

PACK RATS' CHEESE BITS



MT. AIRY V.R.F. RADIO CLUB, INC., PHILA., PA.
(50.2, 145.2, 221.4, 432.2 & 1296.4 MC.)

CLUB CALL: W3CCX

AFFILIATED MEMBER: AMERICAN RADIO RELAY LEAGUE

EDITOR: HELEN BRICK, XYL, W3SAO

MEETING NOTICES: LAST PAGE

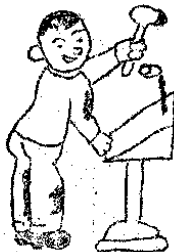
MEMBER CLUB: DELAWARE VALLEY COUNCIL OF AMATEUR RADIO CLUBS

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OUR PREZ SEZ



The January Sweepstakes is over and now we can set our sights on the June QSO party. The January event went as predicted and my sincerest thanks to W3LHF and his committee for a job well done. W2EIF will chairman the June event and the co-operation of all will make this a very worthwhile and productive effort. See Jo if you want to participate.

The Delaware Valley Council of Amateur Radio Clubs has elected our own K3HWZ as its Chairman, for which we are all very proud. With Grandpop Bill at its helm, the DVC will really go places. We will be looking forward to plans for a regional convention in this area and Mt. Airy has pledged its full support.

Dave Zimmerman, W3LHF, has come up with a good suggestion as a result of monitoring signals during the recent contest. He noted that a great many signals could have been improved upon for the equipment used. In many cases, modulation was not up to the carrier, signals were too broad, etc. This led Dave to propose that Mt. Airy start another first-Quality Control type of help for all who need it. When punk signals are transmitted, the reflection is on the individual first, then on the organization to which he belongs. Accordingly, Dave has the blessings of the Board of Directors and the expert help of the Technical Committee in helping to straighten out the offending rigs. Don't be surprised when the QC gang visits and please do not be offended. Your rig will get a thorough going over and the result cannot help but please you.

73,

Doc

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(1)

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DEADLINE FOR ARTICLES: 20th of the
month.

ALL INFORMATION SHOULD BE SENT TO THE
EDITOR: HELEN BRICK, XYL, W3SAQ
821 W. Lindley Avenue,
Phila., Pa. 19141
215- DA. 4-7524

TRUSTEE OF CLUB CALL: W3CCX
W3SAQ, FRANCIS BRICK
821 W. Lindley Avenue,
Phila., Pa. 19141

AWARDS CHAIRMAN:
W2EIF, JOSEPH KILGORE
5 Sunnybrook Court,
Stratford, N.J. 08084

DIRECTORS' MEETINGS are held the
second Wednesday of each month as
designated locations.

MONDAY NIGHT NETS:

8:00 P.M. - 145.2
9:00 P.M. - 50.2
10:00 P.M. - 221.4

OFFICERS: 1964 - 1965

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W3LHF, DAVID ZIMMERMAN
W3HKZ, EDWARD KUSHNER
K3CIV, RALPH HERSH
(EX-OFFICIO)

FEBRUARY BIRTHDAYS

K3KTY, John; W3MXW, Joe; and W3IBH,
Chas, K3EMA, Pete.

Congratulations and Best Wishes for
many more.

PHILA. COUNTY AREC

PLANNING MEETING: Wednesday, January,
27, 1965, 8:00 P.M.

REGULAR MEETING: Wednesday, February
3, 1965, 8:00 P.M.

MEETING PLACE: GILBERT SPRUANCE SCHOOL,
HORROCKS AND LEVICKS STREETS.

The regular meeting of Wednesday, Jan-
uary 6, under the direction of K3KTY,
John Tate, the new EC had only gotten
started when a landline call was re-
ceived announcing a three alarm fire
at 22nd and Berks Streets. That broke
up the meeting fast as the members
connected with the Red Cross Disaster
Service hailed out including the EC,
K3KTY and the SEC, W3ELI.

On the way home to change his clothes,
W3SAQ, Frankie heard K3GQJ, Jack
Greenage in QSO on the AREC frequency,
50.2. He broke in and asked Jack to
hold the frequency until K3WEU, Paul
could get home and get up communica-
tions with the mobiles and Red Cross
Headquarters. Paul is Disaster Chair-
man for Center City Red Cross Disaster
Service.

11 homes on 21st Street, Lambert Street
and Berks Street were on fire as a re-
sult of a garage fire in a space be-
tween the houses. All evacuated per-
sons were taken care of by family or
friends.

