RTTY

NEWS OF AMATEUR RTTY

MAY, 1957
25 Cents
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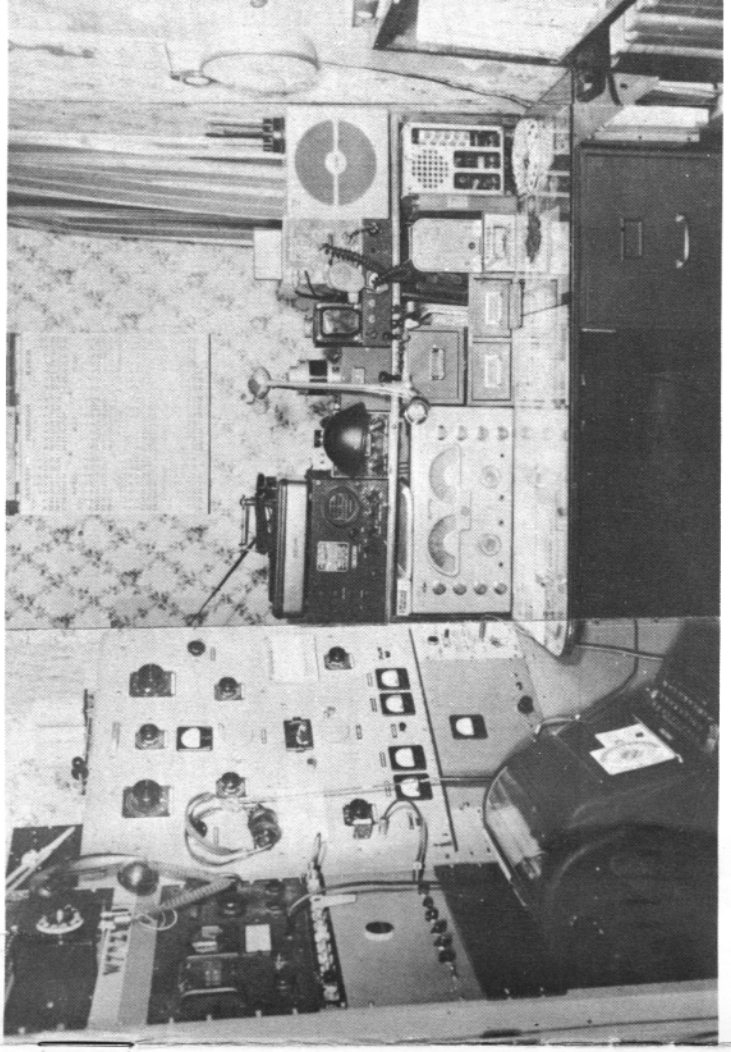

W7RZY

HORSE TRADES

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

FOR SALE—28 vdc Solenoids for Automatic Line Feed and Carriage Return. Circuits, parts list, template drawings and photos of installed units W6LDG

WANTED:Model 14 TD W7JLF

FOR SALE: 1-A Xmit Head-Reperforator and Distributor with Sync Motor W2MIB

WANTED: Cover only for Model 14 Non-Typing Reperf. Model with reel in top W6DOU

FOR SALE: Oiled Wheatstone Perforator Tape Sixe 15/32" wide W6DOU

WANTED: Feb., Aug. and Sept. 1953 RTTY's W1RR

FOR SALE OR TRADE: AC governed motor for Model 15, comp with lamp and switch, Brand new. Make offer W4EHU

WANTED: Model 14 Typing Reperf. W2PEE

FOR SALE: Model 12 Reperf and Xmting and Rec. tape distributor with 1-A tape head W2PEE

WANTED: 1-A tape head and perforator W7RZY

FOR SALE: Model 14 tape distributor with Sync Motor W6WOC

RTTY, Inc.
372 WEST WARREN WAY
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Return Postage Guaranteed

PASADENA AUG 1 1957 CALIF.

FSK WITH THE KWS-1

Robert B. Springer, WØYKZ/5, San Angelo, Texas

The diagram shown is a slightly modified version of the WØBP transistor audio oscillator as shown in the Nov. '56 RTTY. The modifications of the original circuit (Fig. 1) are Ry-1, Ry-2, and Sw-1. Ry-1 is used as a transmit/receive relay. It serves to disconnect the battery from the oscillator during periods of receive. As pointed out by Beep, the current drain is negligible, however if the oscillator can be turned on and off the VOX circuit of the KWS-1 may be used for its normal T/R function. Ry-2 is a Sigma 7AOZ-150T polar relay with 20 ma signal current keyed by the Model 26 keyboard, and a fixed 10 ma bias. In this installation the printer is connected in series with the keyboard for normal transmission, thus making polar keying of the oscillator necessary. A Western Electric 60 ma polar relay was tried in this circuit and was found to work satisfactorily. Sw-1 used as a shift selector switch. C-1, C-2, and C-3 may be chosen to give any shifts desired. At present C-1 is used to give 850 cycles shift. C-2 is used to provide 170 cycles shift. For different values of inductance the capacity of C-4 will have to be chosen to give an output of approximately 2300 cps. R-1 and R-2 may be of different values as explained in the original article by WØBP. This arrangement keys quite clean, with no appreciable key clicks apparent. If the keyboard of the machine is used to key the oscillator directly it will be found that any change in the capacity of the keying leads will change the frequency of the oscillator. It is suggested that the shift be set with the polar relay or keying leads installed for this reason..

