



HAM HUM

Published by
AK-SAR-BEN RADIO CLUB, INC. - Omaha 1, Nebr.
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April-May 1966

FIELD DAY - JUNE 25 and 26

Field Day operations for Ak-Sar-Ben Radio Club will be held at the Priests' Shack through the courtesy of Boys Town. Location of the shack will be marked "Ak-Sar-Ben Radio Club" on the Field Day weekend.

You can reach the site by going west on Pacific Street until you come to the end of the street which is on the other side of Highway 6 at the Elkhorn River bluffs. Turn left (south) and proceed approximately a half mile where you will find a metal farm gate and a sign "Ak-Sar-Ben Radio Club" on the right-hand side (west) of the road.

Many of you have already been contacted for Field Day work. If you have not been contacted and if you will be available on the weekend of June 25-26, please call Royce Johnson, WAQKIL, phone 558-4941.

Plans call for food provisions for those who work. The location does have cooking facilities, electricity, sanitary facilities, as well as shelter from inclement weather. However, the electricity will not be

used for Field Day operations as we use generators for our transmitters and receivers in order to get full Field Day multipliers.

**IN VIEW OF FIELD DAY THERE
WILL BE NO JUNE MEETING OF
THE AK-SAR-BEN RADIO CLUB, INC.**

MARCH MEETING

Our thanks to John W. Orr, WØPHW, for arranging for the two films shown at our March 11th meeting - "Plane Talk" and "The Conquest of Light." Both were very interesting and enjoyed by all.

SILENT KEY

Eddie Q. Hansen, WØUEV
Omaha, Nebraska
April 20, 1966

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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APRIL MEETING

The April meeting gave us the Huntley-McMillan report on the trials and tribulations of the design of a new piece of gear for the purpose of selling to the customer. The McMillan half of the report dealt with the financial problems; the Huntley portion with the engineering problems.

They gave us the interesting story of the Galaxy 6/2 - a piece of VHF gear covering six and two meter bands. Basically the problem was given to the engineering production and sales force as a piece of gear - a transceiver - to cover six and two meters; 100 watts out on SSB; size, shape and panel design to match existing gear produced by this company; with stability and quality also consistent with the existing high frequency gear; and as near \$400.00 per copy, plus power supply, as is possible. All of this, of course, to be done rather quickly as a market is already waiting.

Now here is a set of problems that any of you who have built a piece of gear of your own can think about a little bit and recognize

the interest those members in attendance had in hearing of the solutions, compromises, and whereas not as yet final, close to final results.

Along with the talk on the problems they brought the finished product, that is, the handmade single copy which is the result of a year and a half of engineering and study. Mostly it is the rig they started out to design - almost all transistor, uses the same basic VFO - transistorized - as the Galaxy V, panel and case match, less than 100 cycles drift, excellent sensitivity and selectivity, 50 watts out instead of 100; unfortunately more money, but price unknown as yet. The only thing left now is the decision to go ahead, the tooling up, setting of the price, and then seeing how many they can sell. All in all it was a most interesting program. Our many thanks to Clarence Hunt and Al McMillan for bringing us their report.

The usual drawing took place. The attendance drawing was not won as Dr. John L. Gedgoud, KØGJO,

was not present. The raffle was won by WQYZV who, incidentally, after many years of buying five tickets per meeting, also won the raffle last month.

Our thanks also to the General Motors Training Center for the use of their auditorium which was arranged through the assistance of Royal Enders, KQLYO. Thanks, Royal!

April 6, 1966

Ham Hum
Ak-Sar-Ben Radio Club
Omaha, Nebraska
Hi:

It is in the BOOK, and old books at that, but--a folded dipole is 300 ohm impedance; however, by adjusting the length of director and reflector elements, you can arrive at anything from 15 ohms to 400. When building beams for two meters, why not build the beam to match the feedline you intend to use, instead of gamma match, baluns, or whatever?

Roughly speaking, (and this is from older books, later magazines, etc.) a folded dipole, 38", a director 40", a reflector 36", another, if you want it, 35½", spaced 16". That is all, cut down from an old TV antenna, respaced, plug the ends with styrene foam, seal the ends and holes with compound, tie on a 50 ohm, or even a 52 ohm feedline, and see for yourself how well it works.

The trick seems to be--parasitic elements about the same length or longer, all of them, will lower the impedance, a little taper out front

will raise it, more taper can restore the impedance to 300 ohms.

Spacing may have some effect, but has more on the directivity than the impedance, all within usual tolerance of spacings.

Did you ever answer a CQ, settle down to copy him, rag-chew, then when he turned it over--to another station?

Did you ever get all settled down for a Sunday of Hamming, everything just fine, bands all good, and blow a tube in the transmitter,--the same type you had just loaned a friend, your only spare?

Did you ever get a new station, very weak, just barely copy it, hope for a new state, new country even, and find it was a local?

73,

Dayton L. Phifer, WQVEA
East Tryon Route
North Platte, Nebr. 69101

Hi: Please change my address from 2871 Newport, Ave., Omaha, to Quarters 116, West Point, N. Y. My \$1.00 for 1966 is enclosed. Enjoy Ham Hum. Keep up the good magazine and good service.

Got my 6m. antenna up 60 feet - the mountains go up 1000 feet - so don't hear much. Mountains to the west so it must be a real band opening to reach Omaha. Please say hello to Royce/KIL, Mac/MSS and Bill/YM for me if you can.

