The Eastern Iowa DXer

The Official Newsletter of the
Eastern Iowa DX Association

An affiliated club of the American Radio Relay League

Greetings & Welcome to Spring!

The April 2008 EIDXA meeting will be held Friday, **April 25th**, at 7:30 p.m. at Kirkwood Community College, Room 219C. The program: *Logbook of The World* by Nelson KUØA. If you haven't attended an EIDXA function for a while, why not put the April 25th meeting on your calendar. How to find the meeting:

Kirkwood Community College
6301 Kirkwood Blvd. SW, Cedar Rapids, IA 52404

- From I-380, take the Kirkwood/Highway 30 exit.
- Go south on Kirkwood Blvd approximately 1 mile.
- Main entrance is on the left.

A campus map can be found on the EIDXA web site at http://www.eidxa.org/meetings.htm

Eyeball QSOs begin around 6:30 p.m. Pizza and refreshments follow each meeting. See you there!

From the President's Pen - Glen Kesselring KØJGH

From the ARRL DXCC Desk, Bill Moore's reply to Kosova (Kosovo has changed the "o" to "a" with their independence, I believe) becoming a new DXCC entity: "Kosovo will be added to the DXCC list if it becomes a member of the UN, or if it receives a prefix bloc from the ITU. The third condition does not apply," Moore said. "The 'Event Date' will be either the date Kosovo became a UN member or it receives its prefix from the ITU."

History

The Assembly of the Republic of Montenegro made a formal Declaration of Independence on Saturday June 3, 2006. Within the month, ARRL issued the following announcement:

> *New DXCC Entity -- The Republic of Montenegro*
> *Jun 28, 2006 14:56 ET*
> *Wayne Mills, N7NG/1*
>
> *As expected, the UN General Assembly, after last week's recommendation by the Security Council, decided today to admit The Republic of Montenegro to the United Nations, adding this entity to the United Nations List of Member States.*
>
> *According to the ARRL DXCC List Criteria, Entities listed on the UN List of Member States qualify as Political Entities on the List. Therefore, effective June 28, 2006 (UTC), ARRL has added The Republic of Montenegro to the DXCC List.*
>
> *QSOs made on or after this date will count for DXCC credit. Claims for DXCC credit will be accepted immediately. See http://www.arrl.org for additional details.*

The following is from the DXCC rules:

SECTION II. DXCC LIST CRITERIA

Definitions: Certain terms occur frequently in the DXCC criteria and are listed here. Not all of the definitions given are used directly in the criteria, but are listed in anticipation of their future use.

- **Entity**: A listing on the DXCC List; a counter for DXCC awards. Previously denoted a DXCC "Country."
- **Event:** An historical occurrence, such as date of admission to UN or ITU that may be used in determining listing status.
- **Event Date:** The date an Event occurs. This is the Start Date of all Event Entities.
- **Event Entity:** An Entity created as the result of the occurrence of an Event.

From the President's Pen, continued

The team of OH2BH, N7NG and W3UR have been sending out request cards to Solicit DXers to write their Division Director with the request to over turn the above decision by Bill Moore and the DXCC. The appeal is over the start date which seems to be consistent with the Montenegro entity start date. WHY the APPEAL? If the add date is truly the UN or ITU date, then none of their contacts will count for Kosova.

In my opinion:

- The subject of pre-approval has come up before. I doubt there have been many operations that have had the opportunity to be a brand new entity that didn't have at least a couple of week's prior notice. It would take some real ethical commitment on the part of DXCC to keep confidential regarding the proposed operation, but if documents and rules were known before the proposed activity began this could eliminate these kinds of problems.

On a similar subject maybe a new addition to the Accreditation Criteria needs to be added which would indicate something like:

- "There will be a period of 30 days after a new entity is added for nationals of the previous entity to operate prior to allowing CEPT operators to activate contacts that will count for the new entity." It is NOT the intent to bar outside expertise, which may help train operators, educate or improve equipment and antennas. This is goodwill towards the new entity.

PLEASE NOTE!! This is an editorial opinion and does not necessarily reflect the feelings or opinion of the Eastern Iowa DX Association.

From the VP - **Steve Miller NØSM** *Editor, Eastern Iowa DXer*

As a newsletter editor, it's always difficult to know what interests everyone and one tries to offer a little variety! In this issue, Rich Haendel, W3ACO, gives us his perspective about his SteppIR Yagi. The SteppIR seems to have taken center stage so I thought it would be interesting to get a perspective from Rich. Thanks for a fine article, Rich!

