THE EASTERN IOWA DX'ER

SPRING 1996

CLUB NEWSLETTER OF THE EASTERN IOWA DX ASSOCIATION

1996 EIDXA Officers

President: W0SR Jim Spencer
V. Pres: WB8ZRL Tom Vavra
Sec/Tres: K0GT Gary Toomsen

Repeater Committee:
K0VM Al Groff
W0MJN Joe Finkstein

Membership Committee:
W0SR Jim Spencer
W0IZ Dale Repp

EIDXA Repeater:
145.190 W0MJN

DX Cluster:
147.51 WB8ZRL
144.91 223.40
CR NetRom Freqs

====> EIDXA MEETING NOTICE <====

Date: 19th of April 1996 (Friday)

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

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

Agenda: Business meeting. The program will have NR0X sharing his low band experiences with us and especially his listening antennas -- twelve (count them 12) beverages aimed in all directions.

Plan on attending!!

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As you drive state highway 1 South of Anamosa, or North of Martelle, you can't help but notice an antenna farm growing near a farmstead. This particular farm has diversified and grows a wide variety of antennas. There is an 80 foot tower with a 4 element 20 meter monobander on it, and a 60 foot tower with a small tribander on it. Then there is a 120 foot tower that looks bare, but upon closer look some wires can be seen coming off at the 80 and 120 foot levels. We are used to looking up for antennas, but at this farm, one needs to look (almost) down too. If you look East and West, you will see stubby white things sprouting up from the empty fields. These yearlings have been carefully cultivated, and have borne much fruit in their first season.

What you have seen are the ears for NR0X's low band DXing efforts. The ten foot pieces of PVC support the wires for the beverages. The afore mentioned wire at the 120 foot level of the tower was the 160 meter inverted Vee. With these to compliment his full gallon amp, he has worked 95 countries on 160 (as of the first week of April). Not a very shabby performance. An your jaw will drop when he tells you the 75 meter contacts he has had because of those beverages. Heinz will be telling us about this beverage system. Come join the rest of us as we drool.

19 January 1996

The winter meeting of the EIDXA was called to order at 7:30 pm in Linn Hall on the Kirkwood Campus by Pres. W0SR.

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

The treasury balance brought forward was $594.90 - $56.18 newsletter and postage expense + $75.00 dues collected at the January meeting makes the new balance $613.72.

Humor committee K0AL related the two way communication between two stations overheard on a foggy night. (You had to be there.)

David Anderson KK9W was voted into full membership with 125 confirmed. Steve Sutterer AK0M was reinstated to full membership.

Only report on the packet cluster and repeater operation was that the recent cold weather and precipitation has at times degraded signals.

W0SR gave the DXAC report. Politics continue to dominate and Korea, Pratis Island and Scarborough Reef will soon count as new countries.

Callsign committee, W0SML, W0MJN, W0IZ, W0SR and NB2N are to meet again.

The meeting was adjourned and Wade W0EJ presented his program on lightning protection and grounding for the DXER. Also a short video about what's new from Icom was shown.

Respectfully,
Gary J. Toomsen K0GT Sec. Treas.

Letter to the Editor

Fellow DXers,

Amidst all of the recent controversy about Scarborough Reef, North Korea etc., I just wanted to say a few words in defense of Martti Laine and the ARRL. A year ago I had never heard of Martti, but have since then read his book and worked him from several different countries. I have also listened to a many opinions expressed about his personality, methods and ego. I admire and respect him for his integrity, ambition and achievements. I believe the world of DXing is far better because of Martti, and look forward to his continuing efforts. I am grateful to him for what he has done and wish there were more of his kind around today.

I would also like to commend the ARRL for the DXCC awards program, which has and continues to be the premiere DX award. It has earned worldwide respect and is the most sought after operating award in ham radio. I first achieved DXCC in 1965, For about a 5 year period I was inactive while engrossed in my work at Collins Radio, and other interests. Just over a year ago I again became active in ham radio. Ham radio is a wonderful hobby and I greatly enjoy DXing and contesting. I intend to remain positive about current events and optimistic about the future. I urge the rest of you to do the same.

73 and Good DX
Heinz Blankenhagen/NR0X

Licensing and Bribes

(The following was written by Peter, ON6TT, after a comment on the DX reflector about the possibility of greasing a palm in order to operate from some exotic Asian QTHs.)