For FSK transmission with the KWS-1 the audio tones are fed into the microphone input. The transmitter is operated as a conventional SSB transmitter using upper sideband. Since the lower sideband

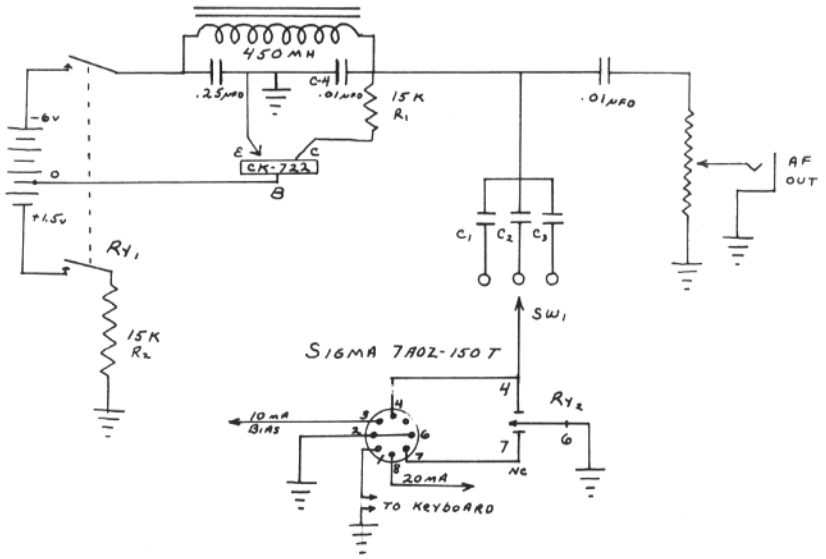


FIG. 1

is suppressed and the carrier is removed, the output consists of two single RF frequencies which are displaced from the carrier frequency by the frequency of the two audio tones used. These two (excuse the expression) sideband signals are also displaced from each other by the difference of the two audio tones used. Thus—FSK!

There are two inherent disadvantages to this system of FSK transmission. First: It is sometimes difficult to obtain equal power output on both mark and space. Both tones of the oscillator should be the same output level. Also the two tones must be chosen with care for the particular KWS-1 in use. The early KWS-1 transmitters used a mechanical filter to discriminate against unwanted sideband, and to limit the audio range of the transmitter. This audio range was 400-3400 cycles as measured at the 3 db points on the filter. On this early transmitter, the conventional tones of 2125 and 2975 cycles should be satisfactory for the two audio tones of the oscillator.

The audio range of the later model KWS-1 transmitters is limited by the mechanical filter to 200-2900 cycles at the 3 db points. This means that the 2975 cycle tone of the oscillator would be down greater than 3 db at the output. The tones used in this oscillator are 2300 and 1450 cycles. This places the two tones well within the flat portion of the mechanical filter response curve. The exact tones used are not critical so long as they fall within the passband of the transmitter, and their second harmonics, if present, fall outside the passband. If, after choosing two suitable tones, the output of the KWS-1 still varies between mark and space it will be necessary to use some automatic load control. The transmitter is loaded to 1 KW with a small amount of grid current,, then ALC is advanced to reduce the grid current to zero. Usually about 3 db of ALC will correct for any output variation encountered.

The second disadvantage of this system is the possible radiation of carrier. The KWS-1 should have at least 50 db suppression of the carrier. The measured suppression on the KWS-1 in use is 55 db. With a 1000 watt input this represents a carrier input to the final of about 3.16×10^{-3} watts. Assuming a normal efficiency of 50%, this means that the carrier output would produce a 200 millivolt signal into a 50 ohm receiver. This amount of suppression seems to be very adequate, and no trace of carrier can be found in the San Angelo area. FCC might take a dim view of this system if the carrier suppression were not watched closely.

I would hesitate to recommend this system with phasing type single sideband transmitters. Maximum carrier suppression on some of the present phasing rigs has been quite poor. In addition, the phasing rig usually will not give much over 5 db unwanted sideband suppression. A properly aligned phase shift network will maintain a 90° phase shift plus or minus 1.5° throughout the speech range. This means a maximum sideband suppression of 37.5 db. Listening to some of the sideband signals on 20 meters will reveal that the unwanted sideband is about as readable as the unsuppressed sideband. This system should work quite well with the crystal lattice or torriod filter rigs; but again, carrier suppression should be checked closely.

Grateful acknowledgement is given to WØBP, Collins Radio Company, and Mr. F. R. Gonset of Gonset Division, L. A. Young Spring & Wire Corporation for their help. Appreciation is also given to my XYL for not killing me the night of the RTTY SS. We were supposed to go to a dance at the Officer's Club!

FREQUENCY MULTIPLICATION OF MODULATED SIGNALS

Don Wiggins, W4EHU

In the September, 1956 issue of RTTY there appears an article called "Did You Scatter Your Sidebands?" by R. Couppez. The author persists in accusing RTTY hams of "tinkering" when we build equipment and of not considering the theories involved. After careful study of his article, I believe Mr. Couppez has been tinkering with theroy, as he is in complete error on his ideas of "scattering sidebands". It should be apparent from both intuition and from mathematical analysis that frequency multiplication of modulated frequencies does not "scatter" the sidebands. He also accuses the "Minneapolis narrow-shifters" of making a mistake about this. I contend that the basic idea of the double-doubler is perfectly valid. If it does not perform satisfactorily, then difficulties must be looked for elsewhere.

Let's look at the mechanism of common frequency-doubling circuits. Probably the most familiar method is to excite a Class C amplifier with the fundamental frequency. Since the Class C plate current occurs in pulses of less than 180 degrees, this current is rich in harmonics of the fundamental. By tuning the plate circuit to the desired harmonic, we can double, triple, etc. This action is shown in Fig. 1a (pages 8-9). Another scheme is the half or full-wave rectifier as shown in Fig. 2a. If a rectifier is driven by a sine-wave voltage source, the current flowing in the load circuit will contain harmonics of the source frequency as indicated in the sketches. By filtering we can select only the second harmonic, thus accomplishing frequency doubling. Note that the full-wave doubler will produce twice the amplitude of 2nd harmonic current since the fundamental is concealed. A third method is the square law device. This action is similar to the full-wave rectifier; however, due to the squaring action, the rectified pulse will not look like a half-of-a-sine wave and the spectrum components will have different amplitudes. In fact, if the input is a pure sine wave, the output waveform will be a d-c term and only a second harmonic. See Fig. 3a.