PHILA. COUNTY ARPSO ACTIVITIES

On Wednesday, 30 December '64, members
of the Phila. County ARPSO arranged
to have several families and their
children talk via ham radio to their
crippled children who are hospitalized
at the Shriners Hospital in Philadel-
phia. A portable station was set up
at the hospital using the call of
K3JQZ, (El). Assisting him were K3KTY,
(John) Phila. Co. EC, K3NSN (Chuck),
and K3TKA (Cliff). The following
fixed stations were on the air to re-
lay parents and children at home to
the hospital: K3WEU (Paul), K3DXC
(Mel), K3ESL (Ben), W3ELI (Van),
K3ZPQ, Montgomery County AREC and
W82MTU, Gloucester County, AREC, S. N.J.
Mobiles for transporting families as
required were: W3SAQ (Frankie), K3YBA,
W3CPD (Stan) and K3YPL (Micky). The
operation started at 6:30 P.M. and
ended at bed time for the children at
8:30 P.M. Seven families were able
to participate and the exercise was
completely successful from start to
finish; a real emotion packed situa-
tion but heartwarming all the way.

The Evening Bulletin had a reporter
log in the event at K3WEU's QTH;
Radio station WIP recorded parts for
their news program and the Daily News
called to interview W3ELI and the
parents at his location.

73.

W3ELI, SEC EPA

OFFICIAL BULLETIN NR. 986 FROM ARRL
HEADQUARTERS, DECEMBER 31, 1964

With the approach of the ARRL Inter-
national DX Competition, United States
amateurs are again reminded that the
following countries object to communi-
cations between their amateurs and
those of other countries, Cambodia,
Indonesia, Viet Nam and Thailand for-
bid such radio communications. The
prefixes to avoid are XU PK JZ 3WS
and HS. Canadian amateurs additionally
may not contact Laos XU9 and Jordan
JY.

SOME PEOPLE HAVE ALL THE LUCK (?)
DEPT: K3OBY's rig burned up on Sun-
day, January 3rd and on Monday, Jan-
uary 4th Jim fell and broke his arm
at work. All this and the VHF Sweep-
stakes on the 9th and 10th?

HORIZONTAL DEFLECTION TUBES AS RF POWER AMPLIFIERS

From Sylvania News, by W. D. Murphy
Edited by W3HKZ, Edward Kushner

The limited choice of RF power amplifier tube types in the 50-watt category and their relatively high cost has caused designers of amateur and industrial communications gear to seek out acceptable commercial receiving tubes for use in this field.

Modern horizontal deflection amplifier tubes, while not originally designed for RF applications, have several attractive characteristics. They are capable of high peak currents, an important factor in single sideband applications. Further, these high currents are attainable at low plate voltages which can result in power supply economy. Widespread usage in television applications contributes to low cost and general availability.

Since deflection tubes are designed and controlled in manufacture only for deflection amplifier service, manufacturers ordinarily do not publish data specifically showing operating conditions or capabilities in the various types of RF service. In the interest of providing a benchmark for the equipment designer, Sylvania's Engineering Laboratory has measured and tabulated actual performance of several tube types operating in both Class AB1 and Class C at a frequency of 30 Mc.

Deflection tubes can be divided into two general categories, those designed for black-and-white television, and having a plate dissipation rating of about 17 watts, and larger 25-30 watt tubes designed for color applications. Variations occur in basing, internal connections, and certain electrical characteristics to satisfy specific application requirements.

Four types of low power B&W tubes and two-color TV types which appeared suitable for RF service were selected for evaluation:

<u>B&W</u>	<u>Color</u>
6GJ5	6HF5
6JB6	6JE6
6JM6	
6JG6	

The types 6JB6 and 6GJ5 differ only in that the former has separate pin connections for the beam forming plates, while in the 6GJ5 the beam plates are internally connected to the cathode. Both have 9-pin novar bases. The type 6JM6 has a 12-pin base, and slightly lower peak current capabilities than the other types. The type 6JG6 is a single-ended tube designed specifically for "Low B+" televisions.

The Types 6JE6 and 6HF5 have plate dissipations of 24 and 28 watts respectively in color TV deflection service. The 6JE6 has a 9-pin novar base and the 6HF5 a 12-pin base.

The performance, operating conditions, and power levels are shown in Tables I and II. The Class AB1 operation is particularly applicable to single sideband linear amplifier service, while Class C operation applies to CW and narrow band FM operation.

