



Newsletter of the  
Twin City DX Association

Volume 3, Issue 3  
September, 2006



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## KØTG and WØGJ Travel to Brazil to Referee at the 2006 World Radiosport Team Competition

John Desmond, **KØTG** and his XYL Jan, **KBØQEP** and also Glenn Johnson, **WØGJ** and his XYL Vivian, **KL7YL** traveled to Florianopolis, Brazil, where John and Glenn served as referees for two of the 46 teams competing in the WRTC - held in conjunction with the IARU HF World Championship Contest, held on July 8 - 9.



John was assigned to the **PW5P** team of Teemu Korhonen, **SMØW** and Thomas Andersen, **OZ1AA**. Teemu and Thomas competed as one of the youth teams invited for the 2006 competition. Their randomly-drawn QTH was at the radio club in Joinville, which is located 10km inland from the Atlantic coast at 40m elevation.

Glenn was assigned as referee for the **PT5F** team of Dmitri, **RA3CO** and Dmitri, **RW3FO**. Their QTH was the home of Douglas, **PP5FB**, located in Enseada do Brito - 15km from the Atlantic, at 1m elevation. (More photos on page 2.)



Together in Florianopolis, Brazil for WRTC 2006. Left to right: Tom, **SM3DMP**; John, **KØTG**; Jan, **KBØQEP**; Vivian, **KL7YL**; Glenn, **WØGJ**; and Jun, **JH4RHF/OE1ZKC**.

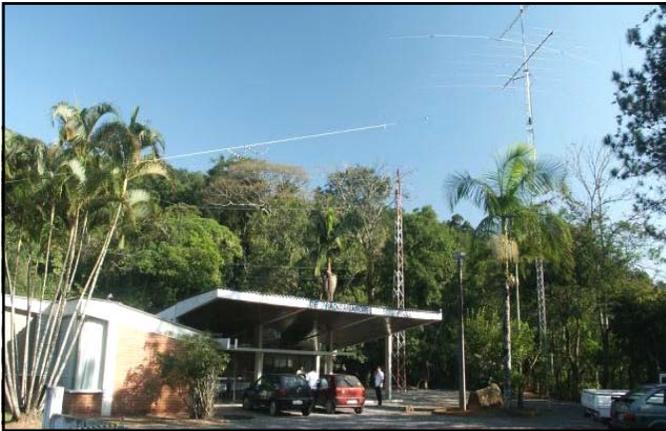
Photo courtesy of Jan-Eric, **SM3CER**



Florianopolis, Brazil



Flags of all participating countries.



**PW5P QTH:** The Joinville Amateur Radio Club, callsign **PP5CIT**. Host was **PP5BJ**



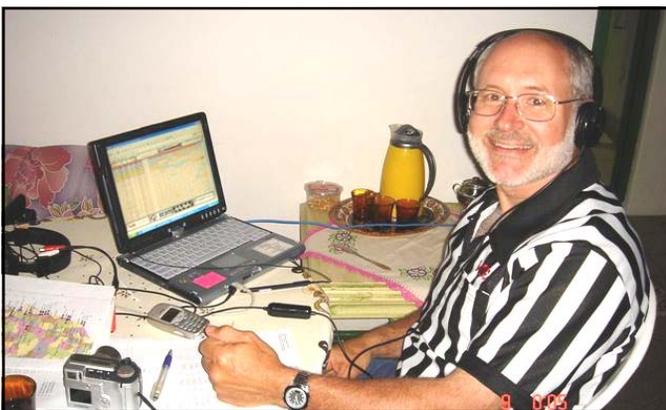
**PW5P team** - left to right: Teemu, **OZ1AA**, Thomas, **SMØW**, and their referee John, **KØTG**.



**PT5F team:** Dmitri, **RA3CO** and Dmitri, **RW3FO**



All teams used an 8el LP, 2el 40m yagi and 80m dipole

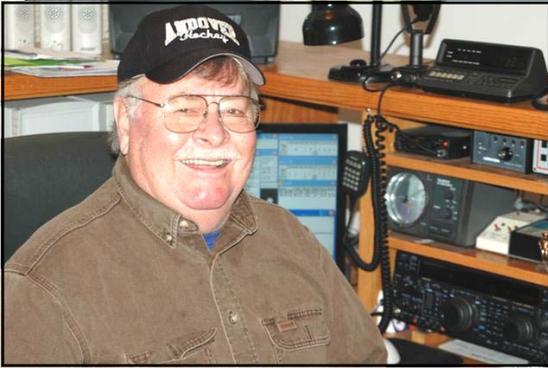


Glenn wears his "real" referee's uniform, as he monitors contest exchanges.



John turns in his team's score to Dave, **K1ZZ**, as Jan monitors John's accuracy.

# Propagation



## What the Experts are Saying About Solar Cycles 23 and 24

by Jim Junkert, KØJUH

*Currently, sunspot activity is nearly non-existent, as Cycle 23 approaches the end of its 11-year run. In spite of the cycle getting close to hitting bottom, the bands still surprise us with some terrific conditions. It proves once again, that predicting propagation is not an exact science.*

*Cycle 24 is just around the corner, and there is some very exciting news beginning to appear. One researcher indicates Cycle 24 could be one of the most "intense cycles" in fifty years. If true, DXer's are in for some fantastic conditions, which should include band openings that will be more frequent and longer.*

*When will Cycle 23 officially end and Cycle 24 begin? Let's take a look at what the experts are telling us.*

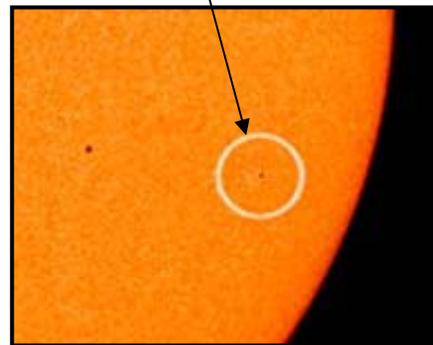
**B**y the measure of smoothed sunspot numbers, Cycle 23 began in May 1996, although other measures of the solar cycle suggest the real onset of the cycle took place later in the year. The smoothed sunspot number then rose steadily, reaching a peak in April 2000 with a value of 121.

Solar scientists suggest that Cycle 23 is much like Cycle 20, in the way it rose and fell. Cycle 20 took about four years to reach peak, and about seven years to descend to minimum. If the two are alike, it could mean that Cycle 23 will reach bottom in 2007. The peak of Cycle 24 could then come in 2011.

The recent appearance on the sun of two so-called "backward sunspots" may mean solar Cycle 23 is drawing to a close and Cycle 24 now is under way, or soon will be. At least that's the thinking of some scientists.

On July 31st, a tiny sunspot was born. It popped up from the sun's interior, floated around a bit, and vanished again in a few hours. On the sun this sort

of thing happens all the time and, ordinarily, it wouldn't be worth mentioning. But this sunspot was special: It was backward.



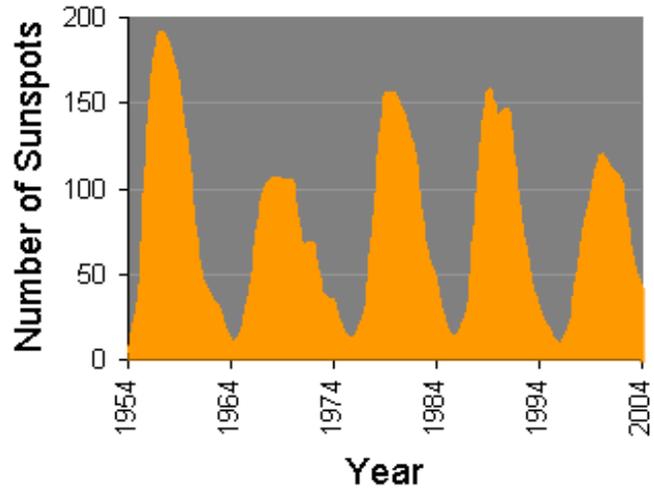
"We've been waiting for this," says David Hathaway, a solar physicist at the Marshall Space Flight in Huntsville, Alabama. "A backward sunspot is a sign that the next solar cycle is beginning."

"Backward" means magnetically backward. Hathaway explains: "Sunspots are planet-sized magnets created by the sun's inner magnetic dynamo. Like all magnets in the Universe, sunspots have north (N) and south (S) magnetic poles. The

sunspot of July 31<sup>st</sup> popped up at solar longitude 65 degrees W, latitude 13 degrees S. Sunspots in that area are normally oriented N-S. The newcomer, however, was S-N, opposite the norm.” This tiny spot of backwardness matters, because it might foretell a really big solar cycle.

