

Before the

Federal Communications Commission

Washington 25, D. C.

In the Matter of
Amendment of Section 12.107 of
Part 12, Rules Governing Amateur
Radio Service, concerning radio
teleprinter transmissions.
DOCKET NO. 11501

NOTICE OF PROPOSED RULE MAKING

1. Notice is hereby given of proposed rule making in the above-entitled matter.

2. The Commission has received a petition from the American Radio Relay League requesting that the present lower limit of 800 cycles on the frequency shift used for amateur radio teleprinter transmissions be removed.

3. In support of its petition the League pointed out that "... the use of a lesser frequency shift will accomplish a reduction of interference," and expressed belief that the proposed amendment "... will permit more extensive experimentation with radio teleprinter communication, will result in an improvement in and simplification of teleprinter techniques, and thereby will provide a more reliable means of communication."

4. Believing that there is sufficient reason to warrant proposed rule making in this matter, the Commission is proposing amendment of Sections 12.107(c) and 12.107(d) of Part 12 as set forth in the attached Appendix.

5. Authority for issuance of the proposed amendment is vested in the Commission by virtue of Sections 4(i) and 303(e), (g), and (r) of the Communications Act of 1934, as amended.

6. Any interested person who is of the opinion that the proposed amendment should not be adopted, or should not be adopted in the form set forth herein, may file with the Commission on or be-

fore November 28, 1955, written data, views, or arguments setting forth his comments. Comments in support of the proposed amendment may also be filed on or before the same date. Comments in reply to the original comments may be filed within ten days from the last day for filing said original data, views, or arguments. No additional comments may be filed unless (1) specifically requested by the Commission, or (2) good cause for the filing of such additional comments is established. The Commission will consider all such comments prior to taking final action in this matter, and if comments are submitted warranting oral argument, notice of the time and place of such oral argument will be given.

7. *In accordance with the provisions of Section 1.764 of the Commission's Rules and Regulations, an original and four copies of all statements, briefs, or comments filed shall be furnished the Commission.*

FEDERAL COMMUNICATIONS COMMISSION

WM. P. MASSING,
Acting Secretary.

Released: September 22, 1955

A P P E N D I X

AMENDMENT OF SECTION 12.107 OF PART 12, RULES GOVERNING AMATEUR RADIO SERVICE, IS PROPOSED AS FOLLOWS:

Amend paragraph (c) to read as follows:

(c) When frequency shift keying (type F-1 emission) is utilized, the deviation in frequency from the mark signal to space signal, or from the space signal to the mark signal, shall be less than 900 cycles per second.

Amend paragraph (d) to read as follows:

(d) When audio frequency shift keying (type A-2 or type F-2 emission) is utilized, the highest fundamental modulating audio frequency shall not exceed 3000 cycles per second, and the difference between the modulating audio frequency for the mark signal and that for the space signal shall be less than 900 cycles per second.

RYRYRYRYRY

On The Cover

The equipment on the cover is that of Frank C. Gibson, W3MHD, of Broughton, Pa. One of our more active RTTY stations. The equipment is as follows: The transmitter is on the right behind the machine and runs a half KW to a 250TH. The remote tuner for the Clapp VFO Oscillator is in the box jutting out above the printer and the box on the right side of the rack is the CW monitor and ten minute timer. The TU is on the 3½" panel below the clock and is of the W60WP type. Reactance modulation is used to frequency shift the VFO. The left rack is the SSB Rig which terminates in a pair of 811's. Half wave folded dipoles are used on eighty and forty meters and a three element beam on twenty. The receiver is a BC-779-B and includes a sideband slicer. I stabilized the receiver as covered in "CQ" for May, 1948, which reduced the drift substantially.

"FCC Releases Its Proposed Rule Making to Permit Use of Any FSK From Zero to 900 Cycles."