TUBE RATINGS

The plate dissipation rating of a particular tube type is established only after extensive life testing, and is set at a value which will result in long life, and no damage to the tube. Deflection tubes are rated for continuous duty, and therefore, must be capable of operating continuously at established dissipation levels. Intermittent operation, such as might be encountered in two-way communication equipment, allows one to operate a tube at higher power than would be permissible on a continuous basis. For this type of service, many transmitting tubes carry Intermittent Commercial and Amateur Service ratings, as well as Continuous Service ratings. The ICAS plate dissipation rating is 25% higher than the CCS rating of the same tube. The same 25% increase over published values was used to establish the maximum plate dissipations for the several deflection tubes evaluated at 30 Mc. (CCS*Continuous Commercial Service-Commercial omitted in sentence 9).

FREQUENCY LIMITATIONS

The physical construction of a tube is important in determining its high frequency performance. Since horizontal deflection circuits operate at a low frequency, considerations which determine tube lead length, interelectrode capacitance, basing, etc. are not the same as for high frequency performance. A high output capacitance, for example, would shunt the RF plate current to ground, resulting in excessive currents within the tube. The same is true of the input circuits. Lead inductance resonates with the tube capacitance at some high frequency, further increasing stray currents.

A comparative evaluation of the tubes was obtained by measuring resonant frequencies, input and output capacitance. This is shown in Table III. The

(next page)

effect of lead inductance is evident from the Type 6HF5 input circuit measurements. With only one grid connection, the tube was resonant at 86 Mc. With both grid leads connected in parallel, capacitance increased, but the resonant frequency also increased to 100 Mc.

In conclusion, it should be kept in mind that the operating conditions and limiting values presented in this article are only suggested. They do not constitute formal ratings such as those established for the various tube types in their intended application of horizontal deflection amplifier.

CLASS C OPERATION ICAS--30MC

Type	(1) Ecc1 Vdc	(1) Ecc2 Vdc	(1) Ebb Vdc	Peak Ecl V RF	(1) Ic1 Ma dc	Ic2 Ma dc	Ib Ma dc
6GJ5	-75	200	500	61	5.0	14.9	180
6HF5	-85	140	500	67	8.0	12.5	200
6JB6	-75	200	500	61	5.0	13.3	180
6JE6	-85	125	500	72	8.0	17.2	222
6JM6	-75	200	500	57	4.0	13.7	180
6JG6	-80	150	450	67	8.0	20.0	202

Type	Grid 1 Driving Power (Approx.) Watts	Grid 2 Dissipation Watts	Plate Input Power Watts	Power Output Watts RF	Efficiency %	Plate Dissipation Watts	(2) Circuit Loss Watts
6GJ5	.43	2.99	90.0	62.7	69.5	22.0	5.3
6HF5	.76	1.75	116.0	77.0	66.0	35.0	4.0
6JB6	.43	2.66	90.0	62.7	69.5	22.0	5.3
6JE6	.82	2.15	111.0	76.3	69.0	30.0	4.7
6JM6	.32	2.72	90.0	61.1	67.9	22.0	6.9
6JG6	.75	3.0	91.0	63.0	69.3	21.0	7.0

(1) Selected as Optimum Operating Conditions as Outlined in Text.

(2) Calculated Power Lost in Tank Circuit.

UPPER FREQUENCY LIMIT

Type	C Input (pf)	Input Resonant Frequency (MC)	C Output (pf)	Output Resonant Frequency (MC)	Probable*** Upper Frequency Limit of Operation (MC)
6GJ5	19.1	190	10.0	190	150
6HF5*	25.5	86	16.3	141	60
6HF5**	26.7	100	16.3	141	75
6JB6	19.1	190	10.5	200	145
6JE6	24.3	82	14.5	152	60
6JM6	17.2	200	10.3	194	150
6JG6	22.9	187	14.7	226	150

* 1 Grid ** 2 Grids *** 75% of Self - Resonant Frequency

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CONTEST RESULTS JANUARY 9, 10, 1965 VHF SS