Now having mentioned three common doubling circuits, let us consider what happens when we modulate the signal applied to these circuits. Let's modulate the input of the Class C doubler with square waves (a series of Morse code). I wonder if Mr. Coppez will maintain that I cannot key my 3.5 mc oscillator and multiply in succeeding stages and transmit these dots at, say, 28mc? Referring again to Fig. 1, we can see that the train of plate pulses is simply turned off and on, or modulated by the keying. Thus, the harmonics are turned off and on at the same time as the fundamental. This is clearly seen by the time-function representation. What will the spectrum of the harmonic signal look like? There will be, of course, a carrier of 2f plus and minus the sidebands of the keying pulse spectrum as shown in Fig. 1b. (Mr. Couppez insists on ignoring the first sideband, which is 1/T cycles above and below the carrier, where T is the period of the keying pulses). It should be clear

that there is no doubling of the sidebands This analisis can be extended to sine-wave modulation of the carrier in the same manner and we come out with the same result. See Fig. 1c. If the contention that the sidebands are altered by doubling, how is it we can listen to music from the second harmonic of BC stations and that the FCC can identify the harmonics of ham phones?

For the full-wave rectifier type doubler (which is the circuit used by W9TCJ) we apply a similarly keyed input signal. The output will behave in a similar manner to the Class C circuit, Fig. 2b. There is second harmonic only when the input (fundanmental) is turned on and no second harmonic when it is turned off. Thus, there is no distortion in the envelope of the time function. Perhaps this can be emphasized by using sine-wave modulation as in Fig. 2c. Note that there is no distortion of the envelope and no change in percentage modulation.. The only one of these doubler circuits which will change the spectrum of the modulating signal is the square-law doubler. This circuit is best analyzed by using a single sine-wave as the modulating signal, calculating the output time function, and determining the relative distortion and effect on percentage modulation. We can then extend these results to the keyed or square-wave modulation. The analysis is shown in Fig. 3. It may be seen that the original sidebands are present, and in fact the percentage modulation is greater. However, we also have some audio distortion represented by the doubler sideband frequency terms; however, this is proportional to the modulation index squared divided by two, so this component is small except for large values of m (m is equal to the percentage modulation divided by 100). For the keyed signal, we can see that all of the original pulse-spectrum sidebands will be present; however, there will be additional frequencies and the result will be a distorted pulse. If we desired to use this type of doubler, the distortion would do little harm since our limiters would square the pulse back up. However, there seems to be no reason to use square-law devices since the full-wave rectifier is much easier to obtain.

In my opinion, the basic error in Mr. Couppez's thinking was in operating on the spectrum. Remember, that at any instant of time, there is one value and only one value of any physical wave. There is not, simultaneously, several sine waves. This is only a convenient way of analyzing the time variation. The only operation that can be performed on a spectrum is to change the amplitude or phase of the spectoral components by linear, bilateral frequency selective networks. Any non-linear or uni-lateral device which results in frequency changing (which is a time operation, since the time period of a wave is changed) must be worked within the time domain and the resulting time function analyzed to find the new spectrum.

I had this point of mixing time domain and frequency domain analysis driven home to me when I re-read my comments on sideband and filters in the October '56 RTTY. In discussing limiters I indicated that all spectrum components would be lopped off to the same level. This is not true since limiters are not frequency selective but are amplitude selective (non-linear) and can only be considered in the same domain. Actually, limiting will produce a square-wave spectrum out of a distorted square-wave. I apologize for this error. To paraphase Mr. Couppez, let's don't "tinker" with theory but try to apply logic, intuition, common sense and observation to our theoretical analysis. What do we observe? Why the results of our continued "tinkering" with filters, TU's and all of our other home-made "monsters"!

Diagram on Pages 8 and 9

Proposed RTTY Sweepstakes Rules

Submitted by Boyd "BeeP Phelps, WØBP, W9BP

Unfortunately contests need rules to keep fellers competitive. It has been a long time since RTTY published the regs and not only are there many newcomers but many of the early issues are out of print and there have been some misunderstandings recently. From my rather central location at W9BP in Illinois or WØBP in Minnesota it has been my crazy pleasure to participate in several RTTY Sweepstakes and gradually work up from seventh to third place and generally observe operation from both coasts.

Several ideas below have been merely taken for granted by the gang, but while on the subject of rules I am taking the liberty of injecting some of my own ideas merely as subjects for airing and discussion, possibly at the New York dinner, without intending to be dogmatic or even having the thought this is the best that can be done on the subject.

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

2. Messages shall consist of message number, originating station call, check or RST report of two or three numbers, ARRL section of the originator, local time (0000-2400 preferred), date, and band used (Meters or Megacycles.

3. Scoring will be one point for a msg sent and receipted for 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 total message points is multiplied by the number of ARRL Sections worked to compute 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 as listed in QST (usually page 6) covering Canada, U. S. A. and some possessions. Each foreign contry 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 the contest must be mailed within 15 days of its close, and must contain a tabulation of complete message data required by paragraph 2 above 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 that all rules have been complied with. At the suggestion of any amateur (or on its own initiative) the judges in the contest may request the original printer copy from any contestant, it being interpreted as record message communication within the meaning of FCC Reg. 12.136(h) to be retained 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. However an exception may be made where home state or country competition is not available provided the applicant specifically requests the award and makes a satisfactory showing of operation 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 be changed from time to time. Currently they are: Start;Friday 9 PM EST, 8 PM CST, 7 PM MST, 6 PM PST. End; Sunday 3 AM EST, 2 AM CST, 1 AM MST, Midnight PST.

7. As the contest near the date Feb.20th commemorates the anniversary of FSK authorization, only F-1 emission will be used in this contest on bands between 3.5 and 30 Megs. In the November contest A-1,A-2,F-1 or F-2 emission may be used in any bands permitted by government regulations. The judges will consider any 2 or 6 meter contacts to be AFSK unless the contestant otherwise states. Separate lists will be published or other designation made of stations that augmented their scores by nearby VHF or UHF contacts.

COVER STORY

The station consists of a NC-173 receiver for general work, a surplus Navy rig running 500watts on 80 to 15 meters. The 10 meter band is worked by a 20 watt ex-police rig. Picked up a Navy Scott receiver and it is real FB on RTTY. Converter is home brew and uses ideas I took out of RTTY magazine and help from Beep and Bob again.