FCC Docket No. 11501 was released by the FCC on September 22, 1955. It proposes that Sections 12.107(c) and (d) of Part 12 of the FCC Rules and Regulations be amended to permit the use of any frequency shift (for either AFSK or FSK) between zero and 900 cycles per second. The exact proposed wording of the new RULES would be as follows:

'Quote the (c) and (d) paragraphs of the attached Appendix'

A deadline date of November 28, 1955 has been established for submission of written comments on this proposal. ALL COMMENTS MUST INCLUDE AN ORIGINAL AND FOUR COPIES. The proposal is worded in such a way that comments both for and against the proposal are invited. Lack of comments will also mean general approval, however we urge you to consider the proposal carefully and comment affirmatively in plenty of time to have your thoughts on file with the Commission well before the deadline date of November 28, 1955.

After November 28th, an additional ten days is allowed for commenting on the original comments. This means you must visit the FCC and read the original comments to be in a position to comment on them. RTTY has made arrangements to do this, and will "re-butt" any opposing comments that have been filed.

If things go well, and there is little reason that they should not, we can expect the proposed Rule change to be adopted and released as a Christmas Gift, by the FCC.

Chicago RTTY Meeting

In connection with the NATIONAL ELECTRONICS CONFERENCE which was held in Chicago on the Third thru Sixth of October, the Chicago area RTTY gang arranged a very fine meeting which was held in the Hallicrafters Plant.

The meeting started Sunday morning about eleven A.M. with the arrival of several of the group who brought equipment to demonstrate various phases of RTTY progress. Among the early arrivals were W9TCJ, Bob Weitbrecht, WØBP/W9BP Boyd (BEEP) Phelps, W9BGC, Joe Juel, W9SPT, George Boyd, and W9THE Charles Mitchell, and the gang from Teletype who brought a NEW MODEL 28 for the gang to look over. W90CV and W9MDQ.

With Beep WØBP acting as master of ceremonies the formal portion of the meeting got under way. In typical Ham Club manner, an introduction of each by call, name and so on was given.

The first speaker was Bob Weitbrecht, who talked on his new Beat Frequency Exciter. He spoke of the various factors which effect the performance of an exciter designed for FSK work. Among the items which he gave details were the effects of change in plate voltage, change in heater voltage or current, effect of buffer loading upon the oscillator, temperature, and type of basic circuit employed. He then outlined the method employed in his exciter to overcome each of these problems. Mentioned use of a wooden case for his oscillator compartment. Various values of compensating capacitors which were used. He also outlined the method used to determine the final drift. After the formal portion of the meeting he demonstrated the operation of this exciter.

Phil Catona W2JAV followed with a talk on his frequency meter which had appeared in the RTTY bulletin for February 1954.

Beep Phelps WØBP discussed his TU

which features the use of the 6AL7 tuning indicator. His complete RTTY set up, outside of the receiver and transmitter was shown, mounted on a modified hair dryer, complete with casters. Beep explained that he had chosen this mounting in order to have a complete unit which could be easily taken to radio club meetings for demonstration work.

Ray Morrison W9GRW talked about machines, parts and circuit information which he could furnish. He made mention of the use of carriage return, then line feed when cutting tapes in order to avoid the problem of lach of time for the carriage to return to the left hand side of the copy.

Next a demonstration of RTTY signals recorded on magnetic tape, using the present 850 cycles shift. Normal signals, signals with CW QRM, noise, and low shift were demonstrated. Next narrow shift was demonstrated. Bob W9TCJ and Beep WØBP talked about a simplified version of a TU which used frequency multipliers to obtain printer operation. The circuit will be printed in an early issue of RTTY.

Bert Cottrel W90CV, announced a trip through the Teletype Corporation plant for Monday afternoon. More about this later.

Ray Smeasseart W9MDQ, gave a brief history of the Teletype printers, and followed with a demonstration of the model 28.

Chuck Mitchell, W9THE, talked on the Kleinschmidt teleprinters, and demonstrated their operation. He had a model 120 TRP which is a 60/100 wpm unit. Also a TT-4 fixed station. He spoke of his work along lines of noise reduction in the RF range of 150 kes to 1000 mcs., with values below .5 microvolts!!

