

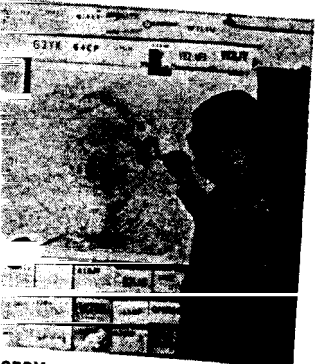
ice Can't

?

Carole F. Hoover, K9AMD
1 East Wood Street
Isboro, Illinois

ir bulletins as a regular member. zes contacts with Russia, Finland, ralia, and all the continents. operating as KN9PPX, Scott en- orking, fishing, and growing un- es of corn including some specid- dian corn which won an award in local competition. During Scott gets up early and works a o before breakfast. s and especially his SWL grand- dled pink since he became a ham. out Scott? Well, he passed his s license exam recently and is waiting the arrival of his new

g forward to being a General." told me, "but I don't think I'll ore fun than I have had as a t the pages of his log crammed the card-covered walls of his y Novice needs for encourage-



9PPX, and his SWL grandfather, point a new contact made on the novice band.

A Simple DSB Exciter

TEN WATTS FOR TEN METERS

E. H. Marriner, W6BLZ
528 Colima Street
La Jolla, California

Many radio amateurs who are now deprived of ten meter SSB operation because of circuit complexity will find this Double Side Band exciter an excellent substitute. The SSB station operators on 28 mc using SSB receivers tune DSB in the same manner as SSB signals and will not notice the difference unless they happen to switch over to the other side band.

The use of DSB is also an inexpensive solution to SSB operation on ten meters which will now be at its maximum cycle for the next few years.

This DSB transmitter should also offer the most fun for portable operation on vacation trips. Because of its simple rugged construction it is not subject to misadjustment during transit.

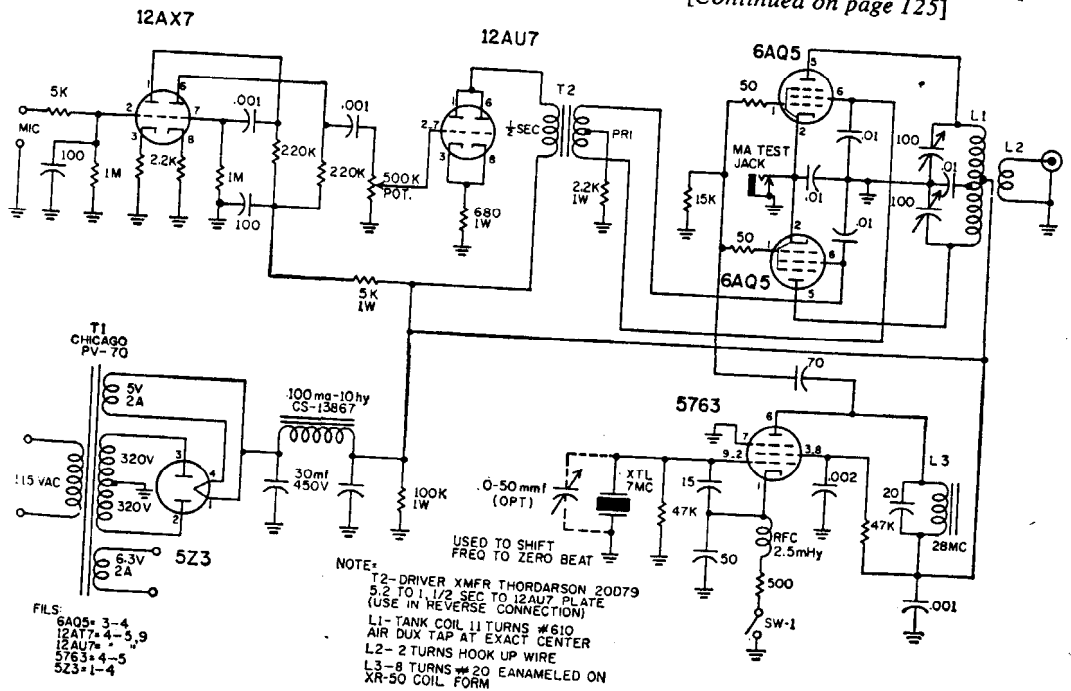
The transmitter is constructed with a minimum of circuits to keep it simple. The audio components are chosen to eliminate low fre-

quency signals which sometimes cause distortion. Voice control and a stable vfo could be added by the constructor at a later time.