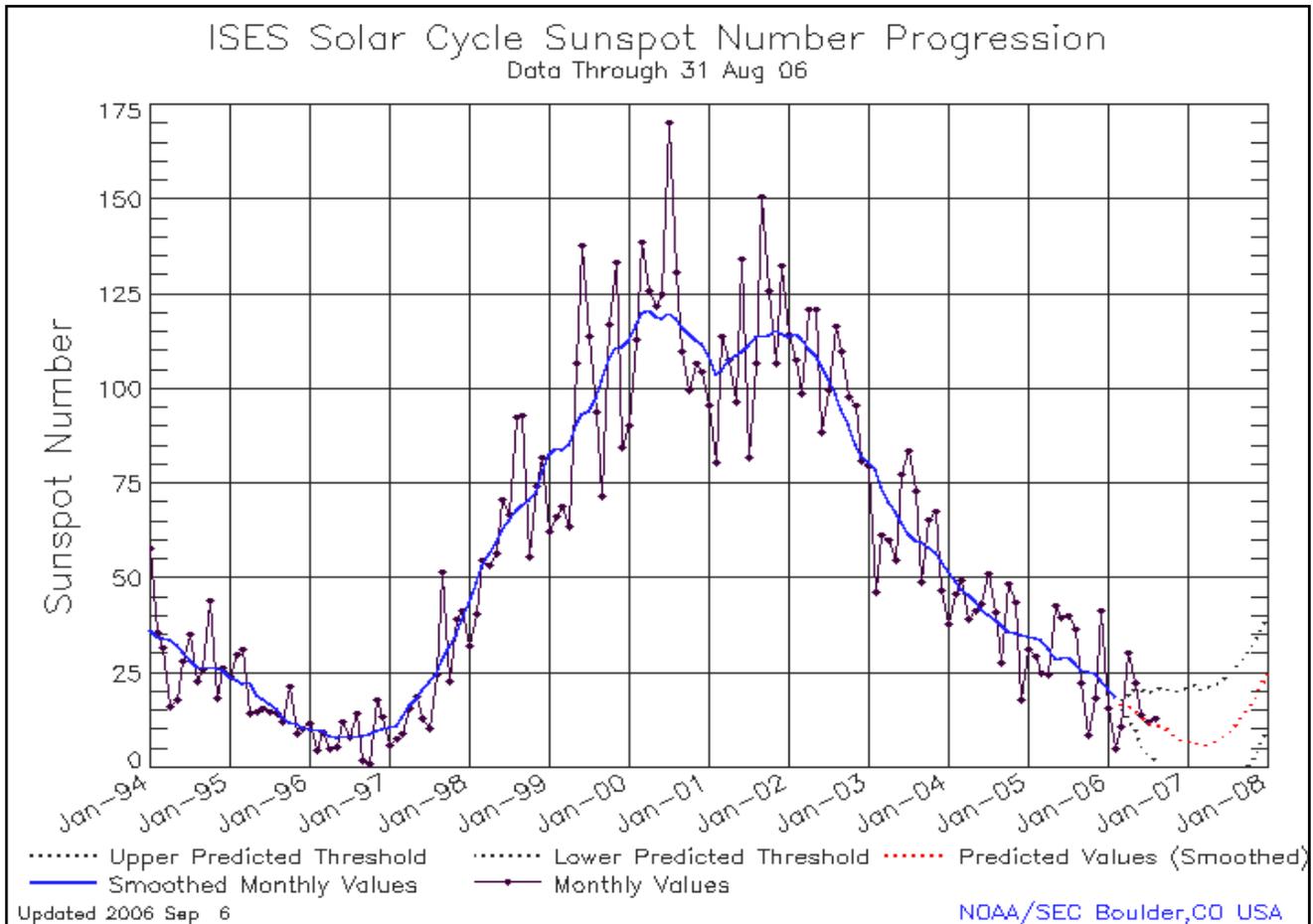
But when will Solar Cycle 24 begin? Maybe it already did – on July 31<sup>st</sup>,” says Hathaway. The first spot of a new solar cycle is always backwards. Solar physicists have long known that sunspot magnetic fields reverse polarity from cycle to cycle. N-S becomes S-N and vice versa. “The backward sunspot may be the first sunspot of Cycle 24.”

It sounds exciting, but Hathaway is cautious on several fronts: First, the sunspot lasted only three hours. Typically, sunspots last days, weeks or even months. Three hours is fleeting in the extreme. "It came and went so fast, it was not given an official sunspot number," says Hathaway. The astronomers who number sunspots didn't think it worthy!



Second, the latitude of the spot is suspicious. New-cycle sunspots almost always pop up at mid-latitudes, around 30 degrees N or 30 degrees S. The backward sunspot popped up at 13 degrees S. "That's strange." These odd-isms stop Hathaway short of declaring the onset of a new solar cycle. "But, it looks promising," he says.

Even if Cycle 24 has truly begun, "don't expect any great storms right away." Solar cycles last 11 years and take time to build up to fever pitch. For



a while, perhaps one or two years, Cycle 23 and Cycle 24 will actually share the sun, making it a hodgepodge of backward and forward spots. Eventually, Cycle 24 will take over completely; then the fireworks will really begin. Meanwhile, Hathaway plans to keep an eye out for more backward sunspots.

Earlier in 2006, other researchers announced that Cycle 24 will have the most intense solar maximum in fifty years. The prediction comes from a team led by Mausumi Dikpati of the National Center for Atmospheric Research (NCAR). "The next sunspot cycle will be 30% to 50% stronger than the previous one," she says. If correct, the years ahead could produce a burst of solar activity second only to the historic Solar Max of 1958.

Satellite operators and NASA mission planners are bracing for this next solar cycle because it is expected to be exceptionally stormy, perhaps the stormiest in decades. Sunspots and solar flares will return in abundance, producing bright auroras on Earth and dangerous proton storms in space.

Their forecast is based on a new computer model they say will help societies plan for such disturbances far ahead of time. Dikpati says her team's solar sunspot model simulated the strength of the past eight solar cycles with more than 98 percent accuracy, giving them a great deal of confidence in it as a forecasting tool.



NCAR scientists Mausumi Dikpati (left), Peter Gilman, and Giuliana de Toma examine results from a new computer model of solar dynamics.

Center researcher Mausumi Dikpati says the computer model, combined with data about previous solar cycles, allows the first forecast of when and how strong the next solar cycle will be. "We predict that the next solar cycle will be 30 to 50 percent stronger than the last cycle," she said. "Our model also predicted that the onset of the next cycle will be delayed by six to 12 months to late 2007 or early 2008."

David Hathaway of NASA agrees that the next period of high intensity will be significantly stronger. But, he disagrees on the timing, suggesting that sunspot activity will pick up late this year or early next, rather than late 2007 or early 2008. "We have found that large cycles usually start early," he noted. Maybe the "backward sunspot" on July 31<sup>st</sup> will prove him right.

What have we learned about Cycle 23 and 24? We've learned predicting when one will end and the other will start is not an exact science. We do know one thing for sure: Sometime in 2007 or early 2008, Cycle 24 will make its official appearance, and band conditions will slowly begin to improve. That's good news for DXers!

-JUH

*Thanks to the following organizations for the information and images used in this story. If you have an interest in reading more about Solar Cycles, we suggest you visit their websites.*

NASA National Aeronautics and Space Admin.  
<http://www.nasa.gov/home/index.html>

NOAA National Oceanic and Atmospheric Admin.  
<http://www.sec.noaa.gov/index.html>

NCAR National Center for Atmospheric Research  
<http://www.ncar.ucar.edu/>

Stanford Solar Center  
<http://solar-center.stanford.edu/>

Windows to the Universe  
<http://www.windows.ucar.edu/>

VOA News  
<http://www.voanews.com/english/>



**D**onn was born in Conde, South Dakota and moved to Redfield, South Dakota in 1960. His interest in radio began at an early age. While in the 6<sup>th</sup> grade, he built a crystal set radio to listen to the local radio station. Then, he teamed up with his friend, Mike Melum, **KL6M** (ex-**WAØCJI**) to get on the CB band. They bought CB walkie-talkies from Lafayette Radio to talk to one another. (Donn still has his).

As a teenager, Donn learned the code from Lyle Englett in Redfield, who had a Conditional Class license, and taught code practice to some of the teenagers in town. One night, rather than teach code practice, Lyle took Donn and two of Donn's buddies to visit Burghardt Radio and to meet Stan Burghardt, **WØIT** (sk). Lyle Olson, a local Redfield jeweler with a General Class license, gave them the Novice test in his jewelry store. Donn was the only one of the three to pass the exam. The other two eventually did get their licenses, and one of them is still active.

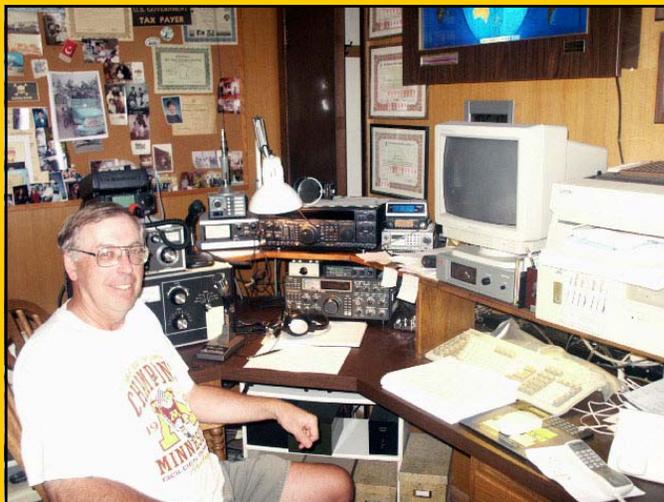
In 1965, Donn was issued the Novice call **WNØMWE**. His first station consisted of a Johnson Adventurer transmitter and a Lafayette KT-340 kit receiver, which as Donn said, "Was an absolutely horrible receiver." His antennas were simple 40 and 15 meter dipoles. In that same year, he moved to St. Paul, Minnesota. Novice licenses at that time expired after one year. If you didn't upgrade, you lost your call and license.



**KØQC.**" As an Extra Class, Donn's gear included a Kenwood TS820S, TS930S, FT-1000D, FT-1000MP, SB200 amplifier, and Viewstar PT-2500 amplifier.

In 1980, he moved to east Bloomington. Donn said, "The lot is only 120' x 170', so I need more room for beverages, but at least I now have a tower with decent antennas. The antennas include an old Wilson System 36 on 58 feet of Rohn 25G, north and southwest guy wires cut for 75 meter quarter wave dipoles, 160m and 40m slopers, and a Cushcraft

## Donn Taylor, KØQC



Donn's Novice license expired in June 1966. But, in November, 1966, he passed the General exam at the old St. Paul courthouse, and received the call, **WAØQCC**. As a General Class ham, his equipment consisted of a DX-100B, homebrew 811A amplifier, Hallicrafters HT-44/SX117, SR-150 and SR400A.

In June 1977, he upgraded to Extra Class. Donn said, "At that time, you could choose your own call, so I applied for a 1 x 2 and received,



DXing from a 120 x 170 foot lot.

D3W WARC dipole. I turn the beam with a Tailtwister rotor. My current equipment consists of a TS930S, FT1000 Mark V, IC-706, and an AL-82 amplifier.”

Donn’s interest in serious DXing began during college, while using the school’s club station, KØVVY, at the South Dakota School of Mines and Technology in Rapid City. Donn recalls his most memorable DX experiences: “I made my first DX contact on January 1, 1966. While operating in the 40m novice band, I worked VP1PV on cross mode. That’s when the DX bug first bit.

I also remember a QSO in 1980 with Bob Tanner, ZL2BT. My cousin in South Dakota raised sheep, and spent the winters in New Zealand. Bob, ZL2BT was most interested in meeting him, and invited him to visit his farm so they could talk sheep. Bob sent me a picture of him and his station, along with a nice thank you for getting to meet a South Dakota sheep farmer. A few years later, they arranged for some New Zealand sheep ranchers to visit my cousin’s farm in South Dakota.

My low band highlight was working **VU2YAB** in Zone 22, on 80m CW at 1313z. The date was 12 February 1990. My most frustrating DX contact was finally breaking the RTTY pileup for Mellish Reef. This was the first time the island was activated on RTTY. After busting the pileup, my IBM PC locked up due to RF coming through the keyboard. I had to power off and reboot. I loaded up the buffers and used a wooden stick to punch the buffer keys. I managed to crack the pileup again without locking up the PC and made the QSO.”