RTTY wishes to thank both the Teletype Corporation and the Kleinschmidt Laboratories for the fine demonstra-

tions of their equipment. We are indeed fortunate to have members of our group who could arrange for this demonstration.

Ed Clammer W2BDI spoke on his revised version of the Fritz Franke 50 KC I.F. TU. This modification will appear in a later issue of RTTY. Ed reports excellent result. From listening on forty meters, your Editor can affirm this comment.

Fritz Franke of the Hallicrafters spoke on the notch filter which is incorporated in the Hallicrafters SX-100. He discussed some of its features, such as the variable band width, and variable frequency. He displayed the new Hallicrafters unitized Amateur station. This is the Model SR-500. Many thanks go to the Hallicrafters Company for providing the space and facilities for the meeting. After the formal portion of the meeting, a trip thru the manufacturing plant took place.

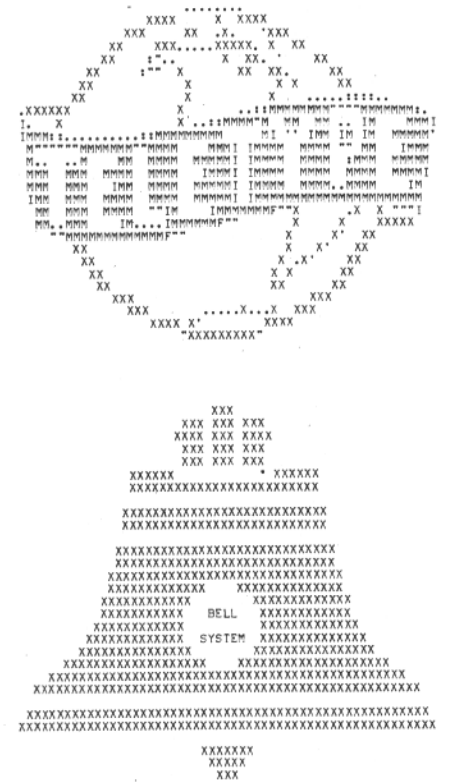
The technical portion of the meeting closed with an urgent request by Beep that all of the RTTY gang should write FCC before the 28 of November replying to the Notice of Proposed Rule Making. This should be an original and four copies covering your comments. DO NOT FAIL TO WRITE.

The Gang reassembled at the Grey-mere Hotel for an excellent dinner and additional talks. Of course photographs were taken and are included in this issue, for those who were not able to make this meeting. Your Editor regrets that he was unable to obtain a complete list of those who attended the meetings.

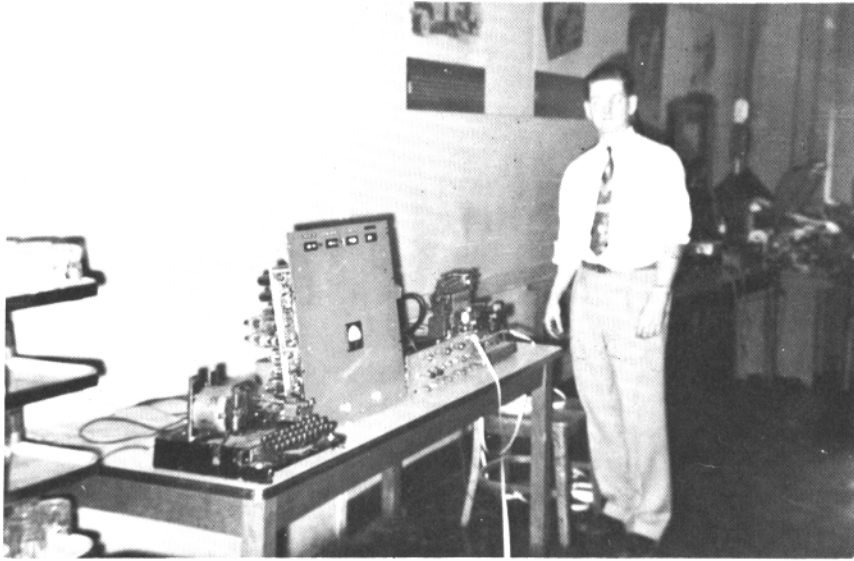
Monday afternoon, we again assembled at the Teletype Corporations plant, and were taken through the complete factory. After the tour, we assembled in their conference room for further talks and a demonstration which was an experience. A model 28 was shown in operation, and playing Star Dust, Make Believe, Tea for Two, and Marie. All this while printing the copy which appears on page An unusual feature

