# MISE

RTTY

BUILD YOUR, HORSE FUTURE TRADES

WANTED: 1.2 or 2.1 kc Filter for collins TRADE: Model 28 complete for 51-J.4

75-A-2.

Trade 3.1 kc.

.W4SON/5 Box 223, Berwick, La.

W9GRW

WANTED: Model 26 or 15, also tape gear and TU

WANTED:

Model 26.

Three model 14 typing reperf,s and 8

.W1GWU/1, Box 254,

Marshfield, Mass.

W5HAJ

WANTED: Information on the

W6AEE

UT of

> W7KV WYKV W7KV

RTTY's location nw

FRA Terminal Unit Model 24 A tape head FOR SALE: Model 16 reperf

FRA terminal unit

SALE: Case for model 14 typing reperf and SALE: Toroids (88 mhys) 1.00 each FOR SALE:

Toroids for Terminal units

.W6CQK

W6KJ0

1-255 polar)

and

W7IWH

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WOATM W5TVG

TRADE: 0.5.FR for

model 14 perfs

# This page of the Bulletin is for use of amateurs who have RTTY EQUIPMENT FOR SALE OR TRADE and those looking ior examinent to buy or trade. It is a free service and may someone on the air the means of getting







NEWS OF **AMATEUR** RTTY

FEBRUARY, 1958 25 Cents Vol. 6, No. 2

## A "ZL" IN "W"-LAND

#### SECOND INSTALLMENT

(See RTTY, September 1957)

After stowing additional "surplus" apparatus, and restoring some semblance of order to the vandalised buildings, we spared no time in departing!

The following day found us at "4232" with "Beep" laboriously splashing aluminum paint over the two 20-foot tubular tower sections which I had minutes before "scratched over" with a wire brush, intended to remove rust. The next week, I accompanied "Beep" on a journey to Rochester. Station KWEB. Friday of that same week found me having a "Cooks tour" of the "Lew Bonn Company" radio supply store, in Minneapolis. WODKL, Benjamin Miller-I thank you for taking time out to show me through that establishment. Never before have I observed such an array of radio components, and apparatus! The 14th day of September was spent on the shore of Lake Minnetonka at the residence of Ed and Winnie Johnson. Ed treated his sister Lis, and myself to a delightful trip across the lake in his sleek "home brewed" craft, with a nice turn of speed. Only the lack of salt in the spray prevented me feeling "homesick" for the tidal Whangarei harbour, where my own craft has given like pleasure to others, and myself.

A visit from Bob, WOAUS, on Monday night found "the trio" engrossed in designs for narrow shift filters, over "home brewed" pottery noggins (made by Miss Johnson) filled with a mix of "Old Crow." It is not necessary to mention that by this time we had become a "quartet"! The effects must have lingered longer, for the next day I proceeded to "dispatch" the 833A from "Beeps" 80/40 metre rig; throw together an "engineering masterpiece (the "Eighth Wonder of the World"!) destined to become a socket for a 5762. Those who have cast a gaze upon this creation have never ceased to be amazed that such a monstrosity could ever have

been made to function! However, it must be stated, in fairness, and for the record, that the change resulted in a considerable reduction in RF output, accounting for an even weaker signal from WOBP! (No problem-at least, nothing that an increase in grid drive, and a four-fold increase in plate volts won't cure!) "Beep" was difficult" to live with for the next few days. so I was indeed thankful when Miss Lis Iohnson invited me to visit the Red Wing Pottery with herself and friends, Ruth and Gerry Nubeck! Come Friday, from all accounts the "air" around "4232" continued to hang "thick and heavy," so it is not surprising that I spent this day making a grand tour of the University of Minnesota. Miss Johnson was instrumental in providing for me a visit to the electrical engineering section, museum, and a "round" of the campus. Of immense interest was our "special" tour through the University Heart Hospital, under the guidance of Mrs. Foster, head of the volunteer division.

I was happy to attend a meeting of the Minneapolis Radio Club, and glad of the opportunity to speak before them of amateur radio, in New Zealand. September 25th, 1957, it was my privilege to accompany "Beep" to the inaugural gathering of what was to become the "Upper Mid-West Quarter Century Wireless Association. According to their records I spoke to them for an hour and fifteen minutes! Phew! I thank them all for the invitation, and intentive hearing which they extended to me.

It was in a "moment of weakness" that I "succumbed" to a suggestion from WO-BP that I dig a cavity into "mother earth" to provide foundations for the new tower project. Failure on the part of the "overseer" to observe the rapidity of progress, resulted in the neighbors becoming curious about what was causing earth to be

thrown up out of a hole in the ground! "Beep" believes to this day that I was digging my way back to New Zealand!!! By the time he was able to convince me that the hole was plenty deep enough, I was far below the surface! Indeed, "Beep" perhaps wishes I had stayed in there, when the account of around \$35 came in for the two yards of high-grade paving concrete that was needed to fill in around the seven feet of tower-section which was to become the base for the forty-foot tower!!!

