HAM HUM

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AK-SAR-BEN RADIO CLUB, INC. - Omaha, Nebr. 68101
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May 1969

Vol. XIX
No. 5

NEXT MEETING

WHEN: Friday, May 9, 1969 – 8:00 P.M.

WHERE: Club Room – Red Cross Chapter House
39th and Dewey

WHAT: PROGRAM: Mr. Jim Miners will present a program on servos, a discussion of the various electronic and mechanical types of servos. An electronic servo used in model radio control will be demonstrated. The mechanical servo as used in an aircraft control surface will be shown.

Plans for Field Day will be discussed.

Eyeball QSOs and refreshments.

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HAM HUM is the official organ of the Ak-Sar-Ben Radio Club, Inc., of Omaha, Nebraska, mailed monthly to all members and to others upon request.

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AK-SAR-BEN RADIO CLUB, INC.
Post Office Box 291
Omaha, Nebraska 68101
Editor: Dick Eilers, WØYZV
Phone HOME: 391-2255
BUSINESS: 342-1402 - EX. 3
Associate Editor: John Snyder, WØWRT
Phone HOME: 556-1538
BUSINESS: 551-0669 - EX. 518
Associate Editor: Ervan Heinz, WAØEEM
Phone HOME: 553-2033
BUSINESS: 553-4700 - EX. 331

PRESIDENT'S CORNER

There was a very good turnout at the auction last month. Everyone seemed to enjoy himself and quite a bit of equipment changed hands. It always amazes me that some things bring the prices they do, but some smart advertiser once said, "One man's junk is another man's treasure" and I guess he is right.

The Club has three activities coming up soon where your help will be needed: Messages to Servicemen on Saturday, May 10, the day before Mother's Day; Boy Scout Canoe Race, early June; and Field Day, late June. Please contact your fellow club member who will be trying to make a go of these events and offer your help.

It might be a good time of the year to look over the grounding and guy system for your antennas as spring and its violent weather should be with us soon. It would also be a good idea to review your emergency, portable and mobile operational capability in case your help might be needed.

I recently got a 2 meter FM mobile rig and it is lots of fun, when I can get the wife's car. Reception is fairly good without the repeater and I haven't found a place yet that I cannot work from when the repeater is in operation. If we can get a few more 2 meter mobiles we can stop turning over the community drives to the "CBers."

73s
Royce E. Johnson, WAØKIL

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SAFETY INSPECTION

Nebraska vehicles with call letter license plates need to be inspected prior to June 1st under the new safety inspection rules. Now is the time to get your car over there and have it inspected.

Our thanks to John Ebright, WAØQGZ, for reminding us to insert this notice for your benefit.

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A 16 page booklet entitled "Giving Two-Way Radio Its Voice" is availab from:

Champion Spark Plug Company
P.O. Box 910
Toledo, Ohio 43601

de Pack Rats, Penna.

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FIELD DAY 1969

By Bob Lockwood, WAØDHU

With Field Day 1969 just around the corner, your Field Day Committee is working hard to get the planning completed for the big day.

With the advent of the new site, we find our kitchen facilities are not as good as the old site. Furthermore, in the past too much responsibility has been put on too few XYLs. Therefore, we feel a change is needed. The Club will furnish sandwiches, pop and coffee, and we will depend on the individual members to bring covered dishes for the Saturday evening meal and the Sunday noon meal. Cooperation from individual members will be appreciated in this matter.

Field Day is a Club project. We must all pull together to make it a success. I remind you that we will be in competition with Bellevue again this year. Let's make it three in a row for WØEQU. Let's keep the trophy!

The June meeting will be devoted to planning for Field Day, and all are urged to attend.

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FOR SALE

KWM-2 – just paid $147.00 to Collins to bring back up to specs.
Cost new – $1,150.00
AC power supply – $153.00
DC supply, old style,
cost new – $195.00
Sell the works – $800.00

