

TCDXA
TWIN CITY DX ASSOCIATION



Minnesota

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Inside this issue:

<i>Member News</i>	2
<i>VP2MWG WØOR</i>	4
<i>Member Profile</i>	16
<i>KØKT</i>	
<i>Return to A5</i>	22
<i>WØBM</i>	
<i>MWA</i>	
<i>Contest Corner</i>	27
<i>KØAD</i>	
<i>One-man Tower Crew</i>	30
<i>KØPX</i>	
<i>HKØNA</i>	38
<i>WØGJ & KØIR</i>	

Gray Line Staff

**K3WT
KØAD
KØIEA
KØJUH
WØBV**

The GRAY LINE REPORT

DXing from Minnesota - Land of 10,000 Lakes

HKØNA Malpelo Island DXpedition January - February, 2012

Congratulations to the HKØNA team for breaking the record for the most QSOs by a "tent and generator" DXpedition, with 195,625 Qs! Our great thanks to Ralph, KØIR and Glenn, WØGJ for engaging their precision "zero detector filters" to give a new one to deserving TCDXA members.

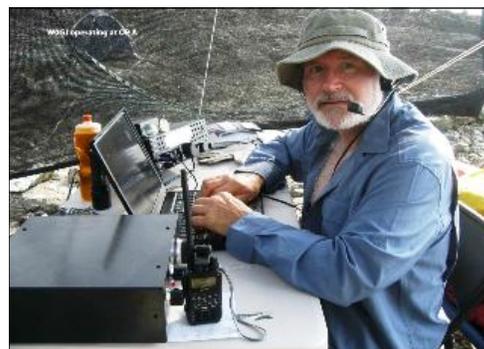
In this issue, the Head Hog interviews these DXpedition veterans on a variety of subjects. We hope you enjoy their responses! The story starts on page 38.



Ralph, KØIR and Glenn, WØGJ promote TCDXA on Malpelo Island.



Ralph at operating position Baja.



Glenn at operating position Alto (top of the rock).

Member News

A Story About a Broken Antenna and Friends Helping Friends

When Tom, **WØZR**, discovered a problem with his rotatable 80 meter dipole, he wasn't sure how he would approach getting it repaired. One of the truss cables had let go, and was flapping in the breeze, causing intermittent SWR problems. The broken antenna would not be easy to access because of its location at the top of a 19-foot ladder mast, which resided at the top of a 70-foot crank up tower.

Having joined the Senior Citizen ranks, Tom no longer climbs towers to make antenna repairs. For a moment he considered it, because his crank-up tower nests at 23 feet, which would put the dipole within reach. But, the thought of climbing the 15-foot ladder mast and trying to reach the broken truss cable, snapped him out of his fantasy and back to reality.



Steve makes the repair.



Steve, **KØSF** climbs the ladder mast.



The ground crew (l-r):
Tom, **WØZR**, Larry, **WØPR** and
Bill, **KØKO**.
(Mike, **KØCOM** is not pictured.)

pairs. He gives all the credit for being able to complete the work to the “ground crew,” who gave him moral support. Bill, **KØKO**, Mike, **KØCOM** and Larry, **WØPR** were members of the “ground crew,” who suffered stiff necks from looking up and watching Steve work. They have since recovered from their injuries.

In the end, Tom is back in business on 80 meters, thanks to friends helping friends!



Larry, **WØPR** takes his turn at crankin' 'er back up.

Photos courtesy of KØCOM



Member News

TCDXA Welcomes our Newest Members!

Butch Schartau, KØBS
Pulaski , TN (winters) and
Pepin, WI (summers)



Carl Vangsness, KØTNT
Maple Grove, MN

Eric Brindley, WØXG
Wayzata, MN



Scott Neader, KA9FOX
La Crosse, WI

<http://www.qth.com/ka9fox/>



Gary Rickheim, WØARW
Edina, MN



- AND -

Ron Reed, N9OY, La Crosse, WI

Tom Weigel, ABØJ, Edina, MN



The VP2MWG DXpedition to Montserrat, 2011

by Bill Dean, WØOR, VP2MOR



BACKGROUND

In November, 1493, while exploring the Caribbean on his second voyage to the New World, Columbus sailed past a small volcanic island that reminded him of the area surrounding the familiar Catalonian monastery of Montserrat near Barcelona. He didn't send any of his men ashore, but, he claimed the island for Spain, and gave it the name that it still carries. More than a century later, the island came under British control, was settled by Irish who were ousted by the British from St. Kitts and today it is one of eight former crown colonies that are designated "British Overseas Territories."

During the 1970s and 80s, many of the former islands of the British West Indies were granted independence. Montserrat, (luckily, as it turned out), opted to remain a dependency of the U.K., and as such, it has retained the VP2M prefix.



Prior to 1989, Montserrat was not a rarity on the amateur bands. There was a population of about 15,000. And, like most Caribbean countries, VP2M could be heard frequently and worked. In the early morning hours of September 17, 1989, Hurricane Hugo hit the island full force with sustained winds of more than 140 miles per hour. Ninety percent of the structures on the island were damaged, doing great harm to the tourism industry, which had previously flourished.



Then, in 1995, just as the island's economy was getting back to normal, a second, even more devastating event occurred. Volcanic Mt. Soufriere, dormant for centuries, began erupting. That continued for 15 years, burying the international airport, most of the capital city of Plymouth and several other residential communities in pyroclastic flows. When the volcanic activity slowed in early 2010, nearly two-thirds of the island was left uninhabitable. As a result, the majority of Montserrat's citizens left for other Caribbean islands and England. Only about 4,000 opted to stay, moving to the relative safety of the sparsely populated northern end of the island. Because Montserrat remains the responsibility of the U.K., a good deal of money and assistance has been made available in the aftermath of the disasters. The population is slowly climbing, and some development is currently taking place on Montserrat's north end. Ham



Our team: (l - r) Bill, WØOR; Gregor, DF7OGO; Ron, NØAT; Vlad, NØSTL and Tom, K3WT.



radio activity, particularly on the HF bands, has been sporadic. That's what attracted the interest of our core team of DX contesters, Tom, **K3WT**; Ron, **NØAT**; Vlad, **NØSTL** and Bill, **WØOR**. We have also welcomed the presence of Gregor, **DF7OGO**, Vlad's longtime friend, who now lives in Germany.

For nearly a decade, our group has planned and then embarked on contest DXpeditions for the CQWW CW contest. We don't go every year, as we all have families who want our presence at the Thanksgiving dinner table. But, we've each worked out compromises that allow us to experience these adventures approximately every other year. And, when the contests are over, we begin looking forward to the next one. After all, being on the receiving end of huge pileups and meeting the challenge of the competition does get into one's blood. Of course, visiting new places, experiencing a new culture and augmenting our knowledge of geography is also a big part of why we keep making these trips.

For each expedition, our criteria for picking a country have been similar: The location should have a history of being somewhat rare during recent CW DX contests, it should be an entity that is reachable by scheduled transportation and the overall cost should be within reason. Hopefully, the entity chosen should also be a place where licensing is not too difficult. An additional consideration is being able to identify ahead of time a specific QTH that looks like it will work.

Previous forays have been made to Guatemala (**TGØAA**, 2002), Bolivia (**CP6CW**, 2004), San Andres (**5JØA**, 2007) and El Salvador (**YS4U**, 2009). All, more or less, fit these criteria. In each case, we achieved satisfactory results, easily winning for the country. And, in El Salvador, we won a plaque for finishing first in North America.

Experience has taught us to adhere to the seven Ps: Proper Prior Planning Prevents Piss Poor Performance! Therefore, planning for the 2011 contest began in early spring. Our usual practice has been to meet at a Perkins restaurant for breakfast on a convenient Saturday to discuss our options.

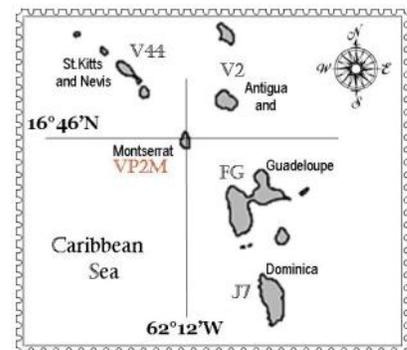
At our first meeting, we kicked around several ideas. Initially, we really couldn't easily identify an entity that fit our criteria. Most of the countries in Latin America, other than the ones we had been to, are usually well represented in CQWW by one or more established stations. We kicked around the idea of returning to El Salvador or Guatemala. But, nobody was enthusiastic about going back to a place we had already been. We all agreed to do some research on possible locations, and to keep our options open. During the discussion, both Montserrat and Barbados were mentioned, but no decision was made at the meeting. We left determined to examine both possibilities.

CHOOSING MONTSERRAT

In addition to fitting our general criteria, it turned out that a proven and convenient location was available on Montserrat.

Tom Menas, **K3WT**, who originally hails from Pittsburgh, PA, has a long-time ham buddy still living in the Pittsburgh area--Larry, **K3VX**. The two remain friends, and Tom knew that Larry had recently operated from Gingerbread Hill, a guest house in Montserrat strategically perched above the Caribbean. Larry told Tom some of the details: Open views toward both the US and Europe, owners who enjoy catering to visiting hams and the existence of a permanent motorized crank-up tower attached to the building containing convenient rental units.

We were informed that George Briggs, **K2DM** had built the tower and owned some equipment and antennas that he stored at the site, including a Classic CL-33 beam that we might be able to use. Later, we learned that an operation from Gingerbread Hill to be led by George was planned for the CQWW SSB contest, but nobody was scheduled for the CW event. In May, Ron, Bill and Al (**KØAD**) made the trek to the *Dayton Hamvention*. While



there, they were able to pick up a few tips from Larry and several others who had been to Montserrat and had previously operated from Gingerbread Hill. Armed with that additional info, we made a tentative **GO** decision in late spring at a subsequent Perkins breakfast meeting.

DIVISION OF LABOR

Each member of our team usually takes responsibility for the various necessary duties. Ron, NØAT has always done such a good job of setting up an operating schedule, so he more or less automatically gets that job. As our most expert user of WriteLog, Ron also takes care of setting up the software, managing the logs and reporting the results.

Bill, WØOR plays the part of the travel agent, and is in charge of finding the flights and arranging transportation. That job has become somewhat tricky in recent years, because the airlines are continually changing their schedules and their fares. We ended up paying a little more than we would have, had we either purchased our tickets earlier, or, as it turned out, a bit later. One never knows what is going to happen to air fares. A piece of advice: If you find a cheap fare, grab it. It may not be available the next day. And, you don't dare wait too long for the fares to come down, or you may end up paying even more.

We discovered it isn't possible to get to Montserrat on a single ticket. Several airlines fly into Antigua, which is only a short hop away. But, the new airport on Montserrat can't take jets. There are two ways to get there from Antigua.



There's a little eight-seat prop plane operated by *Fly Montserrat*. The flight is in the air for only about 15 minutes, but it costs about twice as much as the alternative, and the

amount of baggage allowed is severely limited. The other option is a ferry. Baggage is less of a problem, but the boat operates only Wednesday through Saturday, and takes about two hours.



Tom's job was to make arrangements for securing the rental of Gingerbread Hill for the contest dates. He also took charge of handling the details involved in obtaining licenses.

Vlad and Gregor's major task was yet to come. Upon their arrival on site, they assembled and later disassembled our Spider Beam. Vlad also manages our on-site computer network, which links the two stations and links to the internet. His equally important job is to design the QSL card after the contest!

For past contests, we have generally traveled to our DX destinations as a group. This time, due to tight work schedules and personal considerations, team members followed three different itineraries. Ron and Bill made up the advance party; Tom followed a few days later and Vlad and Gregor arrived last.

The return trips were reversed. Ron and Bill decided to stay an extra week to operate in the ARRL 160 meter contest and the 10 meter RTTY test, both scheduled for the weekend after CQWW CW. Ron's wife, Faith, flew down and joined him for the final week, as well. Vlad and Gregor had to leave on the Monday after the CQWW contest to get back to work, while Tom, now retired, opted to stay a few more days, allowing him more operating time outside of contest hours and giving him a few more days in the balmy Caribbean. All of this complicated the advance scheduling work for both Bill and Tom, especially since the ferry follows an irregular schedule. To make sure we would get it right, we constructed a calendar showing both the travel and lodging arrangements. As it turned out, the calendar would change several times as the contest dates neared and as we learned more about transportation and lodging availabilities. Tom was kept busy on his computer, with emails back and forth to and from Clover and David Lea, the owners of the guesthouse at Gingerbread Hill.



