



# THE EASTERN IOWA DX'ER

WINTER 1995

CLUB NEWSLETTER OF THE EASTERN IOWA DX ASSOCIATION

## EIDXA MEETING NOTICE

Date: 20th of January 1995 (Friday)

Time: 7:30 pm (door open at 6:30)

Place: Room 219C  
Linn Hall  
Kirkwood Community College  
Cedar Rapids

Agenda: Business meeting, ZD9SXW,  
and a presentation on the  
80M antenna now being used  
by the big guns. The usual  
pizza and socializing too.

Plan on attending

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## From the Presidents Shack

This is my first column as your new President and it has been a very long time since I last held this post. A lot has happened in the EIDXA in the almost twenty years that have passed. I'm sure that some of you have no idea how or when this organization got its start.

Since I was there, it seems like a good time to try to recall some of our early history and to share what I can remember.

In the fall of 1974 Dave Jaksa, W0VX, and I started talking about the growing number of area DXers and contesters and about the possibility of forming a club. We had been using 147.51 Simplex as a spotting frequency and we were sure that a small core of the dedicated would join us. But first, someone had to get it organized. Dave and I started calling friends who had been in other DX and Contest Clubs to see how they were set up. We found little consistency, but we did uncover some problems that we attempted to "fix" when the EIDXA was formed.

By early in 1975 we were ready to hold the first organizational meeting and to see if anyone else shared our enthusiasm. A meeting was held at W0MJN's house to launch the new club. I have no record of exactly who attended, but a total of 8 to 10 did show up and decided to launch. The club was named the Eastern Iowa DX Association although the interest was divided between those who were interested in DX and those interested in contesting. The "Eastern Iowa DX and Contest Club" seemed just too long. It was decided to write up a Constitution and by-laws that would support club participation in contests along with some of the membership controls we had found in other clubs.

Dave Jaksa was elected the first President and I was the first Secretary-Treasurer. I just don't remember who was elected the first Vice President. Does anyone remember? Dues were just \$2.00 a year!

By October of 1975 we had a total membership of 14: Vern Garman, K0EGA; Gayle Lawson, K0FLY (W0FO); Jim Macconi, W0HUP; Joe Finkstein, W0MJN; Art Goddard, W0MOQ (W6XD); Lynn Schriner, W0PCO (W5FO); Steve Towle, K0SVW; Dave Jaksa, WA0VDX (W0VX); Jim Spencer, W0FHE (W0SR); Doug Byal, W0SML; Tom Lindgren, WA0WCR (W0WP); Mike Nowack, WB0HOG; Fred Benson, W0MUH (K0AT); and Dave Wilson, WA0VUY (K0KW). We were off and running.

In the fall of 1976 we elected W0SR, President; W0WP, Vice President and W0VX Secretary-Treasurer and the membership had grown to a total of 19. Early meetings were held in members homes, but as we continued to add more members this became increasingly difficult. A lot of the early focus was on operating, antennas and contesting. Most programs were home-brew by various members. With people like Lynn Schriner and Dave Jaksa, we had strong contesting advocates and cheerleaders. They would have liked to put the EIDX in the top 5 contest clubs in the USA! Early requirements for membership required that members operate in the major DX contests and submit their scores for club aggregate scoring. We all were required to operate leaving it to Lynn and Dave, among others, to get us to put in a "serious" effort. It was some years latter when the mix of the club shifted enough to have the DX types eliminate contest operating as a requirement.

I haven't been able to find a EIDX Newsletter earlier than July 1977. I think I remember doing the first few myself--on mimeograph! If anyone has any of the early ones from the 1970's, please let me know. It would be great to make copies and to attempt to compile a complete file. As I understand it, the club files and archives were destroyed when some past officers basement flooded.

During the next few years I hope that we can recapture some of the enthusiasm of the first few years. We need to look seriously at what is really important to us in terms of club activities and programs. We need to encourage some of our past and inactive members to become active again. And, we need to always be on the lookout for potential members to invite to a meeting to look us over. I hope to see all of you on January 20th.

73, Jim@W0SR

Minutes of the Fall 1994 meeting

The fall meeting of the EIDXA was called to order at 7:30 pm on 14 October 1994 in Linn Hall on the Kirkwood campus.

A moment of silence was observed to recognize the passing of K0GVB, a longtime member of the EIDXA.

The minutes of the April meeting were approved as printed in the newsletter.

