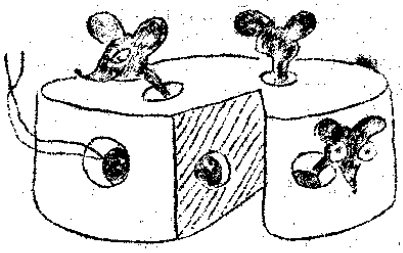
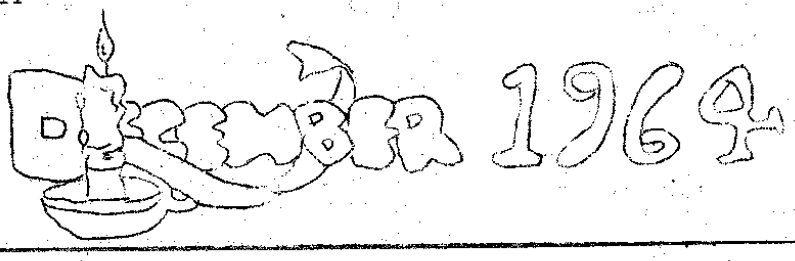


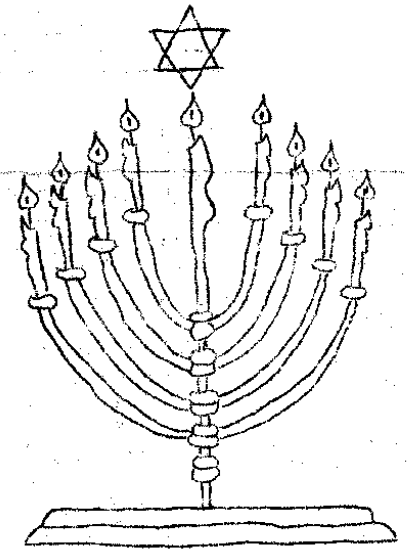
PACK RATS' CHEESE BITS

MT. AIRY V.H.F. RADIO CLUB, INC., PHILA., PA.
(50.2; 145.2; 221.4; 432.2 & 1296.4 MC)
CLUB CALL: W3COX
AFFILIATED MEMBER: AMERICAN RADIO RELAY LEAGUE
EDITOR: HELEN BRICK, XYL, W3SAO
(MEETING NOTICES: LAST PAGE)

VOLUME VII NUMBER 9



DECEMBER 1964



HAPPY HANUKKAH

MERRY CHRISTMAS

CHEESE BITS IS PUBLISHED MONTHLY BY MT. AIRY V.H.F. RADIO CLUB, INC., PHILA., PA

10¢ a copy $1.00 a year

WE OPERATE ON AN EXCHANGE BASIS WITH OTHER PUBLICATIONS, AND ANYTHING THAT IS PRINTED IN "CHEESE BITS" MAY BE REPRINTED, UNLESS SO STATED, IN ANY PUBLICATION AS LONG AS PROPER CREDIT IS GIVEN.

DEADLINE FOR ARTICLES: 20th of the month.

ALL INFORMATION SHOULD BE SENT TO THE EDITOR: HELEN BRICK, XYL, W3SAO
829 W. Fishers Avenue,
Phila., Pa. 19141
215- DA. 4-7524

TRUSTEE OF CLUB CALL: W3CCX
W3SAO, FRANCIS BRICK
829 W. Fishers Avenue,
Phila., Pa. 19141
215- DA. 4-7524

DIRECTORS meetings are held the second Wednesday of each month at designated locations.

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

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

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W3FSC, OSCAR JACOBY
K3CIV, RALPH HERSH
(EX-OFFICIO)

****

DECEMBER BIRTHDAYS

W3OHY, Tom; W2LZA, Lyman; K3BPP, Walt; W3GEW, Sid; W3CLQ, Walt; K3EQD, Al and K3EPB, Howard, also W3NSI, Lyn, Jr.

****

PHILA. CO. AREC MEETINGS

PLANNING COMMITTEE: Date and place to be announced.

GENERAL MEETING: WEDNESDAY, January 6, 1965, 8:00 P.M.

MEETING PLACE: GILBERT SPRUANCE SCHOOL, LEVICK, & HORROCKS, STS.

****

ARRL BULLETINS

NR 977, November 5, 1964

Among the many operating aids available without charge from ARRL are the following, all designed to aid your operating effectiveness: Pointers for Good Operating, WAS map and card record, net directory, phonetic alphabet, ending signals, RST system, DX code, contest QSO record, safety code, ARRL DXCC Countries List, QN Signals for c.w. operation and GMT time conversion card. Any or all of these are available from ARRL Communications Department, 225 Main Street, Newington, Conn. 06111.

NR 978 November 12, 1964

FCC has extended from November 16 to December 16 for filing comments in Docket 15640. This docket proposes that the distance beyond which applicants are eligible for Conditional Class licenses be raised from the present 75 mile limit to 175 miles from the nearest FCC office or quarterly examination point, and that semi-annual examinations points also be counted for this purpose. Amateurs may file reasons in support of or opposition to the proposal, direct to the Commission office in Washington, D.C. 20554, the customary original and fourteen copies of comments being asked for. The docket does not affect present licensees, nor does it affect future applicants whose reason for seeking the Conditional is physical disability, military service or absence from the U.S.