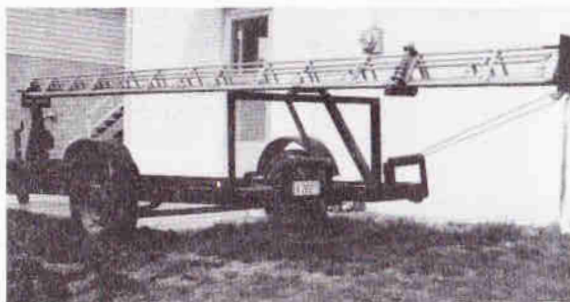
73,

Jake, WAØHUS/2

CLUB ANTENNA TRAILER

The Club plans for an antenna trailer have finally resulted in - an antenna trailer. The antenna is mounted through the efforts of Bud Smith, WAØICK, and Royce Johnson, WAØKIL, with an assist from several other members.

You will find pictures of the trailer after the iron work was completed. The tower is a tilt-over, crank-up type, mounted on the trailer in such a way that it is ready to go at any time either for road travel or antenna lifting operations.



After completing the iron work, storage cabinets for antenna, cables, rotors and other accessories were installed, and then came the moment of the big test. It wouldn't do to merely test it by putting up in a yard, so Royce, WAØKIL, and Bud, WAØICK, decided the best test would be to take it to some outlying spot to see what could be done. Thus, they took the trailer to South Dakota and ran into some very good ground wave conditions for six meters. As to the results of the trip, see the article (page 6) by Royce Johnson along with pictures 4

of the trailer in its completed condition.

The trailer will be very much in evidence at the finish line at the Explorer Canoe Race down the river on June 4th and is ready for use on Field Day. Also in the trailer is the Club's new generator - a small portable one - and the various and sundry items which could be needed for any emergency with HF or VHF.

April 21, 1966

Dear Fellow Hams:

Thailand Ham news.

Have applied as per ARRL suggestions to the director of The Post and Telegraph in the Thailand Government during December. Received no reply. Was told to go to the Director of Public Relations. Did this about two months ago. Both said that I would hear from them as to if I would get to operate Ham radio but have heard nothing. Both times I had letters from the local Air Force Communications Officer, so will make another trip later. All Hams are waiting to see what will come.

73s

Alan Lee Fleming, (C)
WØBNY

P. O. Box 1098
APO San Francisco
96233

ARE YOU A GOOD OPERATOR?

Have you checked your procedure lately? Do you think you set a good example to the new Amateur?

It is very easy for us all to forget the world is listening and that we have a responsibility as an individual to uphold a standard of good operating procedure...it is spring and everyone has the desire to start anew...why not start with our own operating procedure...

Much of the following can be found in ARRL's "Operating An Amateur Radio Station." It has always been a cardinal rule to listen carefully for several minutes before transmitting, this is more necessary now than ever before with the bands so crowded and the conditions so unstable. It is well that we all become familiar with the "Q" signals. QRZ is one most often misused. QRZ means "who is calling me?"... very often this is heard instead of CQ.....A station comes on a clear frequency and calls QRZ, QRZ..... We are constantly aware of the need to be ready in case of an emergency...is there a better way to be prepared for an emergency than to practice good procedure daily? Success or failure in an emergency depends on the ability and efficiency of those participating. It is not possible for everyone to take part daily traffic nets, but there is information available to all at a mere 25¢...

"Operating An Amateur Station"

Included in this book is use of "Q" signals, standard phonetics,

net procedure, message form, word counting...everything that could help one become an A-1 Operator. Apathy can be detrimental to our fraternity, but the desire not to be satisfied as we are, but to constantly want to improve, can set an example that all can look to with pride...would you do your part?

W5ZPD,

Phone Activities Manager
South Texas

Dear Editor:

It is requested that the following change be made to the Press Release concerning Armed Forces Day Communication Tests forwarded on 11 March 1966.

Paragraph 3. - Under NSS, delete frequency 6970 and all entries opposite thereto.

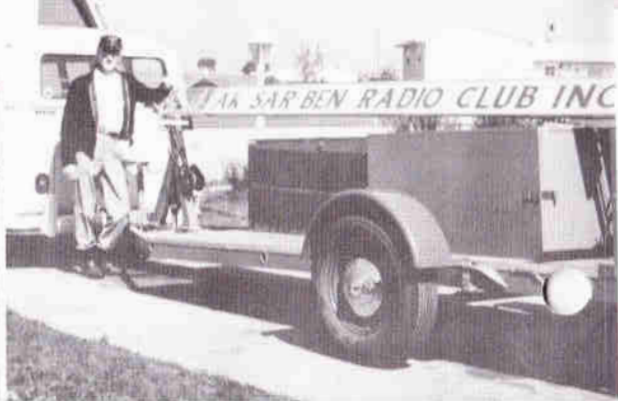
Sincerely,

R. E. Mickley
Lieutenant Commander,
USNR
Chief, Navy MARS

FOR SALE

This is your last chance to get a FREE Ranger I transmitter used only by a little old lady who used it to teach code to a group of Girl Scouts. Only requisite is you must buy a \$100.00 6" piece of solder.

Steve Lustgarten, WAØJES
4417 N. 78th Avenue, Omaha
Phone: 391-5461



Before and After, with Bud, WAØICK, standing in the middle.

“TESTING COMMUNICATIONS TRAILER OR SOUTH DAKOTA EXPEDITION”

Feeling the need for a portable communications rig, the radio club decided to assemble an outfit on a converted boat trailer that would be both portable and suitable for field operations.