"Old Man Keay," WOSJK, came over that night, and at midnite, with due solemnity, we three "inscribed" our "signs" into the fast-setting concrete.

The remainder of that week was spent doing the rounds of broadcasting stations at Hopkins, and Rochester with "BP." Then Friday "Old Man Keay" WOSJK treated me to a visit thru the Hennepin county sheriff's radio station, meeting the staff, and inspecting the base station of the "M. R. C.", including their mobil CD unit at Golden Valley. A brief stop at the 9th of WOSIK to meet Mrs. Keav, enjoy a "cuppa," and see the "shack" basement, and armoury! So ended a very pleasant week, until; in common with the multitudes at that time, "gloom" descended upon us with the announcement of the rusky satellite launching. We spent little time lamenting, and after the initial shock had departed, we hastily set about "repairing" the laboratory receivers, and setting them up to monitor both 2O and 4O MC/S. For many days, and nights, we recorded the signals, and sent data to Washington, and other interested parties. In the small hours of Thursday morning (October 10th) "Beep" and myself toured the facilities of KSTP-TV, which was particularly interesting to me.

On Friday, the new Johnson "Navigator" arrived, and we lost no time adding FSK to it, and putting it on the air!

The monthly meeting of the Twin City "Rats" was again held in the basement here, with a good attendance. This occasion I occupied three quarters of an hour of the program.

The arrival of an AN/SGC-1X on Wednesday took all our attention, and eventually we had it uncrated and ready to "carry" up the stairs to the shack! This was quite an achievement! Together, it was all that "Beep" and I could do to raise one end, so we proceeded to push it across the floor to the base of the stairs. The track we gouged into the floor is still plain to see!!! Navigating the stairs was no easy task, but we did succeed, and now the seven foot monster stands in the centre of the floor on the upper storey. "Beep" shrewdly delegated me to the job of modifying the power supply, and revamping the output relay circuitry. He doubted his wisdom in so doing after he had observed the variety of components, and many lengths of wire which I had withdrawn from the unit!!! But, in any event. it worked!

The weeks that followed brought many social gatherings-we had more fun than people! After I had been to see a wrestling match in the Minneapolis auditorium. "Beep" considered it an opportune time for us to "wrestle" with the new tower, so early next morning the construction gang arrived, and in minutes, the forty foot length of tower was pointing skywards, firmly bolted on top of the foundations. At this moment a power failure plunged this area into chaos; paralized the civil defense, and threw many broadcast and TV stations off the air. Fortunately, (thou many believe it so) our project was not this time responsible-it was an "act of God" which had overtaken the power station at Black Dog!

Followed more "parties and picnics" which I thoroughly enjoyed. "Beep" and I debated technicalities at great length, trying, and testing our "theories" on anyone and anything that came our way! Then it happened; winter, was it here? Some few inches of snow had fallen, and the temperature stood at 28 degrees above zero. For me, home was never like this!

Monday, November 11th was here. Time for another meeting of the "Rats." Bob, WOSV, demonstrated his "latest" (if not

APOLOGIES TO ORIGINAL T. O. M.

"lightest"!) gear-wheel tone standard. The following evening we had a pleasurable visit from "Cory," WOMB, and his wife, from Mobridge, South Dakota. We "chewed the RTTY-Rag" far into the small hours of the next morning! Rising early that morning, (a difficult achievement at any time!) I again visited the "U of M" with Miss Johnson. This occasion was immensely interesting for me, as I was able to "sit in" on three classes, one of which had almost as many students as the entire Whangarei boys secondary school which I attended in 1946! It was a wonderful experience! Later, I had a grand time with "Gordy, and the Gang" over in the "audio-visual" department.

The program for the weekend covered the assembly of a "five over five" two metre array. A heavy snowfall prevented its erection, so I spent time shovelling the sidewalks instead!

Wednesday, Nov. 20th, "Beep" and I attended a dinner at Esslingers of St. Paul; the second meeting of the "Upper Mid-West Q. C. W. A." A most interesting lecture was given on the "satellite program," by Mr. R. G. Dunsworth, of the local "moonwatch team." The gathering "wound up" a hilarious affair! Nevertheless I was up, and able, the next day to elevate the two-metre beam atop the new tower. My bare feet amongst the snow "flabbergasted" the entire neighborhood of Scott Terrace!

"Beep" scheduled a further trip to "Bellvacres" farm on the weekend, and fortunately for us the "Mossies" had long since gone into hibernation for the winter! Our main object was to prepare the idle machinery for the rigors of winter, and attempt to "turn over" the engine of the tractor which had "ceased up" some time ago. Our combined "brute force, and ignorance" failed to budge the mainshaftwe filled the bores with oil, and threatened to return "another" day!!!