Matthew G. Beha
WØLFJ–Sunny Acres Farm
Box 122, Route 1
O'Neill, Nebraska 68763

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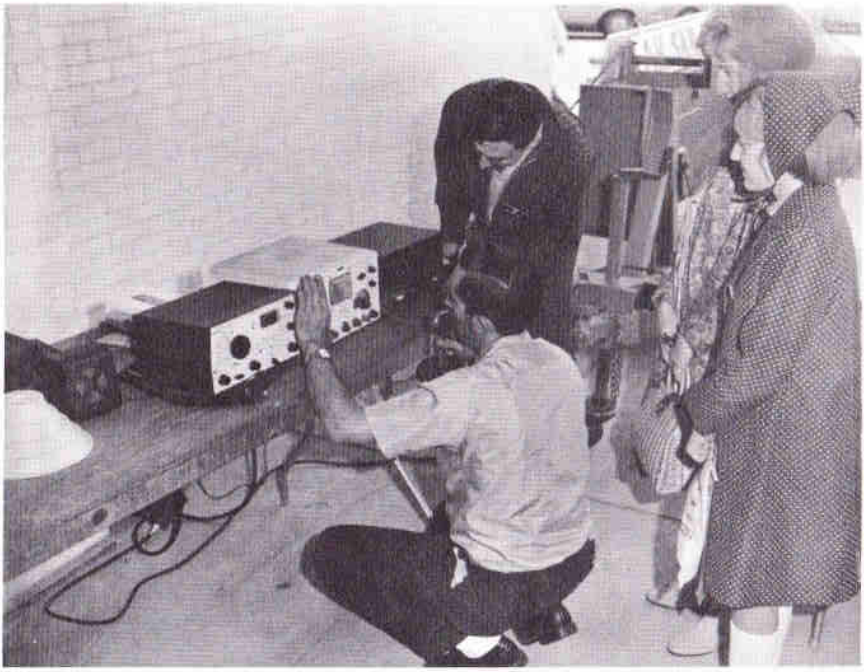
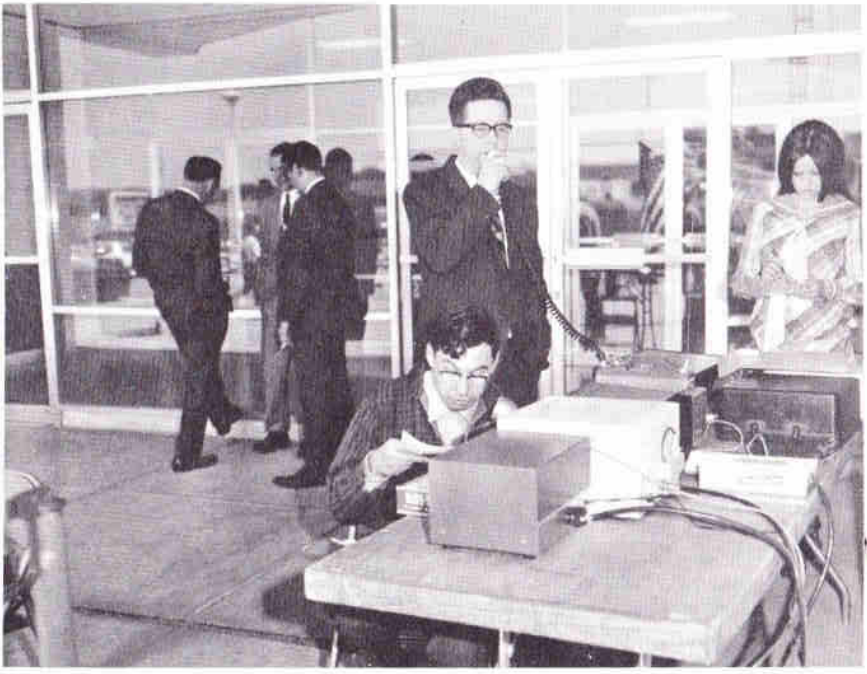
MESSAGES TO SERVICEMEN

The Ak-Sar-Ben Radio Club, Inc. will hold its annual Mother's Day Relay of Radiograms to Servicemen stationed anywhere in the world, where permitted. They will move their station to the Southroads Shopping Center on May 10th, Saturday, 1-5 p.m. to test emergency preparedness. Bob Lockwood, WAØDHU, 3711 No. 56th Street, Past-President of the Ak-Sar-Ben Radio Club, announced that the object of the exercise is to give hams a chance to test equipment and procedures which they will use to help such agencies as the Red Cross, Civil Defense, police and public utilities when normal communications are disrupted by disasters such as floods, fires and tornadoes. The Ak-Sar-Ben Radio Club will operate its equipment from gasoline-driven electric generators, just as it would if power should fail during a real emergency.

The Ak-Sar-Ben Radio amateurs' past participation in times of national and local emergencies is a tribute to the training derived from this type of preparation. Erv Heinz, WAØEEM, 1933 South 51st Street, is this year's Mother's Day Radiogram dispatch chairman. Mothers, wives and sweethearts should limit their prepared messages to 25 words or less and should be sure to bring the complete mailing address including rank, serial, APO and zip code numbers of their servicemen to facilitate the transmitting of all messages to the servicemen this Mother's Day. Radiograms are sent on Saturday, May 10th, 1 to 5 p.m. so that messages may be received on Mother's Day.



1968 setup at the Southroads



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APRIL AUCTION ACTION

April 11 the Club meeting was short; the Auction Action was fun. Ninety items were put on the block and some brought interesting prices. A paper sack with one George Washington portrait was bid to $1.75. With today's inflation that means paper sacks are awful expensive – ask the one who owns one – (ask Sharlene Anderson). Jim Droege purchased an exotic amplifier tube for his F.M. walkie-talkie, but he had to bid $110 to get it. Several of the Club's more notable power devotees were after that one.

The good attendance and many fine items made for a pleasant evening. Both the sellers and buyers felt they had done well – and that's as good as you can have it.