There was a ham in Donn’s extended family. His mother’s cousin by marriage was Orv, **W7TLA** (sk) in Great Falls, MT. Donn said, “I worked at Consolidated Electric in St. Paul during high school, and one of my jobs was to engrave the tags for pump controls. I made up some tags for Orv with his call sign. While visiting the Consignment Center’s New Brighton storage facility, I noticed a Hallicrafters HT-37 for sale with one of my W7TLA call sign tags on the faceplate. I told Orv of my find, and he said he had sold the rig at a local hamfest.”

Donn’s current DXCC Honor Roll totals are: 334/342 mixed, 334/340 phone, 333/339 CW and 291/297 RTTY. His 5BDXCC was completed in April, 1986. He still needs zones 17, 21, and 26 on 80m to complete 5BWAZ. DXCC-wise, he needs Scarborough for a new/new and P5 on CW, but has just worked the YU6 on CW/SSB/RTTY and KH8SI on SSB/CW. On topband, 160m, he is working towards completing DXCC. Donn is a life member of ARRL, and has been a member since 1965.

Donn graduated in 1971 from the South Dakota School of Mines with a BSEE degree. He worked two summers for Mobil Oil in Texas in their data processing center, processing geophysical data for the Alaska North Slope exploration. Following this, he completed Engineer Officer Basic School in Ft. Belvoir, VA, and then was active reserve for 6 years in a PSYOP (psychological operations) Army Reserve unit at Ft. Snelling. His most rewarding summer camp was volunteering to teach aviation ground school and Morse code classes to teenagers from the Chicago inner city at Ft. McCoy, WI.

Donn started as a manufacturing engineer at Control Data in 1972, and recalls, “In those days, the drives were the size of washing machines with 40 megabytes. I’m currently working at Seagate Technology in Shakopee and manage a test development department for the hard drive circuit cards. Our department supports the Far East production test circuit boards in Singapore, Malaysia and Thailand.”

Ham radio is not his only hobby or interest. Donn says, “I enjoy golf... chasing the white ball. My golfing highlight was playing ‘The Old Course’ at St. Andrews, and several other courses in Scotland, during a 2004 summer visit. I’m a licensed pilot, with an instrument rating, although I’m no longer current. At one time, I owned a share in a 1968 Mooney Exec. When the club sold the plane, I stopped flying.”



Sharon and Donn toured the links of Scotland in 2004.

Finally, Donn and his wife Sharon, a paralegal in a small law firm in St. Paul, plan to do a lot of RVing when they retire. They both enjoy golf and camping in the summer and they’re big Gopher hockey fans - with season tickets!



Recently, Dave, KØIEA decided to give DXing and golf a rest, and accept my invitation to head to Mille Lacs to chase the Muskies. On August 21st, Dave tangled with a trophy Musky on the north end of the big lake, and came up the winner. The 50-inch, 40+ pound monster was netted, held up for a few quick photos, and released to fight another day.



Then, on September 1st, it was my turn. We were fishing the same area that produced Dave’s fish, when this Musky grabbed a Gold Shad Rap in 4 feet of water at 2:30pm. It measured 48 inches, and was released. Who says old DXers can’t fish?!

73, Jim KØJUH



## DX Quiz DXCC Entity Changes

With the recent addition of Montenegro and Swains Island to the DXCC list, the total entity count now stands at 337. Over the years, entities have come and gone. Some get added, and occasionally one will get deleted.

We thought it might be interesting to take a look at some of these changes, and while we're at it, see what shape your memory is in.



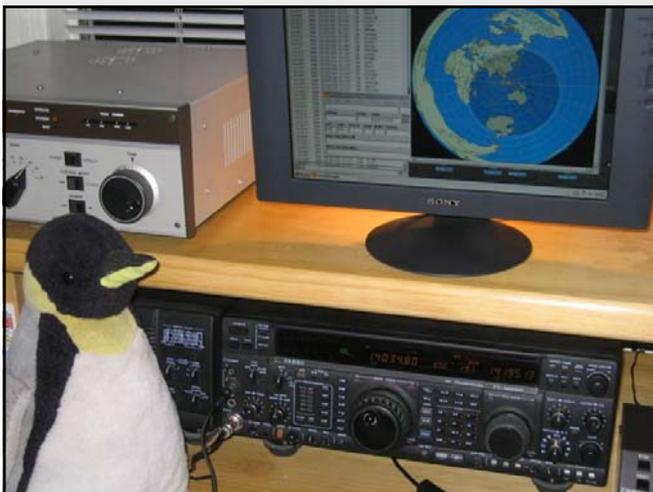
Listed below, in random order, are the last 14 additions and deletions to the DXCC list. These changes occurred over a 12 year period, beginning in 1994. See if you can remember the order in which these entities were added and deleted from the list. Number them according to the year the change took place, beginning with the most recent change and working backwards in time.

We're starting you off with two easy ones. After that, you're on your own. Good luck!

#	Prefix	Entity	
1	KH8S added	Swains Island	added July 22, 2006
2	(TBD) added	Montenegro	added June 28, 2006
___	BS7 added	Scarborough Reef	
___	4W added	Timor Leste	
___	E4 added	Palestine	
___	BV9P added	Pratas Is.	
___	ZSØ deleted	Penguin Is.	
___	FK/C added	Chesterfield Is.	
___	ZS9 deleted	Walvis Bay	
___	FO added	Austral Is.	
___	VP6 added	Ducie Island	
___	FO added	Marquesas Is.	
___	H4Ø added	Temuto Province	
___	STØ deleted	Southern Sudan	

Answers on page 30

### Who Owns this Shack ? (Answer on page 30)



*The signal that emanates from this station is the product of a world class CW operator who you've probably worked from his home QTH, as well as when he was on some of ham radio's most famous DXpeditions.*

*He happens to be very good with the camera, and has filmed and produced broadcast quality documentaries of his journeys. Several of these videos have been shown at TCDXA meetings.*

*If you're still puzzled, check the photo again. Look for something that focuses on the area this well known DXer calls home.*



## Handiham Equipment Loan Program Falls upon Hard Times

by Avery Finn, KØHLA

**E**quipment Loan Program for Handiham members? Yes, we have one. Unlike a library, where you can only keep something out a certain number of weeks and then either have to renew it or return it, our Equipment Loan Program allows a Handiham member to keep the item as long as they will use it.

Most often, the borrower will eventually purchase different equipment, and at that time, will return the gear to us, so someone else can then use it. Just a couple months ago, someone returned a Ten-Tec Century 21 that had been out since sometime in 1988! In order to become qualified for the loan of equipment, a person must be up-to-date in their dues, been a member for a year, have gotten their license or upgraded with us, or attended our Radio Camp. The Handiham Manager can make exceptions by special request: for example, if a deserving member has not been a member for a year, or is enrolled in a class with a local club or in a Handiham online course and shows exceptional promise. During the length of the loan, the borrower must keep up current membership in Handihams.

The equipment we have for loan depends upon what is donated to us. Right now, the donations are way down, and we do not have much available. We have a waiting list on which we put your name, equipment request, phone number and email address. When we get an equipment donation, we ask our shop volunteers to check the gear out to make sure it is working. Then, we go down the waiting list to hopefully make a member's wish for a rig come true!

*Now, here is our dilemma.*

Right now, we have quite a long list of people waiting, but not much in the way of "WORKING" rigs to loan out. We need more hams to step up to the plate, and help us out with donations of ham gear - rigs that can put Handiham members on the air - getting them off the bench, and making them participants in the greater ham radio community.



Over the past five years, donations of used gear have fallen off, considerably. I think we are competing with online auctions and other donation programs, but there are other factors as well. For one thing, newer gear lasts longer than ever, since the solid-state technology is very reliable. So, perhaps, people are not replacing their gear as often.

Then, there is the economy. On the TV, they say it is wonderful, but it does not seem so when people have to spend so much on energy. That means less discretionary income to spend on ham gear. You can only imagine how difficult it is for a Handiham member on a fixed income to scrape enough together for a ham radio station. That's why the Equipment Program is so important. It can get deserving hams on the air.

Won't you please help? Give that ham gear you are not using to the Handiham Equipment Loan Program, so it can make someone happy, and keep our bands active! Remember, it is tax-deductible to the fullest extent allowed by law. Our members thank you for your help.

**Just give me a call, toll-free, at 1-866-426-3442, or email me at [avery.finn@courage.org](mailto:avery.finn@courage.org).**

*In Memoriam*  
**EDWARD E.W. MARTINSON, WØGYH, sk**



*Ed was born in Eveleth, Minnesota on November 12, 1912, and passed away on July 12, 2006 in Moundsview, Minnesota at the age of 93. He died peacefully in his sleep.*

*He was a charter member of the TCDXA, joining the club when it was formed back in the early 70's. He loved DXing and was very active for many years. In 2003, failing health finally forced him to close his station. WØGYH would no longer be heard in the pileup; just the occasional check-in to the Piconet from the QTH of WAØWVR.*

*Ed was first licensed on April 20, 1931 with the call W9GYH. At the time, he lived in Leonidas, Minnesota. After WWII, the 10<sup>th</sup> call area was added, and his call became WØGYH. He held the call sign for 75 years. He also held a commercial FCC license. A First Class Radiotelephone license was issued to Ed in 1936.*

*He was a member of the ARRL, the Quarter Century Wireless Association (QWCA), and the Honeywell Amateur Radio Club. In addition, the Courage Center and Handihams benefited from Ed's generosity and volunteer work. He was always willing to lend a helping hand.*

*While working full time at Honeywell, Ed attended night school at the University of Minnesota, and graduated in June 1966 with a degree in Electrical Engineering. After 41 years at Honeywell, Ed retired in 1977. After retiring, he joined the staff at the St Paul Technical Vocational Institute, where he taught evening classes in Electronics, until 1984.*

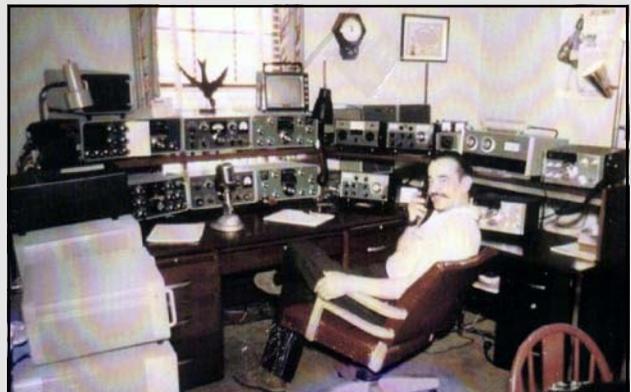


*We will always remember Ed for his wonderful smile. Whenever you bumped into him, he always greeted you with a cordial hello and that warm, cheery smile. It was special!*