of the 28 was demonstrated in that copy was typed both from left to right and then from right to left. The musical portion was provided by removing the normal upper case functions and connecting instead to a two octave set of bells. This was an excellent demonstration of the flexibility of the 28 "stunt box" and potential of it.

Hats off to a swell gang who put on the CHI-RTTY Meeting.



THIS SOUVENIR COPY DEMONSTRATES THE VERSATILITY OF THE NEW TELETYPE PRINTER THE SET IS OPERATING AT ONE HUNDRED WORDS PER MINUTE THE SONGS PLAYED WERE STARDUST MAKE BELIEVE TEA FOR TWO MARIE



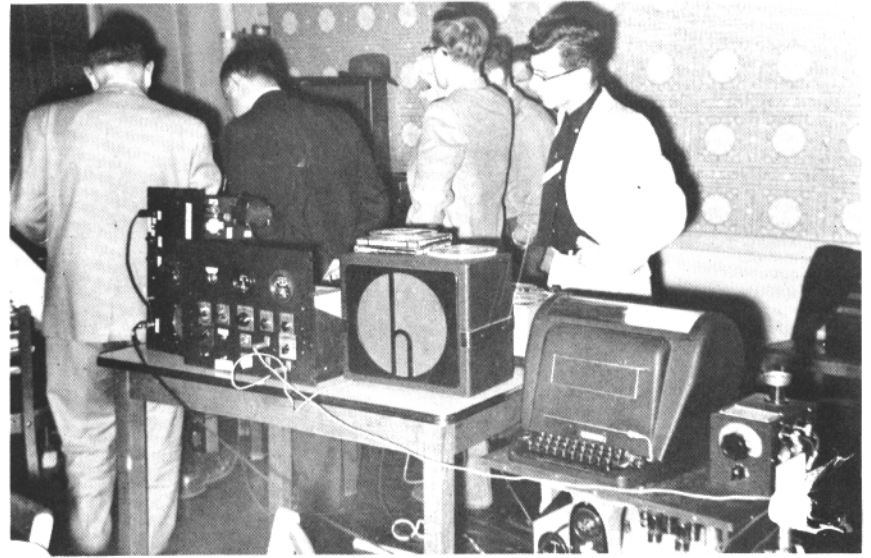
Hallicrafters—Oct. 2—W9SPT—George Boyd. Operating display.



Hallicrafters—Oct. 2—W9TCJ—Bob Wietbrecht—operating display.