We are planning to have a teletype demonstration at the WYMU Hamfest at Big Springs, Idaho, in August and hope to get the Billings and Forsyth RTTY boys in it also.

Next Month—The W9TCJ Automatic Start Radio-Teleprinter System

Subscription Rate $2.50 Per Year

RTTY is the Official Publication of the

RTTY Society of Southern California

and is published for the benefit of all RTTY Amateurs and Experimenters

For Information Regarding the Society Contact the Following:

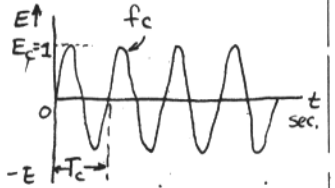
W6CLW—Ed Simmons
W6AEE—Merrill Swan
W6SCQ—Lewis Rogerson

For Traffic Net Information:
W6FLW W6IZJ

For "RTTY" Information:
W6CL W6DEO W6AEE

CARRIER (Sine wave) ONLY

INPUT SIGNALS — TIME FUNCTION

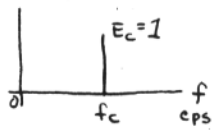


T_c = period of carrier

f_c = freq. of carrier = $\frac{1}{T_c}$

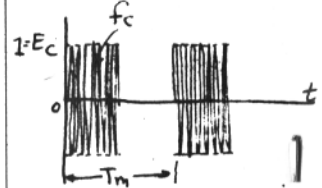
$e(t) = E_c \sin \omega_c t$

INPUT SIGNALS — SPECTRUM



KEYED CARRIER

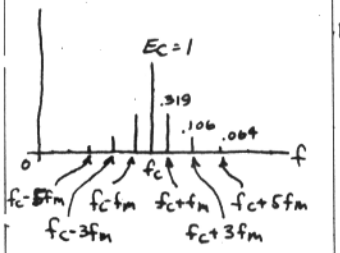
FIG. 1 - CLASS "C" OUTPUT CURRENT — TIME FUNCTION



T_m = period of keying wave

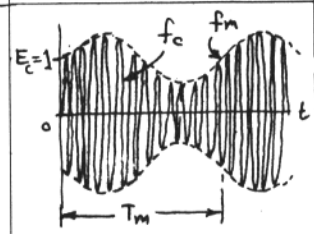
f_m = fundamental of keying wave = $\frac{1}{T_m}$

FIG. 1 - CLASS "C" OUTPUT CURRENT — SPECTRUM



TONE-MODULATED CARRIER (50% modulation)

TIME FUNCTION



$e(t) = (1+.5\sin\omega_m t)\sin\omega_c t$

$= 1\sin\omega_c t + .25\cos(\omega_c-\omega_m)t - .25\cos(\omega_c+\omega_m)t$

SPECTRUM

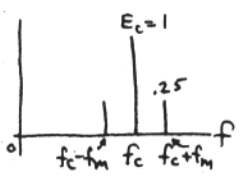
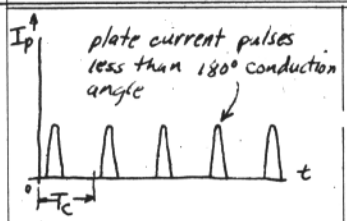


FIG. 1 - CLASS "C" OUTPUT CURRENT

TIME FUNCTION

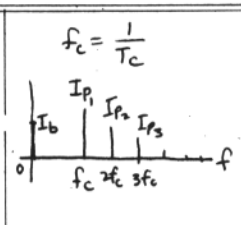


$i_b = I_b + I_{p_1}\cos\omega_c t + I_{p_2}\cos 2\omega t + I_{p_3}\cos 3\omega t + \cdots$

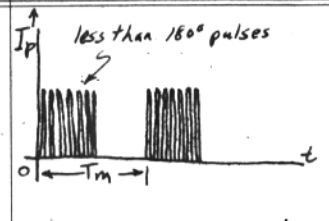
where values of I_p's depends on conduction angle

a

SPECTRUM



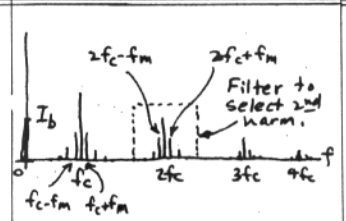
TIME FUNCTION



Note: Each term of i_b is turned off and on by the keying wave

b

SPECTRUM



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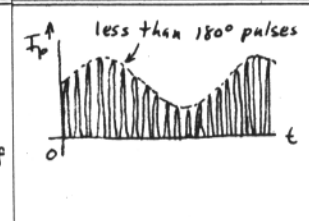

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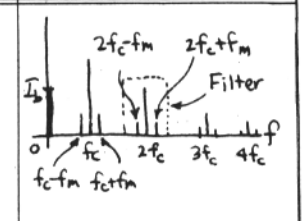
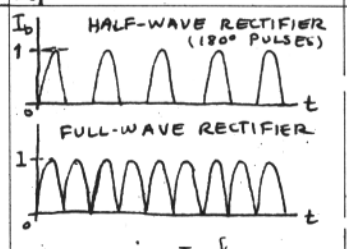


c

FIG. 2 - FULL- and HALF-WAVE RECT. CURRENTS

TIME FUNCTION



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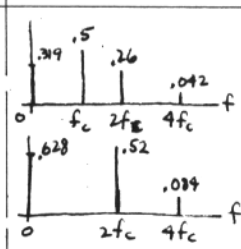
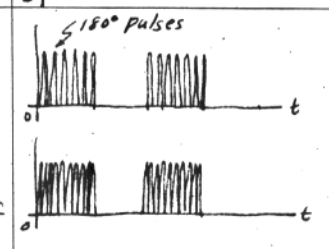


Half-wave: $i_b = I_{max}[(.319) + .5\cos\omega_c t - .26\cos 2\omega_c t - .042\cos 4\omega_c t - \cdots]$

Full wave: $i_b = I_{max}[(.628) - .52\cos 2\omega_c t - .084\cos 4\omega_c t - \cdots]$