We're all aware of the disaster which occurred when the wind hit Rick Heinrich's (NØYY) tower. Here's this fantastic tower and antenna system folded over about 2/3rds of the way up. Rick tells us about his reconstruction plans and all of the interesting thought that has gone into the plan. It's easy to see why Collins Radio keeps all of this author's time sewed up!!

Rick also made a return trip to the PJ2T station during the ARRL CW Contest. If you've never been there, it is RF Mecca. There are few other places that constantly have propagation to begin to compare with Bonaire. Rick tells us about his experiences this year. It's a great read.

From the VP , continued

Ducie Island Expedition - I don't get too excited about a lot of the DXpeditions but I believe we've probably seen one of the best thought out expeditions in recent history in the Ducie Island operation. That's not to put down the other fine expeditions but if everything could have gone any better, I'm not sure how. Yes, the numbers are impressive but it's too easy to get carried away with the large figures and to lose the true appreciation for the operation. The team had obviously developed now only a significant game plan but had the discipline to follow it through. They worked everybody, everywhere and demonstrated how the ideal expedition should flow. That said, one must in all fairness recognize that comparing DXpeditions is nuts. Each is unique in terrain, climate, duration, accessibility, propagation, size, number of operators, duration, and many other ways. The Ducie Island Team was uniquely prepared for the conditions they would face, for the propagation available, and so on...very much the way the Peter I expedition was. It would be interesting to know how many of our club worked that expedition 10 or more times. They certainly demonstrated what good luck is....that point where superb preparation meets a quality plan!! They must have had a ball!! I sure hope so. They definitely deserved it.

Short Topics:

From Jerry WWØE - "Well I finally went over the 100 country mark on 80 meters in the CW contest a couple weeks ago, wasn't in the contest, just trying to snag a few new ones. So I'm finally on my way to 5BDXCC. Just need to get a big stack of QSLs in the mail soon." Congratulations Jerry! That's a great accomplishment!! Where are you going next??

From Tom WB8ZRL - Check the Twin Cities DX Association web site for info on WØDXCC, 8-10 August. www.tcdxa.org/RARExpo.pdf It will be held in Rochester, Minnesota.

Kosovo-St. Barts-Rwanda - On the less than sunny side of the ledger was the recent opening of Kosovo. It seems that before the natives had a chance to put their own new country on the air, the happy team of operators rushed in. It's great that these guys are all big name ops and have done 25 major expeditions, etc. etc. But did it ever occur to them to allow the local operators the courtesy of making the first contacts from their new country?? Assuming it finally does become a full fledged country, it's location will make it a garden variety contact. Is being #1 THAT important? I don't think so. Another thoughtless act! The 9XØR ops went to a lot of effort to open up amateur radio in Rwanda to the world again. Before they got to operate there, another German team rushed in and put it on the air. It was thoughtless to say the least and extremely poor sportsmanship to say the most.

I've heard similar comments regarding FJ/ St. Barts. I hate restrictive rules but maybe it's time to put a moratorium on counting contacts from guest ops for 30-60 days once a new country is declared. Will the locals be overwhelmed? Possibly but they will have had the first opportunity to put their own country on the air. In all of these cases, it goes back to the qualities our parents tried to teach us when we were little kids - simple courtesy and respect for one another. (Late addition: It does appear now that the "guest" operation in Kosovo won't count. for DXCC.)

From the VP, continued

Scores for the ARRL International DX Contest

- SSB Weekend

WØMJN Joe Finkstein 107,184

WØEAN Robert D. Joy 12,096

WØPPF George E. Carsner 15,525

KØFA Randall H. Hollingsworth 2,940

According to the Contester's Rate Sheet 2,586 logs have been received for ARRL DX CW and 1,734 logs have been received so far for the SSB weekend (including several from EIDXA members). I hope to have a listing in the newsletter.

Interesting websites:

Vertical Antennas - http://www.k2kw.com/verticals/learning.html

HC8N - Interesting Galapagos information - http://www.spectrum.ieee.org/mar08/6020

Supplies for working on a tower - http://www.towerjack.com/

Caribbean Contesting at its Best! - Rick Heinrich NØYY

Imagine waking up on a cold Iowa morning -- 23 degrees with 40 mile per hour gusts… And then opening your eyes to palm trees and a sunny 85 degrees! Yes, I had the chance to go south and feed my addictions – CW – DXing – and Contesting!!!!

