



# HAM HUM

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AK-SAR-BEN RADIO CLUB, INC. - Omaha 1, Nebr.  
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February 1963



Vol. XIII  
No. 2

**NEXT MEETING FEBRUARY 8 - 4-H BUILDING,  
AK-SAR-BEN FIELD, 8:00 P.M.**

**PROGRAM WILL INCLUDE SHOWING OF FILM ON "FRIENDSHIP 7"  
FOLLOWED BY THE USUAL REFRESHMENTS AND GABFEST.**

STARTING IN AMATEUR RADIO  
by Thomas O. Moeller, WNØEXQ  
December 20, 1962

Home address 2515 Jones St.,  
Omaha, Nebraska or Nebraska  
State School for the Visually  
Handicapped, Nebraska City,  
Nebr.

The idea and thought of electronics as a hobby has been imbedded in my mind for many years; I guess I actually started being curious about electrical and electronic devices when I was 6 years old. It still amazes me as to exactly how I got interested in it.

About three or four years ago I first met my best friend, Terry Kilday, who is now KØJMM. On the first evening, we started talking about some ideas we had. We have discuss-

such things as an electronic sounder put in the bottom of a cane, which would emit high frequency sound waves bouncing off objects and the waves being converted to

audio frequency and sent through an ear phone sort of a sub-miniature sonar system. We also talked about the idea of a car with a series of electromagnets on the rim of the tires which would automatically switch on and off. This was going to be powered with a nickel cadmium battery; the idea of the battery came from a magazine article telling about experiments with the battery.

About a year and a half ago, Terry and I were put in a woodworking shop class together. We did not like woodworking so much so we talked Don Pickering, KØJMN, into starting an electronics class during shop. Then we decided to have a class once a week for any of the students who were interested. Our dorm director down here at the Nebraska State School for The Visually Handicapped didn't want the girls to come and ever since then Terry and I have felt cheated. hi.

(Continued on Page 12)

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## VHF NEWS

Our guest VHF editor this month is Mr. Jim Stillwagon, K7INT/Ø of Omaha.

Well, things are starting to get underway in the ham shack, again; projects are starting up all over the place. A recent brainstorm produced one which might be of interest to some of you VHF bugs who have tried to figure out how you could run a couple of hundred watts on two meters, at some time or another. After an endless search to find a tube, or tubes in the Amateur Handbook and numerous tube manuals that would do the job, the idea was

abandoned, due to the cost of the project.

The answer might well lie in the use of a "Quadraline final." To most of us, this is probably something new. I will attempt to explain to you how the quadraline works, with the following diagram.

In figure one, the circuit functions very simply, as follows. Sections A and B are marked by their familiar push-pull configuration, as are C and D. Observing the polarity marks at the plates of the tubes, current through point E from both tubes will be in phase, thus adding their outputs together.

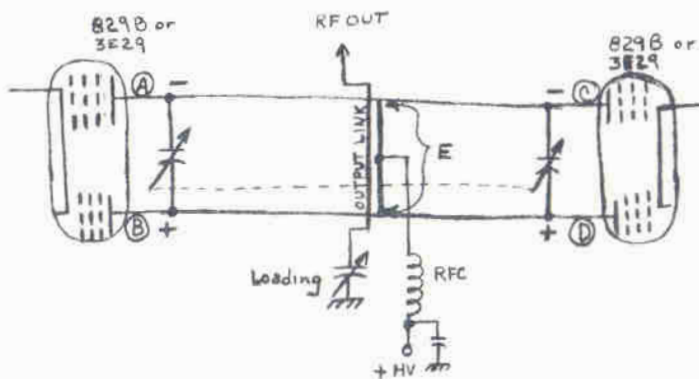


Figure 1

(Copy continued on Page 10)

## NEXT MEETING

Next meeting - We have been advised by Lou Cutler, WØVLI, that the Friendship 7 film will be shown at our next meeting of February 8th, 1963.

The poor attendance at our January meeting could hardly be helped since the weather was so poor with blizzard conditions that evening. We hope to have better weather for February meeting.