Thanksgiving celebration was an unforgettable experience for me. That 24 lb. Turkey was extremely tasty!

The following week, "disaster" struck: "Ole Bp" became practically immobilised · (the "groans" indicating he could become no worse!) with a recurrent bout of lumbago. The "log' 'showed "negative hours" of RTTY operation. As fortune would have it however, a few days rest, and "tender care," found him active once more, and the weekend we both jaunted off to St. Peter where a round-the-clock spree found us on the way home again, happy in the knowledge that we had eliminated the problems of KRBI. More parties, more fun. "Beep" took me to the annual Christmas party of the Minneapolis Radio Club, which was a very happy and gay event, beftting this time of year.

A visit to see Ward Jensen, WOTLE, at "Electronic Centre," solved "Beeps" antenna problem-we returned home with a tri-band beam! We spent several days "reading" the instructions (expecially the fine print!) and proceeded to assemble the array. It took me three and a half hours to carry the finished structure up to the top of the 80-foot windmill tower, and attach it to the pipe on which it will some day rotate. Bitter coldness forced curtailment of this project, at which time I realized the beam was facing in the opposite direction to that which "Beep" required it! On Monday December 23rd, I was again able to "brave the elements" and attach one end of the 300 foot RG-8U to the driven element Z. The proximity of the longwire prevented turning the array, so we were again compelled to postpone the operation.

My first "white and wonderful" Christmas day was spent out at Minnetonka. I shall always remember this happy occa-

After a restful Christmas, "Beep" and I again tackled the antenna problem. We achieved the desired results by re-locating the long-wire. With the beam directed along the great circle path towards Okinawa, and KR6AK, it was lashed in position.

Later, in the evening, we had a short visit from Harold, WOLFI, and Sharon Cavers, assistant "RY" of Twin City "Rats." Over the weekend, "Beep" wired up a

T.O.M. answers a letter to his squirt nephew

Hi Son:

So you got yourself mixed up in that Fifth Anniversary Sweepstakes clambake!! I warned you that this was nothing for a self respecting ham with scruples or ethics.

I listened to the whole dern fracas myself and I'll eat this old torn cordurov shirt if that wasn't the worst mess of assorted noises that these tired old ears ever tuned in on. Jeepers!, the way some of those FSK'ers sounded-they could use a couple of quatrs of some of that new fangled cough syrup on their rigs. I never heard such wheezing and sputtering in all my time. I heard one of those Kay Sixes out there in the San Fernando Valley in California who sounded like he was trying to put FSK on an old Thor Washer.

I'll tell you one thing, Son, this SS Donnybrook did prove to me that CW and RTTY can get along with each other on the same band. During the count-down ahead of the contest the top 20 C of the fifteen meter band was loaded with CW fiends. After just 30 minutes of RTTY activity(?) the nearest CW was 50KC downwind except for a few unfortunates who were unlucky enough to be "rock-bound." As a deodorizer that FSK sure gets results!

I must say, Son, that you RTTY lads are sure ingenious. For example: take that WO that cut himself a tape with his SS message complete except for the number and time. He even included the signal report on the tape-a nice, neat, practical "RST 579." Of course that 579 report caused some of the high power hot shots to grumble a little but think what it did for the morale of the kid with the DX20!! After all. Son, reports are just a courtesy anyway-don't mean a thing. If you stick to 579 you won't make many enemies.

How about that W9 who kept insisting that he hated contests and didn't want any part of the Sweepstakes. He told this same jazz to six stations in 40 minutes (I timed him on my Big Ben). I heard he took top honors in the Non-contest class.

Noticed that some of the weaker sex showed up for the WingDing. I was sure ashamed to see a gang of hard bitten old Teletypers lining up to work those Shetypers. It was shameful, Son, - in fact it was so bad I had to wait forty minutes to get a conatct with that Gal in Alaska. It's a Man's World, Son, but not neces-

Heard ole Cas over there in Okinawa screaming for some attention but you fellers just wouldn't pay him any mind. Heard him try his muscles on such as W2IAV, W2RUI, W3PYW, WOBP, WOFGW, W6-MTI, W6NKP, W7LPM, and KL7ALZ in addition to yourself, Son. As a matter of fact he called you several times but you were too busy logging those big fat KW signals on the band. You should have looked over some of those weaker ones, Lad; remember some of the better things in life come in small packages. You remind me a little bit of the kid who knew he lost a quarter in the backyard but spent all morning looking for it in the front vard 'cause the grass was shorter there.

Well, good luck now and hope you have better luck in that narrow shift contest that's coming up soon-

UNCLE T. O. M.

PS: Please send me another of those used 852's you picked up at the thrift shop-I flattened mine calling KR6AK.