Actually the title is a bit of a misnomer, Curacao or PJ2 is actually in South America and not in the Caribbean, but its close enough for my purposes.

Early in December, I received an e-mail looking for some parts from the Caribbean Contesting Consortium to enhance the PJ2T Contest Station. As we discussed the project through several e-mails, Geoff, WØCG/PJ2DX made me an offer I could not refuse – "Would you like to be part of the team for ARRL DX CW?" Just so that you all realize what was offered was an opportunity that dreams are made of – to be part of a winning team for the ARRL DX Contest. Sure many of you may challenge the ARRL vs. CQWW contests as which is better/bigger/etc. but you have to realize that PJ2T has won ARRL DX CW in the class they choose for the past 9 years – this would be pursuing the 10th win!

So I jumped at the chance. I started coordinating on the home front to be gone and then did the other things like schedule vacation time at work, etc. I made the travel arrangements (using frequent flier miles) for nearly a free week in DX Heaven!

Caribbean Contesting, continued

While PJ2T is an amazing station, it has a limitation into Europe because of the 300 foot high hill behind the station. This compromises its performance on the high bands during contests like the CQWW contest where everyone works everyone. The ARRL Contest is a bit different. DX works the US while the US works DX. So this was a point the antennas in a single direction and GO!

As plans matured, there would be a team of 7 operators participating. Geoff, WØCG was the coordinator. The rest of the team consisted of N1ZZ – Dan Gravereaux, W8AV – Goose Steingass, W8TK – Tom Kravek, our own WØNB – Jim Livengood, W9VA – Bill Smith, and yours truly. What I did not realize was that I was in the company of well known Hams! W8AV is a major contester from Ohio that is Toni, NØNI's nemesis. N1ZZ, Dan – is the President of West Mountain Radio! And W9VA, Bill is the coordinator of the W9DXCC Dinner! Wow I was humbled to be part of this team.

We all arrived at different times over a two week period. For me it was leaving the extreme cold of Iowa to go the warmth of the beaches! Not being one to leave anything to chance, I hedged my bet and kept rescheduling my travel to ensure that I got there according to plan. So even though I had arrangements for a direct, one day trip, I wound up leaving on Sunday, February 10 at 7am on the flight from Cedar Rapids to Chicago. It was a good thing I left early – the weather was so cold that the plane side "valet" luggage was frozen in the cart for two hours and I missed two flights to Miami! But not to worry, I knew this would happen so I had booked a hotel in Miami for an overnight stay so that I could take the early flight to Curacao! (That also gave me two chances to get to Curacao on Monday, February 11th.

But the flight from Miami to Curacao was on time (actually a half hour early) so life was good. I was met by Jim, WØNB, his wife Mary, and Cindy, the wife of WØCG. Now nothing could go wrong.

As many of you already know, I analyze everything. I had looked at previous performance of the PJ2T efforts and compared their performance to other likely players. The high scores during this part of the sunspots are from the most southern Caribbean locations that can take advantage of short, sporadic 10M openings. I also looked at the NG3K website to see who was planning to be in the area and what classes they would play in. The Team had considered a Multi-Single effort until the team size grew. With 7 operators Multi-Single was a bit of overkill. In the Multi-Two class the competition would be a bit stiffer. A team of W9RE/N4GG and others would be on Bonaire as PJ4O. That and the new Caribbean super station of Krassy, K1LZ known as 6Y1V would also be operating M/2. So we looked at each other and asked if we were up to a few extra hours and the plan for a full-blown Multi-Multi was born. Now for a US station like W3LPL or K3LR, this means at least five stations on full time and many of the stations have a second multiplier operator. For us it meant that we would likely max out at 4 stations during peak times and typically have three on at a time. So the plan was born.

Of course this is a salt environment and repairs are continuous. Those of you who may have watched the PJ2T web cam likely saw some of us rebuilding a couple of the power amplifiers. We had to replace a band switch on one and the power supply capacitors in

Caribbean Contesting, continued

another. So there were many work tasks. But I also got a chance to play radio during the day and into the evening. I had the pleasure of working many of you while I was there – both in the casual operating before the contest and also during the contest. As I recall, WB8ZRL, NUØP, WØSR, KØJGH, NØSM, WØWP and a few others made it into the log.