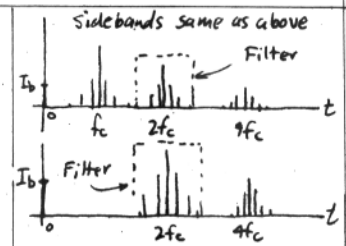
a

TIME FUNCTION



b

SPECTRUM



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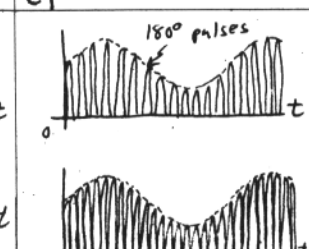

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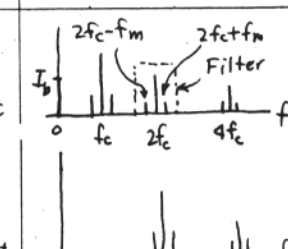


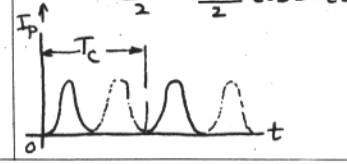
c

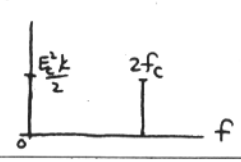
FIG. 3 SQUARE-LAW DOUBLER

Characteristic: $i_p = k e_c^2$

$\therefore i_p = k(E_c\sin\omega_c t)^2 = k(E_c^2\sin^2\omega_c t)$

$= \frac{kE_c^2}{2} - \frac{kE_c^2}{2}\cos 2\omega_c t$





Analysis for tone modulation: Let $e_c = (1+m\sin\omega_m t)\sin\omega_c t$

Then: $i_p = k(1+m\sin\omega_m t)^2\sin^2\omega_c t$

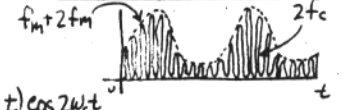
$= k(1+2m\sin\omega_m t - m^2\sin^2\omega_m t)\sin^2\omega_c t$

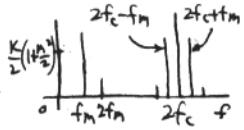
$= \frac{k}{2}(1+2m\sin\omega_m t - m^2\sin^2\omega_m t) - \frac{k}{2}(1+2m\sin\omega_m t - m^2\sin^2\omega_m t)\cos 2\omega_c t$

Filter out 2nd harmonic term only:

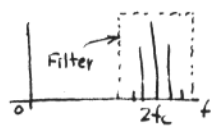
Now: $i_p = \frac{k}{2}\left[\left(1+\frac{m^2}{2}\right) + 2m\sin\omega_m t - \frac{m^2}{2}\cos 2\omega_m t\right]\cos 2\omega_c t$

BEFORE FILTERING:





AFTER FILTERING:



Results of 4th Anniversary RTTY Contest

The 1957 Anniversary RTTY SS Contest found band conditions very poor. This tied with a later date than normal seemed to keep a few of the "regulars" off. However reports indicated it was a good contest.

Top honors go to a New Station this time. W2RUI, Skipper, who is far from a newcomer to RTTY operations, had a score of 2376 points, 22 sections. Next was W2JAV, Phil, with 2156 points and 22 sections. With WØBP, W3PYW and W6AEE following close behind.

Stations taking part, no log submitted: VE2ATC, W2PBG, SMX, TKO, VLL, K2OBJ, USA, ECQ, EPV, W2SSS, ZOC, W3CRO, KYR, RE, LWQ, W5BOT, ENH, W6CQI, K6OUR, W6MSG, FSL, VVF, CG, K6OQW (XYL), W6MZO, PZV, K6EJM, W6LDF, W7YHS, KWB, RZY, CO, PVV, MUQ, W8LEX, BL, DOO, LN, W9ROQ, SPT, CYL, LDH, GRL, DUA, TCJ, VOK, WØJRQ, BKV, HZR, DFP, JHS, LFH.

The dates for the Fall SS Contest have been set for November 1 and 2, 1957, with the starting time at 6:00 p.m. EST and run for 30 hours.

CALL	TOT. PTS.	SECTIONS	POINTS	LOCATION
Lockport Radio Club	2404	22		
W2RUI	2376	22	108	West New York
W2JAV	2156	21	98	South New Jersey
WØBP	2058	21	98	Minnesota.
W3PYW	1980	22	90	Del/Md/DC
W6AEE	1890	27	70	Los Angeles
VE7KX	1600	20	80	British Columbia
W6MTJ	952	17	56	San Francisco
W3MHD	900	18	50	West Pennsylvania
W4EHU	850	17	50	East Florida
W1BGW	840	15	56	East Massachusetts
WØYKZ/5	672	14	24	North Texas
WØFQW	360	12	30	Iowa
W9OCV	234	9	26	Illinois
W6VPC	224	8	28	East Bay, Calif.
W2TBD	200	8	25	South New Jersey
W6LFF (XYL)	144	6	24	San Francisco
W7CSC	140	7	20	Oregon
W6ZBV	126	7	18	Los Angeles
K2CSC	112	7	16	North New Jersey
K6POL	96	6	16	Sacramento Valley
W1AW/QIS/WPR	50	5	10	Connecticut
ZL1WB (Recv)	49	7	7	New Zealand
W2EBZ (Recv)	49	7	7	NYC/Long Island
W6CQK/2	24	3	8	North New Jersey
W6CNH	14	2	7	Los Angeles
W2FAN	12	2	7	West New York
VE7AIK	6	1	6	British Columbia
W1BDI	2	1	2	Connecticut
ZL1WB (2 Way)	2	1	2	New Zealand

Traffic Net News

By EMILE DUVAL, W6FLW

The RTTY Society of Southern California Net operates every Tuesday evening at 8:00 p. m. on 147.85 mc.