Our Hosts at Gingerbread Hill: Clover and David Lea
www.volcano-island.com



LICENSING

Obtaining licenses for operation on Montserrat turned out to require a bit more red tape than we had been led to believe after talking to hams that had previously operated there. That was in part due to a change in the Montserrat government's procedure that occurred at the time of our applications. The upshot is that we all had to fill out a questionnaire and sign a set of documents twice. With Tom's able work in communicating with the authorities, and with the help of Victor James, **VP2MQ**, we were able to do everything via email, and were assigned the calls we requested. There were two exceptions. NØAT wanted VP2MAT. Unfortunately, it was not available, so he settled for **VP2MTA** (with apologies to the Kingston Trio and the Boston Metro Transit Authority).

For the contest call, we asked for VP2MWA to highlight the Minnesota Wireless Association. It, too, was unavailable. So instead, we opted for **VP2MWG** (Minnesota Wireless Group). Aside from Ron, we were all assigned calls that were similar to our home calls: K3WT/**VP2MWT**; NØSTL/**VP2MTL**; WØOR/**VP2MOR** and DF7OGO/**VP2MGO**. Our licenses arrived by email a few weeks before the contest. All that remained was to pick up the original signed documents. After arriving at Gingerbread Hill, it was easy. The Montserrat equivalent to the FCC was only a 10 minute walk away. The originals of our licenses were ready and Monica Blake, the very pleasant young woman in the office, found our files and handed them to us immediately. We were legal!

OPTING FOR MULTI-2

In past contests we had always entered in the Multi-Single class. This time, we decided to consider doing Multi-2. The fact that we would likely have two good antennas for 20, 15 and 10 - a Spider Beam and the CL33, as well as the likelihood of 10 meters being open for the first time in years, rendered us that option. For most contesters, the most fun is to be had in



Gingerbread Hill

running. As a Multi-2, each operator would be able to run stations during each of his shifts. We took two Elecraft K-3s belonging to Tom and Bill. Plus, Bill brought an older and rarely used Dentron Clipperton L. Together with Ron's ACOM 1010, we would be able to set up two high power stations, each with antennas for the high bands. For 80 and 40, we would have a Butter-nut HF2V that performed well in

prior expeditions. We knew there would also be dipoles available for those bands, and for 160.

ARRIVAL AND SET UP

After an overnight stay at the Antigua Yacht Club Hotel, and a day of sightseeing on Antigua, Ron and Bill arrived on Montserrat via the passenger-only ferry from Antigua on Friday evening. It was already dark upon debarking. David Lea, our host at Gingerbread Hill, was to meet us at the Montserrat dock. Bill had both his K-3 and the Clipperton L. Ron was carrying Tom's K-3. Getting through customs was a breeze; no problem at all. The Montserrat officials were very friendly, and that same friendliness was to be encountered throughout our stay.



The Antigua Yacht Club Hotel.

We found virtually everyone on the island to be very welcoming. In fact, when we discovered that David had not yet arrived, several islanders offered to phone him. Everyone knew



him, and knew his cell phone number. A quick phone call by one of the bystanders revealed that David was only a few minutes away. Once he arrived, we loaded his vehicle, and we were en route to Gingerbread Hill. David kindly stopped at a small restaurant, where we were able to buy a plate of hot food--fried chicken, mac & cheese, yellow rice and mixed vegetables. It was very adequate fare for a couple of hungry travelers.

Because it was dark when we arrived, we really didn't know what our location was going to look like in the daylight of Saturday morning. It turned out to be spectacular. The view of the Caribbean was just like a postcard.



Ron's room was on the top floor, known as "the heavenly suite." Perfect for Ron, as there is only one bedroom plus bath, and his wife would be joining him after the contest. The second floor featured two bedrooms and baths. It was where Bill and Tom, (without spouses), would stay. The bottom floor, a room with twin beds and a shower, were reserved for Vlad and Gregor. Ron immediately set up Tom's K-3 and strung a 12 meter dipole from some avail-



able posts. It wasn't long before he was working pileups. It was clear that this was going to be a great location. But, there was work to be done. We had to wait for David, because the antenna parts for the tribander and the dipoles were stored in a container, (the standard sort used in international shipping), hidden away a couple hundred yards down the hill from the guest house. Getting to the container was quite a ride for Ron and Bill. We piled into the back of David's pickup, which he drove with deliberate speed down the rather bumpy dirt road. Suffice it to say, this pickup was not equipped with air ride. Our sore butts were testimony to that fact. Once the elements and wire were loaded, we headed back up the hill and began assembling the CL33. There is a spiral staircase that goes to the top of the house from the third floor balcony. There, a flat patio-like deck makes it easy to assemble a beam. With David's help, it took us only a couple of hours to get the antenna put together and the tower cranked up.



ON THE AIR

By Saturday afternoon, we had both K-3s running barefoot, and were on the HF bands with our individual calls. We set up Bill's K-3 on the 2nd floor outside balcony and Tom's in the kitchen of the heavenly suite. Those operating positions proved satisfactory, and that's where they would remain throughout. It gets very hot and humid midday on Montserrat. So, we suspended antenna work until late in the day. Off and on during the weekend, Ron and Bill strung up wire antennas, and by Sunday evening we had dipoles up for all the bands not covered by the beam. As yet, the Spider and the Butternut had not arrived. Everywhere we went, we encountered pileups as soon as we were spotted.



K3WT arrived at the airport on Monday in time for lunch. We soon put him to work helping to finish up antenna installations, especially the 160 meter dipole. By end of day Tuesday, we had everything up except the Butternut and the Spider Beam, both of which would arrive with our final team members Vlad and Gregor.



Tom, K3WT arrives.

PREPARING FOR THE CQWW CW CONTEST

Much of Tuesday and early Wednesday before the contest weekend was spent testing our equipment and working the pile-ups on the HF bands. When Vlad and Gregor arrived by ferry Wednesday morning, the Spider Beam assembly began. This was the third contest in which we have used this antenna. Vlad has carefully devised an efficient system for assembly and disassembly. There are so many wires, cables and lightweight mechanical elements to this kit that it takes a very well organized individual to keep everything straight. Vlad has become very, very good at it. He and Gregor went right to work on the assembly. Tom, Ron and Bill proceeded to work on the Butternut and help raise the Spider.



Bill's operating position.



Ron's operating position.

On the property, well away from the guest house, there was an upside down satellite dish that was no longer in use. Its metal mesh looked like it would provide a good ground, and in the middle was a flange just about the right size for the mast of our Butternut HF2V. After adding a dozen or so wire radials and fastening some guys, we had ourselves a vertical for 40 and 80. With the exception of 160, we had two antennas for every band, all far enough away from one another to prevent cross band interference. That was important, as we were told we would find a band pass filter at the guesthouse when we arrived, and we were never able to locate it. We had brought one that KØAD loaned us, but we didn't have a second one.

THE CQWW CW CONTEST RESULTS

Montserrat is on Atlantic Standard Time, which is UTC -4 hours. That meant the contest started for us at 8pm local time. It was already dark by then, but 15 and 20 were both open, and so we started there. The first five or six minutes were a bit slow, but once we were spotted, it was off to the races. With the exception of a



Vlad and Gregor assemble the Spider Beam.



An upside down satellite dish provides a base for the Butternut.



few slower periods in the wee hours, both stations were busy for 48 straight hours. Our overall contact average was 213 contacts per hour, with 10,224 logged contacts. The box at the right represents our claimed score.

MORE ABOUT LIFE ON MONTSERRAT AND THE VOLCANO

In the week that followed the CQWW contest, Ron, his wife Faith and Bill were able to take advantage of several opportunities to explore the island. David and Clover’s son, aptly named Sonny, served as our tour guide, and did a great job of showing us the important sights. Tom also stayed a few extra days, and was able to enjoy some sightseeing.

Today, Montserrat is perhaps one of the most unique places in the Caribbean. Because of the twin disasters of Hurricane Hugo and the multiple eruptions of Soufriere over the past 15 years, life on the island has undergone enormous changes.

In the years before these cataclysmic events, Montserrat had become a popular tourist destination, boasting an international airport, a port that welcomed cruise ships and a growing population of part-time residents, many of whom built expensive vacation homes in the hills overlooking the thriving capital city of Plymouth. A few of these homes survived the volcanic eruptions, but many more did not.

Montserrat also gained fame when George Martin, “the fifth Beatle,” built a luxurious recording studio that brought numerous celebrities to the island to record their albums. The

Score:	18,725,736		
	QSO	ZN	DX
160M	200	10	24
80M	657	25	88
40M	1946	33	113
20M	2281	35	110
15M	2586	33	119
10M	2554	33	121
Total	10224	169	575

studio was destroyed by Hurricane Hugo, and was abandoned. At present, a large part of the island is off limits to all but approved scientific parties. That area is called “the exclusion zone.” It is possible to enter parts of the zone for a limited time, after checking in with a police guard. Our tour guide took us through the checkpoint, and we were able to view, up close, some of what is left of the area around Plymouth.



A former luxury hotel.



The remains of the George Martin recording studio.



Former airport site.





The "Exclusion Zone."

A championship golf course that served many of the vacation and retirement homeowners was completely covered by the pyroclastic flows. It lies in ruins. Popular luxury hotels and resorts were likewise devastated.

The capital city of Plymouth was so completely destroyed that it is often referred to as "the modern Pompeii." Fortunately, there was enough warning that most residents of Plymouth escaped to the safety of the northern sectors of the island. Even so, 19 people perished.



Plymouth today.

The pyroclastic flows were so heavy that they actually increased the size of Montserrat. The coastline was extended by perhaps several hundred yards in the area beyond Plymouth.



Newly-formed coastline.

The government of the U.K. has poured in money and technical assistance for the roughly 4,000 people who decided to stay on Montserrat. But, it was our observation that progress in building a new capital in the north is proceeding very slowly. We heard comments to the effect that too much money had been spent on studies, and not enough on bricks and mortar. One observer cynically remarked, "all they really have to show for it is a new roundabout."

On the positive side, we did observe improvements being made to the one highway that encircles the island. We were also shown a housing development which looked fairly good. But, the airport that replaced the one that was destroyed was put in a place that will never be able to handle larger aircraft, as the runway is too short.



A really short runway.



A visit to the grocery stores on the island reveals that there is a lack of variety one finds elsewhere in the Caribbean. The shelves are filled, but many items we would take for granted are unavailable.

There is no hotel on the island. There was one that was open for a couple of years, but it apparently closed for lack of business.

Guest houses and B&Bs are available for rent and for short stays. There are several restaurants, and the ones we tried were adequate. But, don't plan to lie in the lap of luxury if you decide to visit Montserrat. What you will find are positively some of the friendliest people in the Caribbean. There is reportedly very little crime. A jail that was built by the British government is underutilized. Everyone knows everyone else, and people with cars driving around on the only major island road will routinely stop and pick up hitchhikers. There's always a smile and a "hello," wherever one goes.



Highway improvements.



Faith, Ron and Bill enjoy lunch at one of the island restaurants.

EPILOG: OTHER CONTESTS AND OPERATIONS

Bill and Ron, as mentioned earlier, stayed a second weekend for the ARRL 160 meter contest and for the new 10 meter RTTY contest.

Our transmitting antenna for 160 was a dipole strung between trees and fed at a point above the guest house that, at its apex, was perhaps 40 feet high and maybe 30 feet high on the ends. It ran approximately northwest/southeast. For receiving, we constructed a K9AY loop. For grounding, David found us a rusty steel re-rod, which we filed down to clear off some of the rust. With a sledge hammer, we were able to get it down into solid rock. Later, when we were doing tear-down, we couldn't get it out! The K9AY loop really



Feedpoint of 160m dipole.

worked well. The noise differential was remarkable. No question, it was worth the effort to put it up.

The 160 contest, which begins at 2200Z, started for us at 6pm local time. Because one earns points in this contest by working only North American stations, it did little good for us to work Europeans. Many of them apparently wanted VP2M on 160, and so when we called CQ we would frequently hear Europeans coming back to us. What to do? Most of them were persistent and we decided to work them and log them, then simply disqualify the contact. Sometimes it would slow down our rate for working stateside stations.





K9AY loop receive antenna.

Each evening, for the first couple of hours, signals from the States were weak, and our rates were not impressive. But, at about 10pm local time, things really picked up. And, for about four or five hours, we could run stations. Eventually, we managed to work all sections, except San Diego and NWT. We submitted our claimed score of 930 QSOs (not including DX) X 78 sections = 145,080.

The 10 meter RTTY Contest was a brand new event. Ron is an experienced RTTY operator, but Bill had never operated in a RTTY contest, so Ron had to conduct a class. Bill learned quickly that WriteLog, with its digital contesting features, made running stations easy. WriteLog recognizes the calls of regular RTTY operators, and all one has to do is to click on the call to send the exchange and log the contact. Cool! So, even with one inexperienced RTTY operator, we managed to pile up what we thought was a fairly good score. However, little did we expect to finish number one in the world!

From the official results:

“In the Multi-operator category, the team of WØOR and NØAT, operating from Montserrat as VP2MWG, won the World Multi-operator plaque with 918 QSOs and 108 multipliers for a score of 99,081 points.”

