HAM HUM

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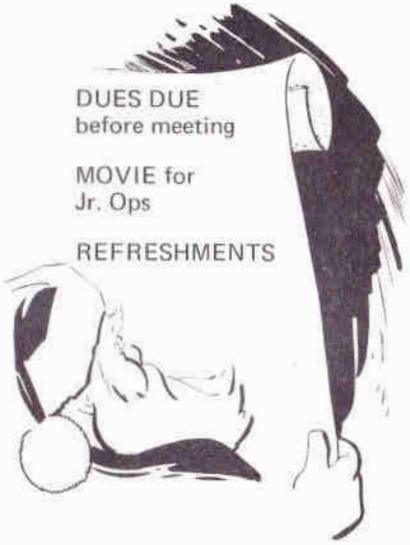


1970 ANNUAL MEETING and CHRISTMAS PARTY of Ak-Sar-Ben Radio Club, Inc.

December 11, 1970 – 8:00 P.M.

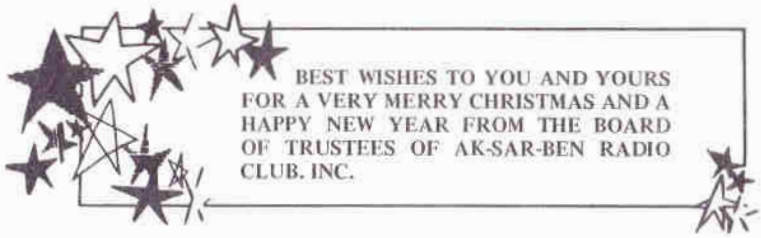
World Insurance Company
Cafeteria
203 South 18th Street, Omaha

ELECTION of officers. Paid Club members will vote on officers for 1971.

EXCHANGE of gifts. ADULTS–please bring a gift of one dollar or more value. Paid Club members will exchange gifts. Non-members who bring gifts will be eligible for the guest exchange.

SPECIAL ENTERTAINMENT – WALTER GRAHAM, Comedy Magician. CHILDREN especially will enjoy this and what adult is not a child when it comes to a magician.

BRING YOUR FAMILY AND FRIENDS – GUESTS WELCOME



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: December 24th

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Omaha, Nebr.
15 November 70

The Nebraska Mars (Air Force) is again happy to hear of so many amateurs wanting to join their ranks. Now that the freeze has been lifted on membership, we again can take all applications from amateurs; novice through the highest category.

The AF Mars repeater at Beaver Crossing has been a very real addition to our Nebraska Mars program. With the repeater we are able to talk to stations in Grand Island, Columbus, Schuyler, and Pawnee City, just like next door. For amateurs who wish more information on the Mars program, they can contact Royal Enders, KØLYO, or Bob Andrus, KØLUG, or Bill Boechkenhaupt, WBØBMB.

As a matter of interest, there are thirty members in the District which comprises Cass, Sarpy, Douglas, Washington, Dodge and Burt Counties. A message coming into this area can be sent via the repeater on out into the central part of the state the same night that it is received. Out.

De AFAØLUG KØLUG
****

Nov. 3, 1970

Dear Editor:

Here is $2.00 to keep Ham Hum coming for a little longer. I still enjoy reading it.

I retired on July 2, 1970 from the Corps of Engineers, U. S. Army, and moved to Bozeman where we are doing a little cattle ranching for a retirement hobby.

I applied for and received my old 7 call back again.

Please change my address to Route 1, Box 153, Bozeman, Montana 59715.

73's to my old Omaha friends.

Larry Schumacher, W7OZH
(Ex-KØSJD & WA4SNS)
****

FOR SALE

1 – HQ140X Receiver with speaker. In good condition. $90.00

Contact John Coyle
Box 105
Mead, Nebraska 68041
****

NOMINATIONS FOR 1971

The annual meeting of the Ak-Sar-Ben Radio Club, Inc. will be held on December 11, 1970 at which time new officers will be elected for the ensuing year.

Articles of Incorporation and Bylaws provide for the election of a President, Vice President, and four members of the Executive Council each year. The President and Vice President are elected for a one-year term; the Executive Council members are elected for a two-year term. The outgoing President remains on the Board of Trustees as Immediate Past President for one additional year.

Remaining on the Board for 1971 are: Harold E. McClenahan, Jr., WAØDGA; Robert D. Andrus, KØ-LUG; Edward F. Askew, WAØRDZ; Dr. Stanley M. Bach, WAØIIX; and John D. Snyder, WØWRT.

These five together with the new officers and members of the Executive Council to be elected will comprise the Board of Trustees for 1971. The Board of Trustees will then elect a Secretary and a Treasurer from the Executive Council.

