



# HAM HUM

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



March 1969

Vol. XIX  
No. 3

## NEXT MEETING

WHEN: FRIDAY, MARCH 14, 1969 - 8:00 P.M.

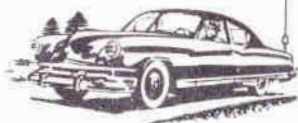
WHERE: RED CROSS CHAPTER HOUSE  
432 South 39th Street, Omaha

PROGRAM: RADIO MODEL AIRCRAFT.  
Ole Olson of the Hobby Center will discuss  
radio controlled aircraft, building and flying.

Jim Miners of Duncan Aviation, Inc. will talk  
about servos used in controlling flying  
surfaces and other functions.

\*\*\*\*\*

**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.



**Next copy deadline: March 28th**

Published by  
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. 327  
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

Attendance at the last meeting (February) was very slim. January's meeting was very small, too. Possibly this could have been blamed on the weather, but was this the real reason? Maybe the reason for the low attendance was "I didn't like what 'THEY' had on the program." If this is your reason for not being there, why not make an effort to make it OUR program, not THEIR program. Suggestions have been asked for and so far one member took the time to fill in the card and send it back. Thanks for the one card and the ideas on-it. Some of them were adopted and others are being looked into.

While I have the soapbox on attendance, I might as well rave on. What have you done for "Ham Radio" in the last 30 days? Have you passed any traffic? Have you participated in any emergency nets? Have you done any work on Club Projects? Have you

worked with anyone who is trying to get into "Ham Radio" or trying to improve his license? Have you helped a handicapped ham with something he cannot do for himself? Are you active in one of the "MARS" programs? Etc., etc. If your answer is "NO" to all these, maybe it's time you took a look at what you are doing with your time and consider a change.

I would be the last person in the world to try to tell anybody that "Ham Radio" is strictly for doing good for someone else. Enjoy yourself with Rag Chewing, DX Chasing, Contacting old friends, Working contests, etc., but how about putting in some time now and then to justify your existence.

I just fell off the soapbox, so 73's for now.

Royce E. Johnson,  
WACIL  
\*\*\*\*\*

## THE FEBRUARY MEETING

Seventeen brave Valentine Hearts plowed through the snow to attend the February meeting. The snow and cold certainly were discouraging; however, those attending enjoyed the meeting.

Bob Lockwood, WAØDHF, announced plans for Field Day being located at a possible new site overlooking the Platte River. Bob and his committee will investigate this new location and report their findings at a future meeting. June 28-29 are the dates for this year's Field Day and you can make it another good one with a call to Bob at 451-7233 to offer your services. Call and join in the fun - on Field Day.

Jim Droege, WØYCP, led a discussion on the Club project of the 2 meter F.M. repeater. More equipment is needed and areas are being checked to make more equipment available. In that regard anyone knowing of such equipment is asked to pass the word. Tell one of the Board members or put a notice in Ham Hum. Jim explained that converting commercial gear to the ham frequencies was not difficult and that a base or mobile rig with crystals, mike, etc., ready to operate would cost between \$75.00 to \$100.00.

F.M. is a good local communications system where people who know each other can become old friends by REPEAT-er contact. So let's become old friends, enjoy our hobby and at the same time, have a network that can handle any emergency on a local area basis.

Bob Lockwood offered the suggestion that the Club consider handling messages to servicemen at

one of the shopping centers. Last year a booth was set up at Southroads and messages were taken and relayed to points all over the United States and overseas. Further study will be made and the membership will be asked to consider this project again at the March Meeting.

Charles Michel, KØQVL, announced that the March meeting will be on the construction and control of radio-controlled airplanes, boats, and cars. This will be a very interesting meeting for the whole family. If you have friends that have an interest in model building or radio, bring them along.

Refreshments were served and the meeting was adjourned.

WØEGP/V.P.

\*\*\*\*\*

## APRIL AUCTION

Our annual auction will take place at the April 11th meeting. Gather up all your excess gear and parts; save them for Ak-Sar-Ben Radio Club auction.

\*\*\*\*\*

## FOR SALE

Model 15 teletype page printers.  
Other TTY equipment.

