THE EASTERN IOWA DX'ER

WINTER 1989

CLUB NEWSLETTER OF THE EASTERN IOWA DX ASSOCIATION

Club Officers

President: NUOP Steve White

Vice-Pres: WBBZRL Tom Vavra

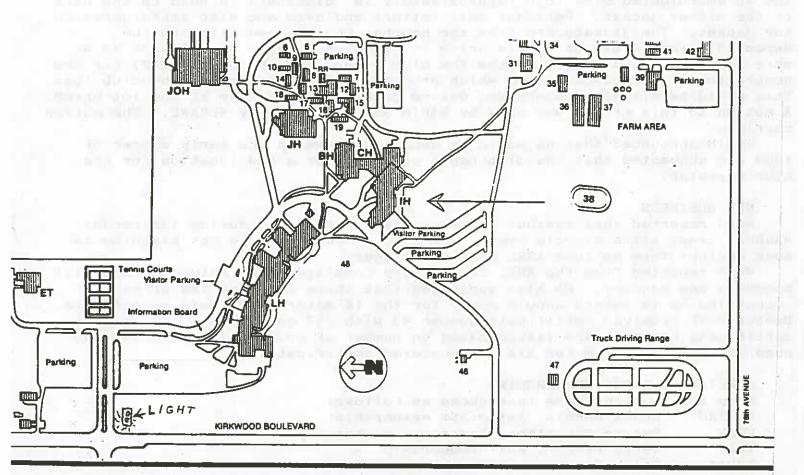
Sec/Treas: NEOD Tom Hise

Awards/Contest: MBWP Ton Lindgren

Newsletter Asst: WANIM Bob Hill

The Eastern Iowa DX Assoctiation's Winter meeting will be held Friday the 27th of January at 7:00 pm at the Kirkwood Community College campus. The meeting will be in Iowa Hall (IH on the map), the 3rd floor in the Amana Room. The doors will open at 6:30 pm. Note that this is one-half hour earlier that normal. Following the business meeting, we will QSY to a local pizza establishment to exchange tall tales and proclaim that DX 15!!!

For the unfamilar, Kirkwood is located South of Cedar Rapids about 1 mile east of I-380. From the north, exit I-380 at highway 30 and go east to Kirkwood Blvd. Note that you never really get on highway 30, but rather exit directly to Kirkwood Blvd. Go South to the stoplights. From the south of Cedar Rapids, exit I-380 at the Airport exit (note that this is also the exit to the Famous City of ELY). Proceed east to stop sign. Turn North (left) and go to the stoplight. For both approaches, now turn East and enter the campus. Refer to the map to find Iowa Hall (IH).



MINUTES OF THE 21 OCTOBER, 1988 EIDXA MEETING

The meeting was called to order an 7:40 PM by the president (KJ0H). There were 32 members and four guests present.

After all present introduced themselves, the president presented Larry Newby, WBØB, his membership certificate. He then thanked the officers serving with him for their dedication and also expressed the clubs appreciation to Bob, W4NIM, for his work in printing of the newsletters over the year.

A request for approval of the prior meetings minutes as published was made. The motion was made by WØIZ and seconded by W4NIM. The motion was carried by a vote of those present. It was moved by NCØO and sceonded by WØIZ the the Treasurers report be accepted as published. This motion was also carried.

Contest Chairman NUØP announced the club winners of the CQWW to be WØWP for CW and WØPPF for SSB. Steve briefly stated that next year he intended to develop some method of handicapping to stimulate more contest participation by club members. W4NIM reported that the video program is currently at a standstill but is not a defunct project. The video program is to be geared to promote Ham radio and encourage younger people to get into our hobby.

NCSO reported that the Sunday evening net is working well and generally has about 18-12 checkins. It is usually the same group of members who consistently report in to the net. More participation from the remainder of the club is solicited.

OLD BUSINESS

Club Jackets

The president, John, was wearing an example of the club jacket. It has the an embroidered club logo (approximately 18" diameter) in read on the back of the silver jacket. Personal call letters and name are also embroidered on the jacket. The jackets are from the Melcher Co. of lowa City and the expected price is \$48.58. This price is based on a order quantity of 48 or more jackets. John suggested the the club underwrite the cost (\$258) for the generation of the punched tape which programs the embroidery of the club logo. This would permit all members who desire jackets to buy them at the lot price. A motion to this effect was made by W4NIM and seconeded by WD8AWL. The motion carried.