At the annual meeting the Nominating Committee will place in nomination the following members:

For President

James C. Droege, WØYCP

Age:	31
Address:	19 Indian Hills Road, Council Bluffs
Phone:	CB 322-6272
Wife:	Kathleen, WAØUXE
Children:	Patti, Mike, Lynn
Employment:	Engineer, KRCB (Part time Grace Bible Institute)
License:	15 Years (General)
Hobbies:	Ham radio, bowling, automobiles

For Vice President

Henry J. Dworak, WAØQLE

Age:	59
Address:	1409 Martha Street
Phone:	341-4823
Wife:	Mary
Children:	Rosemary, H. Joseph, John
Employment:	Self-employed (Accounting)
License:	4 Years (General)
Hobbies:	Ham radio, bowling, fishing

For Executive Council

Leo F. Connolly, KØJIU

Age:	40
Address:	200 South 1st Street, Council Bluffs
Phone:	CB 323-3550
Wife:	Patricia
Children:	Patrick (19), Brigid (17), Frances (15), Joseph (13), Maureen (11), Stephen (10), Ann Marie (8), Edward (7), Robert (4)
Employment:	Attorney
License:	15 Years (General)
Hobbies:	Ham radio, family camping and traveling, electronics, civic affairs

Raymond F. Kydney, WAØWOT

Age:	38
Address:	1315 South 27th Street
Phone:	341-9898
Wife:	Rosalie
Children:	Richard, Barbara, Tina, Robert, Grace
Employment:	Driver, Crouch Brothers
License:	1/1969 (Advanced)
Hobbies:	Ham radio

Russell A. Minks, WAØVEE

Age:	46
Address:	1010 Center Street
Phone:	346-3629
Wife:	Phyllis
Children:	Jon and Kay
Employment:	American Distributors, Inc.
License:	6/1968 (General)
Hobbies:	Ham radio, photography

Raymond E. Weghorst, KØCVA

Age:	24
Address:	7918 Oakwood Street, Ralston
Phone:	331-9126
Wife:	Madeline
Employment:	Graduate Student
License:	11 Years (General)
Hobbies:	Photography and ham radio

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(Editor's Note: In the interest of being able to publish these remarks in one issue of Ham Hum, it was necessary to shorten the talk.)

IS AMATEUR RADIO A DYING HOBBY?

By Andrew A. Andros, WØLTE

When I was asked to talk to your Club I thought surely you would want to hear about antennas but your Program Chairman said no, that you would really like to hear my thoughts about amateur radio as a hobby and how it looks to me. He reminded me that you all knew of the recent merger between Hy-Gain and Galaxy Electronics. In our discussions we developed the questions listed in the last issue of Ham Hum as those questions I might talk about tonight.

Perhaps you have guessed by my subject title, "Is Amateur Radio A Dying Hobby?" that I have an opinion about that subject and I want to make sure you know what I am going to say is in the right spirit. So I want to tell you that I got my amateur radio license in 1940 when I was about 14. Amateur radio has meant an awful lot to me because it really ended up being my business and besides that it was a wonderful hobby which I enjoyed every minute of all my life as a youngster and I still do today. I am not as active obviously as I used to be, but I sure have a lot of fun with amateur radio. I want it to exist as a hobby. I think it is one of the most wholesome and most fun things a person could do. And so I have been sort of fighting for it the last ten years because I don't want it to die out. But I need help, frankly, and I think those engaged in the amateur radio industry need help and I think amateurs when they understand the situation will give that help.

I recently called one of the staff members of the Federal Communications Commission so as to give you up to date information. In 1965 there were approximately 280,000 licensed amateurs in the United States. In April 1970, that figure had fallen to 265,979. Now remember that's in the face of a constant influx of some new people into the amateur radio ranks, or a net loss of some 15,000 amateurs. As of this last September the figure was down to 265,030. So you can see that in six months we lost another 900. We are losing more than 100 amateurs a month. It's a pretty tragic state of affairs!

We have been worried about this situation for some time. As a matter of fact, in 1966 (I just asked Leo what year it was and he thinks 1966), we went to visit the American Radio Relay League along with a number of other manufacturers as we felt amateur radio was in deep trouble. We called that meeting to try to review the problems of amateur radio and try to decide what could be done about it. At that meeting we formed what was called the Amateur Radio Manufacturers Association. This organization floundered around about a year or so and we found it almost impossible to put it together in any viable form so I suggested about a year later that we join the Electronic Industries Association. I felt if amateur radio had a voice within the professional ranks of the Electronic Industries Association where all the

professional people were like two-way radio, citizens band people, who by that time had formed a section, that under that umbrella we could speak up for amateur radio with the Federal Communications Commission from a business standpoint. We were not trying to replace ARRL which is a non-professional association of amateur radio operators. I am a member of ARRL and I recommend that every amateur be a member of ARRL. We have had a mighty rocky road ever since as a section of Electronic Industries Association because the manufacturers in amateur radio have been dropping out like flies. They have come to the conclusion that it is not the type of a market that could be profitable for their stockholders.

I try not to be too hard on ARRL but I have felt for a long time the staff of ARRL has sort of let the world go by on several important concepts. For example, in talking to FCC as a manufacturer I was told when bringing up the subject of amateur radio, "Look you only have 250,000 or so licensees; with our other branches of two-way, CATV, CB, etc., we have got more problems than to spend time thinking about amateurs." I don't think the individual amateur or the American Radio Relay League realizes the strength in numbers. CB, incidentally, has over a million licensees. So why come up with things like the incentive licensing plan which has a tendency to decrease the number of amateurs. And why devote such huge hunks of spectrum to CW operation which again limits the number of general class amateurs that can use these valuable bands, thereby holding down the numbers involved in active amateur radio. If we are going to have a voice in politics we have got to have the strength in numbers. This is apparently the biggest problem we have today with the FCC. The reasons we have been able to hold onto our bands this long, and you have heard them all, are not valid any mo(Amateur radio as a service today lo(pretty sick in the area of disaster, control, and that type of thing when compared to the CB radio amateurs, when compared to the police networks and all of the two-way radio that exists today professionally that has been organized for disaster purposes. So amateur radio cannot stand on the basis of a service during disaster or in time of war alone. I think it has got to stand on the basis of the number of people who are involved in it.