ACTIVITY FOR THE MONTH OF MAY, 1957

May 7—W6CMQ, NC—23 Checkins

W6BJR, W6BWG, K6BWJ, W6CKS, W6CMQ, W6CZ, W6DYB, W6EV, W6FHI, W6FLW, W6ICS, K6IHG, W6LDG, W6OQA, W6ORF, W6PZV, W6SCQ, W6TFS, W6TLI, W6TLO, W6ZBV, W6ZH, W6ZVO

May 14—W6CMQ, NC—27 Checkins

W6AEE, K6BTK, K6CHU, W6CKS, W6CMQ, W6CLW, W6CZ, K6DBG, W6DYB, W6EV, W6FHI, W6FLW, K6IHG, W6IZJ, W6JAU, K6KBS, W6LDG, W6OJF, W6ONB, W6OQA, W6ORF, W6PZV, W6QYZ, W6SCQ, W6TFS, W6ZBV, W6ZVO

May 21—W6CMQ, NC—26 Checkins

W6ADD, W6AEE, W6BJR, K6BWJ, K6CHU, W6CLW, W6CMQ, W6CZ, W6DYB, W6EV, W6FHI, W6FLW, W6ICS, K6IHG, W6IZJ, W6JAU, W6LDG, W6OJF, W6OQA, W6ORF, W6SCQ, K6WAH, W6ZBV, W6ZVO, W6ILW, W6ZLU

May 28—W6CMQ, NC—23 Checkins

W6ADD, K6BPI, K6BWJ, W6CK, W6CLW, W6CMQ, W6DBG, W6DDQ, W6DYB, W6EV, W6FLW, W6ICS, W6IZJ, W6JAU, W6LDG, W6OQA, W6OQB, W6ORF, W6SCQ, W6TFS, W6WYH, W6ZH, KN6ZYF

ACTIVITY FOR THE MONTH OF JUNE, 1957

June 4—W6OQA, NC—22 Checkins

W6ADD, K6BPI, W6BWG, K6CHR, W6CMQ, K6DBG, K6DDQ, W6DYB, W6EV, W6FHI, W6FLW, W6ICS, K6IHG, W6IZJ, W6JAU, W6LDG, W6OJF, W6ONB, W6OQA, W6SCQ, W6ZBV, W6ZH

June 11—W6OQA, NC—21 Checkins

W6ADD, W6AEE, K6BTK, W6BWG, K6BWJ, K6CHR, W6CLW, W6CMQ, W6DYB, W6EV, W6FLW, W6IZJ, W6JAU, W6LDG, W6OJF, W6OQA, W6ORF, W6PZV, W6SCQ, W6ZBV, W6ZH

June 18—W6OQA, NC—24 Checkins

W6ADD, W6AEE, K6BPI, K6BTK, W6BWG, K6BWJ, K6CHR, K6CHU, W6CMQ, W6CLW, W6CZ, W6EV, W6FHI, W6FLW, K6IHG, W6IZJ, W6JAU, W6LDG, W6OQA, W6ORF, W6PZV, W6SCQ, W6TLI, W6ZBV

June 25—W6OQA, NC—25 Checkins

W6ADD, K6BPI, K6BTK, W6BWG, K6BWJ, K6CHR, K6CHU, W6CK, W6CKS, W6CMQ, W6CZ, K6DDQ, W6EV, W6FHI, W6FLW, W6IZJ, W6JAU, W6LDG, W6OJF, W6OQA, W6ORF, W6QYZ, W6SCQ, W6TLI, W6ZBV

THIRD ANNUAL NEW YORK CITY MARCH RTTY DINNER

PROGRAM—AMATEUR RTTY
18 March 1957

4:00 pm to 7:00 pm Cocktails at W2 EBZ, 443 W. 47th St., Hosts: EBZ and ZKV.

7:00 pm Move to Hotel Woodstock (in English Room), 127 W. 43rd St., Highballs, Ragchews.

8:00 pm Dinner. Roast Beef or as Reserved.

9:00 pm Talks in following order: (and more highballs) Technical; CD; MARS; ARRL; Net Reports, individual reports.

12:00 pm (Any highballs left, hic).

The following are short introductions to your fellow radioteletype amateurs attending the dinner.

W1AFN—Thomas C. Howard
Alltronics, Box 19, Boston 1, Mass.

Manufacturer of the Alltronics Telewriter Converter Model "A." Ask Tom for the dope sheets giving the schematic and connections between the converter and the Model 26 Printer. (ARTS)

W1BGW—Jack Berman
Dorchester 21, Mass.

Jack is net control station for the 3620 kc. Wednesday night east coast RTTY net. He uses the W2PAT converter, Model 26 printer, Creed tape head, Model 14 typing reperforator, tape punch. Jack holds the DX RTTY record for working ZL1WB in New Zealand. W1BGW worked Navy NSS on 2 bands on Armed Forces Day, 1956. (ARTS)

W1EVZ—James King
Holyoke, Mass, "Jim" (ARTS)

W1OUG—Gordon Stanys
Stamford, Conn.

Gordon works for NBC-TV. Gordon is new in RTTY with an FRA converter and a Model 26 printer. Is interested in obtaining some cheap tape gear (RTTY and Morse). Licensed since 1938, ex-W9EUQ, CN8EB. Active on 80-40-20 cw, some fone. Study Engineer. DX-100 transmitter. Other hobbies are Ham Radio. (ARTS)

W1RBF—Kenneth Payne
Plainville, Conn.

Ken operates RTTY (when time permits) on 80, 40 and 20 meters. He is still looking for a good reliable autostart system for FSK. Ken works as an electrical engineer for the General Electric Co. in their Plainville laboratory—highest working frequency 60 cycles! They make power circuit breakers. Ken worked NSS Armed Forces Day 1956 and copied RTTY message. (ARTS)

W1WEW—Horace Ransom, Jr.
Newton Center 59, Mass.

Ranny is a banker (looks after other peoples money!) and runs 2 parallel 813's on 80, 40 and 20 meters with an erratic homebrew exciter; a Model 26 printer, and a W2PAT converter. Ranny has a 64-element beam for 2 meters which collapsed. He expects to be back on 2 meters by May. Copied Armed Forces Day message 1956, and worked RTTY SS in 1956.

W1ZXA/K2SKK—See K2SKK

W2AKE—Andrew Stavros
South Ozone Park, N. Y.