W4NIM announced that he would be departing lowa in the early summer of 1989 and suggested that the club begin planning for a new location for the club repeater.

NEW BUSINESS

WØEJ reported that amateur operators gave assistance during the recent RAGBRAI cross state bicycle event. He also announced he is not planning to seek another term as Iowa ARRL Section Manager.

WØSR reported from the ARRL DX Advisory Committee that Rotuma Island will become a new country. He also suggested that those who have 100 or more countries on 10 meters should apply for the 10 meter DXCC award certificate. Member WØWP received certificate number 43 with 253 countries. The initial certificate numbers were issued based on number of countries worked, so our congratulations to Tom for his low numbered certificate.

APPLICATIONS FOR MEMBERSHIP

Five applications were introduced as follows:

WBBZKG Chuck Dennis, Associate membership

WEØU George Gruenther, Associate membership

WKEI Terry Parker, Full membership

KØVAA Ralph Gearhart, Associate membership

KDØRT Brad Farrell, Full Membership

MINUTES OF THE 21 OCTOBER, 1988 EIDXA MEETING (Continued)

A motion to accept the five applicants was made by WDØAWL and seconded by WØIZ. The motion carried and all applicants were elected to the club roster. WØSR voiced the opinion that we should defer voting on applicants who have not attended more than one meeting. The issue was acknowledged that this was a first time precedent but was not prohibited by the current by-laws.

ELECTION OF OFFICERS
The election of new officers was conducted with the following results:
President NUBP, Steve White
Vice President WB8ZRL, Tom Vavra
Secretary/Treasurer NCBO, Tom Hise

WØSR moved that the Constitution and By-laws be reviewed. The motion was not acted upon but the new president appointed a review committee consisting of the following: WØSR, WØIZ, WØMJN, NUØP and WØEJ.

The motion to adjourn was made by NGØW at 9:50 PM.

Submitted by outgoing Secretary, J. Muckler NBØH

TREASURERS REPORT
As of January 2, 1989

GENERAL FUND

Balance Forward

\$442.28

	INCOME	
KØVZR Re-up QST Coffee Fund	2.00	
Oct Mtg	17.16	
89 Dues Collected	210.00	eredak us
Dividend 10-31	2.51	
Dividend 11-30	2.30	
Income Subtotal	233.97	233.97
Dividend 10-31 Dividend 11-30	2.51 2.3Ø	233.97

EXPENSES

Jacket Logo tool cost	
(To KJØH)	\$250.00
Refreshments Oct Mtg	16.77
Expense Subtotal	\$266.77 -266.77
	GIDL OF 85
Current Balance	\$419.48

REPEATER FUND

Balance Forward \$161.00
No change

Current Balance \$161.00

Discussion items for Jan 89 meeting

Old Business:
Club Jackets
Slide Program
Bylaw Review

New Business
Baseball Caps
Net Controllers
Field Day participation
Packet DX spotting nets
DXpedition
ARRL officials reports
Callbook auction*
EIDXA Repeater

*At least one set of 1988
Callbooks will be auctioned
with proceeds going to the
club treasury. Any others
will be appreciated.

The 1989 EIDXA officers have been installed for just over 2 months and have been busy trying to figure out how they got elected, better yet, why they got elected. It seems there are some covert activities prior to the election meeting which seem to control the outcome. Never-the-less, we have met several times to discuss our two major responsibilites for the Specifically, get the repeater moved to a new location before W4NIM goes on his round the world DXPEDITION, and what should we be doing to make DXing and contesting more fun for the members of the EIDXA.