****

EDITORS' CORNER

DEADLINE FOR ARTICLES: THE 20th OF THE MONTH

It is time for Ye Editor to present her gripe.

We are very grateful to Doc and his crew for stepping in and taking the burden of mimeographing and filing mailing of "Cheese Bits" off of her shoulders. They are doing a "bang-up" job.

At the request of Mother Rat, Doc very graciously changed the deadline date from the 30th to the 20th of the month. When this change was made, we made a note of it in "Cheese Bits". Unfortunately a number of our correspondants did not take note of it.

You may have noticed, or you may not have wondered about it, but you are receiving your "Cheese Bits" late, sometimes after the date of the meeting.

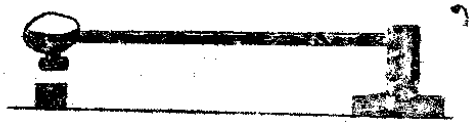
We have a format, and when we must wait until the 30th of the month for the articles, the whole burden of putting "Cheese Bits" together must be done in one or two days, depending on the month, either the 31st or the 1st.

Now, everyone who must work for a living, knows that if you are late, your paycheck suffers, or your leave of absence, depending on where you work. So - starting with this issue the articles that I do not have, will be omitted, and depending upon their context, will appear in the next issue.

The Post Office has the most up-to-date machinery for cancelling mail, but like all third class mail, "Cheese Bits" is in the catagory of "junk mail" and takes longer for delivery.

PLEASE, THE 20th!

IN MEMORY OF OUR SILENT



S

W3CCX

MATTHEW GELARDI – FEB 4, 1958

K3MTL

COURT MANNING – JUNE 9, 1961

W3ASD

KARL VINCENT – FEB. 25, 1963

W3AYG

JOHN HARRIS – OCT. 22, 1964

This page is respectfully set aside in memory of our departed brothers.

Their voices are stilled, but their friendliness and kindness remain with us forever.

OUR PREZ SEZ

I don't like to repeat or harp on things I have brought to your attention previously, but apparently many of our Rats have not been listening to our net announcements, and consequently are missing out on what is happening and what will be happening in the future. I would strongly suggest that you listen to our nets and you might even call in occasionally. Don't be bashful, join the group on Monday nights.

W3CHF, Dave Zimmerman, has had his first meeting as Contest Chairman and reports all will be in readiness come January.

New Net "Call-In" lists have been made up and new member location maps have been completed through the efforts of W3CL, W2EIF and K3OLS. They will be distributed at the December meeting. Speaking of the December meeting, PACK RATS ONLY, PLEASE!

Articles for "Cheese Bits" are still needed and will be welcome. The article by K3PXT, Carmen, called the "Pack's Rat" is a welcome addition and I hope it will be a regular feature.

The Delaware Valley Council of Amateur Radio Clubs has come in for a bit of scrutinization since UN WEEK was such a fine effort by the council. I believe this can be a most valuable organization for all Hams in the area. A strong organization needs strong people running it. With this in mind, I have appointed K3HMZ as our representative to the DVC. We all know Grandpop Bill for his tremendous ability as an organizer and his great energy in getting things done.

I hope all outside work has been taken care of and that now all of you can make yourselves known on the air.

73,

K3GAS, Doc

CORRECTIONS

K2HAK, Ken, our speaker at the November 18, meeting advises all who have a copy of RCA Ham Tips, Summer 1964 to make the following corrections: Fig. 1, T3 is the usual primary; Omit the words "which is not used" where it says, One winding for 117 volts (primary.; Fig. 6, where it reads "5v winding" to Normal Primary and "C 10, C 12-2,200 uf" to 2,200 uf. The printer goofed.

NEW PRODUCTS OF INTEREST TO HAMS

By W3NSI, Lynford Rowland, Jr.

1. Terminal Block Covers.

   A new line of standard terminal block covers for barrier type and pegged type blocks and individual thimble type studs. Made of non-inflammable neoprene or silicone, they offer you complete protection against exposed circuits, dust, grease, water, oil, corrosive chemicals and other short-circuiting factors.

   T A Mfg. Corp. 4607 Alger St.
   Los Angeles, 39, Calif.

2. Special Tube Sockets for Amperex 8458 (larger version of 6360)

   A special socket is available from Allied Radio for the new type 8458. It is made of ceramic with a metal saddle for regular bolt mounting. Price is $.27 each in quantity of less than 100.

   Amperex # 88.700.86 Allied Catalog # (Industrial) 9E346 Page 101, 1965

3. ADLOC Binding Posts

   The adloc principle was originally conceived by Douglas Aircraft Co. It features quick connect-disconnect, secure connections made from the top, saves valuable space and installs easily without notching. The posts accept a variety of wire terminals. Available in red or black as # AL 200R and AL 200 B.

   Cost $.55 each in small quantity.

   Admiral Controls, Inc. 4520 Cutter St.
   Los Angeles, 39, Calif.

(Note: Check your local dealer first. In this area, who else but Hambuerger)

****

K.U.I.

By W3HKZ, Ed Kushner

XMIT VOICE DIGITALLY

A unit to xmit voice digitally has been developed. Digital transmission of voice requires much narrower transmission bandwidths than for normal voice communications, thereby effectively increasing channel capacity.

Engineers estimate that a 3:1 reduction in bandwidth is easily acheived. Each voice has a particular pitch. Since human speech involves many vowel and consonant sounds - each must be recreated to make artificial speech intelligible.