\_\_\_\_\_ ZL1WB -

set of narrow shift filter to "patch" into the AN/FGC-1X. I passed the time of day wiring in a vacuum tube keyer unit -our solution to key-clicks produced by the polar relay switching 60 MA. This was made to key the grid bias instead. The entire unit now functions very satisfactorily! New Year Eve "Beep" and I remained home, ushering in 1958 in typical fashion, bringing to a close a year which I shall long remember.

BRUCE, ZL1WB

## BEHIND THE GREEN KEYS

By DON WIGGINS, W4EHU

RTTY activity in Florida seems to be on the upswing! We had a short QSO with W4BOW, Bob in Miami Springs on 7140 recently. He is using a Viking II and putting out a nice signal. K4KKH, Chet is about ready to go with his KWS-1 from Fort Pierce. We know that a number of others have equipment and are working at getting on. Fellows, please drop me a line and let me know what you are doing. Perhaps others in your area will become bit by the bug! The MARS District 1 gang had a nice meeting recently at A4GVK's lake place near Keystone. EHU, EAS and GVK demonstrated RTTY operation and the use of tape perforators and transmitters and quite a bit of interest was evident. RTTY is an excellent idea for club and hamfest demonstrations for the boys who have never seen a printer in opera-

Teletype machines! We have had a number of inquiries about where to get printers There have been quite a few Model 26 machines scattered around the state and not many are in use. If you have a printer which you would like to sell or horse trade, please drop me a line and I may be able to put you in touch mith a customer. Let's get these machines in use! A newcomer would do well to subscribe to "RTTY," a publication of RTTY, INC., c/o Mr. Merrill Swan, W6AEE, 372 West Warren Way, Arcadia, Calif. This excellent society has distributed hundreds of machines to hams at a strictly cost basis, non-profit. You can depend on what Merrill tells you as he is one of these rare dedicated individuals who gives freely of his own time (and money) to help other has along. The society can probably advise where printers are available.

Watch out for a NYC society(?) who asks for deposits for equipment. Make sure they have something to ship before you part with the cash! Another reliable source of equipment is Felix Esteban, W2ZKV.

Felix reconditions Teletype gear and sells to hams as a part-time business. However, he is very reasonable and reliable.

#### TUNING TIPS . . .

Many hams setting up for RTTY for the first time are often puzzled why some strong signals print nicely while others garble. Usually, this is due to lack of a systematic tuning procedure. First, some type of tuning indicator is a necessity. Personally, I prefer a scope with X and Y inputs to the tuned filters. This gives a cross when properly tuned. If the filters are narrow or sharp, the cross will be quite sharp. Assuming that we have this type of indicator, let's run through a typical tuning procedure.

If we have a receiver with variable selectivity, set for about 1.5 kc bandwidth. Turn on a source of steady signal such as the VFO. Now with the BFO OFF, peak the S-meter on the signal. We now retune the VFO about ½ kc (500 cps) lower in frequency leaving the receiver dial set. The receiver BFO is then turned on and adjusted to about 2 kc from the signal or about 2.5 kc from the peak setting of the receievr. We must be sure that we are on the "far" side of the signal and not the "wrong" side which would be only 1.5 ke from the peak setting. Now with the terminal unit on, a slight adjustment of the BFO should bring in the line on the scope. This line is then the "SPACE" frequency. Remember, LS-MFT . . . Low Space Means Fine Teletyping. If the VFO is then tuned 850 cps higher in frequency, the cross line should appear and this is the "MARK" signal. If not, we goodef and had better start over! At this point we carefully mark the BFO setting and always leave it at this mark for RTTY reception. Subsequent tuning should then be done with the dial only.

Once this setting has been found, we should get in the habit of tuning in signals from one direction so that the BFO

is always on the same side. If the signal is tuned from the other direction, a cross will be obtained but the mark and space lines will be reversed! If we get our selectivity from a crystal filter, it should be on the broadest setting and the phasing adjusted to put the audio image in the notch. (See the ARRL handbook under "Crystal Filters"). This audio image causes RTTY a lot of trouble since a CW station about 4 to 5 kc away puts a signal right on mark or space, if the IF selectivity of the receiver is broad.

Apropos to the above is to mention tuning of the VFO to get on the same channel as the signal being received. Learn to tune from the same direction each time so that you don't end up as an "audio image" yourself! The other fellow won't hear you. . .

#### STATION OF THE MONTH . . .

W4EHU — Hey, wait a minute . . . that's me. Well, we do not have too much dope on other RTTY layouts in the state so we will modestly begin this feature with our own station anl hope you GKP'ers (green key punchers) will pass in your vital statistics.