I have listened to the comments that upgrading our abilities as amateurs will make our service more valuable and that at these International conferences where the United States only has one vote as compared to the vote of each of the other countries, particularly in new countries, our upgrading of these amateurs will be impressive to other countries. I feel the opposite. If I were the president of a small African nation and looked in my briefcase to find how many radio amateurs there are in my country and find only three, I could care less how many Einsteins we have in this country or what frequencies we might desire. What we need to do is to assist his country in upgrading amateur radio as our strength lies in numbers worldwide as well as here, and addition have a good public relatio(program. We can't do that by reserving huge segments of our best DX bands for CW operators.

Believe me, I have nothing against

the CW operators. I love them. I think it's a real fun thing. CW operating to me is like horseback riding. It's a wonderful sport. My daughter loves it. When you pass your driver's test you are not required to remember the operation of a buggy whip. How correctly stupid! We don't say to a budding scientist that he must pass a great big examination before he can have a Gilbert chemistry set. We tell him to come on in and get his feet wet. Then when he developes more interest he can pass the test and get more privileges. I think electronics is one of the most important scientific fields in our world and I think it is important to our country that more people become interested in it. So I don't want to put up an artificial wall to young people who are interested in getting into amateur radio.

So along came Citizens Band. At first I thought we had lost some amateur radio spectrum. Then I gave it a second thought. We didn't lose a darn thing but maybe we opened up the gates to those people who are interested in radio communications to come on in easy and get their feet wet and learn about radio communications and those who are eligible could then graduate on up to amateur radio. They could get the novice and technician license and populate VHF bands and thus make use of spectrum we were not adequately using. In fact, we went into a whole line of VHF antennas anticipating this tremendous influx into amateur radio ranks, But instead, what happened. The ARRL decided the Citizen Band operators were taboo; there is something wrong with them. I think if QST had a section on CB as being a part of the radio hobby we could have helped these operators but no, we couldn't even mention it. Had we done this, instead of losing 150 a month we could have 500,000 amateurs today. Not only did the League think this way but I found the individual amateur radio operator thought the same way. I don't know why.

Many times I have been accused of saying these things from a selfish motive so I would like to cover that phase of it just a little bit. I had one fellow in Swampscott tell me, "Sure, you would like to see 500,000 amateurs so you could feather your nest. You are working for a profit making organization." That's true, I do work for a profit making organization within a capitalistic society and I am very proud of it. I don't happen to think profit is a dirty word at all. I think it is a clean word. I happen to think that capitalism has built the greatest society with the highest standard of living that man has ever known. I am not ashamed of the profit motive. As a matter of fact I think that's what makes the whole world go around – competition and profit. Amateur radio can't stand alone without profit making organizations being interested. I think that if there are several strong manufacturers in any kind of a hobby situation like amateur radio, that it helps that hobby. It brings to it new technology and it's important.

You may know that the amateur radio section of Electronic Industries Association has petitioned the Federal Communications Commission to have set up a new class of license in the upper end of 10 meters which we felt was unused. It was to be virtually a code free area. We were asking that only a knowledge of the code be

necessary because we found that in the international regulations only a knowledge of the code is necessary below two meters. FCC denied it, but I think this would be a real fine way to get young people interested in amateur radio. Now we are going to petition for another sub-novice band in the VHF spectrum for this same purpose and the Citizens Band section of EIA has filed for the upper two megacycles of two meters.

I imagine that some of you are a little apprehensive about it but I don't think you should be because I think if you can get the upper 2 megacycles occupied you would nail down the entire band and you could bring more people into amateur radio through that CB window. I think we should support it but I'm sure the ARRL will be against it. The feeling now is if Citizens Band section applies for it and if the EIA applies for a sub-novice band on another set of frequencies that maybe the FCC under the weight of those two applications will come around and compromise and come up with some sub-novice type of application and open up the ranks of amateur radio. I really hope so as it's very important.

So the first question I ask myself is, has CB hurt amateur radio? Well, it depends on the way you look at it. I don't really think it has hurt it as such. Amateur radio sort of hurt itself when it didn't recognize that CB was a huge reservoir of new blood coming into the amateur radio ranks. Our job now is to re-interest them and get them in.

Will we lose some of our band to CB? Well, we may lose certain segments of the VHF or HF bands to CB operators, but I'd rather not call that CB. I'd rather call that beginning amateur class because I really think that's what it is and we desperately need it.

Will we be able to retain our frequency allocations in the face of international and domestic pressure from the commercial interests? I think there is where our real problem is. The 2-way radio people are dying for spectrum space. They are taking it away from the television broadcasters. They are splitting channels, new technology, narrow band FM and all this kind of stuff. They need those frequencies desperately. And look what's happened to 40 meters. International broadcasters just get on there and broadcast anyway. The only way we can save them is to use them and get political strength within our ranks-people using these frequencies.

How does the present FCC staff view us as a hobby and a service? They just plain do not have time to even mess with us, and they have not thought through some of these things such as incentive licensing, CW-phone split, etc. They have been under the influence of ARRL so long they have not really seen the other side of the coin.

Is ARRL an effective and progressive organization for amateur radio? The ARRL can be a very effective organization. It certainly isn't progressive today and it certainly is not effective. It's archaic. They are operating in the past. They are impeding the growth of amateur radio. You, the individual amateurs, must understand this and must understand that we must vote for the kind of director who will make the ARRL a progressive society. The Stanford

survey some years ago brought out that the average age of hams was 41 years while the average age of the American male was 28. We must do whatever it takes to get young people into our ranks.