The EIDXA repeater has served us well over the years. Its been there with us through the low in the cycle, when the contests were going, when I needed to find some one to help put up towers, and when I was driving home from work. We would miss it if it was gone or didn't provide the coverage that it now does. Since we are going to be moving the repeater transmitter it's a good time to think about what improvements, if any, we might like to make. Over the years we have talked about improving the repeaters coverage, but for one reason or another, we never seemed to do anything about it. This is a good time to think about that. We may be able to make some improvements because of a new location or better equipment or better antennas. This move probably isn't going to come for free and we only have \$161.00 in the repeater fund. The last time we needed a new P.A. we just passed the hat and raised what we needed. It was a good approach then and perhaps it is now as well. No estimates as to the cost of the move have been made yet, but we should plan on a donation during the April meeting. The EIDXA has close to 50 members and a \$10-15 donation from each member would raise a significant amount of money which could be used to increase the performace of the repeater. Think about any improvements which you think would be worth while and we will discuss them at the upcoming meeting.

The Executive Committe has also been thinking about what activities would make DXing and Contesting more enjoyable for the club members. One of the things that I have often thought about was going on some sort of simple DXPEDITION. Not one that involves lots of money and years of planning and lousy weather but something where I could combine some good radio activity with some nice surroundings. I would like to see the club investigate the costs and possible location for some sort of reasonable high qso rate contest I'm sure that if the money location. was right we could find some interested people to go along. always fun to work our club members in remote locations. This is something I want to look into and report on in the comming year.

Several time's we have had little informal get-to-gethers ouside the regular meeting schedule, and they have been enjoyed by all those who have attended, so this year I am scheduling one for March 10th 7:30 pm right after the ARRL DX contests are over and for a lack of a better place why don't we meet at Nasso's in We can have some pizza and Marion. beer and discuss/cuss contest So that everyone can plan results. on attending our meetings I have also scheduled the spring meeting for April 21 back at the REA building location in Marion.

KJØH is still working on our club slide show and still needs inputs from many of the members. Please bring along slides of your station to the club meeting. Remember, pictures of rigs and antennas are ho-hum without an operator, and remember to smile. Be sure to write your call on the slides so John knows who they belong to, and a few words explaining the pictures would be helpful. KJØH, WØWP, NCØO, KØRW, and KØVZR have volunteered to take the pictures if you need a hand.

That's it for now, see you at the meeting.