During the building of this outfit, the need for a complete field test was discussed and it was decided to pull it to South Dakota to try it out. We thought a 200 mile trip on the road would be an adequate check and that we might be of some help to the local VHF stations in working South Dakota (trips main purpose, of course, being to check the equipment).

In preparation for the trip, all needed gear was gathered up, tested, lists prepared, checked and double checked. Due to different difficulties, when the big day arrived, the only two that could make it were WAØICK, Bud and WAØKIL, Royce. We loaded up the gear, hooked the trailer to Bud's VW bus and headed north.

We thought we might find some high ground close to the border but, after driving 40 miles, we came back

and set up within $\frac{1}{2}$ mile of the first place we looked at.

With the two of us working on setting up, it took an hour to get everything hooked up, including the electric coffee pot we had thoughtfully brought along. One pull on the generator and we were ready to shout CQ and the coffee pot was perking.

We shouted CQ, no answer. We shouted again, no signal. After all the preparation, planning, checking, etc. for the trip, we discovered that the one thing we didn't bring was spare fuses and that was what was needed.

By doing some substituting, the need for a fuse was bypassed and we were on the air again. We worked most of the time from 1600 Saturday until 0130 Sunday morning, returned to the air about 0730 and stayed on until 1015. Part of the time we were having rag chews, part of the time the pile-up created QRM and part of the time contacts were scarce. Many of the stations we worked both Saturday and Sunday. These stations

were worked: In Nebraska - Omaha (16) (one was mobile); Lincoln (7); Papillion (2); Nebraska City (1); Unadilla (2); In Iowa - Red Oak, Council Bluffs and McClelland (1 each); In Missouri - Independence, Jergerton and Butler (1 each); In Kansas - Kansas City (4); Chanute (340 miles) (1); In South Dakota - Jefferson (1).

At 10:15 Sunday morning, we stopped the generator, washed the

coffee pot and were loaded out ready to head home at 11:15.

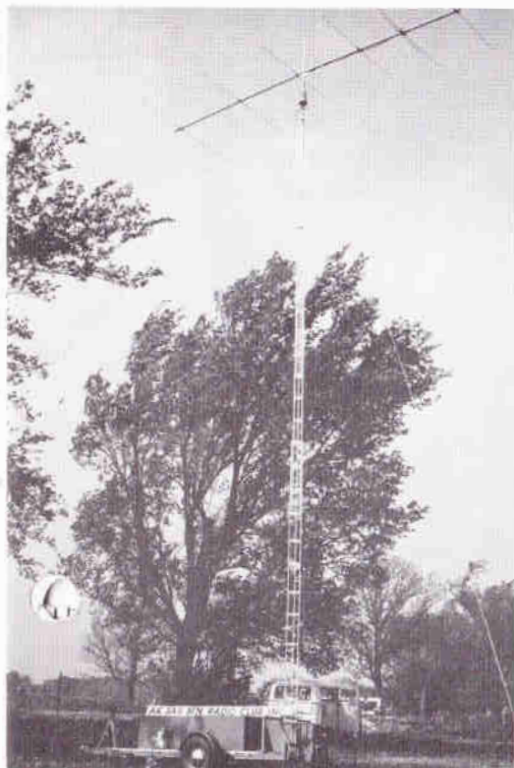
At the first cafe we came to, we decided it was time to eat, so we stopped and topped off an EXCELLENT trip with a couple of nice T-bone steaks. I will make no comment on the trip home, since I slept most of the way.

Royce, WAØKIL, and
Bud, WAØICK

P.S. It Works!

(More photos on following page.)

The rig set up for working.



Royce, WAØKIL, in the "bug bus" has a cup of coffee.





Bud with his "bug"
rests under a tree.



All the comforts of
a shack while in
the field.

PHW says

I am reminded by daily news reports in the newspapers and on TV that the season of harsh weather is near. I am also reminded in detail of a storm which hit Primrose, Nebraska a year ago. For I found in my desk drawer a copy of "The Nance County Journal" dated May 13, 1965. On the front page is an article entitled "Local Residents Play Important Roles After Primrose Tornado." Some of these "Local Residents" were hams.

With considerable know-how and the will to help, three members of the Fullerton Amateur Radio Club went to Primrose after the tornado. They went with an offer to help. Ken Cunningham, John Rice, and Tom Smith knew that there would be a need for emergency power. They took the club generator with them.

After they arrived they found a need for communications. The club transmitter went on the air in a short time. It was the only communication link the town had.

Members of the Central Nebraska Radio Club assisted in operating the station.

Messages were handled for the Red Cross, Salvation Army, the National Guard and others. When a fire broke out in town, fire equipment from adjacent towns was summoned by amateur radio.

We are fortunate in Omaha to have considerable know-how in emergency communication operation. There is equipment available for providing both communication and power. The club equipment and

that belonging to the Red Cross is ready for use on short notice. All of this is backed by personal equipment.

As you make plans for Field Day this year, remember that this is an exercise in emergency operations. What you plan for one weekend, called "Field Day," could be used on very short notice for a 12-hour disaster emergency. Let's only have a field day or some other simulated emergency this year.

WØPHW

The Pine Ridge Amateur Radio Club now has its club station on the air. Call WØFLO, memorial station for Silent Key Leo Henen. The rig is an HW12. The shack is located in the basement of Chadron City Hall.

