



HAM HUM



Published by

AK-SAR-BEN RADIO CLUB, INC. - Omaha, Nebr. 68101
Post Office Box 291 - Downtown Station

Vol. XX
No. 8

August 1970

NEXT MEETING

WHEN: FRIDAY - AUGUST 14, 1970 - 8:00 P.M.

WHERE: RED CROSS CHAPTER HOUSE
432 South 39th Street, Omaha

PROGRAM: FILMS: "HAM'S WIDE WORLD"
"MICRO"
"WORLD WIDE COMMUNICATIONS"

(See page 7 for further details.)

REFRESHMENTS - EYEBALL QSO'S

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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Published by
AK-SAR-BEN RADIO CLUB, INC.
Post Office Box 291

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NEW FEES FOR AMATEUR RADIO LICENSEES

Effective August 1, 1970, fees for the amateur service will be:

Initial license, renewal, and new class of operator license \$9.00

Modification without renewal . . . 4.00

Special call sign, additional fee .25.00

Exempt from any fee are RACES stations, military recreation stations, and Novice license applicants.

(CB renewal fee - \$20.00)

Some of the FCC comments regarding the change are as follows:

"(b) Many amateur radio licensees stated that the basic fee proposed for the Amateur Radio Service (\$9) was too high, especially when compared to the fees that must accompany applications for commercial operator's licenses. We believe, however, that this difference can be justified by the difference in the services involved (i.e.,

the commercial operator's license is necessary to employment as a commercial operator, while the amateur is essentially a hobbyist, although oftentimes performing an important service). We also considered the suggestion that in the Amateur Radio Service there should be an examination fee and a license fee, rather than a single fee for all Amateur applications. We deny this suggestion because of the impracticability of administration."

Food for thought is the only kind that hasn't been affected by the high cost of living.

Service

HAVE YOU HEARD

. Jim Anderson, KØDNE, and his XYL, Sharlene are the proud parents of a new boy, Darin Lynn, born July 21st. Congratulations, Andersons!

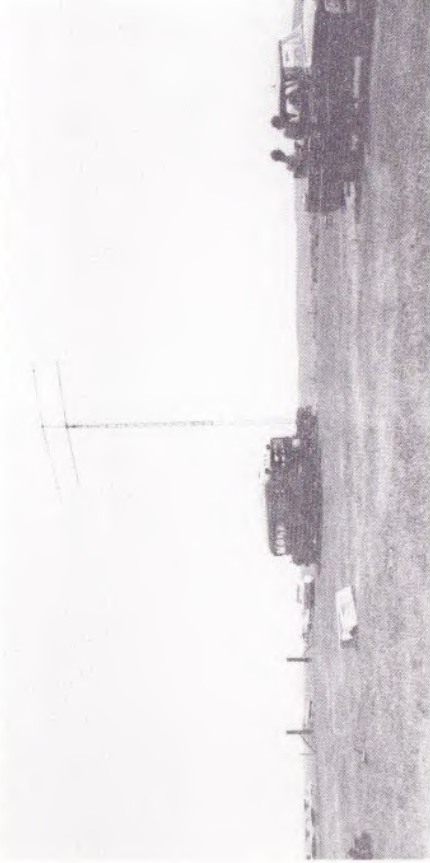
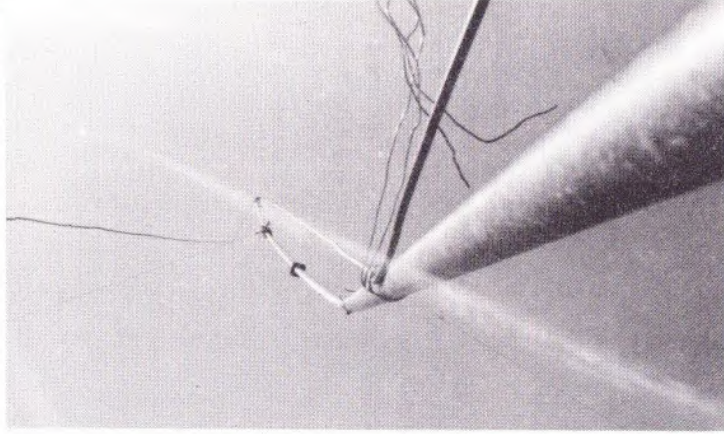
FIELD DAY 1970

