



HAM HUM

AK-SAR-BEN
RADIO CLUB
INC.

WØEQU

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HAM HUM EXCLUSIVE!

An exact reprint of a photo of the sunspot activity, taken at high noon with a box camera!

Ham Hum

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Editor---Art Stadler WØQMD

HAM HUM is the official organ of the Ak-Sar-Ben Radio Club of Omaha, Nebraska, mailed monthly to all members and to others upon request. News and information of interest to amateur radio is gladly accepted. All items must be received at least two weeks prior to the second Friday of each month for inclusion in the current month issue. Submit all correspondence to P. O. Box 626, Omaha, Nebr.

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Dick Eilers, WØYZV, President
Bob Stratbucker, WØHZE, Vice Pres.
Curt Hicks, KØAMM, Secretary
Dick Nystrom, WØUKQ, Treasurer

Ak-Sar-Ben Radio Club memberships are open to all persons having an interest in amateur radio and its activities. Dues are 50¢ per month or \$5.00 per year when paid in advance. Students rate is 25¢ per month or \$2.50 per year. Initiation fee \$1.00. Special rate for OM-XYL, \$6.50 payable annually. Meetings are held on the second Friday of each month.

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* Dick Nystrom, WØUKQ, Treasurer
* Curt Hicks, KØAMM, Secretary
Art Stadler, WØQMD, Past President

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A POST MORTEM.....DX CONTEST

For years, the CQ DX contest has been an awaited function by that segment of the Ham fraternity that are interested in becoming acquainted with their counterpart in various parts of the world and at the same time willing to accept the challenge afforded them by the very nature of the activity.

Contests are good, and particularly so, when the rules governing them are equitable to all participants. Past contests have given the entrants, regardless of their location in the world, an equal opportunity to run up sizeable scores, and as my memory serves me, the records will substantiate that fact. However, after 15 hours of activity in the phone portion of the 1956 contest, it appeared that the whole function was slightly "weighted" against the "Ws" to the point where it became actually difficult to make a score that might even be considered in contention.

Let's take a look at the situation as it existed this year, evaluate the rules, and then see if you agree with our analysis. Perhaps by so doing we can assist in equalizing the scoring procedure in the future.

First, the rules of the '56 contest provided for points to be scored on the basis of countries and zones worked and contacts made. Each zone worked on each band counted as a multiplier of 1, and the same for each country worked on each band. Contacts between stations on different continents counted 3 points, while contacts between stations on the same continent but not in the same country counted 1 point.

With the scoring as it was this year, it became obvious as the contest progressed that DX stations would be primarily interested in working the W stations only to the extent of the 3 zones they represented and the U.S. as a country. Any further contacts with Wland only added 3 points each (per band) and no addition to their multiplier. It only took a few hours of operating in the contest to see what was happening.

DX stations, and a lot of darn good ones, too, would call cq in the DX portion of the band, you would get all set to give him a shout, only to hear just before he signed, "Standing by for a call on THIS frequency."

This was not an isolated case, but rather general in nature. With the contest rules as they were this year, I guess I would have done the same thing had I been outside the good old U.S.A.

With world wide interest in the contest, why not, change what appears to be an unbalanced scoring method. Why not, for the contest period only, consider each "W" district as a

separate zone and let the first contact in each district add to the multiplier. By so doing, the DX stations would then be interested in working at least 10 Ws instead of 3 as was the case this year.

Sure its easy to criticize, and hindsight is always better than foresight, but lets level the beer glasses. Contests are good, so why not keep them that way.



GET READY FOR CHRISTMAS

At the last board meeting, plans were made for hanging out the welcome sign at the December meeting for the man with the long white beard.

Prez Eilers appointed a Christmas party committee that really went to work and presented their plans for what promises to be an ole fashioned shindig. The Hunt room at the Sheraton-Fontenelle has already been reserved, a long list of outstanding prizes was decided upon and will be ordered, cakes are scheduled (somebody will miss those mighty good donuts) and all the other fussy stuff to add to the festivities has been arranged.

So that every member will go

home with a Christmas package each person is requested to bring a gift wrapped present. We will have more info on the suggested value of the gift in the December issue, but start thinking about something worth a buck that you will bring along. Don't forget, you may go home with a shiny new VFO or grid dipper if you can pull the right strings!

