

HEADLINES THAT WE WOULD LIKE TO SEE

NEW JERSEY GETS CALL LETTER LICENSE PLATES; GOV. SIGNS BILL

100% OF MEMBERS ATTEND LAST GCARC MEETING

FCC ADOPTS RM-499

DON'T FORGET that the GCARC membership committee is offering auto ID plates for bringing in three new members.

MAKE YOUR VOICE HEARD.....
COME OUT AND VOTE AT THE..
DECEMBER GCARC MEETING....
DECEMBER SECOND!!!!!!!!!!!!!!

THE ARRL VHF CONTEST IS JUST AROUND THE CORNER IN JANUARY WON'T YOU GET IN THERE AND PULL FOR GCARC? SEE WA2WWF FOR DETAILS.

** SEASONS GREETINGS **



The taming of the shrew
(from the SPARK GAP via
Wash AR News)

GCARC code and theory classes take place at Pitman H.S. every Thursday evening. Here's a chance for new commers to break into ham radio.

ARE YOU A KXY PERSON?
(reprinted from June 1963 CROSSTALK)

Xvxn though my typxwritxr is an old modxl it works quitx wxll xxxcpt for onx of thx kxys. I wishxd many timxs that it workxd pxrfxctly. It is trux that thxrx arx fourty onx kxys that function wxll xnough but just onx not working makxs thx diffxrxncx.

Somxtimxs it sxxms to mx that our organization is somxthng likx my typxwritxr, not all thx pxoplx arx working propxrlly.

You may say to yoursxlf, "Wxll I am only onx pxrson, I won't makx or brxak a program." But it doxs ~~makx~~ a diffxrxnce bxcasx any program to bx xffxctivx nxxds thx activx participation of xvxy mxmbxr. So thx nxxt timx that you think that you arx only onx pxrson and that your xffortx arx not nxxdxd just rxmxmbxr my typxwritxr and say to yoursxlf, "I am a kxy pxrson in our organization and I am nxxdxd vxxy much."

KILOCYCLE CHATTER

WA2KWM is in the process of constructing the Daddy of all antennas. The word is out that it will be X number of elements. The only problem is it is for UHF TV!

The chap that lives at
namely K2PQD, has an antenna that is as big as his house. The antenna is 32 ft. and the house 35 ft. It looks real pretty on the roof!

CROSSTALK.....

is the official publication of the Gloucester County Amateur Radio Club Inc. The deadline for the submission of material for publication is the 20th of the month. Any material contained in this publication may be reproduced by any non-profit amateur radio organization.

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MEETING NOTICE

THE REGULAR MONTHLY MEETING OF THE GLOUCESTER COUNTY AMATEUR RADIO CLUB WILL BE HELD ON WEDNESDAY DECEMBER 2ND AT 8 PM IN THE OWENS-ILLINOIS CLUB HOUSE IN GLASSBORO, N.J.

say you saw it in.
CROSSTALK.....
even if you didn't

de K2JKA

During 1964 there were 12 issues of CROSSTALK published containing a total of 117 pages. The average distribution per month was 75, this includes members and exchange papers. A total of approx. 8775 blank pieces of paper went through the mimeograph machine to produce the some 900 copies that were mailed throughout the year. The average number of pages per issue was 9.75, the largest issue being in February with a whopping 17 pages and the smallest being in the month of July with only 4 pages.

The total cost of publishing CROSSTALK during 1964, including postage, was \$98.22, or an average of \$8.18 per issue. This means that approx. \$1.23 of your dues went for your copies of CROSSTALK during '64.

I would personally like to thank Sid Gantz WB2JRU who took care of the mailing of the paper during the past year and Clif Brown WA2KGD who took care of many details pertaining to the publishing of CROSSTALK as well as all the mimeographing. There is also another person behind the scenes who helped make CROSSTALK successful during the past year, that is Clif's XYL Margie. I suppose that we could refer to her as our gal Friday

(cont'd on page 6)

**NOMINATING COMMITTEE MEETS AND
SELECTS IT'S SLATE FOR '65**

The nominating committee of the club met during the month of October (see last months CROSS-TALK) and selected the following slate:

President	Jack Layton
Vice Pres	Pete Biew
Rec Secty	Gurdon Cooper
Cors Secty	Della Parker
Treasurer	Jim Peck
Director	Bob Danley
Director	Woody Frantz
Trustee	Bill Bachman

Nominations were also called for from the floor of the November meeting; there were none. Nominations will also be open at the December meeting. **COME OUT AND VOTE AT THE DECEMBER MEETING.**

DIALOGUE OF THE MONTH
from HARASCOPE Hamden AR Assn

Congressman: Mr. Commissioner,
my constituents are against
RM-499

FCC Man: Who asked them?