What is the amateur radio section of EIA? I have already covered that. Here again we have been criticized for our profit motive by ARRL and certain others. We are not altruistic, but we are sincere. Amateur radio is also important to us as a hobby. All of us in it started out that way.

Is there anything amateurs can do to promote the strength and growth of amateur radio? I think I have covered that in a sort of disorganized way tonight. There is a lot we can do once we understand what the problems are. Think of it – 200 million people and only a quarter of a million operators.

I happen to think that people have a real strong desire to communicate with one another. They want to talk to each other from remote locations as well as within earshot. I think they want to do it on a personal basis, just like they want to jump in their automobile and drive down to see Mrs. Jones in the next city or a friend in the next block. It seems rather strange to me that communications have developed entirely different than transportation. In case of transportation our government has spent billions and billions of dollars on highways and we developed a tremendous personal automobile industry and everyone owns a car and drives it individually. But over here on the communications side of things, we're all using common carriers. I think people want personal communications at remote distances. I think we we are going to see it come. I think we'll see the day on this planet where we'll all have our own wireless wrist radio and will be talking to each other all over the planet-satellite communications, repeater communications, and the like.

I think CB and amateur radio are a small nucleus which can grow into this monstrous personal communications network that is really going to develop and that is important in and by itself to hope that personal communications will grow. I think that our government can well afford to spend billions of dollars to see that that kind of personal communications has the same sort of highways available to it as transportation does.

* * * *

Even though space problems required shortening here and there, we have tried to give you the essence of Andy's comments. Too bad we could not reprint the questions and answers as they were also interesting. The turnout at the meeting was most heartening and will result, I am sure, in more meetings where we can engage in conversations about our hobby. We hope to arrange a similar meeting with someone from ARRL who can give us some of their thinking. I would hope as many would show up for this one when it materializes. This program was arranged as your Program Chairman believed it was time to encourage our members to think about our hobby and the changes that have come about or may come about.

Our special thanks to Andy Andros for coming to our meeting and for bringing us his thoughts.

Program Chairman

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SPECIAL NOTICE – CODE AND THEORY CLASSES

WHAT: CODE and THEORY CLASSES for upgrading your license or for helping others to become amateurs.

2 Code Classes to be conducted concurrently – slow code for those going for novice class and higher speed for those going for general class.

WHEN: 15 Sessions – beginning Monday, January 4, 1971; ending April 12, 1971.

TIME: 7:30 P.M.

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

NO FEE – NO PRIOR REGISTRATION REQUIRED – ALL WELCOME TO ATTEND, CLUB MEMBERS AND NON-MEMBERS.

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OPEN MIKE

On Thursday, August 13th at 1330 to 1343Z, ye ed happened to have a receiver tuned to about 7243 kHz SSB. All of a sudden a voice appeared on frequency. He was apparently talking to a visitor he just brought into his ham shack. The voice said "come on in, I'll show you around . . . " The conversation continued for several minutes between the two persons about this and that. Then, the owner of the station said "and over here is my rig . . . " After about 10 or 15 seconds – Hello testing 1-2-3-4. No ID was given. The voice sounded to be in it's late 50's or 60.

How is your VOX working OM? Why not switch it off while not in QSO?? It's not funny to hear someone sneeze, the telephone ring, a dog bark, a door slam, people fighting in the next room and such things in the middle of a net or FSBN program. OK? Thanks.

de Florida Skip

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REPEATER CONTRIBUTIONS

Since the Repeater went into operation, voluntary contributions to the fund total $234.50. Sincere thanks to the following for recent contributions: Tony Klein, WØQOU; Carroll Schurman, KØKQE; Harry Snyder, WØNVE; Pat Snyder, WAØTTW; Emil Dostal, WAØWFR; R. D. Burghard WØWR; Cecil DeWitt, WØRMB; Mike Wilczynski, WBØBMV; Dick Eilers, WØYZV.

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"SORRY I MISSED THAT – WILL YOU PLEASE REPEAT?"

Those words, or their equivalent are probably heard as often on the air as any other expression, especially when it comes to identifying by call letters; carelessness in sending or speaking is the most common cause.

Even painstakingly articulated (an extreme rarity on most voice transmissions these days), it is impossible to tell an S from an F, a B from D, or an M from an N, even when receiving conditions are prime. On CW even a correctly sent call can be loused up by the receiving operator who is inept or harrassed by poor receiving conditions of one kind or another, either atmospheric or mechanical.

Anyone can make a mistake in call letters, and we mean anyone! Yes, even you! On voice, when receiving conditions are marginal, all letters with the "E" sound in them can be mistaken for any of the others: B, C, D, E, G, P, T, V and Z. The letters A, J, H and K can sound alike; F and S are undistinguishable, as are M and N. In fact, when you stop to think about it, there are only five letters in the alphabet with distinctive sounds of their own: L, O, R, W and X.

The moral of this article is twofold: First, be careful how you identify yourself on the air. If your contact doesn't have your call right, be sure to correct him until he does get it. On voice, use phonetics! Second: Don't jump to hasty conclusions if you occasionally get a card that doesn't agree with your log. Chances are, no one is bootlegging your call; there is a much better chance that someone's sending or receiving was not so good, or maybe conditions were just plain poor and someone made the wrong assumption.