W4EHU has a Model 26 printer working into a homebrew all-band exciter. Presently, the final is an 813 with about 300 watts input. An all band heterodyne exciter is under construction and will feature a crystal shift circuit. A modified BC 342 receiver is used mainly for RTTY and the terminal unit is a breadboard model (engineering terminology for haywire) which is in process of being rebuilt into finished form. Tape gear consists of a keyboard perforator for making tapes, a WU reperforator which makes tapes "off the air" and a tape transmitter - distributor which sends tape signals. The 80 meter antenna is an inverted vee doublet with a vertical ground plane for 40. Best DX on RTTY is VE7 and about half the states have been worked. The next addition will be autostart . . . watch for some dope on this next month.

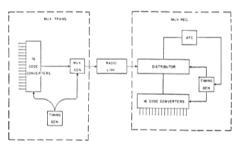
W4EHU 1415 NE 8th St. Gainesville, Fla. Dear Finders-Keepers: Thanks for past favors, I have a problem that I hope you can help me with. I have two brothers. One brother is a Ham operator. The other was just sentenced to the electric chair for murder. Several relatives have died from insanity. My father sells narcotics. My sisters are always in trouble. Recently I met a girl who was just released from a reformatory where she served time on six different counts, and I want to marry her. My problem is this:—Should I tell her about my brother who is a Ham operator?—L. Q. Slopoth

(Stolen from Florida Skip one dark night.)

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### TTY Terminal System

The Rixon MUX-16 (AN/TCC-35) is a 16-channel teletypewriter time-division multiplex unit. The equipment handles standard 7.42 unit teletypewriter codes at 60, 75 or 100 words-per-minute. All information circuits make exclusive use of transistor and magnetic memory core circuits ... Fig. 3 shows an extremely simplified multi-



plex Transmitter and Receiver connected by a radio link. A single binary connection, via the radio equipment, must carry the necessary multiplex intelligence as well as all synchronizing information. The multiplex equipment receives input intelligence at teletypewriter speed already in binary form on each of its sixteen channels, and must compress the input signals with respect to time so that the message content of all sixteen inputs may be simultaneously passed over a single circuit. The binary digits (bits) in the multiplexed signal are transmitted at approximately 16 times the teletypewriter (TTY) speed... (From new 12-page Bulletin "A Sixteen Channel Teletypewriter Terminal System," Rizon Electronics Inc., 2414 Reedie Dr., Silver Spring, Md.)

## The W6CQK Remote Control System . . .

Jack Pitts — W6CQK—in Redwood City has a very fine operating position as shown in the photograph. The transmitter—a kilowatt rig using a pair of 304T's—is remote controlled via a leased telephone line, and the rig is located down at one of the Redwood City's firehouses two miles airline from Jack's home QTH. His heterodyne VFO, shown in a recent issue of CQ, is installed at this remote location and its tuning is entirely controlled by the telephone dial system shown, as are other functions, such as low-medium-high power settings, CW - FSK - PHONE, transmitter automatic tuning, antenna switching, etc.

Two HQ-129X receivers are employed in diversity reception; feeding into two identical audio-type terminal units, located behind the panel immediately below the speaker panel. Immediately below is a row of phone jacks which select a variety of circuits for patching and monitoring purposes. The large panel with the center meter is a test voltmeter employed for monitoring the leased telephone line currents — which are on a polar basis — and a composite hookup is employed when operating on voice as during phone mode.

Below is the WOHZR tuning oscilloscope, and signal for this scope is selected and fed in as required through a phone jack and plug in the "patch panel strip."

Between the two HQ-129X receivers is the remote-control panel with its telephone dial and various key switches for controlling the motor-driven VFO. To give one an idea of what numbers are required to operate the transmitter:

Dial 1905 to turn on transmitter filaments

- 2 to turn on HV
- 1 to turn off HV
- 6 to apply FSK
- 32 to energize motor drive on VFO 0 to turn everything off (emergency)

Other numbers are provided to control power settings, moles, etc.

Receiving antennae are horizontal and vertical antennas, while the transmitter an-



tenna is a combined 80-40-20 meter dipole suspended some 65 feet off ground between telephone poles.

I can testify that Jack's system certainly works smothly as I have operated his equipment on numerous accasions on RTTY and CW and I never had any trouble with the remote-control. It is realized that there are certain operating advantages with this setup, such as the possibility of full-duplex only a few kc apart in same band. But this requires a similar remote-control setup at the other station to avoid mutual xmtr-receiver QRM. Anyhow, this is lots of fun and indeed instructive as to "trend-of-thought" in amateur station planning, as the photograph shows.

I am indebted to Jack W6CQK for the wonderful time he gave me while I visited him recently.