This should be a swell party and the only requirement is that your dues are paid and that you are a member in good standing.

We'll have more details in the December issue.

TO BE

OR NOT TO BE...

THAT IS THE QUESTION

Yep, our November program has all the earmarks of one of the most controversial since mom quenched my gap!

We were in the midst of a mental fog as to the kind of a program to schedule for the next meeting, when out of a clear blue sky we landed right in the middle of a red hot issue. The question was, 'Is single side band really better than AM?' and real quick we heard the reply....NO!

The respondent was none other than Al Draper, CZE, that man from SAC that has his long nose and sharp pencil in the BIG communications center currently under construction out at Scribner. In his spare time Al works with the IG at SAC with communications of all types his specialty.

CZE has been in on the ground floor of many new developments among which is the process of sync detection in communication receivers.

Al will discuss for us not only the method of sync detection, but will also attempt to prove that SSb is not as good as AM. The basis of that contention will be the merits of double side band-suppressed carrier transmission in its many phases.

This very subject is about to be kicked off in an article soon to appear in CQ and you can bet your bottom dollar that there will be a lot of arguments from both sides of the fence. So....if you want to get in on the ground floor of some of the new developments in receiving and transmitting methods, gather up all your arguments, be prepared to put them on the line at the November meeting.

WANTED

Model 12 teletype keyboard and distributor.

WØAQQ, Lee J. Witulski, Beatrice, Nebraska.

ONE OF A SERIES, TRANSISTOR

We often talk a bit about new inventions and like to read about them, but too often, our knowledge is limited by a lack of basic information. Possibly, we may clear a few idle cobwebs on the subject of transistors.

Transistors are made from two elements; germanium and silicon. These are elements and are called semiconductors because their electrical conduction properties are much poorer than those of good conductors, the metals, yet much better than those of non-conductors, the insulators. Silicon is a hard light element, graphitic in appearance which melts at about 1,415 degrees C. Germanium is a hard, dense, element with a metallic lustre which melts at about 937 degrees C., recovered as a by-product of zinc refining in the United States. In Europe it is recovered from furnace flue dust. Silicon, in its various compounds, is one of the most common elements in the earth's surface. To be used in transistors, these elements must be concentrated and then purified to a degree never before attained. Then, by special processing, a substantial amount of each element is produced in a single crystal.

Although these elements differ greatly in physical properties, they have an important feature in common, they both crystallize in the same structure as diamond, which is the crystalline form of carbon.

An understanding of electrical conductivity in semiconductors is as basic for solid-state devices as an understanding of thermionic emission is for electron tubes.

For a better understanding of the operation of transistors, we must consider the electrical conductivity in semiconductors. This is as basic as understanding the thermal emission in a vacuum tube.

The conductivity of a sample of material is, by definition, the ratio of the current per unit area to the voltage applied per unit length

The resistivity of pure germanium is about ten million times greater than copper, yet pure silicon has a thousand times greater resistivity than germanium. A good insulator, like quartz, has a resistivity ten to the ninth power greater than pure silicon.

In a metal, the flow of current is made up entirely of electrons moving through the conductor in response to an applied voltage. Likewise, the space current in an electron tube is exclusively a flow of electrons. A distinguishing feature of semiconductors is that current can consist of electrons and entities which act like positive charges called "holes." Semiconductor physics identifies a hole as an electron deficit in the valence structure of the crystal lattice. Both kinds of carriers of electric charge are relatively scarce in semi-con-

ductors compared to the great abundance of free electrons which determine the conductivity of metals. The concept of a "hole" as a discrete and real quantity with approximately the same mass as the electron, but of opposite charge, is basic to an understanding of conduction in semi-conductors.

It is characteristic of semiconductors that light and heat produce marked changes in the conductivity of the material. Next month we will consider the movement of "holes".

Is the XYL going to renew your subscription to QST or CQ for Xmas? If so, tell her to drop a card to the Club Secretary at Box 626 with the necessary funds and we will handle it for you. We can take care of new subscriptions, too.

Jack, EQK, has his new 3-bander in operation and is giving that Globe Scout a real workout. All Jack needs now is a real sharp axe to take care of a few TV sets having 21 Mc front ends and he will be in business but good.