When you get no QSL card, or someone elses, could the foregoing be the reason?

de NARC News

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WANTED

Gentlemen: Wanted – good quality coaxial type mobile 2 meter (high band) antenna to use on my pickup camper. The Omaha Fire Department used to use this kind of antenna on their fire engines. Also, many have been used in mobile telephone service in vehicles where a center-roof antenna not feasible.

Call John Snyder, WØWRT
Phone: 556-1538 or 536-4461

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Marriage teaches you loyalty, forbearance, self-restraint, meekness and a lot of other qualities you wouldn't need if you'd stayed single.

de Ham Monitor

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OFFICIAL BULLETIN NR 296 FROM ARRL HEADQUARTERS NEWINGTON CONN NOVEMBER 5 1970 TO ALL RADIO AMATEURS BT

FCC regulations specify that transmitters used by Novices must be crystal controlled. Variable frequency crystal controlled oscillators, also known as VXOs, are not considered by FCC as meeting the requirement. Thus, Novices should avoid using these devices currently on the market AR

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SHINE THAT IMAGE

By Albin H. Fischer, K6NQ
Vice-President, Public Relations
Amateur Radio News Service

An old ham radio buddy that I had not seen for 12 years paid a visit. After the usual formalities, he took a look at the tower and beam at our QTH and casually asked, "Al, what kind of DX have you been working?" – and I replied by naming several Asian and African countries. "Oh, that's not DX. I mean the rare ones. Didn't you work that expedition on Podunk Rock?" he exclaimed.

Further inquiry brought forth the information that my old friend was now a DXer in capital letters – he was way up high on the DX list published by QST, and the fact that I had only 105 countries to my credit immediately reduced my stature considerably in his eyes - it was easily visible.

All this sent me to thinking. Why is India or Ceylon or South Africa not considered DX, but a rock sticking out of the ocean, that is otherwise used as a toilet for birds, considered DX? I looked up the meaning of DX and the printed definition of same in ARRL publications was the same as when I started hamming forty years ago. Further head scratching, listening and tuning resulted in some pretty definite thoughts on the matter.

The DX fraternity in amateur radio is composed of less than 5% of the licensed hams, but they are highly vocal, organized, usually have more coin of the realm than the average ham, good technicians, and, when they are aroused, one would think that they speak for the entire fraternity. What were they doing with their DX contacts – insofar as their definition of DX was concerned? They were simply feeding their egos.

Recently I attended a DX Convention and it was pitiful to see how the newcomers to the DX fraternity fawned on and groveled at the feet of the DX king, emulated him and parroted his advice and words – he was a god, but was he? Normally, the regional kind have more money than the others with fancy antennas, whose costs run into the thousands; the DX king usually violates FCC rules and regulations on power limits and purity of emission standards, and he did indeed love to bask in the reflected light of his own glory. In Southern California a DX king was put off the air for six months by the FCC for running in excess of twenty thousand watts.

OK – it is normal and pretty average to feed one's ego – we all do it to a greater or lesser degree, but how can some of this talent represented by the DX fraternity be put to use for the good of all amateur radio? And without destroying their ego building? First, we must concede that one of the prime purposes of international contacts between amateurs should be to build international goodwill, and this cannot be done by the exchange of a number. OK, you DXer, continue to swap your numbers and climb up the ladder, but how about chatting with the amateur in France or Norway for half an hour – getting to know him and he getting to know you? How about making five or ten phone patches each week from some lonely GI outpost in the world? Sure, you can do it, you DXer. You have the finest equipment, antennas, you have

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the operational know-how, and besides, those rare expeditions don't come every day. What you accomplish is to build international goodwill through opinions and conversations in depth with foreign amateurs, you also bring a warm wonderful feeling to an American family and to some lonely GI by means of your phone patch – a feeling that will never be forgotten.

From a technical standpoint, the serious DXer is already proficient, for most have the advanced license and some the extra class. You are highly organized, you speak well and with a big voice – how about putting it to good use for just a few hours a week? In behalf of amateur radio's public image, keep it shiny, for every effort on your part constitutes good public relations and we must have that to survive.

de Amateur Radio News
Service Bulletin

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OFFICIAL BULLETIN NR 295 FROM ARRL HEADQUARTERS NEWINGTON CONN OCTOBER 29 1970 TO ALL RADIO AMATEURS BT

The ARRL code proficiency program continues to interest hams and prospective hams worldwide. Each month W1AW and W6OWP transmit qualifying runs at speeds from 10 to 35 wpm. One minute of solid copy is sufficient to qualify for the basic award or an endorsement. W6OWP will transmit a qualifying run on 3590 and 7129 kiloHertz at 0500 GMT November 5. Remember if converting to your local time that this represents 2100 PST November 4. W1AW will transmit a qualifying run on 1.805 3.52 7.02 14.02 21.02 28.02 50.02 and 145.6 MegaHertz at 0230 GMT November 18. In converting, this takes place at 2130 EST November 17. Send your copy with your full name and address to ARRL, 225 Main Street, Newington, Connecticut 06111 AR

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FOR EXAMPLE

The teacher was trying to make the pupils think, so she asked some tricky questions. "Johnny, give me an example of 'nothing'."

Johnny did not hesitate: "Nothing is a balloon with its skin off."

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OFFICIAL BULLETIN NR 298 FROM ARRL HEADQUARTERS PERTAINS TO ELECTIONS. The Midwest Division is not involved. Should you desire a copy of this bulletin, please request it.