Congressman: But this is a democracy.

FCC Man: How many kids would
vote to go to school?

don't forget to
SAY YOU SAW IT IN CROSSTALK
even if you didn't

**BRING YOUR MEMBERSHIP CARD WITH
YOU TO THE DECEMBER MEETING....
YOU MAY NEED IT IN ORDER TO
VOTE!**

**always listen on frequency
before you transmit!**

AREC AIDS LOCAL POLICE DEPARTMENT

The Gloucester County AREC lent their services to the West Deptford Township Police Department during the "Halloween Season" Five 50 mc. mobiles, tied in with the base station set up at police headquarters, ventured into the dark land of the "witches and goblins" on the last three evenings of October in an effort to keep vandalism to a minimum. The hams who took part were protected by a police officer riding in each car! Praise for Ham Radio and the AREC group came from both the police chief and the Director of Public Safety. Those participating were WA2WWF, W2LVW, WA2SFY, K2JKA, WA2RGI, WA2EPB, K2PQD, WA2TDI and WA2KGD who operated the base station.

AMATEUR RADIO EXISTS AS A HOBBY

only because.....

IT QUALIFIES AS A SERVICE

The Amateur Radio Commerative Stamp should be available soon. All hams are urged to buy and use it on correspondence. We will try to mail CROSSTALK with the stamp when it is available so that each of you will have at least one.

from the Roanoke Valley Amateur
Radio Club via Wash AR News



Next time I'm working DX, I
bet you won't butt in.

YE HON ED ON SOAP BOX.....

This month we have tried something new! How well it is going to work I don't know. If the bottom half of the page is blank then the cartoon (traced from another publication) didn't turn out. The only way to tell is to print the page and keep our fingers crossed.

Up to this point the exchange papers have been lucky as all that we have swiped from them has been printed material but now look out! Speaking of swipping things this little tid-bit came from the Washington Amateur Radio News. (they swipped it from an unknown source)

There are times when officers of radio clubs must wonder if it is worth while to schedule meetings of groups or to abandon the project. If the September meeting is any criterion of members interest in our club, then one wonders why officers bother to arrange programs, send out notices, and publish the club paper since so few hams make an effort to come to the monthly meetings. A check through the local call book disclosed a number of former calls that have moved away from the area, have given up operating or have been registered as silent keys. This however does not explain why the active operators in the area covered by the club fail to show up at the meetings. A discussion showed that Friday nights are as convenient as any other evening. All kinds of programs have been tried; inducements have been part of the invitations for years, a lunch has been served regularly, yet members come only once or twice a year.

Apparently this ailment is contagious; either we at GCARC have caught it from someone or they have caught it from us. Maybe the solution lies in getting a bus and sending it out with armed board members to gather up club members on meeting nights!

Tnx to
SCARA NEWS



"You know what has just occurred to me, Jee?
I forgot to turn off the transmit switch."

de K2JKA (cont'd from page 3)

Besides doing some of the typing she was also our proof reader, pointing out some of our many errors in spelling and grammar on the stencils before they were printed. (and sometimes in the paper after it was printed!) If it wasn't for these individuals some of the issues of CROSSTALK I am sure would not have become a reality.

Those that contributed material should also feel that they too helped to make our paper successful during the past year. A big thanks to all who are too numerous to mention, from yours truly as well as I am sure, all who read CROSSTALK during '64.