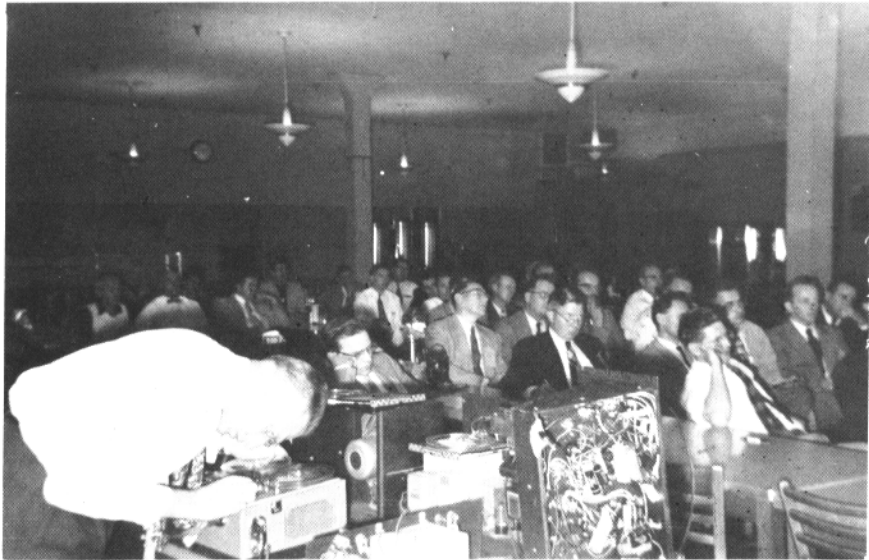
Hallicrafters—Oct. 2—W9BGC—Joel Juel's 2 meter terminal unit, with Teletype and Kleinschmidt displays in the background—operating.



Hallicrafters—Oct. 2—WØ-W9BP—"Beep"—Phelps—operating display.



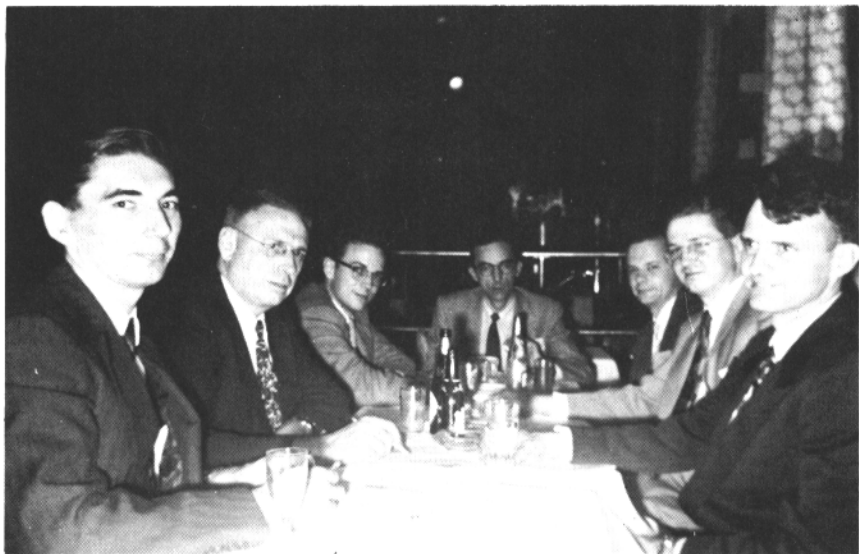
Hallicrafters—Oct. 2—Three of the speakers at the Amateur RTTY Convention. From left to right—Phil Catona—W2JAV, Bob Weitbrecht—W9TCJ and Boyd “Beep” Phelps—W9BP/WØBP who also acted as Master of Ceremonies.



“The Gang” in attendance at Hallicrafters on October 2, 57 present.



Sunday nite at the Hotel Graemere. The following 32 in attendance—From left to right: W9/WØBP, W9DLH, W9TCJ, W9VWN, W9BGC, W2JTP, W8GRL, W6ZBV, W9JBT, W9GDZ, W9WMR, W6AEE, WØHZR, W7HRC, W2BDI, W9SPT, W9ZGP, W9DW, W5JBW, W9MVJ, W9KLB, W8GBT, W9DJE, W9GRM, W9MPE, W2JAV. (Standing) W9THE, W8DLT, W9UXS, W9EAI, W9QBH, W9LKK. Not shown—W906V.



The (Planning????) Meeting—2 Oct.—Graemere Crystal Room—From left to right: Bob Paculet—W9JBT, "Beep" Phelps—W9/WØBP, Bob Leland—W8GBT, Ralph Leland—W8DLT, Bruce Meyer—WØHER, George Boyd—W9SPT and Bob Weitbrecht—W9TCJ.



