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January Issue 1969

Pitman, New Jersey

The monthly bulletin of the GLOUCESTER COUNTY AMATEUR RADIO CLUB
PUBLISHED FOR THE INTEREST OF IT'S MEMBERS AND FRIENDS.

THE CLUB TAKES THIS MEANS TO WISH EACH AND EVERY MEMBER A VERY
HAPPY AND PROSPEROUS NEW YEAR AND INVITES YOUR INTERESTS FOR THE
COMING YEAR.

F L A S H

The regular monthly meeting for January will be held on Wednesday,
January 8, 1969, at 8:00 P.M. on the Third floor of the Borough
Hall, owing to the fact that New Year falls on our regular meeting
night. Please be there, it pays

The deadline for all material to be used in this bulletin must be
in my hands on Friday, two weeks preceeding publication. My address:
Wally Martin, W2PLD,

THANK YOU

On 12-3-68 at about 12:00 P.M. EST, some of the members from G.C.A.R.C. showed up at the following address, to help a fellow ham raise his tower, and as most of you know, and as "Murphy" stated so vividly in his 1st. law; "a 15 minute job usually lasts 4 hours", and four hours it did last.

Gentlemen, this is an open letter of thanks to the guy who thought of having a club called G.C.A.R.C. And to think that it took me a year to get the lead out and join the organization.

Where else do you find a law enforcement officer sacrificing more time than he thought to help; or a man not in the greatest of health jumping in with the rest; or a guy spending about 2½ hours hanging by a safety belt 40 feet up in 30 degrees temperature; and a guy who stayed away from his football game to stand by and aid, or a guy who showed up to help any way that he could, or a guy who just came by to offer suggestions and then offered himself.

Fella's, this is truly a great club. Food and drinks are not just enough

Thank you!

Paul Callaghan WB2WAK.

Ed. Note.... Somebody up there likes you, Paul

DXpeditioner. For \$25.00, so it was publicized in WEST GULF DX BULLETIN, his QSL manager would arrange to have your QSL's for contacts with him sent to you direct from the DX location! All donations were welcomed and we can only suspect that the average was at least one dollar per QSL. Now sad to relate, this DXpeditioner admitted, when questioned under oath, that the DXpedition to St. Peter and Paul's Rocks in August 1966 was a fake. The transmissions eagerly believed by hams to come from this tiny isle actually came from another location along the coast of Venezuela. Tsk, Tsk, when one considers that there were over 3200 QSO's (per DXpeditioner's statement quoted in the WGDG Bulletin), it is plain to see if \$1.00 per QSO were forthcoming, the trip would have an intake of \$3,200.00 in QSL money. If half of those who sought QSL's were just cheap so and so's, who send no cash, only \$1,600.00 would have been forthcoming, which might not meet the boat's charter fee. But if the boat didn't leave harbor - what's with the cash? Would the Post Office Department consider this solicitations of funds a form of using the mail to defraud? Or just selling DX QSL's, the validity of which has been denied by the ARRL? (Like, "sorry about that").

The matter of mail frauds is a real sore spot at this point. A New Jersey amateur ran ads in QST and certain other journals soliciting Collins 75A modification jobs at \$69.95. Your receiver would be modified in 72 hours and shipped back perfect, so he said. He also advertised used Collins gear for sale -- and you ought to see the list of ham's names and calls who have shipped Collins 74A's to this character MONTHS AND MONTHS ago, and have never seen their receivers again. One Brooklyn ham sold him a KWS-I and didn't get paid. It seems that the police in Brooklyn, New York take a very dim view of this sort of thing, for the amateur, Robert Stankus, K2DX (who only recently got that nice call from FCC) was indicted by grand jury for Grand Larceny. We are printing a copy of the D.A.'s letter in this Bulletin. (Ed. Note: The DARA Bulletin) to verify our statement and if anyone wants details of the alleged fraud, write Ernie Cheslow, W2QPJ, the ham who trusted. If anyone needs information on some other sorely disappointed hams who "trusted", we can supply it, exactly as it was supplied to the Postal Inspectors. Incidentally, we are reserving a page in our July 1971 edition for an announcement of any action taken by the Post Office Department. If anything is done before then, we will report it here.