Oscillator Stability

On ten meters it is very necessary to have an extremely stable oscillator which is not frequency modulated. This is not easily achieved when doubling oscillator frequencies from a 7 mc vfo where any slight drift is amplified each time the frequency is multiplied. Therefore, crystal control contributes to stability. Most SSB operation exists between 28650 kc and 28700 kc. Thus, with a few 7 mc crystals ground higher from 7150 kc by applying a few swipes of grinding compound on a glass plate and a little lapping, should spread the frequen-

[Continued on page 125]



energy. A 5/32nds hole
 il box. I cut a piece of
 rod, and smoothed one
 dpaper; the result is a

The other end I turned
 file the rod was spun by
 t made a push fit in the
 little Duco cement, it

This serves to conduct
 hole to a point as close
 the 931-A will permit.
 rod was filed smooth
 other piece of poly rod
 herical end. (Roughly,
 fine-sandpapered till it,
 surface. Then the tiny
 cut off, smoothed flat,
 of polystyrene dope,
 of the internal rod.

rod ends in a "wide-
 onally lousy resolving
 light-gathering power.
 t "see pictures" any-
 r means nothing; the
 es count. The system
 directional effects due
 ct.

Cable
 ver-and-meter cabinet
 merits some considera-
 in that cable, and it
 It is urgently recom-
 taken to keep it in
 or hands. There are
 wire intended for TV
 insulation rated at
 the cable somewhat
 as clumsy as you'll
 s. This is one place
 am practice of, "I
 it's good for 1000,
 h 2000. . . ."

measure: the 100-
 with the string of
 to ground, allow
 to pass. That small
 y kill, or even ren-
 reasonable health
 ively to alert you,
 ct that the insula-

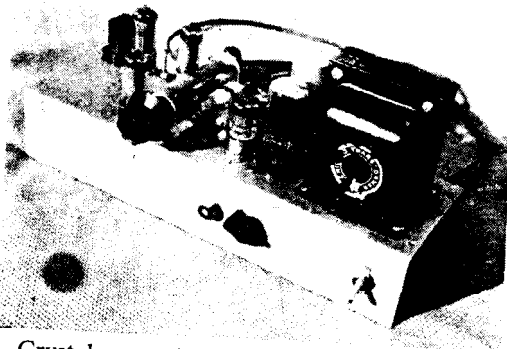
ou're apt to have
 round in a dark-
 moisture on your
 best, solid-plastic,
 of insulation can
 !—by putting it
 standard acetic
 g one end to an
 of the ohmmeter
 ou can read the
 istance between
 t away and try

another kind of wire. It should be over 100,000,000 ohms.

After you've got the thing set up and functioning, one of the most useful projects will be to set up a true gray-scaler for testing film-developer combinations. If you set up a light-box, with a gray scale having steps of 50, 75, 88, 94, 97, and 99 percent absorption, you can take pictures of that on each roll of film you want to test. If, in the developed negative, you don't find 7 even steps of density . . . the film-developer combination isn't what it should be. And that won't be simply a matter of opinion —it'll be arbitrary!

DSB EXCITER [from page 41]

cies across this portion of the band where the operator may get close enough to the other SSB station frequency to make contact. A variable 0-50 mmf condenser inserted across the crystal will allow the operator to lower the frequency 1 to 2 kc and zero beat the SSB stations if necessary.



Crystal control also has another advantage because the frequency will remain constant when the oscillator cathode is opened and closed during transmission and reception. A good vfo would have to be a complicated retro-dyne type to accomplish the same thing so that the signal would not interfere with reception. The output of the exciter is enough power to drive a class AB-1 amplifier to 1 kw, with the gain turned down low.

HQ 140X [from page 39]

be 1 1/2 kc each side of carrier and the edge of the band width will be about 65 db down below the carrier. Now turn the method switch to CW position. Tune in a CW signal and sit back and relax. Full avc action, S meter reading and no thumping. Next tune in a SSB signal adjust your bfo to bring in the signal properly and you will notice that all the stations come in with a minimum of volume control handling. You can't ask for more than that.

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Note from the Glowbugs reflector:

T-20D79 Driver Transformer -

Turns Ratio: Pri - 1/2sec = 5.2:1 , Primary = 30ma max Originally
designed for Parallel or PP parallel 6N7 to PP parallel 6N7 etc Per
1949 Radio Master.

Your application would just need a 5-10ma xfmr.

bob...w2ami