<u>CALL</u>	<u>CONTACTS</u>	<u>SECTIONS</u>	<u>SCORE</u>
K3ABK	193	4	5404
K3ACR	426	8	15336
W3AJF	266	8	9576
K3ALK	213	4	5964
K3AUH	6	1	132
W2AXU	305	12	13420
W3BAH	115	4	3220
K3BGT/2	6	1	132
K3BHK	302	8	10872
K3EOY	152	4	4256
W3BQU	129	4	3612
K3BRJ	54	4	1512
W3BRU	114	4	3192
K3BKK			
W3BVR	137	4	3836
W3CCX	214	5	6420
WB2ODP	315	6	10080
K3CHN	36	2	864
W3CL	461	9	17518
W3CLQ	224	8	8064
W3CPT	124	4	3472
W3CXU	270	8	9720
W3DJV	90	3	2340
W3DJV/m	18	2	432
K3DLS	114	4	3192
K3DUW	370	7	12563
K3EHQ	155	4	4340
W2EIF	478.5	11	20097
W3ELI	150	4	4200
K3EMA	148	4	4144
K3EMR	15	2	360
K3EPB	172	4	4816
K3ESL	151	6	4832
K3FDH	203	4	5684
W3FTU	117	4	3276
K3GAS	314	5	9420
W3GEC	73	3	1898
W3GEW	351	4	9828
K3GOZ	80	3	2080
W3GXB	83	3	2158
W3HAB	305	5	9150
W3HFY	450	10	18000
W3HIX	102	4	2856
W3HKZ	366	9	13908
K3HSS	279	4	7812
KsHWZ	200	4	5600
W3HYO	53	2	1272
W3IBH	105	8	3780
K3IFH	135	3	3510
K3IGX	239	4	6692
K3IPM/3	465	10	18600
K3IUV	343	7	11662
K3IUZ	265	11	11130
K3JJZ	377	4	10556
WA2JNA	189	5	5670
W3JSD	183	6	5856
W3KKN	258	11	10836
W3KLL	116	4	3248
K3KTY	219	4	6132
K3KUB	175	4	4900
K3KVS	187	6	5984
W3KXH	169	3	4394
K3LBT	50	2	1200
K3LEA	30	2	720
W3LHF	411	10	16440
K3LOM	379	9	14402
W2LZA	232	8	8352
W3MFY	614	12	27016
K3MSV	187	5	5610
W3MYE	239	4	6692
W3MXW	366	13	16780
K3NMN	344	4	9632
W3NSI	189	3	4914

<u>CALL</u>	<u>SENTACTS</u>	<u>SECTIONS</u>	<u>SCORE</u>
K3OBY	125	4	3500
K3OHY	325	10	13000
K3PXT	297	5	8910
W3QAS	104	3	2704
WA2QCCQ	152	8	5472
K3QFQ	167	4	4676
K2QOS	178	7	6052
K3RCV	228	6	7296
K3RIT	203	4	5684
W3SAO	349	6	11168
W3SMK	163	6	5216
W2SXO	132	6	4224
K3TPM	261	8	9036
K3UJD	268	7	9112
K3VPP	90	4	2520
K3VPP/m	12	1	264
K3WEU	229	5	6870
K3YPL	131	4	3668
K3ZPN	245	5	7350
K3ZPQ	166	6	5312
W3ZRR	167	4	4676
W3ZTL	154	3	4004

TOTAL CLUB SCORE ~~XXXXXX~~ correction 646, 292

January VHF Sweepstakes Statistical Summary 1964 and 1965

	1964	1965
Logs submitted	99	94
Total Score	755644	646292
Average per man	7632.8	6875.5
Total Man hours	1953	1574
Man hours average	19.7	16.7
Points per man hour	386.9	410.6

One obvious conclusion that may be drawn from this summary, is that the club put in less time per man with fewer men, and as a result, racked up a ~~larger~~ score. The points per man hour lower

has gone up. Some would conclude that this means the gang is getting better. This is a dangerous assumption and is akin to complacency. If this number continues to climb, then we may assume that the members are becoming more proficient. It is possible, however, that the increase with fewer men and less time is a mathematical phenomenon. Let's not be lulled to sleep by numbers.

W3LHF Dave Zimmerman, Chairman
Contest Committee

By W3HKZ, Ed Kushner

RECEPTION IN A TUNNEL

Now you can drive your car through a tunnel and get excellent reception on your car radio. The 17.5 mile Chesapeake Bay Bridge-Tunnel, the longest in the world, now provides this facility. The new radio system consists of antennas mounted at each end of the tunnels and connects with amplifiers. The amplifiers boost the signals received by the antennas and feed them to antenna cables running the length of the tunnel ceilings. The ceiling cables built into the tunnels originally to provide two-way short-wave communications for the police cars and emergency vehicles. We wonder if any VHF ham signals can be heard?

SYNCOM III TECHNICAL INFO

The new Syncom has 2 receivers and 2 traveling wave tube transmitters with 2 watt power. One receiver has a 13 Mc IF bandwidth of 5 Mc. The receiving antennas have a gain of 2 db; the transmitting antenna, 6 db. Signals are transmitted from the ground on 2 frequencies near 7360 Mc; transmission to the ground is on 1815 Mc.

NEW PRODUCTS OF INTEREST TO HAMS

By W3NSI, Lynford Rowland, Jr.

1. Beam Power Tube

RCA has a new conduction-cooled tube on the market, reported to require 1 second to warm up for full output. Designated RCA 8426- the unit is designed for low-voltage or stationary equipment, and may be used as an RF amp, or Oscillator. In CW operation it has an output of 110 watts at 50 Mc - 105 watts at 17.5 Mc and 85 watts at 450 Mc. (700 VDC plate). No price information.