Charles Michel  
2015 No. 50 St.  
Omaha, 551-0085  
\*\*\*\*\*

## APRIL AUCTION

The April 11, 1969 Meeting will be the Annual Ak-Sar-Ben Radio Club Auction. As listed below, the same terms used at last year's auction will prevail. In order to arouse more interest this year, use the enclosed postcard to list the items you will bring.

The list of items will appear in the April issue of Ham Hum before the Auction. Don't wait, start listing those items you want to sell and mail the postcard today. Deadline for Ham Hum is March 28th. Bring your items to the Auction even though you may decide to sell them after the 28th of March. To avail yourself of this free advertising, we must receive your list by that date.

TERMS: Cash and Carry. A 10% commission will be charged on all consignments, with a maximum commission of \$10.00 on any one item. (All items sold at over \$100.00 owner will pay only the \$10.00 fee.) Minimum bids will be 25¢. No minimum price will be accepted; however, the owner may bid on the item to protect his sale item. If the owner's bid is the final one, the fee will be 10% of the bid - maximum \$1.00.

The Auction will be arranged so that the first items brought in will go on the auction block first. The doors will open at 6:30 P.M. Come early so you may look over the selection of ham gear and get your consignments registered. The Auction will begin promptly at 8:00 P.M. Refreshments will be available during the Auction.

WØEGP/V.P.

\*\*\*\*\*

9 Febr. 1969

Help wanted! Harold Welch, KØSCG, has an old diathermy machine from which he has removed a power transformer and also a filter choke. These items carry Thordarson part numbers T-48001 and T-48005. Anyone reading this has an old Thordarson Catalog and can look these up, Harold would appreciate getting this data. He believes that these xfms. would be useful in building a power supply for an R.F. power amplifier. Call him at 455-5360 or write to: 5220 Northeast 14th St., E. Omaha, Nb. 68110.

Thank you.

John D. Snyder, WØWRT  
\*\*\*\*\*

## OFFICIAL BULLETIN NR 208 FROM ARRL HEADQUARTERS NEWINGTON CONN FEB 13 1969 TO ALL RADIO AMATEURS BT

The ARRL Intruder Watch is now into its fifth year of operation, with an impressive record of reports leading to intruders being removed from the amateur bands. Additional work and constant vigilance are necessary. Volunteers, with two or three years amateur experience and good receiving equipment, who can spend two hours a week logging the calls of non amateur stations in the amateur band would be welcomed. Volunteers please write the Intruder Watch, ARRL, 225 Main Street, Newington, Connecticut 06111 AR

\*\*\*\*\*



## FIELD DAY 1969

By Bob Lockwood, WAØDHU

With Field Day 1969 rapidly approaching, your Field Day Committee is in high gear in the planning of the big event.

We are planning on several changes, the most important of which is that Field Day '69 will be the first of this year's hamfests. Yes, this year we will prove that Field Day is real fun if Club members show up at the site in full force. There will be plenty to eat and plenty of time for eyeball QSO's. With a large number of people on the site, we should have no trouble keeping the rigs going. No one should have to spend a prolonged period at the rig. Plan to participate this year. You will have loads of fun!

We are also thinking seriously of changing sites this year. Norval Bowen has announced that if the Club wishes to use a site owned by him which is on high ground overlooking the Platte River south of Omaha, the Club may do so. We are going to look at the site as soon as weather permits. The one drawback to this site is the fact it doesn't afford the shelter the previous site had. Therefore, if we use the new site, we will need to secure the use of trucks, campers, tents, or anything that will act as a shelter for our cook shack or rigs. Anyone who has access to and would consider the use of the vehicle by the Club on Field Day, please call me, Bob, WAØDHU, 51-7233. Whether or not we use the new site depends on whether or not we secure the necessary shelters. This new site is a good one — well in the clear of power lines and other sources of noise. We believe it would be

advantageous to us to use it.

WØEQU has done quite well in the last few years, rating number one in our call area in 1967 and 1968. We can do it again in 1969. This year can be our biggest and best ever. We also hold the trophy for our contest between our Club and Bellevue. The Bellevue Radio Club is out to get it this year. In a previous contest between the two clubs, Bellevue won three years straight. Now it's our turn. Let's make it two in a row for Ak-Sar-Ben. To keep it we need 3 out of 5 wins. Let's make Field Day 1969 the most successful ever both in competition and fun. See you at Field Day 1969.