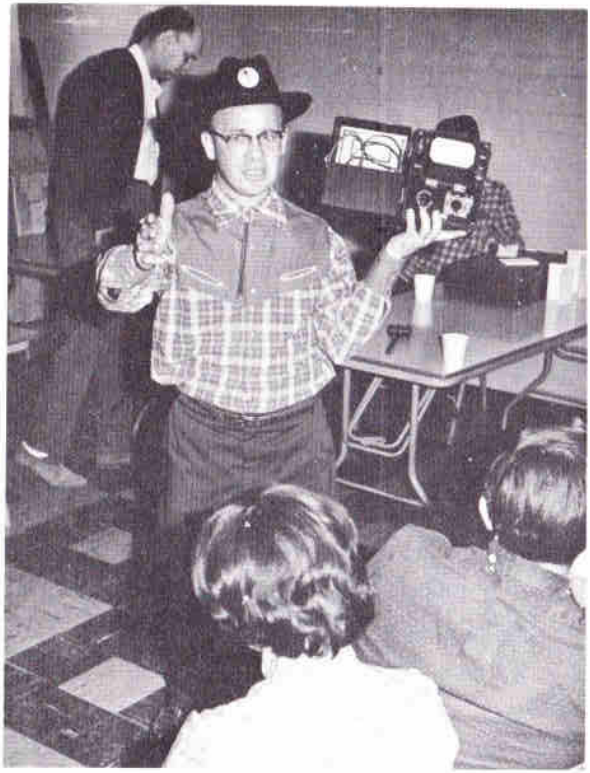
Several items contributed to the Club by WØLXN sold and enriched the Club's treasury by the amount of $35.50. Our thanks to WØLXN. Commission on sales amounted to $35.43 for a total of $70.93.

The Auction Team of Erv Heinz, Cecil DeWitt, Jim Droege, and the Club Treasurer, Hank Dworak are to be congratulated for a fine job in running a smooth and enjoyable auction.

Can you wait till next April for another Auction? Do you want another this fall? Let the Club know – mail in your comments on the enclosed postcard.

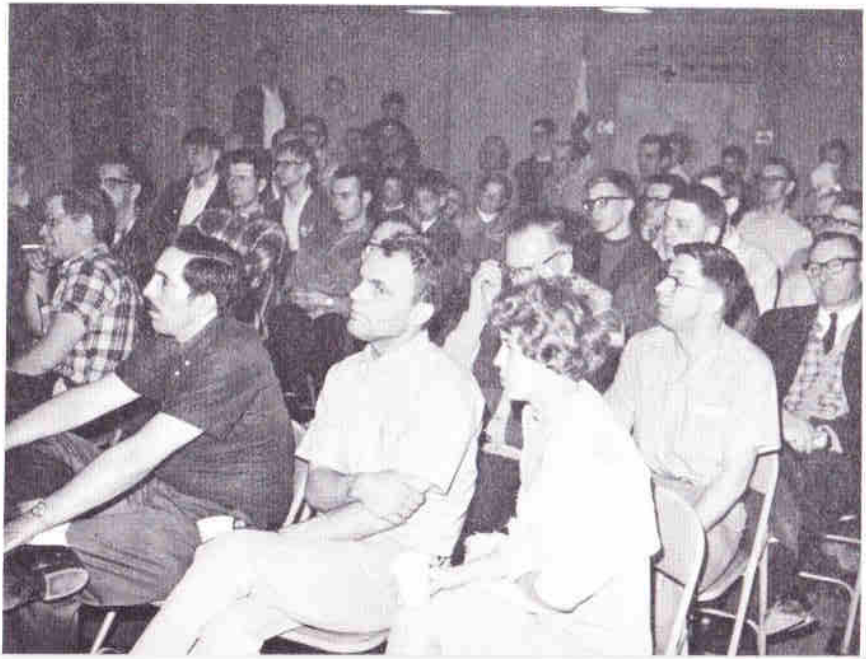
WØEGP/VP

Fred Fischer, WØEGP, ready to register gear.



Erv Heinz, WAØEEM, the auctioneer.

The buyers.



HAM RADIO AT AFCEA – 1969

On-the-air Ham Radio facilities will be provided by the U.S. Navy's Washington voice in the amateur radio fraternity, K4NAA, operating daily from the Sheraton Park Hotel in Washington, D.C. during the three days of the Armed Forces Communication and Electronics Association Convention in June. AFCEA convention delegates with amateur radio licenses are invited to take advantage of the Navy's ham radio station to contact friends during the convention on June 3, 4, and 5.

The K4NAA fixed portable station will be operational from 0900 to 2200 EST with two available positions for CW and SSB on the 10, 15, 20, 40, and 80 meter bands.

A specially designed QSL card has been prepared to acknowledge contacts with licensed amateurs throughout the world who are invited to make contact during the AFCEA convention.

Project officers for the exhibit are Lieutenant J. F. Fagan, Jr., and Lieutenant Junior Grade K. H. Pearce.

The Navy and AFCEA invite all amateur radio enthusiasts to visit K4NAA on June 3, 4, and 5.

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FOR GIVE-AWAY – 6 meter ground plane antenna, needs some fixing.

FOR SALE – about 150 ft. of RG-17/U low loss VHF coax cable.