The unit consists of 4 major parts - a spectrum analyzer to determine pitch, 18 spectrum channels to get sound frequencies, a vowel/consonant decision unit and a switcher.

To determine pitch, the voice wave-form is run through hi-gain amps, clipped and made into square waves. This voltage is fed to a filter. Speech is fed to the 18 spectrum channels and filtered. This viltage is then compared against a digital generated voltage. The vowel/consonant unit is vital to recreating speech - since vowel sounds are largely voiced and consonants are largely unvoiced sounds.

Data is then transmitted by standard pulse code modulation.

****

NEW SUPER-POWER DEVICES FOR MEGAWATT TRANSMITTERS

FROM: ELECTRONICS NEWS, JULY 27, 1964 By Jack Robertson

DALLAS - One-of-a-kind super-power components -- from a 10-foot resistor to a 40-foot inductance coil -- have been developed by Continental Electronics Manufacturing Co. here, because they did not exist for megawatt transmitters.

Continental, a division of Ling-Temco-Vought, has developed such super-power complexes as the 30-megawatt re-entry radars at White Sands Missle Range, N.M., the Nike Zeus acquisition radar, BMEWS radars and the 300 megawatt tube test station at Rome Air Development Center, Rome, N.Y.

Components with such power and voltage capacities were not available, so Continental designed and developed the critical units itself, said James Weldon, president.

The 10-foot resistor connects 200 individual resistors in series parallel around a doughnut-shaped container. Six of the doughnuts are then stacked on top of each other, to form a 390 kv resistor.

CURRENT SURGE LIMITER

The resistor is used as a current surge limiting device to keep a sudden surge from destroying the highly expensive power tubes in super-power systems.

Fault amplifiers, to act as a crowbar across power lines, have also been developed to protect power tubes.

"High-speed protection is everything -- and the quickest control to short circuit the entire power supply," explained Mr. Weldon.

Continental has also designed and patented a 500 picofarad high-frequency super-power capacitor. IRR irradiated polyethylene is wound around a cylinder and baked on. Conducting material is then sprayed on.
Mr. Weldon said the sophisticated devices act almost as the old Leyden jar condensers. among the first ever made. However, the new capacitors are then only devices Continental has found with sufficient voltage breakdown and current handling capacity.

In its very-low-frequency transmitters for Polaris submarine communications, Continental made its own tubing components to permit fine tuning at full 2 megawatts power over a range of 12 to 39 kilocycles.

These included a large oil-filled variable capacitor and a varlometer operating at full 2 megawatts power. Continental also built all the inductances, as large as 40 feet high and 29 feet in diameter for the antenna tuning.

The state of the art is becoming more and more pressed as super-power transmitters go to higher and higher frequencies, Mr. Weldon said.

Components must become smaller, yet have higher current handling capability and higher voltage breakdowns. He said there are no real high-power systems today above 1.2 gigacycles.

Continental is looking at frequency converters and parametric frequency devices as one possible solution.

****

NEW PLASTICS CARRY CURRENT

FROM THE PHILA. INQUIRER, SEPT. 1, 1964

CHICAGO, Aug 31 (AP) - Invention of new synthetic plastics that can carry electric current was announced today.

Plastics ordinarily are excellent insulators, blocking electric current.

Scientists predicted the new materials will spur a wide range of applications and products. This country already uses as much synthetic plastics, by volume, as it does steel to make hundreds of products.

APPLIED LIKE PAINT

The new materials, for example, can be applied in liquid form like paint to provide an electrically-conducting coating on common insulators. This may lead to uses in "printed" circuits in small electrical devices, such as portable radios.

They can also be used as a kind of adhesive paste to substitute for solder in an electric circuit, scientists said.

Development of the new plastic was described to the American Chemical Society by Dr. John H. Lupinski and Kenneth D. Kopple of the General Electric Research Laboratory, Schnectady, N.Y.

FURTHER RESEARCH

Further development is required before the plastics become commercially available, company officials said.

The new materials are not so efficient as metals in conducting electricity. But plastics can be molded and shaped easily into many different forms, and this plu conductivity offers some advantages.

The degree of conductivity in the materials can be controlled in the process of making the new plastics, Dr. Lupinski said. Laboratory tests indicate they conduct electricity indefinitely without undergoing change.

****

THE PACK'S RAT

By K3PXT, Carmen J. Diodati

One of our newest members is W3HIX, John. An old timer in amateur radio, he has been licensed continously since 1938. John operates all bands with a complete battery of home brew transmitters. His favorite DC band is 20 meters, AM or SSB. A little 40 and 80 meter CW, combined with 2, 6 and 3/4 meters rounds off his operating activities.

John almost had another ham in the family. However, Linda, his harmonic (age 20) decided that sports cars and boys were much more interesting than amateur radio, for the present at least. Linda was doing real fine, not only with the code, but with the theory also. Some of John's home brewing did rub off, for Linda is employed by Consolidated Airborne in New York, where she wires and solders complex electronic equipment. John's most fervent wish is that Linda will take time out to get her license so he can chat with her via the air-ways.

John's QTH is in Quakertown. His complaint- beams don't point that way. What can be a better way of getting acquainted than with a couple of QSO's, so look for John; he's looking for you!