The treasury balance brought forward was \$ 556.42 +\$130.00 dues - \$5.00 Iowa Repeater Council dues -\$79.75 newsletter and mailing expenses for a new balance of \$601.67 .

W0EJ let a discussion of the proposed Linn Co. tower ordinance. A public meeting to be held 19 October at the Linn Co. Administration Office Bldg in Cedar Rapids for public comment on the ordinance. Everyone was encouraged to attend.

W0SR gave the DXAC report. Scarborough Reef, country size, Pratis Is., Astral and Marquesas Is., Balleny Is. and possible deletion of Aruba are current DXAC matters under consideration.

W0MJN solicited input from the membership for a reply to a request from KC0OX for use of the .19 repeater for backup in case of emergency.

Election of officers for 1995 was opened with nominations as follows: Pres. W0SR, Vice Pres. WB0ZRL, and Sec.-Treas. K0GT. N9OK moved nominations cease. Second by several members. The motion carried.

NY0V invited members to join the Boy Scout Jamboree On the Air operation 15 October at Pinicon Ridge Park.

WD0AWL moved that KF0H be reinstated as a member. Second by W0WP. The motion carried.

G3WJN handed out cluster maps to those interested.

The meeting was adjourned with the latest Peter I video.

Respectfully, K0GT

1995 EIDXA Officers

President: W0SR Jim Spencer  
V. Pres: WB0ZRL Tom Vavra  
Sec/Tres: K0GT Gary Toomsen

Repeater Committee:  
K0VN Al Groff  
W0MJN Joe Finkstein

Membership Committee:  
W0SR Jim Spencer  
W0IZ Dale Repp

EIDXA Repeater:  
145.190 W0MJN

DX Cluster:  
147.51 144.91  
223.40 WB0ZRL

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PacketCluster Data Bases

SH/QSL	W660 LIST
SH/CONTEST	Contest Calendar
SH/DEALER	Ham dealer addresses and phone numbers
SH/DXNODE	Cluster nodes by state
SH/EIDXA	EIDXA member's address/phone #
SH/HAM	Hamcall (subset of CallBook)
SH/IOTA	IOTA info