2. Box Enclosures

Bud Co. now has a versatile enclosure line consisting of a welded base and two sided cover. Made of 20 gauge steel in six sizes, they would be fine for the ham who likes chassis style project work, but who wants the convenience of a channel box construction. This is a rugged unit with good shielding properties.

Write Bud Co., request catalog CU.

3. Fluorescent Ballast-DC

A unit is now available for the ham that would like fluorescent lighting in their cars, boats, campers, vans or for battery ~~FD~~ operation. The "Tran-Sal" is available for lamp wattage of 4-30 and for 12, as the preferred value of DC volts. Other voltages from 6-36 can be had on order. Units are transistorized and completely sealed. Twin lamp units are also available if desired.

Bodine Co., Box 67, Germantown, Tennessee 38038
Price; avg. - \$12.00

TWO METER ACTIVITY

By W3LHF, Dave Zimmerman

My apologies to all for the missing column last month, and for the lack of operation on the band. Bigger and better rigs are in the wind for the old band, and I was trying to get it percolating in time for the contest, but it is the same old story; haste makes wasty or something like that. Anyway, all I did manage to do is to get the thing going on CW at 144.012 with a crystal. No new sections fell to the key, but they were in there waiting for just a bit more power and persistence.

Many of you were able to work K1APA/1 in New Hampshire during the contest, and this was certainly a goody even to one who worked many in the far north. It was interesting to note that his signal built up to S 9 for a few seconds at a time and then settled to a steady S 3 during most of the time that we heard him.

Also heard many other New England stations on fone, and several on CW in Conn. E. Mass. and W. Mass. An easy contact for anybody in the Phila. area was E. N.Y. on CW at 144.030. He called CQ about every hour or so and got very few replies and I know many in the club would have liked to get his section. Let's start now trying the old pile of iron on two meter CW. If anyone has trouble, please get in touch with me for I have an easy scheme for keying almost any rig, even balky ones like mine. (next page)

The last few months has shown an influx of new calls on two meters which is quite unusual. Normally I would list the new ones I have heard but there are just too many this month. Several of our new members have discovered that things can be worked every night on two that puts six in the back seat. Propagation seems to be better at all times, and the QRM is lower.

A conspicuous absence these days on the band is Herman, K2BNK. I heard during the contest, from one of his friends, of the passing of his wife. Our sincerest sympathy to you and it is hoped that you can soon be back with us Herman.

JANUARY 1965 VHF SWEEPSTAKES

By W3LHF, Dave Zimmerman, Chairman Sweepstakes Com.

Well, another good contest has come and gone fellows, and once again the MZ-Airy VHF club has done an outstanding job. The Official tally is not complete at this time and will not be complete until after the co-ordinator's meeting at the QTH of K3GAS January 23. Until that time it is felt that no unofficial estimates of our score should be publicised. Anyone who is curious and has not heard may call me at home and I will be glad to pass the word.

I would like to offer my thanks to all the members for their outstanding effort in this contest under conditions that were far from ideal. No good openings occurred, and the ground wave in all directions was down, yet the gang did not get discouraged and let down. I heard some of our loyal opposition crying the blues, and some of the not so loyal cursing a blue line about the lousy conditions; but that's like moaning about the weather, which incidently was also not too good. Nothing will change, either, fellows, and I was glad to see every one pitch in and keep battling. The average score will not be much below that of the last two years, and once again we have proved that while we all are proud of the "big guns" we have in the club, it is the grass roots man, the Mr. average that will win contests.

My thanks also to the Co-ordinators for the excellent job they did in all of the assigned tasks given to them. The committee operated like a smooth team, and our success is certainly due to their efforts.

A special thanks to the XYL's who stood by their OM during the weekend. They also did a terrific job.

All sorts of interesting things happened to members of the gang, and these stories will come out at the "Crying-towel" session. One small note that didn't help anybody was the snow. That junk hanging all over the trees on my wood lot served to scatter my signal a bit, and the mounting depth drove Stan, K3IPM, off his hilltop retreat much earlier than planned and may have been the reason for his not repeating as high man again. Tough break, Stan, just have to get set to knock the ears off the opposition next year. Ernie, W3KKN, got an attack of some sort of stomach trouble and had to knock-off after his best start ever. That, too, is a hard way to get beaten, and glad to see you feeling better, Ernie. Paul, K3EDU, a new member, never got a chance to start as he entered the hospital the night before. A very speedy recovery to you, Paul.

The final tabulation will be mailed to all members as soon as complete and once again all hands should read the results with a feeling of satisfaction of a job well done.