Andy is with Kollsman Precision Instruments Corporation as project engineer in the electrical laboratory. He was introduced to RTTY in 1942 installing for the AAF in India, China and Africa. W2BFD introduced Andy to amateur RTTY in 1950. He was active on 2 meters a number of years, and hopes to become active on the low frequencies in the near future. He has ideas and hopes of being able to find time to promote RTTY locally, nationally and in CD work. Presently I'm a frustrated RTTYer. (ARTS)

W2ANB/AF2ANB—John Longley
Slingersland, N. Y.

John is a member of Air Force MARS and recently completed a W2BFD converter. (ARTS)

W2AVI—William H. Kunzler
Ozone Park, N. Y.

Bill has a Model 12 on 2 meters. (ARTS)

W2BDI—Edward S. Clammer
Merchantville, N. J.

Ed should need no introduction to active RTTYers who have been following the contest scores. 3620 kc.

W2BFD—John E. Williams
Woodside, N. Y.

The "grandaddy" of amateur RTTY cannot attend the dinner this year on doctor,s orders. John also sends his regrets that he cannot entertain any visitors this year.

K2CSC—Charles E. Rogers, Jr.
Bound Brook, N. J.

Bud operates regularly in the 3620 kc net with a Model 12. Bud uses a Viking II transmitter on all bands (except 2 meters) a GPR-90 receiver with GSB-1 slicer on the IF. Converter is designed by Jack Brown of Barker-Williamson. (ARTS)

K2CSI—Joe Wright
Yonkers, N. Y.

Joe works for relay manufacturer Ward Leonard Electric Co. of Mt. Vernon. He operates on 2 meters AFSK with a 522 transmitter, Gonset converter and SX11 receiver, a Model 26 printer and Model 14 tape transmitter. (CD, ARTS)

W2EBZ—Clayton Cool
New York, N. Y.

Clay works for McGraw-Hill's Technical Writing Service on Government Manuals. Clay belongs to AFCEA, N. Y. National Guard, and publishes the ARTS bulletin. Clay is receiving RTTY with a 100-series printer and FRA converter and needs a 1600 kc rock to put 50 watts on 6 meters. He worked NSS Armed Forces Day 1956 (c.w. one-way!)

W2FTH—David Metal
New York, N. Y.

Dave works on research and development for Norden Laboratories in White Plains. Dave might not be able to make the dinner although he had planned to do so.

W2GHH—Kern M. Bowyer
Bronxville, N. Y.

Kern is active on 2 meter RTTY in the New York City area. He can operate duplex and would like to find others interested in this type of operation. Autostart operates on each hour, 24 hours a day. He will graduate in June with a BEE degree from New York University. Kern copied Armed Forces Day 1956 message on his Model 12 and is active in the Bronxvile Radio Club. (ARTS)

K2HHH—George Vivien
Westfield, N. J.

George is employed in receiving tube application engineering, RCA Tube Division. George has a Model 26 printer, Viking I transmitter with VFO, NC-100A receiver, W2PAT converter, W1FGL indicator, and W0HZR scope. George is a member of RTTY Society of So. California, Inc.

W2IRT—Anthony Landry
Yonkers, N. Y.

Tony works for CBS-TV which sometimes keeps him working at odd hours. Tony has a Model 12 on 2 meter AFSK. He has helped with the several RTTY-CD tests in the Manhattan area. (Yonkers CD Director, ARTS)

W2JAV—Phillip Catona
Hammonton, N. J.

Phil also should need no introduction to RTTYers. Phil was one of the early 2 meter boys, and is now active on lower frequencies. Phil copied the Armed Forces Day 1956 message on two frequencies, and worked NSS on two bands, and took fourth place in 1956 RTTY SS. (ARTS)

W2JTP—Byron Kretzman
Huntington Station, N. Y.

Byron works for Erco Radio Laboratories in Garden City, and is the RTTY column editor for CQ magazine. Byron has 60 watts and a Model 12 on 2 meter AFSK autostart, and 200 watts and a Model 26 on 80 meters. See Byron's transistorized tuning fork in February Electronics (A McGraw-Hill Publication), page 196. Byron is looking for a Model 14 reperforator. (ARTS)

W2KDW—Donald S. Scher
Irvington, N. J.

Don is employed in industrial tube design engineering, RCA Tube Division, Harrison. Don has a Model 26 printer, DX-100 transmitter, NC-100 receiver, and is in the market for a converter. Don is a member of RTTY Society of So. California, Inc.

W2MIB—Harry Evans, DDS
Elmont, LI., N. Y.

Doc is presently connecting a Model 12 printer and a 400-series tape printer for 2 meter AFSK. Doc has a Collins S4 receiver with 1500c filter for 80 meters and is working on an ARC-5 transmitter and stringing an 80-meter dipole. (ARTS) (Doc will enter the door at 8 pm.—Office hours, you know!)

W2MYL/W4HYE—Graham Claytor
New York, N. Y. and Virginia

Graham regrets that he had to cancel his reservation at the last minute at his doc's suggestion. Graham is on 2 meters in New York and has a cool kilowatt in Virginia on all bands, RTTY, SSB, and AM, lots of antennas and no TVI. (ARTS)

K2OBJ/W4ZC—Stuart Davis
Union, N. J.

Stu earns his coffee and cakes as research director for the Potter Aeronautical Corporation of Malibu, Calif. and Union, N. J., makers of the world-famous Pottermeters. He is currently up to his eyes in the satellite program. Stu's first RTTY was in 1922 from Dr. Rogers station 3XR using Western Electric Model 10 and the Roger's rotary printer. Second and strictly amateur band activity was from 1926 through 1932 using a variety of gear ranging from a Morkrum typewheel printer to the 14's and finally the Model 15. Present gear runs 250 watts 80 through 10 meters. Printers are the 21-A and Model 26. Terminal unit is described in ARTS bulletin 30-31 (December 1953) with a few minor changes. Stu is looking for a Model 14 tape printer, reperforator and Model 15. (ARTS)

W2PBG—Robert Straub
Bayside, LI., N. Y.

Bob is another well-known RTTYer active on 3620. Bob worked NSS Armed Forces Day 1956.