EIDXA Membership Rolls

call	name	address	
KUQA	Nelson Moyer	28 Ealing Dr.	Iowa City, Ia 52246
KQAL	Al Culbert	328 Norman Dr. NE	Cedar Rapids, Ia 52402
WDQAWL	Terry Cellman	703 Lincoln St.	Ainsworth, Ia 52201
WBQB	Larry J. Newby	P.O. Box 185	West Burlington, Ia 52655
KZQC	Jim Bohnsack	1169 Rainbow Dr.	Waterloo, Ia 50701
KAQCNN	Tom Kueny	2025 Cardinal Lane. N.E.	North Liberty IA 52317
KAQCWR	Mary Dennis	400 E. Vine	Toledo, Ia 52342
WVQD	Terry Perkins	3119 Falcon Dr NE	Cedar Rapids, Ia 52402
WQEJ	Wade Walstrom	7431 Macon Drive NE	Cedar Rapids, Ia 52411
NMQF	D.Wayne Kinnard	219 Park Lane	E. Dubuque, IL 61025
WAQFYG	Rick Hadley	115 Scenic Dr.	Vinton Ia 52349
AAQGG	Frank Weigelt	4055 Stewart Dr NE	Iowa City IA 52240
KQGT	Gary Toomsen	2730 Tower Dr.	Cedar Rapids, Ia 52411
WQGWK	Frank Apple	1935 16th St.	Marion IA 52302
KFQH	Jim Harvey	819 N. Main St.	Goldfield, Ia 50542
KJQH	John Schwandke	307 Myrtle Lane	Muscataine, Ia 52761
NBQH	Jack Muckler	2084 Eastern Blvd. SE	Cedar Rapids, Ia 52403
WKQI	Terry Parker	535 Sierra Dr	Burlington, Ia 52601
KQIIR	Clark Pantel	1610 Hershey Ave.	Muscataine, Ia 52761
KQINR	Tom Taylor	RR 1	Shell Rock, Ia 50670
WQIZ	Dale Repp	1618 Texas Ave. NE	Cedar Rapids, Ia 52402
KQJGH	Glen Kesselring	RR #7 Box 160	Ottumwa, Ia 52501
NN9K	Peter E Beedlow	741 Greenway Ave	Colona, IL 61241
NNQL	Ron Borkgren	1106 E. 2nd St.	Anamosa Ia 52205
ABQM	Vern Lang	110 E. 2nd St.	Muscataine, Ia 52761
AAQME	Tom Irwin	1023 Kirkwood Ave.	Iowa City IA 52240
WQMJN	Joe Finkstein	2210 Empire St.	Marion, Ia 52302
KEQMO	Tom Redlinger	RR 1 BOX 146	Keota, IA 52248
NKQN	Orville Duecker	226 Southcrest	Waterloo, Ia 50702
WQNB	Jim Livengood	R.R. 1, Ferre's Lane	Burlington, Ia 52601
WANIM	Bob Hill	2037 SW 61st Ave	Miami FL 33155
NCQD	Tom Hise	PO Box 104	Shellsburg, Ia 52332
N9QK	Al Broendel	2712 38th St.	Rock Island IL 61201
NUQP	Steve White	5820 Sanden Rd. NE	Cedar Rapids, Ia 52411
WQPPF	George Carsner	411 Terrace Rd.	Iowa City, Ia 52245
KCQQ	Jeff Russell	2125 Linmar Dr. NE	Cedar Rapids, Ia 52402
WWQQ	Rich Bingham	707 12th Ave.	Coralville IA 52241
KDQRT	Brad Farrell	1401 Greenwood Dr	Ottumwa, Ia 52501
KQRW	John Lenahan	923 N. 9th St.	Burlington, Ia 52601
NQSM	Steve Miller	Route 6 Box 180	Ottumwa, Ia 52501
WQSMI	Doug Byal	2323 Springbrook Dr, NE	Cedar Rapids, Ia 52411
WQSR	Jim Spencer	3712 Tanager Dr. NE	Cedar Rapids, Ia 52402
WA3TIH	John S Simander	Box 763	Muscataine, IA 52761
KKQU	Paul Feddersen	703 Eclipse Lane	Clinton, Ia 52732
WEQU	George Gruenther	1106 S. Leebrick	Burlington, Ia 52601
WRQU	Scott Augsburg	310 S. Wilson St.	Mt. Pleasant IA 52641
WQUZ	John Nelson	3109 Terry Dr. SE	Cedar Rapids, Ia 52403
NYQV	Tom Vinson	10211 Hall Road NE	Cedar Rapids, Ia 52411
KQVM	Al Groff	1446 Council St. NE	Cedar Rapids, Ia 52402
KQVZR	Tom White	2027 Carter Ave	Jesup, Ia 50648
AB9W	Larry M Dickinson	4321 5th St	East Moline, IL 61244
NGQW	Keith Erickson	1810 Hillside Dr NW	Cedar Rapids, Ia 52405
WQWP	Tom Lindgren	9786 Blairs Ferry Rd.	Cedar Rapids Ia 52411
KEQY	Tom Kramer	905 LeRoy	Muscataine, Ia 52761
WBQZKG	Chuck Dennis	400 E. Vine	Toledo, Ia 52342
WBQZRL	Tom Vavra	682 Palisades Access Rd.	Ely, Ia 52227

## 10 METER OPENINGS

If you're like me, you have found yourself lamenting the loss of the higher HF bands due to the sunspot cycle. Shoot, even 40 has gone out at night, much less 10 or 15. But the sunspot cycle null is still full of surprises when you actually take some time to talk on 10 meters. This band will open up more often than you might imagine. Many times it's open, but guys just listen, thinking it's dead. It's this part of the cycle when you can experience some different phenomena on 10 meters.

For example, I was on 10 meters on November 5th at 2000z (2 pm) working X09XT (VE1XT). Right after I signed, who should call me but OH7JCX! So what's so exciting about working an OH? I mean lots of us have worked OH's. It's not like working Bouvet on 80 meters or anything. Except that it was 10 pm his local time! His signal was S7 to 9 with just a little "barrel" sound to it. I told him that I wasn't supposed to be able to work him at that time of day! I signed with him and dumped his call to the cluster commenting "open to EU". Then OH7MHL called me! Shortly thereafter, some of the 9 landers off of packet came up and called out OH6LNI, OH6MMC and at 2027z OH7JCX once again. Then it was over.

So what happened? And why weren't there any other Europeans coming in except OH6 and OH7?

To help answer the question I looked up Dan Roesler, WD0HOJ, our local Collins expert on propagation. We checked out the A index and ran an Aurora Oval Simulator program. With the A index at 35 over the weekend, the auroral impact is significant. I have included the printout of the circle route showing the coverage of the oval. Notice a few things: one is that the area of highest activity goes right over Finland; second, that the terminator was not the reason for activity, ie grey line, since the great circle route was actually perpendicular to the terminator; and finally that the aurora oval is donut shaped, even though it looks like a "C" in the printout due to the terminator line.