\*\*\*\*\*

## FEBRUARY SPECIAL MEETING

A special meeting was held on Friday, February 28th, at the Red Cross Chapter House. Charles A. Michel, KØQVL, presented the program. Those attending were guided through the operation, block diagram and schematic of a King radar transponder. The presentation was by a slide projector coordinated with a tape recorder which was furnished by AirKaman.

Al McMillan, WØJJK, stopped by to show the Galaxy R-530 receiver which is a solid state general coverage receiver manufactured for the commercial market. Al covered some design problems and gave those attending a look at its operation and features.

\*\*\*\*\*

## A SOLID STATE SPEED CONTROL

By Don Smith, W4CQQ  
5666 Flagstaff Road  
Jacksonville, Fla. 32207

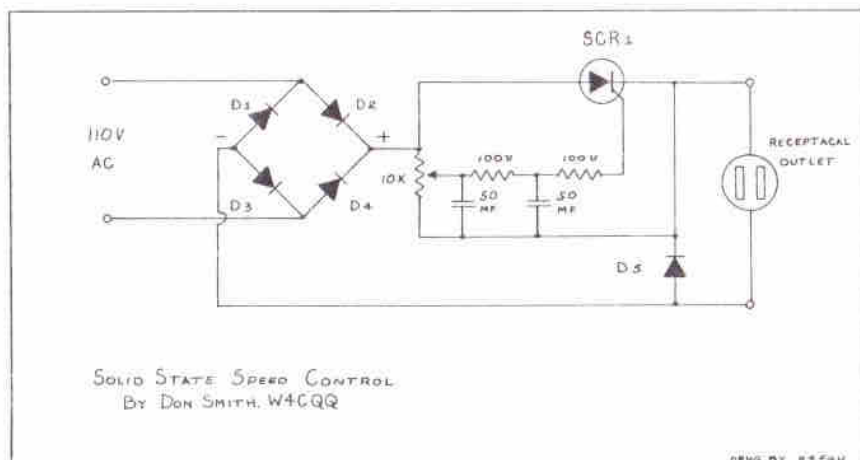
Drilling holes in different metals requires the use of a variable speed drill. Most of us don't own a multi-speed drill but with the addition of this little circuit, your present hand drill can become a variable speed tool.

The Bridge rectifier provides the full wave pulsating DC Current for the SCR switch and controls the angle of fire of the SCR. The Diode, D-5, is used to counter the back voltage

developed by the drill motor. The speed of the drill is varied by the 10 potentiometer.

Diodes D1-D4 should be rated at 200 volts PIV and have a current rating of at least 12 amps. D5 can be rated at 2 amps. The SCR should have a PIV of about 300 volts and a current rating of 25 amps.

de Florida Skip



\*\*\*\*\*

OFFICIAL BULLETIN NR 206  
FROM ARRL HEADQUARTERS  
NEWINGTON CONN JAN 30 1969  
TO ALL RADIO AMATEURS BT

Despite recent rumors and on the air statements by individual amateurs,

the Thailand ban has not been lifted. For United States stations, the ban is still in effect with HS XU XV and 3W8 stations. For Canadians, the above list applies, plus JY and XW8. Keep this in mind during the February and March ARRL International DX Competition

\*\*\*\*\*

## HEADLAMP WARNING ALARM

By Hal Bates, WA4FIU

The Florida law states that automobile headlights must be turned on during a rain.

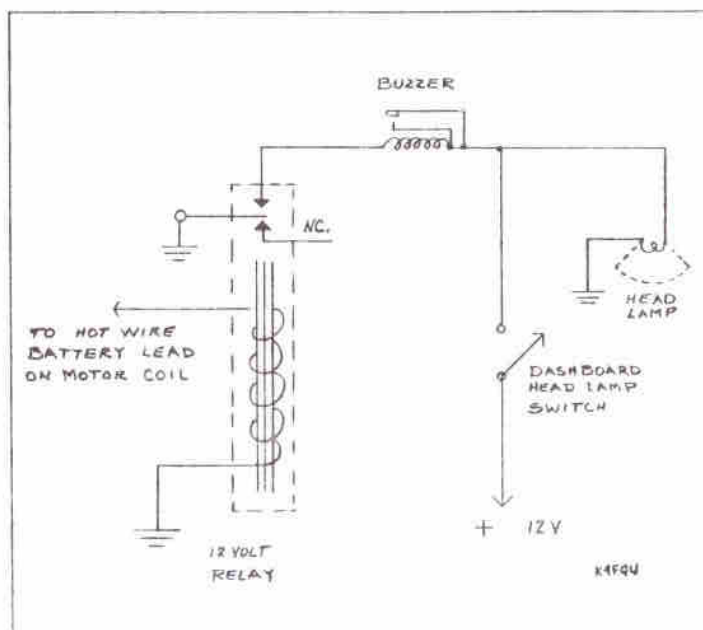
Many drivers forget that the headlights are still on after driving through a shower and run their battery down or close to it, causing inconveniences.