Call Status d Name KUBA FULL Y Nelson Moyer 2B Ealing Dr. Iowa City, Ia 52246 319-351-8775 home 319-335-4580 work FULL N Al Culbert 618 First Ave. Charles City, la 50616 515-228-1443 home 515-257-2245 work WDBAWL FULL Y Terry Cellman 703 Linow St. Ainsworth, Ia 52201 319-657-3601 home 319-648-2891 work WBBB ASS. Y Larry J. Newby P.O. Box 185 West Burlington, Ia 52655 319-752-8700 home 319-754-4692 work WBBX FULL Y Lee L. McKee 1820 BrIarwood Lane Muscatine, la 52761 319-263-8398 home FULL Y Jim Bohnsack 1169 Rainbow Dr. Waterloo, Ia 50701 319-233-7189 home KZØ£ WOEJ FULL Y Wade Walstrom 7431 Macon Drive NE Cedar Rapids, Ia 52481 319-393-8982 home 319-395-xxxx work 124-311 as KOGT FULL Y Gary Toomsen 2730 Tower Dr. Cedar Rapids, la 52401 319-395-9329 home 137-122 ms KOGVB FULL Y Gary Ernst RR 2 West Branch, Ia 52358 319-643-2207 home KFOH FULL Y Jim Harvey 819 N. Main St. Goldfield, Ia 50542 515-825-3323 home KJBH FULL Y John Schwandke 1108 E. Main Washington, Ia 52353 319-653-3606 home NBBH FULL Y Jack Muckler 2084 Eastern Blvd. SE Cedar Rapids, Ia 52403 319-362-3462 home NBHNJ ASS. N David Corio 38 Leisure Blvd. NE Cedar Rapids, Ia 52482 319-395-7973 home 319-395-8462 work WKBI FULL Y Terry Parker 535 Sierrra Dr Burlington, IA 52601 319-753-1557 home 319-753-8591 work KOIIR FULL Y Clark Pantel 1610 Hershey Ave. Muscatine, la 52761 319-263-9150 home 319-263-6141 work KOINR FULL Y Tom Taylor RR 1 Shell Rock, Ia 50670 319-805-4400 home 319-236-1500 work WOIZ FULL Y Dale Repp 1618 Texas Ave. NE Cedar Rapids, la 52482 319-393-6724 home K0JGH FULL Y Glen Kesselring RR #7 Box 160 Ottumma, Ia 52501 515-934-5320 home NNBL FULL N Ron Borkgren 1186 East 2nd St. Anamosa, Ia 52285 319-462-4113 home ABOM FULL Y Vern Lang 118 E. 2nd St. Muscatine, la 52761 319-263-2697 home ASS. Y Tom Gordon 6984 Brentwood Dr. NE Cedar Rapids, Ia 52482 319-373-8757 home 319-851-7219 work WEBM WBMJN FULL Y Joe Finkstein 2218 Empire St. Marion, Ia 52382 319-377-6573 home 319-395-2294 work 186-124 ms FULL Y Orville Duecker 226 Southcrest Waterloo, Ia 50702 319-296-2390 home 319-233-3569 work WOND FULL N Jim Livengood R.R. 1, Ferre's Lane Burlington, Im 52681 319-752-9310 home 319-752-2701 work W4NIM FULL Y Bob Hill 2510 White Eagle Trail SE Cedar Rapids, Ia 52403 319-366-3975 home 319-393-5115 work NCGO FULL Y Tom Hise PD Box 104 Shellsburg, Ia 52332 319-436-7786 home 319-395-XXXX work 153-264 ms NUOP FULL Y Steve White 5828 Sanden Rd. NE Cedar Rapids, la 52481 319-393-4547 home 319-395-4641 work 124-313 ms WOPLS ASS. N Fred Young 5806 Timber Creek Rd. Cedar Rapids, Ia 52401 319-393-8429 home 137-124 ms WMPPF FULL Y George Carsner 411 Terrace Rd. Iowa City, Ia 52240 319-338-1601 home 319-351-5033 work KC00 FULL Y Jeff Russell 2125 Linmar Dr. NE Cedar Rapids, Ia 52402 319-363-4139 home 319-395-4664 work 124-211 ms KKOR FULL Y Bob Tillman 1257 Deloris Dr. Waterloo, Ja 50791 319-232-8223 home 515-858-3971 work NARR FULL Y Roger Hoffman 17215 Timber Drive Sterling, Il 61881 B15-625-6647 home KDBRI FULL Y Brad Farrell 1401 Greenwood Dr Ottumma, IA 52501 515-684-7768 home 515-682-4535 work KORN FULL Y John Lenahan 923 N. 9th St. Burlington, Ia 52681 319-753-6883 home 319-752-2731 work NOSM FULL Y Steve Miller Route 6 Box 180 Ottumwa, Ia 52501 515-684-4753 home WOSHL FULL Y Doug Byal 4431 Deer View Rd, NE Cedar Rapids, Ia 52402 319-393-2974 home WBSR FULL Y Jim Spencer 3712 Tanager Dr. NE Cedar Rapids, Ia 52402 319-393-7353 home 319-395-2305 work 124-115 ms KBBSY FULL Y Rick Cordie 515 20th St. SE Mason City, Ia 58401 515-424-8493 home WEBU ASS. Y Beorge Gruenther 1106 S. Leebrick Burlington, IA 52601 319-753-1463 home 319-753-6253 work FULL Y John Welson 3109 Terry Dr. SE Cedar Rapids, Ia 52403 319-365-4432 home NYBV FULL N Tom Vinson 18211 Hall Road NE Cedar Rapids, Ia 52401 319-393-8007 home 319-395-xxxx work 120-105 ms KABVAA ASS. Y Ralph Bearhart 5040 Broadview Dr SE Cedar Rapids, IA 52403 319-366-0158 home 319-365-9461 work ASS. Y Al Groff 1446 Council St. NE Cedar Rapids. Ia 52482 319-393-8134 home 319-395-4666 work 124-211 ms WBVX FULL N Dave Jaksa 626 Torrey Pines in Garaland, Tx 75044 home K0VZR FULL Y Tom White RR#2 Jesup, Ia 50648 319-827-6738 home 319-334-7166 work NGOW FULL Y Keith Erickson 1810 Hillside Dr. NW Cedar Rapids. Ia 52405 319-396-8510 home 319-398-3551 work NXBW ASS. Y Dan Veerhusen 1601 48th St. NE Cedar Rapids, la 52402 319-393-6726 home 319-395-487 work 4 MONP FULL Y Tom Lindgren 1268 13th Ave. Marion. Ia 52302 319-377-4279 home 319-395-1953 work 107-110 ms KEBY FULL Y Tom Kramer 905 LeRoy Muscatine, Ia 52761 319-264-3259 home