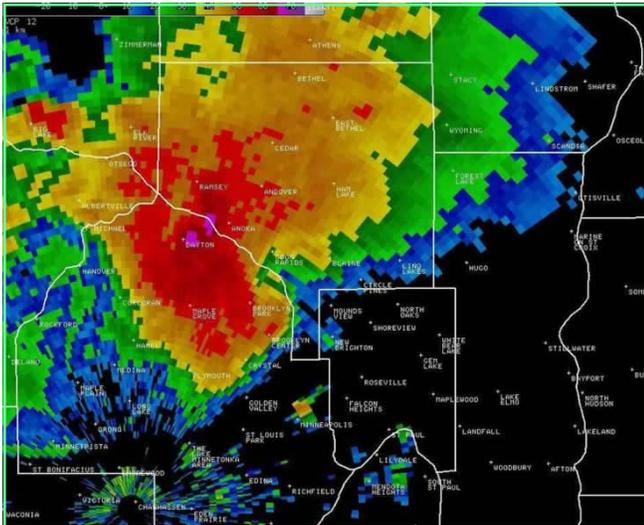
*The TCDXA would like to extend a special "thank you" to Ed's long time friend and companion Rose Schieffert, WAØWVR, who provided us with the information and photos used in this memorial.*

*Bless you Ed, may you rest in peace.*

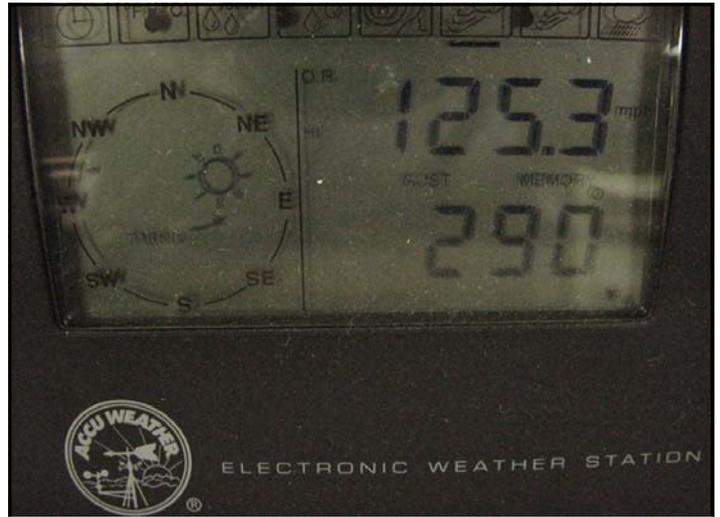
	MINNEAPOLIS
	MINNESOTA
	<b>WØGYH</b>
	5BDXCC 6BWAC ED MARTINSON
T C D X A	MEMBER: TWIN CITY DX ASSOCIATION



# Antenna Repairs at KØGX a photo story by Gary Grivna, KØGX



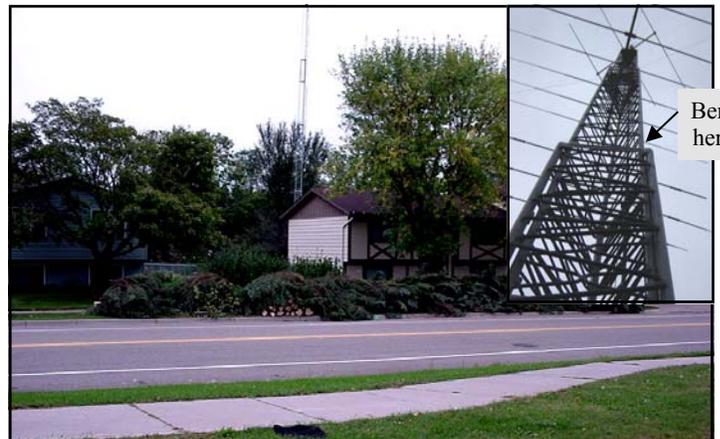
On September 21st, 2005, a system described as a “megastorm” marched across northern Hennepin and central Anoka County. The center of the storm passed right over my house (purple area).



My weather station logged peak gusts of 125 mph.



No surprise - we lost a few trees.



Unfortunately, my Hygain HG70HD tower was cranked up when the storm hit, and was bent by the winds. It could not be cranked down. The antennas (6m yagi and TH-11) were undamaged, but misaligned.



We got the yard cleaned up - “with a little help from my friends.”



The bent tower couldn't be cranked down. So, on Oct. 21st, Don Overbye, **WD9ISQ** aligned the antennas.

## From the National Weather Service

### Storm Summary - September 21, 2005

Severe Thunderstorms produced a considerable amount of damage across central and east central Minnesota and west central Wisconsin during the evening hours on September 22. Numerous reports of damaging winds, large hail, flash flooding and tornadoes were received at the National Weather Service in Chanhassen. A list of all storm reports received is available on our [Local Storm Report](#).

### Tornado Damage Survey Results

...Results from the Damage Survey for Tornadoes and Severe Thunderstorms in the Northern Twin Cities Metro Area on September 21st, 2005...

Storm damage was surveyed across portions of the northern metro for 2 consecutive days. On the first day, it was confirmed that 2 tornadoes and widespread downburst damage hit Andover, Coon Rapids and Blaine in Anoka County. The survey on the second day covered northern Hennepin and southern Anoka Counties. The storms moved east-southeast.

The vast majority of damage in northern Hennepin County was due to downburst winds, mostly from the rear flank downdraft swinging around the south and west sides of the mesocyclone. A small and very brief F-0 tornado was also discovered to have touched down in the far northeast corner of Brooklyn Park, but the tornado damage paled in comparison to the damage caused by the downburst. **The downburst winds were stronger and more widespread than the winds of the F-0 tornado. In fact, the downburst produced F-1 damage across much of northern Hennepin County, with a few roofs blown off in Brooklyn Park.** Thousands of trees were toppled or snapped. The tornado did not cross the Mississippi River.



I located a used tower at Burghardt. Jim Smith had taken in this U.S. Tower model TX 472 MDP. Apparently, the cable had snapped, and the tower collapsed, causing the damage you see here.

Jim gave me a good deal. I picked it up and brought it home. My welder friend, Bob Eckstein, **WØSLD**, helped me fabricate repair parts and did the welding.

My Process Engineer friend, John Loughlin (a non-ham), helped me reattach the cable and also designed and made improvements to the motor control circuits.



The repair to the new (used) tower went well. Now for the real challenge. I was replacing a Hygain tower with a U.S. Tower, and, of course, the bases are NOT interchangeable.

I did extensive research into installing Hilti concrete anchors as a way to establish anchors for the new tower. But, we opted for designing a weldment, which would adapt the U.S. Tower base to fit the existing Hygain base anchor hardware.



Here's how the base adapter mounts to the tower.



Here's how the adapter mounts to the Hygain stubs.



We were able to force the bent Hygain tower into its nested position, using a cable come-along. On June 25th, a crew of TCDXAers\* came over to help remove the TH-11 from the old tower.



Then, it was down with the old and up with the new tower, using a 10-foot winch, which is a permanent part of the tower base.



The TCDXA tower crew\* came back on July 2nd to re-mount the TH-11 and re-dress the cables.



Now, I'm back in action. See you in the pileups! 73 - Gary, KØGX

\*TCDXA tower crew: KØJUH, KØIEA, KFØQR and WØBV  
and also, John Loughlin (aka "Mr. PLC")

# DXing From Washington Island

## The W9EVT Ham Radio Rental

by Bob Garwood, WØBV

On a cool morning last March, I was monitoring the 75m boat anchor group (WØWG, WØZR, WØKW, WØFLY, NØXB, and friends), as I often do while shaving and getting ready to tackle another day. The conversation turned to a photo of a ham shack described as “incredible,” that one of the guys had discovered on the internet. “Go to QRZ.com and look up W9EVT,” exclaimed Larry. They were right! When I took a look, I saw a photo of George Ulm seated at one of the operating positions of his world class ham station.

Below George's photo on QRZ.com, is a link to his website. That link takes you to a full page of photos of his radios and antennas, plus a listing of (some) of his radio gear. It's all extremely impressive to a little pistol, like me. But, what grabbed my eyes away from all of the radio glitz is a link called “Our Accommodations.” Kate (KØYV) and I are big fans of ham rental opportunities. So, we had to know more.

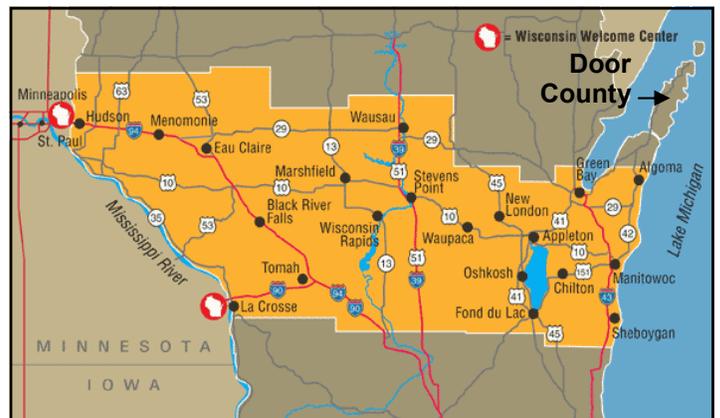
I fired off an email to George, and received a quick response from his XYL, Susan, who handles all aspects of the radio rentals. We discovered an opening over Memorial Day weekend, and booked four nights in the Apple House. (More on the accommodations, in a bit.)

### Getting There

Neither Kate nor I had ever been to Door County. We were pleasantly surprised by how easy it is to get there. From the Twin Cities, we took I-94 to a few miles past Menomonie, where we hopped onto Wis-



George Ulm, W9EVT



consin Hwy 29. It's a great road - a divided 4-lane highway - all the way to Green Bay.

From Green Bay, it's an easy and picturesque drive up the Door County peninsula, to the car ferry dock at Northport. All north-south roads go through Sturgeon Bay, but there are two options for working your way to the tip of the peninsula - along either the east coast or the west coast. Plus, there are plenty of east-west diversions along the way, if you're attracted to wineries, art galleries, or museums. We made mental notes, along the way, of places we want to go back to check out, someday. And, we stopped to gather tourist literature at the Door County Chamber



*Factoid: Death's Door Passage is the source of Door County's name.*



of Commerce, located on the south side of Sturgeon Bay, where we noticed their telephone number is 1-800-52-RELAX. We were to discover that their phone number is completely fitting for this part of the world.