The success of the PJ2T station is that everything has a backup plan. We held our team meeting on Thursday afternoon to determine operating schedules and to plan on a practice run on 0000Z on Friday (the evening before the contest) to wring out last minute things. I was the launch 20M operator, W8TK was on 40M, WØCG on 80M, and W8AV on 160M. We launched and worked the bands for an hour to get a feel for conditions, and how the
Caribbean Contesting

openings would be at 0000Z Saturday for the start of the contest. 20M died after about 20 minutes but it was wide open to JA's but not the US! Everything else worked great.

On Friday, the traditional day of final preparation found us putting up the 160/80M Pennant for receive to supplement the US Beverage. This was to allow steering the arrival angle and noise issues. In the early afternoon, all of the stations had their computers restarted and the contest logs initialized with common message exchanges, etc. That left a nice dinner and then a pep talk among the starting operators. Things like who would be first in the log, what rates we would do, etc. At 2345Z we all sat at our radios and started to burn a hole in a run frequency.

WHAM – the 40M PA had a stuck transmit/receive relay so a quick swap was done and 4 minutes later a new amp was on line – that was the LAST of any Murphy visits for the entire contest. We were off and running.

At 0000Z we launched into what had to be the most fun I have ever had in ham radio. I put the first Q in the log 8 seconds into the contest. We had rates on the 4 stations that averaged 150Qs per hour. We had our first 1000 QSOs in the log at 0200Z and it was off to the races.

At 2359Z on Sunday evening I put the final two QSOs in the log on 40M. We had more than 8500 QSOs with duplicates and 7,975 QSOs for score. We had the highest QSO total from any station in the contest. Final results were:

Band	QSOs	Mults	
160:	822	56	
80:	1255	59	
40:	1979	59	
20:	2052	59	
15:	1832	59	
10:	35	11	
Total:	7975	303	Total Score = 7,249,275

Caribbean Contesting, continued

The thirty five 10M QSOs came hard. We worked about 25 on Saturday and the rest of Sunday. What was most interesting was that we had to beam west into the Pacific to track the MUF contour to work the final 10 stations in an additional 4 sections. When we used the 5 element 15 meter beam pointed north, we could not even hear the US stations. When we used the Classic 33 tribander (a remnant of the original PJ9JT station of John Thompson) pointed west the stations popped out of the noise!! You learn something new every day. Bill, W9VA was the 10M hero.

By the way, as a side note, the multipliers for the DX stations are limited to the 48 continental states and the Canadian Provinces for a total of 63 Sections. We maximized the available 59 sections on four of six bands! The US Multi/Multi stations were able to work more DX entities, but even so, we beat them all in terms of QSOs! That is why there are classes for the US and the World!

So I can now smile and reflect on the winning Multi-Multi World score that brings PJ2T to 10 in a row for ARRL DX. A fantasy realized.

Of course there was also the reality of having to come home to the blowing, drifting, snow, but somehow that was all lost in the memories of the team effort, the camaraderie, the beaches, etc.

But one thing you can be sure of – I'll be back!

The Steppir™ Yagi - Rich Haendel W3ACO

The Steppir yagi is a rather unusual antenna compared to other Yagi antennas in that the elements are adjustable in length to match whatever frequency you are operating on. My Steppir is a 3 element model on a 16 foot boom. (Steppir makes a 4 element on a 32 ft boom as well) My antenna tunes from 13.8 MHz to 54 MHz. My controller has buttons for 20M, 17M, 15M, 12M, 10M and 6 M. There are models that operate from 6.9 to 54 MHz too. Many users have their antenna slaved to the output of their transceiver so the antenna tracks the frequency of the radio. I don't have mine set up that way so I tune the antenna in intervals within each band manually by pushing the band button repetitively as needed. For example, the programmed points for 20 meters are 14.050, 14.200 and 14.300. You can also step the minimum SWR point in 50 KHz intervals in each band if you like. Band sections are 3 for 20M, 1 for 17M, 3 for 15M, 1 for 12M and 5 for 10 M, plus 1 for 6 M.

The basic antenna design is a narrow band design maximizing gain and front to back without regard to SWR bandwidth. The narrowband design has a natural impedance of about 22 ohms. Installed in the driver housing is a 50 to 22 ohm transmission line transformer Unun from the designs of Jerry Sevick W2FMI. The transformer has very low loss, less than 0.1 dB. I modeled the antenna using EZNEC on several bands. The

The Steppir Yagi, continued

performance seems to validate the modeling. I noticed that on the higher bands, especially 10 meters, the F/B ratio is lower. It doesn't seem to make a difference in operating performance however. I think that is because the elements are spaced further apart wavelength wise and that reduces the F/B. I don't use the antenna on 6 meters so have no comments for that band.