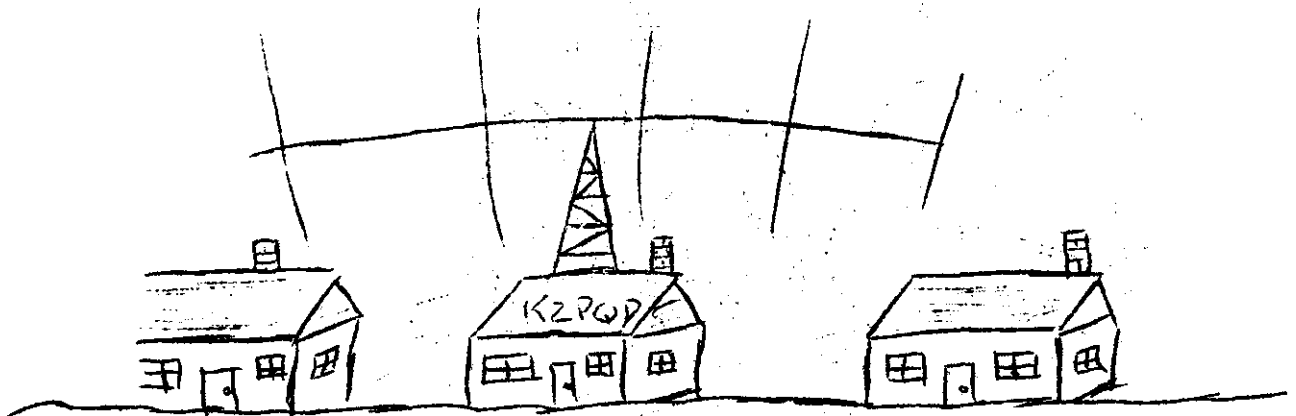
The only dark cloud which I can see from this vantage point is the fact that CROSSTALK, as well as many other club projects, is still not supported by the entire membership. There are many capable individuals who could contribute very worth while material to our paper but for unknown reasons they do not. If each and every one of us who have contributed to CROSSTALK during '64 continues to do so in '65, and each one of us entices one more to be a booster, then '65 should be a booming year!

BEST WISHES FOR A HAPPY HOLIDAY SEASON FROM YE HON-ED AND THE ENTIRE CROSSTALK STAFF.



AUTOMATION COMES TO CROSSTALK

For quite a while the problem of addressing CROSSTALK every month has ended up being a very time consuming job. In most cases each paper was hand addressed using a master mailing list. As you will note this month's issue is a little different. An address list has been punched on a paper tape that works in conjunction with a RTTY machine; then 2½ inch gummed wrapping tape is fed to the RTTY printer...result...a continuous tape, gummed on one side, with all of the addresses ready to go. Addressing a 60 WPM by RTTY is a lot faster than doing it by hand!



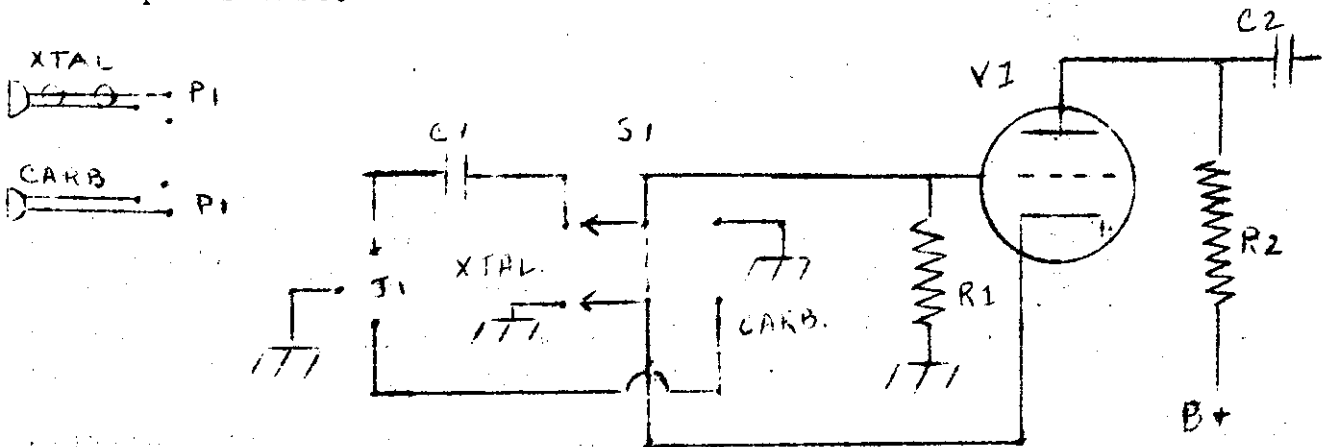
THE NEW ANTENNA AT 22 G STREET

THE MOBILE MIKE.....carbon....crystal.....both!