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OFFICIAL BULLETIN NR 299 FROM ARRL HEADQUARTERS NEWINGTON CONN NOVEMBER 27 1970 TO ALL RADIO AMATEURS BT

Attention DXCC Honor Roll members. Due to changes in the months for publishing of the DXCC Honor Roll, submissions for Honor Roll credits will now be accepted during the months of December and June. The Honor Roll will appear in the March and September issues of QST. This is effective as of December 1, 1970. Further information appears on page 109 of the December issue AR

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NEW MEMBERS ADDITIONS TO ROSTER

Raymond E. Abbitt, WBØCUT
9514 "N" Avenue Plaza–Apt. 5
Omaha, Nebraska 68107
Phone: 339-1833

Stanley Wayne Blanchard, WBØBTL
3419 Dewey Avenue
Omaha, Nebraska 68105

Rick Brown, WAØZQX
3821 North 65th Avenue
Omaha, Nebraska 68104
Phone: 553-3405

Alvin (Al) Comisar, WAØSTK
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Phone: 451-8793

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Phone: CB 322-6419

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Omaha, Nebraska 68111
Phone: 453-1149

William C. Terwilliger, WAØFPB
3252 Farnam Street
Omaha, Nebraska 68131
Phone: 341-4634

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OFFICIAL BULLETIN NR 297 FROM ARRL HEADQUARTERS NEWINGTON CONN NOVEMBER 12 1970 TO ALL RADIO AMATEURS BT

The next ARRL Simulated Emergency Test will take place January 30 and 31, 1971. This serious operating exercise tests both emergency preparedness on a community to community basis as well as long haul traffic facilities. There is a part for every amateur in the SET. Help do your share to justify the amateur service in terms of public interest, convenience and necessity. Plan to participate by coordinating with your local officials. Further information can be obtained from your Section Communications Manager, address page 6 QST. SET rules will appear in the December issue of QST AR

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FOR SALE

HQ-170A Receiver
Ameco CN-50 Converter 28-30 Mhz IF
Hallicrafters HA 5 VFO 80-6m
Gonset 6 & 2m VFO (8 Mhz out)
Heath 6er (questionable cond.)

John Cardos, W4HJV/Ø
7108 South 86th St.,
Apt. 317
Omaha, Nebraska 68128
Phone: 339-0744

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Middle age is that time in your life when your stomach goes out on a career of its own.

de Ham Monitor

****

THE WESTERN TRANSISTORIZED NOISE BLANKER

W2AXU, Jack Power

The VHF-UHF operator is annoyed by all sorts of radio frequency interference (RFI) generated by the public utilities electrical installations or power distribution circuits, electrical appliances, automobile ignition systems, snow and rain static, lightning discharges, radars, etc. These items generate noise pulse of high amplitude and short duration with a fast rise time. The noise pulses contain many harmonies and have a very wide bandwith. When these noise pulses are fed through a highly selective tuned circuit such as the IF tuned circuits and, in particular, mechanical or crystal filters, only a certain portion of the original frequencies will come through. This has an effect of stretching these pulses or making a low amplitude and a long duration pulse out of what was originally a high amplitude and short duration pulse. The audio noise clipper is useless unless under these conditions and, in particular, when the receiver is used for SSB or CW reception. To make matters worse, modern receivers have a fast attack – slow recovery AGC system. The AGC will hang-up on the amplified noise pulse – which is now stretched 1000 times or more – causing the gain of the receiver to be reduced. This gain loss will cause even moderate signals to be lost in the noise.

There is only one way to beat this problem. Some modern, expensive receivers incorporate a noise blanker in the receiver following the first mixer. One well-known moderate priced receiver includes a noise blanker. Basically, these blankers amplify and rectify these noise pulses and the resulting negative going d.c. pulses are used to cut off the IF amplifier stage for the duration of the pulse. Thus, for the duration of the pulse the receiver is turned off or blanked.

A blanker which will very effectively blank noise before it reaches your receiver IF is sold by the Westcom Engineering Company. The Westcom Blanker, when connected between your VHF converter output and your receiver input provides a very effective method of noise suppression of the converter output. Removing these noise pulses at this point in the system eliminates the problems discussed above and improves the signal-to-noise ratio of the system.

This blanker is basically a high gain IF amplifier. Typical gain is in the order of 70 to 85 db. This amplified voltage is applied to a pair of fast switching diodes which clip the positive and negative noise pulses but do not effect the signal. The output of the blanker is very loosely coupled to the receiver input and is adjusted so that there is equal gain or a very slight loss in gain to the receiver input. Very explicit directions are given by the manufacturer for this adjustment. To achieve the high gain of the blanker, two stages of cascaded FET transistors are used.

The blanker comes in a choice of 40, 20 and 10 meter IF ranges. Other ranges are available. Several operating voltages are available. The ranges are 12-18V, 100-140V, or 125-170V, all negative ground, drowning a maximum of 15 ma. BNC or RCA type phone connectors are available. The input

and output impedance is 50 ohms.

One small disadvantage exists when using a blanker of this type. Since it is a broadband device as is the converter, strong signals in the passband, local or otherwise, that appear on the "S" meter as 30 over S9 signals (as they do on my 75A-4) will drive the diodes into conduction and cause blanking action – cross modulation or complete desensitization of the receiver. The trade-off for this inconvenience is high when one wants maximum suppression of noise when listening for weak signals.

The units are available from Westcom Engineering Company, P. O. Box 1504, San Diego, California 92112 for $29.95 postpaid plus 80¢ for air mail. Specify connector type, voltage and IF range. For those who have the Swan 250-250C transceivers a unit is available for $32.95.