Ethics and especially customs or social rules in developing countries are not based on those of the Western World. It is very dangerous (and an all too common mistake) to judge the 2nd and 3rd world values and customs on our value-scale.

I have not lived in Asia, but did considerable time in Africa.

Bribes as we call it (or "Matabish" as the Zairians call it so nicely-hi) are a way of life in Africa. Actually, it is not seen as a bribe in a negative sense, it is a 'tip', a 'present', a 'wage' or simply a 'must'. It is often an inherent part of their culture. You must understand that in many countries, officials get real low wages, if they get anything. In Goma (Zaire) where I worked for 2 months, the soldiers, administrators, polics etc.. had not been paid for the last 18 months. So they need another income. What happens: whatever they need to do as part of their normal duties, they ask money for it. That, to our values is a bribe, but it is their normal wage for them. A way to survive and to feed their families.

A good example is that, when our solar panels of one of our repeaters were stolen in Zaire, we pressed charges against the thieves. To press charges, we paid the equivalent of $5 (they asked for more, but we bargained it down). They said it was used for the paper and pencils, to maintain the police station, and to pay the police wages. Kinda funny, right, imagine going to a US state patrol office to press charges, and you would have to negotiate how much you would pay for them to take action.

'Bribes' as we call it, are often also seen as a token of good will, of the sharing by a wealthier person vs a needing person. An example of that: (depending a bit on the region) when one person gives a loan to another person, the latter will pay everything back but the last bit. The last bit is never paid back, but kept as a token of good will and a sign of friendship. Funny he?

So, yes, I had occasions, where I paid money to get a license, money that I knew was a bribe in our sense of the word, but not in theirs. Yes, I have paid money so that my antenna would not be stolen. They called it 'give us a present, and we will protect your antenna from thieves'. The same way that I pay a little street kid to watch over my car in down town Luanda.

And so on, and so on.

As a closing note: negotiating 'matabish' is quite a thrilling art. One principle I have adopted: If the starting sum is way too high and shows they are taking advantage of you (because you are 'muzungu' - a white man), I simply refuse to pay anything.

Loads of things to learn about Africa!
(no offense I hope)

73, cu from down there again

Peter

Meet our newest member
David R. Andersen, KK9W

I was first licensed as WN0NCT, when I was a kid living in Ames, IA. I later upgraded to WB0NCT. I received my current callsign when I moved to West Lafayette, Indiana to go to graduate school at Purdue University. When I finished graduate school in May, 1986 I moved back to the Iowa City area, where I currently am a faculty member in the Electrical and Computer Engineering Department. My research areas are nonlinear optics, optical properties of semiconductors, and quantum electronics. I like to think of these as "short wavelength ham radio."

My interests in ham radio are primarily in three areas, contesting, dxing, and packet radio. I was quite active in the early 80's from West Lafayette, and in fact have cards from a number of the EIDXA membership for contest operations during this time. I also made my one and only contest dxpedition to VE4 for SS. Since moving back to Iowa, I haven't been very active for the past ten years. However, the Johnson County Board of Supervisors has proposed some zoning changes which got me focused on setting up an HF station. Last summer I put up an 80 foot free-standing tower on my lot. Right now, I've got a TH3JR up there, but plan to replace that with a C4XL this summer. Something rotatable on 40m will be nice.

Currently, I have inverted V's for the low bands. My radio is an FT101EE, with a Fox/Tango 600 Hz CW filter, but without the external VFO. I worked XZ1A by twisting the knob fast to make the split, so I know it's possible, HI! Maybe someday I can upgrade that too.

My most recent contest achievement was a score of 911 q's x 74 mults in the 1995 CW November SS low power division. I missed VE4 (naturally), KP2, and VE8/VY1. There's always next year. My DXCC score is 232 worked/ 185 confirmed. I also have DXCC CW (202 worked), and am kind of close to 5BDXCC. Have a few more 80 meter q's to make.