The Midwest gang who put the RTTY "Show on the Road"—1st Row left to right: Ray Morrison—W9GRW, George Boyd—W9SPT, Burt Cottrell—W90CV. 2nd Row—Bob Weitbrecht—W9TCJ, Bob Paculet—W9JBT, Boyd "Beep" Phelps—WØBP/W9BP, oel Juel—W9BGC.



Part of the group which toured Teletype Corporation—Monday afternoon—Oct. 3—1st row—W9BP, W6AEE, W9SPT, Teletype R. R. Smessaert, Tour Director. 2nd Row—W9TCJ, W9JBT, W90CV, W2JTP, WØHZR, W9COW. 3rd Row—W8DLT, W6ZBV, W9BGC.



Part of the group which toured Teletype Corporation Fullerton Plant—Oct. 3—1st Row—W9KLB, W9THE, W2JAV, W9SPT, W6AEE, Teletype Tour Director, R. R. Smessaert. 2nd Row—(No Call)—C. Schulteise, W6ZBV, W9JBT, W90CV, W9LSY, W2BDI, W9GRW.



A drafting error will be found in the circuit on page 8/9 of the July 1955 RTTY. The tuned filter circuits in the plates of the 12AX7 are interchanged. The upper circuit should be tuned to Space, and the lower one tuned to Mark.

RYRYRYRYRY

An article well worth reading will be found in the September issue of Electrical Engineer. Titled "Research in Signal Corps Teletypewriter and Switching Equipments, by R. B. LeVino, Signal Corps Engineering Laboratories, Fort Monmouth, N. J."

RYRYRYRYRY

Visitors at RTTY in the last couple of months have been, W2PAT, KL7CK, W7CO, W9TCJ/6, W6SCF, among many locals. Also visited at WESCON in San Francisco were W7MCU and W6MZO.

RYRYRYRYRY

Finally found out what was causing missprints and also that extra line feed now and then in my lil 26. T'was all in that clutch at the function lever shaft. Just like Bob, W9TCJ said it was . . . Way I found it though was because machine printed perfectly when first started up. Printed for about five minutes perfectly before started acting up, so thought it must be a clutch that was effected by heat, and sure enough, it was . . . Hi. W1BGW

RYRYRYRYRY

RTTY regrets the lateness of mailing on the last issue, but many things seemed to come up at the wrong time. Among them were the changing of your Editors place of employment. He resigned from the previous company and joined the Cannon Electric Company in Los Angeles.

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**RTTY is the Official Publication
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 of Southern California**

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For Traffic Net Information:
 W6FLW W6IZJ

For "RTTY" Information:
 W6CL W6DEO W6AEE



"X5Z8X5E8 DE R2PØR2PØ" Copied on
 3620 Kcs . . .

"Yes, boys, Merrill is a very young grandfather!! You wouldn't believe it!! and, oh yes, did you hear of Frank's W3PYW daughter eloping and getting married. Pretty soon another young grandfather. So guess that's it from here so over to you Marvin. W5HZF with W6AEE in the Rumble seat de W9TCJ/5."

W8ZM ES W1BGW de W2JAV Roger Bob on most of that. Just a bit of QRM from W2PFI. Local here. Hi Hi am very sorry that you cannot make the meeting Bob, sure would have liked to meet you boys. But I guess that it is too late to cancel the trip? Hi Hi. Well I guess that I am not too strong a out your way Bob. Have still the same ole trans here with only 150 watts. Have the class "B" final just sitting here.

RYRYRYRYRY

W5JBW, W5JBW, W5JBW, and W6MSG, W6MSG, de W1BGKW, W-BGW, W1BGK, Boston, Mass. Well I was getting very good copy from W6MSG and W5JBW was getting you landline until that foreign broadcast station threw on their carrier and that cured things but good! Think will have to drop out unless we can QSY down about five KC. Will turn it over to W6MSG, W6MSG, W5JBW de W1BGW, Boston, Mass. Take it W6MSG.