During the summertime a lot of mobile mikes go bad. If you are looking for the most dependable mobile mike ever get hold of a telephone mike mouthpiece. Like the T-1 or F-1 button. There are plenty of these around in the junk boxes so don't steal it!

A carbon mike is a close talking mike and thus reduces background noise which is quite prevalent in the mobile. A carbon mike is almost indestructible as to heat, shock, and moisture. The schematic here is of the first speech amp of most transmitters, and shows the means of using the same stage for both crystal and carbon mikes. With the switch in the crystal position the stage is operated as a conventional amp. With the switch in the carbon position the stage is operated as a grounded grid amp with the mike in the cathode lead to provide mike current. Some of the components shown are already in the first audio amp and they are so noted in the parts list.

Here is a cute little gadget described in the June issue of the DX-mitter, the Bucks County Amateur Radio Clubs paper. For those of us using Shawnees and similar equipment, this type of arrangement would allow us to use the carbon mike, with all of its advantages in the mobile, and when using the rig fixed revert back to the ceramic or crystal mike for better quality.



- C-1 Existing input coupling capacitor
- C-2 Existing plate coupling capacitor
- J-1 Mic connector, 3 contact type
- R-1 Grid leak resistor, 470 K to 2.2 meg. existing
- R-2 Plate load resistor, existing
- S-1 DPDT switch
- V-1 12AX7 in most cases, existing

For more information consult the ARRL Handbook, mobile section.

DON'T FORGET THE DECEMBER CCARC MEETING, WEDNESDAY DECEMBER 2ND
*******IT'S ANNUAL ELECTION NIGHT*******

 * SEASONS GREETINGS *

AUDIO COMPRESSION.....advantages and how to do it! ..

Have you ever tuned across a phone band and observed two signals with the same S meter reading yet one was barely readable while the other was Q5? No doubt one was well modulated while the other was not.

Lets take a look at the AM signal and see just what happens. With no modulation we have X watts; when audio is applied to the plate circuit the plate voltage doubles during the positive peak, this in turn causes instantaneous plate current to double, now we have 4 times the carrier power. On the negative portion of the audio cycle the plate voltage should go to zero, thus no output. Thus if we can keep the average audio power up (and the modulation near 100%) we will end up with more talk power. One caution at this point..... running the audio up brings about the possibility of over modulation. This happens when the negative cycle of the audio peak swings the plate voltage negative....end result...distortion....splatter, etc.

All that we need at this point is a gadget that will allow us to run the audio up but keep the high peaks from over modulating the transmitter. This type of device usually falls into one of two main catagories.....the audio clipper that actually cuts the peaks above a predetermined level off the audio waveform.....or the compression amplifier that behaves in much the same way as the AVC in your receiver; electronically reducing the gain on high peaks.

Described here-in is an audio system that will accomplish the tasks outlined above. This unit was intended to drive a modulator (PP-6L6's or 6L46's) directly however it could be modified to work into the mic input of an existing transmitter. A 600 line output was used so that the unit might be connected to any one of several different transmitters in use in the shack. It could be built on the same chassis

as the modulator by making the changes outlined in FIG #3.

A Lafayette 99G9037 printed circuit transistor amplifier which nets for \$6.95 is used to drive the compression amplifier. A 99 G 6034 input transformer is also need-

