discontinued from 190245Z to 190400Z to allow Armed Forces Day CW and RATT broadcast competitions.

(Operation will be from 1300 to 2145, and 2300 to 2400EST.)

NSS will operate RATT on 6970kc and will first tune 7000 to 7200 kc, then the 80 and 20 meter amateur RATT frequencies.

Contacts will consist of a brief exchange of location and signal report. No traffic handling or message exchange will be permitted. NSS will send a QSL card acknowledgment to each station worked.

For the 25 wpm CW receiving competition and the CW, AM, and SSB military to amateur test schedules, see May QST.

See ARTS 42-3 for the listing of the 35 stations QSOing NSS on Armed Forces Day 1956, and the 159 individuals copying the 1956 Broadcast message. On the following pages is an example of the 1956 QSO transmissions of NSS. This "tape off the floor" is of course condensed---The full NSS copy ran some 25 feet!!!

CQ CQ CQ CQ DE NSS NSS KKK NEAR 3620 KC DE NSS K K
CQ AMATEUR RADIO RADIO TELETYPE CONTACTS FROM NSS NSS
NAVAL RADIO STATION WASHINGTON D C . ANSWER ON EIGHTY METER
BAND NEAR 3620 KC

WILL WORK THE TWO " BOTH" OF YOU
WE ARE READING BOTH OF YOU FINE IN HERE. HAVE ONE CONVERTER UP ON MAC AND ONE UP ON PHIL SO MAC YOU TAKE IT FIRST. HOW WE SOUND OUT YOUR WAY?? W3FYZ WITH W2JAM DE NSS NSS KK

W3FYZ WITH W2JAM DE NSS FINE MAC AND GOOD AFTERNOON TO YOU.
PHIL HOW ARE OUR SIGNALS UP YOUR WAY??
W2JAV HAMMONTON NJ DE NSS NSS K K

....TO STATIONS CALLING NSS I HEAR A W3 AND A W 1 BUT YOU ARE BURYING EACH OTHER. PLEASE READ OUT AND TRY AGAIN....

W1EDI W1EDI DE NSS PLEASE TRY AGAIN ED
W1EDI W1EDI W1DDI W1BDI W1BDI WEST HARFORD CONN DE NSS I CAN JUST HEAR YOUR CARRIER AND COPY IS VERY POOR. WOULD APPRECIATE YOUR CALLING ME LATER THIS EVENING THANKS FOR CALL. WELL BE LOOKING FOR YOU LATER ON W1EDI DE NSS NSS

W3KYR I BELIEVE DE NSS TRY AGAIN FRED KKK
GOOD EVENING FRED THANK YOU FOR THE CALL. WELL SIGNALS ARENT TOO GOOD THIS EVENING. WE HAVE HEAVY STATIC CRASHES AND ... THANK YOU FOR THE CALL AND WE WILL BE LOOKING FOR YOU LATER ON FORTY METERS W3KYR ST MARYS PA DE NSS WASHINGTON DC KK

CQCQCQ CQ DE NSS NSS NSS WE WILL TUNE BOTH THE EIGHTY METER (NEAR 3620 KC) AND THE FORTY METER (NEAR 7140) BANDS AT THE SAME TIME SO IF YOU WANT TO, CALL US ON EITHER BAND. WHEN WE ARE RUNNING TAPE WE ARE ALSO LOOKING OVER BOTH BANDS FOR A CALL CQ CQ CQ DE NSS NSS

W1RBF DE NSS NSS GOOD EVENING I DONT KNOW IF WE CAN COPY YOU YET BUT WE CAN TRY SIGNALS ARENT VERY GOOD YET
W1RBF ON EIGHTY DE NSS NSS KKUP IN W1 LAND ARE NOT VERY GOOD YET KEN. HAVENT WORKED YOU SINCE YOUR LITTLE GIRL FELL DOWN THE STAIRS SO WILL SAY 73 AND PERHAPS SEE YOU ON 7140 KC W1RBF DE NSS NSS KK
W1RBF DE NSS NSS FINE KEN. THIS IS FRANK AND ZAC HERE
W3PYW AND W3FYZ SO WE WILL SEE YOU ON 7140 I HOPE

W2JAV ON FORTY DE NSS JUST A SEC PHIL FB PSE STAND BY BACK TO YOU
W2JAV DE NSS JUST A SEC PHIL AM CLOSING WITH W1RBF
SO KEN BACK TO YOU FOR A FINAL
W1RBF DE NSS NSS WITH W2JAV ON SIDE ON FORTY KKK
W2JAV W2JAV ON FORTY DE NSS NSS GOOD EVENING PHIL. YOU ARE OUR FIRST CONTACT ON FORTY HI SO LETS SEE HOW WE PRINT YOU ON FORTY
W2JAV W2JAV DE NSS NSS KK