With an A index of 35 and being on 10 meters one would think that the absorption would have mitigated any long haul communications. Well, on the lower HF frequencies this is true. However, Dan informed me that when you have an active auroral oval it is highly ionized that actually creates support of 28Mhz signals and eliminates the lower frequencies. Absorption increases with lower frequencies by the square (6 dB increase when the frequency is halved). For example, a 3 dB absorption at 30Mhz would be 9 dB absorption at 15Mhz, 15 dB at 7.5Mhz, and 21 dB at 3.75Mhz.

So there remains another answer on why we were able to communicate to Finland and only to Finland that late in the day. It's possible that the HF signals did not even touch down after the first hop! In other words the signal could have been completely absorbed if it was on an F2 or F3 hop. This is when a typical HF signal refracts in the ionosphere and touches down two or three times. However, there are some theories that the signals

can travel or "duct" BETWEEN two layers. This is relatively common during the greyline in the mornings and evenings on 80, 40 and 20. Here, however, there seems to be very little bending of the signals. They just went straight through the "tunnel" and parallel with the auroral oval to Finland, this explains the very small "footprint" which allowed only OH6 and 7 stations to make it through (and only a few W9's and 0's).

Perhaps some of you have experienced similar openings. They aren't supposed to be there, but all of a sudden there they are! It encouraged me to get on 10 more often and speak up instead of just listening. I also wonder what the guys in Finland were doing up on 10 meters at 10 at night!? Communicating on ground wave?

I'll send a copy of this to them and see what they may have to say.

Tom Vinson, NY0V

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#### Ten years ago - Winter 1985

The DXAC has just recommended that ZC4, British Bases - Cyprus, be accepted for DXCC status.

XU1SS remained active, primarily through list operations, from a refugee camp. This operation allotted about 30 minutes each week to work stateside. While there was speculation about just exactly where this camp was located (in Cambodia or in Thailand), it was the first XU that counted in ten plus years.

Bauldar was signing DJ6SI/5V and handing out rare cw contacts. This was when Bauldar always had good documentation.

DL7AH/3X was very active on the low bands, but the DXCC desk did not accept the cards.

K5LZO/KP5 gave all the deserving a QSO from Desecheo.

9U5JB was a surprise in the ARRL SSB contest, handing out very rare Burundi contacts.

C9 started to show up on the bands after a long absence. The first few ops had only verbal permission.

There were high expectations for DX-peditions to Clipperton, Bouvet, Navassa and Marion Islands.