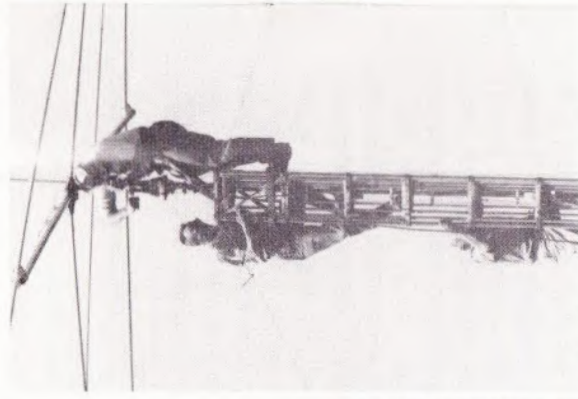
WØEQU Portable Zero

This could be called the opening of a bright and shiny, plenty of sunshine Field Day. The Bowens had already been hard at work getting the site in order with their family really pitching right in to mow the tall grass down by the time President WAØDGA and his crew showed up on the scene. About this time, as we have been told to expect, "Murphy's law" took over and the tractor and mower lost a few bolts from the vibration. This taken care of by Norval Bowen and crew, the mowing was completed and antenna raising started.

We worked Field Day on the twenty-seven hour arrangement, that is, where everything is put up during the 27-hour period rather than having the antennas up and ready to operate at a given time. In this way we gained a few hours operating time. Putting up the antennas was of real interest to Dick Eilers, WØYZV, who thinks that straight up is normally a straight line. The fifteen meter antenna didn't agree with him in its configuration with its varied bends and kinks. As we all know now though, it did stay up during the entire Field Day exercise.

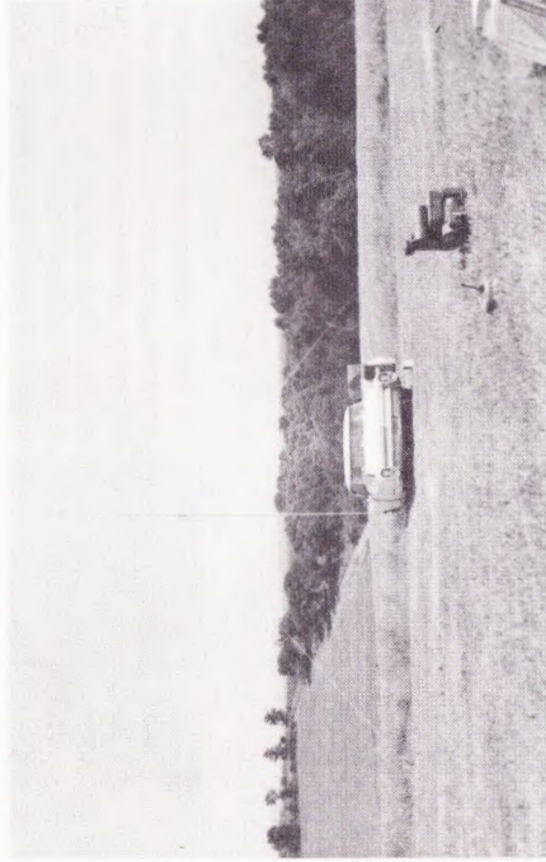
At the raising of the six meter and two meter antennas, things went along quite smoothly with the able direction of WAØDGA and WØYCP. They are getting to be old-timers at the antenna raising and do a very good job with assistance from some of us who are less experienced.





The twenty meter beam was by no means a simple job to put up as each of us who gave a hand can testify. Again WAØDGA was up on top of the tower handling the large beam with the help of KØLUG. This was also repeated when it came time to take this beam down. Hi.


While the beams were being put up, the transmitters were already bringing in their first contacts on the small vertical antennas. Here again we can see the planning of WAØDHU who was thinking ahead when he said that as many as fifty to a hundred contacts could possibly be made on the verticals while the better beams were being put up.