Here is a listing of our new committees for 1963 and the chairman of each:

Royal Enders, KØLYO - Community Relations, Public Relations, and Publications

Wendell Larsen, WØNPA - Technical and Mobile

Harold Welch, KØSCG - Program

John Droescher, KØKWB - TVI and BCI

Bob Margritz, WAØBIE - Membership

The mystery letter addressed to WØWRT in the last month's Ham Hum failed to show any signature; however, it had come from a former member of the club Bill McDonald, W9DTZ (ex-KØYIW) who is now at Roselle, Illinois. I had the opportunity to see and visit with Bill at the National Electronics Conference in Chicago last October. Bill indicated at that time that he would like to hear from some of the club members. Address is 601 Spring St., Roselle, Illinois.

This issue of Ham Hum includes 10 articles by local amateurs, neither one of which happens to be a member of our club yet. We hope to change this situation though. It does seem strange that we always

have to go outside of the club to get articles; most of the time we have to rely on material stolen from other club publications. Surely some of you Omaha hams must do some building or experimenting? This editor hopes to have an article ready by the March issue on a transmitting-tube tester which is a takeoff on the Sam's Bottle-Baker which appeared in the VHF Amateur of Oct. '61. This new bottle-baker features some improvements and refinements over the original arrangement. Shown is a picture of my son Billy Snyder attempting to work the bottle-baker.



We also have plans to run article and photos on a low powered (20 W. input) 50 mc. xmtr. which we've been using for a couple of years with very good results. If we're lucky, this may be done for the April issue.

-73-

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## FLASH FROM KC4USH

Donald H. Warren, at Cape Hallett, ANTARCTICA (KC4USH) is asking for new and additional contacts, especially from the U.S.A. east coast and the midwest areas. He heartily commends W6QPI in the San Diego area for her devoted and sincere assistance, both present and past years furnishing communications channels for the KC4 stations.

Here's a direct quote from Don's letter to ARRL.

"We send greetings and 73 from the big iceberg. We will be at the joint U.S.-New Zealand Base until October of '63. We call this

the Garden Spot of the Ice because our ANTENNA FIELDS are filled with several thousand penguins that seem to have PLANTED themselves for the summer!

"KC4USH was off the air during the past winter. After my arrival here six weeks ago (in September) it took four weeks of hard work to put her back on the bands. Our mail is slow coming in. This is due to our isolated location."

N.B.: KC4USH desires contacts along the east coast and in the midwest. Best times last year were, we think, the six hours before east coast daylight.

Here are the calls and locations of active stations presently in Antarctica, frequencies where known.

KC4USH, Cape Hallett.	14,250 kc., 14,269 (fm foto) and 14,300 kc.
KC4USN, South Pole.	14,270 and 14,250 kc.
KC4USR, USS Arneb.	When south of 60° south latitude.
KC4,USB, Byrd Station.	7 and 14 Mc.
KC4USV, McMurdo Sound.	14,265 kc., 14,250 Kc. and 14,350 kc. for Pac. and Eu. work.

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## OFFICIAL BULLETIN NR 880 FROM ARRL HEADQUARTERS WEST HARTFORD CONN JANUARY 3 1963 TO ALL RADIO AMATEURS <sup>PT</sup>

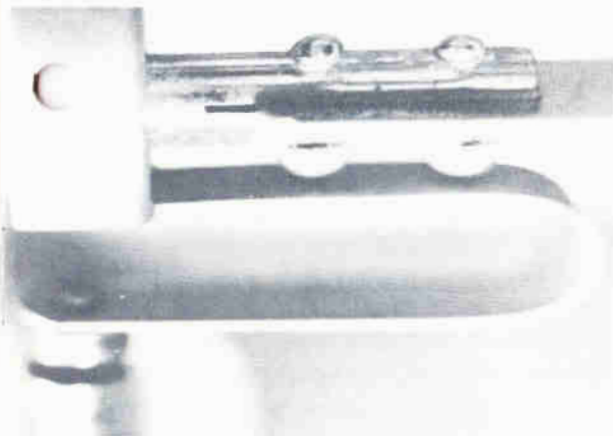
Effective February 1, 1963, FCC 14220 to 14230 kc available for RACES use in Alaska, Hawaii, Puerto Rico and the Virgin Islands. <sup>AR</sup>