RESPONSIBILITIES OF AN AMATEUR

By K3EMA, Peter DeConter

We, as Radio Amateurs, are a privileged lot.

As a licensed radio amateur, our United States Government gives us a privilege which we can enjoy without end. There is a qualification which our government requires of us, to enjoy our well earned hobby. This qualification is that a license must be issued and it may be obtained from one of the agencies of our government by submitting to a proficiency examination. Specifically the agency is the Federal Communications Commission, better known as the FCC.

If it were not for this license requirement, one may listen to one of the amateur bands and it would be easy to assume the pandemonium that would ensue.

One of the reasons for licensing a radio amateur, or a potential radio amateur, is to satisfy our government, at least in part, that the operator will show the FCC that he is at least proficient enough to operate his equipment within the scope of his license.

Imagine what would happen if no license or regulation were required. Your transmission would make the neighbors lights flicker on and off, you would be heard on his inter-com, his TV (some are today), his telephone, his record

(next page)

player, his electric organ and in general, be ostracized in the neighborhood. The regulations, as set forth by our government, are really for our own benefit and good. A perfect example of how the adherence to these regulations well followed by each of us, was demonstrated January 9th and 10th. No one, to my knowledge, asked anyone to be courteous, to show a little tact, to be thoughtful during this ARRL VHF Contest. Yet, it was there. You would hear one station answer a "CQ" and upon completion of the contact, say, "Thanks, I'll QSY your frequency." One station would call another, and not being heard, would get a call from a third station saying, "So and so is calling you.", and many more noteworthy compliments.

If we can be this courteous to one another during a contest, why can't we be just as thoughtful during our own Mt. Airy VHF Nets?

One of the regulations states that, the transmission of a station call sign be made, quote, at the beginning and end of each single transmission., unquote.

There are times when a net control station may not hear a station call into the net. If a relay is to be made to the NCS, net control should be called, your station call given, and the word relay mentioned. It is easy to make a dual transmission with another station and not know it. Net control may or may not recognize the station calling with the relay. A dual transmission can very easily upset the orderly sequence of a net.

It might be well for a net control station to consider the appointment of an alternate net control station on each net, in each of the various sections. It will then be that station's responsibility to make the necessary relays to Net control in his respective section.

Let me not get off on a tangent.

What other hobby can one pursue and enjoy and get the thrill of knowing that you are doing good for your country, your community, your neighborhood and yourself?

We as amateurs, at least a goodly number, are prepared to help out in an emergency. The emergency could be a state of war, a disaster such as an earthquake, flood, conflagration, tornado, hurricane, epidemic, first aid and many humane efforts. You, as a radio amateur, are a member of this team. Imagine how much good an individual is to this effort if he is an archer, a gunner, a golfer, a fisherman or a stamp collector!

Amateur radio is your privilege to enjoy. Respect this privilege and responsibility and your amateur license will not ever be in jeopardy.

COMING EVENTS

FEBRUARY 27: EAST COAST VHF SOCIETY 7th ANNUAL DINNER AND HAMFEST, SWISS CHALET, RAMSEY, N.J., 7:00 P.M.

APRIL 10: MT. AIRY V.H.F. RADIO CLUB 8th ANNUAL LADIES NIGHT, BUCK HOTEL, FEASTERVILLE, PA., 7:30 P.M. \$6.00.

DEADLINE FOR RESERVATIONS: APRIL 5. MAKE RESERVATIONS WITH W3CJ, Harry Stein, 2087 Parkdale Avenue, Glenside, Pa. 19038, or K3HWZ, Bill McCutcheon, 124 Orchard Lane, Feasterville, Pa. 19048. Indicate your choice, Roast Beef or Fried Chicken.

APRIL 24: READING RADIO CLUB 10th ANNUAL BANQUET, FRANK REESERS RESTAURANT, RT. 61, POTTSVILLE PIKE, 7:00 P.M. \$5.00 Adult, \$2.50 Children under 12.

DEADLINE FOR RESERVATIONS: APRIL 10. MAKE RESERVATIONS WITH K3YNN Elmer, K3IQJ, Stan or W3ITH, Pete. (sorry we have no QTH for them) Indicate your choice of Ham or Turkey.

DID YOU KNOW

That K3DUW, Alan was #1 winner in the annual CQ VHF Contest (Summer 1964) K3LDM, Harry was #2 and K31PM, Stan also participated?