CONCLUSION

Of all the DXpeditions our group has taken, this was one of the better experiences. We had an outstanding facility from which to operate, hosted by very accommodating owners. The location offered commanding vistas of the Caribbean and clear shots to our main target zones of Europe, USA and Japan. Conditions were definitely favorable, with 10 meters consistently open.

And where will we go next? The answer is a well kept secret, as even the author of this article can't reply!



Montserrat, British West Indies

VP2MWG CQ-08 TTU-11 VP2MWT Tom, K2MT VP2MOR Bill, WØOR VP2MTA Ron, NØAT
 IOTA: NA145 JOTA: NA145 VP2MGO VP2MTL
 Grid: FK86es Greg, DF7000 Vlad, NØSTL

2011 CQWW CW - APRIL 1-60 - Ten-Meter RTTY

V44 V2 Antigua and Barbuda
 3048 3049 3050 3051 3052 3053 3054 3055 3056 3057 3058 3059 3060
 3061 3062 3063 3064 3065 3066 3067 3068 3069 3070
 3071 3072 3073 3074 3075 3076 3077 3078 3079 3080
 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090
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 3191 3192 3193 3194 3195 3196 3197 3198 3199 3200

Special thanks to: David and Clover for their hospitality <http://volcano-island.com/>; the TCDXA and MWA members for their support, especially Mike, WØWG, Tom, WØZR and Al, KØAD for their equipment donations; George, KØDM and Larry, KØVX for their guidance. Visit our web site <http://www.vp2mwg.comeze.com>. Thanks for all the QSOs: 73 and DX!

TCDXA Minnesota

Confirming QSO with:

Date	UTC	Freq	Mode	RS/T

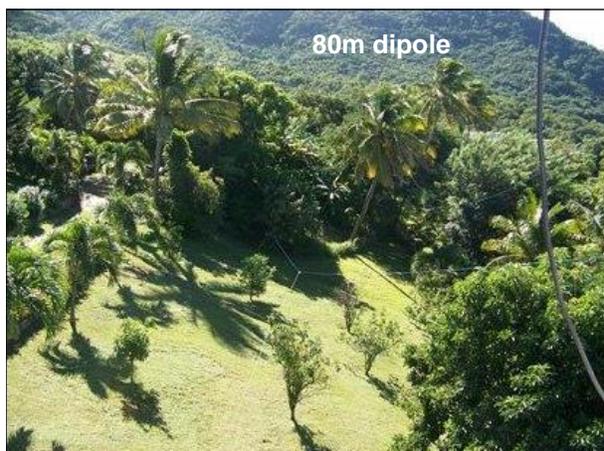
Equipment: Elecraft K3 (2), ACOM 1010, Dentron Cliperton L
 Antennas: Dipoles - 160m, 80m, 40m, 30m, 17m, 12m;
 5 band SpokeBeam; Mosley CL-33; Battenut HF2V

Design by NØSTL



VP2WVG Photo Gallery

Antennas



VP2WVG Photo Gallery

Ops and Stations



Gregor, DF7OGO at the controls.



Ron, NØAT in the "Heavenly Suite" kitchen.



Bill, WØOR workin' 'em.



Tom, K3WT runnin'.



Vlad, NØSTL pulls an all nighter!





**Bill
Meeker
KØKT**

I grew up near the New Jersey shore in a small town called Rumson. My earliest recollection of playing with a radio was when I was perhaps six years old; family members gathered to clean out the old house in which my father’s recently deceased great aunt had lived. To keep me busy and out of the way, I was given an old radio and some hand tools with the suggestion that I dismantle the radio. I think I destroyed a lovely old Atwater-Kent breadboard.

Every year, our municipality would have “junk week,” during which they would pick up any junk that residents wanted to throw out. One person’s junk is another person’s treasure. I acquired old radios and TV sets, and learned that by swapping out bad tubes, I could get some of the radios working again. The others gave me parts for my collection. My father helped me string a long-wire antenna in the attic. I spent many winter nights listening to faraway broadcast stations on a large console radio. My parents encouraged this behavior; sometimes telling their friends and neighbors, when I was within earshot, that “radio must be in his genes.”

As a Boy Scout, I learned Morse code, and wanted to earn the radio merit badge. The merit badge booklet showed how to build a one-tube regenerative shortwave receiver. With encouragement and a little financial support from my parents, I was able to build the radio, opening a completely new world for me. I was fascinated by stations like WWV, VOA, BBC, HCJB and Radio Moscow, not to mention lots of strange buzzes, tones and voices. I spent hours listening to hams. I knew that’s where I wanted to go.

My father worked in downtown New York City, a couple of blocks from the famed “radio row” on Cortland Street. One day, he brought home copies of the ARRL License Manual and Handbook which, over the years, I read so many times from cover-to-cover that they literally fell apart. I took my visual knowledge of Morse code and learned to copy CW by listening to hams and especially W1AW. I was ready to be a ham, but for a long time didn’t know where to go to take my novice test. I didn’t know any hams. Sadly, as a youngster, I never had an Elmer. During the summer of 1963, my mother learned about a course sponsored by the Garden State Amateur Radio Association a few towns away. The course was half over, but I had no problem jumping in and passing the test at the last meeting. My parents bought me an old National NC-173 receiver and a 3710 kHz crystal. I had used my collection of old TV parts to build a 6L6 transmitter for 40 and 80 meters.

Impressed by the DX claims in their QST advertising, I ordered a Gotham V-80 vertical antenna (if you are too young to remember these, try Google Image to see some of them). I installed it outside the window of my second-floor bedroom. The advertise-



ment said: "Radials not required." I passed the Novice exam, and waited for the license.

C. R. Leutz is a name that will be familiar to anyone who has studied radios of the 1920s. C.R. (as he was called) was my grandfather. C.R. was born in 1898 and left home before finishing high school to enter the rapidly developing area of radio communications. I have a copy of his "License to Radio Operator, Amateur First Class" issued by the US Department of Commerce and Labor on August 12, 1913. His code speed was noted as 6 wpm, and his operating and adjustment skills and general knowledge of regulations was noted as "Excellent."

His "License to Radio Operator, Commercial First Grade" issued by the Department of Commerce, Bureau of Navigation is dated May 25, 1915, and his code speed was noted to be 23 wpm, and there is a certification on the back of the license that he served as an operator on the S.S. Maine during the month of October 1915.

But, it seems that C.R.'s interest was not in operating. C.R. was, for a time, an assistant to Paul Godley at the American Marconi company. Godley, as has been well documented, was a famed early receiver designer and amateur DXer, who was a leader in the hugely successful early transatlantic DX tests conducted by amateurs in December, 1921.

A history of superhetrodyne receivers can be found at <http://antiqueradios.com/superhet> (a reprint of an earlier article "The Legacies of Edwin Howard Armstrong" published in the *Proceedings of the Radio Club of America*, Nov. 1990, Vol.64 no.3).

On page 33 of the December 1922 issue of *QST* (back issues of *QST* are available to ARRL members online) is an article by Godley, **2ZE**, describing his preference for the new superhetrodyne design that was used in the December 1921 transatlantic tests. In the same issue, on page 11, is an article by C.R. Leutz, (no amateur call given) "Notes on a Super-Hetrodyne," giving details of a superhetrodyne

that he had designed. On page 113 is an advertisement for C.R.'s company (Experimental Information Service) that sold superhetrodyne blueprints and kits.

RCA held the Armstrong superhetrodyne patent, and, as I understand it, would not provide any licenses to C.R., as RCA was doing research into commercialization. The problem with the early superhetrodyne designs was that there were too many controls to make a viable commercial product. The 1921 Leutz design had 21 controls. The Leutz 1923 design was much simpler to operate. In 1924, RCA was ready to go into production with its own simple model, and filed suits and injunctions to shut down C.R.'s kit business. Leutz (later Golden Leutz) went on to sell high-end multi-stage TRF receivers until 1931, when they were forced out of business by the failing economy of the Great Depression and the rise of the superhetrodyne.



Dozens of antique radios go on sale every week at Ebay. Leutz radios are rare. I have only seen two go up for auction on Ebay in the past 15 years. I was lucky enough to successfully bid on one of his 1926 Pliodyne-6 models.



In the late summer of 1963, shortly after I had passed my novice exam, C.R. made his annual visit to our home. I was very proud of my modest ham station, and was anxious to show it off. When C.R. saw my setup he mumbled some polite words of approval, but then was quick to add "If you are thinking of making a career in this area, you should also



have something on the side like chicken farming.” From my family, I heard that C.R. remained bitter about the demise of his company during the depression. I also heard that, while he was a brilliant engineer, his business sense was not as sharp. He finished his career as an engineer working on radar and missile research for the U.S. Navy at the Johns Hopkins University Applied Physics Laboratory. Unfortunately, he passed away less than a month after retiring in the spring of 1964. I never got to know him well.

Finally, 6 weeks after taking my novice exam, my ticket (**WN2KTO**) arrived. With some hesitation but great excitement, I attempted to make a QSO. I could hear my own signal, but after hours stretching into days and weeks, I could not get anyone to answer me. I was getting discouraged. My father came to the rescue by bringing home a second-hand Johnson Adventurer (50 watt transmitter with an 807 final). It was not long before I had my first QSO in the log---another novice about five miles away. I recall my hands were shaking so much that I could hardly send or write down what was being sent to me.

QSOs, however, were difficult for me, until I purchased a 40 meter crystal and installed a 40 meter dipole in the back yard. For 80 meters, I found that by shorting the braid to the center conductor, I could do better than the vertical (the robust pi network of the Adventurer seemed to be able to tune to any antenna that I plugged in). I was working exciting DX---places like Florida, Iowa and Ontario. I could also load my 40 meter dipole on 15 meters. There wasn't much activity on 15, but when it did open (we were coming out of a sunspot minimum), I was able to add more distant stations to my WAS list.

I was also hearing European AM stations in the 15 meter novice band. If one was close to my frequency (I had only one crystal that would let me operate on 15), I would sometimes try to call them on CW. One Saturday morning in late March 1964, I was trying this, and I received a CW reply from DL3LL. We

had a nice QSO, in spite of the fact that my hands were shaking, again. (I later learned that DL3LL was near to the top of the DXCC honor role.) I had been bitten by the DX bug.

In the summer of 1964, I took the bus to New York City to visit the FCC offices and pass my General class exam. Afterwards, I spent a few hours wandering around radio row, picking up a Heathkit VF-1 VFO. By fall, my General license (**WB2KTO**) arrived in the mail.

I was not working much DX, until a DXer that I had met on 2 meter phone (2 meters was the only band where novices could work phone) gave me a homebrew 3-element 15 meter Yagi made of steel pipe. I mounted it on the roof of our house about 18 feet above the ground. What a difference! With my little 50 watts, I was able to work a large amount of exciting DX, especially in Europe and Africa. I even broke a few big pileups.

Not being able to afford a modern SSB transceiver, I built (mostly from old TV parts) a plate modulator described in the ARRL Handbook. With a plate modulator for my Johnson Adventurer, I was able to work DX on 15 meter AM. By that time, most of the activity on 20 meters had switched to SSB, but there was still plenty of AM activity on 15. It was difficult to tune SSB stations on the old NC 173, but I was able to trade it in and use my summer grass-cutting money to buy a used Drake 2B. Some SSB stations would answer my AM if I did a careful zero beat.

Most of the real DX action (especially the DXpeditions being conducted by the likes of Gus Browning, the Colvins, Don Miller and others) was focused on 20 meters. In the spring of 1965, I traded my monoband 15 meter Yagi for a 2-element trapped Telrex tribander. In August, I had about 70 countries worked at that point. I got a good deal on a used National NCX-3 (only 3 bands, 80, 40, and 20 meters) transceiver. The 2-element tribander, however, felt like a big step down. I could work DX, but was not breaking any pileups. Often, I had to stand in line for a long time (sometimes until I



was the last one calling, and even then I might not get a response), and I could not even hear the DXpeditions in the South Pacific and East Asia. I began to think about how to get more dBs of gain into my circuit.

In the late fall of 1965, I acquired a half-built linear using a pair of 813s. I started talking to my father about the possibility of putting up a “little tower.” In the spring of 1966, my father and one of his friends and I used a block and tackle arrangement to pull up a hinged base 50-foot tower. It was my job to do the work at the top of the tower. My father was very nervous, and so was I, until I had been up and down a few times. Soon, we had mounted a new Hy-Gain 204BA on top of the tower,



WB2KTO: Hy-Gain 204BA

along with inverted Vs for 40 and 80.

Then, I completed construction of my linear. To change bands with the 813 linear, I had to open a trap door on the top and exchange plug

-in coils. A newly-released Heathkit HD-10 electronic keyer replaced my homebrew side-swiper, greatly improving the sound of my fist. Now, focusing on 20 meters, with some nighttime excursions to the low bands, I was doing well.