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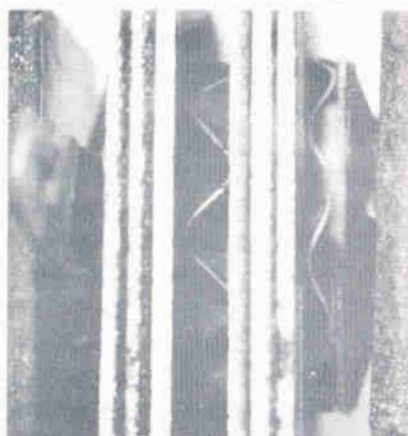
## HOW ABOUT THIS?

My son snapped some pictures of radio gear around the shack the other day and now he can't figure out what they are. Can you? (Answers on Page 8)

1.



2.



### OFFICIAL BULLETIN NR 882 FROM ARRL HEADQUARTERS WEST HARTFORD CONN JANUARY 17, 1963 TO ALL RADIO AMATEURS

BT The FCC announces that a temporary third party agreement is in force permitting amateurs in the United States to handle traffic with 4U1TU in Geneva for the period January 10 through February 16, 1963, during the meeting of the CCIR at ITU headquarters AR

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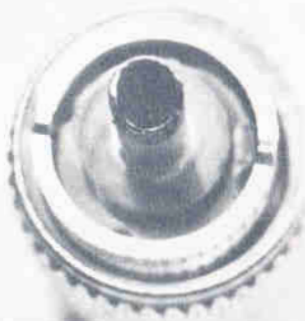
An overweight grandmother, despite many warnings, insisted upon cheating on her strict diet. One time she went too far and had to be taken to the hospital. The only room available was in the maternity ward, and there Grandma was wheeled.

Her small granddaughter was stationed outside this room the next afternoon when a visitor stopped to inquire, "What are you doing here, little girl?"

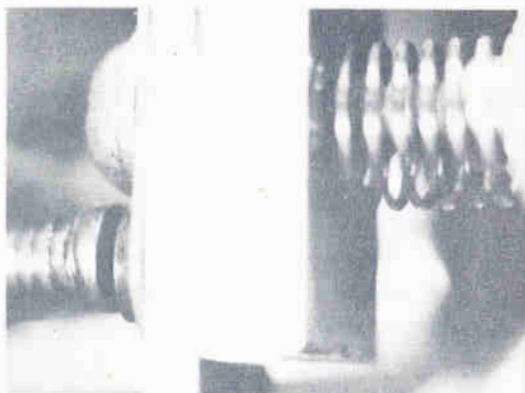
"It's my grandma," explained the little girl brightly. "She's been cheating again!"

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3.



4.



## MOBILE NOTES

Sitting in the warm living room, with the outdoor temperature hovering near zero or below, is not exactly conducive to putting one's all in the writing of a mobile column. It is quite a trick to regularly meet a deadline in a publication such as Ham Hum and still turn out material that imparts a degree of useful information to the readers. I won't waste my time with a plea to the readers to use their post cards to inundate me in a flood of mobile news, tips, circuits and other pertinent contributions. Other writers have tried this and have been rewarded with the usual response - nothing. So, I will write on my own as best I can.

Now if a remark of mine should happen to harpoon some particular individuals or advocates of a particular band or mode of transmission, etc., I will be happy to print any printable argument, retort, reprimand or agreement someone might mail, in the heat of passion. I don't profess to be an expert in any phase of mobile operations. However, I have quite a bit of reference material that I might use. Also, I have a lot of smart friends. By the way, two definitions of an expert come to mind - one is that an expert is anyone that comes fifty miles or more to solve a problem; another definition would be that an expert has been and a spurt is a little drip. So, you can see why I lay no claim to expert status.