73,

Tony Cashion, KØOAL

ADVICE FOR EXAMINEES

It is very much better sometimes to have a panic feeling beforehand, and then be quite calm when things happen, than to be extremely calm beforehand and to get into a panic when things happen.

--Sir Winston Churchill
de CVARC

ARRL REPORT

ASSISTANT DIRECTOR
Atlantic Division, ARRL,
E. S. Van Deusen, W3ECP,
3711 McKinley St., N.W.,
Washington, D.C. 20015

First of all, I want to thank Andy for filling in for me in the last issue. As he explained, I was hospitalized for some major surgery and unable to meet any deadlines for anything. I am very happy to report that surgery was successful and I am now well on the way to complete recovery and hope to be able to hold up my end of things for quite some time to come.

About the biggest news, League-wise, at present, is the submission of a letter by President Hoover stating he would not accept additional terms as President. His letter, in which he asks the Board of Directors to find a replacement for him as ARRL President, is printed on page 10 of the current March 1966 issue of QST. His reasons for requesting relief are very clearly expressed and well founded, but we are extremely sorry that he has found it necessary to take this step. In the letter, he suggests an action which, if taken, may do much to offset some of the criticisms that have been levelled at the League. This is to place a limit on the length of time or number of terms to which an officer or Director is eligible. Finding a replacement for W6ZH with a commensurate background and international reputation is not going to be easy.

The auditor's reports on League finances for the last quarter of 1965, although still showing a loss of some \$50,000, indicates an improvement in the situation over 1964.

At the end of 1965 seven League Divisions still have been unable to attain their quota in the Building Fund Campaign. While not quite showing the greatest deficit, our Atlantic Division still needs nearly \$5000 in Building Fund contributions, coupled with the resultant matching funds, to reach the quota.

The League staff, in response to the request adopted by the Board of Directors at the 1965 annual meeting, instituted a study of possible incentive proposals for the 6-and-2-meter amateur bands, with special consideration given to satellite operations. This was in line, of course, with the refusal of the Board to adopt any position with respect to the proposals in FCC Docket 15928 concerning these bands. In Director's letter dated Febr. 16, certain conclusions reached by the Staff as a result of this study are outlined for consideration by the Directors. The details are merely suggestions as a basis for further discussion by the Directors but include suggestions regarding both bands on which you may wish to express your thoughts to your Director before he goes to the Annual Board Meeting in May. These are for opening up the entire 50-54 and the entire 144-147 MHz bands to CW by Novice licensees, except for the first 100 kHz from 144.0 to 144.1 MHz, which would be reserved

for the Extra and proposed First Class licensees. Technicians would also be permitted to use 144.1 to 145.0 MHz except that the first 100 kHz from 144.1 to 144.2 MHz could be restricted to CW. Sounds little complicated, doesn't it?

For those interested in high speed CW, the Connecticut Wireless Association is holding another test on the evening of March 13 at 8:15 p.m., EST. These transmissions start at 40 wpm and go on up to 60 wpm and a solid one-minute perfect copy out of the five-minute transmission at any speed is required to qualify for one of the certificates. The station best heard in this location is W1EIA on either 3637 or 7120 kHz.

A recent statement of policy by the FCC, dealing with the problem of interference to TV reception, points the finger at the inadequacies of many makes and models of TV receivers, and suggests that "the public interest may require a request for legislation looking toward the protection of the general public by adequate regulatory authority over receiver design." The Commission has long since recognized that the larger portion of TVI is due to inadequacies in the receivers, and the position of manufacturers who furnish filters is an admission on their part that they could do better.

Early in February, the FCC denied a petition by W9AV to amend the Rules to prohibit transmissions relating to amateur radio contests and the retransmission of amateur communications for the purpose of conducting radio telephone tests.

The Commission order recognized the controversy which exists between contest and non-contest operators but also paid tribute to the hams' furtherance of international good will by proper contest communications. The Commission also felt that the practice of using retransmission of voice communications for testing purposes is so self-limiting as to preclude any necessity for official action.

Van, W3ECP
de Auto-Call
Washington, D.C.

WE GOOFED!

Please refer to page 22 of the March 1966 issue of HAM HUM and correct the abbreviation for the State of New Mexico from "MN" to "NM."

Thanks to Jim Wilson, WA4RXG, of Ft. Lauderdale, Florida for calling our attention to the error.

WANTED! Man for store sales. Prefer ham or similar knowledge. Apply in person to Larry Meyerson, World Radio Lab., 3415 West Broadway St., Council Bluffs, Iowa during regular store hours.

HAMFEST - JUNE 5

The Pine Ridge Amateur Radio Club hamfest will be held at Chadron State Park June 5, 1966.

73,
Ron Cashon, KØPTK
Secy-Treas. P.R.A.R.C.

May 12, 1966

Ed. Ham Hum

Hi:

To read and study, without understanding, to attend lectures, and listen, without understanding, to build, and test, and try, without understanding, pretty well describes my feelings about Ham Radio today.

Playing with two meters, especially the antennae end, is giving me to understand a bit more about antennae theory, even without getting the "why" of it, than I have been able to reach before.

In the beginning, my beginning, just get up enough wire, and if the rig did not smoke, or bite, I had it made. Guess my first eye-opener was the beginner who had discovered "short-end fed long wire" worked, ridiculously short. Examination showed he had used bell wire, looped it around the eaves trough, then to a pole in the alley. I explained to him that he was coupling the entire eaves trough, downspout assembly of the apartment house to his antenna system, by induction. "Oh no," he said, "That wire is insulated!"