I have been strongly influenced by the series of articles “Station Design for DX” by **W3AFM** that appeared in the September-December, 1966 issues of *QST* (and still a good read). I also developed a strong attraction to CW DX contests, because I could often find new countries that were easy to work, and because they enabled me to increase my CW proficiency. My country totals at the ends of 1966, 1967, and 1968 were 176, 235 and 242, respectively. In the fall of 1968, I left for college, and my DX activity would be only during sporadic visits to my parent’s home, climbing to 279 countries by the end of 1972.



WB2KTO: Station circa 1968

Karen, (now **KAØIOR**), my college sweetheart and I got married, and moved to Iowa in the summer of 1975. In early 1977, we purchased a house on a small 3/4-acre lot on the top of a hill (remembering the wise advice of **W3AFM**). I received my new call (**KØKT**), and was back on 40 and 15 with a 40 meter inverted V (apex only 25 feet, however) and my barefoot NCX-3/2B combination.

I received an invitation to visit Bell Laboratories for 10 weeks in the summer of 1978 to work in the area of telecommunications reliability (a visit that I repeated for 15 summers in a row). The Bell Labs location was near my parent’s home in NJ. Bell Labs did not pay much (I was told that visitors came to Bell Labs for the honor), but, by staying with my parents, I was able to make enough money to purchase a new Drake TR-7 transceiver and a Heathkit SB-220 linear, as I deemed the old plug-in coil 813 linear to be too unsafe for a sane person to use.

My brother (who was visiting my parents from California) helped me take down my tower and antennas in NJ. On his way home, he brought them out to Iowa on his truck, and spent a couple days helping me get everything back up, just as they had been in NJ.

I purchased a copy of the “new Revised Edition” of *80 Meter DXing* by **ON4UN** (the precursor to John’s Low-Band DXing books) and started dreaming about a gain antenna for transmitting and a low noise receive antenna on 80



meters (where my country count was not growing rapidly). Encouraged by reading W3AFM and ON4UN, I decided to give a vertical another chance, and ordered a Butternut HF2V for 40 and 80 meters. Being more knowledgeable by then, I used all of the scrap wire that I could find to put down a large number of radials.

Switching between the vertical and the inverted Vs, I sometimes noted big differences on certain paths. My “DX-Edge” grayline display was always in sight on top of my transceiver.

My fondness for the challenging low bands grew. In 1988, the TR-7 was replaced by a Kenwood TS-940S, giving me access to 160 and the WARC bands. The 160 meter modification was added to the HF2V.



KØKT: Station circa 1990.

My country total gradually increased throughout the 1980s and into the early 1990s. After my novice contact with DL3LL, my second most exciting contact was on 80 meters at sunrise in November, 1993, when I worked **VS6WV** in Hong Kong, using the Butternut vertical.

By 1993, I had worked all of the non-deleted countries except Yemen and the newly reinstated Eritrea. Later, I would miss Pratas and North Korea when they were activated. These four countries I still need today. A combination of problems with my rotator and else-

where on the tower and pressures in my job caused ham radio to take a back seat from 1993 to 2004. Only a handful of QSOs were put into my log between 1992 and 1997, and then none until 2004.

Around 1995, I noticed orange splotches on various parts of my tower. Rohn had been running an advertisement to the effect that if you can see corrosion on the outside of your tower, you need to worry about the inside. In a hasty act of safety for our house, I purchased a Sawsall and took down the tower, crashing it to the ground in a controlled manner. I cut it up for junk, vowing to get up a new and better tower, soon. Sadly, it took ten years; partly because Karen and I were busy with our jobs and raising a teen age daughter; and partly because we were thinking of moving to a place with more land, but could not find what we wanted. Almost all new subdivisions had strict Common Covenants and Restrictions or CCRs. Karen, unlike me, did not want to buy a 40-acre farm far from civilization and without CCRs.

Then, we got a break. The old three acre farmstead, literally in our back yard, went on the market and we purchased it. Karen worked with an architect to design the house, and lined up a builder. I worked on antenna plans.

In September, 2004, we broke ground for the new house, and I looked to antenna permitting. In a compromise with Karen, who wanted no guy wires in the yard, I planned for an AN Wireless HD-70 self-supporting tower. This tower would have enough capacity for a large 40 meter Yagi and a trapless tribander.

The farmstead had no CCRs, and I had studied the county’s zoning ordinance. It was clear that I should have no problem getting a permit for my tower. The county planner, however, saw it differently. The county has a rather stringent set of rules for “commercial” (e.g. - cell) towers. He said that I would have to go through the same conditional-use permit process, wherein all residents within a 1/4 mile radius from my lot would be invited to attend. A



quick count indicated that there were approximately 300 residences in that circle. Going through that process would be risky.

I stopped talking to the county and started talking to George, **WAØMIT** a local ARRL Volunteer Counselor, and to Fred, **K1VR** a telecommunications lawyer and author of *Antenna Zoning for the Radio Amateur*. George started educating the county attorney about PRB-1, and Fred coached me in my development of a comprehensive bullet-proof permit application. Not wanting to have to repeat the process again in the future, I added to the plans my dream antenna, a 3-element vertical array for 80 meters. There was not enough room for a 4-square.

In early January, George called with “good news.” The county attorney said that I could put up my antennas because no permit was needed, “just put them up.” Fred said “get it in writing.” After four weeks of waiting, the written assurance never arrived.

In early February, Fred said I should submit my application for a permit, and gave me precise instructions on how to do the submission (details are in the second edition of Fred’s book). Two weeks later, I had my permit in hand. The tower foundations were poured in April, and the tower lifting was done in early June. By early July, thanks to much help from **KIØQ**, everything was operational.

Subsequently, I purchased an Orion 2 to have a rig that would talk to my computer and an Alpha 8100 linear to provide more power. I have also slowly added a few more antennas to my station, including a homebrew switchable L-network. This enables me to load up one of the elements of my 80 meter array on 160. I also added a DX Engineering 4-square receive antenna for 80 and 160, and a 30 meter 4-square. For 17, 12, or 6 meters, I get along by using dedicated antenna tuners for each band. I have confirmed 100+ entities on all bands from 160 to 10, but 6 meters is the uncharted frontier (only 4 entities confirmed). I

just have to figure out how to get up a more effective antenna for 6 m. The most exciting contacts that I have had with the new setup were **JT1CO** and **EY8MM** on 160 meters, both in December, 2009.

I am an active member of the Story County Amateur Radio Club, serving as the program chair for a number of years, and I’ve been the Field Day captain a number of times. I also participate in some local ARES activities.

Outside of my radio activities, I stay very busy with my job. I have taught Statistics at Iowa State University since 1975, and I do research in the area of engineering applications of statistics, with particular focus on product reliability.

I travel quite a bit to attend conferences. I do consulting, and have visited more than 40 entities on all continents except Antarctica. In the past 20 years, I’ve never operated radio away from my home station, other than Field Day. Two years ago, Karen retired from elementary school teaching. Some year, I will join her in retirement, but I am still having fun in my job, which leaves me with much less time for radio and unfinished radio projects.

Good DX de Bill, **KØKT**



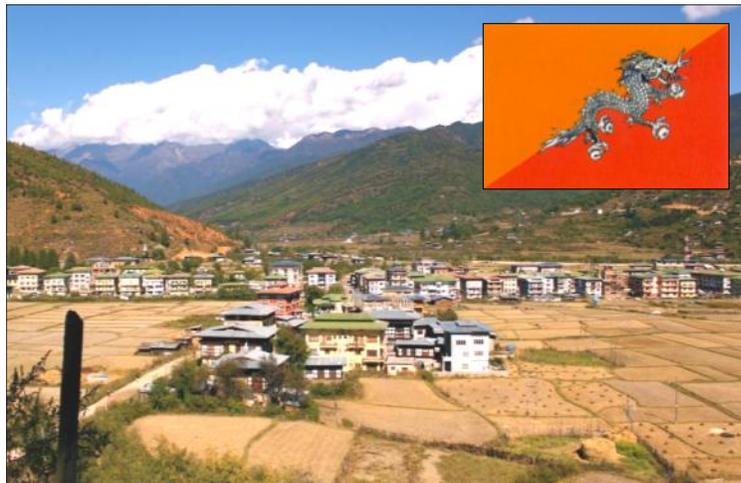
HD-70 tower with OptiBeam 4-40 (top) and OptiBeam 16-3 below for 20, 15 and 10m. Photo was taken from the top of one of the 80m array elements (with another element in the foreground).



My Return to the Land of the Thunder Dragon

by Pat Cahill, WØBM

It's common knowledge among DXers that Glenn Johnson, **WØGJ** is credited with re-introducing amateur radio in Bhutan with his historic **A52A** DXpedition in May, 2000. Since then, Glenn has made several return visits to the Thunder Dragon for both medical and radio activities. (See the [October, 2004 edition of the GrayLine.](#))



Paro Valley - our destination.

In October of 2001, I was privileged to travel with Glenn and two other Minnesota hams (**WØHT** and **KØEN**) on one of Glenn's Bhutan DXpeditions. Astronaut Chuck Brady, **N4BQW** (SK); Dave Anderson, **K4SV**; and Ray Novak, **N9JA** head of ICOM America's amateur division, completed our team. On that trip, we initiated the callsign of the Bhutan Amateur Radio Club, **A5ØA** as a multi-multi entry in the CQWW DX SSB Contest.

In December, 2009, Glenn proposed a return to Bhutan to celebrate the 10-year anniversary of the A52A operation. This time, spouses were to come along. My wife and I were on board! Due to scheduling conflicts with several people in the group, the departure date was delayed until October 25th, 2011. We would once again be in A5-land for the CQWW DX SSB contest. And, several tourist activities were planned for our group on both sides of the contest weekend.

It was time to renew my passport, and my wife needed to get her (first) passport. The folks at the Dodge County Courthouse made the passport process extremely easy!

As of June 18th, 2011, we had the following signed up: Glenn and Vivien (**WØGJ** and **KL7YL**); Pat and Gena (**WØBM** and **KBØWDI**); Andy (**UA3AB**) and Lena; and Paul (**W8AEF**). On July 25th, we learned that Ralph (**KØIR**) and his wife Saundy would be joining us!

With five ops, we decided to run the contest as five single-band entries. We were assigned the bands, as follows:

KØIR will be on 75m as A52IR with a vertical.

WØBM will be on 40m as A52PC with phased verticals.

W8AEF will be on 20m as A52PP with SVDA.

UA3AB will be on 15m as A52AB with a 3-el beam.

WØGJ will be on 10m as A51B with a pair of phased 2x2 SBDA's, with 14 dBi gain.

Glenn helped me out on the antenna front, pulling together a 2-element phased vertical, using SpiderBeam 12-meter fiberglass poles. On his way to work one day, he dropped off the entire antenna kit, including poles, phasing harness, wire, radials, guy rope and a lowpass filter for 40. I went to Gander Mountain, and found a plastic gun case that the antenna system, plus 125 ft of RG8X, would fit into.

I was talking with Scott, **KØMD**, telling him about taking along an IC-706 MKIIG as my rig. He graciously offered his IC-7000, and I didn't even blink before I said "YES!" Thank you Scott, that ra-



dio was really appreciated during the contest.

By September 1st, the team had their visa and plane tickets in hand, and the equipment had been checked and checked, again. My wife Gena finished a quilted American Bald Eagle wall hanging, which we would present to our Bhutan contact Yeshey Dorji, **A51AA**.

On September 18th, we received the following news:

“Cracks to buildings have been reported across the country from the 6.8 magnitude earthquake that hit Bhutan today. No casualties have been reported so far. Phone and power lines are also reported to be down across the country .”

The 6.8 magnitude quake also rocked northern India, where at least two people died in the states of Sikkim and Bihar. In Kathmandu, 270km (170 miles) west of the epicenter, buildings were evacuated, and traffic came to a standstill.”

They have earthquakes in Bhutan all the time, right? They do, but this was a BIG one. But, we are committed; we are on our way. Then, Bangkok flooded. We were to fly into Bangkok, first. And, we wondered if this would be a problem. It turned out that it wasn't.

Just in case you were wondering, yes, there is an ENORMOUS amount of time and energy planning such an expedition. THANK YOU to Glenn for his expert work on behalf of this team!

October 25th arrived, and it was time to go. We climbed aboard the plane in Rochester, MN, and met up with the rest of the TCDXA/MWA team at the MSP airport. We flew through Tokyo, where we went through security again, and then on to Bangkok. Okay, I'll come clean; 20 hours on airplanes in a row is not glamorous, but we did get there in one piece. For the most part, we were sane and still awake. Once in Bangkok, we checked in to the hotel and crashed.

We spent the next day going through the Bangkok Imperial Palace, and then went to see the Reclining Buddha. He's over 15 meters high and 43 meters long. Needless to say, it was an



The Reclining Buddha.

impressive sight. We took a TCDXA team shot next to a stone warrior, as we left the Imperial Palace complex.