### **Around Washington Island**

Washington Island is the year-round home to 700 residents. And, it's the vacation destination for thousands, each year. The terrain is an interesting alternating mix of dense hardwood + birch + pine forest and open farmland + orchards. The island is about 35 square miles, and has over 100 miles of paved roads. This is an ideal destination for anyone who likes to explore an area by bicycle.

Then, it was off to catch the Washington Island car ferry, which runs hourly (every 1/2 hour in the summer) during the daytime from Northport. The actual 7-mile trip across fabled "Death's Door Passage" takes only 30 minutes. The channel was so named, due to the very tricky currents and shifting winds, which were the demise of many Native American canoes. French explorers picked up on the problem, and called this strait "Porte des Morte" (Death's Door). It was a smooth ride on the days we rode across. A roundtrip ticket cost \$23 for the car, and \$10 for each of us, which we thought was a heckuva deal. There's also a passenger-only ferry leaving from just up the road at Gill's Rock, which costs \$10 per person for the roundtrip. The car ferry runs year-round, and the boats are designed to keep the passage open.

We discovered Washington Island to be a really friendly place. Less than a minute after we drove off of the car ferry, we passed an oncoming vehicle, and the driver waved at us. We thought, gee, our first island encounter is another ham who saw our call letter license plate. But, the next person we passed waved, too, as did several more we passed in cars and on bicycles, along the route to W9EVT's.

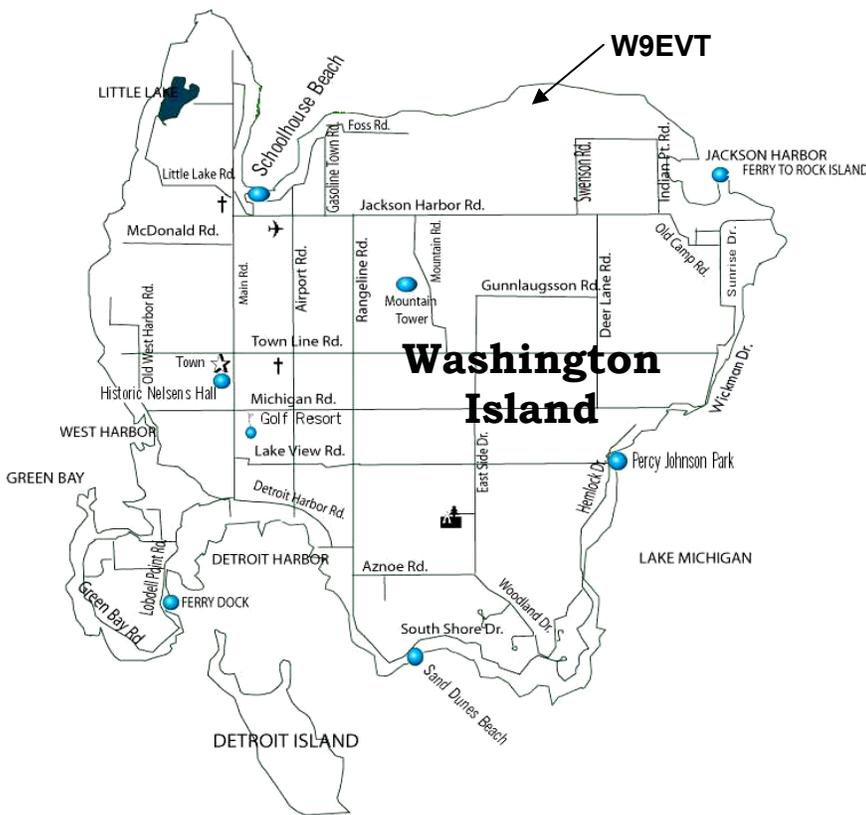
We later learned from Mike Remke, proprietor of the Red Cup Coffee Shop, that everyone on the island waves, simply because it's a nice thing to do. It's a social habit unique to places like Washington Island, where a deeper trust is extended to



Looking north from Mountain Tower - topography alternates across the island between dense forest and open fields.



The Red Cup - where everybody knows your name.



even strangers. Mike said, "Not everyone gets along on the island, but they *always* wave."

Mike and wife Ann uprooted their family from Chicago ten years ago to try their hand at island life. They transformed an old grocery store into a retro-chic, yet unpretentious coffee shop, which has become a meeting place for a cross section of the island's residents and tourists (including us,

while we were there). I loudly applaud the Remke's bravery to successfully escape the chaos of a big city, and move their family to this largely unspoiled place, where baseball, ice cream, and a good cup of coffee are what's really important.

We noticed three distinct local stereotypes, as we went about our driving tour of the island. The full-time residents drive older, well-worn pickup trucks and vans. They always wave. In the BMW and Mercedes SUVs and sedans are the part-time residents, who come here to their vacation homes from Chicago and Milwaukee, to escape the summer heat. They live in the high-end fancy-schmancy houses built on the best view properties. They never wave. All of the other vehicles (mostly smaller import sedans, motorcycles and bicycles) are driven by the tourists. The nicer ones wave.

The island is a truly great place to go to escape the summer heat. We were there over Memorial Day weekend, when those of you back in MN were sweltering in 90+ degree sticky heat. We saw the temp approach 80 degrees only on one afternoon. George said

that nobody living on the island has air conditioning, except in their cars. His only complaints involve over-populations of flies, mosquitoes, and Chinese beetles. Although, we did a lot of walking through both wooded and open areas, and didn't notice any of the above, during our stay.

Washington Island offers great fishing, swimming, and horseback riding. Rock Island, just a few miles off the northeast tip of the island makes an excellent side trip, and can be reached by passenger ferry out of Jackson Harbor from May to October. Rock Island State Park and the oldest lighthouse in the area can be explored by hiking the trails. If you like history, there are several excellent museums to tour. And, a neat Arts and Nature Center is worth a look. If you're worried about withdrawal from golf, there's a decent 9-hole course on the island, and several great golf courses on the mainland. An airport serves the island, but has a grass landing strip. So, better not take your jet.

If you're into shopping, you're out of luck on Washington Island. But, don't despair, the shops seem to go on forever back on the mainland. On the island, there are several good restaurants from which to choose,

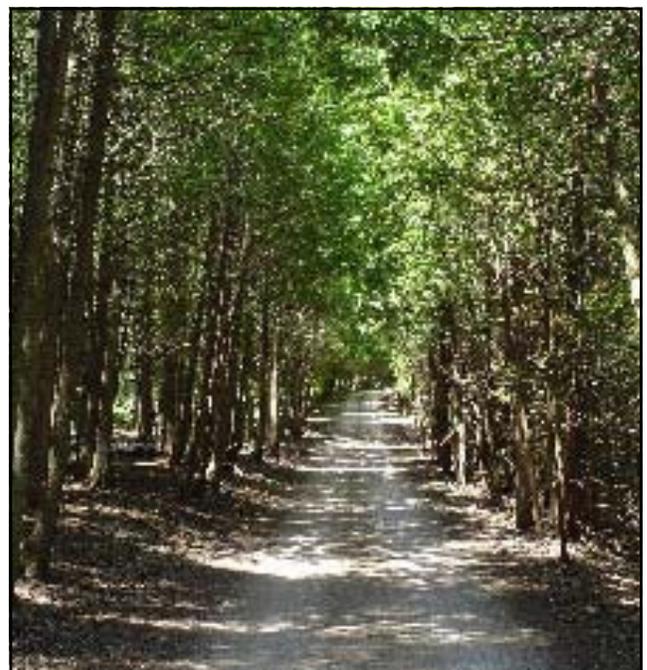


Schoolhouse Beach - one of two beautiful public beaches on Washington Island.

ranging from the gourmet output of the Culinary School at The Washington Hotel (on the fancy end) to the Albatross Drive-in, which will place you in a time warp, with their awesome burgers and ice cream masterpieces. We tried a different eatery, each evening. There are a lot of great places to stay on the island, but as DXers, there's only one place to consider.

### **Greengate Farm**

The W9EVT estate is located in the northeast part of the island. The property is bound by the north shore. You know you've found the right place when you find the green gate guarding the property entrance. Susan will have the gate open to welcome your arrival. At the end of May, the leaves were 90% open on the deciduous trees (summer takes its time getting to Washington Island), and entering Greengate Farm felt like driving through a tunnel of green. The dense forest soon opens up to fields of cherry and apple trees, and you know you've arrived.



A treed tunnel welcomes you to Greengate Farm.



Greengate Farm has 1.5 miles of Lake Michigan shoreline.

Greengate Farm is nothing short of BIG. At just a few acres short of 400, George and Susan own 1.5 miles of Washington Island shoreline. From the beach house, all you can see is their property in both directions. George purchased the property in the early 1960s, at what was then a greatly discounted price. That's a very interesting story, which George will have to tell you when you meet him. George bought Greengate Farm as a place for his father to retire. He lived there, until he passed away.

Door County is famous for cherries. Greengate Farm was a working cherry and apple farm for many years. The house that George and Susan live in was first built about 1870. The second story was added in the 1930s. And, its been updated in recent



Main residence - first built about 1870.

years - a process that's continuing.

There are actually three rentals available at Greengate: The Apple House, The Cabin, and The (loft) Apartment. We stayed in The Apple House. I can't review the other two accommodations, because they both had renters while we were there (both non-hams). But, we think that the Apple House is superb. The structure used to be the apple sorting facility, until orchard operations ceased about 5 years ago. About 4 years ago, George and Susan completely updated The Apple House, and turned it into a rental. It has absolutely everything to make you feel like you're at home, and everything is new. There's even wireless internet! You can check out the website at [www.greengate-wibb.com](http://www.greengate-wibb.com) for more info about the rentals.



The Apple House - Just 37 steps from the ham shack.

### The Station

OK, enough about the surroundings. So, what about that incredible station? The ham shack is yet another self-contained building, which George built 6 years ago. This is where you can operate - chase DX, work a contest, or just ragchew. See the Ham Radio page of the Greengate Farm website for a photo tour of the shack. Suffice to say, here, George has all of the bands covered - and in



The Shack and the 20m and 15m monobanders.

a BIG way! It's obvious that George does nothing in a small or average way.

You'll also notice that George collects vintage radios. He has pillaged the Dayton flea market for many years. And, in more recent times, he's combed internet sites for used gear. He proudly displays his most treasured, (Jeff May, WØXV, "pristine condition"), radios in his shack. And, he's currently finishing an antenna switching system, which will allow you to activate your classic radios of choice with any antenna. The main operating bench uses modular, 4-foot wide panels for mounting equipment. So, the station configuration changes easily and often.