****

A HAM

By K3PXT, Carmen J. Diodati

Is a boy, a girl, a lady or a man.

He's the kid down the block age 6 or the old gent pushing 80, their hobby knows no age limit, nor regard for race, color or creed.

Is the blind man who has wiled away many happy hours chatting with strangers across the ocean, or a few miles away.

Is the invalid, the handicapped, the shut-in who has a new zest for life and a sparkle in his eyes.

Is the retired bricklayer, the railroad engineer, or salesman who will not bread himself into an early grave. Each day is a new adventure, a new contact, a new friend and another tomorrow.

Is the guy with no technical training, he worked hard learning the code and theory to earn his license and the privilege of operating his own radio station. He's not a quitter, because quitters never become licensed.

Is the guy whose occupation runs the complete gammit from common laborer to renowned personalities.

Is the guy who stopped on a lonely road to render assistance to a stranded motorist, when gratitude and appreciation were extended, made the statement; do the same for someone else.

Is the guy who lost a day' pay and a night's sleep in order to maintain a communication link during a disaster with his personally purchased equipment, without a thought to compensation.

Is the guy who begs, borrows or swaps electronic parts for his station, he considers buying them sacrelegious, and the word buy, profanity; he's a ~~u~~ scrounger, and with him it's an art.

Is the guy who's station cost a few thousand dollars or a dollar or two. His station is built from scrapped parts or the best that money can buy.

Is the guy who pays several hundred dollars for a commersially engineered and designed piece of equipment, then modifies and incorporates things he feels the engineers omitted.

Is the operator, a message handler, an experimenter, a builder or a combination of them all.

Is the guy who is responsible for many a budding scientist, and many a famous one.

Is the guy who rings your phone and states, "This is amateur radio service - I have a message from your son overseas".

Is the thinker, a tinkerer and sometimes a stinker.

Is the guy who almost made 4000 mobile contacts in one year, from a fixed station. Many of them were repeats of course, but then it's still a feat.

Is the guy who is proud of his call; it's on his house, his car, his clothes.

Is the guy who unselfishly aids aspirants to be a ham.

****

FLASH

THE COMMEMORATIVE STAMP

The Postmaster General has just announced that the 5¢ commemorative postage stamp honoring amateur radio will be released for sale first at Anchorage, Alaska, on December 15, 1964. Choice of Anchorage as the "first day" city is recognition of the great emergency communications work done by amateurs after the Alaskan earthquake last March. Selection of the year is of course in recognition of the League's 50th anniversary. The stamp will be available at all post offices on the following day.

The official announcement in June that the stamp would be issued sometime during the year was in these words:

"In recognition of the public service contributions of a quarter million licensed amateur radio operators, a stamp for hams will be issued. This is the 50th anniversary year of the founding of the American Radio Relay League.

"'the important work done by radio hams ranges from civil defense and aid in

disasters to routine favors for countless thousands of Americans,' Postmaster General John A. Gronouski said. 'Many a soldier overseas has been able to talk with his family back home because two hams provided a hookup. When telephonic communications were disrupted during the recent earthquake in Alaska, it was the hams who made contact with worried friends and relatives.' "

****

On how to receive a first day cover see November Cheese Bits and September, October and November QST. Deadline date for First Day Covers is December 4.

****

IMPROVING VFO SIGNAL QUALITY

FROM SEPTEMBER "VHER" By Doug DeMaw-W8HHS

Many commercially conceived and "home built" VFOs have been relegated to the "swap & shp" tables or are quietly gathering dust in some dark corner of the basement.
Reason?...because they drift, warble or have hum component which shows up as frequency modulated 60 cycle "buzz" on the carrier. The latter destroys the audio quality, creates a broad signal and results in a CW note which is impossible to copy. Sometimes, all of the above ills are experienced when trying to operate with a VFO.

Whether your VFO is "home spun" or of commercial origin, the methods for stabilizing and improving the signal quality set forth in this article, are applicable. For practical reasons, we shall assume the VFO's output frequency to be in the 8 mc. range. This is the most common situation. These circuit hints will of course aid the general performance of VHF VFOs operating at other output frequencies too.

THE ILLS AND THEIR CAUSES: DRIFT is perhaps the greatest "bugaboo". Generally, a VFO which is "rock"-stable at 8 mcs. (or so it seems), will exhibit considerable "warm-up" drift on 50 or 144 mcs. To illustrate...a 1 kc. warm-up drift at 8 mcs. is hardly noticeable to most operators. Remembering that the frequency is multiplied 18 times to get from 8 mcs. to 144 mcs., will help you realize that you'll have 18 kc. of drift on 2 meters fo each 1 kc. of VFO shift at 8 mcs. Maintaining VFO dial calibration is therefore quite difficult.
SOLUTION: Supply the VFO's tube filaments with their required voltage from a separate filament supply (preferably DC) and permit these filaments to be lit, 24 hours a day. Tube life is not noticeably shortened and the VFO is at operating temperature whenever you want to use it. Furthermore, the added heat in the cabinet keeps humidity effects minimized, thus improving stability.

HUM and FM EFFECT: Here is where the DC filament supply advantage can be noticed. Most modern VFOs use the "series tuned", Clapp Oscillator circuit. The cathode is above "DC Ground" due to the need for an RF choke between cathode and ground. This permits the AC component on the filaments to frequency modulate the grid circuit of the VFO, which in turn distorts the audio of an AM signal, creates a rough CW note and encourages a "broad" VHF signal. By rectifying and filtering a 12 VAC source, 6.3 VDC can easily be secured for the filament supply. A clean, DC note will result.