Contact Frank Parsons, WØEMS
6603 North 46 Avenue
Omaha, Nebraska 68152
Phone: 457-4957

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OFFICIAL BULLETIN NR 215 FROM ARRL HEADQUARTERS NEWINGTON CONN APRIL 3 1969 TO ALL RADIO AMATEURS BT

Field Day 1969, June 28 and 29, will retain all of the popular features introduced in 1968. Only one change takes place this year permitting those clubs who prefer to set up ahead of time to do so. If set up time takes place before 1900 GMT June 28, the group may operate no more than 24 consecutive hours out of the 27 hour Field Day period. ARRL Affiliated Clubs have been mailed advance copies of the complete rules which, additionally, will appear in May QST. Entry forms are available without charge from ARRL, 225 Main Street, Newington, Connecticut 06111. When writing for your logs, please indicate the number of transmitters planned to be operated simultaneously and the approximate number of contacts anticipated. Allow four weeks for regular mail AR

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OFFICIAL BULLETIN NR 216 FROM ARRL HEADQUARTERS NEWINGTON CONN APRIL 10 1969 TO ALL RADIO AMATEURS BT

The FCC has proposed rule making to adopt the ARRL petitions requesting an exclusive c.w. band from 144.0 to 144.1 MHz instead of the present one at the top edge of two meters and to permit F1 emission for radioteleprinter from 28 to 28.5 MHz. The comment date is June 11. A brief report will appear in May QST with full details in the June issue AR

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Checking new site for Field Day 1969 are from left to right: Bob Lockwood, WAØDHU, Connie Bowen, WAØMYF, Norval Bowen, WAØNPF, Sharlene Anderson, Jim Anderson, KØDNE, and Harold McClenahan, WAØDGA.

As usual, Field Day sites are checked out in midwinter. Perhaps as we stand around this field in the hot sun of June, we will remember how "bundled up" the committee was.

Picture was available for more timely use but for lack of room it now serves as a reminder Field Day is coming.

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(Letter to KØDNE)

4409 North 80th Street
Omaha, Nebraska 68134
April 24, 1969

Dear Jim:

I wanted to drop you a line to say "Thank you" for the work that you and others of the radio club put in for the benefit of we who are interested in getting into ham radio.

I was unable to finish the course due to some unforseen business activity but I learned a great deal and with some more work at it, I will get that General ticket yet.

My lapsed Novice ticket was relicensed to me under the new rules and you may hear me on the air under my new call, WNØYHL. I hope that your vivacious XYL was able to get her ticket. Thanks again for your interest and help.

73's
Wayne L. Ablott

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HETERODYNE VFO FOR 2 METERS

W3KKN – Ernie Kenas

So many of the clan are now using stable receivers with 1 KC readout, it became increasingly obvious I could no longer bluff my way through with the old Hartley VFO in the 2 meter rig. Time was a 2 meter man was so happy to work you that something less than xtl control was entirely adequate. Today, standards are such that you can no longer tell your buddy it is his drifty receiver and be 50% right.

So into the mags, handbooks, commercial schematics, et al we went. Do you know how many ways it is possible to go VFO?

It's appalling!

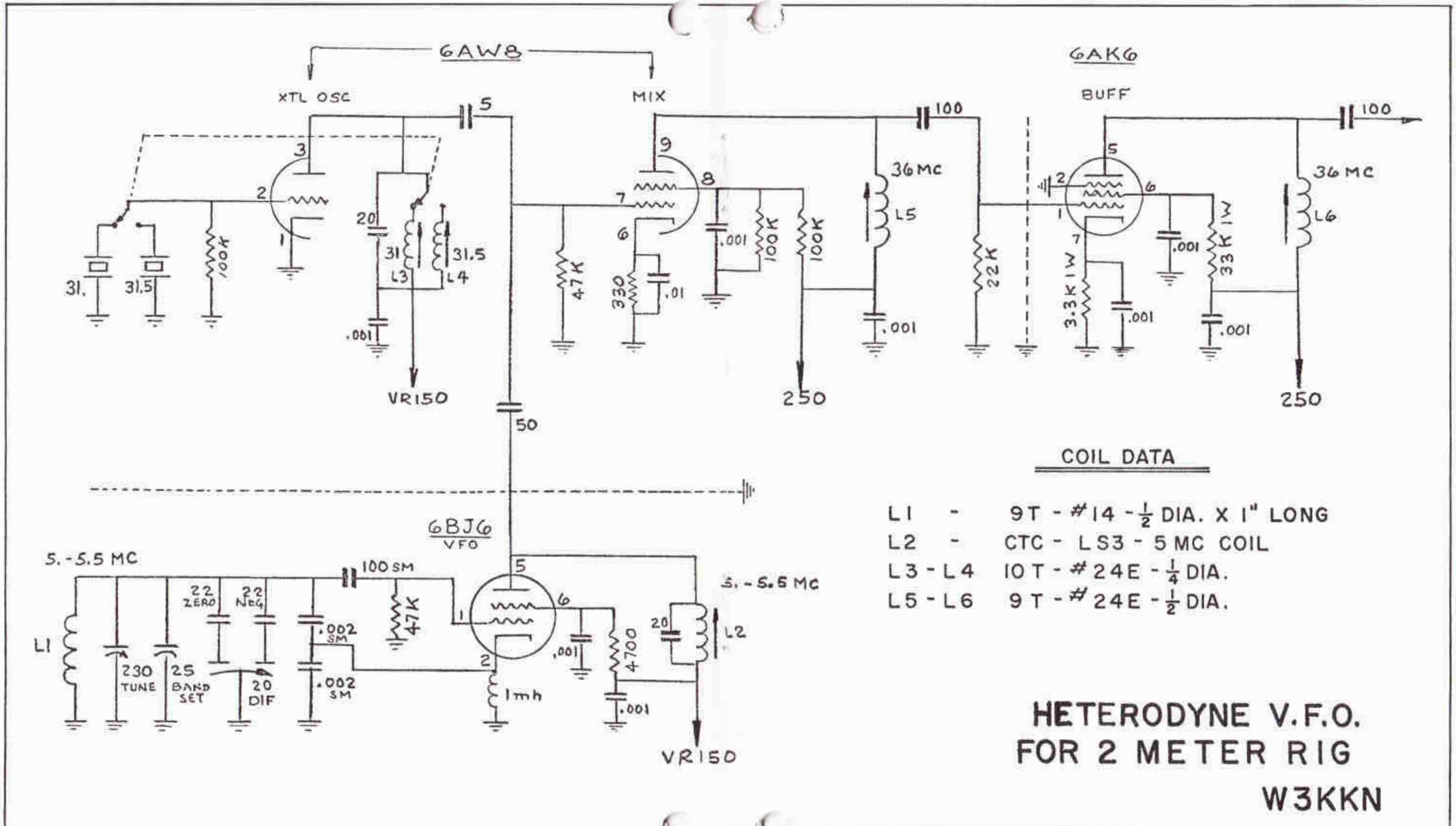
There are transitron oscillators, VXO's, modified colpitts, Hi-C, cathode coupled, electron coupled and another that sounds like a terrible disease. There were others that were unnamed, but did oscillate, for no apparent reason. Then of course, most all the above had their versions in transistors in NPN, PNP and all of a sudden a rash of FET's. The net result was bewilderment; like reading a 1040 return with its accompanying instructions.