Each antenna element consists of two spools of beryllium-copper strip conductor about 0.6" wide, mounted in the antenna housing, forming an element of any desired length up to 36' long. The copper strips are perforated to allow a stepper motor to drive them simultaneously with a sprocket. Stepper motors are well known for their ability to index very accurately, thus giving very precise control of the antenna length. In addition, the motors are brushless and provide extremely long service life. The controller has the feature that you can read the actual element lengths to 0.1" intervals at each and every frequency you have programmed. The controller has two sets of memories, one for Ham bands, and the other for General coverage. It is possible to "design" and make your own antenna using the programmable lengths and save them to General coverage or replace the factory setting for any band segment with your own design. There is also a recovery mode where you can reset all of the antenna element lengths back to factory default if you screw up!!

The fiberglass poles are telescoping, lightweight and very durable. The ability to completely retract the copper antenna elements makes the antenna more immune to nearby lightning discharges. That's what I do every time I close down my station. The microprocessor-based controller offers numerous functions including dedicated buttons for each ham band, continuous frequency selection from 20m to 6m, 17 ham and 6 non-ham band memories, 180° direction reversal or bi-directional mode in just 3 seconds. The reversing feature is really handy as it allows for beam switching much faster than rotating the antenna near 180 degrees.

Sometimes I am trying to work Japan early and if the band is closed that way, I just push the reverse button and I can work the Caribbean quickly. The front to back ratio is very good, most times I see at least 5 to 6 S units difference in the signal strength and that helps when I am trying to work ZL or VK on 20M in the afternoon when Europe is still booming in. The SWR at the center of each band position is low, usually less than 1.5 to 1. You can tailor the driven elements and save them to improve SWR if you like. I've done that and my SWR is usually less than 1.3 to 1 everywhere.

The fiberglass tubes seem to shed ice quickly. I put my Steppir up in May of 2005 so have had my Steppir up for two winters so far. During ice storms, the fiberglass tubes bent quite a bit with the ice loading, but when a breeze comes up, the ice falls off. I have collected pieces of ice ¾" thick from the antenna. The antenna has a wind load of about 6.1 Sq ft and is rated for 100 MPH. That's important for me as my location is rather open without any benefit of wind break In Iowa City when the wind is 20 MPH, at my shack near Cosgrove, 15 miles West of Iowa City, the wind is 35-40 MPH. I compared the wind load to other 5 or 6 band Yagis and the Steppir surely has the least wind loading of all of them. For example, The Opti-Beam 11-5 has a wind loading of 15 sq ft at 80 MPH, quite a difference. The Hy-Gain TH11 has a wind load of 12.5 sq. ft.

The Steppir Yagi, continued

I had an initial problem with the programming. On 17 meters when I tried to re-center the SWR and lower it to 18.12 MHz, the antenna suddenly retuned to 15.6 MHz. That was a microprocessor bug. I called Steppir, talked to Mike Mertel K7IR, and the owner of Steppir. He sent me a new microprocessor immediately, problem solved. Some EIDXA members have had initial problems with the stepper motors, but the company has been very supportive and stood by their product, providing replacement motor assemblies as needed. My antenna has been very reliable, the performance is very good especially the F/B ratio, the low SWR is good for me as I don't use an antenna tuner and my solid state amp seems to be happy.

Assembling the antenna, I've helped a couple of EIDXA members put together the Steppir. Here are a few suggestions we learned. First, make sure that ALL six (or eight) of the fiberglass tubes stretch out to 17'-8". If not, interchange parts between element halves or lightly sand the butt end of selected sections until they do. Do not over-sand! Reassemble the element halves until they all are 17 '-8" Second, when wrapping the silicon rubber tape over the joints, it is IMPERATIVE that you wear rubber gloves so as not to get "finger grease" on the tape. Even a small amount of sweat will prevent the tape from sticking to itself. The tape sticks only to itself. The silicon rubber tape when tightly wrapped over the joints holds the element parts in position.

Re the 40M folded dipole "loop". There is now available a driver element that replaces the center element in the 3 element Yagi or the driver element in the 4 element Yagi. It tunes the antenna as a dipole for 30 and 40 meters. The element folds back upon itself to form almost a folded dipole. I talked to a few owners who had this version at Dayton last year. Some owners had problems with the copper tapes sticking when running past the 180 degree turns at the end, especially in cold weather. I do not know if the problem has been solved yet.