Mobile amateur radio offers all the various areas of ham interest but is considerably complicated by its environment. So, any readers who are contemplating a mobile installation had better forget it if they don't enjoy working out many problems, large and small. These problems can occur in both home-brew and commercial equipment. But, more on this later.

RACES organization is beginning to pick up steam. Any emergency communications setup revolves around a nucleus of mobile stations. So, we mobileers are considered important to the current RACES effort. We have a dedicated, interested and capable group of hams heading and organizing RACES in this area. So don't let complacency overrule your desire to meet them at least half way and let them show what they have to offer. Activities in conjunction with RACES are fun and can enhance the value of your mobile installation.

Ten meters has really been hopping with local activity this winter. Ground wave contacts have included stations in Valley, Platts-mouth and Sioux City, Iowa. Some of the fixed station boys are beginning to put up ten meter antennas, usually verticals, to improve ground wave and mobile coverage.

Any of you mobileers capable of getting on ten should take a listen almost every evening on 28.8 mc. This is the round table frequency

and is most likely to get a return on a CQ if a round table isn't already in progress. Possibly there is such a frequency on six also.

The subject of 6 and 10 meters brings a question to my mind. I can't fathom the reason why some of the local boys hold their local contacts on 75, 40, and even 20 meters, fighting interference as well as causing it all over the country. What a waste of long haul frequencies when there is so much QRM free space on 6 and 10.

Just discovered 73 Magazine recently. I think it's great and the best technical and builder's magazine printed. No articles that to many of us are superfluous. The editor, Wayne Green, W2NSD, has good ideas, in my opinion, and isn't afraid to air them.

Till next month - - 73

Windy, WØNPA

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Hi, OM:

The Pittsburgh gang had a good turnout for the recent VHF Sweep Stakes. We made 130 contacts in 6 states (Two Meters only).

Operations were from KOAM-TV. Antenna was a 12 section RCA super turnstile (omni-directional) courtesy KOAM-TV. 500+ feet high Equipment consisted of the following: Johnson 6N2, powered and modulated by Johnson Ranger; Ameco nuvistor converter into a SX101A. Equipment courtesy KØDGC. BCNU next VHF Contest.

73,

Ken, WØVLD

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LETTER TO THE EDITOR: Thank you for your hospitality and good audience. It is one of Finagle's laws that if something *can* be misinterpreted, it *will* be. The reporter (at the usually accurate World-Herald) asked me if the application was mostly military and I said yes. The paper indicated that the Amateurs were slow in catching on; I would appreciate it if you would extend my apologies to the Amateurs, particularly those who set up the demonstration. Ever since the early '50s there have been more *Amateur* SSB stations and equipment than all *others* combined. In fact, *those Amateurs using SSB in the early '50s supplied demonstrated proof of the advantages of the technique and the noncriticalness of frequency stability for voice apps.*

W. B. Bruene, WØTTK  
Collins Radio

(From the IRE Bulletin)

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How many of you saw the show on February 3rd, 5:00 - 5:30 PM on KMTV, sponsored by World Radio, "Amateur Radio and You." Through the hard work of Hugh Tinley KØGHK, the show dealt mainly with the history and growth of Amateur Radio, a few taped DX QSO's and a showing of some of the more popular ham equipment.

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#### SILENT KEY

William C. Gettman, WØYSK, Norfolk, Nebraska, Director of Engineering for Station WJAG.

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## ARRL ASKS FOR COMMEMORATIVE STAMP

Like to see a special U.S. postage stamp honoring Amateur Radio and issued (we hope) on the occasion of the 50th anniversary of your ARRL's organization? So would we! The League has filed a petition with the Postmaster General looking to '64. It's time all of us plan and work well beforetime to make the issuance of such a stamp possible.