Lance's Top Ten Reasons Why...
You want to be at another SWODXA DX Dinner Table at the Dayton Hamvention

10. You can only hear the main speaker by listening long path through the kitchen.

9. The big guy on your left thinks that you are Don Miller's QSL manager and wants a 1963 Minerva Reef QSL -- now!

8. The big guy on your right is Don Miller.

7. You just found a Heil Microphone element in your fruit cup.

6. You can't stand up for tonights DXCC Countdown because your head hits an exhaust fan.

5. Your prime rib has the Kinney Shoes logo.

4. Romeo, your waiter, wants some cash so he can put Bhutan on the air.

3. Your ticket stub wins a door prize at the hardware banquet in the next room.

2. You ask for more coffee and your server says, "last two letters please."

1. OH2BH wants your table to be a new DXCC Country.

SEC REGRESSION MODEL PREDICTED SMOOTHED SUNSPOT NUMBER
Prepared by the U.S. Dept. of Commerce, NOAA, Space Environment Center
Based on FEB. 1996 Observed Data

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1995	24	23	22	21	20	19	17	16	14	14	14	13
	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(***)	(2)	(3)	(4)	(5)
1996	11	10	9	6	6	6	7	7	8	9	10	11
	(7)	(8)	(9)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1997	12	13	15	17	19	21	24	27	30	34	37	41
	(3)	(3)	(3)	(4)	(4)	(5)	(5)	(6)	(7)	(7)	(8)	(9)
1998	45	49	53	57	61	64	68	71	74	77	80	83
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(15)	(16)	(16)	(17)	(18)
1999	87	90	92	95	98	100	101	103	104	106	106	107
	(18)	(19)	(20)	(21)	(21)	(22)	(22)	(22)	(23)	(23)	(22)	(21)
2000	108	108	108	108	107	107	107	107	107	107	106	106
	(21)	(20)	(20)	(20)	(19)	(18)	(18)	(18)	(17)	(17)	(18)	(18)
2001	105	104	104	103	102	101	100	99	97	96	94	91
	(17)	(17)	(16)	(15)	(15)	(15)	(16)	(15)	(15)	(14)	(14)	(13)
2002	89	86	84	82	79	76	74	71	69	67	64	62
	(13)	(13)	(12)	(12)	(11)	(10)	(9)	(8)	(8)	(8)	(7)	(7)
2003	61	59	57	55	53	52	51	50	49	48	46	45
	(7)	(7)	(7)	(6)	(6)	(7)	(7)	(8)	(8)	(8)	(8)	(7)
2004	43	41	39	38	37	35	34	32	31	30	28	27
	(7)	(7)	(7)	(7)	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(6)
2005	26	25	25	24	23	22	21	20	***	***	***	***
	(6)	(6)	(6)	(6)	(6)	(5)	(5)	(6)	(***)	(***)	(***)	(***)

Top line is predicted value, second line (in parenthesis) is confidence limit.

QSL bureaus of CIS, ex-USSR
de DK3VN

EK - Box 22 Yerevan 375000 Armenia
ER - Box 6637 Kishinev-50, 277050 Moldavia
EU - Box 469 c/o EU1AO, Minsk-50, 220050 Byelorussia
EX - Box 1100 A.R.U.K. Bishkek, 720020 Kirghizia
EY - Box 303 (T.A.R.L.) Glavpochtamt, Dushanbe 734025 Tadjikistan
EZ - Box 555 (T.R.A.L) Ashgabat 744020, Turkmenia
UK - Box 0Tashkent, 700000, Uzbekistan
UN - Box 112 c/o UN9PC, Karaganda 470055 Kazakhstan
UR - Box 56 U.A.R.L. Kiev-1 252001 Ukraine
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4L - Box 1 Tbilisi 380002 Georgia
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Box 88 C.R.C.R.F Moscow, Russia

Pointing yagis into the wind
de Dave, W6QHS

The choice of how to aim a Yagi in a windstorm depends on which of these is the weakest point of the antenna system:

Elements
Boom
Mast and tower
Rotator and coax

If the elements are the weak spot, you don't want to have them broadside to the wind. If the boom is the weak spot, you don't want it broadside to the wind. As Stan, W7NI, points out, it's better to lose an element than to lose the boom plus the elements, so boom with the wind is a conservative choice.

The only time the antenna area comes into play is if the mast and/or tower are the weakest link. The antenna area depends on the areas both of the elements and of the boom, and is calculated under older standards to be maximum, but under newer standards minimum, with the boom around 45 degrees to the wind. Of course the mast area is the same for all wind directions.

Yagis tend to weathervane along the boom, even if they are symmetrical, and the response to gusting in different directions tends to break the mast loose (goodbye coax) or destroy rotators. There ae still a lot of unknowns in this department.