Reading about stability is a fascinating subject. Drift is like a who-dun-it. James Bond could learn something here. What causes it? How was it arrested? A book could be filled. Every electronic company must have a research unit on this. What affects stability? Apparently everything. Heat, components, ratios, mechanical rigidity, regulation, electrolysis and nervous spasms. The attempt to eliminate drift can lead to the funny farm, so watch out. Methods I have read about include negative and zero temp. compensation, D.C. filaments, lo voltage filaments, special wound coils, exotic capacitors, regulator, zener and gas tubes. Heavy chassis assembled with carriage bolts, silver soldering, remote layout, etc. Somewhere, I read where an oscillator buried 10 feet in the ground was the most stable! This reminded me of graves and how short life really is.

After sorting through these scientific papers, I decided to take the cowardly way out and buy one. A consumers union type of investigation took place. Aha, not so simple. Most of the reports of the common and medium priced were unenthusiastic for 2 meter work. A few good ones were incredibly expensive. So back to the drawing board.

It seemed that a Heterodyne type was the best selection, especially if you want to use CW. The high C colpitts was chosen for the tuneable oscillator; G.E. ham news has been pushing this circuit over the past few years. This unit was made to tune 5.0 to 5.5 MC. This in turn was mixed with 31 MC from axtl osc, to produce 36 MC. In my case, this was needed to fit in an existing xmittr. There are many combinations you can use. It is possible to again beat this frequency against another xtl source frequency to arrive at 144 MC with excellent stability. The tuneable oscillator is similar to G.E. ham news July-August, 1959 with variations shown in the schematic. It is important to have a good dual bearing tuning capacitor, solidly fastened. The coil used silvered wire over a solid grooved form set in epoxy. (I have some extra coil forms.) A differential capacitor is used in the grid circuit together with zero and neg

(See diagram on pages 10 and 11 – copy continued on page 12)



COIL DATA

L1	-	9T - #14 - $\frac{1}{2}$ DIA. X 1" LONG
L2	-	CTC - LS3 - 5 MC COIL
L3 - L4		10 T - #24E - $\frac{1}{4}$ DIA.
L5 - L6		9 T - #24E - $\frac{1}{2}$ DIA.

HETERODYNE V.F.O. FOR 2 METER RIG

W3KKN

(Continued from page 9)

coefficient capacitors to enable a means of balancing out drift. All other fixed capacitors are silver mica. D.C. on the filaments of the 6BJ6 was considered, but found not necessary.

A triode section of a 6AW8 serves as the xtl osc, and the tetrode section as the mixer. A switch allowing a choice of two xtl frequencies was used in my case to give full band coverage. The output was rather weak for adequate drive, so a 6AK6 buffer stage was installed. This gave the necessary push and helps to suppress any unwanted beats from the mixer.

I did not follow the G.E. parts layout; however, all tuned circuits are shielded from each other with copper or aluminum baffles, minimizing any inductive coupling. Heat shields on the tubes were used to reduce coupling inasmuch as the tubes were closely grouped. All filament leads are shielded and bypassed. The frequency forming components in the tuneable oscillator are positioned so there are virtually no lead lengths. A little toying with paper and pencil, your parts, and chassis can usually result in a compact design. (Just imagine your JR OP lost your wire.)