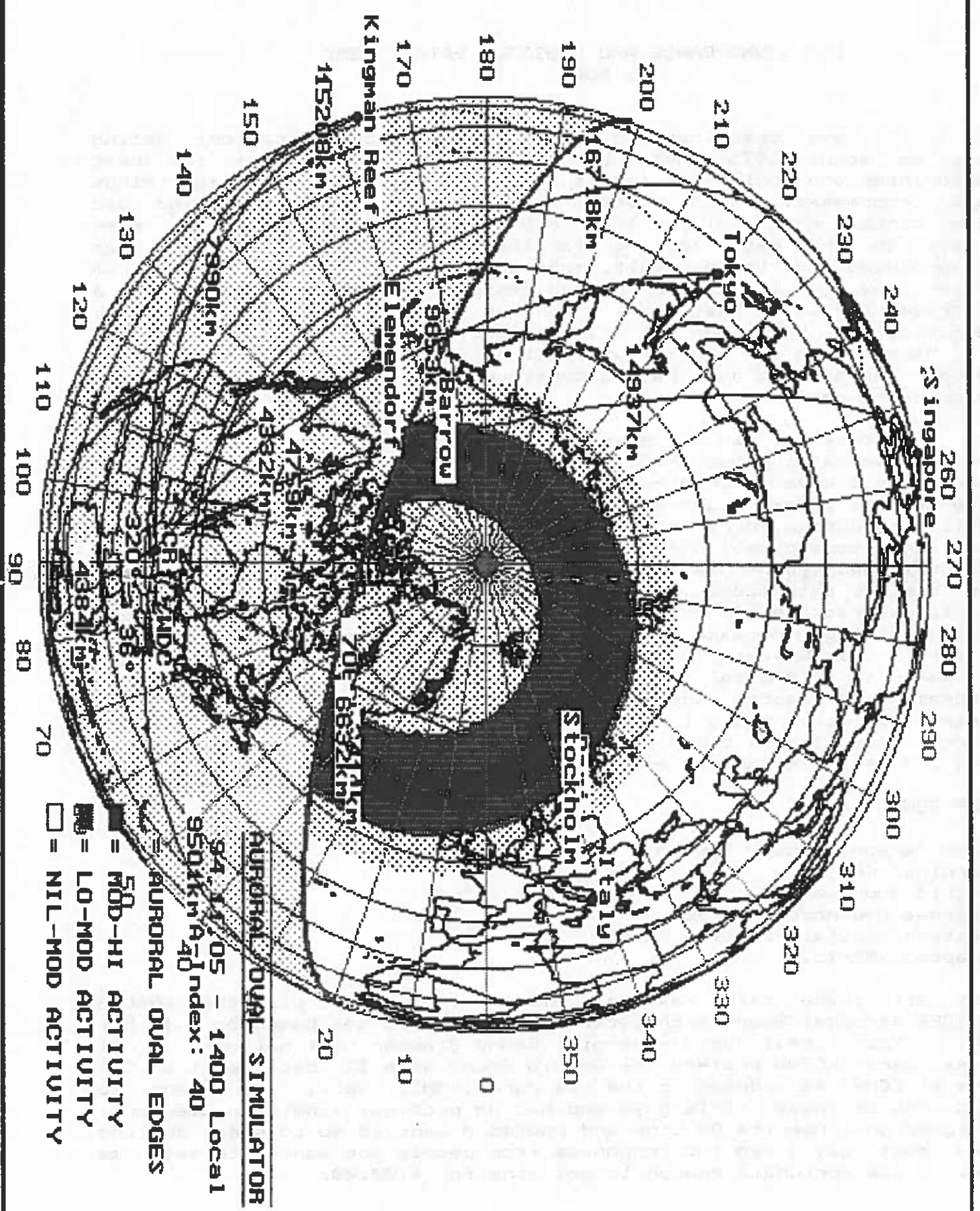
The Hensons, Carl and Martha, were traveling again, this time as 3C1BC/3C1YL.

3B9CD spent almost a year on Rodrigues, and worked the pileups way down.

K1MM and K1MEM satisfied many lowband cw ops from SVS.

Solar Flux for the month of February ranged between 70 and 78.

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- = MDD-HI ACTIVITY
- ▨ = LO-MOD ACTIVITY
- = NIL-MOD ACTIVITY
- = AURORAL DUAL EDGES

AURORAL DUAL SIMULATOR  
 94 11/05 - 1400 Local  
 950km A-Index: 40

DSP SOUND CARDS AND DIGITAL DATA MODEMS  
by NUQP

I have been involved in Digital Radio communications dating back to about 1975 when the Teletype Model 28 ASR was the best teleprinter you could find for Baudot communications. My, how things have progressed. In any event I have had good demodulators and bad ones since then and always like to play with the new technology ones always on the path looking for the perfect one. I have been disappointed with the new multi mode demodulators like the AEA and Kam since they really are compromised designs. I have always wanted a programmable unit based on a DSP but the ones that AEA and HAL communications have been out of my league \$700 plus. There is a TAPR kit based on a DSP now, but still at \$500 it is still out of my reach. So my wait just had to continue until something came along in my price range.

Recently I ran across an article that described how you could use a general purpose P.C. sound card to run some of the digital modes that I have an interest in, specifically, AMTOR and PACTOR. I have several modems right now and none run PACTOR. The author of this article is Johnan Forrer KC7WW, who has been writing terminal programs for radio communication for some time. In August and November of 94 QEX published two of his articles on programming and using sound cards for digital data modems. His August article went into some detail on how to program the DSP to use it as a cw filter. He also has made available two software programs for the sound cards that act as CW filters. His November article shows us how to program the sound card to make it a digital modem. Once again he offers us two software programs for Pactor and Amtor along with the source code for the modems. So now I had all the information that I needed and also some source code that I could dabble with. All I had to do now was to find one of these cards. Actually there are several that will work.