I am happy with the performance and reliability of my Steppir. If anyone needs help putting one together or has any questions, e-mail me.

Are You Using LoTW? - Nelson Moyer KUØA

What if you could confirm all of the QSOs you need for DXCC electronically, thereby saving a small fortune in QSLing costs? Well now you can! ARRL introduced the *Logbook of the World* (LoTW) on September 15, 2003. As I write this article, the database contains 163,839,209 QSOs from 19,806 registered users. Log matches resulting in QSO credits number 12,672,223, and the database is growing rapidly as new users upload their logs. Some stations have achieved 5BDXCC using only LoTW credits, and one station has over 1,500 Challenge credits on LoTW. LoTW was expanded to include WAS awards on July 7, 2006, and there is talk of adding CQ awards and IOTA awards at some point in the future. Still not interested? Read on.

Are You Using LoTW ? (continued)

When LoTW was first introduced, the user interface was not easy to navigate, and the registration process to obtain a certificate was perceived as an impediment. ARRL has worked diligently in the intervening years to improve the web page and guide new users through the registration process. Once you are registered, you have access to additional FAQs to answer most questions that are likely to arise, plus there is an email help desk for questions or problems not otherwise covered in the FAQs and instructions.

The LoTW home page (sign in page) is open to everyone, and it contains all the information you need to get started, as shown below.

Welcome to Logbook of the World

Note: Be sure you are using the latest version of the TrustedQSL software!

Download TrustedQSL

You can:

- Upload a certificate request (.TQ5) file.
- Enter the password you received on a postcard.
- Find out what documentation is required for non-US certificates.
- Log onto the LoTW User's Page

About Logbook of the World

- **Welcome**
- **Introduction**
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- **FAQ**
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- **Fees**
- **Applying DXCC Credits**
- **Privacy Policy**

Logbook of the World: 75 Million QSO's Can't Be Wrong!
By H. Ward Silver, NØAX
In English ·· En Español

Translation to Spanish by
Satto Translations

Are You Using LoTW ? (continued)

These links provide all the information you need to obtain and authenticate your certificate and establish your password. Once you are able to access the password-protected web pages, you can upload your log and view your account, including access to all of your DXCC and WAS credits. You can apply for awards using only LoTW credits, or you can apply for awards using a mixed application consisting of paper QSL cards and whichever LoTW credits you choose to apply.

Logbook of the World (home page):
https://p1k.arrl.org/lotw/default

Getting Started (pdf):
http://www.arrl.org/lotw/getStartedGuide.pdf

The Logbook of the World–75 million QSOs Can't Be Wrong! (pdf):
http://www.arrl.org/lotw/silver.pdf

So what are you waiting for? Assuming a live internet connection is available at the April meeting, I'll take you behind the password to reveal just how much information is available to you and how you can upload your log and apply for awards. de KUØA

My Summer Vacation - Rick Heinrich NØYY

It was Christmas 1960 and I opened a gift that was to be a huge influence on many things in my life. It was a large metal box with thousands of pieces. Yes, it was an Erector Set complete with motor drive, hardware, long and short pieces, axles, gears – you name it. Little did I know then that I would relive those hours and hours of putting things together and taking them apart.

Now fast forward to today – I am again faced with taking things apart and putting them back together again. In 1998 I purchased my Trylon T500-72 Tower. When it was delivered I learned that again I had an adult sized Erector Set! The pieces were longer and heavier and the bolts were HUGE compared to the 4-40 hardware supplied with the original kit, but the prospect was the same.

Then the freak tornado of September 30, 2007 helped me start over a bit. So this is an update to the NØYY antenna project.

The tower remains in its bent, disfigured position as I have worked with the Trylon engineers and the Canadian dealer from which I originally purchased the tower. Everyone at Trylon has been OUTSTANDING in working with me on the analysis and determination of how to move forward. The first steps consisted of modeling the tower with all of the antennas, masts, rotor, etc. Trylon has a tool called TowerCalc that models all of the stresses of the "as installed" antennas. While it was developed to support commercial installations for the cellular industry, the tool works well with amateur antennas – you just have to supply the discrete information and load the spreadsheets.