Here's Ivan, K9DOG

Just when we thought we'd seen it all, George took us over to his very large workshop, housed in a separate building, which he built at the same time as the shack. There, he showed us stacks of vintage gear awaiting restoration. This beautiful workshop is fully equipped for all phases of radio rebuilding. George has a never-ending supply of rainy day projects.



George shows us a few of his rainy day projects.

Now, let's talk antennas. I learned (although no surprise) that winters on Washington Island are tough on antennas. The gales of November can take their toll. It was late May when we were there, and antenna repair projects were just winding down. It was the weekend of the CQ WPX CW contest, and I wanted to dabble a bit. I had available to me the 5el 15m M2 monobander and the 6el 20m M2 monobander, each on their own 75 ft. tower. It's impossible to tell if it was due to band conditions, but 20m was open all night.

By the last day of our visit, George also had the biggest Mosley beam I've ever seen back in operation. This monster yagi is a model Pro 96S-3-3. It has 4el on 40m; 3el on 30m; 5el on 20, 17, 15, & 12m; and 8 el



The monster Mosley Pro 96S at 75 ft.

on 10m - all on a 48 ft. boom. It's also at 75 ft. on its own tower. I wanted so badly to try that bad boy out on 40 and 30m, but didn't get a chance.

George and I inspected his 5el 40m vertical wire array (he called it a "Bruce array"), which had not survived the winter, plus an unfortunate lawn mower incident. This antenna looked to me to be similar to a Sterba curtain. And, we could tell that it was broken in several places. I suggested that we rebuild it, together, but he opted to wait for another day. (I'm sure he sensed my unfamiliarity with the design.)

George went on about how he loved his Bruce array. But, I kept looking up at that monster Mosley and thinking to myself "Why bother with Bruce?" I eventually realized that the performance differences between those two 40m antennas reflected the differences in our operating preferences. I'm thinkin' long-haul DX, while George loves 40m SSB ragchewing with his friends around the country. George was always the loudest guy in his roundtable, when he used the Bruce array. By the way, George also is found in 75m and 160m chat groups. See his website for a list of his regular schedules under "Ham Groups and Events."

So, I guess we'd categorize George as a "casual DXer." Early-on during our visit, he made the statement "If I don't work DX on the first call, I look for something wrong." At first blush, I thought that was kinda arrogant. But, as I came to know George better, and as I better understood his antennas and this incredible radio location, I realized that he was speaking matter-of-factly.

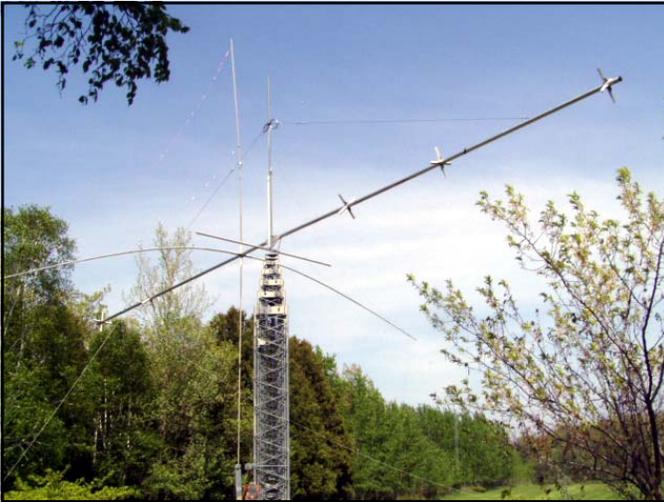
George *does* have one DXing goal. Since 1947, he's been working on mobile-to-mobile DXCC. Of course, there's no actual award for this achievement, but it sure is an interesting and lofty DX goal. So far, he has 80 mobile-to-mobile countries confirmed. And, he's waiting for the peak of the next sunspot cycle to finish off DXCC. George can be found in attendance at the W9DXCC gathering, every year. Many of those Dxers are his long-time friends from the Chicago area.



W9EVT/M

## Future Plans for Greengate Farm

George always has a plan in the works. The obvious project in process, while we were there, involved a 72 ft. boom mounted atop a nested 110 ft. U.S. Tower. There were a couple quad-like elements attached to the boom. In fact, this was the start of 10el quad, which was designed for George by Jim Streible, **K4DLI** from Atlanta. When finished, it will have 6el on 20m and 4el on 40m. When I was there, George was researching strong, flexible wire to use for the quad elements.



The start of the W9EVT "Killer Quad" project.

Earlier this year, George purchased a used 200 ft. rotating tower (type unknown) from a ham in southern California. And, on the day we arrived, he was in the process of arranging for shipment of the tower (ten 20ft. sections) to Washington Island. George took me out into a large, cleared field which was once part of the orchard, and showed me where he was already blasting a hole into the rocky ground for a tower base. When the 200 ft. tower goes up, it will support a 3el 80m M2 yagi.

George also pointed out where two planned rhombics will be placed. He's currently in the process of shopping for rhom-



George is standing next to where his 200 ft. rotating tower will be, and is pointing to where the rhombics will go.

bic poles. Please let him know, if you have any good leads.

There are also plans to double the size of the shack by adding a 20ft. extension onto one side. This addition will add more radio shelving for his military radio collection. It will also add a bedroom, and enlarge the bath to add a shower. The idea is to make the building a self-contained rental for any radio contest effort.

And, by now, George probably has both an IC-7800 and FT-9000 installed in his shack, as he was shopping for them last May.

## Final Thoughts

It was a great deal of fun to be able to experience W9EVT's world-class station. But, it was truly an amazing experience to hear George tell about some of the highlights from his colorful past. He took the time to share many hours of information with me. These stories are both fascinating and spellbinding. They are not just subject matter for another article. George's stories can easily fill a large volume.

George has lived in QTHs all over the

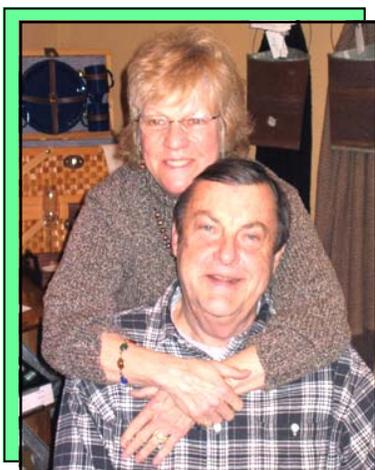
planet. But, the majority of his childhood and adult years were spent in the Chicago area. He is now 76 years old, and his life has been directly influenced by many of the Chicago legends of early radio and electronics - including the founders and early movers and shakers of Zenith, Hallicrafters, and Motorola.

After you've had a taste of George's dynamic past, it's easy to understand why he is unable to slow down much in his retirement. He is still driven to experiment and to improve the status quo. He has always been an inventor. I'll give you my favorite example: Next time you see a lava lamp, think of George. You'll have to get the full story from him, hopefully, along with many others.

The simple test Kate and I use for how much we like any particular ham radio rental is to ask ourselves if we would ever go back for another stay. Kate and I usually have that conversation, while we're headed for home. But, we were at Greengate Farm for less than 24 hours, when Kate began a conversation about when we should come back. No hesitation, here - Greengate Farm

is an excellent vacation destination for any DXer and his or her family. And, George and Susan are definitely vfb hosts.

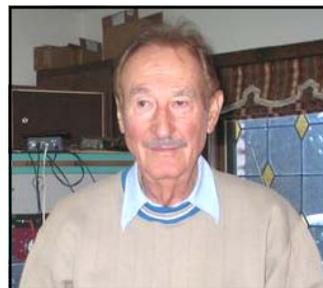
For more information about Greengate Farm ham radio rental, see [greengate-bbwi.com](http://greengate-bbwi.com), or look up **W9EVT** on **QRZ.com**.



Susan & George



## Charlie Hanson, WØHW Wins Room and Board in Brazil



Winners of the WRTC 2006 "lottery," picked at random from among operators who sent in their IARU HF World Championship logs before the deadline -- 1322 in all, were Michal Tomec, **OK7MT**, and Charlie Hansen, **WØHW**.

Charlie wins a visit for two of up to four days at one of the WRTC 2006 contest stations in Southern Brazil. Congrats Charlie!!

### TCXDA Treasurer's Report YTD Jan 1 thru Aug 31, 2006

#### Assets and Income

<b>Balance Jan. 1, 2006</b>	<b>\$ 2,722.40</b>
<b>Annual dues collected-2006</b>	<b>1,968.00</b>
<b>Donations</b>	<b>785.00</b>
<b>"Pass the hat" contributions</b>	<b>245.00</b>
<b>Miscellaneous</b>	<b>0.38</b>
<b>Total 2006 assets</b>	<b>\$ 5,720.78</b>

#### Expenses - YTD

<b>MWA donation</b>	<b>\$ -75.00</b>
<b>ARRL Spectrum Defense</b>	<b>-150.00</b>
<b>Glorioso donation (escrowed)</b>	<b>-250.00</b>
<b>NCDXF Donation</b>	<b>-250.00</b>
<b>VU4AN/VU3RYJ</b>	<b>-500.00</b>
<b>Funeral flowers</b>	<b>-286.46</b>
<b>Peter One DVD order</b>	<b>-22.00</b>
<b>Misc. (postage, speaker meals, raffle tickets, etc.)</b>	<b>-47.00</b>
<b>Bank fees</b>	<b>-28.25</b>
<b>Domain name renewal</b>	<b>-40.00</b>
<b>Annual website charge</b>	<b>-67.69</b>
<b>Total 2006 expenses</b>	<b>\$ -1,716.40</b>

**Current balance, March 20, 2006:**

**\$ 4,004.38**

# A Trip to SteppIR

by Keith Gilbertson, KØKG

Last February, my XYL and I decided to fly to Seattle, Washington, to spend a couple weeks visiting friends and relatives. After making airline reservations, a thought came to my mind that when we are in the Seattle area, I should venture over to Fluidmotion, Inc. in Issaquah, Washington, where the makers of SteppIR antennas are located.

I called the company by landline to introduce myself, and to ask if I could stop in for a tour when we were in the Seattle area. With an open invitation, I was now set to plan a day of my trip to see how the SteppIR antennas are manufactured.