WARBLE and FREQ. JUMPING: Poor line voltage regulation and improper mechanical stability usually cause this frustrating condition. I have seen sudden "jumps" in line voltage from 120 VAC to as low as 105 VAC. This is generally true during the evening when the power line demand is high. The most well designed VFO will respond accordingly to such excursions of voltage. The only practical approach to this condition involves the use of a Line Regulation Transformer to feed your ham station. Unfortunately, these devices are quite expensive. At times, they can be picked up on the surplus market for as little as 10 dollars. Mechanical stability can be greatly enhanced by replacing all VFO control grid (grid 1) interconnecting leads with heavy bus wire. Some less expensive VFOs actually use hook-up wire for tuning capacitor, grid coil and feedback network connections. A flimsy cabinet and/or chassis will further contribute to mechanical instability. Bracing various points of the chassis and panel with home made brackets, often helps.

OTHER ILLS: Quite often, R.F. energy from the transmitter's output, follows power supply leads and enters the VFO cabinet during the transmit period. This is particularly true where powers in excess of 50 watts are being used. This in turn affects the frequency control of the VFO. Rather than elaborate on the by-products of this condition, I will simplify matters by stating that thorough R.F. filtering of all incoming power leads to the VFO, should eliminate the trouble.

Figure 1 shows a typical Clapp (series tuned) VFO circuit. The portions of the circuit shown in heavy lines illustrates the changes which may be necessary to achieve good stability.

The use of high quality varialbe capacitors of the double bearing variety, temperature compensated fixed capacitors and rigid, well designed coils (and forms) are of course a prime requisite in the design of any practical VFO.

TYPICAL VFO CIRCUIT
WITH CHANGES

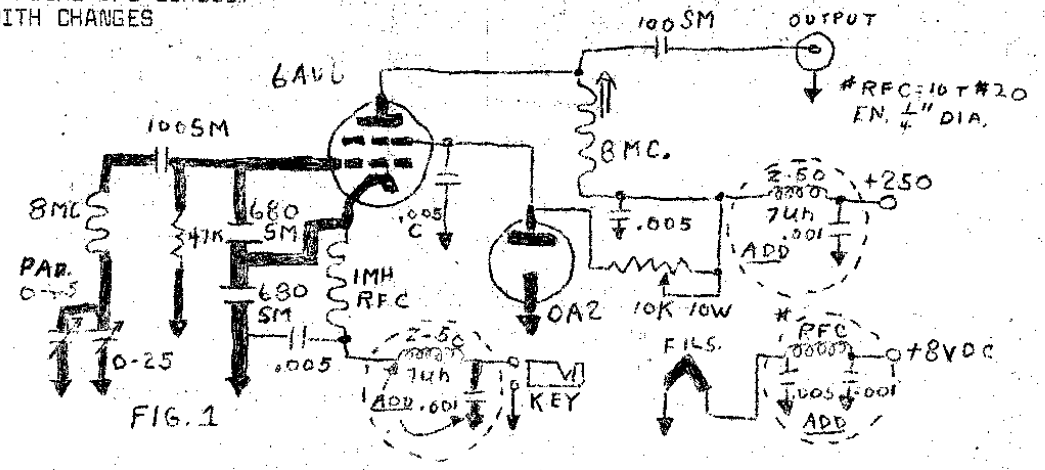


FIG. 1

Stability CAN BE achieved with a little experimenting. The recommendations contained in this article will solve most of the common ills to be encountered in VHF operation.

****

THANK YOU

11/20/64

Dear Pack Rats:

It is with profound sorrow that I write you my thanks for your kindness to me in the passing of my dear John, W3AYG.

The floral tribute you sent was beautiful, your cards to him in the hospital, and the one you sent with the signatures of each Pack Rat, he did not see at all as he was worse at that time, but if he had been better, he would have appreciated you all remembering him.

"Doc" Cutler was so very kind in coming to the shack and taking John's equipment and then the Pack Rats buying what they could use.

Whoever bought the "Cooney Box" I hope will have as much pleasure with it as John did, it was his pride and joy. It was used in many parts of the country and John had good results with it.

Anothert hing I would like to relate to you, on the Friday evening that John was going to the doctor's, I was waiting for him to come home for supper and the phone rang. A young missionary from Costa Rica wanted to get a message to his wife. I told him John was not well but would relay him the word. John came home in a few minutes and I told him.

He would not eat before he had me get in touch with a lady on the main line. I gave the lady's phone number to this missionary and the call, I understand, was put through. This was the last thing John did in radio.

You all lost a wonderful friend as John held the Pack Rats in high esteem. God Bless you all and many thanks.

There is a link
Death cannot sever,
Love and remembrance
Live forever.

So long John, we all loved and respected you.