My Summer Vacation, continued

The engineers were concerned that I had overloaded the tower and wanted to assess what should be done to go forward. Personally, I thought I had worked with enough of a safety factor but that was to be confirmed. So piece by piece we loaded the spread sheet with the 40M beam, WARC dipole, tribander, mast, rotor, etc. Zoning for this part of Iowa uses 80 MPH as the baseline for approvals so we used this as a starting point. The analysis illustrated that all the safety factors were met. A more detailed analysis showed that the failure point would be at 32 feet as this was the lowest point in the safety factor curves.

So we adjusted the wind characteristics to see at what point the tower would fail. The result was that the tower safety factor fell below 1 at a wind of 101 MPH! Sure enough the tower failed just as the safety analysis predicted. We did agree though that we could not confirm if the wind was 100 MPH straight line of if there were other effects from the ridgeline with updrafts or if there was any rotating wind that took the tower down.

But there were other indications that the wind had help! The boom on the 40M beam was folded upward against the mast indicating a significant up force from the wind. While there is a truss cable to keep the ends of the boom from sagging from element loads, no expected to have to have a truss from below to keep the boom from folding upward! (Hmmm… is this a design option?)

So the big decision was whether to do the same thing and put up the 72 foot version or if I should back down and do the 64 foot version with more safety factor. So for those of you that seek a risk free approach to life – sit down. I chose to put the 72 foot version back up assuming that "lightning will never strike twice!" But you can bet your bottom dollar, that I will purchase something like the ARRL ham radio insurance this go round!

As for the antennas, working with Cushcraft was a bit more "interesting." I had chosen Cushcraft because all the antennas worked together as an integrated solution. There were no issues of having to put the 40M beam at 90 degrees to the tribander boom to minimize coupling, etc. I was VERY happy with the solution and thought that I had made a one time decision to buy the antennas from Cushcraft. Further, they had all been beefed up consistent with the modifications proposed by Dave Leeson W6QHS. Part of the issue was that the engineers had moved from Cushcraft and that left only the product support team. This was further complicated by the fact that Cushcraft had been bought by Laird Technologies who were focusing the business on cellular and business communications. The amateur radio product line was thinned down and was being managed as a mature product family with minimal investments.

So when I called with a long list of replacement parts, my request was met with a resounding "you're out of luck". So with significant cajoling and begging (and with appropriate threats) I finally got the product support team to honor my request for replacement parts – but I had to skinny the list down to those items that were absolutely unique to Cushcraft. This meant that all of the aluminum tubing parts would have to be fabricated from raw aluminum tubing that would come from Texas Towers.

With all of that as background, here is how the project is shaping up for my major spring/summer project. Trylon engineers have assured me that I should only need to

My Summer Vacation, continued

replace a limited set of sections of the tower. And the good news (?) is that since it is an Erector Set like construction, they can provide piece parts for that repair. This will minimize the overall cost of replacement. Of the 9 sections of tower (each section is 8 foot for a 72 foot tower), 6 should be completely reusable with only three sections needing replacement. Of those three only the vertical channels would need to be replaced and the cross braces re-used. However, there are about 21 cross braces that would need to be replaced because of stresses. Of those sections that are being rebuilt using the new vertical elements with reused cross braces, it was recommended to use new bolts and other hardware. As it stands right now, my Canadian dealer will bring the replacement parts to Dayton so that I can avoid the significant shipping costs! Everyone is working with me on the tower end.

As for the antennas, I am still waiting for the quotation and proposed availability of the unique Cushcraft parts. The Amateur Product Line manager is working with me to make sure that the parts I need will be made available. What makes this difficult is that the tribander is the X9 which was discontinued many years ago and the X7 parts are not compatible. So they are working a special production run of my parts for the X9. (If anyone has a printing press for money, I'd like to borrow some run time – I think those parts will be a significant investment!)

Of the hundreds of messages I received from contesters all over the US and the world, the summary is that "you'll be back – only better"! I have a few options that will sprout from the tower on this build and I'll fix some of the things that I wanted to do over. The current plan is that by the contest season of 2008, I'll be back on the air and with a few new tricks up my sleeve!

But I've still got the other projects that didn't get done like the beverage antennas, automated antenna switching for SO2R, CW/phone matching networks, interference filters, etc. so the summer of 2008 will be a busy time. (So many projects – so little time!)

The Candidates Weigh In

A correspondent, known only as "The Shadow" claims to have recently interviewed all three presidential candidates about ham radio issues:

How do you feel about PRB-1?

Clinton: I think the Democrat National Committee should consider a similar measure that would preempt super-delegates from supporting Barack.