Using the model that was current at the time I wrote Physical Design of Yagi Antennas, Electronic Industry Association's EIA RS-222-C, you calculate the area to be the square root of the sum of the squares of boom and element areas (i.e., bigger than either one by itself), and the angle to the wind for maximum side force is somewhere around 45 degrees. NI6W's excellent YS software is also based on RS-222-C.

Since that time, models that give a better picture of forces on cylinders at an angle to wind have been published by EIA (EIA-222-E) and by the American Society of Civil Engineers (ASCE 74). In these standards, the wind force on a cylinder in yaw is modelled on the idea that the force is all due to variations in surface pressure around the cylinder, with no viscous force along the axis. Since pressure acts perpendicular to the surface, the force on a cylinder in yaw is also perpendicular to the axis. If the wind were purely horizontal (which it isn't) you could say that all the element force is directed along the boom.

Using the newer model gives the same limits for element strength. Because the element force is perpendicular to element axes, it predicts you could make booms slightly less beefy, but not by much because you can't ignore the effect of the vertical gust component on boom requirements. A typical failure of big Yagis is the boom breaking upward; I use wind models with gusting at 15 degrees from horizontal over flat terrain and 30 degrees in hilly terrain.

The biggest difference between the old and new models, and one that has caused confusion, is the prediction of the side force on the mast and tower.

Modelled under the newer standards the maximum area is simply the larger of the boom or element areas, and the effective area is less than either one at angles near 45 degrees. So the predicted side force under the newer models (remember, the real world hasn't changed, only the model) is less, the minimum rather than the maximum is around 45 degrees and maybe you can get by with a little less mast or tower if you want to take the gamble.

I experimented with scale-model Yagis in a poor-man's wind tunnel (mounted on a bearing out the sunroof of a car) and satisfied myself that the more recent standards describe the physical situation better, but I also found that there were stable points both with the boom aligned with the wind and with elements aligned with wind (0,90,180,270 degrees).

This weathervaning may be caused by shadowing of the boom by the elements and vice versa. It isn't predicted by the simple force models, but you can sure see it on your own antennas in a wind. Symmetry, especially boom balance, reduces the rotating torque needed to rotate the antennas in the wind. But even with static balance, weathervaning with different gust and vortex directions results in your mast coming loose or rotator breakage no matter how carefully you align it with the mean wind. The required rotator braking torque depends on the rotational resonant frequency (it goes way up if there's any bang-bang mechanical backlash) and on the mass and area polar moments of the antennas on the mast, which scale with element size and the square of the boom length.

The bottom line for me is that I don't let myself overload the mast or tower at the local 50-year maximum windspeed (defined as a medium-term average called the "fastest mile of wind" that doesn't include the shortest gusts), I balance the booms and the elements and I aim the antennas with the boom along the predominant storm wind direction. I still lose rotators from gust weathervaning (the prop pitches aren't ready yet) and I use a short coax jumper at the mast so I only have a small piece to replace if things get loose. This year's storms measured 134 mi/h plus gusts on the ridge here, so theory really got well tested.

South Texas Cattleman's Wisdom
Appropriate to Low Band DXing -- by Joe, K5CTG

The only way to drive cattle fast - is slowly

Coolness and a steady nerve will always beat simple quickness - Take your time and you will only have to pull the trigger once.

It's better to sit on your horse and do nothing than to wear him out chasing shadows.

Timing has a lot to do with the outcome of a rain dance.

Never ask a man the size of this spread and never ask a barber if you need a haircut.

When you are trying something new, the fewer people that know about it the better.

and probably the most important...

Don't ever squat with your spurs on.

10 Years Ago

Like now, the sunspots in 1986 were nearly nonexistant. With the exception of one week in April of 86 when the flux jumped up to the mid 80's, it ranged between 67 and 79 for the remainder of the spring. But still there was some DX as seen by the following:

3C0 Pagalu - 3C0A was the call used for several weeks by TR8SA, and five others, from this island, formerly known as Annobon.

4W Yemen - Several sources reported that 5T5CW expected to have a license waiting for him when he arrived. Either it wasn't, or he never got there.

9N Nepal - Father Moran celebrated his 80th birthday on 29 May. 9N1MM was on 20 SSB daily.

C9 Mozambique - This rare country was activated briefly by C90A, but alas, he was never able to get documentation. The first legit C9 didn't arrive until '88.