Ed. Note: this article was taken from the December 1968 Issue of Auto Call Bulletin, and all of the hams should give this editor a rising vote of thanks for alerting the thousands of hams throughout the nation and showing them just what kind of "SKUNKS" are hiding among our ranks, and if more hams who have the info would bring it before the rest, a steady battle would ensue until these leeches are wiped out one by one. Let's keep our eyes open and whenever we can help rout these rats and protect our fellow ham. Honestly, this is a very serious matter, so give it serious thought!

Your editor is busy trying to put together a SB 101 in between writing this bulletin, work, and a bout with the Flu Bug. So if this paper is a bit jumbled blame it on anything you want to but we are trying anyway.

If we can continue to have out the number of members and visitors at our meetings coming up, you will be entertained by some outstanding programs, but we must have the membership present in order to put on these programs. A lot of work and time goes into this so you can see just why it is so important that a whole lot of "YOUS" come out and bring a friend.

The value of money depends on the people who use it. Money may purchase a fast automobile and a broken neck; a round of fast living and chronic dyspepsia, mere entries in a bankbook that itself could be duplicated for a dime; a bullet in one's head from a thief, who robs one's safe; a Christian home with good food, good books, and fellowship; a share in healing the physical, mental, and spirituals ills of the world. You earn your money and take your choice.

Official Bulletin #198

ARRL efforts to keep the six meter band fully open to all holders of renewable amateur licenses have again been rejected by FCC. It denied RM 1352, most recent petition of the league in this matter, which can be found in Happenings of the Month, November QST. While FCC did reiterate its intention of watching the restricted segments closely for possible future changes, it feels that the docket 15928 version of incentive licensing needs longer trial and changes now would be premature. Thus the restriction of 50.0 to 50.1 MHz to Extra and Advanced Licensees, which became effective November 22, continues to be in effect.

Official Bulletin #200.

The Federal Communications Commission has changed the eligibility requirements for Novices. Effective January 24, 1969, anyone not licensed as an amateur by FCC in the 12 months prior to his application will be able to take the Novice test and receive a two year license. However, FCC denied the ARRL request that current holders of Technician Class licenses also be made eligible for Novice. Full details will appear in the February issue of QST.

For Sale One complete Novice Xmitter, Heathkit DX 40, Recvr, Hallicrafter SX III, and a Dow-Key. For a quick sale all items for \$100.00... See W2AFZ

We had 29 members present at our December's GCARC meeting. What a nice sight to see so many members present and if this is any indication of what we will have during 1969, our efforts for 1968 will not have been in vain. Thanks a lot fellows for putting in your appearance. We are also glad to have had the following visitors, WB2JZX from Clarksboro, WN2EOB from Pitman, WN2AZD from Glassboro, and W2TLO also from Glassboro. Please note our meetings are always open to visitors, and it is our hope that they will become impressed with our club and join it. So always be on the lookout for good prospects and see if you cannot get them to sign up.

What this family needs is family trees that will produce more lumber and fewer nuts ... The Ham Monitor.

Now that we are starting a new year, an urgent plea is being made for volunteers to complete the staff for this, your paper "CROSSTALK." Please contact me Wally Martin, W2PLD,

There are many jobs that you can do besides writing.

We are determined to make this paper better this coming year and we can only do it with your help

What Kind of Current Flows in the Tube Plate Circuit? - by WA2NPD

Too often I have heard the explanation that alternating current (AC) fed into the grid circuit of some vacuum tube, passes on through and out into the tube plate circuit where it continues to flow (greatly amplified) but essentially duplicating the waveform of the grid current. Hence, we hear the expression, "AC flows through the tube into the plate circuit." The fact is that this description of the Kind of current flowing into the plate circuit is unequivocally wrong! "But-but-but", one might object, "we all know that transmitting antennas radiate RF AC current which obviously must come from the plate circuit of the final amplifier!" Well, yes, there certainly is AC out there on the antenna -- in fact on both transmitting and receiving antennas! Let's see what's going on here.

First of all, let's define AC. Alternating current means a reverse flow of electrons, i.e. electrons flow down a wire in one direction, stop, then flow back up the wire from whence they came. This is analogous to a row of dominoes falling first one way - then the other. Therefore, if electrons flow always in the same direction, then AC cannot be used to describe this kind of current.