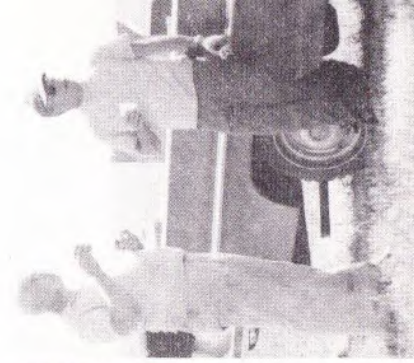
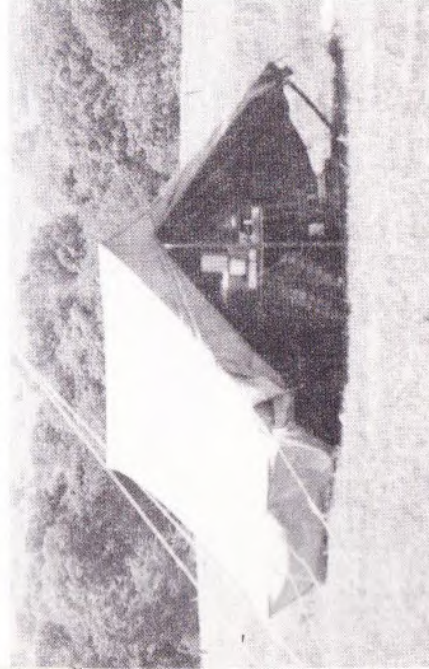


As time progressed the operators noted one thing in common and that was we had no trouble in getting contacts during daylight hours. Into the evening hours, the contacts kept up quite well and every one looked and sounded good, especially the golden-throated voice of WAØWRI during the darkest hours. He was going hot and heavy on the fifteen meter position and was losing his voice until someone suggested we call him the "golden voiced ham of fifteen." He declined that for the "golden-throated" style.



Over at the seventy-five meter shack where they compiled a very impressive score was WAØDHU and his helper, Jim Connelly, who is not a ham at present. Also at this location were the BOWENS, WAØNPF and WAØMYF. We don't have a complete list of all those who were at Field Day so as to give individual credit, but we wish to thank each and everyone who was there for all the time they put in to make this year the success it was.

The Field Day rules this year made provision for a novice station using their contacts along with the Club's score but without throwing the Club into a different classification because of the additional transmitter. This was done to encourage clubs to set up a novice operating position. Our club was encouraged and we did have a novice tent. We had the usual snacks and refreshments and whereas your photographer did not find it possible to stay for these, he did manage a donut QSO with Norval, WAØNPF, and Ed, WAØRDZ. 



This year, as in the past, we passed out small voting slips to the Hams at the Field Day site on Sunday, June 28th. Voting was for the person who, in the estimation of the voter, showed the most enthusiasm during the day and a half activities. The voting results were: first, WAØDGA; second, WAØDHU; third (tie), WAØMYF and WAØWOT. Since the first two places had won previous years, they declined this year in favor of the third place tie.

Some of the facts that came up from this Field Day are listed here so you will have a better idea of how we fared:

Two meter contacts	20 x 3	x 3 = 180
Six meter contacts	292 x 3	x 3 = 2628
Ten meter contacts	61 x 3	x 2 = 366
Fifteen meter contacts	335 x 3	x 2 = 2010
Twenty meter contacts	610 x 3	x 2 = 3660
Forty meter contacts	246 x 3	x 2 = 1476
Seventy-five meter contacts	268 x 3	x 2 = 1608
Novice contacts	<u>22 x 3</u>	<u>x 2 = 132</u>

Totals 1,854 12,060

100% Emergency Power . . 3 Multiplier Message Originated Power is either a 2 or 3 (200 points per transmitter class) (200 points) Multiplier

Our Ak-Sar-Ben Radio Club had a side competition with the Bellevue Amateur Radio Club for a three-year trophy which made Field Day a little more exciting. Taking the scoring from the chart above, we find that we came out very good in this competition. The Bellevue Club had a total of 4200 points for their two transmitter class. In computing our points, we added the seventy-five and fifteen meter together, and the twenty and ten, to come up with a two class transmitter point system of 7644 total.

After looking over all the scoring and points, we think back about a group of guys and gals who went out for a weekend to spend the time putting up, operating, and then taking down equipment. We think of that old generator that gave us so much trouble last year and did so good this year because of the super overhaul it was given by Jim Droege, WØYCP. We all have new horizons to look over, or is it the exploring instinct of man? Whatever it is, we wish to again thank everyone for his assistance.

Bob Andrus, KØLUG

A young lady on a vacation cruise stopped a sailor at his job and asked, "I'd like to see the captain of this ship."