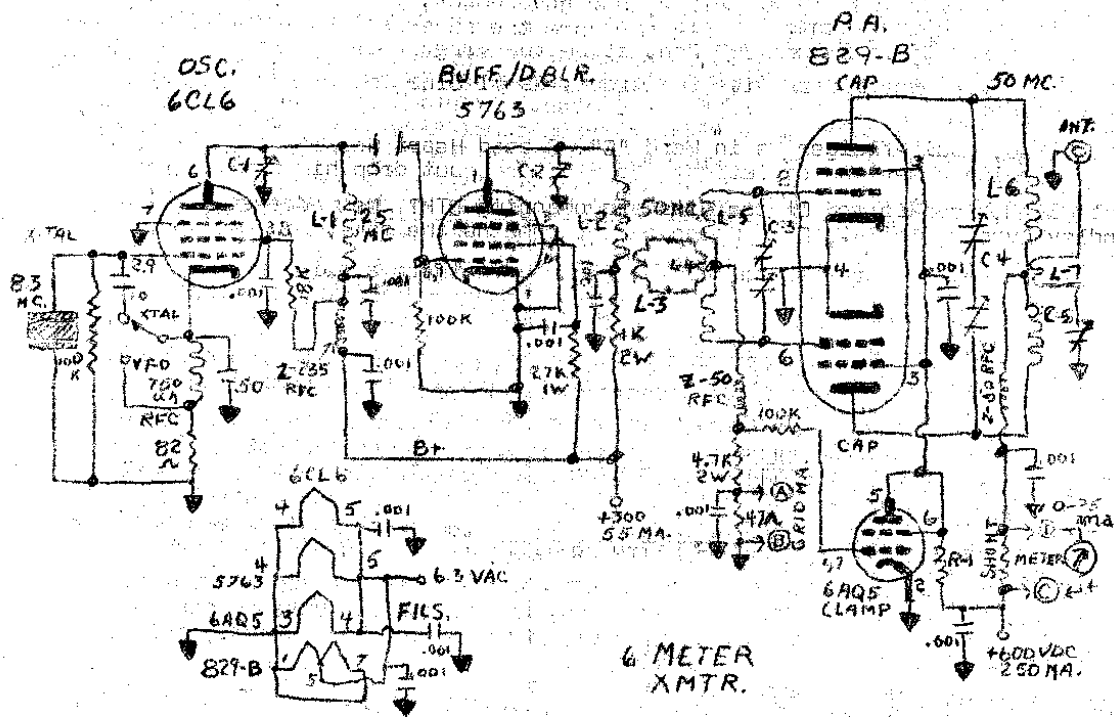
That CQ announced that in order not to conflict with other planned events will, in the future, conduct their Spring VHF Contest on the first full weekend in May and their Summer VHF Contest on the first full weekend in August.

That Mt. Airy never did receive the trophy as #1 Club in CQ's Spring 1964 VHF contest?

That K3EQU, Paul Pfeleiger is in Ward "C", Sacred Heart Hospital, Allentown, Pa. following a serious operation? NO visitors, but drop him a card.

That W3SAQ, Frankie and Cheese Bits are changing QTH? New address, 821 W. Lindley Avenue, Phila., Pa. Phone number remains the same.

That in spite of a broken arm, K3OBY, Jim was in there swinging in the VHF Sweepstakes?



- C 1 - 50 uufd. APC
- C 2 - 25 uufd. APC
- C 3 - 25 uufd. per section (butterfly type)
- C 4 - 20 uufd. per section (butterfly type)
- C 5 - 50 uufd. APC

Grid and plate current may be switched with a DPDT wafer type unit. Ceramic should be used. Low loss steatite tube sockets are recommended for all stages.

R-1 12K to 15K 10 watts selected to give 200 VDC at 829-B screen grid. All resistors are 1/2 watt types unless otherwise stated. Links L-3 and L-4 may be joined with twisted pair hook-up wire.

THE 829-B ON 6

By K3MEH

CIRCUIT DESCRIPTION

OSCILLATOR: The oscillator is a 6CL6 operating as a Harmonic Colpitts type. The oscillator operates with 8MC crystals and triples in the plate to 25 MCs. The RFC in the plate (Z235), and the .001 caps. form a pi-section to filter the harmonics that might affect Channel 6. A switch is provided to change the operation of the stage from an oscillator or a buffer-tripler, when a VFD is used. The VFD is plugged into the crystal socket. Almost any VFD will drive it. **MULTIPLIER, DRIVER:** the 5763 Driver is capacitance coupled from the oscillator and has an untuned grid at 25 MCs. The stage doubles in the plate to 50 MCs. The screen voltage of this stage may be varied with a heavy Pot. Drive to the final, should run about 12 MA. The drive may be reduced by de-tuning the grid of the final.