ARRL has pointed out that no U.S. stamp ever has been issued commemorating the radio telecomm-field. Such a stamp honoring the achievements of amateurs would at the same time honor all electronics development. But these possibilities (of a special stamp) don't just happen. Many groups are constantly working for the issuance of other commemoratives. You have to show interest and back it. This is best done by writing carefully individually worded, courteous and effective letters to the key people. In this case write to the Postmaster General, U.S. Post Office Department, Washington, D. C.

We bring it up here to suggest that individual amateurs and all affiliated clubs take appropriate action. Endorse the League's proposal. Request the PMG to recognize the telecommunications field and AMATEUR RADIO.

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### ANSWERS

1. Contact on a Bug - Dit
2. Rectifier
3. Coax connector
4. Contact on a Bug - Dah

## CLEANING HOUSE IN OUR BANDS (W2PTM)

For more successful contacts and pleasure in operating on 20 (other bands too) we need to press vigorously for improved operating practices as well as better performance and adjustment of our equipment. W2PTM in writing us calls certain bands a "snake pit"; he urges self-discipline, to be a continuing effort to implement the Sept. QST editorial and League program. W1DF's articles HOW TO RUN LINEARS and LOOKING AT PHONE SIGNALS (Nov. and Dec. QST) go a long way toward helping get better performance from station equipment. More articles will follow.

Additional points get to the subject of operating habits. (1) Rule one to LISTEN FIRST, then call or send after picking the spot most free of QRM can do much to help, if observed widely. (2) Above all do away with those steady carriers (tune ups?) that clutter the band, says W2PTM. Good dummy loads, readily arranged to be switchable, should be universally used for every transmitter check, then a quickie to the antenna is least bother to others. (3) Short calls and frequent breaks to listen get the best results, no waste band use. (4) Be concise, time calls well. (5) Use self-monitoring set ups to *know* your sig. is right. (6) Cut power by simple means as expected and required in basic regs. (7) Switch to v.h.f.s or low frequency bands for all cross-town or local rag chewing.

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## DEAR MABEL,

Dear Mabel,

HAPPY NEW YEAR to you and Clyde from me and Homer! "All's well that ends well" and this year certainly did. Homer is himself again, have my novice ticket, the kids are all healthy and our neighbor is home from the hospital. Matter-of-fact we spent New Years Eve together. It's so nice to start a New Year being friendly, even tho' it is difficult sometimes later on.

I wonder if people who aren't Hams ever have troubles with THEIR neighbors?

We had a very good Christmas and hope you did, too.

Homer bought me a new television set and a bug. (I don't mean ANY kind of a bug like lightening or crawling -- it's to send code with.) The TV is really for the youngsters so they have a baby sitter while I'm in the Ham shack.

Homer plugged it in on Christmas Eve and said never to turn it off and it would last longer. Believe me, it makes a beautiful night light for the living room. Homer hasn't hurt his shins on the furniture since we got it. He has gained four pounds making those trips to the refrigerator, too.

We had trouble with the picture for the first few nights on account of the airplanes, but that's all straightened out now.

Remember how Homer's long wire antennas go 160 feet from the front corners of the house to the trees by the street? Well, he decorated them so pretty with blue, and green, and white lights that twinkled

off and on. The night we had the Christmas party for the hams and their wives they parked their cars in the front yard. Before the party was over two strangers had stopped and asked the price of the three compact cars on the "lot." It sure took the wind out of Homer's sails! He took out the blue bulbs, and bought amber ones so it wouldn't look like a used car lot.

After that we had the picture trouble with the new TV. There were so many airplanes! It seemed as if every one was flying home for the holidays and for three nights we didn't get much sleep. Besides, the picture kept rolling so on the screen we couldn't watch the TV either.

On Thursday the man from the FAA came and asked (rather TOLD) me to have Homer remove the decorations before 6:00 p.m. that night, as the airplanes from the north had been trying to land in our back yard for three days. One pilot had quit already. I think I know which one that was, too. We figured it was someone we knew because he kept buzzing the house, so we flashed HI -- HAPPY NEW YEAR to him. He turned back north right after that.

I got Homer a new secretary's chair for the ham shack. It's upholstered in genuine leather of a soft green shade, and looks so nice with the yellow walls. My back doesn't get tired at all any more when I'm hamming.