"He's forward, Miss."

"Well, I don't mind, this IS a pleasure trip."

Service

JULY MEETING

Members of the Ak-Sar-Ben Radio Club, Inc. and the Bellevue Amateur Radio Club met at the Fireside Restaurant in Omaha on July 17th for a joint dinner meeting and the determination of the winner of the Field Day trophy.

The Bellevue Club had a fine score, much better than last year. Unfortunately for them, however, Ak-Sar-Ben also had a fine score which was better than last year and so the trophy went to the Ak-Sar-Ben Radio Club. This being the third win out of five years, the trophy now remains in the permanent possession of our Club.

Suggestion was made that we should have a committee composed of members from both clubs for the purpose of renewing the competition so that next year we could begin fresh with a brand new contest. It was generally agreed the contest between our two clubs did add some zest to Field Day, whereas we are actually in competition with other clubs throughout the country, this contest is close at hand and has the further advantage of promoting a joint meeting where we can discuss our Field Day problems and successes.

We neglected to bring our guest book, but as near as we could count, there were 47 in attendance. Members of the Bellevue Club were all introduced along with their President, Bernard Kubat, WAØRWY; the Ak-Sar-Ben members were introduced along with President Harold E. McClenahan, WAØDGA. Robert Andrus, KØLUG, was in charge of our Field Day delegation and Bernard Kubat, WAØRWY, in charge of Bellevue's.

NOTES ABOUT FILMS

Here's your chance to see the ARRL film "Hams's Wide World." Many others have seen it throughout the country. Many Hams don't always get the chance.

Through the courtesy of John Orr, WØPHW, and Northwestern Bell Telephone Company, we will also have the film "Micro." This is on miniaturization of electronic equipment and we think it will be very interesting. In addition, Northwestern Bell will furnish the film "World Wide Communications."

Don't miss this August meeting!

Having fun is like having insurance—the older you get, the more it costs you.

Service

PRESIDENT'S CORNER

There was a good turnout for the presentation of the Field Day trophy at the July dinner meeting. The Ak-Sar-Ben Radio Club, Inc. won it three years in a row, thanks to the hard work of those present on Field Day the last three years. Let's start getting ready for next year!

Our Ham Fest and Steak Fry will be held in September at which time trophies will be presented to those voted as hardest workers on Field Day. Hope to have you all present at this event.

73s,

Harold McClenahan, Jr.

WAØDGA

HAM HUM WINS IN ARNS PUBLICATIONS CONTEST

The Amateur Radio News Service (ARNS) again this year sponsored the ARNS Publications Contest in which numerous amateur publications were submitted in competition. Several issues of HAM HUM were submitted for judging. The contest is over and the results have been published.

We are happy to report that in the Single Club Category, HAM HUM placed as follows:

First----- in the Overall Category
First----- in the Masthead Category
Tied for third----- in General Format
Tied for second----- in Club Activity
Tied for third----- in Club Membership Contributions
Tied for second----- in Illustrations
First----- in Legibility of Content
* * *