Grid block keying is used for C.W. This is applied in the mixer stage and subsequent stages not shown in the schematic. If any one is interested in this, contact me for details. The VFO and the xtl osc run continuously with no beats noticeable in the receiver.

The results with this gadget were satisfactory with a considerable improvement in the station here. Does it drift? Sure. But not much.

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If you can see beyond the paycheck--that's vision.

Lou – WØVLI

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OFFICIAL BULLETIN NR 217 FROM ARRL HEADQUARTERS NEWINGTON CONN APRIL 17 1969 TO ALL RADIO AMATEURS BT

Effective April 27 W1AW will change to Eastern Daylight Saving Time. The full operating schedule for the summer months will appear in May QST. Newly revised copies of the printed information will shortly be available without charge from ARRL, 225 Main Street, Newington, Connecticut 06111. Please enclose an addressed stamped envelope to expedite your request. The ARRL National Traffic System will, as usual, operate one hour earlier by GMT effective 0000 GMT April 28 AR

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OFFICIAL BULLETIN NR 218 FROM ARRL HEADQUARTERS NEWINGTON CONN APRIL 24 1969 TO ALL RADIO AMATEURS BT

Once each year the League produces a comprehensive directory of all nets whose primary function is public service. Early this summer work will begin on the Fall 1969 Net Directory. If your public service net has not been reregistered since July of 1968, it will be necessary to do so before July 1, 1969 to ensure listing in the coming tabulation. Remember that all public service nets are eligible for listing in this free directory and the deadline for registration is July 1. Full details appear on page 65 of May QST AR

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REFLECTED AND DIRECTED

George H. Goldstone, W8AP
1010 Burnham Road
Bloomfield Hills, MI 48013

TO TRUST OR NOT TO TRUST

By and large, radio amateurs are a trusting bunch, at least as to each other. This is particularly true in certain areas, such as the sale of equipment. A ham advertises a certain piece of gear for sale, usually in a magazine like QST, and hams all over the country will rush a check to the seller, air mail. If you were to ask, "How come you send a check to some guy across the country you've never seen or talked to?" the answer would be, "I'll take my chances on trusting a brother ham radio operator." Sort of complimenting our own fraternity.

But sometimes our confidence is a little shaken. For example, we were a little taken back when donations were solicited for a certain DXpeditioner. For $25, 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 islet actually came from another location along the coast of Venezuela. Tsk, tsk! When one considers that there were over 3200 QSO's (per the DXpeditioner's statement quoted in WGDX Bulletin), it is plain that if $1 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 would have been forthcoming, which might not have even met the boat charter fee. But if the boat didn't leave harbor – what's with the cash? Would the Post Office Department consider this solicitation of funds a form of using the mails 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 75A4 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 74A4's to this character MONTHS AND MONTHS AGO and have never seen their receivers since! One Brooklyn ham sold him a KWS-1 – and didn't get paid. It appears that the police in Brooklyn, NY, take a very dim view of this sort of thing, for the amateur, Robert Stankus, K2DX (who only recently got that nice DX call from the FCC) was indicted by a 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, W2QJP, 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.

We don't know if there is any moral to this account, but we would make a suggestion or two. As to DXpeditions, they should not be recognized as "countries" by anybody. If a "country" exists by ARRL DX definition, and there are no licensed amateur radio operators there, no "country" contacts should be recognized from the place. Transient DXpeditioners should not be recognized any more than a U.S. ship at dockside in some foreign port is recognized or a U.S. plane flying over some foreign country.

Equipment frauds are another animal. We sincerely believe that used equipment is often the best bargain available – if you can put it into the condition the manufacturer intended when it left his plant. (Or better)! This is one of the satisfying things in ham radio: making something work **right** when someone else has given up! We suggest the best way to buy used equipment is eyeball to eyeball. Tell the would-be seller, "I'd like to buy this and fix it up – but I wouldn't want to get into it unless I had a pretty good idea of all the things that are wrong, or need repair. Tell me, what are all the things you know that are wrong, or need repair, or alignment?" If he is a true radio amateur, he'll tell you straight!

Buying service work from a far-off place is inadvisable, in our opinion. Some ham equipment is a bit on the delicate side, and even if everything were done perfectly in some Los Angeles repair shop – this being only a f'rinstance - it is highly probable that the gear might be shaken out of alignment, or tubes shaken apart, by the time the gear reached Detroit. We can imagine the weeping and wailing and gnashing of teeth when the equipment, just serviced, refuses to work!

The better solution: Stop being an appliance operator, and learn to maintain your own equipment.

George H. Goldstone, W8AP

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NOISE AND INTERFERENCE

By Arno Fasholtz, AØFDJ

Webster defines noise as "racket .... an outcry." If we were to ask ten people to describe noise we would probably get ten different descriptions. Among radio operators, however, noise means only one thing – "The unwanted sounds we hear when we turn on our receiver." This received noise has many different sources. Some of it is man-made. Some is natural.

Man-made noises are any electrical sparks or discharges that are caused by arcs in motors, switches, relays, faulty insulators, faulty connections and ignition discharges. These man-made noises are coupled to the receiver either through the power line or may be picked up by the antenna. These noises are a problem to power companies and engineers, as they involve tracing and locating the sources and then eliminating the interference.