Sincerely,
"Polly"

****

Did you know that W3KKM, Woody, is now working for a commercial FM Station and has a program of his own (disc jockey) besides reporting the news? (At night)

****

From SIRAN, Amateur Radio Club of India

The sad demise of Mr. Jawaharlal Nehru on 27th May '64 is an irreparable loss to science and technology in India. Since the amateur radio movement had still not come of age in our country, we were hesitating to approach him to be the Patron of the Amateur Radio Society of India. As such, it was news for us when OM Werner Wolter, DL1YJ editor of "4U1ITU Calling" of Geneva wrote telling us that Mr. Nehru was one of the Patrons of the International Amateur Radio Club in ITU HQ at Geneva. Thus hamdom has lost a great Patron in him.

****

From North Penn "STATIC" (November)

ATLANTIC DIRECTOR SPEAKS TO PACK RATS

By W3UMK, Dick Berens

At a recent meeting of the Mount Airy "Pack Rats", Atlantic Director Gil C. Crossley spoke about the tremendous pressure we face from all over the globe for frequency space. Repeatedly in his talk, Gil said, "We are in trouble."

He described the work the League is doing to prepare for the next international conference, which is still several years away. ARRL representatives are attending all possible preparatory meetings and the League has appropriated $100,000 from its surplus to spend in support of the amateur's position at the next international convention.

Gil pointed out that the League has a surplus of $425,000 invested in high grade securities. ARRL has been criticized on occasion by certain amateur groups for holding this large surplus, Crossley explained; however, the Director made a convincing argument for the retention of a healthy surplus. Annual expenses and revenues of ARRL are in the million-a-year class with some 65 paid personnel and a surplus of this size is prudent in view of the League's many activities in behalf of amateur radio.

Crossley pointed out that QST is maintaining a ration of approximately 40% of space for advertising and 60% for text. About three years ago the ARRL magazine began a planned expansion of QST which, Crossley said, was proceeding well. Several times during his talk, the Director touched on the magazine "73" and, once during his talk, he commented favorably on the calibre of its technical articles.

****

From North Penn "STATIC" (August)

VERSATILE TWO-WAY RADIO

A new concept in two-way radio - the "Porta-Mobile" VHF-FM unit described as the first of its kind - is now available from General Electric Communications Products Department, Lynchburg, Va.

It triples as a plug-in mobile radio in a car, as an office base station and as an expanded-range portable with the highest radio power output ever packed in a self-powered hand-carried design.

G-E engineers say the 13-pound unit's duty cycle far exceeds previous industry duty standards established for mobile equipment and portables. When operated from an internal battery supply, the transmitter may be keyed continuously as long as the batteries last, without damaging the radio's components.

As a mobile radio in a car, it is plugged into the cigarette lighter and linked to a fixed antenna to give an additional boost to communications coverage. As a temporary base station in an office, it plugs into a 117 volt AC electrical outlet.

The new equipment has up to 18 watts of transmit power in low band frequencies (25-50 mc) and up to 10 watts in high band (132-174 mc). Weighing 13 pounds the Porta-Mobile is 11 inches by 3 5/8 by 9 1/8 in. or half the size of the highest power handcarried unit previously available.

****

ELIMINATE SHOCK HAZARDS

A device to eliminate electric shock hazards from alternating and pulsating direct-current circuits, called the Hazard Sensor, has been developed. It protects humans from electrical shock and, additionally, shuts down electrical equipment when hidden or unforseen dangerous faults develope.

Consisting of an isolation transformer of varied load acceptances and capacities, it promises significant applications in the problems of accident prevention in industry, laboratories, swimming pools and computor systems. It protects from hot electricl lines, opening the electrical source before any shock can be experienced.

****

From CQ Magazine (October)

Results of the SPRING, 1964 CQ VHF CONTEST

By K2ZSQ, Bob Brown

This spring's contest was full of surprises for all concerned. After computing the scores and reading over logs and comments we appreciate the astonishing turn of events which took place on the weekend of May 2-3. I suppose most of us expected the Peninsula Amateur Radio Klub of Bayonne, New Jersey, WA2VUF to hang onto the prized High Honors Trophy awarded them last year for top score in the Club Aggregate division. And they certainly fought for it. But a surprise contender, the Mt. Airy VHF Radio Club of Philadelphis edged them out by 205,136 points and the final tally wound up like this: Mt. Airy -

1,316,528?0; Peninsula-1,111, 392. Although the gang manning the PARK's station, WA2VLR, will still capture the AllBand, Multi-Operator award, they must tearfully pack their beloved Trophy for a 365-day stay in Philadelphia, where it will be up to Mt. Airy to defend it next year.or suffer a similar fate. Our hats off to both groups.

The highest score of all in statewide competition was by W3MFY (conveniently enough a Mt. Airy member). His accumulation of 110 counties,and 375 contacts (single-handed) on six, two and 220, yielded 990,000 points- the highest yet recorded in this contest.

NOTES & COMMENTS:
W3MFY-Very excellent conditions, Did not notice any poor operators, but did notice many lower scores. Thoroughly enjoyed the contest!

Our compliments to Pres Funk, W3MFY, for a terrific job.

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(Ed note: the Pack Rats participating in the contest were; W3MFY, Pres; K3ACR, Rich and K3IPM, Stan. If three can roll up a score like that, think of the terrific score 5 or 6 can roll up or even more. We have received the certificate, but not the Trophy, as yet. Will let you know when it is received.)

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ANNOUNCING

HALLICRAFTERS' 5th ANNUAL, ALL AMATEUR "NEW IDEAS" CONTEST

Biggest and best ham contest ever--the kind of contest that means something! Amateur radio needs your ideas for improving techniques ... increasing efficiency ... serving the public ... promoting good will ... fostering international understanding. Give us your idea and win a valuable award to boot!