Actually, I too have pulled as many boners, with as little understanding, and been satisfied because it worked. However, since the 'book' says, a folded dipole is 300 ohm, since anyone can see TV yagi are fed with 300 ohm, and the 'book' says you need matching devices to use 52 or 72 ohm feedline, it was a surprise to me to find an antenna, yagi or beam that took 52 or 72 ohm line. Different 'book.'

My first effort on that, a four element beam, checked ok, loaded 12

ok, works FB. But two other beams, three element jobs, were absolutely off in impedance, still from the same 'book,' would not even receive, so back to the 'book,' and there it is, "Spacing on the folded dipole" for a four element beam, 2 1/4 inches, spacing on the folded dipole for 3 element beam, 3/4 inch"!!! Tried it, and it works too.

Had a bit of surprise on a vertical ground plane, 19" is about right, very poor receiving, worse transmitting, tried extending the vertical, finally, at 25" it loaded fair. Back to the books, "Vertical ground plane--radials .028 frequency, vertical .025." Recheck that out, ground plane should be at least 20" or 40" from corner, diagonally to opposite corner. Another 'mystery' solved, checked with another guy, with ground plane, he had figured the same as I, but had not thought of the center hub as adding anything, and so his ground plane vertical put out a very FB signal, good on receiving too.

So "Just like the book, except," can be made to work, but the closer you come to the book, if you understand it, the better the result!

73

Dayton L. Phifer, WQVEA
East Tryon Route
North Platte, Nebr. 69101

Adam probably was the first Ham! He provided the parts for the first loud speaker....

Band Spread

THE THEORY OF OPERATION OF A LOADED WHIP

Ed Piller, W2KPK

Most mobile antennas operating below 30 mc employ either base or center loading. The inductance of the loading coil must be adjusted to series resonate at the operating frequency, with the capacity between the top section of the whip and the body of the vehicle. When series resonance occurs all reactance is cancelled out at the base of the antenna. The resistive component remaining consists of the radiation resistance plus RF coil resistance plus any resistance introduced by ground losses.

The shorter the antenna, at the operating frequency, the lower the radiation resistance. For example: An eight-foot whip can have a radiation resistance of 2 ohms at 4 mc and approximately 35 ohms at 30 mc. The question then arises as to how the antenna is matched to a 50-ohm transmission line. Obviously, at 30 mc there is no problem as the 35-ohm load will create a VSWR of 50/35 or 1.42 : 1 which is quite acceptable.

At 4 mc the antenna would have a 25 : 1 VSWR unless a base matching network is inserted.

Then how come the "Hustler" and similar type center-loaded 4 mc whips look like 50 ohms at the antenna base? The answer is simple: The loading coil is wound out of very thin wire so as to intentionally introduce extra RF resistance to bring the antenna base to 50 ohms.

This gives a good match but is very wasteful of RF power. About 4 watts out of a 100-watt carrier is radiated and the rest is dissipated as heat in the loading coil. If you don't believe this, then turn on your transmitter for a few minutes and see how hot your 4 mc resonator will become.

The equivalent of adding a 1 kw amplifier can be realized on the 4 mc band by merely increasing the antenna efficiency. To do this, use a high Q coil wound with heavy wire. Also insert a low loss tunable matching network at the base of the antenna. The antenna is now a high Q device and must be re-resonated when the transmitter frequency is changed slightly. The antenna must also be rigidly mounted so as not to sway or this will also detune it.

LIMARC LOG

FOR SALE

Knight T-150A 150W AM-CW Transmitter

HQ129X Receiver

14AVS Vertical with 8 ft. tower and radials, 40-10 Fan Dipole with Hygain Insulator, Mike, Key, Earphones, T-R Switch, connecting cables, 60 ft. RG-11U and 30 ft. RG-8U coax cable.

Complete station for \$180.00.

Everything you need to get on the air. Can be used at 75 watts for novices.

Call Steve, WA0MKA
553-3409

WHY CAN'T I GET ONE?

I was listening on the bands the other night and found that I am behind the times.....I have been "hamming" for nigh on to seven years and didn't know till now that I have been lax in not having bought my own "frequency"!

You can listen on most any of the bands, at any place on the band, and find a QSO going on (or trying to at least) and at least one of the Hams in the QSO (or QSO's) who has "bought and paid for" the frequency.....

I have checked my license and there is none listed on it and neither can I locate the information on how to acquire my "frequency" in the License Manual, but I am sure it must be there, as so many on the air have theirs reserved for them.

It would be so nice to tell everyone to "get off my frequency" when trying to work some nice DX station; it is such a chore when you have to fight the QRM. If anyone knows where I mail my application, please advise. I want to be with so many of the others who have their own and not have to worry about being associated with the "common Amateur"...!!!

K5OLJ

de HARC News
Houston, Texas

Have you ever thought of the local Hams who handle traffic for those shut-ins, hospital cases, etc., from the Hospital centers here to their homes, many times out of the

country? For many, the contact via Ham Radio, to their families in Central or South America, is the only contact except via very slow mail. It makes me very proud of the Amateurs who do take the time and trouble to take care of this type traffic. Some of them are: Cindy, W5ZPD; Cecil, W5FJG; Fred, W5AF; Phyllis, W5CXM, and many others. Lots of others help in other ways, teaching, giving exams, etc. We should go "all out" to help others; it is the reason we have our license....

de HARC

Houston, Texas

FOR SALE

- 1 - HQ-170 Rcvr in top condition. Looks like new...Operates like new. A good buy at \$185.00. (Would consider trade for older GC rig.)
- 1 - DX-100 Xmtr - old, but in good, clean shape. All Heath modifications. SSB and continuous loading.
First \$90.00 takes.