Congratulations to Paul Story, KNØDXF! Paul came through the general class exam with flying colors and is impatiently awaiting the modified ticket that will enable him to drop the N from his call sign. Good Luck, Paul, we'll be alisting for you.

We hear from some of the SSB men that they thought Hugh Tinley's World Herald article on amateur radio was wonderful.. but he left out any reference to the SSB technique of communications...and they're very much slighted!

SSB GABFEST

An informal gathering of the 75 meter SSB gang was held at Maxey's Cafe on Sunday, October 21st, with the crowd starting to gather at 1400, Omaha was represented by WQs: NZ IYB, UEV, UJT, CQX, YMU, and EUT. Towns as far as Grand Island, Nebraska and Ames, Iowa were represented. Approximately 45 hams participated in the "eyeball QSO" which was followed by a very nice dinner and entertainment furnished by a local ventriloquist. In addition were colored slides of other events and the Estes Park gatherings. The whole deal was sponsored by VUO of Fremont for the purpose of getting the bunch together, so they could meet in person, the amateurs they QSO nightly, and for those whom had already met, to renew old acquaintances. All claimed the meeting was highly successful and will be looking forward to future gatherings.

Did you notice that John Orr's recent article on RTTY that appeared in a recent issue of Ham Hum was favorably acknowledged in the October issue of CQ? We're proud of you PHW, lets have more of the same.

BUDDY NIGHT

Buddy night at the last meeting seemed to run into heavy competition. While there were approximately 65 in attendance we sure expected to see more of those strange faces on the chairs or at least on hand to chew on the delectable donuts that have become such an important part of the meetings. Regardless of the fact that there was a BIG football game in town, it was good to see some of the old timers get back in the swing of the "eyeball QSO'S" just as though they had never missed a meeting. If you didn't get your BUDDY out to the last meeting be sure to bring him along in November.

PHW, John, is the proud possessor of a brand spankin' new G66 that fits like a glove in his new Nash Rambler. John has been heard quite regularly on 10 meters for the past month and apparently we can expect to hear more from him now that the mobile gear is once again complete.

K4LIB, Arthur Godfrey has been heard on 10 meter SSB. The Red Head use the phonetic "K4 Love it Baby" when giving his call sign.

LETTERS TO THE EDITOR

Dear OMs,

Enjoy Ham Hum even more since I am in New Mexico. Am now a member of "I TAPPA KEY" a club located at Portallas, New Mexico. Plan on taking some copies of Ham Hum to next meeting. Don't have rig on air as yet but have hopes. Heard several Nebraska stations on 10 and 20.

73, Orville, FMW
Clovis, New Mexico

Hi Gang,

It's now 8:30 OM on Sunday here in Poughkeepsie and just returned from the mobile station after an all day vigil on 10 meters. Never an Omaha station to be heard wonder why?

All I've heard from Omaha since I've been here is RQS and "Coop," IQS. IOS was on 15 and coop was really rolling in on the low end of 20. I've worked into Nebraska on 10, but only within 200 miles of Omaha. Been getting into W5 land FB.....So "wat sa" you guys, how about some news from home on 10 meters. I'll be looking for you on weekends, especially on Sundays. My two best rocks are on 28, 760 and 29, 226. The WØs seem to come through best after noon, CST.

By the way, Ham Hum Editor, keep my Ham Hum coming. Haven't received the last few issues, nor has George Fox. WØAYR of Omaha is here in school also. So, here's 73 and see you on 10 soon, I hope.

Windy, WØNPA
Red Oaks Mill, R. S. 2
Poughkeepsie, N. Y.
c/o Avazian

Hi Fellows!

Really enjoyed readun Dave's stuff about the S. F. convensh. Mainly because it was well written and quite convincing. Like Dave's style...maybe yo'all could get get him to write a regular column.

However...I gotta proteck my stuff about Houston and I'll hafta do it frum memry....I squawked about hi prices and no radio-reception together with lack of hospitality. Dave will sure agree on those, especially since a well known radio mag editor did, but cudn't publish because of commercial reasons. I'd also make a little wager that a bigger percentage of Dave's convention buck was spent for social hour and formal entertainment than at any other convention he mentioned. If Frank and I get the next National, we're gonna draft ØDW (Dave) for consulting service.