GRAND NATIONAL AWARD: Complete deluxe amateur radio station consiting of Hallicrafters SX-117 Receiver...HT-44 Transmitter, complete with interconnecting cables for transceive operation... P-150 AC Power Supply... HT-45 Linear Amplifier and P-45 Power Supply...HA-10 Low Freq. Tuner...and an HA-1 Electronic Keyer! (P-150 power supply has built-in speaker) Worth over $1,000!

FIVE REGIONAL AWARDS: Fabulous SR-160 Transceivers featuring R.I.T.-(Receiver Incremental Tuning) ...AALC (Amplified Automatic Level Control)...greatest talk-power in a highly compact mobile unit.

OVER 100 LOCAL AWARDS: An award from each participating distributor to the winner among his customers-a high performance, beautifully-styled HA-8 "Splatter Guard"!

EASY TO ENTER...EASY TO WIN - - Here's All You Do:

1. Pick up an official entry blank from your favorite amateur distributor listed here. Contest ends December 31, 1964 (Distributor, Ham Buerger)
2. Complete this sentence if 50 words or fewer: "My ideas for contributing to amateur radio are..."
3. Return Official Entry Form to the distributor. That's all there is to it. No purchase required.

CONTEST EXTRA: HAM CLUB PRIZES!

Ham clubs may win valuable awards just for entering the contest! Use awards for club station...door prizes...raffle prizes!

Any club with 20 individual entrants receives an HA8 Splatter Guard. Any club with 50 entrants receives an HA-1 electronic T.O. Keyer!

Individual entries must show club affiliation.

De, K9BPO, Harold A. Charvat
Sales Promotion Manager.

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ANOTHER MT. AIRY SERVICE

Sometimes an idea will hit all of a sudden like and many times will be of benefit fo all. It seemed to me that lots of the fellows are called on to fix a TV set, phonograph, radio, your own receiver of older vintage. To buy from Sam's for just on diagram seems foolish, so here is my idea, let me know what plans you are after, and I will try to get a set for you. We already have lots of Sam's folders on older stuff, so daon't ask about late things. This service is only for those things that are gathering dust because you don't want to spend too much dough to fix them So root around the shack and see what you can come up with that you can fix.

K3GAS, Doc

Dear Brother Rat:

A few of our brethren seem to feel that this yearly contest and all the flurry to get ready is a waste of time. Not so, for isn't our station more pleasant to operate when things are working well? ...and don't most of the improvements and repairs remain after the "bean-bag game" is over? ...and how about that new antenna that let's us pick up W. Va for a new state? .....All these things are fringe benefits to an affair that gives many of us lots of fun and provides us with an opportunity to measure the effectiveness of the old station. And measured we will be, so take a look at the shack right now and ask yourself the question ,"How can I improve this pile of Iron?" "Can I transmit with the flip of one switch?" How about a foot switch? Tromp to talk! Leaves Leaves both hands free for other things and is much faster. [illegible] Do you have to stand and reach three feet to move the VFO or tune the rig? Its lousy, if the answers ,"Yes." Change it. Need help? Advice? Suggestions? Somebody in the club will help you if you need it and seek it out. Try your co-ordinator first. Your solution may be only a phone call away. But now is the time to get it done. Help to raise that antenna is going to be hard to find on the Morning of January 9.....

Another item which is closely related to equipment is the matter of the operating position. During a long spell of operating, a hard chair does not get softer. Get a comfortable set-up so that you can survive a long grind. Provide space for all paperwork. A card table at one side works fine for me. Also, comfort dictates that you should eat light, but often. Remember, that a lot of energy is consumed during a contest in spite of the seeming activity. Alcohol and smoking tend to make some people drowsy, so unless you want to sleep away a good part of the contest time, or happen to be one of those people who operate at top efficiency when half boiled, it might be well to kinda limit the intake of both. Fresh air helps too.

Now is the time to take a hard look at our results in last year's fracas. Those below the average score should resolve to get up with the herd. Those with the low score should be able to double or triple last year's effort because of the extra experience, if you put the time in and give it your best effort. Those who are in for the first time, and who think this contest business is easy, are in for a surprise. A good score can only be made with a lot of hard work by an experienced operator, with a smoothly operating station that will last for thirty four hours of pounding. Ten KW on top of Bowman's Hill, into a thirty element beam on each band, would not always win the top honors. You have to be willing to stick-in-there and grind...and each year you learn a bit more, so that, barring unexpected factors, every club member has the potential to place high on the over-all list.

The next club meeting, December 16, will be devoted to contest discussion, so every member should make an effort to be there. The contest log sheets and other material are enclosed, read them over carefully, and if you have any question ask your co-ordinator, or get in touch with me.

Remember, the contest starts at 2:00 P.M., Saturday, January 9 and ends at midnight, Sunday, January 10, 1965, local time. Get on the air a little early so that when 2:00 P.M. rolls around you are all ready for your first contact, be it on 6, 2, 220, 432 or 1296. Also, syncronize your clock with WWV.

That's about all for now, see you at the December 16 meeting.

73,

W3LHF, Dave Zimmerman
Contest Chairman

MONDAY VHF ROUND UP BY ALLOCATIONS

NETS

8:00 PM. 145.2 MCS. 9:00PM 50.2 MCS. 10:00PM 221.4 MCS.