When I arrived at the plant, I received a warm welcome from Mike Mertel, **K7IR**, President of the company and Jim Thomas, **K7IRF**, Vice President. Having heard and worked many operators utilizing their antennas, I was intrigued to see their manufacturing practices.



l-r: Jim, **K7IRF**; Mike, **K7IR**, and me, **KØKG**

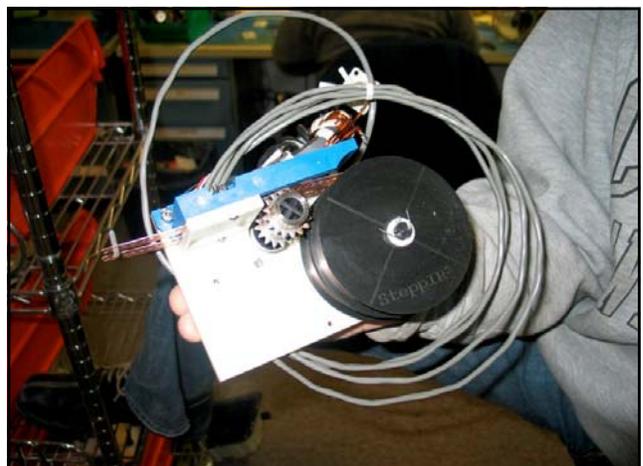
The company manufactures several different models: from one-element dipoles and verticals to the MonstIR yagi weighing in at a whopping 215 pounds. Each element of their antennas consists of a couple spools of flat copper beryllium strips mounted in the antenna housings. Each strip is perforated to allow a stepper motor to drive them simultaneously with a sprocket.



The 3-element SteppIR

Jim and Mike informed me that stepper motors are well known for their ability to index very accurately, thus giving precise control of various antenna lengths. In addition, the motors are brushless, which provides long service life.

The copper strips are driven out into the hollow, lightweight fiberglass support elements and remain extended to offer the operator mono band characteristics.



Two spools of perforated flat copper wire are accurately driven into hollow fiberglass elements, using a stepper motor controlled by a microprocessor .

Each antenna model is connected to a microprocessor-based controller, which offers numerous functions, including dedicated buttons that can be selected for each ham band. This allows the operator to remotely adjust the antenna from 40 through 6 meters, continuous coverage. You



The stepper motor and copper reels are protected in a tough cast housing, which mounts to the boom.

can even create your own antenna, and store the settings in to memory.

Since the SteppIR design can control each element length, a long boom is not needed to achieve optimum gain and front to back ratios for each band. You can operate their antennas in bi-directional mode, giving you two directions simultaneously, or switch directions of the antenna 180 degrees in seconds. This reduces rotator time, which can be outstanding for short/long path operations. All of their antennas have a power rating of 3000 watts key-down, and most models are supplied with a balun.

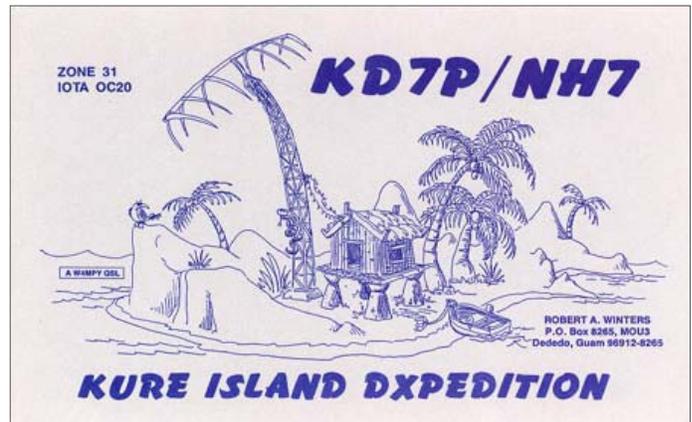
Spending half a day at Fluidmotion added a nice touch to our trip, and certainly gives me something to consider when making antenna changes at my QTH.

73 de Keith, KØKG



Mike, K7IR poses by his inventory of materials.

# “ No QSO ” QSL Cards



*Remember the Kure Island operation back in 1990 by Bob Winters, KD7P/NH7? He was serving in the Coast Guard at the time and put on a one man show for a few days from the island. Bob had a real thing about people that made same band, same mode insurance contacts. If you got on his bad guy list for this type of behavior, you were guaranteed one of his “No QSO” cards.*

## KD7P / NH7 NO QSO CARD

Insurance contacts deprive others the opportunity to make that all important contact for DXCC. After traveling on so many dxpeditions over the years, I've become alarmed at the number of stations who continue to make “INSURANCE” contacts on the same band and mode! Because of this, I have adopted the policy “NOT TO QSL” any station who conducts such a practice. Granted this may be harsh, however; with all the articles which have been written concerning this subject, I feel justified following this course.

Good luck on the next dxpedition to Kure Island

*If you were not guilty of same band, same mode dupes, you made Bob's “good guy” list, and received the “real thing”.*

## 6 Meters DXing From the Edge (of the Black Hole)

by Chuck Munce, KØSQ

*ed. – Chuck, KØSQ (ex - KØGJX) recounts his quest for 6 meter DXCC, which he claimed in 2001. Chuck is the first TCDXA member and also the first in our region of North America to attain 6m DXCC. As you will see, the quest for 6m DXCC from our landlocked, high latitude part of the world requires persistence and determination. But, each DX QSO is a thrill (even with the common entities), and an interesting lesson in propagation. It's time to start planning for Cycle 24. If you're looking for a 6m DXing mentor, Chuck is your very best bet. He's a tremendous resource!*



Chuck, KØSQ points to his 6 meter DXCC certificate #410, dated 17 December 2001

### Cycle 19 & 20

I was licensed in 1956 in Sioux Falls SD. After advancing from Novice to General, I was first turned on to 6 meters by Ed Tilton's column in QST, *The World Above 50MHz*. Even though cycle 19 had the best propagation, ever, I unfortunately missed most of it. Cycle 19 started April of 1954. I was busy with high school and girls. Even so, I managed to work 48 states on 6 meter AM.

Cycle 20 started October, 1964, about 1 year after I got out of the US ARMY. This was a transition time in ham radio - going from AM to SSB. Heathkit and Swan both had 100watt transceivers for 6m. Cycle 20 turned out to be a *non-performer* for 6m, but I did manage to work HF DXCC back then, and some 6m DX into the Caribbean and South America.

### Cycle 21

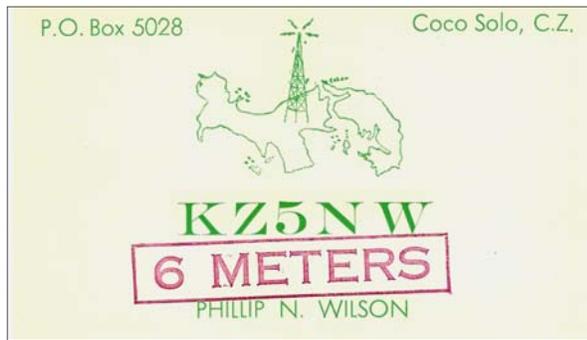
From Sioux Falls, I moved to Minneapolis in the fall of 1969. Cycle 21 officially began around June, 1976. Incidentally, most of Europe was not permitted on 6 meters. I didn't resume **serious** 6 meter activities until 1978. During that year, a great auroral E opening to KL7 occurred. It was a late September evening, and the opening went on

for hours. Several KL7s were worked, and that made state number 49. At that time, I was running a 4 el yagi at 40 feet and a TS600 with an 80 watt brick. By the time cycle 21 ended, my total was 46 DX entities, WAC and WAS #197.

Newly worked during cycle 21:

- 27 entities in NA including KP5 and KZ5
- 8 entities in SA
- 2 entities in EU (**EI2W** still had a license from cycle 19). **TF3SG** showed up one day and was a big surprise. **G6SIX**, was a pirate, that even *QSLed*. A ZB2 showed up later. He ran a beacon that we heard many times but no QSO.
- 4 entities in AF: C5, EL, V5 and ZS6. Jimmy, **W6JKV** at **C5AEH**, was a good catch. He set the 6 meter world on fire with his expedition. He had a booming signal for many days. At the same time, there were many ZS6s with loud signals.





## Cycle 22

This cycle started September, 1986. Europe just got the band, and hopes were very high on working some new ones. We used the TV video carriers on 48.250 MHz and 49.750 MHz as propagation indicators for working Europe and Africa. 28.885 MHz was even more useful for passing 6 meter information. You could tune plus or minus the frequency, anytime, and hear someone talking about 6 meters. Several people had 6 meter newsletters for passing along information. I worked a GØ/EA8, but found out later it was not a legal QSO. We also heard the OX beacons many times, but no operators there.

In 1988, I worked my first F2 layer DX: **OA8ABT** (Darrol, **AJ5T** in Peru). When it ended in 1995, I had worked 43 new ones. 6 meter DXCC #1 was awarded to **K5FF** and #2 to her husband, **W5FF**

During this cycle, I was using a 4/4@40ft and 52 ft and a KW. Even so, the east coast was "killing us" here in the Midwest. They had 3 or 4 times the number of openings to Europe. It was very frustrating; similar to working 160 meters and 80 meters from here.

Newly worked during the cycle:

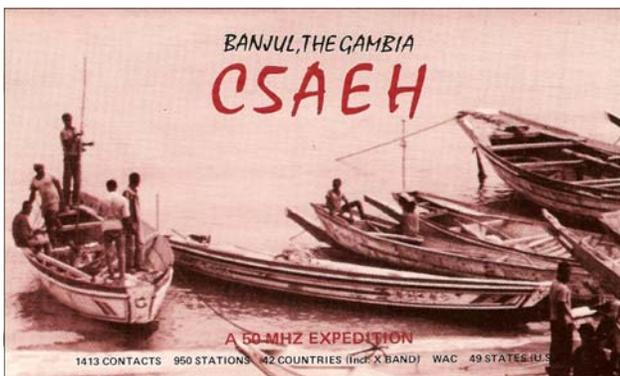
- 13 entities in NA: including YVØ
  - 8 entities in SA: including PYØFF
  - 10 entities in Europe: It was tough, here, because many were running *10 watt transverters*, and verticals or dipoles for antennas. Again, the east coast wins!!
  - 9 entities in Africa: 5NØ, 6W, 7Q7, 9L1, A22, CT3, D44, Z2, and ZS9.
  - 0 new ones in Asia: just a lot of JAs, as usual
  - 3 entities in Oceania: KH3, VK4, and ZL
- About 75 different entities were heard or worked during this cycle.



This one is worth enlarging to read the fine print!

- 1 entity in Asia, JA (lots of them worked, some with 100mw).
- 4 entities in Oceania: KH2, KH6, T32, and KX6. There were lots of openings to these locations.

I also made some crossband QSOs to EU. I transmitted on 6 meters, and listened on 10 meters. It was fun, but it didn't count for anything. 28.885 MHz was established as a 6 meter liaison frequency to pass on information about propagation, and it worked well. WWV was used for flux numbers and flare reports. QST and CQ magazines were always a couple of months behind with reports, so they didn't help much.