Also....6155/AX4...\$5.00

WL7020/635L...\$5.00

2 - 832's...\$2.00 each.

Collins Mod. Xfmr.--KW Xmtr Plug in Coils--(10 & 20)--Hash Filter 4 Band Vertical--Beam Loading Coils etc.

Milo Hejkal

6551 Florence Blvd.

Omaha

Phone: 455-9708

THE OLD GROUCH
Anonymous Unknown
c/o Editor, Auto-Call,
2509 - 32nd St., S.E.,
Washington, D.C. 20020

The FCC, in granting a license to any radio station is required by law to establish that it will serve the purposes of public interest, convenience and necessity. In the amateur service (as in certain other services) it was established as general policy that any amateur station would qualify under these terms, and each station therefore would not be required individually, to prove it! Contrast this with BC stations who are required, in individual cases, to prove it!

The general policy of the FCC is based upon many factors among which are: DX (maintaining cordial foreign relations); Nets (training in message handling and establishment of "ready" circuits); Experimentation; Propagation experiments (Troposcatter was "discovered" by the VHF boys); and many others.

Whether you believe in any of the above or not - you'd better, or else you had better be prepared to prove that your own station qualifies on its own merits.

Some amateurs (and it isn't always the other fellow) are content to do nothing which would qualify station under the general policy. They hold their nose at the DX boys; they care nothing about nets or traffic handling; they never built a thing; and they wouldn't recognize their own call on CW. Some even go

farther. The FCC found it necessary to revoke the license of an operator who insisted on his constitutional right to a frequency upon which a net operated. He thus committed "deliberate interference." After all, this IS going a bit far - when one operator negates the efforts of 20 or 30, it's time for action.

What would YOU do if the FCC suddenly required each amateur to individually prove his own contribution to Public Interest, Convenience and Necessity? Could you point to worthwhile achievements or would you be forced to admit that nothing in your operating was of sufficient importance that the country could just as well get along without YOU?

The Old Grouch
Auto-Call

**OFFICIAL BULLETIN NR 55
FROM ARRL HEADQUARTERS
NEWINGTON CONN APRIL 14 1966
TO ALL RADIO AMATEURS BT**

FCC requests amateurs in the fifty states to cooperate with its monitoring stations by stating call signs in English even though a QSO may be carried on in another language. The amateur regulations are not specific in requiring English identifications, but advisory notices are being issued by FCC to amateurs who are overheard identifying only in the foreign language being used for a QSO AR

REFLECTED AND DIRECTED

George E. Goldstone, W8MGQ
1010 Burnham Road,
Bloomfield Hills, Mich.

Many amateurs still believe in Santa Claus. Now, we are not talking this month about those who are against Incentive licensing, because they think Santa FCC gave them some "rights" to use all frequencies forever. The task of awakening that group is one we will leave to the friendly, gentle hands of the Commission.

There are, however, many amateurs who think they can get something for nothing in the line of RF power. In this fantasy, they are aided and abetted by the advertisers of amateur radio equipment. Let us consider the power ratings of linear amplifiers, which is as good an example as can be found.

You may start with the assumption that every linear amplifier must be described in the ads as a "kilowatt amplifier." To claim less would be like trying to sell a 3-wheel Ford or Chevy. But what does a manufacturer mean by a "kilowatt"? Here is where you get as many variations as you do women's hats in the Easter parade. Manufacturer A might mean "peak envelope power INPUT." Manufacturer B might mean DC input under key-down conditions. Manufacturer C might mean that when the driver power of 200 watts is added to the peak input of his amplifier, the total peak input will reach 1 kw. Manufacturer D might mean that the amplifier will

run 1 kw for hours on end, DC rating with the key down - and that you're darn lucky to hold it down to a legal kilowatt with normal antenna loading. His tongue-in-cheek ads probably mean one kilowatt OUTPUT.

Since there are only two magazines of consequence - QST and CQ - is there any reason why the advertising staffs of each of them couldn't get together, and resolve on certain standards of honesty and clarity which advertisers would be required to follow?

This admittedly scratches the surface, even if the first scratch is in one of the rougher spots. While in the area of transmitters, and particularly amplifiers, we would urge that the ratings of power tubes be taken out of the advertising agencies' hands and put back on some engineering standard. For example: The RCA 8122 has a plate structure which is extremely hard to distinguish from the 4X250F. (We compared an Amperex 4X250F, if anyone is interested). But RCA rates the 8122 at 400 watts plate dissipation, while Amperex rates its little bottle at 250 watts! Eimac rates its 4CX250B at 250 watts, likewise. Now, we are aware that you can blow a huge torrent of cooling air into a small tube like this, and keep it from burning up while in overrated service. But both tubes are rated at 7 1/2 cfm cooling. Assuming that each of these tubes has a Military specification, and a MIL rating, wouldn't it be nice if the ARRL Handbook and the RADIO Handbook, published the MIL rating

as well as the ICAS rating?