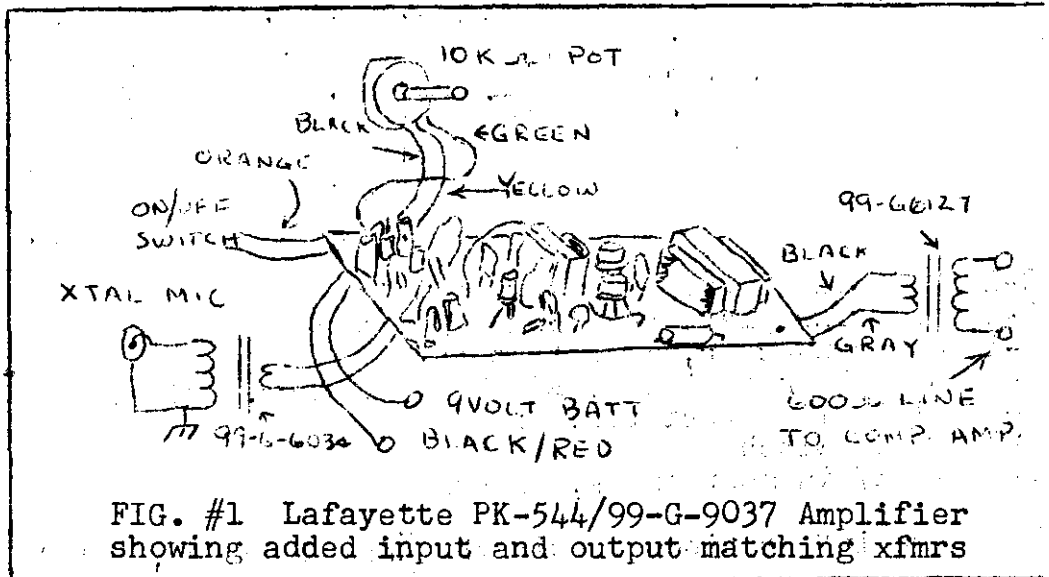


FIG. #1 Lafayette PK-544/99-G-9037 Amplifier showing added input and output matching xfmr's

ed if a crystal microphone is to be used with the unit. A 99 G 6127 transformer (3.2 to 500 ohms) is used to get a 600 output from this amp. This Lafayette amplifier was not intended to be used around a strong RF field so care must be taken to shield it. All transformer cases on the printed chassis should be bonded to a common ground buss.

(continued on the next page)