FINAL AMPLIFIER: The final amplifier is an 829B. This tube will deliver 50 Watts input with natural ventilation, and up to 120 Watts with forced air cooling. The stage is operated in push-pull for harmonic reduction. The tube has a built-in Screen bypass capacitor, of about 65 mmfd. This is further helped with a .001 ufd. - 1600 VDC Disc. All capacitors in the plate and screen of the 829B should 1600 VDC. The stage is protected from excitation failure by the 6AQ5 tube. See your handbook for operation of clamp tubes.

GENERAL: This unit has been built on a 17x9x3 inch chassis, along with the modulator. Standard VHF practices pay off in a real hot little rig.

- L1 9 turns of B&W 3007
- L2 7 turns of B&W 3007
- L3 2 turns of B&W 3007 formed by leaving 2 turns on the same stack that was used to make L2.
- L4 2 turns of B&W 3010, left in center of L5 (similar to L3)

- L5 4 turns of B&W 3010, each side of L4. Total of 8 turns.
- L6 4 turns each side of center, total of 8 turns with space left in the center for link. Use #12 AWG wire wound on a 1 in. diameter.
- L7 1 turn of #12 AWG, 1 in. in dia. (next page)

829 B on 6 (cont'd)

Z235 & Z50 are Ohmite RFC.

L3 & L4 are linked with twisted hook-up wire. The distance between the two links should be kept short.

It is recommended that the 829 and its associated parts be enclosed in an RF shield.

When winding L6, be sure the direction of the winding is constant through the entire length of the coil.

Be sure the Screen voltage is 200 VDC. All capacitors used in 829-B plate and screen circuit must be 1600 V. or greater.

Note: Circuit borrowed from BCARC X-MITTER Mag.

de VHF'er

SWAP & SHOPPE

Directed by W3ZRR, Raymond Whitehead
4534 N. Smedley Street,
Phila., Pa. 19140
215- DA. 4-5910

FOR SALE: National 6 & 2 VFO \$30.00
5 el. Hy-Gain beam, 6 meters \$5.00
'49 Chevrolet sedan. Extra tires, recent inspection. \$65.00 or swap for ham gear.

CONTACT: K3JJZ, Elliott Weisman
8533 Algon Avenue,
Phila., Pa. 19152
215- PI. 2-3525

SWAP: 1-4x5 Speed Graphic, strobe, film holder, flash guns, filters. Will swap for receiver.

2-Enlarging lenses for 4x5, 2 1/2 x 3 1/2 35 mm. Swap for 6 meter gear.

3-No. 1861 model 22, 22 caliber single action pistol. Will swap for ham gear.

CONTACT: WA3BAQ, Frank Kohler
215- OS. 5-9303

FOR SALE: Utica 650 with VFO AC-DC power cards, mounting kit for car.
Cost \$189.00- 3 months old
Sell for \$150.00

CONTACT: K3NZG, Glenn Hull, Jr.
County Line Road,
R.D. #1
Bechtelsville, Pa.
1-754-7329

WE APOLOGIZE

The editor wishes to apologize to those who submitted copy for this issue for not including it, but we are in the process of packing to move and besides that we have no more stencils. We promise to include it next month.

Just in case you have not picked-up our new address by now, we repeat it.
821 W. Lindley Avenue, Phila., Pa.
19141. Phone number remains the same.

MEETINGS

1965 FEB. 17
MAR. 17
APR. 21
MAY 19
JUNE 16

General meetings are held on the third Wednesday, when possible, at the West Oak Lane Jewish Community Center, Sedgwick and Thouron Streets at 8 P.M.

MEETING NOTICES

FEBRUARY 10 DIRECTORS MEETING

The Directors Meeting will be held at the QTH of W3MVF, David Bloch, 6922 Revere Street on Wednesday, February 10 at 8:00 P.M.

If you are unable to be present, please call; 215- DE. 3-0811

FEBRUARY 17 GENERAL MEETING

The General Meeting will be held on Wednesday, February 17 at 8:00 P.M.

Speaker: W3LHF, Dave Zimmerman

Topic: Modulation, Etc.

FEBRUARY 24 PHILA. CO. ARPSC

The Phila. Co. ARPSC Meeting will be held on Wednesday, February 24 at the Gilbert Spruance School, Levick and Horrocks Streets at 8:00 P.M.

CHANGE OF ADDRESS

W3SAD, FRANCIS (FRANKIE) BRICK
821 W. Lindley Avenue,
Phila., Pa. 19141
215- DA. 4-7524

PACK RATS CHECK GIVEN
829 W. FISHERS AVE.
PHILA. 41, PA.



W3KKN, Ernest Kenas
2823 Old Welsh Rd.
Willow Grove, Pa. 19080