Perhaps this would be too hard for QST to take. They have been running a full back page of advertising from the RCA people for a long, long time. And the National Company advertises the NCL-2000 (using two RCA 8122's) on the back inside cover. Not to mention Halli-crafters whose new SR-2000 transceiver also uses a pair of RCA 8122's in its two kilowatt transceiver package.

As one ham (who writes in both QST and CQ, and occasionally puts a piece in the Green comic book) said, "You can't miniaturize the watt." But the truth is certainly in very, very small print.

W8MGQ

de Auto-Call

**OFFICIAL BULLETIN NR 59
FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 8, 1966
TO ALL RADIO AMATEURS BT**

The ARRL Board of Directors met at Newington, Conn. May 6 and 7. Robert W. Denniston, W0NWX, Midwest Division Director for the past ten years, was elected as President. First Vice President Wayland M. Groves, W5NW, was reelected. Two new Vice Presidents are Charles G. Compton, W0BUO, and Gilbert L. Crossley, W3YA, continue as Directors from the Dakota and Atlantic Divisions respectively. Compton, Crossley, Noel B. Eaton, VE3CJ, and Carl L. Smith, W0BWJ, were named to the Executive Committee. New Honorary

Vice Presidents are Alex Reid, VE2BE and F. E. Handy, W1BDI. The Board ordered studies on the feasibility of changing power limits above 420 Mc, remote broadband translators above 144 Mc and advanced transmission techniques such as independent sidebands, pulse code and pulse width modulation.

The Articles of Association and Bylaws were extensively reviewed and brought up to date. Provision was made for absentee balloting, for a 30 day grace period for membership renewal and for associate family members. The Public Service Corps will have RACES as well as AREC and NTS among its branches. Other matters assigned for study are life membership, membership numbers and special pins for long terms of membership. The Board established an annual Founders Week based on the birthdate of Hiram Percy Maxim, September 2, to promote public recognition of amateur radio. A membership campaign was approved, based on mutual cooperation with affiliated clubs. Additional information will be in the June issue of QST and the full minutes will be printed in the July issue AR

FOR SALE

HyGain 14 AVS Vertical
\$20.00 or best offer

With 8 foot tower and radials

Steve E. Heil, WA0MKA

3131 South 60th St.

Phone: 553-3409

**OFFICIAL BULLETIN NR 56
FROM ARRL HEADQUARTERS
NEWINGTON CONN APRIL 21 1966
TO ALL RADIO AMATEURS BT**

Many parts of the United States will shift to Daylight Savings Time effective April 24, on which date all WIAW operation will change to Eastern Daylight Savings Time. Amateurs in areas remaining on Standard Time are reminded that WIAW Official and Special Bulletins, twice daily code practice transmissions, propagation forecasts and any other announced ARRL Headquarters Station operating activities will have to be tuned in one hour earlier than usual. Further details and the complete WIAW summer schedule appear in May QST AR

**OFFICIAL BULLETIN NR 54
FROM ARRL HEADQUARTERS
NEWINGTON CONN APRIL 7 1966
TO ALL RADIO AMATEURS BT**

A reciprocal operating agreement becomes effective immediately between Paraguay and the United States. Amateurs of one country visiting or residing in the other may obtain permission to operate their own amateur stations there. The United States has previously reached such agreements with Australia, Belgium, Bolivia, Canada, Colombia, Costa Rica, the Dominican Republic, Ecuador, Luxembourg, Peru, Portugal, Sierra Leone and the United Kingdom. Many others are being negotiated and successes will be announced as they occur AR

ARRL CLUBS: Please notify the gang that this June 11-12 Party is an ideal time for a group effort. Rules are the same as *last year* (June 1965 QST, p. 74). **ARRL OES:** Pse Pass the word around to the VHF group.

**OFFICIAL BULLETIN NR 60
FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 13, 1966
TO ALL RADIO AMATEURS BT**

All VHF minded amateurs are cordially invited to participate in the ARRL June VHF QSO Party, June 11-12. Although the rules do not appear in June 1966 QST, they're identical to those of the VHF QSO Parties in June and September of 1965. Send for your convenient reporting forms which are now available from the ARRL Communications Department, 225 Main Street, Newington, Connecticut 06111 AR

(Please note this correction of Official Bulletin NR 57)

**OFFICIAL BULLETIN NR 58
FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 3 1966
TO ALL RADIO AMATEURS BT**

By order dated April 25, 1966 the Federal Communications Commission has relaxed its requirements for filing a change of name or of mailing address only. Effective May 20, 1966 if only the name or the mailing address has changed, an amateur may send a letter to the FCC, Gettysburg, Pennsylvania 17325 setting forth the changes and keeping a copy of the letter with his license until the next renew-

al. Where the transmitter location is changed or the trustee of a club station is replaced, formal notification on Form 610 is still required. The fee for modification is two dollars and for a new trustee four dollars. Full details will appear in QST $\overline{\text{AR}}$

FREE!! Heathkit DX-60A Transmitter with purchase of \$50 instruction manual.

FREE!! Heathkit HR-10 Receiver with purchase of \$50 headphones. Both FREE with purchase of \$95 instruction manuals.