Now look at a typical RF amplifier circuit as shown in Figure 1. A large positive B plus DC potential is connected to the plate of the triode which causes the negatively charged electrons (current) to stream from the cathode to the plate and into the plate circuit. These electrons flow only in one direction - away from the plate itself as a result of the large positive DC potential from the power supply. Greater or fewer electrons flow from the cathode to plate depending upon the AC RF current swing on the grid of the tube. More electrons on the grid (negative AC swing) cause fewer electrons from the cathode to reach the plate and vice versa. But, the important fact is that the electrons flow only in one direction - from cathode to plate regardless of the amount of RF grid current, grid bias, etc. Yet, we know that an amplifier tube must faithfully reproduce the oscillator AC waveform as well as amplify the signal. So, during typical tube operation, what kind of current does flow away from the tube plate? The answer is "fluctuating DC" (FDC). Table 1A shows the RF AC grid current and B the corresponding RF FDC flowing into the plate circuit. Note that both wave forms are identical but that the FDC never goes below zero current (grid bias determines how close); hence the electrons never reverse direction as in the case of the AC grid current. Except for detector tubes, FDC flows into the plate circuit of all grid-controlled vacuum tubes; radio as well as audio frequency. In the case of detector triodes, the large negative grid bias lops-off the bottom half of the RF AC swing - hence the plate current becomes RF pulsating DC. This is shown in Table 1C.

Then how does this RF FDC become RF AC out on the antenna? Returning to Figure 1, the answer lies in the decoupling (or DC blocking) capacitor C. Electrons build up on side A of capacitor C during the FDC peaks driving electrons away from side B out into the antenna circuit.

During FDC valleys fewer electrons appear on side A with respect to side B and many of the electrons previously driven away now return to side B. Hence, a back and forth AC RF electron flow occurs on the antenna side of capacitor C whereas the electrons piling up on side A are continually "sucked" into the power supply once having lost their RF character.

This discussion may appear somewhat basic to the electronically experienced reader for which we apologize. Nevertheless, our purpose here is to lay-to-rest the well-worn phrase about AC flowing through and out into the plate circuit of a tube and, if we accomplish this, our mission is successful. For the sake of brevity, we have omitted a discussion of tube space charge and feed back effects (internal tube capacitance) which influence but are not critical in importance to the ideas presented here.

Scuttlebutt

WB2WAK's grand tower raising was a gala affair with several sturdy souls braving a crisp wind and low temperatures in order to insure that a certain quad stays put this time. K2SOL's and WB2FJE's VW's and WA2VEE were hitched to the lines and pulled the tower up very nicely. Unfortunately, it was necessary to lower and dismantle, and put it back up piece by piece due to a combination of factors which escape engineering expertise at the moment. Fortunately, WB2WAK's XYL saved the day with excellent sandwiches and 807's which served to neutralize the ill-effects of the directions from W2KE, the chief supervisor on-the-job. Nevertheless, the tower looks quite impressive and we wish Paul many hours of op. pleasure.

For those of you who have struggled through the spelling in this column during recent months, I assure you that I am not totally responsible. Apparently, the Secretary, who does the final typing attends tower raisings just prior to typing-up these lines.

Good to see an old club member JackOberst back at the meetings. We know that Jack will rejoin the Club after 4 years away in Service and we heartily welcome him back into the fold.

Our condolences to W2KE on the recent loss of his brother. Hope that all works out for the best in situations like these.

Great to hear WA2VEE and WB2PVI on the 10 meter net last night. Our new prexy was loaded into a 75M inverted-V (matchbox) and Bill Shaw came roaring in on his beam.

Our congratulations to all new club officers after their hard-fought campaigns to win the respective election races. Let's trust that all club members will get behind WA2VEE and his crew and make this year the best ever for GCARC!

The Hong Kong flu is making its rounds throughout the club. Know that W2PLD, K2SOL (and KYL's) and WA2NPD and entire family were recent victims. Hope all are well by now. WA2NPD heartily thanks WB2RVE and KYL for pinch-hitting and holding the Club Board of Directors meeting at their QTH.

The club-sponsored radio theory classes were dropped due to lack of sufficient attendance. Oh, well, we at least offered the opportunity and we cannot be responsible if not enough guys are willing to take advantage of this training.

K2SOL's suggestion of a club technical committee (a permanent standing committee which had recent Board approval) seems especially great. Once in gear, all members should take advantage of this committee and volunteer your services as well. More details at the January Club meeting.

Wonder how many club members showed up on January 1 for the meeting? Now that's real dedication -- to suppress the hangover for the club!

Many thanks to WB2RVE for donating the recent door prizes. This is the kind of spirit we really appreciate. Keep em coming Bob!

See you all at the January Club meeting and wish all the best for 1969!

de WA2NPD