A 1981 6m DXpedition by Jim Treybig, **W6JKV** and Bob Furzer, **N6BFM** (the *Logger* guy).

Fecha	UTC	BANDA	Modo 2x	RST
		28	SSB/CW	
		24	SSB/CW	
		21	SSB/CW	
		18	SSB/CW	
		14	SSB/CW	
		10	SSB/CW	
		7	SSB/CW	
		3.5	SSB/CW	
		1.8	SSB/CW	
1.3	1437	50	SSB	59

**Republic of Cape Verde**  
**D44BC**

SSB  
6BDXCC  
6BWAS  
5BWAZ

CONFIRMING CONTACT

RADIO	DATE	UTC
WØGJX	18/11/89	18:20
MHZ	MODE	RST
50	2X	59
SSB	QSL	2-WAY
OFF	RF	TNX

JULIO VERA-CRUZ  
P.O. BOX 36 MINDELO  
REPUBLIC OF CAPE VERDE  
AFRICA ZONE 35

### Cycle 23

This cycle started May, 1996. With the advent of the internet, the information age was here. 28.885 MHz was no longer useful; hardly any information passed there, anymore. Now the DX clusters were in full swing. All kinds of propagation aids were available to monitor the solar flux, sunspots and flares. With new transceivers available which included 6 meters, the Europeans were now running 100 watts or more, with better antennas. Still, the east coast would work them all morning, and we heard nothing. The cycle got off to a slow start. Many thought it would be another cycle 20.

### Local Interference

Channel 2 installed a new solid-state transmitter. It turned out to be a wide band noise generator. With the antenna pointed easterly from 75 degrees to 135 degrees, it raised my noise floor to S4. However, I did manage to work a few strong Africans through it. For example, 9G5AN (operator Arliss, W7XU) was contacted. Thanks, Arliss.

The first F2-layer station worked in this new cycle was VP6BR, Pitcairn Island on 2 April 2000. That fall, 1 November 2000, I worked FR1AN and FR5DN on Reunion Island, a distance of 16,160 km. This was my best DX on 6 meters.

- 4 new entities in NA, including TI9
- 3 new entities in SA: VP8, CEØY, CEØZ
- 11 new entities in EU
- 4 new entities in AF: EH8, FR, TR, 9G5
- Zero in Asia again but lots of JAs. Some JAs were worked in January and February,

CQ Zone 39 **Réunion Island** WWL 67895  
IOTA AF-016

FR/IK2RXV FR5DN

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Réunion Island - FRANCE  
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CONFIRMING QSO WITH	DATE			UTC	MHz	RST	2-WAY
	DAY	MONTH	YEAR				
kØSQ	01	11	2000	1541	50	59+	SSB

RIG: Yaesu FT-990 (HF)  
Kenwood TS-790E (V/UHF)  
ANT: TH2MK3 for 10, 15 & 20 m  
Inverted V dipole for 40 m  
Dipole for 40 & 80 m  
4x17 el. F9FT for 144 MHz  
4x21 el. F9FT for 432 MHz

Outstanding signal  
735 Phil

Special thanks to:  
Falena Vlaggi, FIJQ, I2MOP, IK2GAG, IK2JUB, IK2MRZ, FR5FC, Mondon family, P000 DX Team

which is unusual. In past cycles, they were usually not heard past December.

- 3 new entities in Oceania: VP6, KH8, KHØ  
Over 95 entities were worked or heard during this cycle.

### Some Interesting 6 m Propagation Observations

- Longpath to JA on 18 October 2001 at 14:23 GMT: the beam heading was about 150 degrees.

- There were more European openings in November/December of 2001 and January 2002 than ever before.

- When I worked OY9JD on an F2 path, his signal sounded like aurora. I had never heard this before on 6 meters.

- I heard a 5B4, but he was not workable. That would have been my second Asian. OH was also heard but not worked.

- Lots of side scatter (crooked path) signals were heard and worked. Many were 30 degrees off true heading. One day we worked Europe with the beam pointing 100 degrees. This is one reason they call 6 meters the MAGIC BAND!!

### DXCC, WAZ & Top Guns

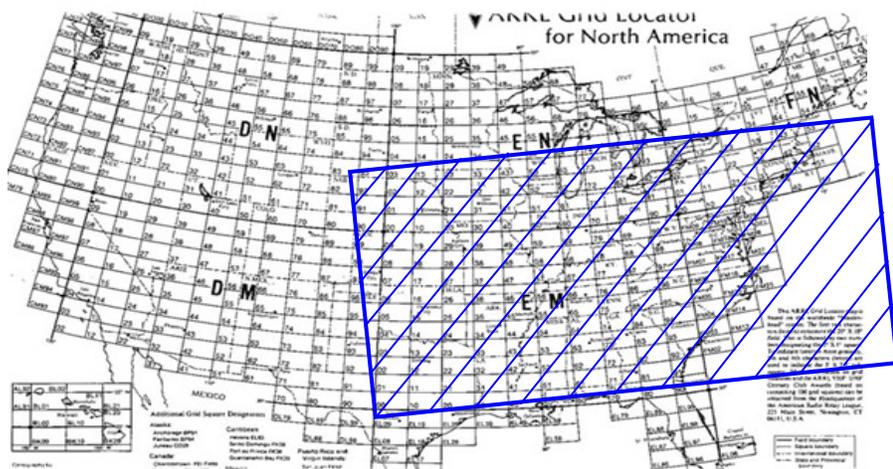
Larry, NØLL was the first WØ to earn 6 meter DXCC, one year before me. I was the second WØ to accomplish this. It took 20 years to make it, but what a ride. The USA is in the minority when it comes to earning 6 meter DXCC. The Europeans and Japanese have a lock on it. I now have 115 DXCC entities and 27 zones confirmed on 6 meters. That is DXCC #410 and CQ WAZ #66. You only need 25 zones to qualify for the WAZ award on 6 meters. The top guy for WAZ is LZ2CC with 39 zones. He only needs KL7, zone 1 to finish.

The top DXCC guy in North America is Bob, VE1YX with 171. In the USA, it's Lefty,

**K1TOL** with 170. The top guy in Europe is again, **LZ2CC** with 238. In South American it's **PY5CC** with 213 and in Asia it's **JA1BK** with 207. The top WØ is **KØFF** with 123. Many people who made DXCC in cycle 23 were first timers (the "Sweet Spot" guys – see, below). Bob, **WØBV**, was on for cycle 23 and worked 91 entities. Well done, Bob!

### The Sweet Spot

As I stated in the title, we are on the edge of the black hole. The 40 degree latitude line, which splits grid fields EN and EM, seems to be the sweet spot. Anyone who is located up to 4 grids north of the line or up to 10 grids south of the line out to about 100 degrees west longitude for both F2 and Es are in the North American "Sweet Spot." This is my opinion, after many years of observation and study. I also believe this holds true for HF propagation. I guess I need to move south, before the next peak.



The North American 6 Meter Sweet Spot

### Solar Flux Numbers

Generally speaking, over the last 3 cycles I have found that the SFI (solar flux index) needs to be around 200 for several days for Minnesota to experience 6 meter DX. Some openings only last for a few minutes. So, if you're not there at that moment, you missed it. Finally, 99.9% of F2 DX openings occur during daylight hours; so adjust your work hours accordingly.

### Auroral E

This happens after a strong aurora. Point your beam north, northeast or northwest and look for

beacons from VE8, KL7,OX, etc. Many KL7s are on 6 meters, and workable on SSB & CW. This usually happens from 10pm, up to about 3am local time.

### Summer Es (Sporadic E)

These openings start in late May thru July. Here in Minnesota, we can always pick off at least a dozen DXCC entities, each summer. We mostly work North America and the Caribbean. From time to time, the propagation gods give us Europe and North Africa. However, these openings are few and far between. Despite rare, long distance Es DX openings here, the east coast regularly works Europeans and Africans during the summer on these paths. *Some have even worked DXCC on summer Es. Lefty, K1TOL, has accomplished this.*

### DXpeditions & SSB vs CW

A big thank you goes to Jimmy, **W6JKV** and to Arliss, **W7XU** for their DXpeditions. Without them and several others, many of us would not have worked DXCC. I counted 20 DXpeditions over 3 cycles. I worked 36 entities on CW and 78 on SSB. CW is here to stay.

### What You Need

#### to Work DX on 6 Meters

- Time and the right timing. Note that the best F2 months are November, December, January and March. Best times are 7am to noon for Europe, South America and Africa. Noon to dark is best for KH6 and KL7. JAs: about 4pm local.

- Best Es months are May, June and July. Best times are 7am to 10am and 3pm to 7pm local. Every year, many Caribbean and North American entities are available.

- Antenna and Power: 100 watts and 4 elements at 40 feet will do. But, bigger is better, as you all know, and sometimes you only get one chance!!

- Location, location, location.

Good luck on your 6 meter efforts.

73 de Chuck, KØSQ (ex-KØGJX)

## Answers to the **DX Quiz** **DXCC Entity Changes**

**Additions and deletions to DXCC entity list in chronological order (most recent to oldest).**  
(from page 9)

#	Prefix	Entity	Add/Delete Date
1	KH8	Swains Island	added July 22, 2006
2	(TBD)	Montenegro	added June 28, 2006
3	VP6	Ducie Island	added November 16, 2001
4	4W	Timor Leste	added March 1, 2000
5	FK/C	Chesterfield Is.	added March 23, 2000
6	E4	Palestine	added February 1, 1999
7	FO	Austral Is.	added March 31, 1998
8	FO	Marquesas Is.	added March 31, 1998
9	H4Ø	Temotu Province	added March 31, 1998
10	STØ	Southern Sudan	deleted April 1, 1998
11	BS7	Scarborough Reef	added January 1, 1995
12	BV9P	Pratas Is.	added January 1, 1994
13	ZS9	Walvis Bay	deleted March 1, 1994
14	ZSØ	Penguin Is.	deleted March 1, 1994

### Who Owns this Shack? (from page 9)



*It's James Brooks, 9V1YC*

*(and op at A52A, FOØAAA, FT5XO, VKØIR, VP8GEO, VP8THU, ZL9CI, among others.)*

# 9V1YC

**OP: James Brooks**

□PSE QSL TNX QSL

## Singapore

<b>CONF:</b>	<b>To Radio:</b>	<b>WØBV</b>			
Date	Time	Band	Mode	RST	
2005-01-31	1130	3.5	CW	599	
UTC					

A WAMPY QSL TNX for the QSOs