Obama: We need change.

McCain: If I didn't support it, I was wrong, I was wrong, I was wrong.

Candidates, continued

Do you support "Broadband over Power Lines"?

Clinton: I'll have to check my campaign's list of donors before I answer that.

Obama: If it involves change, yes.

McCain: Is that in Iraq or Iran?

Should the FCC require better RFI Protection in Consumer Product Devices?

Clinton: I'm for anything that protects the consumer – and raises their income taxes.

Obama: Let's see ... sounds like that involves change, so yes.

McCain: Yes. We must take the fight against RFI to the factory or it will follow us home.

Should Scarborough Reef have been approved as a DXCC entity?

Clinton: Who pushed BS7 through, Karl Rove?

Obama: It may not have been the best decision, but the DXCC program can no more disown BS7 than I can my own grandmother.

McCain: Is that in Iraq or Iran?

How do you feel about recent non-Serbian operators activating newly independent Kosovo, then complaining about ARRLs decision not to count it because no U.N. recognition?

Clinton: Serbia – Wasn't that where snipers forced me to run for cover from the plane to the fund-raising dinner?

Obama: Sounds a lot like the Florida and Michigan primaries!

McCain: We must respect ARRL's decision in this matter. Now what is the ARRL again?

Would you consider getting a ham license?

Clinton: If it will help me in the polls, yes.

Obama: Getting a license would definitely be a change.

McCain: I'm dead set against pork, so, yes, a license would be appropriate.

Candidates, continued

How will you react when you get your license?

Clinton: I'll be ready on day one.

Obama: We need change, so I'll be requesting a vanity call sign.

McCain: I'll be contacting Vietnam to ask about some old buddies.

Paid EIDXA Members

According to EIDXA Secretary George Carstens WØPPF, the following are paid members for the 2007-2008 year. If this is incorrect, please contact George at w0ppf@juno.com. Annual EIDXA dues are currently $5.

David Anderson
Frank Apple
Scott Augsburger
Rich Bingham
Heinz Blankenhagen
Rod Blocksome
Ron Borkgren
Doug Byal
Bill Caldwell
George Carsner
Terry Cellman
Ken Colwell
Al Culbert
Brad Farrell
Craig Fastenow
Joe Finkstein
Randy Glasgow
Richard Hadley
Rich Haendel
Tom Hauer
Rick Heinrich
Joe Hetrick
Tom Hise
Randall Hollingsworth
Glen Kesselring
Ken Kucera
Tom Lindgren
Mark Lukins
Earl McClure
Arlo Meyer
Steve Miller
Nelson Moyer
Larry Newby
Jonathan Poulton
Jerry Rappel
Steve Sawyers
David Schmocker
Bill Snyder
Jim Spencer
Gary Toomsen
Tom Vinson
Gordon Wherry

◊ ◊ ◊

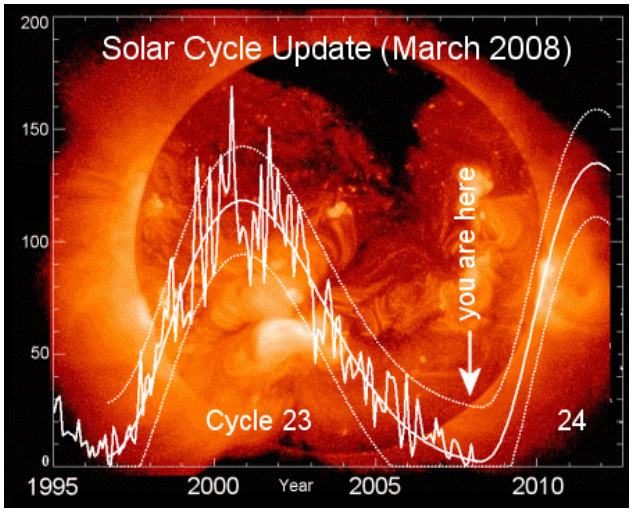
See you Friday April 25th
7:30 PM in Room 219C Kirkwood Comm. College
Pizza afterward!

2008 EIDXA Meeting Schedule

Look for this information on the club web-page ***www.eidxa.org***. Meeting information on the web site is up to date to ensure everyone has timely access to the information between newsletters.

Next Meeting

April 25 – 7:30 p.m., Kirkwood Community College, Room 219C. Program: *Logbook of The World* by Nelson Moyer KUØA.



NASA Image