Most of us have a 12 volt relay laying around that can be put to good use, to operate an ordinary door buzzer which only costs a few cents and which can be used for a warning — "lights left on"!

Here's how to do it. Connect a wire from the hot side of the "Lights On"

circuit to the buzzer and the other side of the buzzer to the back contact on the relay (the contact which makes when the relay is deenergized). Connect the other contact of the same pair to the chassis or engine ground. Now hook one side of the 12 volt coil to ground and the other side of the coil to the hot side of the ignition coil which is energized when the ignition switch is turned on. If the buzzer is too loud when mounted under the dash, a resistor of a few ohms will make it a little less startling when sounding off.

de Florida Skip



\*\*\*\*\*

## YOU THINK YOU HAVE RED TAPE

A New Orleans lawyer sought an RFC loan for a client. He was told that the loan would be granted if he could prove satisfactory title to property offered as collateral. The title dated back to 1803, and he had to spend three months running it down. After sending the information he got this reply: "We received your letter today enclosing application for loan for your client, supported by an abstract of title. Let us compliment you on the able manner in which you have prepared the application. However, you have not cleared the title before the year 1802, and therefore, before final approval can be accorded the application, it will be necessary that the title be cleared for that year."

Annoyed, the lawyer replied: "Your letter regarding titles in Case No. 181156 received. I note that you wish titles extended further back than I have presented them. I was unaware that any educated man in the world failed to know that Louisiana was purchased from France in 1803. The title to the land was acquired by right of conquest from Spain. The land came into possession of Spain by right of discovery made in 1492 by a sailor named Christopher Columbus, who had been granted the privilege of seeking a new route to India by the then reigning monarch, Isabella. The good queen, being a pious woman and careful about titles, almost, as I might say, as the RFC, took the precaution of securing the blessing of the Pope for the voyage before she sold her jewels to help Columbus. Now the Pope, as you know, is the emissary of Jesus

Christ, the Son of God, and God, who, it is commonly accepted, made the world. Therefore I believe it is safe to presume that He also made that part of the world called Louisiana, and I hope to hell you are satisfied."

from: "Auto Call"  
via Signal Report  
\*\*\*\*\*

## OFFICIAL BULLETIN NR 207 FROM ARRL HEADQUAR- TERS NEWINGTON CONN FEB 6 1969 TO ALL RADIO AMATEURS BT

All amateurs who participated in the ARRL Simulated Emergency Test on January 25 and 26 are urged to make sure that their part was included in reports submitted by their Emergency Coordinator or Net Manager. ECs and Net Managers are reminded that the deadline for reports and photos is March 15  $\overline{\text{AR}}$

\*\*\*\*\*

## OFFICIAL BULLETIN NR 209 FROM ARRL HEADQUAR- TERS NEWINGTON CONN FEB 20 1969 TO ALL RADIO AMATEURS BT

The ARRL Board of Directors meets annually in May to formulate the course of ARRL affairs during the coming year. The full members of ARRL elect the Board which has the overall responsibility for managing the affairs of the League. This democratic process is effective only to the extent that the membership participates. It is the time for members and affiliated clubs to communicate with their division director at the address shown on page 8 of any 1969 QST  $\overline{\text{AR}}$

\*\*\*\*\*



## I HATED NETS . . . BUT

Yes, for many years I hated nets. It seemed like almost every time I tuned up on a relatively clear frequency, it turned out to be somebody's favorite amateur radio network spot. A station out of my skip pattern would be transmitting and some of his friends would tell me in no uncertain terms that I had better move. Sometimes I would join the group and sit back and wait. Then I would learn that there were 20 or more stations on the frequency so that I would transmit only 2 or 3 minutes an hour.