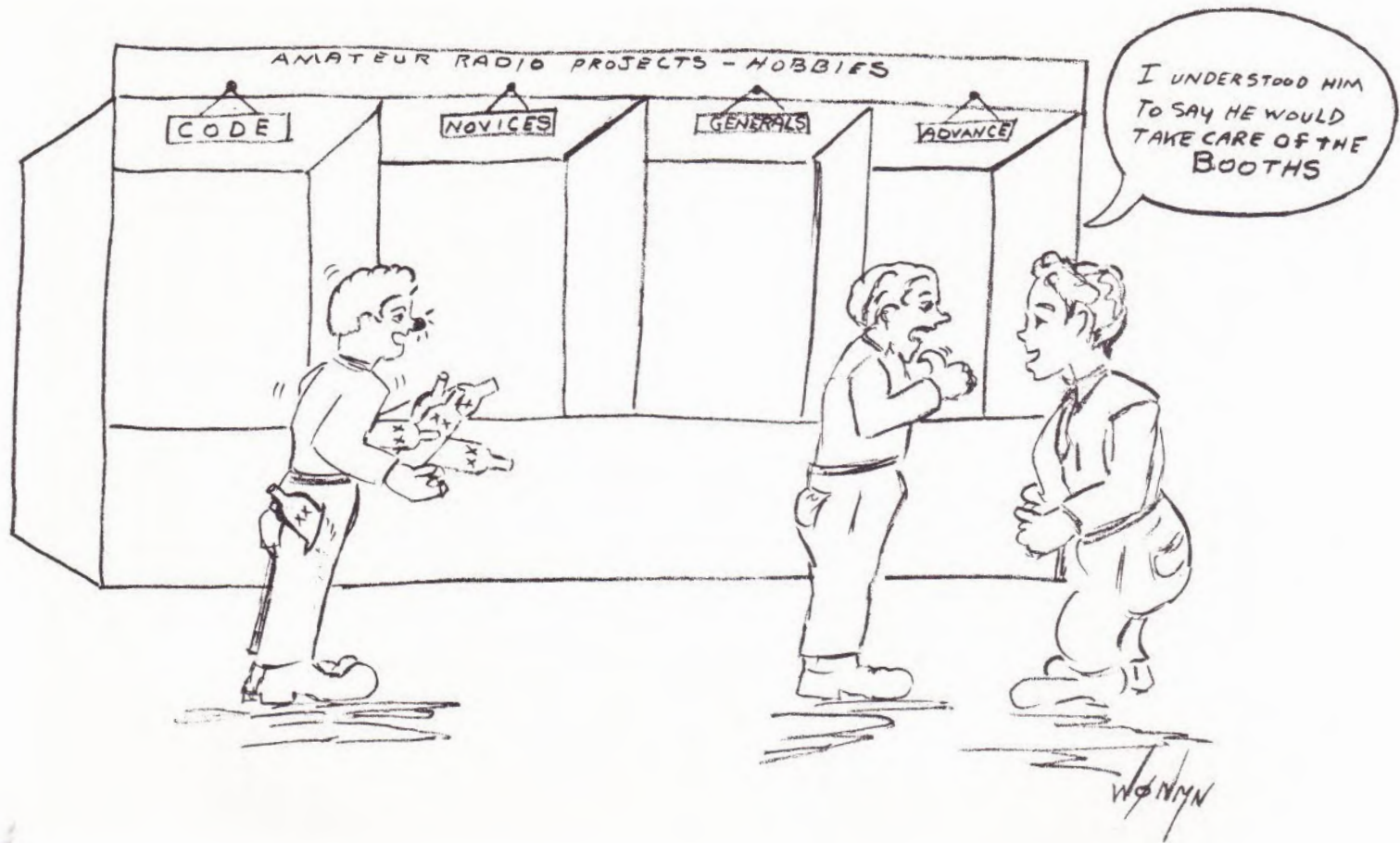
In studying the categories on which the judging was based, we note the category "Local News" in which our name was not even mentioned. We have space in our magazine to print your own local news. I am sure other members of our Club are interested in what happens to you. Did you receive an award of any kind? Did you upgrade your license? Did you have any of the things happen to you that happens to normal people, such as, getting married, getting unmarried, a new Junior Op; did you move, change jobs, get a promotion, get a new rig or a new antenna? We hope your tower didn't blow down or that you have not had sickness or a broken arm, but

OLD TIMER: One who can remember the days when he bought something and the salesman didn't say "plus taxes."

Service

whatever it is, we are interested in you. Perhaps we make it too easy for you. The little card addressed to the Club has undoubtedly been fluttering to your feet as you open your copy of Ham Hum, causing you to bend over to pick it up to dispose of it. The number of these cards returned to us in a typical month cannot be counted as in a typical month we receive none, and how do you count "none." Maybe we should consider omitting the cards. At any rate, you can help us print some local news by sending some in.

Even though we would like to improve our publication, we are most pleased that HAM HUM rated so high in the ARNS Contest.



REPEATER CONTRIBUTIONS

Sincere thanks to R. D. Burghardt, WØWR, of Valley, Nebraska, for his recent contribution to the Repeater Fund. All contributions gratefully accepted!

FOR SALE

- 1 - Drake TR4 Transceiver and AC Supply.
- 1 - Heath Q Multiplier with built in AC Supply.

Call 556-4914

Ron, WAØMQM

July 23, 1970

Ak-Sar-Ben Radio Club, Inc.
P. O. Box 291, DOWNTOWN Station
Omaha, Nebraska 68101

Hi Gang:

It's been a long time since I have written to you but thought I better give you the lowdown.