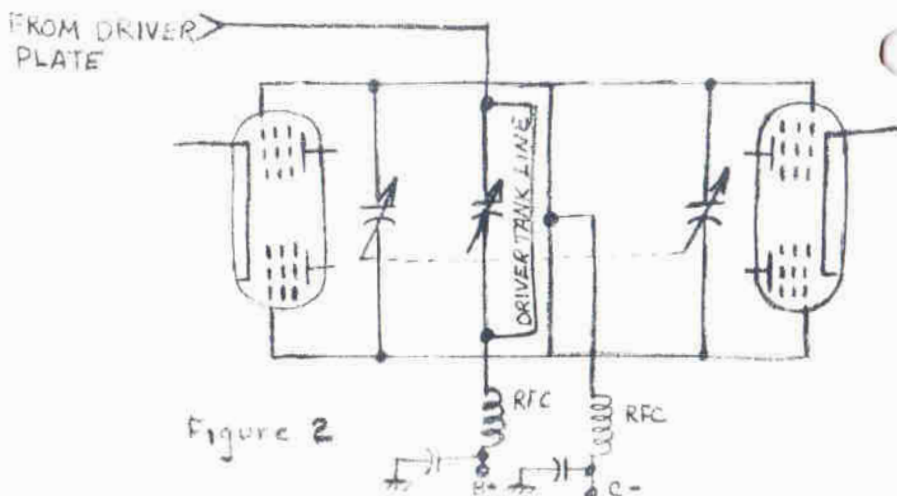
I talked to a fellow in Wisconsin for twenty minutes the other day but

(Continued on Page 11)

The following diagram will show you that the grid circuit configuration is, aside from the assumed differences in connection, identical to that of the plate circuit.

to myself.

Anyone wishing to conduct any experiments on 432 Mc., contact me any time. I am extremely interested in this band.



Mention might be made that this final is not in operation at present, but is now under construction. When the final is built and operational, details and any changes will be published in this paper. In the mean time, if anyone wishes to attempt to build this rig, any information in regard to the outcome will be greatly appreciated. I might recommend that symmetrical, parallel tuned plate lines be used, for both grid and plate circuits.

This final, when finished, should run about 180 watts DC input, if sufficient plate efficiency can be obtained; one might even be able to run it up to 200 watts.

Further investigation of the shack reveals signs of some low power gear possibly being prepared for 432 Mc. Who else is coming up to 3/4 meters? I don't want to talk

I'm also working feverishly on a two meter kilowatt, running a pair of 4X250 B's. One power supply is finished; another to go, yet. Modulator's almost complete, though the final is being held up due to lack of available tube sockets.

Receiving equipment on two meters is a home brewed, modified W2AZI converter, possessing a noise figure of just a "skosh" over two DB.

Two 24 foot LONG LONG Yagi's that are under construction are presently being neglected, due to all the other projects in the shack. I hope to have the Yagi's finished by late Spring.

73'es  
 Jim, K7INT/Ø  
 3402 N. 82nd Street  
 Omaha 34, Nebr.

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(Dear Mabel - continued)

had a hard time copying what he had to say. There were so many other people on the same frequency. It sounded like all of them were sending my call and sure enough they were. The ham in Wisconsin kept asking me if I had a receiver and if I listened to it. I had to tell him several times -- yes I do and yes I did. I wonder how he thought I was hearing him? He told me to put in another one of my xtals, that I was ruining things for a net that was in session.

I gave him my address four times, but didn't get his. Wonder if he will send me a QSL card? Mine should be ready soon. Wait till you see them. I know you'll be surprised.

Happy New Year again Mabel, and please write soon.