The TCDXA team in Bangkok. (l - r): Ralph (KØIR), Saundy, Vivian (KL7YL), Glenn (WØGJ), Gena (KBØWDI) and me (WØBM).

We then retired for an early evening, because the next day we were to head for the Land of the Thunder Dragon! We flew past Mount Everest, and then took the valley flight into Paro Bhutan. In case you were wondering what it's like to fly into a remote mountainous airport where visual flight rules ONLY are allowed, take a look at these YouTube videos:

From the ground: [<click here>](#)

From the cockpit: [<click here>](#)

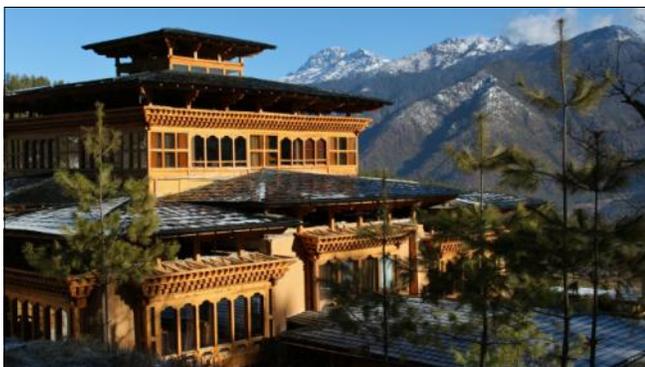
(ed. – Don't miss seeing these videos!)



The first picture I took, once we hit the ground, looks back on our A319 plane, and you see Paul with the camera taking pictures also. Lots of photos were taken by all the folks, as they left the plane. The tail fin of the plane shows the Thunder Dragon, set against the background of the Himalaya Mountains and a traditional Bhutanese building. We made it!



We headed to the Naksel hotel and Spa (www.naksel.com.) We were greeted by the staff, and they draped welcome scarves around our necks. Then, we gathered for our first look at the resort, marveling at the intricate carving and painting.



The Naksel Hotel in Paro.

We unloaded the cars, and the staff brought our luggage including the radio gear up (and I mean UP) to our accommodations; a 60 foot rise from the main building. When



Intricate carving at the hotel.

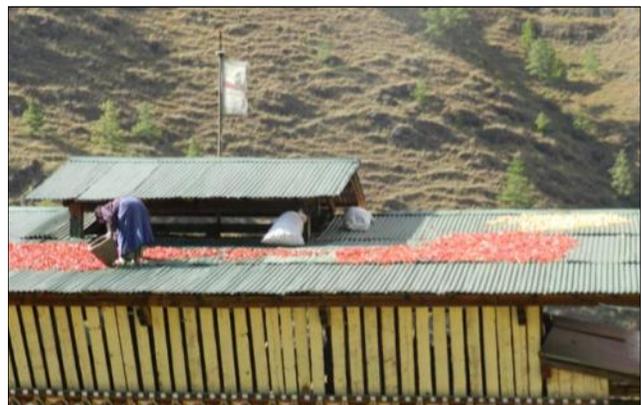
walking up the trail, we could tell we weren't in Kansas, anymore; the altitude is high and the air is thin. After stopping to unload the gear, we were off for a couple days of sightseeing. Later, the guys went back to set up the radios and antennas, while the XYLs continued their cultural tour.

We started our adventure by heading to Douchula Pass for the first night. That hotel was rather rustic. A furry creature ran across the floor in Ralph and Saundy's room, and there was a very bad odor in the hallway. Nonetheless, we were here. Meanwhile, Ralph and Glenn had set up stations. Glenn had a 10 meter Ringo for an antenna, and Ralph had his secret weapon, the Little Tarheel. Add a whip, add some radials, and on the air you go! A5 was on the air.



Douchula Pass

As we drove along the next day, we saw many things. This was harvest time, and we saw rice being cut, dried and then threshed. Chilies, a mainstay of Bhutanese cooking, were also being harvested. Roofs make great drying racks for the chilies; many houses were decorated in this way. We also went up on a mountain a few miles from Thimphu, and saw a Buddha shrine under construction. It is HUGE. More info is at



Drying chili peppers.



<http://www.buddhadordenma.org/>, if you are interested. It has a fabulous view of the Thimphu valley. We traveled to a zoo, replete with Takin.



A curious Takin.

Those of you who have been to the Minnesota Zoo may remember seeing the Takin exhibit. They are quite the unique animal.

Okay, enough of this cultural tourist stuff. Before we headed back to Naksel, we had a chance to visit the BBS, Bhutan Broadcasting Service. This is the site of two shortwave transmitters: 50 kW on 5030 kHz, and 100 kW on 6035 kHz. This was the first time I've had the opportunity to see a shortwave broadcast station up close. We had the opportunity to go inside

the transmitter room, and take a close look at the feedline and antennas of the 100 kW station. Take a look at the picture of the feedline. Now that's what I call open wire feeders. Yes, they are only about 10 feet off the ground. The antenna is that cage dipole you see in the other picture. Imagine the HHUMMMMMMMMM we heard from all that POWER. Don't ask about RF safety, we weren't there that long.



Now that we were properly excited by the visit to the SW broadcast station, it was time to kiss the XYL goodbye, and head back to Naksel, where the antennas and stations needed to be set up. Paul had not joined us on our cultural tour. He was busy setting up his station, and checking out the amplifiers that had not been used in quite a while. He had all 3 amps up and running by the time we got there.

We got back in the evening, and began unpacking equipment. The double bed equipment staging area provided a platform for our luggage. The 10 meter Ringo was destined to be a hero before we were done. Andy set up the 15 meter station, and Glenn started assembling the 10 meter Flame Thrower. The rest of us set up our rigs on the benches, got the power hooked up (220V @ 50Hz), and then went to bed. The antenna raising would happen in the morning. Andy used our secret weapon the LITTLE TARHEEL on 15 meters that evening.

Antenna raising day had arrived. Each of us laid out what we were going to erect. And, as needed, we would come together to raise the different elements. On 10, Glenn had a rotatable dipole, the 10 meter Ringo and the Flame Thrower array. On 15, Andy had a 3-element beam with an Armstrong rope rotator. On 20, Paul had a pair of phased vertical dipoles. On 40, I had a pair of phased 40 meter verticals that had gull wing radials. On 80, Ralph had a single vertical element on a 60-ft fiberglass pole, with 30+ quarter wave radials. The self-directed work group concept was alive and well with the A5 team. No aluminum, copper, bamboo or fiberglass was harmed in the



Glenn's 10m Flame Thrower array.



Ralph finishes adding radials to his 80m vertical.



erection of these antennas. Oh yes, and the secret weapon was still up and operational.



Now it was time for the contest. Here we go! 10 and 15 were hopping, and 20 was open. 40 and 80m were noisy. For me, QSO number 19 was memorable; I worked The Farm, **WØAIH**. Once I confirmed that contact, a cheer arose in the whole room. We had worked back home on 40! It was also the **ONLY** NA contact I made on 40 meters during the contest. Conditions were really tough on the low bands. The results were:

10 meters: 1281 Qs in the SSB contest,
A51B made 296 contacts outside the contest

15 meters: 2948 Qs in the SSB Contest,
A52AB 555 contact outside the contest

20 meters: 16 Qs in the SSB contest,
A52PP made 1093 CW & RTTY Qs outside the contest

40 meters: 175 Qs in the SSB contest,
A52PC made 1 CW contact outside the contest

80 meters: 36 Qs in the contest,
A52IR made 648 contacts outside the contest

One memorable meeting took place during the contest. **A51PN** stopped by, and brought his logs along. Pradhan was very active from 1972 through 1983. Glenn is going to digitize the logs and get them onto LoTW. It was a privilege to meet this legend, and hear some of his stories. It was a bonus I never expected on this trip to Bhutan.

Then, it was time to go home. We took a final picture of the team on the Naksel patio. From left to right: Paul Playford (W8AEF/A52PP), Lena Chesnokov, Andy Chesnokov (UA3AB/A52AB), Vivien Johnson (KL7YL), Glenn Johnson (WØGJ/A51B), Saundy Fedor, Ralph Fedor (KØIR/A52IR), Gena Cahill (KBØWDI) and Pat Cahill (WØBM/A52PC).



Pradhan, A51PN



What a trip! We went half way around the world with wonderful companions. It was a magical country and culture. What more could one ask for? We all made it back safe and sound, with memories to last forever.

Let's see . . . will we get together again in another 10 years? Let's hope so!

73, Pat





by Al Dewey, KØAD

The MWA Contest Corner

Playing for Pizza

The History of MWA Team Competition

It all began sometime in the mid 1980s. At that time, meetings of the Minnesota Wireless Association were very informal. As we sat around the meeting room at the Bloomington Library, kicking around how MWA could increase their overall club score, the idea of forming some type of internal rivalry was born. We talked about forming a couple teams that would compete against each other in the ARRL November Sweepstakes, mainly for bragging rights.

The idea never took hold until 1998, when **KØHB** and **NØAT** were appointed as team captains, and assigned the job to draft two teams. The first two teams consisted of about 40 members each, and were called Team Purple and Team Gold. At the same time, Rich (**NØHJZ**) came forward and said something like: "I'm comfortable with EXCEL – I could help tabulate the scores." At the time, I didn't realize how HUGE a commitment Rich had signed up for, and how significant it would be for the growth of MWA. When Rich had tabulated the first year's results, Team Gold (**NØAT**'s team) scored a total of 962K points compared to 774K points by Team Purple (**KØHB**'s team).

One of the drawbacks of the draft system was that it was a hassle to do, and you never knew when members were going to be active the next season. With that in mind, Rich proposed that the teams be set up by the MWA board based on scores achieved during the previous season. With his spreadsheet magic, Rich proposed two teams using a combination of high and low scorers from the previous season.

The next season, we expanded to three teams using the same technique. This method



achieved the goal of reasonably balanced teams. However, with members changing teams every year, it became very confusing as to what team you were actually on. It was hard to maintain a team spirit from season to season. We felt that, without permanent teams, MWA members were never going to feel like they were part of a team.

Ideally, it was hoped that the teams could not only be balanced, but could also be linked by geography. Rich studied the scores from last year, and saw that if you excluded those contesters in Hennepin County, the total scores in northern Minnesota were roughly equal to those in the southern part of the state. Hennepin County was about the same. So, at the annual 2003 MWA Board meeting at Fuddruckers in Eden Prairie, Team North, Team South and Team Hennepin were born. (See Figure 1 on next page). As an added incentive, it was agreed that the winning team would have their pizza dinner paid for by the other two teams at the fall MWA Meeting.

The three-team approach really caught on. Members in each part of the state started to identify with those on their teams. Good natured trash talking started up on the reflector, bragging about how much their team would be enjoying the pizza next year, knowing that they were not



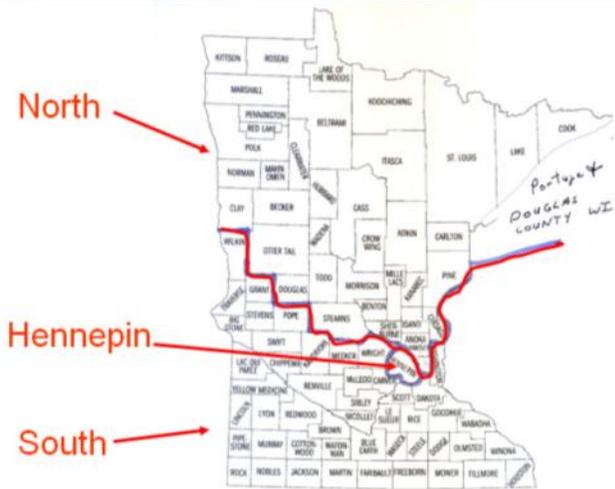


Figure 1. MWA Teams North, South and Hennepin compete for the pizza.

going to have to pay for it! A couple of the teams actually set up their own reflectors to plan strategy, and to fire up the team before a major contest. When a new contester became active, or moved into the area, he (or she) immediately became a part of the team where they were located. They were not only welcomed to MWA, but they received a royal welcome to the team they were on.

Along the way, it was decided to add more contests to the competition. The ARRL DX and CQWW DX contests were added first, followed by the ARRL 10 meter and 160 meter contests. The Minnesota QSO Party was also added to the list. As RTTY contesting caught on in MWA, it was decided to add the ARRL RTTY Roundup to the team competition. Finally, the CQWW RTTY Contest was added, which turned out to be the first contest of the contest season for MWA. When all was said and done, the following eleven contests became the events that qualified for Pizza Competition:

- | | |
|----------------------------|--------------------------|
| CQWW RTTY | CQWW Phone |
| ARRL SS CW | ARRL SS Phone |
| CQWW CW | ARRL 160 Meter |
| ARRL 10 Meter | ARRL RTTY Roundup |
| Minnesota QSO Party | ARRL DX CW |
| ARRL DX Phone | |

With all of these contests in the mix, there were some concerns with widely different scoring systems that each contest used. For example, it is relatively easy to score a million points in one of the DX Contests, but virtually impossible to do that in ARRL Sweepstakes or the Minnesota QSO Party. There were some elaborate proposals for “normalizing” team scores, so each contest would have the same weight. In the end, however, we decided that was too complicated. Over the course of the season, things would hopefully balance out.