I am moving to a new QTH August 1st and want to be sure I get Ham Hum because I'd be lost without it. It sure keeps me up on the home gang.

My new address will be:

Orin W. Miller, W6EHJ
Julene Convalescent Hospital
Sun City, California 92831

Give my regards to Cecil DeWitt, John Orr, and any others I know.

73,

Orin Miller (Ex-WØSEE)
Here's a little to help on postage.

(Ed Note: Many thanks for your contribution, Orin.)

OFFICIAL BULLETIN NR 281 FROM ARRL HEADQUARTERS NEWINGTON CONN JULY 16 1970 TO ALL RADIO AMATEURS BT

Amateurs using the 50 MHz band are asked to look for OX5AP, Thule, Greenland, who is making five minute transmissions on the hour, from 2200 to 0200 GMT daily. These transmissions are on 50.15 and will continue through this year, except for the period of August 5 through 14. He will listen for 6 meter signals in the five minutes after each test. OX5AP is available for 14 MHz schedules between 2100 and 1100 GMT. Please report any reception or two way communication on 50 MHz to ARRL AR

ARRL OVS: Please spread the word on vhf. 73 - WINJMJ

OFFICIAL BULLETIN NR 282 FROM ARRL HEADQUARTERS NEWINGTON CONN JULY 23 1970 TO ALL RADIO AMATEURS BT

All amateurs are invited to participate in the ARRL September Frequency Measuring Test, September 12. This FMT will be open to all amateurs and results will be tabulated in QST with average accuracy comparisons. Remember that the September 12 GMT date falls on the evening of Friday September 11 for most participants. Full information on this new FMT appears on page 68 of the August issue of QST AR

Dayton L. Phifer, WØVEA
East Tryon Route
North Platte, Neb. 69101

July 20, 1970

Ak-Sar-Ben Radio Club, Inc.
P.O. Box 291
Omaha, Nebr. 68101

Hi:

The traditional "Junk-Box" of the amateur world has become a problem. What to do with it?

Every beginning amateur has started to accumulate a junk-box of anything that is electronic, including books on how to use parts scavengered from discarded electronic gear. The time comes when that junk-box fills all available storage space, the basement, attic, garage, barn, workshop — too good, or too old, to throw away. Time spent searching for useable parts, and the inevitable distractions of whether to cannibalize a part from this or that because it might be useable for something else. One just never gets a project started, or if started, never finished.

Besides the miscellaneous parts and unfinished projects, a quick inventory discloses desk-type telephones, 1909 vintage, BC radios from the 1920 era to transistors, diathermy from marble front, spark-gap type, (licensed last in 1942) to metabolism tester — with very sensitive meter, phonograph 78 rpm record cutter and reproducer, and amplifier, TVs, consoles and portables, military surplus, tuners, dynamotors, receivers, transmitters, amateur gear, unused, used, unusuable, test equipment, seldom used.

What to do? Swap table at a Hamfest? Bring back more than I got

rid of. Auction, few sales, haul back the leavings. Buddy up to a novice, load him up with one load, get phone call from his mamma, "Stop it!" Contact collectors, museums, historical societies. "How very interesting, but we have no more room." What is a Ham to do?

Empty the storerooms into the back yard, every bit of it. Pile it up, get a truck and start sorting what you will throw away; haul it to the dump — magazines, books, gear. It all goes, except this, and that, and something else; I remember now what I was going to use it for, a quick glance at the magazines, books, save this one and that one. And very little gets into the truck, still less gets unloaded at the dump. Replace in the storage space what you have saved, and the XYL makes an inspection and asks, "When are you going to start cleaning up this mess?"

What is a Ham to do with a junk-box?

73,

Dayton, WØVEA

If you want a place in the sun, you must expect to get blistered.

Service

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Ford camper bus, completely self-contained. Rebuilt T-bird engine. Excellent condition inside and out. Road ready.

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THE OLD GROUCH

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

I'll admit that I do not have as much ambition or get-up-and-go as I had a few years ago, but, in my own opinion, I still have a lot more than quite a few of the current crop of "appliance operators" of whom we find so many on our bands nowadays.