Call 393-0564, Bill Fries, WNQMNO "Mighty Nervous Operator"

**OFFICIAL BULLETIN NR 62
FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 26, 1966
TO ALL RADIO AMATEURS $\overline{\text{BT}}$**

A reciprocal operating agreement becomes effective immediately between France and the United States. Amateurs of one country visiting or residing in the other may obtain permission to operate their own amateur stations there. The agreement covers only metropolitan France, not the islands. The United States has previously reached reciprocal agreements with Australia, Belgium, Bolivia, Canada, Colombia, Costa Rica, the Dominican Republic, Ecuador, Luxembourg, Paraguay, Peru, Portugal, Sierra Leone and the United Kingdom. Many others are being negotiated and successes will be announced as they occur $\overline{\text{AR}}$

**OFFICIAL BULLETIN NR 61
FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 19, 1966
TO ALL RADIO AMATEURS $\overline{\text{BT}}$**

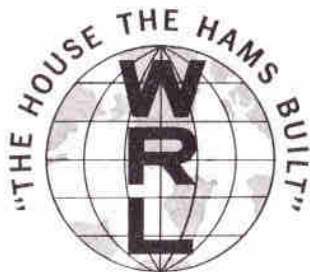
Attention DXers. Announcement is hereby made of the addition to the ARRL Countries List of Desroches. Formerly one of the Seychelles, Desroches is now one of the islands making up the British Indian Ocean Territories. Contacts made with Desroches stations November 10, 1965 or later will be counted as separate from the rest of the Seychelles. Honor Roll credits may be claimed for Desroches in September, all others in accordance with DXCC submissions as announced in January, 1966 DXCC Note $\overline{\text{AR}}$

A reminder to all AREC members. The 6M Sarpy Co. AREC net meets every Tuesday at 19:00 CST - 19:30 CST. The frequency is 50.478 MC. WAØFHH, Tony, is NCS. Looking at the results of last October's emergency run throughout the country, AREC had the least participants. Sarpy and Douglas Counties didn't handle any traffic.

I would like all AREC members who have 6M facilities to partake of their net, to help their community in case of disaster or need of aid. I will organize test emergency traffic to be relayed from one member to another. Or if any member hears any AREC reports or suggestions, please let me know at net time. All other stations are welcome to check in.

73's and TNX

WAØFHH, Tony, NCS



WORLD RADIO LABORATORIES

DEPT. QST

3415 WEST BROADWAY/COUNCIL BLUFFS, IOWA / 51504

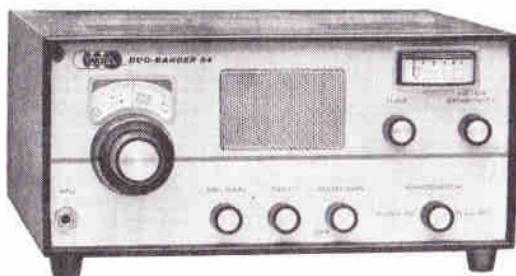
- Ship Special Package ZZM088 — \$199.95
- Ship Duo-Bander 84 — \$159.95
- Send Information on other Duo-Bander Packages
- Quote attached Trade
- Send Free 1966 Catalog
- Check or money order enclosed F.O.B. Council Bluffs, Iowa

Name _____ Call _____

Address _____

City _____ State _____ Zip _____

INTRODUCING WRL'S SENSATIONAL COMPACT 300 WATT DUO-BANDER 84 FOR IDEAL SSB TRANSCEIVING ON 80 AND 40 METERS



INTRODUCTORY OFFER UNTIL MAY 10TH

\$159⁹⁵
\$8.00 MONTHLY

WIRED

NOT A KIT! THE PERFECT FIRST OR SECOND — MOBILE OR FIXED STATION — TWO BAND TRANSCEIVER

COMPACT — 80-40 METER SSB TRANSCEIVER. A LOW COST RIG—WITHOUT SACRIFICE OF POWER AND PERFORMANCE. INCLUDES BUILT-IN SPEAKER AND GIMBAL MOUNT!

E-Z TUNING WITH BANDPASS EXCITER DESIGN — JUST PEAK OUTPUT FOR SMALL QSY. Illuminated VFO dial with 2 kc calibration. High impedance mic. input with push-to-talk operation. Combination S-Meter/Output indicator. Smooth vernier (12:1 slow and 2:1 fast) VFO tuning.

300 Watts PEP SSB input, covering 3.8-4.0 and 7.1-7.3 mcs. (LSB-80 and 40 meters). A pair of proven 6HF5 final tubes. Separate, relay switched, tuned RF receiving stage, 1/2 uv. sensitivity at 10DB S/N. Rugged printed circuit boards, combination tube-transistor circuitry for best performance. Stable solid state VFO and balanced modulator, zener regulated. Selectivity 2.5 kc @ -6DB receiving and transmitting with a 4 crystal filter. Carrier and unwanted sideband suppression - 40DB. 1 watt of audio with built-in speaker. Fixed 50 ohm input/output impedance. Excellent AVC. **COMPACT SIZE:** 5" high, 11 1/4" wide, 10" deep, less power supply. Net weight 10 3/4 lbs. Shipping weight 15 lbs.

DUO-BANDER 84	\$8.00 monthly	\$159.95
AC48	250 Watt (115 VAC) Economy Supply	\$ 49.95
AC384	300 Watt (115 VAC) Deluxe Supply	\$ 79.95
DC384	300 Watt (12 VDC) Deluxe Supply	\$ 89.95

SPECIAL

FIXED STATION PACKAGE
(INCLUDES DUO-BANDER 84 AND AC 48 SUPPLY)

\$199.95
\$10.00 Monthly
Order Package
ZZM088

WRITE FOR OTHER PACKAGE INFORMATION