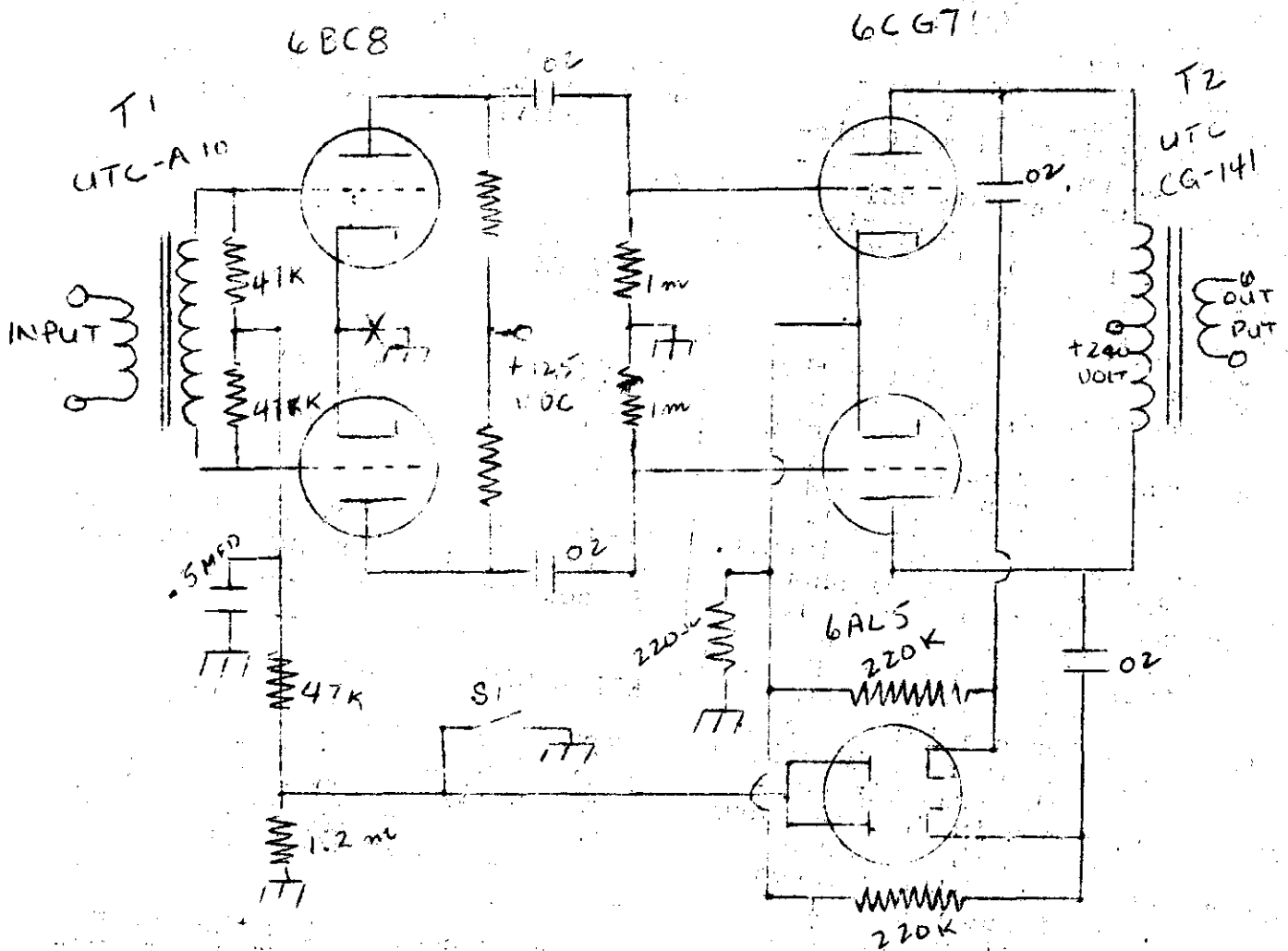


FIG. #2 Schematic of Compression Amplifier; all resistors $\frac{1}{2}$ watt

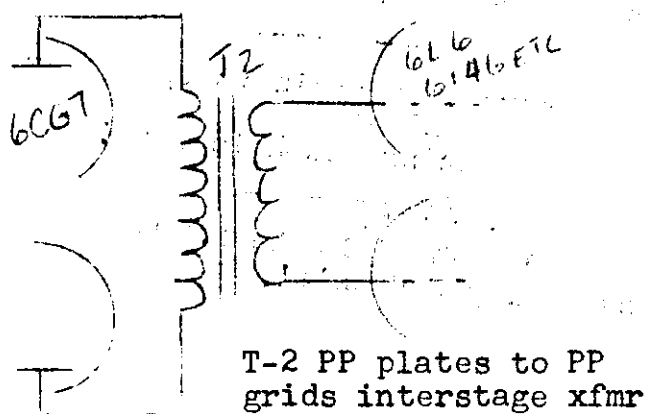


FIG. #3 Changes to output section for driving modulator directly

don't forget to
 SAY YOU SAW IT IN CROSSTALK
 even if you didn't!

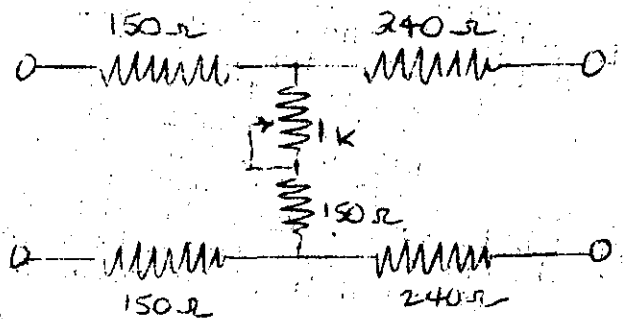


FIG. #4 Attenuator pad

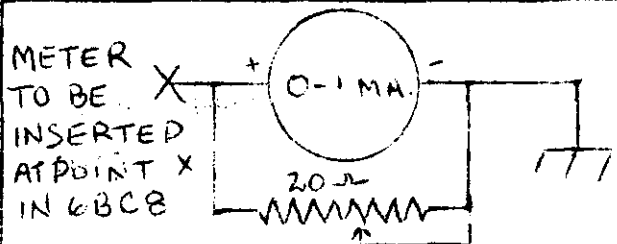


FIG. #5 Meter circuit (optional)
 (9)

AUDIO COMPRESSION (cont'd)

This unit can be removed from the limiter by several feet and connected with 2 conductor shielded cable.