Another concern we had was that one team might end up with a boatload of active high scoring contesters and completely dominate the other two teams year after year. To protect against that, it was decided that the winning team for each season would be the one who had the biggest percentage increase over their score from the previous season. So, even if a team had a bunch of high rollers, they were motivated to do even better the next year. And, if a team simply did not have the players to get a huge total score, they could still win by showing a big improvement over the previous year. It was a win-win for everyone.

So, how has it worked? Since the 2006-2007 contest season, Team North and Team South have won twice and Team Hennepin has won once. Some years, the margin of victory has been extremely close. In fact, Rich (NØHJZ) not only compiles the claimed scores reported by MWAers on the reflector after each contest, but he also goes back and verifies and corrects the scores when the official results come out in QST and CQ magazine. His attention to detail, as well as his encouragement before each event during the season, has really given MWA a surge over the last decade.

The whole reason for doing this, of course, is to increase MWA’s overall scores against other Contest Clubs throughout the country. In this regard, it has been an unqualified success. Figure 2 shows the growth of MWA scores since 2002. Note how it follows the solar flux index. MWA continues to rank in the very top tier of



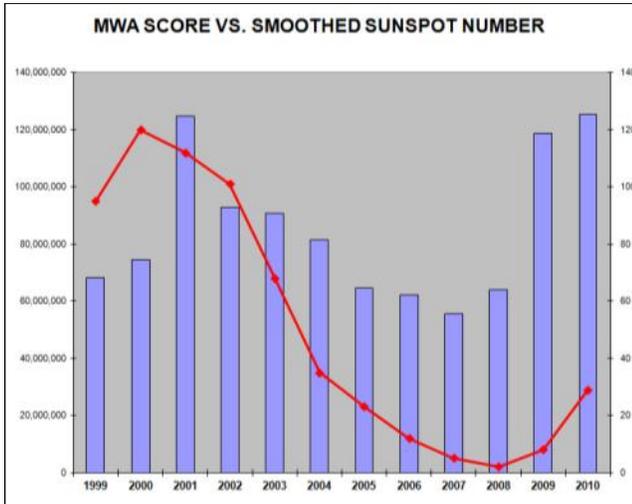


Figure 2. Total MWA Team Scores 1999 through 2010.

national contest clubs. In 2010, the Minnesota Wireless Association surprised everyone by achieving the highest team score in the country in the ARRL RTTY Roundup, thus winning the coveted gavel (See Figure 3). In 2009 and 2010, the MWA collectively scored over 100 Million points. That's a lot of points and a lot of pizza!!!

73 de AI, KØAD



Figure 3. The 2010 ARRL RTTY Roundup Gavel won by MWA

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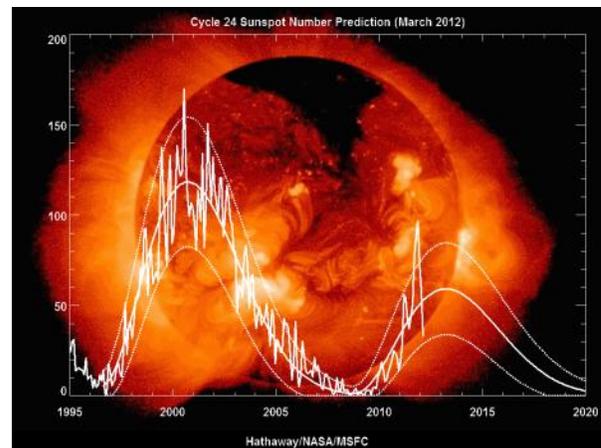
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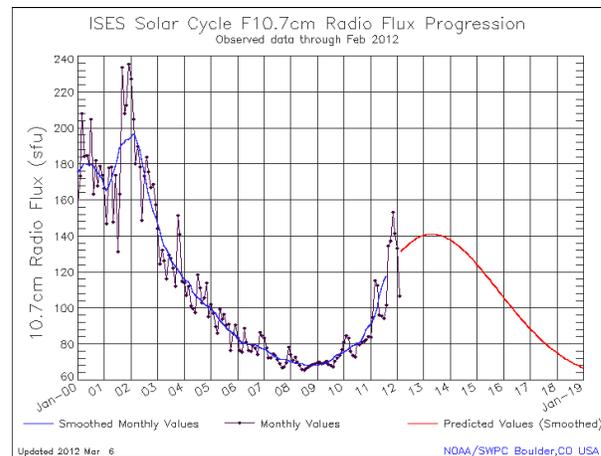
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NASA sunspot forecast for Cycle 24.



NOAA solar flux forecast for Cycle 24.





KØPX - The One-man Tower Crew

by Doug Arntson, KØPX

It all started back over 10 years ago when Mark, **KØKX** and my neighbor Steve **KØSF** convinced me that a rotating tower is far superior to a typical tower installation with a rotator and mast. I had my Rohn 55G tower up for a few years, and had already experienced rotator failure with only a TH7 and a 2-element 40m beam at the top. It became clear that the logical long-term solution was to place the rotator and the antenna switch at the base of the tower for reliability, easy maintenance and antenna load capacity.

So, off I went to see the king of rotating tower hardware, **KØXG** in eastern Iowa, with a truck and trailer to pick up three sets of rings and two bases. I had decided to build my own base (more on that, later). In the meantime, I started acquiring the necessary hardware. From the 'Old Duck Hunter,' **KØJUH** I bought all of his Force12 antennas, a bunch of hardline, coax switches, motor and controller and base materials. I really thought I would beat Mark and Steve to the punch, and get my tower rotating first, but they both beat me by many years. Go figure

I got a lighting hit in 2005 that destroyed the beams I had up at the time. I was QRT. Now was the time to do the project. Work, family, travel, health, kids, etc. kept getting in the way. One year led to 6 years.

Typically, to rotate an entire tower, you need to take the tower down, install the rotating base assembly, and then erect the tower, again. That is no small endeavor, especially if you can't find the help. I really did not want to take my tower down, so I decided to design a low-profile base, and simply jack the tower up and insert the base. Seems simple, right ?

Tower projects always take a team of hams to help out. Unfortunately, most of the ones I know don't climb. I decided to engineer the entire project, so that I could do it all by myself. Everyone I talked to thought I was crazy but as an engineer, I love the challenge of a good project that requires planning, design and fabrication. After many years of planning, I was finally ready to start the project.

In the fall of 2010, I decided to start by taking down the fried antennas and installing the two upper rotating rings. The **KØXG** rings are heavy. Getting them up the tower and over the top was a challenge. When I erected the tower, I built a motorized winch system that makes getting 'stuff' to the top very easy. I simply hook it on the cable, hit the switch, wait till it reaches the top, climb the tower and install the part. (Sometimes, I have my wife hit the switch while I'm on the tower.... and that can be a little stressful on our marriage.)

Following, on the next six pages, is my story in pictures.





Here is my electric winch with aircraft cable.



Shown here is the 55G tower with the two top rings installed. The lower ring will be installed from the bottom, once the tower is jacked up. I lifted the middle ring over the top of the tower and dropped it down to the center position by removing the top set of guys, lowering the ring down and reattaching the top set of guys. The middle sets of guys were transferred to the rotating ring, once the ring was attached to the tower in the desired location. The top ring was a bit easier: just got it over the top and transferred the set of guys to it. Fall was in the air, and I accomplished as much as I wanted to for the year, and the project was on hold until the following year.



If doing this solo was not challenge enough, I have a 1.5 acre lot that is not ham friendly. I live in very dense woods with the tower adjacent to the only clearing I have, which happens to be my septic system. I'm envious of those who have their tower in a field Here is a shot from the top of the tower, showing what I have to deal with in terms of trees.



Ok.... How do you jack a tower up 24 inches? Very carefully.

I love to fabricate and weld on my classic hot rods. This is where the two hobbies come together. I designed a very heavy-duty fixture that I bolted to the tower. To stabilize the lifting, I bored two holes in the ground and filled them with concrete and pipes. Inserted into the two pipes were two very heavy-duty jacks. (Two jacks for stability and redundancy.) The jacks were chained to the tower fixture. In theory, the tower could only go up, then slowly down. Keep in mind the tower and rings weigh about 1200 lbs, and the downward force on the guys is substantial, as well. Here is the tower ready to be 'launched.'





What about the guy wires? All nine of them needed to be let out slowly and uniformly, as I jacked the tower up. I did this with nine heavy duty ratcheting straps.



It only took about 30 minutes to jack the tower up, running around the base and guy wires like a mad man. I definitely wore a path in the woods. Surprisingly, the tower seemed quite stable once it was off the concrete base. The old base was then removed.



Now for the rotating base:
It all started when I found this new tapered roller bearing (shown upside down) at a car swap meet for \$1. It was rated for 50,000 lbs static weight. That should work.



Using two metal rounds eight inches in diameter, I designed a bearing retainer and bearing interface. In this photo, I have the KØXG ring, the bearing retainer in the lower left, the mass of metal that sits on the bearing (you can see the lip that rests on the bearing) with the bike sprocket (direction indicator) and an adapter plate ring.

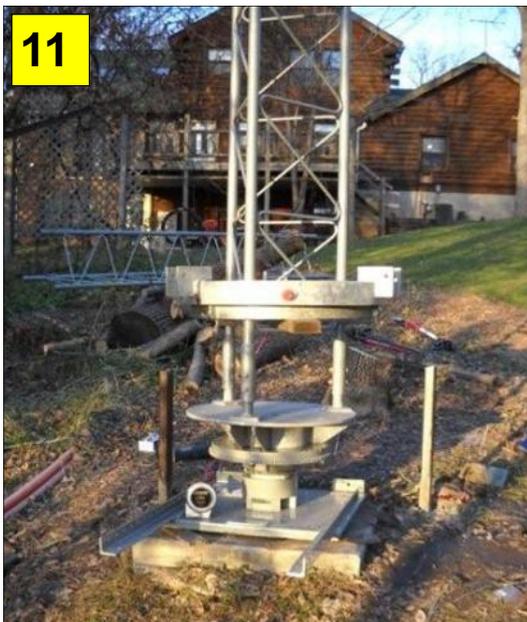




I purchased the portion of the base that mates the tower legs from KØXG. I had to design and fabricate the remainder of the base. The entire tower sits on a 2' x 2' x one-inch thick piece of plate steel. (Note: I installed the lower ring from the bottom, which was much easier than from the top.) Here, the rotating ring is just resting in place. I cannot go any further up until I remove the tower fixture.



Here is the tower being lowered onto the base. It still has a couple more inches to go in this photo. Lowering the tower requires tightening each of the nine guy wires a little at a time and jacking the tower down one 'click' at a time. (I still have all my fingers and toes.) You can see here the bearing system and the Mack Truck flywheel, which provides the means to turn the tower.



The tower is finally back on solid ground. Total time to get the base installed was about 2 hours. The system is designed such that if I ever need to replace the bearing, I could simply lift the tower (in the same manner as I just did) up one inch and remove the bearing.



How much horsepower do you need to turn a complete tower with several antennas?... I don't know. I just decided bigger was better. Here's my homebrew rotator base. It sits on a ¼-in. steel plate. I used a ½ HP, 90Vdc motor turning the biggest chain Grainger sold, which is connected to a right-angle drive that meshes with the flywheel. Is it overkill? Probably.





13

The bike sprocket turns a spring-loaded chain to a 10-turn pot. The rotor controller is a Green Heron unit that allows me to ramp the speed up and down to lessen the shock of rotation.



14

Everything on the tower project is powder coated with a high-gloss gray, which I did myself in a huge industrial oven I have in my shop. Powder coating is very durable. I finished off the rotor with a cover to protect the motor from the elements.



15

I fabricated a swing arm to handle the cables at the base of the tower as the tower rotates. The swing arm has a heavy spring to provide strain relief for the coax and coax switch cable.



16

Installing the antenna with a one man crew can be a little tricky. Basically, I raise the antenna with the electric winch, and use guide ropes to steer it in the right direction. The difficulty I have with my lot

is that the only place to 'launch' an antenna is right next to my tower, which is less than ideal for a tram line and guy wires. I securely attach the tram line to my pole building.

To launch the antenna, I must first go straight up about 30 feet to the tram line, then pull the trolley to the top of the tower. This is easier said than done. I use a second manual boat winch to hold the trolley back while the antenna makes the ascent straight up, and then I have to release cable from the manual winch, while I pull the antenna up the tram line with the electric winch. This can be a slow process doing it solo, but, eventually, the antennas make it to the top. I climb the tower and attach the antenna.