A687 FULL N Bill Delaney 2818 Garden Ave. Cedar Falls, Ia 50613 319-277-5150 home 319-236-8856 work

WBB7K6 ASS. Y Chuck Dennis 400 E. Vine Toledo, IA 52342 515-484-4837 home

WBBZRL FULL Y Tom Vavra 682 Palisades Access Rd. Ely, Ia 52227 319-848-7604 home

KF9Z FULL Y Jan Clute 32B College Blvd. Mount Vernon, Ia 52314 319-895-6635 home 319-927-2143 work

With the tinsel and ornaments being packed away for another year and the cold winter setting in for at least two solid months there seems to be more precious time available for tuning the ham bands and uping the DXCC totals. It can also be a time to fine tune your station and operating skills for the upcoming ARRL DX contests. 1989 looks to be a banner year for DXing and maybe a record setting one for radio contests.

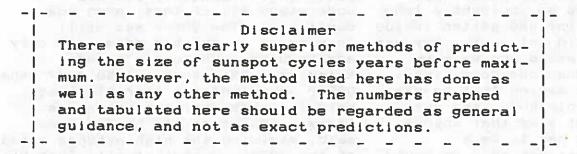
It seems that almost all the chirpy transmitters and wooden receivers have found their way to the antique archives and almost all the DX signals are clean and steady. Even the USSR stations seem to be calling stations on frequency. Apparently the crystal lattice filters and pass-band tuning designs made "Radio Sporting Magazine" in Moscow these last couple years. What does this mean? Does it effect contesting and Dxing? Certainly! Have you every tried to work QRP and call UQIGWW who is running his standard 200 Russian watts putting your stingy S-meter 20 decibles over the 9 mark and have him call CQ again. Or how about the UI8 station that slides through the passband of your 500 HZ filter as your running Asian stations over the pole on twenty. You just can't get his last two letters of his call cuz that darn WI station covers him up as he slides through the WI's tommygun CQing. It means more QSOs, more points, less headaches and more FUN!

Being the the new Contesting Chairman I've been racking my noggin' trying to figure out a way to spur more activity and to significantly increase our point total and inevitably elevate our national club ranking in the ARRL club standings. Our totals were above respectable last year but certainly improvable. With the solar flux ebbing 250 and with seasonal propagation enhancement during late February and March one can only anticipate burning hot band conditions from 160 through 10 meters. If that isn't incentive enough how about adding the new forty, eighty and ten meter DXCCs now available from headquarters to entice participation?

Chasing countries, looking for oblasts, listening and working that really weak signal drifting above the noise floor, finding that one to fill in that empty album slot in a five band DXCC book is what it's all about. I'm sure that every seasoned DXer has several of these QSOs vividly implanted in the ole gray matter. Is it a secret that there is great satisfaction in digging out rare QSOs on your own? Finding that longpath opening on 20 meters and catching that needed zone 24 or 22 that everyone else seems to be missing in this year's test log? No of course not! earned those multipliers by using your DX skill and propagation savy to log those special QSOs. Again, what am I getting at? Well its my opinion that with all the spotting, packet board alerting systems, let alone all the bulletins published and spoon feeding DX nets that the only true test of a skilled radio operator is contests. Sure there are inequalities of stations, geographical locations and individual abilities but there is, and I repeat is, real satisfaction in completing a contest that you, yourself operate to the best of your ability. Improvement in operating skill, point totals and country totals all come hand in hand. How good are your skills? Have you honestly ever really tried your hardest in a radio contest? You may surpise yourself if you ever do! Give it a try!