73,
Tom Fifer, W8BKF

Dear Ed,

Will you please have any novice members of your club write me for skeds...I enjoy Ham Hum and especially, "Dress up your Gear" Would like to hear...the results of the discussion on this subject at your meeting.

73,
Dick Bilon, KN2SZD
5 Nugent Street
New Hyde Park, N. Y.

NRC

Gentlemen, Thanks for sending your Club publication, HAM HUM. I requested this bulletin via an amateur radio radiogram. The reason for seeking this publication was the fact that it has the reputation of an excellent bulletin.

In the future the local club intends to publish a club bulletin and since your's was considered on the "bulletin list" we will use some of the fine techniques in our publication.

The locals here share in my opinion of your paper. We think it is very nice and will incorporate it in many ways in planning our publication.

Yours truly,

Dave Fisher
Box 442
Marshall, Missouri

When the mailman can't read the QTH on the QSL cards that arrive at the post office, he automatically dumps them in the Clubs PO Box. At the present time we have on hand cards for the following persons; (some Stateside. some DX) KØDBU, KØAIS, WØFWD, KNØGTZ, WØLFM, WØWYB. You can pick them up at the next meeting.

Paul, KØBSV, is taking a temporary leave of absence from Club and Net Activities. Paul will be attending the RTI for the next 60 weeks on Monday, Wednesday, and Friday, and that's going to keep him mighty busy. Hope we hear you on the air once in awhile Paul. Good Luck.

Has CW lost its attraction? It sure looks like it. Last week we tried to get the score of the Crete-Westside game to one of the interested parties at Crete but no soap. With only a make shift 10 and 15 meter antenna at this QTH, we tried like mad to find somebody to get the traffic cleared. Narry a sole could we find that had their rig fired up or that could handle the deal! Anyone have any ideas?

The Homesteader amateur Radio Club of Beatrice were guests of the Crete Club at their annual steak fry held at Crete on October 10. Lee, WØAQQ, Dennis, KNØCNY, Armin, WØGBH, Louis, KØCBY, Steve Fink, Ken Frazier and Bill Miller, all of Beatrice were in attendance and enjoyed the hospitality of the Crete Club.

GETTING to the point where you have to really "go out" after the news. On a trip to Grand Island a few days ago we learned that Doc, LEP, is the Prez of the GI club and that the membership is now up to 18. Good going, fellows! With the new hams in town we are looking for even a greater turnout. We also found out that LEP is running a modified 610 on 20 and that he again has his beams in working order. Wish we could shorten the skip occasionally on 20 Doc, cause I would like to again comment on that swell steak!

The Ak-Sar-Ben Radio Club received a fine certificate of merit for services rendered to the Heart Association during their last fund drive. President Eilers accepted the Certificate from the Executive Secretary of the Association during the course of our last meeting. Congrats to the Club and to all the fellows and BL's (beautiful ladies) that assisted in making the drive a success.

Have you seen the new 3 bander on top of the QTH at KØAIS? We just can't get the SWR down to less than one to one so perhaps we will see a 2BDS xmas tree on top of the shack before too long.

HEY Leo! Have you ever tried to mount one of your tri-band beams on a mast when your sitting on top of the tower 45 feet in the air? Please..move those holes for the U bolts just a half inch up and the other pair a half inch down so the washers and nuts will go on without having to use a drill, a hammer, and 5 years of waning manhood! Gee, you have a swell beam, but on 3 different occasions the same thing has happened. You will certainly make a lot of people mighty happy.

AIS, Dick Curzon, did himself proud with his presentation on silk screens at the October meeting. Dick's unique style of presentation and definite know how kept the interest of the crowd through-out the session. We understand that Dick already has his hands full trying to take care of all the requests from the gang for silk screens. It was an interesting demonstration, Dick, and enlightening for many of us.

Please forgive us Bob! In the last issue we reported that WXG was at school at Iowa City. Swing your beams slightly west, gang, Bob is at Ames and keeps the home front posted on his Wisconsin activities via the 40 or 75 meter phone band. 11

**AK-SAR-BEN RADIO CLUB INC.
P.O. BOX 626
OMAHA, NEBRASKA**

**NEXT MEETING
AK-SAR-BEN 4-H BUILDING
AK-SAR-BEN FIELD
FRIDAY NOVEMBER 9TH
8:00 PM**

**BULK RATE
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