RED COATS	HILL-BILLIES	BOULE-VARDERS	SANDPIPERS	CRAWLERS	SCREAMERS
K3AFT	K3BPP	K3CHN	K3ARK	W3AJF	W3BQU
W2AXU	W3BRU	K3EMR	K3ACR	K3BRJ	W3BYB
K3BGT/2	W3CLQ	K3EOD	K3ALK	W3BVR	W3CFS
K3BHK	W3CPT	W3ELI	K3AUH	W3DJV	K3CIV
W3CXU	K3EOU	K3ESL	W3BAH	K3EHQ	W3CL
W3HAB	K3EPB	K3GAS	K3BOY	W3HFY	W3CLT
K3HWZ	K3FDH	W3GEW	WB2CDP	W3HYO	K3DUW
K3IPM	K3GAY	K3GOZ	K3DLS	W3IBH	K3EMA
WA2JNA	W3GXB	K3IFH	W2EIP	K3IGX	W3FSC
W3JSD	W3HIX	K3IUV	K3HJA	W5NFD	W3FTU
W2LZA	W3IHT	K3JJZ	K3HSS	K3NMN	W3GLI
W3MFY	K3IUZ	K3KTY	K3KVS	K3QFQ	W3HKZ
K3PXT	W3KKN	K3KUB	K3LBT	W3QB	W3IXL
WA2QCQ	K3LEA	W3KXH	W3NSI	K3RCV	W3JAY
K2QOS	W3LHF	K3MSV	K3OBY	W3UMI	K3KKM
W3SMK	K3RIT	W3MVF	W3QAS	K3VPP	W3KLL
W2SXO	K3TPM	W3OZP	W3SAO	K3WEU	K3LOM
K3ZPN	K3UJD			K3YPL	W3MXW
				W3ZRR	W3OHY
				W3ZTL	W3OR
					W3RZU
					K3ZPQ

NOTE: THE TITLES ARE GIVEN FOR THE DIFFERENT DIRECTIONS INSTEAD OF GIVING THE DIRECTIONS THEY ARE FROM THE NET CONTROL. PLEASE CALL IN WHEN YOUR COLUMN TITLE IS ANNOUNCED. ALSO GROUPS WILL BE ROTATED SO EACH WILL GET A CHANCE TO BE FIRST ON THE CALL-IN.

73 HARRY W3CL.

RECOMMENDED READING: VHF BROADSPANNER Two tubes and a really hot reflex hookup give you exciting listening all the way from 26 up to 173 mc! By W3IKH, Charles Green (Bucks County Member) in the January, 1965 issue of Electronics Illustrated.

Also from the same issue, That Amateur Radio Brawl by WB6JTJ/W18PQ, Nicholas Rosa.

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TWO METER ACTIVITY

By W3LHF, Dave Zimmerman

Greetings again from your Two Meter reporter who once again must apologize for lack of operating time on the old band. Most of the spare time, at this QTH, has been devoted to preparing for the January VHF Sweepstakes.

However, reports have been filtering down to me that the band is showing a few signs of life, not from the standpoint of sparkling band openings, but from general operation and chit-chat.

The Monday Night Net, on two, seems to be attracting a few more fellows since the move to 145.2 mc. This move seems to make sense if only from the point of eliminating the cranking of the dial from the low end to the high end.

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We pass along our sympathy to the XYL of W3IBH, Evelyn, who lost her father on Thanksgiving Day.

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At this writing, W3CFS is very ill and we all pray for his rapid recovery.

****

SWAP AND SHOP

WANTED by W3MVF a 50 watt Modulator

FOR SALE by K3HSS
Converted R 48 for 220 mc.
BC 348 in excellant cond.
Call FI2-4378

We have some things left from W3AYG. Call K3GAS if there is anything you need. ME5-1078

MEETING DATES

1964	Dec. 16
1965	Jan. 20
	Feb. 17
	Mar. 17
	Apr. 21
	May 19
	June 16

GENERAL MEETINGS ARE HELD ON THE THIRD WEDNESDAY OF EACH MONTH AT THE WEST OAK LANE JEWISH COMMUNITY CENTER, SEDGWICK AND THOURON STREETS, PHILA. AT 8:00 P.M.

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MEETING NOTICES

DECEMBER 2 PHILA. COUNTY ARPSC

9 DIRECTORS MEETING at the QTH of (to be announced)

16 GENERAL MEETING

PACK RATS ONLY

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NEW MEMBER

K3TPM, M. E. BECHTEL, 3rd, XYL, ANGE
24 Fern Avenue,
Willow Grove, Pa. 19090
215- OL. 9-9093

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From Phila. Inquirer, November 23

JAPAN GIVES OK TO AMATEUR TV

TOKYO, Nov. 22 (AP) Japan's first amateur television station has received Government permission to begin broadcasting.

The 22-member TV club includes students and professional men and operates a 50-watt transmitter with a range of about three miles. The hobbyists broadcast on a frequency beyond the range of ordinary TV sets.

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"PACK RATS CHEESE BITS"
829 W. FISHERS AVE.
PHILA. 41, PA.

W3CL, Harry B. Stein
2037 Parkdale Ave.
Glenside, Pa. 19038

MEETING NOTICE