W2JAV W2BDI W2BDI W2JAV W2JAV W2BDI DE NSS NSS GOOD EVENING PHIL AND ED. THANK YOU FOR THE CALL. LETS HAVE ONE AT A TIME HI
PHIL, YOU TAKE IT W2JAV W2JAVE WITH W1BDI W1BDI DE NSS NSS NSS KK

W2JAV W2JAV WITH W2BDI DE NSS NSS FINE COPY HERE. FINE SIGNALS YOU ARE OUR FIRST CONTACT ON FORTY KIDDO WELL ED THE CLAM WHAT SAY YOU OUT THERE?? W2BDI DE NSS NSS NSS KK

.... YESX, YOUR SIGNALS ARE MUCH BETTER ON FORTY. I HEAR W1AW ON EIGHTY SURE HOPE HE WILL WORK US SO 73 FOR NOW AND CUL ON EIGHTY W1BDI WEST HARTFORD DE NSS NSS

W1BGW W1BGW W1BGW BOSTON DE NSS NSS GOOD EVENING OM SIGNAS FROM YOU FELLOWS UP BOSTON AREA ARE VY FINE ON FORTY BUT POOR HERE ON EIGHTY SO GIVE US A SHOUT ON FORTY IF YOU HAVE TIME

W2KYN W2KYN NEW YORK DE NSS NSS YOUR SIGNALS GOOD BUT NOT SO LOUD SO WHAT SAY CLAY???

W2RTW W2RTW DE NSS JOHN HOW YOU READNGUS NOW? 22RTW ELMIRA DE NSS

ARTS 47-13

W2PBG W2PBG DE NSS NSS FINE BOB . WE HAD TWO OF YOU ON THERE WHEN YOU FIRST CAME BACK BUT SHE THINNED OUT

VE3BAD VE3BAD VE3BAD TORONTO DE NSS NSS GOOD EVENING AND THANK YOU FOR THE CALL YOUR SIGNALS ARE PRINTING PERFECTLY IN SASHINGTON SO BACK TO YOU. HANDLE HERE IS FRANK VE3BAD TORONTO DE NSS NSS KK

W1FC&X W1FGL W1FGL BELMONT DE NSS NSS GOOD EVENING AND ITS GOOD TO HEAR FROM YOU ... HAW ARE YOU READING US??? 21)/// W1FGL DE NSS W1FGL W1FGL BELMONT FINE AL. COPY ABOUT 85 TO 90 PERCENT. BAND SEEMS A BIT STRANGE THIS EVENING. OCCASIONALLY YOU COME UP GOOD AND LOUD AND THEN YOU FADE DOWN HI WELL WE HEAR W1WCG I THINK IN THERE SO WE WONT HOLD YOU AL THANKS AGAIN FOR THE QSO

W1WCG I THINK DE NSS NSS KKK
W1WCG W1WCG W1WCG DE NSS NSS NSS GOOD EVENING OM THANK YOU FOR THE CALL YOUR SIGNALS ARE NOT COPYING VERY WELL IN HERE. WE ARE HVING QUITE A BIT OF QRM HERE FROM A NEARBY THUNDERSTORM BUT WE WILL TRY TO PULL YOU IN... SO BACK TO YOU FOR A FINAL W1WCG DE NSS NSS KK

W8DVL W8DVL PARMA DE NSS ARE YOU READING US RUSS??? KKK
W8DVL W8DVL W8DVL PARMA (NEAR CLEVELAND) DE NSS NSS GOOD EVENING RUSS AND THANK YOU FOR THE CALL. YOU ARE THE FIST W8 THAT HAS CALLED US THIS EVENING. ITS NICE TO HAR FROM YOU . COPY HERE IS VERY FINE SO WE WILL NOT HOLD IT W8DVL PARMA DE NSS KK W8DVL DE NSS FINE RUSS THIS IS FRANK W3PYW HERE UE XX 73 AND GE FELLOWS WE ARE GOING TO PUT ON A RHOMBIC NOW LOOKING WEST SO PLEASE STAND BY ABOUT FIVE MINUTES

W2VLL W2VLL DE NSS FINE DAVE AND WE WILL LOOK FOR YOU ON FSK ON FORTY IF YOU CAN GET ON 7140 HANDLE HERE IS FRANK... I THINK YOU ARE A PAL OF ROYS W2TKO ARENT YOU??? WELL WE WONT HOLD YOU AND THANKS AGAIN FOR THE CALL W2VLL NIAGARA FALLS DE NSS NSS 73 GE