Cordially, Bob W6NRM (ex-W9TCJ)

## **KR6AK**

RTTY in the Far East has taken a definite upswing since the advent of KR6AK on the fifteen meter band. For the past several months "Cas" and his gang has kept the frequencies around 21,095 kc hotter than a baker's apron. Among the stations who are active from the Orient are KA8RA, KR6JL, KR6AF, W6KUY/MM. By the time this reaches print there will undoubtedly will be several more active stations in addition to those listed above. (including an "HL" in Korea).

KR6AK is operated by W. O. Forrest "Cas" Castle, EX DL4AU, WONMH, K6KGX. The RTTY gear includes 2 model 15 printers, reperf and TD. The TU is a CV-31B modified for either 455 or 500 KC IF. The transmitter runs 175 watts to a 4-65A in the final. Rcvr. is a Collins 51-J3 and the antenna is a Zepp fed long wire (12 wavelengths !!), Ther's an Elmac AF67 Standby transmitter on the operating desk - just in case!!







# ONE SOLUTION TO CORRECT SHIFT

By GEORGE A. HOWLAND, W4AIY

The problem of correct shift and local copy has been rough here, since I have never seen a working amateur RTTY station. My solution works, but it may not be the easy or customary method.

- 1.. I made an 1800 rpm sync motor and fitted it with three steel gears to give 2550, 2130 and 2970 CPS from 71, 85 and 99 teeth respectively. The teeth induce currents in a head phone magnets, which is mounted near the gears.
- 2. The amplifiers in the Terminal Unit were peaked with the high and low tones.
  3. The scope was used to peak a toroid coil and series capacitor to the mid frequency of 2550 cps. This was then hooked up as a phase voltage indicator and monitor using the audio output of the receiver as the exciting voltage.
- 4. A printable commercial with 850 cps shift is tuned in and the printer adjusted. The scope is thus confirmed.
- 5. My VFO is then set to the desired two lines on the 'scope when either the break of the space bar is operated.

Then tune like MAD when the third station enters the QSO and fight back on each transmission, in order to not miss anything and to get back on my local copy.

Now, this is the method I employ, and what I ask is this: Is all this necessary or is it OK to just monitor transmissoins from a local keyboard loop?

73 . . . GEORGE, W4AIY

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#### K6GJM

Shown here is the shack of "Dick" Crawford, K6GIM, at Temple City, California.

While Dick uses a box number for his mailing address, his rig and qth are at 10558 East Olive Street, Temple City, Calif. (Mailing address: P. O. Box 294.)

Dick has arranged his shack to, as he puts it, "best suit my needs for operating position." Shown in the photo are:

Lower left, Viking Ranger, with a BC-221 just above for freq. Measurements. To the right of the BC-221 is the terminal unit with the remote control switch for the ranger in the lower left corner. This controls the XMTR "On"-RCVR "Off" relays, and also switches the antenna relay at the same time. Next in line to the right of the T.U. is a two meter black widow transmitter and receiver with power supply. in the lower right is the HQ-129X receiver. The model 26 printer is naturally the piece of gear in the center.

At present, Dick in only on two meter RTTY, and all lower bands on phone, but hopes to finish the FSK modulator for the ranger soon, and be on lower band TTY. (That is if he can find time out from printing OSL's to get it built).

Dick reminds us to be sure and tell his friends that "the latch string is always out and he would like to have the fellows drop in for a chat whenever they are up that way".





Thanks for the Notice Card for the 5th RTTY SS contest. From the looks of things, some lucious scores will be made. "W4-CVU" Oliver E. Ray, Mars Hill N. C., made his maiden voyage on RTTY a few nights ago. Evening of February 13th, 1958 to be exact. First contact was with A1 W8UEV of Cincinnatti, Ohio .... 73 Rolfe W8NIY.

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Our thanks to Jack Pitts, W6COK, for coming up with the following; "Noise suppresion from polar relay." . . . . "Put a three hundred and ninety ohm resistor on each element of the relay, (armature and contact) in series with the wires to the relay from the other side of the resistors to ground, put a half mike condenser. The printer magnet current flows through these 390 ohm resistors, and from the D C supply side of the resistor, and the printer side of the other resistor, put the half mike condenser to ground. The contacts are not bypassed to ground in any manner, but are floating, having only the resistors connected to them".

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Ron VE6UB in Calgary actively represents Alberta on twenty but on the high end of the band he comes back on voice. Jay KR6JL and Cas KR6AK in Okinawa on 21095 have been fading out at 9:30 CST lately. Jack Patton VR2AC in Fiji finally got going and was heard by KL700T and WOBP Monday and has been called on nightly schedule by Ken W6WIS and WOBP. Apparently the first RTTY contact to Fiji was a rather loose connection between VR2AC and WOBP Thursday. Beep told Jack his shift was wide, very chirppy, reversed and hard to print, whereupon lack has not been heard from since! (Roy said the same thing Monday) this was intended as a helpful comment and not deleterious! This morning Ken W6WIS who visited Jack in January said he had not heard Jack on 14330 and that W6IHL also in the round table would leave immediately to fly to Fiji and would try to get Jack on 21090 by Monday. Wot a hulluva fine way to run a railroad, HI!