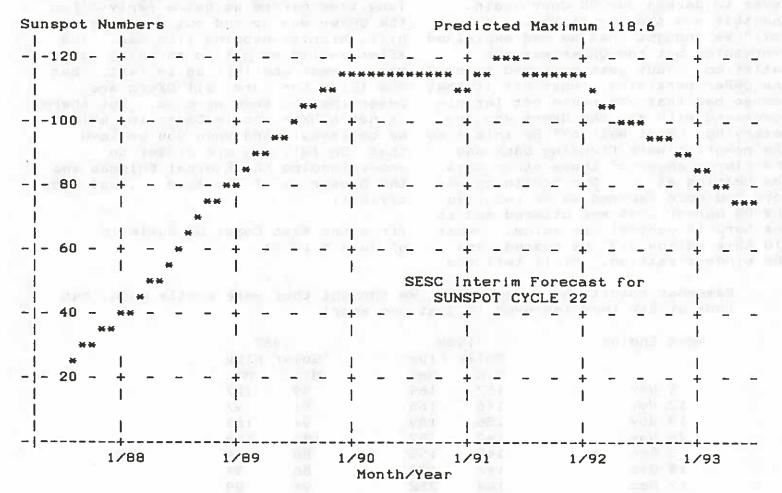
The following was obtained from a NOAA sponsored bulletin board along with a host of other material. The board operates at 1200 baud (at least), 8 bit, no parity, 1 stop bit. The number is 1-303-497-5000. History, forcasts, MUF calculations and more. I downloaded 48K of text in 15 minutes using night time phone rates. They do recognize the hams and DXers and appear anxious to support.

SESC Interim Sunspot Cycle Forecast for Cycle 22 - dated 7/20/87



The predictions are based on the assumption that sunspot minimum occurred in September 1986. The prediction of maximum value of Sunspot Cycle 22 is based on the Ohl- method (as modified by Sargent in 1978). The profile is derived from the last six even-numbered sunspot cycles. In the vicinity of maximum, the 95 percent confidence limits are approximately plus or minus 40 points. The technique would have predicted (or did predict) the max imum value of the last 4 sunspot cycles within 7 percent.

The values charted and tabulated are predicted smoothed monthly mean sunspot numbers for the designated months.



Often the ommissions of other years come back to haunt and last week we had one of the local QRPers puffing up the hill to interrogate us. "I understand that a Deserving DXer has never been turned away by the bulletin," this QRPer says and we were immediately nodding our head. But then we remembered an incident a long time back. This one had gotten inside the portals but did not last. Why was that?" the QRPer asked and we were again recalling the long gone times. "this fellow came saying that he was Deserving," we explained, "and our assumption at that time that anyone who was Deserving had to be a Believer. This was not so." We could see that we had the attention of the QRPer, that beady-eyed look was urging us onward. "It was during that time when so may DXers were struggling to master the new DX concept----- 'DX is!'. And we were sad to learn that this one was not a true believer. As soon as we found this out, we cancelled the subscription, refunded the balance and curtly advised him never to darken our DX door again. And that was the way it was....and is!!" We thought that we had explained everything but the QRPer was not satisfied. "But just what did he do," the QRPer persisted, "what was it that was so bad that you would not let him associate with all the DXers who are Deserving. What was it?" By this time the memorie's were flooding back and the fierce anger of those other days was beating at us. Our breathing was more and more labored as we recalled the DX heresy that was uttered and it was hard to control our voice. "what did this fellow do?" we roared, and the windows rattled. "I'll tell you