W1BGW DE NSS FINE JACK. GEE, YOU MISSED OUT ON DE WOIKDS----
WELL WE ARE GOING TO PUT A RHOMBIC LOOKING WEST ON THE RECEIVER NOW AND SEE IF WE CAN DRAG IN A FEW OF THOSE WEST COAST BUZZARDS SO CUL JACK AND THANKS W1BGW DE NSS

CQ CQ CQ DE NSS WE ARE LOOKING ON 7140 AND 14144 FOR CALLS KKKKK

WOBP WOBP WOBP WOBP WOBP DE NSS NSS GOOD EVENING BEEP THANKS FOR THE CALL YOUR SIGNALS PRINTING FINE. YOU ARE THE FIRST W ZERO WE HAVE WORKED THIS EVENING. WE HAVE A RHOMBIC ON THE THREE KW RIG NOW BUT IT ISNT HELPED YOU VERY MUCH -- IT S POINTED WEST HI I HAVENT TUNED YOU IN REAL WELL WOULD YOU GIVE US A SHORT RY AND THEN FIRE AWAY. SO HERE SHE COMES WOBP WOBP WOBP WOBP DE NSS NSS KKK ... MOSTLY SOLID BEEP. WE ARE SURE GLAD TO WORK YOU. HAVE YOU HEARD AN W6S CALLING US YET??? YOU ARE FARHEST WEST I HAVE HEARD... WELL WILL KEEP LISTENING ON 7140 AND SEE WHO I CAN RAKE IN. THANKS AGAINT FOR THE CALL AND WE WILL SEE YOU LATER ON 3620 EH??? WOBP MINNEAPOLIS DE NSS NSS SK 73

W9TCJ/9 W9TCJ /9 DE NSS NSS NSS HEY BOB '' FINE BOB YOU ARE PRINTING LIKE A LOCAL HOW GOES ???K OUR TRANSMITTERS ARE LONG WAY FROM HERE. OUR THREE KW... HOW LONG HAVE YOU BEEN HEARING US OUT THERE ??? WE HAVE A RHOMBIC UP NOW POINTED WEST... WE PUT UP A RHOMBIC ON TRANSMITTER AT EIGHT PM OUR TIME THAT IS SIX CST DID YOU START HEARING US ABOUT THAT TIME???? THE RHOMBIC POINTS WEST... HAVE WORKED NINETEEN NOT GOOD CAUSE SOME OF EM ARE TWICE AND GUESS TOTAL NUMBER DIFF STNS ABOUT DOZEN HI... WELL YOU WANT TO QSY TO LR 14 MC??? YOU PICK HOLE NEAR 14144 AND ILL TUNE W9TCJ DE NSS... FINE BOB JUST CHATTING WITH A FRIEND HERE IN SHACK HI WE WILL TUNE FOR YOU NOW NEAR 14144 WE WILL TUNE FOR YOU NOW BAND SEEMS CLEAN NEAR 14144 W9TCJ DE NSS AM LOOKING FOR YOU NEAR 14144 BOB KKK I HAVE NOT HEARD YOU YET BOB WHO IS CALLING NESS??? TRY AGAIN NEAR 14144 ((((((KKKKK

W1FGL W9TCJ X0 DE NSS NSS FINE AL. AND BOB I HEAR YOU ON FORTY GUESS TWENTY IS NO DERN GUD JUST A SEC BOB AND ILL GET AL EH???

W1FGL W1FGL DE NSS NSS KKK AL
YEST YEST I COPY YOU BOB YEP ... I HEARD SOME VERY WEAK SIGNAL ON TWENTY BUT IT WAS NOT YOU BOB.... AL I AM COPYING BOB WHILE I AM SENDING . HE HAS ONE PRINTER FOR SENDING AND ONE FOR RECEIING GO AHEAD BOB I WILL READ COPY IN A SEC GO AHEAD. AL, SURE DO THANK YOU FOR THE CALL. GEE YOU SHOULD GET TWO ANTENNAS UP SO YOU CAN WORK FULL DUPLEX... BOB IS SENEING AWAY LIKE MAD NOW HI I WILL BE LISTENING ON 80 LATER ON AL AND WILL TRY YOU UP THERE. BET SIGNALS ARE FINE NOW. BOB IS WAITING LESSE WHAT HE ZEZ. NO BOB WE ARE NOT IN PENTAGON SEC SEE IF I CAN SAY...
WE ARE IN CHELTENHAM MARYLAND DONT THINK YOU WILL FIND IT ON A MAP--- ITS NEAR ANDREWS FIELD HI --- ((KKK XMTRS SOME OTHER PLACE WE ARE LOCATED WHERE RHOMBIC RECEIVING ANTENNAS ARE AND NOT WHERE TRANSMITTERS ARE TRANSMITTERS ARE AT ANNAPOLIS BOB... ANNAPOLIS NAVAL ACADEMY ABOUT THIRTY MILES THE FELLOWS SAY BOB I CAN JUST HEAR THE THREE KW XMTR WITH GAIN UP HI WHEN THEY PUT ON RHOMBIC REC ANTANNA SIG WENT WAY DOWN HI... YEP YES AND MORE ... YEST BEATS THE DERN SIGNING.. WELL BOB I HAD BETTER SIGN BACK TO POOR AL W1FGL AND WE WILL LOOK FOR YOU THIS EVENING FROM EIGHTY METERS AND WORK YOU FULL DUPLEX AGAIN W9TCJ/9 WITH W1FGL DE NSS NSS GE BOB AND SURE NICE TO WORK YOU SO AL BACK TO YOU TOO BAD YOU COULDNT HEAR BOBS END W1FGL DE NSS NSS KKK
W1FGL DE NSS NE NSS FINE AL WELL THANKS WE SURE MISS GETTING ON TOO BUT TOO MANY THINGS TO GET DONE... WELL WE WILL SEE WHO ELSE ON FORTY WOULD LIKE TO WORK US WILL SAY 73 NOW AND CUL AL XXW1 FGL DE NSS