I consider this blanker a good buy in spite of the one shortcoming and I have one for each of the two IF frequencies I use with my converters. Drop Westcom a line and get their literature.

W2AXU, John B. Power
de Pack Rats, Phila., Pa.

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FOR SALE

Heathkit Single Sideband Transmitter HX-20 (80, 40, 20, 10 mtrs), 90 w. PEP; HR20 Receiver; HP-23 AC Power Supply; AK-7 Speaker; table mike; key; and instruction manuals. Like new. All for $200.00. Call 291-4475 after 6:00 p.m.

Robert E. Proctor
Lt. Colonel, USAF

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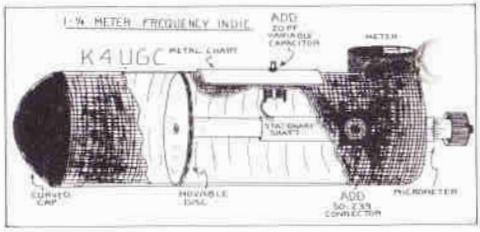
A 1¼ METER FREQ. METER

Dick Frederick, K4UGC
(de Florida Skip)



A navy surplus cavity frequency meter (type CWS-60028) does not cover the amateur bands, but can be modified to resonate in the 220 MC to 225 MC amateur band.

Remove the metal dial chart, drill a ¼-inch hole in the center where the chart was. Open the cavity, curved cap, then remove the movable disc. Connect a variable capacitor to the shield of the cavity. The stationary portion of the capacitor connect to the stationary portion of the cavity center post. A 20pf (or 2.9 – 19.6, Allied stock No. 43-A3761) will do.

Reinstall the movable disc and curved cap. Check to see that the open variable capacitor does not touch the movable disc. Install "N" fitting (or SO239 type fitting), check with known frequency and set the variable capacitor for the wanted range. Use a micrometer to read frequency and make a new dial frequency chart. Bring RF energy to the frequency meter gradually, as the indicator in the cavity is very sensitive.

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You're only young once, but if you work it right, once is enough.

de Ham Monitor

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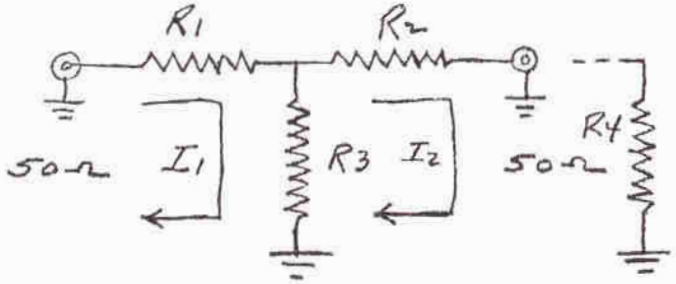
POWER DIVIDERS OR ATTENUATORS

"T" ATTENUATOR



ATTEN. IN D.B.	RESISTOR VALUES - OHMS R1 - R2	R3
3.0	8.55	141.9
6.0	16.61	66.9
10.0	25.97	35.14
14.0	33.37	20.78
20.0	40.91	10.1

USE NEAREST VALUE

Power Rating of R_1, R_2 and R_3 can be made up by seriesing and paralleling resistors to make the resistor value and power rating. From Exam., R_1 = 52W, R_2 = 5W, R_3 = 33W. For SSB service 50% of these ratings is satisfactory.

EXAMPLE —

R_1 = 25W = 26Ω

2 - 75Ω 2W IN SERIES

5 OF ABOVE IN PARALLEL

PLUS 2 - 100Ω 2W IN SERIES

THEN IN PARALLEL WITH ABOVE

75Ω 75Ω = 150Ω

5 PARALLELED = 30Ω

100Ω 100Ω = 200Ω

200 Ω PARALLELED WITH 30 Ω = 26.2 Ω

SAME PROCEDURE FOR R_2 & R_3

POWER RATING OF RESISTORS

Assume 100 watt from exciter linear requires 10 watts. Attenuation required – 10 DB ratio 10:1.

$$P = EI \text{ OR } P = \frac{E^2}{R} \text{ OR } P = I^2R$$

POWER RATING OF R_2 – DETERMINE I_2 – KNOWING R_4 = 50 Ω & PWR RATING = 10 WATTS. THEN

$$I_2 = \sqrt{\frac{P}{R}} = \sqrt{\frac{10}{50}} = .447 \text{ AMPS.}$$

$$\therefore P_{R_2} = (I_2)^2 \times R_2 = .447^2 \times 26 = 5.2 \text{ W}$$

POWER RATING OF R_3 – DETERMINE VOLTAGE DROP ACROSS R_3

$$E = I_2 \times (R_2 + R_4 = .447 \times 76 = 33.97 \text{ V.}$$

$$I_{R_3} = \frac{E_{R_3}}{R_{R_3}} = \frac{33.97}{35} = .971 \text{ AMPS}$$

$$\therefore P_{R_3} = (.971)^2 \times 35 = 33.01 \text{ WATTS.}$$

POWER RATING OF R_1 –

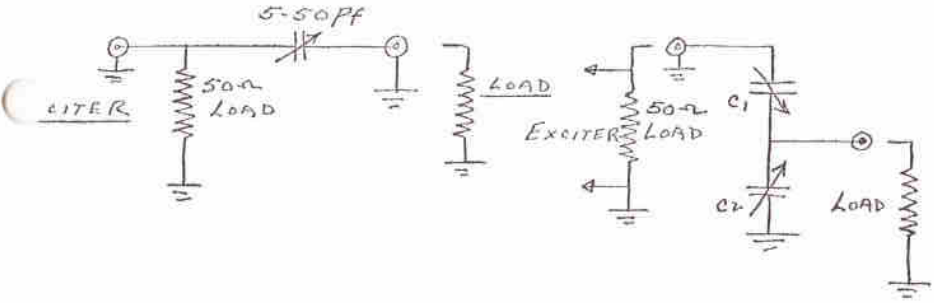
$$I_1 + I_2 = .447 + .971 = 1.418 \text{ AMP.}$$