W2PEE—Elston Swanson
Glen Head, LI., N. Y.

El works for Instruments for Industry, Inc. of Mineola (electronic instruments and research and development). W2PEE is on 2 meter AFSK autostart and 80 meter FSK with Models 101A, 26 anr 400 printers, Model 12 and 15 reperforators and 1A tape head. (ARTS)

W2QGH/K2AVP—William T. Knott
Larchmont, N. Y.

Bill is presently in motion pictures. Bill met RTTY in the Army Signal Corps in 1944-45 at stations JEAR and WAR. He made the first amateur cross-continental RTTY contact with the aid of W6PSW (Jan. 23 and 29, 1949—see QST p. 10, March 1949). On March 9, 1949 W2QGH worked one-way amateur RTTY DX with JA3RO in Japan. Bill has a Model 12 and tape equipment on 2 meters 20 watts AFSK and 600 watts FM (F2) and also works 6 meters. Antenna is 250-ft above sea level. Bill is active in Westchester CD.

K2SKK/W1ZXA—Paul B. Boivin, Jr.
Orange, N. J. and Central Falls, R. I.

Paul is employed in receiving tube application engineering, RCA Tube Division. He has a Model 26 printer, 813 transmitter, and HQ-140X receiver. W9KLB converter, and W0HZR scope at W1ZXA. At K2SKK Paul operates mostly cw. Paul is a member of the RTTY Society of So. California, Inc.

W2SMX—John H. North
Farmingdale, LI., N. Y.

John works for Grummen Aircraft in Farmingdale as instrumentation electronics engineer. John is operating a Model 26 with a DX-100 transmitter on 80, 40, 20 and 15 meter FSK and has a kilowatt FSK, AFSK on 6 meters and 2 meters. (ARTS)

W2TAM—Raymond De Vos
West Trenton, N. J.

Ray has been receiving with a Model 26 printer and FRA converter and is building a W2PAT converter and audio oscillator. Ray is looking for a method to FSK the KWS-1. He works in the Civil Service Dept. of the State of New Jersey. Other hobbies include Classic Cars and photography. (ARTS)

W2UAE—Donald G. Field
Trenton, N. J.

Don has a Model 26 printer and is building a W2PAT converter. He hopes to be on shortly and probably will start on 2 meters with a Gonset. Don works in research department of a rubber company in Trenton. Other hobby is trying to get ideal ham shack finished in basement of new house.

W2ZKV—Felix Esteban
Elmhurst, N. Y.

Se habla espanol. Felix took a vacation in Cuba last summer and Cuba has been in the headlines ever since. Felix has been ferreting out surplus converters and other TT equipment for sale to amateurs. (ARTS)

Felix will be the host in the shack of W2 EBZ Monday until W2EBZ gets home from the office. Some of the door prizes are on Felix.

W3PLG—Harry Rappaport
Sharon Hill (Philadelphia) Pa.

Harry has been with Pennsylvania RR Co. for about 20 years, mostly in electrified RR section, and recently joined the communications dept. He has been a moderately active ham for 10 years, formerly with the call W9CWY in Chicago and Fort Wayne. Harry has been interested in RTTY for about 3 months and has a Model 15 printer (less cover) and converter for receiving only and is adapting his VFO for FSK to join in the RTTY ragchews.

W4EHU—Macdonald J. Wiggins
Gainesville, Fla.

Don is another new station that has been active on 3620 the past few months.

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

E. F. is with the Edward F. Aymond Co. of Dallas, Sales Engineers. (ARTS)

W6AEE—Merrill L. Swan
Arcadia, California

Merrill is the publisher of RTTY, the official publication of the RTTY Society of Southern California, Inc. and of the RTTY Call Books being used for door prizes. Merrill is with Cannon Connectors—maybe he will show some samples tonight of their rf N and BCN coax connectors. Merrill also worked Navy NSS on Armed Forces Day 1956 and also copied the broadcast RTTY message and of course has also worked all the RTTY SS Contests.

VIA SPECIAL DELIVERY
(Las Minute Receipts)

W2ANB—John Longley
Slingerslands, N. Y.

John was licensed in 1924 and soon after was 2ANB. MS and BS in electrical engineering from M.I.T. in 1934. Went with NY Tel Co. all kinds of Plant Dept. jobs. In the Army 1941-46, radar and related communications in England and the Pentagon, etc. ending the war as Major; now Lt. Col. in AF Reserve. John is now in engineering dept. of tel co on radio matters, has 3 boys (ages 11, 6 and 3). Wife Lillian is W2ZPR (baby sitters permitting, maybe we will see her next year!) W2ANB-W2ZPR have a W2BFD converter working into a Model 15 and hope to be transmitting soon.

W2PAU—E. Miles Brown
Westmont, N. J.

W2PAU has been on RTTY about five yrs. (1954) E. M. was using a Model 12 on 2 meters and on low frequencies, 500 watts all bands. Autostart on 2 meters. With RCA-Victor. "Brownie" (ARTS)

W6CQK/2—John E. Pitts, Jr.
Summit, N. J. and Redwood City, Calif.

John was licensed W6CQK in 1931 and is particularly interested in control circuits. He is currently on loan to Bell Telephone Labs, Murray Hill, from his regular job as central office equipment engineer, chief engineers dept., Pacific Tel & Tel Co., San Francisco. W6CQK/2 is operating 80 meter RTTY and building plenty of RTTY equipment to take home to California. John was the inspiration that fired K2HHH, K2KDW & W1ZXA into RTTY activity.

W2SSS—John J. Schueler
Buffalo, N. Y.

John is active on 147.5 mc. Buffalo Net. (ARTS)

PS:—Altho not mentioned specifically, most all belong to RTTY Society of So. Cal., Inc.

Armed Forces Communications and Electronics Association

AFCEA was organized in 1946 as a national society of American Citizens working toward national security in the fields of communications, electronics, and photography. The Association endeavors to maintain and improve the cooperation between the Armed Forces and Industry. Citizens in training, production, or maintenance and operation of electronic-communications-photographic equipment are invited to join. Annual Dues $5.00. 1624 Eye Street, NW. Washington 6, D. C.