W9NOW W9NOW DE NSS HI DEAN YOU COPYING US ON RTTY??? KKKK
W9NOW DE NSS YOU GOING TO STAY ON CW DEAN ??? KKK
W9NOW DE NSS FINE DEAN. WELL WE DO NOT MIND COPYING CW THATS OUR FIRST LOVE YOU RECALL SORRY YOU DIDNT HAVE TIM TO GET RIG UP ON RTTY BUT YOU SEEM TO BE COPYING US FB WE HAVE RHOMBIC UP ON BOTH TRANSMITTER AND RECEIVER NOW AND FORTY METER BAND IS FADING RAPIDLY GUESS WE WILL REALLY HAVE TO DIG FOR THOSE WEST COAST BOYS DERN IT WE HAVE BEEN HAVING QUITE A BALL HERE. NOT TOO MANY BOYS UP BUT LOGS OF FUN... WE WE HAD BETTER TUNE BAND. SO WONT HOLD YOU DEAN. PLEASE CALL ME WHEN YOU ARE NEXT IN TOWN W9NOW W9NOE DE NSS NSS KK ...NO WE DO NOT EXCHANGE MESSAGES JUST A SHODT QSO DEAN THAT IS ALL ...DONT KNOW DEAN. DONT GET TO CHICAGO OVTEN. THAT IS BOSSES PREFERENCE HI BETTER RUN NOW BE GOOD AND SURE GOOD TO HEAR FROM YOU KEEP EM GRINDING W9NOW W9NOE DE NSS KK

WOBP WOBP WOBP DE NSS GOOD EVENING BEEP
THUNDERSTORM STATIC HECK BUT
COPY ON YOU IS GOOD. YOU ON FULL DUPLEX NOW ?? WOBP DE NSS...
WELL I SEE IT WORKS DOESNT IT???

W8SWZ W8SWZ IF YOU WILL SEND SOME RYR YR WE WILL TUNE YOU WHILE WE WORK WOBP XX W8SWZ PLEASE GIVE US A CALL AND WE WILL TUNE YOU WHILE WE WORK WOBP FINE BEEP YOU OVERPRINTED SAY AGAIN BEEP ... YEST I HAVE THAT TROUBLE.... WOBP DE NSS YEST BEEP IF I AM NOT CAREFUL I WILL GO TO UPPER CASE ON YOU...
W8SWZ W8SWZ DE NSS JUST A SEC ON WE WILL GET YOU HAVE YOU TUNED IN OK BETTER SHOVE OFF BEEP ITS GETTING LATE AND FEW FELLOWS CALLING SO WILL SAY 73 FOR NOW FB BEEP W8SWZ W8SWZ DE NSS NSS KKK

W9GRW DE NSS GOOD EVENING RAY

W9VOK W9VOK DE NSS FINE BOB AND ITS NICE TO HAR FROM YOU

W9WMR W9WMR AURORA ILL DE NSS FINE AND THANKS FOR CALL....

W0FQR W0FQR DE NSS TRY AGAIN OM... W0FQR DES MOINES DE NSS FINE WELL WE APPRECIATE THE SIGNAL REPORT WE HAVE THREE KW UP ON A RHOMBIC POINTING WEST HI WURE HOPE WE CAN WORK MORE OF YOU MID WEST AND WESTERN BOYS WILL SAY 73 NOW SEE YOU LATER ON IF YOU GET UP ON 3620 LYLE W0FQR DES MOINES DE NSS NSS NSS GE 73