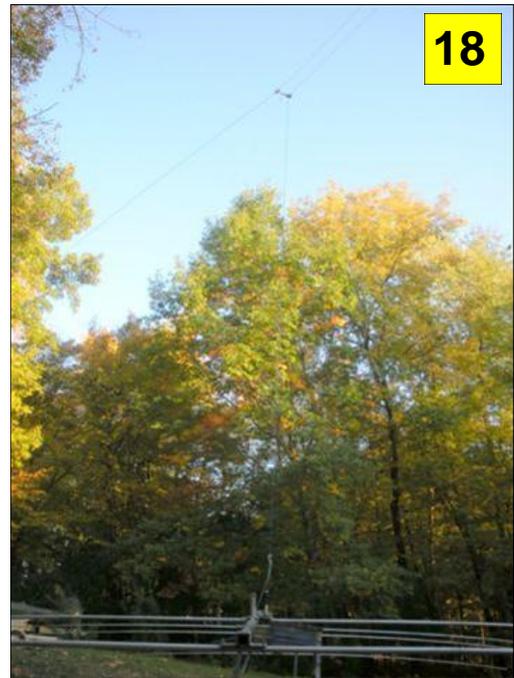
Guy wires can get in your way. In order to get the antenna up to the top, I have to drop a set of guys. Obviously, you can only drop one set at a time. I still had the ratcheting straps on each guy wire, so dropping guy wires was an easy task.

Here is the first antenna installed at the top: the Force 12 two-element 30m /two-element 40m on a 24-foot boom. You can see the tram line I used.





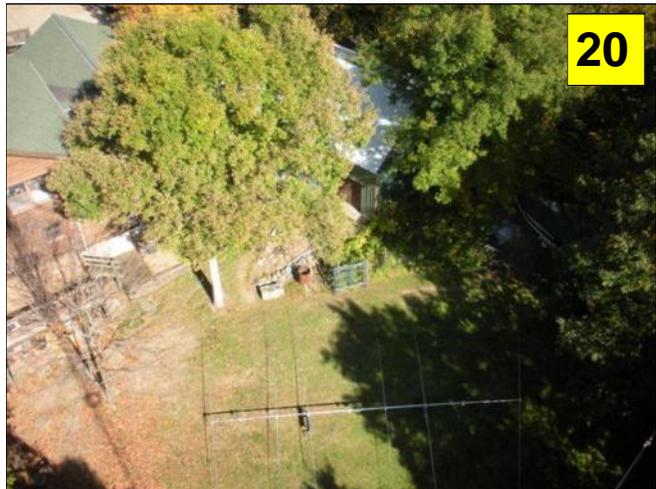
Here is the Force 12 Magnum 620, 6-element 20 meter on a 44-foot boom. You can see it takes up the entire back yard. It's bigger than my four-car garage!



Here, you can see the tram line that the Yagi must go straight up to.



Here is the boat winch with steel cable attached to the ground. The winch guides the trolley up the tram line. Without this, the antenna would move downwards toward the tower rather than go up. I need to stay away from the guy wires and the many mature trees.



Here's a view of the yard with the 20 meter beam on the ground. There's not much room to deal with, and a lot of big trees.





21

Up goes the 20 meter beam. For anyone who has put up a big Yagi, you know how wild of a ride this can be. I waited for a calm day.



22

Here are the three antennas installed: The lower antenna is the Force 12 4BA, 10/12/15/17 meter yagi on a 24 foot boom. I have 15 feet of separation between the top two antennas. The lower antenna clears the guy wires and trees with ample room. I have one more antenna to put up just above the middle ring: a 10-element 6 meter Yagi on a 24 foot boom. I ran 1/2-inch hardline for all antennas, locating the Array Solutions remote switch at the base of the tower. I have 1-inch hardline buried from the tower to the shack.



23

Hanging an antenna on a tower is obviously different than hanging one on a mast. I fabricated my own brackets that mount to the tower. The mast plate for each antenna has 4 holes that mate with the bolts on the tower bracket. The antenna attaches to the bracket within seconds, making for a very easy installation. The brackets are also powder-coated for durability.



24

The view from the top overlooking beautiful Rush Creek golf course.

Firing up the rotator on the tower for the first time was an experience I will never forget. The feeling of accomplishment, seeing the massive structure slowly turning, and knowing that I will never climb another tower again to replace a rotator or antenna switch or stand on the top plate, holding onto a two-inch mast, while attempting to push up a 40 meter Yagi are all comforting and happy thoughts.

Doug, KØPX
k0px@comcast.net





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TCDXA Treasury Report

March 15, 2012

Submitted by TCDXA Secretary-Treasurer Jim Junkert, KØJUH

Income:

Carryover from 2011	\$ 1,849.25
2012 dues collected	2,940.45
Misc. donations	387.01
Door prize ticket sales	163.00
Bank service fee (reversal)	9.95
Total YTD income	\$ 5,349.66

Expenses YTD:

Bank service fees	\$ (9.95)
Office supplies, guest dinners and misc.	(139.34)
Memorial for Gary Strong to Mayo Clinic Research	(200.00)
Total YTD expenses	\$ (349.29)

Current Checking Balance (2/18/2011):	\$ 5,000.37
PayPal balance	74.40
Cash on hand	185.00
Total current funds	\$ 5,259.77



HKØNA Malpelo Island 2012 DXpedition



TCDXA's Head Hog Interviews WØGJ and KØIR after their Malpelo DXpedition

Head Hog: “So Glenn, tell us about any advance operating preparations you made prior to traveling to Malpelo.”

WØGJ: “We knew this was going to be one of the most physically demanding DXpeditions in recent years. Ralph and I were relative late comers to the team, after a lot of the ground work had been done in Columbia and by the Atlanta crew of Bob, **K4UEE**; Gregg, **W6IZT** and George, **N4GRN**. Jorge, **HK1R**, had been working over 5 years on the permissions and coordination with the Columbian military and Park Service.

Malpelo is a natural preserve, equivalent to our Desecheo and Navassa, with very restricted access to the land. Dive boats take divers to the waters around Malpelo, but they are not allowed to set foot on the island, very similar to Desecheo. Only one dive boat is allowed at any a time. No fishing is allowed within 25 miles. The Columbian Navy keeps a presence there with a ship to watch over the dive boats and to keep fishermen away.

Malpelo, by the way, is not a barren rock, devoid of all vegetation. Deposits of bird guano have developed colonies of algae that glean nutrients from guano. This explains why approaching in pitch darkness in the wee hours, we could smell the island long before seeing it.

Gary, **K9SG**, is an urgent care physician, and he was prepared to be the primary physician for illness and minor injuries. As a surgeon, I packed a large Pelican case with surgical equipment to fix about anything.”



Head Hog: “Ralph and Glenn, I understand that the terrain of Malpelo is very difficult, and that it’s very hot there. How did you prepare for this?”

KØIR: “Prior to the trip, I really didn’t do anything special. I know several of the team members had daily workouts and exercise routines to boost their cardiovascular reserve. I lead a pretty active lifestyle by maintaining my 25 acres and doing a lot of physical activities like wood cutting, brush



clearing, snow shoveling, walking a lot and frequent tower climbing. I really didn't feel the need to supplement my daily activities with more exercise. In addition, one of my daughters is a competitive rock climber and has hauled me up vertical rock faces in the Colorado Rockies, making me familiar with climbing gear, body harnesses, rappelling and hanging from ropes. The heat, well that was quite something for a Minnesota boy to deal with. I tried to drink several swallows of water every 10 minutes while climbing or working."

WØGJ: "The climb up to OpB is in the 45-60+ degree angle range. In many places, if you stand up and put your arm out against the rock, you will fall down the cliff. It is that steep in places. Getting to OpA on the very top involves scaling a 60-foot vertical wall with ropes. I go backpacking in Idaho almost every summer and use a 30-degree incline treadmill to work out on. This helped a lot, and I was one of a couple "gringos" who could maneuver on The Rock fairly well. Ralph kept up with the best of us.



Climb to OpB.

What we were NOT prepared for was the incredible heat! The weather pages list a fairly constant 70-75 degree temperature. I don't think it ever got much below 80, and the day-



time temps were always 100+++.

Inside the tents, temps were 125+.... and in the first few days of operation before a fan was taken up to OpA, radios and

computers would literally shut down because of overheating. I had several long sleeve shirts, a jacket and a fleece vest, none of which were ever worn on the island. If you were sleeping in a tent at sunrise, within an hour after sunrise, it was SO HOT inside the tent you had to get

up. There was no place to go for further rest or sleep."

Head Hog: "Glenn, I understand you had an 'interesting' trip to Columbia. Tell us about it."

WØGJ: "I just about didn't make my Atlanta to Bogota connection. Ralph, being smarter than me, traveled to Atlanta a day before the Americans were to fly from Atlanta to Bogota.

I took the early flight from Bemidji to Minneapolis. The flight to Minneapolis was 90 minutes late leaving because of mechanical problems. I arrived in Atlanta, a couple terminals away from the Bogota flight, with 15 minutes to spare. I ran and made it to the gate, but it was closed, even though the plane was still there. I pleaded, but no way were they going to let me on. Besides, I'm sure I beat my bags, and without them, I'd have nothing. We were scheduled to arrive in Bogota about 10pm local, and then next morning fly to Buenaventura on the coast to catch the boat which would leave at midnight.

Dejected, I walked to the service desk a few gates away and was making arrangements to get to Bogota or Cali the next day and somehow connect with the team....and where would my bags be? Then, over the airport speakers, "Glenn Johnson report to Gate 7 immediately!" Yes!!! I ran to the gate to find several people surrounding a small girl. She was an unaccompanied minor, also arriving late into Atlanta, headed for Bogota. She was under the minimum age for international unaccompanied minors and this caused a problem. This took 10-15 minutes to resolve, and they were going to let her on.

In the meantime, I was in contact with the team on the plane via cell phone. A couple guys on the team inside the plane were standing up and demanding that they let me on the plane, as I was an essential member of the 'security team' headed to Columbia. They saw my bags get loaded onto the plane, and then taken off and put back onto the tarmac.



Back at the gate, the tower called to ask how much longer the delay would be...but, the ground crew was still having problems with the little girl's paperwork. The baggage handlers actually came up to the gate and checked my luggage tags and confirmed they had my luggage, but would not put it on the plane, unless I was on board. After the little girl was escorted onto the plane, so was I, and then my bags were loaded. I think the plane was pushing away from the gate as I found an empty seat. I don't think I've ever been so mentally exhausted and glad to sit down!"

Head Hog: "Ralph, tell us about the trip from the mainland to the island, and about landing on the island."

KØIR: "First of all, I was impressed with Bogota. It was clean and I felt very safe. The people were friendly and helpful, and I don't believe I saw a car more than five years old. There was no duct tape holding things together, I was not pan-handled a single time, and things generally ran on time."

We flew to the west coast city of Buenaventura to meet our ship. This city has the ocean to its west, and is surrounded by jungle on all other sides. The jungle is a haven for the bad guys, and this city had a different, less-secure feel to it. Men with automatic weapons were everywhere. A protest of some sort blocked our way to our hotel for about 2 hours, but we ultimately got there, had our team meetings and moved to our ship about midnight.

The 24-hour sail to Malpelo came off without a hitch. Seas were reasonable, the crew capable and the ship adequate. We arrived at Malpelo before dawn the following day, and at first light, began loading men and gear into zodiacs.

The only way on to the island is by the 'Tangon,' a structure which looks like half a suspension bridge extending about 50 feet out over the water. The zodiac I was in positioned itself beneath the end of the Tangon, and when



The Tangon.

a swell crested, a carabineer at the end of a dangling cable was clipped to the body harness I wore. When the swell fell, I was air-borne and a winch at the other end of the cable engaged. I ascended 50 feet or so, rotating about 2 RPM counterclockwise, as the cable hauled me up.

At the level of the Tangon, someone grabbed me and pulled me onto the platform as the winch operator put some slack in the line. I had arrived."



The Tangon with the Seawolf in the background.

Head Hog:

"Glenn, I understand there was some advance work done on the island, prior to the main team's landing. What was functioning and in place when you arrived? Were your living quarters established?"

WØGJ: "On Christmas day, 3 ½ weeks before the main team was to arrive, the Fabulous Four Columbian team members left their home and families to transport nearly 4 tons of gear to Malpelo on a Navy ship. The Navy keeps a small contingent on the island in a small duty hut: one officer, one higher ranking enlisted man and four lower ranking enlisted men."

In the 1980s to the mid-1990s, the one month tour at Malpelo was meant for misfits and trou-



blemakers. Since the mid-1990s, however, a one month tour at Malpelo is considered a reward, with fairly nice living conditions, with no responsibilities and lots of time to relax.