The natural noises that we receive that are not man-made can be divided into two classes – external and internal. Let's take external noise first. External noise is that noise that is picked up by the antenna and not generated within the receiver itself. These can be classified according to their source as celestial, galaxial, atmospheric, and terrestial.

Cosmic noise is a continuous noise which is picked up from the stars and other galaxies outside our own solar system. These are highly directional, as they originate from the other planets and the sun. The greatest source of this interference is the sun itself. This noise is greater during daylight hours or when the sun is directed to our part of the earth. It can also be reduced by having directional antennas directed away from the sun. This solar noise is strongest in the polar regions and diminishes toward the equator.

Atmospheric noise or static is that familiar rumble or irregular crackling sound caused by the many electrical storms within our atmosphere. This noise is seasonal in that it is directly related to temperature and humidity. As the temperature and humidity rise, so does static. Lightning produces electromagnetic waves which scatter in every direction. Nearby, these cause overriding volume crashes. They are also transmitted to distant antennas by these waves being reflected and refracted from the ionosphere at angles that favor distant reception.

Terrestial noise is caused by metallic and chemical content of the geographic area of the receiving location. In some areas, the earth containing these materials will set up a magnetic field which is coupled into the receiver by coupling the desired signal to ground. This noise is constant at any one location. Volcanoes also are a source of radio noise.

Even if your receiver is of the best possible design, in perfect condition and all components are of top quality, you will still have internal noise generated in the receiver itself.

Whenever an electric current flows through a resistance, thermal agitation causes minute voltages to be generated which add or subtract from the circuit voltage and cause thermal noise.

Shot effect noises are caused by inconsistancies of electric currents and electrons changing their energy state.

Spontaneous emission is created by electrons giving up energy when they change to a lower energy state. This causes noise voltages in the resistive conductors.

This internal noise is directly proportionate to both bandwidth and temperature. This noise decreases and theoretically reaches zero at absolute zero Kelvin. In satellite communication the preamplifiers consisting of solid state amplifiers are refrigerated within a fraction of a degree to absolute zero and this internal noise is virtually zero.

This article is only a brief summary of the various noise sounds we hear in our speakers. The total noise consists of the noise picked up by the antenna, which is amplified by the receiver, plus that noise generated in the receiver itself.

So---what's all that racket? Take your pick---you probably are listening to some of all these kinds when you listen to your receiver---it's not all rock-n-roll!

By Arno Fasholtz, AØFDJ
de Ham Monitor

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A man who is contented with what he has done will never become famous for what he will do. – Fred Estabrook

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President Royce Johnson, WAØKIL, presents Membership Certificates to Lou Cutler, WØVLI, Ed Donze, WØYEV, and John Snyder, WØWRT.

NATIONAL CONVENTION

Des Moines – Planning for the 1969 National Convention of the ARRL is entering its final phase.

Set for June 20–22 at the Fort Des Moines Hotel, Des Moines, Iowa, the convention is expected to attract thousands of amateur radio operators and their families from throughout the United States and Canada as well as many other international guests, according to Lee J. Roy, WØUDO, convention general chairman.

One of the guests attending the convention will be the recipient of a 7-day trip for two to Hawaii, Lee said.

Special attention is being given to planning features of interest to the wives and children of those who attend the convention, as well as to a complete program covering all areas of amateur radio including VHF, UHF and RTTY techniques, The National Traffic system, MARS, FM and repeaters, Civil Defense and DX.

Latest amateur radio equipment will be displayed at the hotel exhibition hall where leading amateur radio publications will also be represented.

FCC amateur radio license examinations are to be given on Friday, June 20, at a site near the convention headquarters.

Among those tentatively scheduled to participate in the convention program are U. S. Senator Barry Goldwater, K7UGA; E. G. Henry, W3BG, Chief – Amateur and Citizens Radio Division, FCC; Edward S. Liscomb, Chief – Army MARS; Lt Comm. Robert E. Mickley, USN, Chief – Navy MARS; Phillip D. Brust, W8QCU, National Post Office Net manager; Robert W. Denniston, WØDX, president; John Huntoon, secretary and general manager; and

other representatives of the ARRL national headquarters, at Newington, Connecticut.

The convention committee also is attempting to secure a representative of the National Aeronautics and Space Administration for a program feature on space communications.

Prior to May 15, advance convention registration can be obtained directly from Convention '69, Post Office Box 1051, University Station, Des Moines, Ia. 50311, for $15.00 per person.

Registration at the time of the convention will be $6.00 each for convention, entertainment and banquet.

de Ham Monitor

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THE OLD GROUCH

Anonymous Unknown
c/o Editor, Auto-Call
528 Montana Ave.
Holton, KS 66436

When I was growing up, all of our neighbors honored holidays such as the birthdays of our national heroes by flying the Stars and Stripes, either from a tall flag pole in their front yard, or from a short staff placed at an angle in an upper floor window. They were proud to be Americans and wanted to let people who passed by their homes know that they were not only proud Americans but wanted to honor the person whose birthday was being celebrated. My dad always was the ball and obtained a new flag whenever a new state was added to the make-up of the United States of America.