W6TLI/W6IZJ de W6LDG solid and good sigs here ok on the transistor job sounds interesting. Thot heard a BK station but he did not come in when I waited, so guess not. Should get busy on the converter while it is cool.

If he is still around after that big meal he just ate. Evening to you Don and also to W7NDB. First contact with W7NDB and sure glad to make your acquaintance OM. Hope condx are better for IS than they were with W5TJE. Well Don let's get a report from you first and then you turn it back to me and we will find out if W7MB is copying all around. So to you Don and Mace if you're there please break in when I turn it to Don. W VE7EP and W7NDB this is WOWRO Denver by AR AR KK.

W1BGW Boston Mass de W2PBG Bayside li NY Roger and Land-line again Jack. Seems like ole times here. Have been off the DX stuff here now for about three years and the total would be much higher if the hurricanes would stay away and let the beams alone hi. Boy you sure said a mouthful about the hounds on the 20 meter bank. Listened the other night and boy if I were a DX station would not give them a break, such ethics. The only thing that one can do is try to battle his way through those birds and then if you get the guy do the same to him when he tries to work him. What is good for the goose is good for the gander also. Not the right attitude to take on a subject like that but when the others have no consideration well what can you do or are you supposed to do.

W8ARO and W7NDB and W5TJE de VE7EP at Ladner BC good evening to you Walt and also to Buck if he is there. Also pleased to know there is a W7 around these parts. Haven't heard W7NDB yet so guess he won't be copying me but Walt you are very good and Buck is solid. Things are good from you to us.

W2JAV es W3NQC de W6AEE. Sorry but I am having troubles as you can tell. Don—your shift is low, and mine is not right. Bob W6MTJ is here to visit and the gear is acting up as normal when one has company so Phil if this freq is not right. You QSY and I will zero your freq. So Don PSE stand by and we will get all straightened out soon. W2JAV/W3NQC on side de W6AEE Pasadena AR

Our apartment on the second floor looked out over an antenna farm with about three two meter antennas, one beam, one good ground plane and a haywire ground plane, a long wire, several receiving wires, a forty meter vertical, some loaded verticals, all sorts of wires, even a weather vane and wind speed meter wired into the house, oh yes, and a rain gauge too. All in all it made me homesick. No one was home so I did not get hold of them. W6MTJ spent the week end visiting Merrill.

They came down here for a short visit. Bob is a swell lad. Tried to talk some two meter enthusiasm into him. He seemed very impressed with the way this two meter channel worked, no tuning, no QRM, no misses. Out of paper. Will copy you on the twelve while I reload the fifteen.

Tried to talk Bob into getting some two meter activity going up north and trying direct or relay on two to So. Calif. Hope he does something.

Back to you Fletch. W6DEO de W6CMQ.

W1BGW FE W1RBF Plainville . . . Roger and good morning Jack. Bob, both you and Phil were really pounding in solid! Your sigs seem to be about as strong as they usually are on 80, but Phil was much stronger here than he is on 80! Well, I have been reading the mail for about two complete exchanges with you and Phil, so decided to fire up for a little while. I have been planning to do a lot of work around the house

here, but when I got started, I was immediately stopped for the lack of a couple of pipe wrenches! So, a little later on, I am going to stand by—I'm the chief zipper operator here on Sunday morning! So, I am going to borrow a couple from a plumber friend I have. I am putting in a couple of oil pumps on the Kerosene kitchen range, so I won't have to carry oil this winter. I have been doing it for years now, and am tired of it.