what he did! This fellow, from someplace north of Washington there in Maryland, had to nerve to tell us that 'DX Isn't!!' Can you imagine a true believer saying something like that? No one who speaks such doubts about DX should be allowed to mingle with the Deserving. Certainly you can understand all of that, even now, can't you?" The QRPer was still looking at us but his eyes were only semifocused. Obviously he was thinking. "Was that all he did?" the QRPer asked and the terrible wrath held in lease over the years was loose. "Was that all he did?" we said, mimicing the high-pitched notes of the QRPer, "was that all? That was what he did and that was enough!! For no true-blue DXer wver thinks else bbut that DX Is!! Understand Buster?" And adding action to the words, we swiftly kicked the chair out from under the QRPer. Leaning over him, flat on the floor there, we asked again: "Understand Buster??" Perhaps we should not have raised our voice even more for it probably will be a long time before we get a reply. For the QRPer was up and out and down the hill, hippity-hopping like mad. And after awhile we got to thinking as to why he went and left us so fast. one thing for sure, all DXers are Deserving and some more so. But there is not a DXer who is Deserving unless he believes!! And when you believe that 'DX is', you are closer to understanding the Eternal Enigmas and the Mysteries of the Ages....just keep trying||

(from the West Coast DX Bulletin of July 4 1979)

Remember conditions a year ago? We thought they were pretty good, but look at how they improved in just one year!

Week	Ending	198	88	198	87
		Solar	Flux	Solar	Flux
		Min	Мах	Min	Max
5	Nov	157	169	99	187
12	Nov	146	165	91	97
19	Nov	156	189	94	129
26	Nov	142	157	100	118
3	Dec	149	155	88	98
12	Dec	146	178	88	94
17	Dec	189	25Ø	94	99
24	Dec	229	253	91	94
31	Dec	180	228	102	106

Bouvet

Not one but two stations from this remote island. 3Y1VC and 3Y5DQ opened on 27 Dec 78 and plan to stay for nearly 2 months. Their 'Russian Roulette' style was hard on the nerves and was an open invitation to Slim who graciously accepted and was on the scene.

Peter 1 Island ONBRP is enroute from Punta Arenas with linear amp, 20 meter monobander and other necessaties to activate this new one.

Franz Josef Land
Slim(ski) drew a big crowd signing
UK1PAA, enticing the deserving with
rare FJL. Finally UK9AAN called in
Russian saying 'UK1PAA this is
UK9AAN, over.' Dead silence.

Malden Island VRØM had a good signal on 10, 15, and 20, proclaiming that the recent independent administration makes it a candidate for dxcc status. Yes, Slim was everywhere.

South Sandwich and South Georgia were active by LU3ZY and VP8PL respectively.

Bhutan

ASIPN was a frequent visitor to several nets (SEA and W7PHO) and occasionally operated free style.

Bangladesh S2BTF shows occasionally near 14.275 at 17Z but is regularly there on Saturdays.

WiAM's top ten need survey
Bouvet, China, 8Z-Neutral Zone,
VS9K-Kamaran, Burma, Albania,
Spratly, Heard Island, Laccadives,
and Abu Ail.

From the log Jan 79
9N1MM, S8FXT, VK9XW, TF3CW, JT1BF,
VS5CW, 7P8BC, 5U7AG, FK8CR, 3V8AA,
C5AAG, H5FXT, FWØTT, W6KG/TI5, VR1BD,
A2CBW

The names Charlie and Alma are familiar ones to the Ø-land DXers. The belong to WØQQN and XYL, the two people who make the QSL bureau work. Alma has been the hospital in Omaha since mid-December and as I write this (7 Jan) she is not very good. She has had at least one stroke and some other problems. When Charlie was told that they were in the thoughts of the Eastern Iowa DXers, he passed his 'Thanks' and wanted to insure that we knew the Bureau was 100% up to date. These selfless people are almost more worried about our QSLs than their own problems. A card to WØQQN or the bureau is appropriate. I expect to receive periodic updates from friends in Omaha---ed.

N4RR and NUMP are looking for anyone else interested in a group QSL card buy.

FOR SALE: Loudenboomer P.A. 1200 Watts 3-500 Desk top/floor PS \$400 W4NIM

KFØZ has a buy/sell/trade feature on his PBBS. 145.05 KFØZ-1

A reminder...check the expiration date on your license. With these 5/10 year tickets, it is easy to miss the renewal date.

Thanks to the following for contributions to this newsletter.

NUSP, WSWP, KCSQ, and WBSZKG.

DX IS!!

The names That the and Wink Age.

The state of the s

Tom Vavra WB8ZRL 682 Palisades Access Rd Ely, Iowa 52227-9717

> Jim Spencer MS 124-115