DSP SOUND CARDS

Echo Personal Sound System  
Cardinal Fro 16  
Orchid Soundwave 32  
Wearnes Beethoven ADSP16  
Western Digital Paradise 16-DSP  
Adapttec AME-1570

What all these cards have in common is that they use the ANALOG DEVICES Personal Sound Architecture (PSA) chip set based on a 16 bit DSP. Your normal run-of-the-mill Sound Blaster will not work. Of these cards KC7WW prefers the Orchid Sound Wave 32 because it's DSP runs at 20MHZ as opposed to the standard 16MHZ. Well, off I went to find one of these little guys and had no problems finding a used one. I signed onto America On Line and posted a want ad so to speak and the very next day I had two responses from people who wanted to sell me one. I was fortunate enough to get mine for \$100.00.



After receiving the card and getting it all installed and set up I loaded Johnan's software, tuned in a funny sounding signal using the turning meter in the software and and I began copying PACTOR. It was very simple to get up and receiving. I have also tried it on AMTOR and it works just as nice there. The key to this system is that the Sound Card acts like a very steep set of filters for AMTOR or PACTOR and demodulates the waveform. The PC takes that demodulated data and does all the link processing that AMTOR and PACTOR require. The demodulator based on the DSP in the sound card works quite well and in my on the air comparison tests against a PK-232 running AMTOR they both appeared to do equally well. Various shareware software packages are available for the cards and the following list gives the sources.

SOFTWARE: QEXHFM.ZIP and QEXSND CD.ZIP (CW and AMTOR/PACTOR)  
Available from ARRL BBS and Internet at ftp.cs.buffalo.edu in directory \pub\Ham-radio Both of these packages give source code as well as ready to run .EXE files.

This is the beginning of a new application of the sound card in the PC. If Johnan continues to develop his software we should be seeing this kind of system beginning to appear on the air much more often. As Johnan points out, all of his software for these cards is still considered to be Beta software so many improvements are yet to come. He is interested in getting beta testers and will give anyone assistance if they would like to take his work and expand/improve it. I have had the occasion to talk with him via E-Mail through the Internet and AOL. He can be reached at forrerj@frl.orst.edu.

One of the applications which he does not have software for is RTTY and he indicates that this will be one of the next functions he will add. We will be seeing faster and more capable DSP sound cards in the future and what's so exciting is that this sound card with continued support from independent software vendors and hams will never be obsolete. As new waveforms like Clover and G-TOR come along it will just be a simple software load and your up and running.

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Member Profile      NMØF      Wayne Kinnard      E. Dubuque, IL

Wayne became a novice, KAØSZE, in 1984, while living in Marshall County in central Iowa. WBØZKG was one of his first Elmers. He upgraded to general class in K.C. later that year with the call NØFQZ. In 1985 at a VE exam conducted in Cedar Rapids, Wayne upgraded to extra, and obtained his current call. WØFD, WØSS, and WØVX signed the VE certificate. "My most memorable QSO was a cw contact with a VK on the novice band. I became hooked on DX chasing from that point on." Wayne uses an AS4 tribander and an 18HTS vertical with a KNWD 85Ø and 922A amp. A 386 computer connected to a PK 88 keeps him connected to the cluster. He needs only 4 more to fill out the mixed honor roll: ØK, 3V, 3A, and A5. "My goal is to take up the chase with RTTY when this is completed."

Winter Contest Calendar

DX Contest Calendar for JANUARY:

14-15 0000-2400 HA DX Contest, CW  
27-29 2200-1600 CQ World Wide 160 Meter Contest, CW  
27-29 0600-1800 REF French Contest, CW  
28-29 1300-1300 Union of Belgium Amateurs Contest, SSB

DX Contest Calendar for FEBRUARY:

12-13\* 1200-1200 PACC Contest, CW/SSB  
18-19 0000-0000 ARRL International DX Contest, CW  
24-26 2200-1600 CQ World Wide 160-Meter Contest, SSB  
24-26 0600-1600 REF French Contest, SSB  
25-26 1300-1300 Union of Belgium Amateurs Contest, CW

DX Contest Calendar for MARCH:

4-5 0000-2400 ARRL International DX Contest, SSB  
19-20\* 0001-2400 The Bermuda Contest, CW/SSB  
25-26 0000-2400 CQ World Wide Prefix Contest, SSB

(\* indicates 1994 date. 1995 date has not been verified.)

A contest sponsored by another country is an excellent place to pick up some band/country QSLs. There is usually lots of activity from the host country and a few QSLs into the bureau will usually insure at least one confirmation.

TOM VAVRA WBBZRL  
682 Palisades Access Rd.  
Ely, Iowa 52227-9717



Jim Spencer W0SR  
3712 Tanager Dr. NE  
Cedar Rapids, Ia 52402