It may be that the present day apparently readily available cash has something to do with it, but I know of at least three so-called amateur radio operators (at least, they must have passed the FCC tests) who have had equipment troubles who, despite availability of good test gear, blithely took their acting-up transmitters to commercial repair agencies and paid, and paid and paid for the needed repairs.

I happen to know both of the men who did the actual work on these transmitters and they told me that, in one case, the corrective work was replacement of one little resistor which could have been easily checked with the instrument which every serious amateur should have in his shack, a simple volt-ohm meter. In another case, the trouble was an open circuit which could have been discovered just as easily, and the third trouble was a burned out filament in a low power stage.

Cost-wise, number one paid eighteen dollars to have the fifteen-cent resistor replaced, number two paid twenty-three dollars for a spot of solder, and number three shelled out only twelve dollars, because the first

thing a good serviceman does is to check the tubes.

Now, maybe twelve or up to twenty-three dollars may be chicken feed to these fellows, any one of these charges added to the normal budget of the average amateur might be upsetting for the current week or month, especially to a young chap whose cash status leaves something to be desired.

CONTACT WANTED

We had a communication from Rocky, WØTIP, who would like a contact from any member on 3955 Khz about 5:00 in the afternoon on AM phone.

**OFFICIAL BULLETIN NR 283
FROM ARRL HEADQUARTERS
NEWINGTON CONN
JULY 30 1970 TO ALL RADIO
AMATEURS BT**

New fees adopted by FCC on July 1 apply to applications on or after August 1, 1970. New, upgraded, renewed or modified and renewed amateur licenses are now nine dollars. Four dollars is charged for straight modification such as change of station location. Special call signs under section 97.51 require an additional twenty-five dollars. No fee for any Novice, military recreation station or Radio Amateur Civil Emergency Service authorization. August QST carries a brief announcement with details in the September issue. Meanwhile, ARRL, continuing its fight against fees, is preparing a formal request for reconsideration AR

MOBILE "J" ANTENNA

By WA6FIT

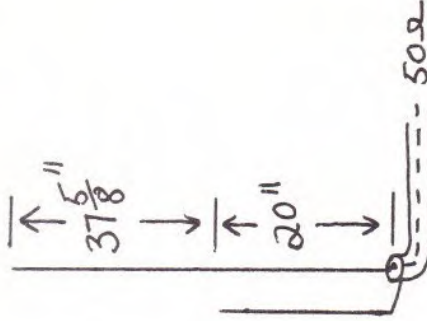
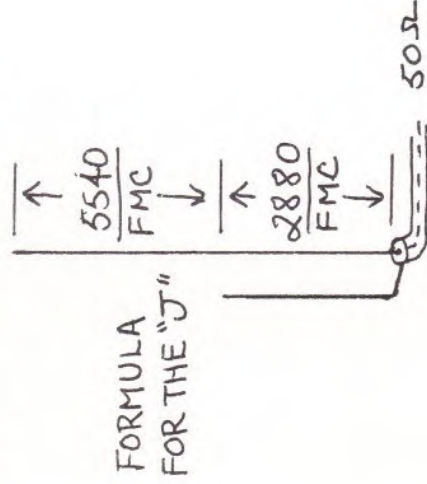
Most two meter mobile operators use either a quarter-wave whip or collinear type array, usually a combination of a whip with an inductor mounted at the base.

I was introduced to the "J" by WA6DQR last summer and discovered since, that it has a significant gain over a quarter-wave whip. The "J" consists of a half-wave vertical radiator fed by a quarter-wave stub matching section. The spacing between the two elements should be two inches or less. I found that a direct coaxial feedline is the

simplest means of feeding the "J."

Results of tests on single "J" Antenna compared with a quarter-wave vertical test freq. was 145.54 MHz. Both vertical and "J" were mounted at same height, ten feet at the tip.

S meter readings from WB6VJO showed a gain of 9DB over the whip, distance one mile - S meter readings from WA6CWZ showed a gain of 12DB over the whip, distance 5 miles. de RF, Orange Co. A.R.S.