At first, these things bothered me considerably, and I would also hear lots of criticism on the air from time to time. Then I began to give the matter a bit of deeper thought. Suppose those 20 stations were spread out thru the band.

One of the main reasons that amateur radio has been so successful and has been tolerated by outsiders is the service rendered in emergencies and in traffic handling. One has a lot less TVI problems with his neighbors when he can help them communicate with their son in the Peace Corps in a far away land. Many of these messages or schedules are handled thru network contacts.

Many of us do not have time to spend hours monitoring a net. Because of this time problem, I know that I will usually need to avoid them. However, I now am mighty glad to know there are dependable hams standing by when I have a message to be delivered.

I now encourage my friends to participate regularly in amateur radio nets. My first impression that nets were cluttering up our bands was

erroneous. The nets keep a lot of real powerhouse stations tied up in one spot, and leave more of the amateur frequencies for other ham activities.

Earl E. Weston, M.D.

W8BXO -

BARA BULLETIN

\*\*\*\*\*

Smile and maybe the other fellow will do likewise. It usually takes two to make a grouch.

Lou - WØVLI

\*\*\*\*\*

## WIRING COLOR CODE

It is usually a Grade-A task to trace the rat's nest of wiring in the average commercial piece of gear—and even more so in a ham-built receiver or transmitter. Most hams do not know that there is a standard color code for wiring, as follows:

Color	Circuit Name
Black	Grounds, grounded elements and returns
Brown	Heaters or filaments, off ground
Red	Power Supply B plus
Orange	Screen Grids
Yellow	Cathodes
Green	Control Grids
Blue	Plates
Violet	Not Used
Gray	A.C. Power Lines
White	Above or below ground returns, AVC, etc.

de Florida Skip

\*\*\*\*\*

One DB can be defined as the difference in the sound of the TV set when the Jr. Op turns it down after being told it is too loud.

\*\*\*\*\*

## RADIO HAMS GET DEFENSE

By: Dorothy Roe

It is not wise to criticize a radio ham. This fact has been brought home to me in recent weeks by various irate letters from members of the short-wave fraternity and their loyal fans, to all of whom I recently made a blanket apology for saying that nobody loved them except other hams.

This should have settled the matter, except for today's letter, which is such an eloquent defense, that in all fairness, it should have equal time.

"Dear Dorothy Roe: I have seen some of your recent articles about radio hams, and I would like to tell you my story. Twelve years ago I lost my husband, and was left with my 13 year old son to bring up alone. Some of the local radio hams knew of my son's scientific interest, so they immediately invited him to join their Radio Amateur Club.

At this club, my fatherless son soon had several Big Brothers, and also met other teen-age boys with interests like his own. He was soon learning the code and was taken with a group of boys to pass his FCC tests.

The men in the club helped us to fix a spare room in our home so he could have a shack of his own. I was packing picnic lunches for him to go along on field days. Many times I made friends when they spent evenings in his shack.

While other mothers were worried sick about their son's drinking and reckless driving, my son was developing a wholesome interest. These radio hams encouraged my son and the other boys in the club to consider

careers in the electronic field. As a result, my son is now a college graduate and is engaged in work that is vital to the defense of this country. In his spare time, he is working in a ham radio club to help other boys to follow in his footsteps.

I became acquainted with many these hams and their wives. Not one ever had a drinking problem in their home. Not one of these hams ever gambled or chased women. These men were good husbands, and often guided their sons into scientific careers.

I am sorry to say that our public schools give far more attention and encouragement to the athletes than to the scientific minded boys. Our young scientists are usually ignored or ridiculed in school and everywhere else. The radio hams provide a place where these young fellows can find friendship and encouragement. In these days of hippies and drop outs, I salute the radio hams in America." (signed) "Grateful Mother."

This letter sheds a new light on the activities of radio hams, one which many people, including myself, have not been aware. If indeed the radio amateurs can supply an interest and incentive to lonely boys, if they can keep them so busy that they have no time for teen-age rebellion and all that goes with it, then I say more power to them - and the next neighbor who complains about TV interference will be told the above story.

I only hope the club described by "Grateful Mother" is typical of others around the country, and that, if others will please note. P.S. "I now love radio hams."