Love, Gladys

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**OFFICIAL BULLETIN NR 881  
FROM ARRL HEADQUARTERS  
WEST HARTFORD CONN JANUARY  
10, 1963 TO ALL RADIO AMATEURS  
BT**

Announcement is hereby made of the addition to the ARRL Countries List of Bouvet Island. Bouvet Island is located in South Atlantic Ocean approximately 1600 miles south of Cape of Good Hope. Lat. 54 degrees S and Long. 5 degrees E. Bouvet Island is Norwegian territory. DXCC credit claims may be made for this addition starting May 1, 1963. Confirmations for contacts with Bouvet Island must be dated November 15, 1945 or later. DXCC credit claims for this addition received before May 1, 1963 will be returned without credit.  $\overline{AR}$

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## FCC CRACKS DOWN

You will be interested to know that FCC has proposed extensive changes in its Class D citizens Band rules in an attempt to curb the many violations being committed. E. g., only five of the 23 channels would be available for inter-communications between units of different licensees, the remainder restricted to use by units of the same licensee; all communications limited to 150 miles maximum; more explicit antenna height limitations; prohibition of discussions of social, political or religious doctrine; prohibition of extensive on-the-air tests of equipment performance; and additional changes similarly designed to bring actual CB operation more specifically into line with the original concept of the Commission at the time of creation of the service.

FCC is apparently adopting a "get-tough" policy in handling amateur rules violation matters, a principal problem being the failure of many cited amateurs to respond to official notices. A recent action proposes revocation of the license of an amateur found using voice emissions outside the assigned band. By itself this normally would be finally disposed of with a warning of a similar penalty, but the amateur answered neither the original notice nor the two follow-up certified letters.

Please pass the word: if you get an FCC notice of violation, answer it, and promptly!

J. Huntoon -- ARRL  
de Florida Skip

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Terry and I tried for our Novices last year and he got his ticket but I failed. Mr. Pickering also got his license. I failed because I did not know my code well enough. Since then I have tried again on November 13 and failed again; am on my third try now. (Editor's note: There is good reason to believe that Tom has made the grade this 3rd try, since he hasn't received any notice of failure.)

Since last year Mr. Pickering has moved to Colorado and I haven't had too much of a chance to get help until last summer when I spoke to Mr. Royal Enders, President of the Ak-Sar-Ben Radio Club. Since then I have gotten acquainted with Chuck Sudds, KØTVD. His grandmother Louise, WØCCD, suggested that I speak to John Snyder, who has been the biggest help to me.

We are going to have a couple more prospects for their novice licenses here at the School. Lonnie Merrit, Lynn Blesh, and a few others who are interested.

I have set up some mental rules for being successful in ham radio. The first is (A) Don't memorize the theory, but LEARN it. (B) Learn the code, but don't rush it. You can't learn it in one or two sittings. (C) Don't force yourself to like hamming. (D) Follow the License Manual and the Handbook. (E) Remember to be friendly, courteous, helpful and above all remember you are dealing with other people, not just the electronics, code and other aspects of the hobby. In conclusion, Enjoy hamming.

Tom Moeller, WNØEXQ

EDITOR'S NOTE - By the time this article appears in Ham Hum, Tom will no doubt have his new

Novice license. He does not, however, have any equipment which would get him on the novice bands and on the air. Does anyone in the club have either a small C. W. transmitter that isn't being used any longer and which could be given or loaned to Tom? Surely someone else must have an old G. I. Surplus receiver not being used? If anyone can help out, please contact the editors c/o P. O. Box 291, Omaha 1, Nebr. or phone us. Remember, most of us can thank the Lord that we have good vision for our everyday tasks.

73, WØWRT

P. S. Just received word that Tom has received the new license call WNØEXQ.

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#### FOR SALE:

1 Heath 6'er, \$35 less power supply. Lou Cutler, WØVLI 455-7143

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Box 2834  
Wurtsmith AFB,  
Michigan

Dear Editor:

I have for sale: 1 Hallicrafters S-120 for \$40.00 - 1 Heathkit HX-11 for \$40.00. Thanks for your help.

73, Joe Lofreddo,  
K2PVB/8

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#### Use THE Card

Keep us posted on address changes, items for sale, your ham-antics, other stories of interest. Mail us the enclosed post card with news for Ham Hum, thanks.

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