OFFICIAL BULLETIN NR 279
FROM ARRL HEADQUARTERS
NEWINGTON CONN
JULY 2 1970 TO ALL RADIO
AMATEURS BT

The first reciprocal operating agreement, between the United States and Costa Rica, was signed in September of 1964. Since that time,

over 40 countries have ratified such arrangements permitting amateurs of one country visiting or residing in the other to operate their own stations there. The latest in this series of successes is the reciprocal agreement just concluded with Brazil, effective June 19. This updates the tabulation, as well as the special Canadian listing, appearing on page 73 of May QST AR

UNDERSTANDING TRANSISTORS

By Jim White

Associate Member, M. E. M. E.

SERVICING HINTS and PROCEDURES:

The voltage appearing across the transistor is one of the most important measurements that can be made. This voltage will indicate how the transistor is operating and its degree of conduction. This is similar to measuring the voltage across the elements in a tube circuit. The most significant reading is the difference in voltage between the emitter and collector.

Interpreting Voltage Readings:

- (a) The more the transistor is forward biased the lower will be the resistance from emitter to collector, and the lower the voltage will be across the transistor.
- (b) The full supply voltage will appear across the transistor if it is not conducting.
- (c) When fully biased on (saturated) about 1 volt or less will appear across the transistor.
- (d) Full supply voltage should appear across the transistor if the forward bias is removed. Simply by shorting the base to the emitter will remove the forward bias from the transistor.

By measuring the base voltage and assuming that the transistor is biased on and the base emitter junction is not open or shorted we will obtain the next most important voltage measurement on the transistor. This base voltage will tell us what is

appearing at the emitter minus the voltage drop across the diode. This, of course, will indicate the bias condition of the transistor. Measurement across the transistor, collector-emitter elements, indicates the conduction of the transistor and measurement of the base voltage lets you know why it is conducting in this manner.

By measuring the voltage between the base emitter elements we will determine the state of bias but not the degree, as this voltage is developed across a conducting diode and remains practically unchanged from near transistor cut-off to saturation. This reading can also be meaningless as far as the state of bias is concerned, since, when a transistor is driven as Class C it can appear to be reversed biased. This would be analogous to a tube oscillator grid voltage.

Keep in mind that the correct polarity of the voltage drops across any transistor or component can be determined by knowing the direction of electron flow. (Current flow from negative to positive).

de Fresno Skip, Calif.



"First time out, huh?"

FOR SALE

Galaxy V remote VFO, excellent condition . . . \$50.00

Max McKinney, WØYVY
7623 North 29 Street
Omaha, Nebraska 68112
Phone: 455-2574



"If you think I'm serving you breakfast in bed—you've got another think coming!"

**OFFICIAL BULLETIN NR 280
FROM ARRL HEADQUAR-
TERS NEWINGTON CONN
JULY 9 1970 TO ALL RADIO
AMATEURS BT**

FCC on July 1 acted on its Docket 18802, adopting a new schedule of higher application and license fees. This action was taken despite strong protests from nearly every radio service. For example, the ARRL opposition statement appears on page 80 of June QST. The new fee schedule becomes effective August 1, and is as reported on page 82 of April QST AR *****

WATCH OUT FOR THE OTHER GUY



Drive Defensively!

Just being in the right isn't enough. Nearly half the drivers in fatal collisions are in the right. Drive defensively—as if your life depended on it. (It does.)

WATCH OUT FOR THE OTHER GUY

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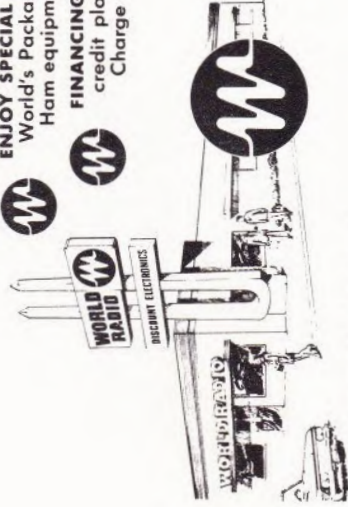
HAMS'

"COFFEE-BREAK"

THE COFFEE'S ON US
10am-1pm every Saturday.

**HAVE AN "EYEBALL" QSO WITH OTHER
FELLOWS YOU DON'T SEE OFTEN**

**SEE OUR COMPLETE HAM
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AT WORLD RADIO you choose from **TREMENDOUS STOCKS!** The Nation's largest stock and variety of Ham Gear!

AT WORLD RADIO you get **TOP TRADES** on your present gear! World's tremendous volume means you get top dollar on your trade-ins!

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the Amateur for over
34 years!*