Today (this is being written late, on Washington's Birthday) we took a little drive around the town for the primary objective of counting the number of U. S. Flags we could find in a city such as ours; there would surely be a large number of people who have enough patriotism to show the flag on an occasion such as today, possibly at least one in each block of the residential sections. Not at all! In a drive of over fifteen miles, we counted exactly ten flags raised by individual home occupants, and seven of the ten were out of date editions, with less than 50 stars.

This leads me to ask, what has become of the patriotism, or even nationalism, if you want to call it that, that was so evident back in the days of Teddy Roosevelt shortly after the turn of the century? Has our involvement in International affairs blunted our love of country? What has become of the patriotism which, each year, resulted in glamorous parades honoring our national heroes? I am informed that in our nation's capital city, Washington's Birthday is nowadays celebrated mostly by outlandish bargain sales affairs staged by all the big stores, which bring people out the night before so as to be at the entrance when the store opens in the morning, with such items as automobiles for 99¢, typewriters for a quarter, room sets of furniture for a buck or less, and such outlandish offerings.

What has become of our old-time patriotism?

The Old Grouch

(Ed. Note: The Old Grouch is cordially invited to visit the city of Holton, Kansas on national holidays to see flags flying from homes. It's done here.)

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A SIMPLE SINGLE WIRE ANTENNA TUNER

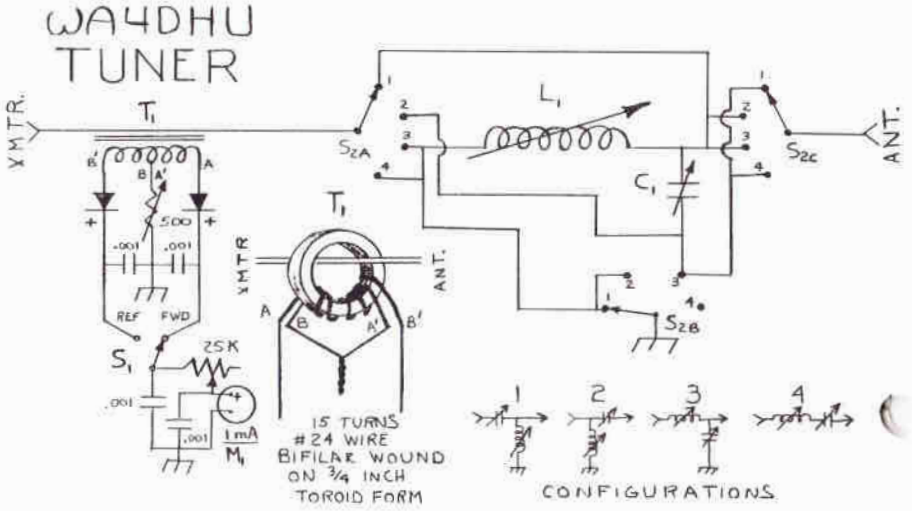
By Dick Blasco, WA4DHU
Special Assistant to the Editor

With the disappearance of rigs with pi-network outputs capable of matching wide ranges of output impedances from the market, the need for some external device to do the job has increased in recent years. Portable operation like FD or lack of space may necessitate the use of antennas having a characteristic impedance other than a pure 50 ohms resistive.

The adjacent diagram shows a simple, but effective and inexpensive solution to the problem of antenna matching. The rotary inductor L1 is salvaged from a surplus antenna tuning unit, and the toroidal form for T-1 can be obtained for about 15 cents at a local Miami distributor. The rest of the components are from the junk box, and the diodes are any general purpose or switching types. The entire unit is enclosed in a small cabinet salvaged from a surplus power supply.

The directional coupler T-1 is made up by winding 15 turns of wire bifilar on the toroid, and connecting the leads as shown. For optimum results, T-1, the 500-ohm "null" resistor, the diodes, and their two bypass condensers should be enclosed in a small shielded box and mounted inside of the main cabinets with the leads coming out through feed-through capacitors. Phono jacks could be mounted to handle the R-F line.

C-1 should be mounted with an insulated coupling and its rotor insulated from ground. S-2 is a 3-pole 4-position ceramic rotary. The wiring gives the four configurations shown,



which should match a wide variety of antennas.

To adjust the SWR indicator, bypass the L-C circuit and place a 50-ohm load on the "antenna" side of the coupler, apply power, advance the sensitivity control for meter deflection and tune the 500-ohm null resistor for zero reading in the reflected position. To match an antenna, experiment with various combinations and tune for zero reflected reading. Jotting down calibration for various bands will greatly reduce tune-up time after initial set-up.

de Florida Skip

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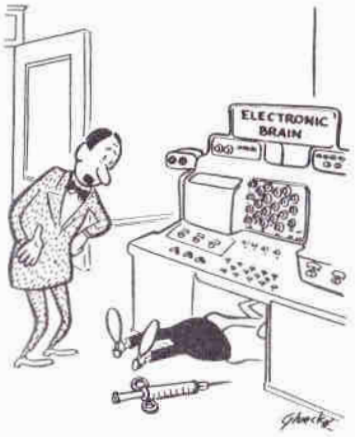

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