W5JBW W5HZF de W2TKO. Fine all the way around. Got Marv 100 percent and would have Amos 100 percent too except for his shift changing all the time Hi Hi. Yes Marv I got the package you sent today. The paper release I got it today. Have not put it on the machine yet but I will soon. By the way I have a new printer here. It is a new model 15 15 And that is sure a fine machine. I just got it a week or so ago and just got it hooked up last nite and I'm crazy about it. The keyboard and all is so much nicer in its' action it makes typing effortless. Amos you sure are putting in a fine signal tonight. This 80 meter band surprises you once in a while doesn't it? Marv I might be down to see you in a couple of weeks. I am not too crazy about making the trip but I will be sure to look you up when I get there. As usual I will call you on the phone and you will probably be working Hi Hi. I sure do appreciate the paer release though. I plan to use the 26 on my two meter auto start circuit and besides it gives me a spare printer to play around with. Bob, I wonder why 170 cycle shift was decided on? I would have chosen 180 cycles. I can more readily measure 180 cycles than I can 170 cycles. What kind of converter do you plan to use with the narrow shift?

So back to you Marv and Bob.

W5HZF with W5JBW de W2TKO, Buffalo, N. Y.

W2PBG de W1BGW Boston RGR Bob and Land Line Agn. Well on that pix, Phil doesn't have the tape. Think it is special tape and machine has to be altered. All he has is the pix but that is something to shoot at. Well on the tests on the minibear. Here's what we did. After determining that Charlies beam was flat thruout the band I fired up the XMTR and we had our beams facing each other. While keeping the input at 600 watts here I fired up on the following freqs and heres the tabulated results:

14,000KC	42 DB over 9
14,050KC	45 DB over 9
14,100KC	50 DB over 9
14,200KC	55 DB over 9
14,250KC	55 DB over 9
14,300KC	55 DB over 9

So that showed it was flat over the fone band but had quite a drop on the cw edge. Well as to DX Bob, I've had my share and am pretty tired of it also however, once in a while ya lit like to sit down and see if you can still work it. Hi. Wonder what you are using for a rotator y on your town tower. Are you still using the little Collins rig? You really put out a FB sig with it Bob. Power don't make as much difference as one would hope for tho. When condx are poor all the power in the world don't seem to be of any use. Remember on our last QSO on this band when things went bad we both faded out of pix in no time regardless of power was running here. That micro match sure is a FB aid in tuning a rig up Bob. Use it constantly. WL have to ask Al about when he will be down after the model 100. He probably will have Tom pick it up for him unless he is planning a trip down there soon. Wonder what kind of a machine that 100 is anyway. Does the paper stay still and the type move or what. Also is its physical size about the same as the 15? Is it put out by the Teletype Corpn.? So over, to you Bob.

W2PBG Bayside LI NY de W1BGW W1BGW Boston Mass.

W2TKO es W5HZF JBW near Lake Charles, La. Well you can see we have trouble here on this band too and sure surprised to hear W8TKO coming thru here tonight on this band.

We have a door knob condenser in the PI section here on eighty meters and it is changing capacatance Hi so that is some of the trouble Hi Well Bob glad to know you made the trip down to Fort Worth, Texas OK and the address here is post office box 509, Lake Charles, La. And I will send it up to W2TKO A Buffalo, N.Y. and see if he reads W2TKO, W5MZF, DEW5JBW. Take it Buffalo.

W5JBW, W5JBW, and W5HZF, W5HZF de W2TKO. Fine both of you. I am reading both Amos and Marv fine here tonight. This is a surprise that 80 is as good as this Hi Hi. Marv I got your package today. Thanks. I heard you in that QSO the other night but I had to pull out so I never did hear you again. Did you ever get that tape I sent you? I am surprised to hear that Bob is down in the sunny South. Good evening to you Bob. Also sorry I missed meeting you Amos at the Chicago fete but I just couldn't make it, better luck next year. Hi Hi. Won't keep it long. Don't know how the condx will hold up. So back to you Marv.

W5HZF with W5JBW de W2TKO in Buffalo, N. Y.

W6IZJ de W6AEE OK Ed. Well this still is Bob here at the buttons. I didn't think I had to let you know as I thought you could tell by the poor typing! Fine on info on the type of transistor etc. So will see you later Ed regarding the WX here. I was pretty warm up at SF before I left up there. So don't mind too much 73 for now EW ED CUL.

W6IZJ de W6AEE with W6MTJ at buttons! SK TNX again CUL.