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Bruce, ZL1WB, here at WOBP, has this "SCOOP" on RTTY activity in New Zeland: "Ron ZL1AHO and Hilton ZL1-AKW. Papakura, Auckland, have aguired model 14 reperf and TD equipment. Ron has FSK operating on forty metres. Hilton has no FSK facility as yet, and has reperf which lacks keyboard!! Serious problem for them is shortage of tape! As they have less than one roll we are suggesting removal of punch blocks and typing on both sides! (These fellows paid \$20 for one non-typing reperf, one typing reperf, and four 14 TD's, but have no page printers!)" Kinda mixed up world. Look for ZL1AHO and ZL1AKW on 40 meters as soon after midnight as band opens up.

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The big news item is the reminder that the fifth anniversary RTTY sweepstakes is this coming week end and all loval members are expected to work each other. - - Ahem! Contest starts at five P. M. Friday and runs for 33 hours until two A. M. Sunday Central Time. Rules are same as before. Just send a simple RTTY Msg with a serial number, originating station call, check or RST report of two or three numbers, ARRL section of originator, local time (0000-2400 preferred)' date and band used. Example: "NR 23 WOBP CK MINN 1325 FEB 15 FORTY METERS" Thats all there is to it! Contacting same station on any other RTTY band helps score. See Feb. OST page 86 for details and mail score to W6AEE. These contest are a practical road test of what your gear will do. Next week we would like to know how many stations and sections you worked and your score.

Roy, KL700T, printed landline every evening at about 1434O kcs, has his hours changed effective Monday and will not be on after about seven p.m. for a couple of weeks. He is the only licensed operator at the civilian camp at Point Bullen on the Arctic due north of Fairbanks.

Air mail to the U.S. families of people up there takes at least seven days and often there is no flying for much longer periods. Ham radio teletype bridges this obstacle in a "breeze." These fellows in the Arctic Circle, write their letters on a model "19" which is a "15" Page Printer, that also cuts tape, and they bring the tape to Roy, who stuffs the end in the model "14" TD. Down in the States WOQPP, or WOBP prints these letters at top speed, with no strain, and airmails the copies to all addressees. Last week at WOBP, we took seven letters running from 300 to 1200 words in length, one copy on the model "28" for file, one on the "15" for mailing, and one on the "14" typing reperf for possible relaying; all the time being personally over at the bench, or looking for a "lost" cigar, or addressing the envelope! After more than a year of Thursday nights devoted to minor method improvements in relaying "standard" ARU messages from the eastern area net, as received from W1-BDI, the "top" man in league communications, to K6GZ, who is one of the nation's outstanding traffic men on the West Coast, these "Dear Mabel" type of extremely personal letters are a refreshing relief!

True, we would never make "BPL" on number of messages per month, but it is a distinctly new type of service. With the words writing themselves out at the rate of one word every second, numbered texts or stereotyped phrases are "for the birds," word count, check, unknown; and the standard fifty word "night" letter would be put to shame.

We may pause in our daily exercise of pacing the floor, to read about Eskimo dogs, small special Arctic planes, sunrise expected in a few weeks, comments on "love affairs" of the adolescent back home, or the celebration of getting fresh milk from a "DC-3" (down here we still have to use cows!). But, seriously, man first learns to crawl, then must know how to stand upright, then he may run. Some of us have wondered what Hiram Percy Maxim would have said about "teletype" and "RTTY'S place in the cosmos" . . .WOBP

W5BOT DE W9DPY Lombard Illinois. Lombard Illinois Roger and fine OK on the weather. About ten below here tonight and about 15 last night. Am building and have the basement open where the ham shack is located and it is about 50 in here usually about 75. We have snow and ice on the ground that has been here for over a month. Haven't had a full warm day in that time. Only two days the temperature came up to freezing.

Running about 500 watts to a 1934 transmitter with a home built VFO on it. Antenna is a quarter wave ground plane vertical about 200 feet from the house with RG11 Coax feeding it. It is right out in the open. I've been wearing a parka to work for the last month. Wish it would warm up so I can get it cleaned. Only have one parka and sure need it now.

Got an HT32 a month ago and had it on the air twice so far. Seems to be a good job.

Name here is Dave. W5BOT DE W4DPY AR

- 0 -

NCARTS NR 8 DE W6VPC.