The advance team put up all of the antennas at OpB (Baja = lower) site and a few of the antennas at OpA (Alto = higher) site. Time was



Barracks at left and OpB at right.



OpB. OpA is above at right.

spent putting a steel cable into the rock to help one climb, not only up from the Tangon, but also up to OpA. They had several rain days, as the rainy season was ending, and with a few more days, could have had OpA completely finished. We literally walked into OpB and sat down and operated. By the end of the first day, after the main team arrived, we had a couple stations operational at OpA, and four stations by the second day.

I was assigned to do the operator scheduling,



OpB sleeping tents.



OpB at sunrise.

and after discussion with most of the team, the initial plan was to rotate all operators through OpA for a 48 hour 'shift,' and then return to OpB. However, only about half of the team ever made it up to OpA. Many could not physically do it. It was that demanding. Of several who went up to OpA, some never went back up a second time. The black rock is like an asphalt parking lot in the hot sun. The rock is covered with algae and guano. Any rain (we had several squalls come through, but no steady rain), changes the surface to slime, and even maneuvering on level ground is dangerous, as the rocks, themselves, are very slick and the volcanic rocks are very sharp, should one slip and fall.

At OpA, we had a large expedition tent with room for four stations and a couple shade screens over the tent. During the day, we pulled





Scaling the wall to OpA.



OpA tent.



View of OpB from OpA.

the stations out of the tent to help reduce the heat stress. At OpA, we slept on cots under the stars.

At OpB, we had two large sleeping tents (see photos on page 41) and two small rooms in the old barracks for sleeping. Along two walls, we set up tables for six stations. We even had a water cooler and ice maker at OpB!

Within an hour after sunrise, it was impossible to sleep anywhere, because of the heat. . . .so we looked forward to operating our next shift. We could only sleep between shifts at night when it was cooler. Yes, this was very physically and mentally demanding.”

Head Hog: “Ralph, were the challenges of the island what you expected? How did the team deal with them?”

KØIR: “I’ve never been on a DXpedition where there weren’t surprises. However, being given information from the advance team really took a lot of the ‘X-Factor’ out of the equation on this DXpedition. But, we northerners discovered that Columbian cold is not Minnesota cold. The cold or cool nights we anticipated never materialized. It was always hot.”

Head Hog: “Glenn, tell us about the transceivers, amplifiers, antennas, and camp layout.”

WØGJ: “We had a total of 11 Elecraft K-3 transceivers and six Elecraft KPA-500 solid state amplifiers. In addition, we had two Alpha



Elecraft K3 expert operator (and Geico salesman).



8410 amplifiers for the low bands. OpA had four K-3s and one KPA-500. OpB had six stations with K-3s and either a KPA-500 or Alpha 8410. A spare K-3 was used as a 6m beacon from OpB. The next to last day, one of the KPA-500s began smoking. Otherwise there were no equipment failures.



OpB in action.

At OpA, we had an A3S for 20-15-10m and an A3WS WARC band beam with a 30m element. We had dipoles for 160, 80 & 40m. One would think that a 160m dipole with apex at 25 feet on top of a 1000 foot peak would do well. It didn't. We were all very disappointed. The volcanic rock should have been an 'insulator.' But, with the recent rainy season and all of the algae and guano, the effect must have been the same as if the dipole were in Minnesota at 30 feet high.

One of the best antennas I used at OpA for hours on end was a 15m wire ground plane



OpA in action.

.....endless loud pileups from early morning, until several hours after dark. OpB also had an A3S and A3WS. We had SpiderBeam masts for 160 & 80m verticals. We had two open-wire fed dipoles that performed well for 40-10m. There were also ground planes for most bands 30m, and up.”



OpB at sunrise.





MicroHELPER for MicroHAM.

Head Hog: “What bands and modes did each of you work? Did you have any favorites? Any memorable experiences?”

KØIR: “I worked all bands, 160 to 10, mostly CW and RTTY. Every time I worked someone I knew, personally, it was a real treat. Lots of those were TCDXA and MWA members.

At times QSB, QRM, and QRN were real challenges, and recognizing partial calls, i.e. **_OIE_**, **_FOX**, **KØJU_** and **WAØM_** really helped put the locals in the log. Most of my 160 work was from 0300 to 0600 UTC, and Europe dominated as its sunrise moved from east to west. 12 meters was definitely the rate band.”

WØGJ: “We had more SSB operators than CW/RTTY operators. I don’t think I had more than four 3-hour SSB shifts. The rest was CW and RTTY. 160m was a real challenge! We tried various receive antennas, but nothing really worked better than the transmit antenna. Many, many stations were calling, and all at our noise level.....partial call after partial call. One almost has to be sure of a complete call to answer, as soon as you have a partial call and the pileup dies down, the QSB will make copy of that partial call impossible. It was always good to hear signals above the noise floor. Those stations we could readily get back to. I always had my “zero detector” turned on.

I really liked 12-10m CW, too, as the pileups are a little more spread out, and it is surprising who will show up! 160m remains the ultimate challenging, but fun, band for me. Sunrise is a hoot when the JAs start coming out of the noise, and you get them into the log. Everyone is happy!”

Head Hog: “What were your living conditions while you were on Malpelo?”

KØIR: “**WB9Z**, several lizards and I shared a small attic above the Op B stations. Like any attic, it’s hot up there. Like any attic on Malpelo, it’s roasting up there. During the day, I think it was 120 to 140 degrees up there – unbearable. It would cool off a bit at night, but it was always hot. One night, I decided to beat the heat and move my cot outside and sleep under the stars. I woke up soaking wet. I think my body temperature was cooler than the surrounding humid air and dew formed on me. I moved back to the attic with Jerry and the little lizards.”



Crabs everywhere.

WØGJ: “My cot was in a sleep tent. It was impossible to sleep during the day....anywhere, no matter HOW tired you were. However, there were always camp chores, laundry and other things to do. Like Ralph, one night up at OpA, I was sleeping out under the stars on a cot and



woke up so wet that I could almost wring the water out of my t-shirt.

The Seawolf, our transport vessel, provided three meals each day, along with a daily supply of fuel and water. Three times a day, a few guys would go down to the Tangon and, in a rope net, haul up the daily supplies. At OpB, breakfast would arrive about 10am, lunch at 3pm and dinner at 6pm. The marines would take the breakfast and lunch meals up to OpA, along with water and fuel. OpA never received an evening meal. Sometimes OpA would have no water for almost half a day.



OpB power and coffeemaker.

A couple times at OpB, we ran out of water (in the 5 gallon jugs) and had to boil rain water for drinking. There was a way to take a shower with rain and cistern water, but the supply was intermittent. Besides, it was so hot that taking a shower was almost pointless, because you'd feel like you needed another one before you could even dry off."

The Head Hog: "Ralph, tell us a bit about the team composition. Were there any conflicts?"

KØIR: "We had team members from Germany, Brazil, Argentina, Columbia, Canada and the U.S. We would at times debate different ways of doing things, but we had no conflicts that compromised the DXpedition. We all left as friends. As Glenn said, we were more heav-

ily weighted with SSB operators, but were not unduly hampered by this."

Head Hog: "Tell us about your experience in the pile-ups."

KØIR: "I echo Glenn's comments, below. One thing I noticed ---- It is more difficult than it used to be to spread out a pile-up. There are lots of pan-adapters, second receivers, and packet spots indicating the receive frequency of a DX station. I could have a horrendous pile-up on 18.072 with 18.074 being dead quiet. If I tuned up to 18.074 and waited 30 seconds or so (an eternity) someone might call. When I answered, the masses would move to 18.074 and 18.072 would become silent. While this conserves spectrum, it makes it harder to pull calls and maintain a rate."

WØGJ: "NEVER-ENDING. One word. They never stopped! We passed the record for number of contacts for a tent/generator operation, and ended up with over 192,000 contacts. This is an amazing accomplishment from an incredibly challenging place!

Europe was LOUD. The east coast was loud. North to North America and NW to Asia was right through the middle of the mountain. We could easily work the east coast, W8s and lots of W9s, sneaking around the edge of the mountain....WØs were just around the corner and some days it was easy to work WØ and other days not so easy. I always had my 'zero detector' on, and any zero always had my full-est attention.

It was easy from OpA, which has unobstructed views to everywhere, to work everyone! Everyone was loud at OpA. As one can see by our statistics, during the last couple of days the pileups dropped off along with the solar flux. There was a lot of demand for RTTY, and even though I spent a lot of time on RTTY, those pileups never got thin."

Head Hog: "So, did you learn anything new on





WØGJ at the top of the rock.

this one? Would you change anything? Any parting thoughts?”

KØIR: “I think I like cold places. You can always put on more clothes. You can only take off so much. But, hot or cold, working old friends is very, very special.”

WØGJ: “I thought I was in fairly good physical shape, but the unexpected heat literally deflated me. One can never be in good enough physical shape for one of these DXpeditions. I would guess no one ever got more than 5 hours of sleep a day, and sometimes that was not all in one session. You are focused when your are working the pileups. Time goes by amazingly fast! It’s always a special treat to work my friends back home.

I was the team surgeon. I had enough equipment to probably do everything short of a brain transplant. I never had to open my surgical case. Except for a couple scrapes on the rocks, and one very minor ankle sprain, everyone remained healthy without injuries.

Without the help and leadership of the Columbians, we could not have pulled off this DXpedition. They are all great guys, great ops and wonderful new friends. I cannot say enough good things about them! We made new lifetime friendships with the ops from other countries, too. There was excellent team work, without any conflicts. I think everyone was very focused on breaking the existing tent and generator record.....and we did it!

One very important final note: without the generous funding from TCDXA (and other clubs/organizations) and major funding from NCDXF, this DXpedition would not have been possible. Your support and contributions to these organizations is so important!!! Entities high on the Most Wanted List are there for a reason: THEY ARE DIFFICULT TO GET TO and TRANSPORTATION IS EXPENSIVE. It takes a lot of money UP FRONT to get to these places. QSL income is always needed to cover expenses later, but it does not come in time to fund the travel to an entity. Most DXpedition members have invested a lot of their own resources and time into these trips. Family life is sacrificed, and, like Malpelo, we were not exactly sitting in a comfortable chair with climate control. Risk and hardship, whether from heat, cold, rocks, cliffs or crabs are always present on these DXpeditions. PLEASE be generous in your contributions to these organizations, so you can work the ‘next one!’ Thanks again for your generous support!”

73!

Ralph Fedor, KØIR
Glenn Johnson, WØGJ



VKØIR
ZL9CI
A52A
T33C
3B9C
TX9
CP6CW
3YØX
K7C
5A7A
VU4AN

K5D
VK9DWX
FT5GA
3D2ØCR
E4X
CYØ/NØTG
VP8ORK
VU4PB
STØR
3D2R



K4M
TX3A
KMØO/9M6
YS4U
YI9PSE
ZL8X
4W6A
T32C
HKØNA

XU7MWA
S21EA
J2ØRR
J2ØMM
BS7H
N8S
3B7SP
3B7C
5JØA
VP6DX
TX5C
9XØR

TCDXA DX DONATION POLICY

The mission of TCDXA is to support major DXpeditions by providing funding. Annual contributions from TCDXA members are the major source of funding for this mission.

A funding request from the organizers of a planned DXpedition is directed to the TCDXA Donation Manager, Ron, NØAT, TCDXA@n0at.net, who makes an initial evaluation of the request, and discusses the attributes with the TCDXA Board of Directors. The request will be judged by how well DXpedition plans meet several key considerations (see below).

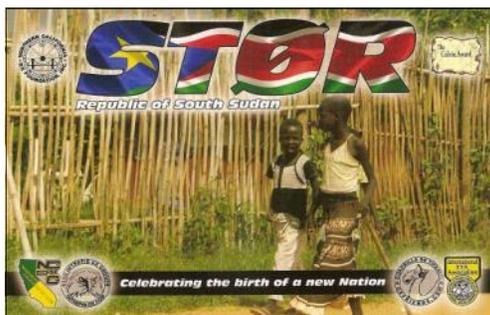
If the Board of Directors deems the DXpedition to be worthy of support, a recommended funding amount is presented to the membership for a vote. If approved, the TCDXA Treasurer will process the funding..

Key Considerations for a DXpedition Funding Request

DXpedition destination
Ranking on *Most Wanted Survey*
Most wanted ranking by TCDXA Members
Logistics and transportation costs
Number of operators and their credentials
Number of stations on the air
Bands, modes and duration of operation
Equipment: antennas, radios, amps, etc.
Stateside and/or foreign QSL manager

Website with logos of contributing clubs
QSLs with logos of contributing clubs
Online logs/pilot stations
Up front cost to each operator
Support by NCDXF & other clubs
LoTW log submissions
Success of previous operations by same group
Valid license and DXCC approval
Funding mode: USA and/or foreign financial address

To join TCDXA, go to <http://tcdxa.org/>.



- end -