$$\therefore P_{R_1} = (1.418)^2 \times 26 = 52.28 \text{ W}$$

RESISTORS SHOULD DISSIPATE 90 WATTS – 100W – 10W – ADD POWER RATING R_1, R_2 & R_3.

$$52.28 \text{ W} + 5.2 + 33.01 = 90.49 \text{ W}$$

These attenuators can be enclosed in a mini-box of suitable size. Allow ventilation.

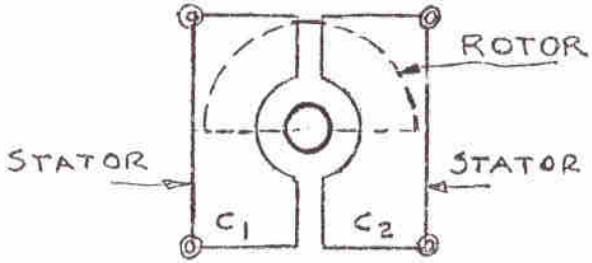


This type attenuator is suitable for high power and low power. The power from the exciter will determine the 50Ω load power rating. For powers of 10–20 watts, the load can be made of paralleled 2 watt resistors heat sinked. For higher powers, a Heathkit Cantenna would be suitable.

The reactance of the capacitor value will determine the RF voltage applied to the load. This will vary with frequency – one value for 50 MHz and a lesser value for 144 MHz etc.

The capacitor voltage rating will depend upon the power to be delivered. In most cases, a ceramic trimmer will suffice. Air spaced variables will handle voltages up to several thousands of volts, but remember its peak volts.

The above is a Capacitive Divider. The capacitor used is a differential capacitor – one having two stators and a common rotor. Thus: –



The RF voltage division depends upon the reactance of each section of the capacitor. The value of the capacitance for RF voltage division depends upon the frequency. The attenuator being variable, the RF voltage to the load can be adjusted to any value. A large value at C_1 and a small value at C_2, gives a larger voltage at the load.

John B. Power, W2AXU
de Pack Rats Cheese Bits
Phila., Pa.

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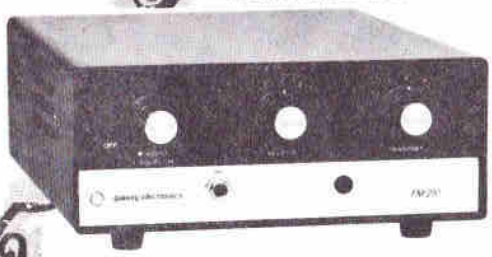
FANTASTIC CHRISTMAS SPECIAL On galaxy FM 210

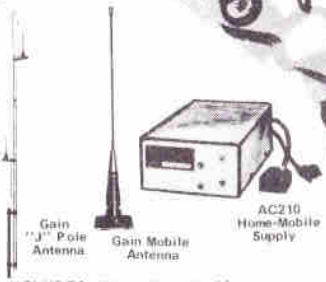
2 Meter Transceiver

Join In The Fun On 2 Meters

If You Buy In DECEMBER You Can SAVE UP TO $97.00*

ORDER PACKAGE XY210





Gain "J" Pole Antenna

Gain Mobile Antenna

AC210 Home-Mobile Supply

SPECIAL **DECEMBER** CHRISTMAS **PACKAGE** INCLUDES: The Galaxy FM210 2 Meter Transceiver; 2 Element Gain "J" Pole Home Antenna; Hy-Gain 764 Gain 2 Meter Mobile Antenna; AC210 Power Pack For Home & Car–A $346.95 VALUE!

DECEMBER PRICE — SAVE $77.00 Charge OK — **$269.95**

NO TRADE-INS

***DECEMBER PRICE** — SAVE $97.00 Full Cash With Order — **$249.95**

SPECIFICATIONS

FM210: (General) Covers 143-149 mHz. Size-HWD- 3.25 x8.25x10". Antenna nominal impedance 50 Ohms. Operates direct from 12/14 VDC or from AC210 adaptor. Trans/Rec crystals for 146.94 mHz incl. (Receiver) Sensitivity SINAD 1/2 uv for 12 DB; adjustable squelch; wideband FM acceptance; FET front-end; dual conversion 10.7 & .455 mHz; 3 channel selection; 3 watts audio to internal speaker. (Transmitter) 5 watts input from 12VDC (10 watts with AC210); 3 channel positions; adjustable deviation with optimum clipper filter emphasis network.

AC210: A dual power supply for home or car, and when used it doubles the transmitter input to 10 watts. Operates from 117VAC or 12/14 VDC. Complete with AC cable and plug for DC connection. Delivers 24/12VDC to unit.

WORLD RADIO

3415 WEST BROADWAY • COUNCIL BLUFFS, IOWA 51501

PHONE: COUNCIL BLUFFS: (712) 328-1851 OMAHA: (402) 342-4720 HH-12a