Oakland, Calif. 8OO P. M. Feb. 5th, 1958 To all radio amateurs BT

The following information was copied from the "United States Naval Institute Proceedings," December 1957 . . . Courtesy W6CBX

Ouote:

Alpha-said to

Bravo-

Charlie-,n it is a good idea let's spend the weekend at the

Delta-. We can listen to the

Echo.-dance the

Foxtrot-and play

Golf-at the

Hotel-

India.-We had better take

Juliet-with us or she will get in trouble.;

she would fly thousands of Kilos-right now, even to

Lima-, to see

Mike,—in spite of the fact that he left her in

November,-and

Oscar,-her

Papa ,-took off for

Quebec-while she and

Romeo-were at the

Sierra-doing the

Tango-okay, but we had better get out our

Uniform—and tell

Victor-to get us some decent

Whiskey.-m that tripple

Xray-stuff they serve would turn any normal Yanke into a

Zulu . . .

Unquote . . . Now there you have the new phonetics. BUCK, W6VPC

- 0 -

The following list of technical manuals contain a wealth of info for the RTTY enthusiast. Originally printed for the War Department, most of these publications should be available at nominal cost from the Government Printing Office, Washington, D. C.

TM 11-353 Installation & Maint. of Telegraph Printer Equipment.

TM 11-680 Teletypewriter Ckts & Equipment, (Fundamentals)

TM 11-352 Printer TG-7-A and Teletypewriters TG-7-B & TG-37-

TM 11-2223 Typing & Non-Typing Reperfs, Teletype Model 14

TM-11-2201 Reperf Teletypewriter Sets TC-16 & TC-17

TM-11-2216 Teletypewriters TT-7/FG & TT-8/FG

TM-11-2222 Receiving TD'S TT-12-FGQ-1; TT-13/FGQ-1 & TD'S TT-21/FG; TT-25/FG; TT-26/FG TT-52/FG.

AAF4FEE

- 0 -

I received one of your RTTY SS cards okay also saw one at BART'S/W6OWP.

I have several troubles with my 26. In some cases I expected too much from RTTY ham-wise and too much for sure

from the 26. That accounts for my constant looking for a 15 out in the Far East . . . Found some 14's without the TD for 250 U.S. dollars without the TD. . But at this time of the year the irs gets hold of my earning and I clam up. I had saved enough for a HT32 and at the last minute chickened out, and if international trade is any indication of things to come I would hold on more so. Things are in an awful condition. And world trade is very important thing. Important enough that a few wars have been fought over it. Anyhow . . no SSB this trip . . As a matter of fact I goofed off too much and am now only on 21.31O A3 as yet. I spend too much time over at Bart's house heckling about RTTY. And find that we too "talk" too much RTTY and do nothing else. I also, after many years parted with my Klein Perf (Morse) and Bhoeme keying head and motor . . (Boy, I wonder what is wrong with me tonight my mind must be elsewhere if anywhere at all) . . But the gear was all mint condition and worked out beautifully. But I have little use for it now . . I think the fellow is going to use it for SS work. I hated to part with the equipment. Took along time to gather but now someone can get use out of it . . He is electronic engr with a local San Carlos firm . . Also has an electronic organ a la W6AEE . . Very nice fellow and I can't even remember his name or call . . What a life . . Then too this long rain has frustrated me . . It rained the entire time we were on the West Coast last trip home . . Then this time . . I can get nil accomplished. Seems I spent the week down home trying to park a rented car and keep out of the rain . . And have done the same up here. Too bad VK4CG doesn't have his li-

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Too bad VK4CG doesn't have his license for F1 on 21MC . . I do not think it pays to stretch the meager activity on too many DX bands . . and 21MC is beautiful . . I have heard and copied you plenty on 714O but it will never compare with your signal on 21MC and that goes for WOBP . .

I wonder if the VS6's in Hong Kong can work F1 . . I'll have to call VS6AZ and ask him. He will try anything . . He

RTTY

is a grad of MIT, Columbia and Watts . . No kidding, tho he is one smart cookie. But he is so dedicated to making money and his family that he spends little time other than working. He just finished all the A1, A3, SSB etc gear for communications departure of CR9 . . . Also built a new home . . And to this in Hong Kong today, one must be a millionaire . . And his wife is so beautiful I hate to be a visitor cuz I just keep "looking" and kids . . Gad, a gross of them . . And Yuk and his wife both look twenty.

Well off we go thru wild North Pacific. This is the worst season of the year, the roughest weather. And pushing at 22 knots thru mountainous seas and gale winds is brutal . . But speed is the commodity of our present age. So push we do. Should be back to the West Coast in six weeks or the 27th of March to be exact.

I'll be listening for you on 21, O9O for the next six weeks. W6CG sure puts in a beautiful signal there, also . . Everyone does well there . . Even the KN'S . . Hi . .

BOB/W6DTN

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For "RTTY" Information: W6CL W6DEO W6AEE



W9DPY, Dave Chapman, Giving a Talk on General RTTY Principles



W9TCJ/9 AT THE STARVED ROCK HAMFEST



W6AEE, MERRILL SWAN