(from: "Grid Drive," Pine Bluff, Arkansas, November 1968)

\*\*\*\*\*

## T. V. I.

...FCC form 762A contains a wealth of common-sense information designed to assist the amateur to eliminate any possibility of TVI caused by harmonic or spurious radiation from his transmitter or antenna. The rules are simple and straightforward and should be known to every amateur before he puts a transmitter on the air. Unfortunately, however, many amateurs who do know the facts, do not understand them or practice the simple precautions needed. As a reminder to all of us, a few of the most important general rules are repeated below.

1. Completely shield your transmitter.
2. Install a well shielded low-pass filter.
3. Reduce harmonic transfer between transmitter stages by loosely coupled, grounded link coupling.
4. Assure adequate capacitance in the final stage plate tank circuit to provide high "Q".
5. Filter and shield all exposed power leads between the transmitter and power supply and between the power supply and the a.c. line.
6. Avoid using a directly excited-voltage fed antenna.
7. Use a current fed single band antenna that will not radiate harmonics readily at the operating frequency.
8. Replace your antenna feeders with coax (despite decreased efficiency) to reduce coupling with long nearby power lines. (House wiring which might run parallel to the feeders or be of critical lengths at harmonics of the transmitter frequency).
9. Reduce standing waves to a minimum on antenna feeder lines. Tuned antenna couplers are the best approach for multiband antennas.
10. Reorienting

the transmitting antenna may result in moving a null in your radiation pattern toward the television antenna, thus reducing interference.

This FCC bulletin also includes several tips on installation of stubs and various types of filters.

from: "Ham Shack Gossip"  
via Signal Report  
\*\*\*\*\*

Changing cars time has come again. My mobile activities will have to wait until the weather gets back to normalcy before drilling new holes in my latest gas burner.

Don't know whether to go 2-meter FM or put in all the other bands that the old car had before. I am sure reluctant to drill any more holes than is necessary for antennas — that is for the big whip.

Lou, WØVLI  
\*\*\*\*\*

## OFFICIAL BULLETIN NR 210 FROM ARRL HEADQUARTERS NEWINGTON CONN FEB 27 1969 TO ALL RADIO AMATEURS BT

Those desiring to increase their code proficiency should take note of a variety of aids available without charge from ARRL headquarters. The package includes a reference guide for new operators and code trainees, a complete WIAW schedule with time conversion chart, full information on ARRL qualifying runs and a list of code practice stations. Send your self addressed stamped envelope to ARRL, 225 Main Street, Newington, Connecticut 06111 AR

\*\*\*\*\*



# NOW—GALAXY PROUDLY UNVEILS

**NEW Power!  
NEW Features!  
NEW Beauty!**



**5 BAND  
SSB**  
Mobile or  
Fixed  
Station

☆ AND A COMPLETE LINE OF HANDSOME  
MATCHED ACCESSORIES!



The New Galaxy  
Wattmeter/Antenna Selector

The Powerful New Galaxy  
GT-550 TRANSCEIVER

The Beautiful, Matching  
Galaxy Speaker Console

## "HOT," Husky, and Handsome!

You asked for it...now it's here! The new GALAXY GT-550 and a complete line of handsome matching accessories!

Your suggestions made it possible. We took your ideas—added some of our own and went to work. We built in new power, new conveniences—such as a 25 kHz calibrator option, and no frequency jump when you switch sidebands. Then we hired the best designers in the business to give GALAXY a distinctive "New Look"!

Our new GT-550 has all those great qualities of the famous Galaxy V's...and then some! It has new POWER...550 watts SSB, making it the hottest transceiver made! A new single scale VFO Dial makes frequency interpolation child's play...the new skirted knobs make tuning and band-changing a split-second job...and, that slick, king-sized finger-tip tuning knob works like a dream! *Still the most compact—only 11¼ x 12¾ x 6"!*

P.S. Sounds unbelievable but it's an even HOTTER receiver than our previous Galaxy V's!

*Space prevents telling you all about the handsome, matched accessory line. Write for a free brochure that's loaded with exciting news!*



## **GALAXY ELECTRONICS**

"Pacesetter in Amateur/Commercial Equipment Design"

10 South 34th Street • Dept. HH 3 • Council Bluffs, Iowa 51501