The placement of parts on the compression amplifier chassis is not critical with one exception..IF THE POWER SUPPLY FOR THIS UNIT IS BUILT ON THE SAME CHASIS PLACE THE POWER TRANSFORMER AS FAR AWAY FROM T-1 AND T-2 AS POSSIBLE. The schematic (fig. #2) does not include pin connections for the tubes, consult the handbook for this information. Also for the sake of simplicity filament wiring is not shown. The power supply arrangement for this unit should be capable of delivering 220 to 250 volts for the 6CG7 plate and through a dropping resistor about 125 volts for the 6BC8. If this unit is to be built on the same chassis as the modulator the output transformer, T-2, can be changed to a PP plate to PP grids driver transformer as shown in fig. #3. In this case a ganged gain control should be installed in the modulator grids circuit. The 600 ohm arrangement as shown is very convenient if the unit is to be used with more than one rig. In this case a line to PP grid transformer should be installed on the modulator chassis; the compression amp may then be installed remotely from the transmitter. An attenuator, shown in fig. #4 should be installed in both the input and output lines of the compression amp. The input pad will control the amount of compression while the output pad should be set for 100% modulation. Fig. #5 shows a metering circuit that can be installed in the cathode circuit of the 6BC8. With no audio being fed to the unit the 20 ohm pot should be adjusted until the meter reads full scale. When working the meter will kick back to approx half scale. With the aid of an audio osc and VU meter this meter may be calibrated in DB of compression.

DX.....

by Glenn Morgan WA2QHQ

The club placed 25th out of 32 participating clubs in the ARRL DX contest last February and March. The CW award winner for the club was W2TLO and the phone winner was WA2QHQ.

It was encouraging to see that we did this well at our first try in the DX contest as a club. The next ARRL sponsored DX contest comes up in just a couple of months; it certainly would be nice to see more individuals from GCARC participate in this contest.

Individual scores were:

CW	
W2TLO	13,158
WA2QHQ	13,110
WB2EDH	12,690
WA2TTA	420
PHONE	
WA2QHQ	14,288
W2LVW	1,296
WB2EDH	297
WA2TTA	6

Don't forget the DX award offered by the club; the requirements are 50 countries QSLed and WAC.

KILOCYCLE CHATTER

WA2KGD now has a squelch circuit installed on his receiver and can usually be found monitoring 50.9 mc. He promises to write it up for the next issue of the paper.

WA2QHQ recently blew the power transformer on his HT-32 by trying to squeeze the last watt out on the rare DX!

make sure that brain is operating
ALWAYS
before placing mouth in gear!

don't forget to
SAY YOU SAW IT IN CROSSTALK
even if you didn't!

YES FELLOWS, THERE IS A SANTA CLAUS!

by one who really knows

'Twas the night before Christmas as I look back,
And there I sat with a light in the shack.

The stockings were hung by the chimney with care,
Across the band I looked for some DX to snare.

The children were nestled all snug in their bed,
While visions of rare ones danced through my head.

Up and down the band I tuned once more,
I was so tired it was becoming a chore.

When I heard it I could hardly believe my ears,
A CQ being tapped out by eight tiny reindeers!

I turned on the rig and grabbed for the key,
And in two seconds he was answering me!

"Hello young fellow, the handle's Saint Nick"
When I heard this I thought I'd been hit by a brick!

"I'm on a journey to near and far,
The rig is mounted in this thing I use for a car."

"It's powered by cheer and good wishes for all,
And by the way, thanks for giving us a call."

"Back to you" he said with a click,
But I still couldn't believe it was really Saint Nick.

The years have gone by and I've grown old,
Time after time this story I've told.

To believe it I know is really hard,
Until I show you his QSL card!

Each non-believer examines it well,
And leaves the shack really feeling swell!

For there on the wall for all to see,
Is proof of Santa's que-so with me!

And on the back of his card he wrote with red and green pens,
MERRY CHRISTMAS TO ALL OF MY FELLOW HAM FRIENDS.

WANTED USED SSB EQUIPMENT

FOR SALE

GSB-100 B&W 5100-B HT-37
Dick Medlin WB2PWK

6 mtr. xmtr. plate mod with 6L6's
pwr supply incl. conv. thrown in
free. GLENN MORGAN