D2 Angola - D2BCW was active, but without a license.

Dayton - In their regular spot on the Dayton DX Forum, W6KG and W6QL showed slides of their 1985-1986 YASME African tour. This trip included stops as W6KG/ZS, ZS3/W6QL, 7P8KG, 3D6QL, A25/W6KG, W6QL/Z2 and 9J2LC.

FO0 Clipperton - The FO0XX crew left the island after an abbreviated stop of only 5 days. They made 15K+ QSOs.

FR/t Tromelin - FR5AI/t was on the air, but not very active due to severe weather. He managed only 100 20 meter cw contacts.

SV/a Mt Athos - Frank insisted that his DL7FT/SV/a operation was legit with all the proper permissions. Various Greek operators claimed otherwise.

VK0 Macquarie - VK0SJ was active on SSB. Since he was an Australian novice, he could not operate cw.

XU Cambodia - XU1SS was active operating from a refugee camp in Cambodia (or was it in Thailand??).

ZA Albania - It was a few years before Martii and crew activated ZA1A, but rumors had OK2AOP and crew ready to operate in the fall.

ZK3 Tokelau - ZL1AMO and ZL1BQD were active as ZK3RW and ZK3RR. Of course Ron handled the CW and Roly the SSB.

W0SML is looking for two sections of Rohn 25. Have you got a section taking up space that might suit Doug's needs?? (319) 393-2974

K0VZR is holding a room at Dayton. If you are interested contact Tom via the repeater or Packet Cluster or landline. (319) 827-6738

NY0V is now signing an alias, G0WVI, when in the UK on business

NN9K and W0EJ both Midwest Division set records in the ARRL 160 contest. Congrats to Pete and Wade! Check the April issue of QST for results.

The following bandplan is being considered by sponsors of various contests and magazines. I found out about it by accidently getting a copy of it from the Contest Advisory Committee. Comment deadline is 1 April, so write your congressman:

1800 - 1810 kHz - Primary: Narrow band FM wireless telephones.
Secondary: Short range CW contest QSOs.

1810 - 1815 kHz - Primary: High speed CW QSOs with friends across town.
Secondary: Short range CW contest QSOs.
Thirdary: European DX QSOs when band it really open.

1815 - 1820 kHz - Primary: RTTY and Packet
Secondary: Short range and DX QSOs during contests.
Thirdary: Short range QSOs on SSB during contests.
Fourthary: High speed data beacons from down under.

1820 - 1825 kHz - Primary: Safe place for USA stations to call CQ DX.
Secondary: Place for Europeans to call CQ DX.

1824 kHz - Frequency used by all of the Asian stations that run 10 watts (except Japan).

1825 - 1835 kHz - Primary: Dairy Farmer Nets
Secondary: AM broadcast garbage
Thirdary: Place for Europeans to call CQ USA.

1835 - 1840 kHz - Reserved for SM's calling CQ DX.

1840 - 1850 kHz - SSB DX window

1848 - 1852 kHz - DX Lists

1855 - 1910 (on even 5 kHz) : Primary: Ragchewing with your buddies.
Secondary (on 2.5 kHz): SSB Contest activity

1907.5 - 1912.5 - Pig Farmers Nets

1915 kHz (Upper sideband) - A funny place to be.

1920 - 1990 - AM segment.

1990 - 2000 - Best place for DX, but it never gets used.

The SESC Glossary of Solar-Terrestrial Terms, defines STRATWARM as

"a major disturbance of the winter, polar, middle atmosphere from the tropopause to the ionosphere, lasting for several days at a time and characterized by a warming of the stratosphere by some tens of degrees."

An intense warming of the stratosphere implies an increase in the density of ions created through ozone ultraviolet ray interactions.

Since radio propagation in the atmosphere is very much affected by the relative height of the ion layer in the atmosphere, radio communications are affected by STRATWARM and, therefore something our customers are very interested in knowing.

TOM VAVRA WB8ZRL
682 Palisades Access Rd.
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Jim Spencer W0SR
3712 Tanager Dr. NE
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Dates to mark on the calender

April	19	EIDXA meeting at Kirkwood Community College
May	17-19	DAYTON Hamvention
May	25	Fleamarket at NC0P's
May		FR5HG/G Glorioso
May		ZL8RI Kermadec
May		ZS8IR Marion Island (until Jul 97)
Jan	12-28	VK0 Heard Island