



Northern California DX Foundation

www.ncdxf.org

Fall/Winter 2006

WRTC 2006 recap

Rusty Epps, W6OAT



In July I returned from Florianopolis, the beautiful capital city of Santa Catarina in southern Brazil. It was there that fifth running of the World Radiosport Team Championship (WRTC) 2006 was held from 5-10 July.

WRTC has often been characterized as the “olympics” of Amateur Radio contesting or likened to an all-star baseball or football game. It involves a competition where some of Amateur Radio’s best contesters gather in a single area to compete as two-person teams in an on-the-air contest. Most recently, the WRTC has taken part within the IARU-sponsored High Frequency World Championship contest held in July.

A level playing field

WRTC’s purpose in bringing all these world-class contesters to the



Even the art overlooking the headquarters hotel got into the WRTC spirit.

WRTC History — Ward Silver, NØAX

The first WRTC was held in Seattle during the 1990 Goodwill Games. The goal was to provide a level playing field to determine “who is best,” but the event turned out to be a success in other ways. Today it has become a gathering of the world’s top operators and contesting fans, taking on the feel of an All-Star Game. Here is a short list of the previous WRTCs and their major advances:

- Seattle 1990 — The first WRTC – operators were hosted by local Ham families using existing stations; contest was a special event just for WRTC.
- San Francisco 1996 — Everyone stayed in a central location; operation was from the shacks of local Hams with equivalent antennas for 40M (no 80M), and the contest was run during the IARU HF Championship.
- Slovenia 2000 — Today’s “olympic”-style format is achieved with national team identity; common antennas for all, and random, special call signs. Locations were distributed across the country. Many more visitors and countries were represented; first WRTC outside the USA.
- Helsinki 2002 — Further refinement of the station antennas and towers; the real-time scoreboard was introduced with referees using SMS messages to phone in the team scores.
- Florianopolis 2006 — The first Southern Hemisphere WRTC with amplifiers provided for each team. The hosts added Multi-Single, Multi-National (MS/MN) teams, Youth teams and WRTC Host Committee teams to the mix.

same geographical area is to try to eliminate the advantage a particularly good QTH affords one operator over another in a regular contest. For instance, in a contest like the CQ Worldwide DX Contest, being in certain parts of Africa or South America tends to give operators in those places a huge scoring advantage. Most of the contacts they make will be into population-rich Europe, North America and Japan and will each count the maximum number of points because they’re intercontinental QSOs. Contrast this with someone

INSIDE THIS ISSUE

WRTC 2006 recap	1
VU4 Andaman Islands 2006....	4
VU4 and the DL7DF team	6
6OØN Somalia 2006	8
NCDXF Educational fund	9
4O3T – Montenegro DXCC ...	10
W9DXCC	12
NCDXF webmaster.....	12
Scholarship recipients.....	13
Visalia pictures	13
Pacific DX group	14
Video Library	16

NORTHERN CALIFORNIA DX FOUNDATION

P.O. Box 1328
Los Altos, CA 94023-1328
USA

Phone 707/794-9801 • Fax 707/794-8033

www.ncdxf.org

President.....LEN GERALDI, K6ANP
k6anp@pacbell.net

Vice PresidentAL BURNHAM, K6RIM
k6rim@pacbell.net

SecretaryTOM MC SHANE, NW6P
tom@bimark.com

TreasurerBRUCE BUTLER, W6OSP
w6osp@aol.com

Directors.....KEN ANDERSON, K6TA
k6ta@arrl.net

RUSTY EPPS, W6OAT
w6oat@arrl.net

STEVE MERCHANT, K6AW
merchant@garlic.com

DAVE PUGATCH, KI6WF
ki6wf@comcast.net

CHUCK TERNES, N6OJ
n6oj@sbcglobal.net

TIM TOTTEN, N4GN
n4gn@n4gn.com

M. GLENN VINSON, W6OTC
w6otc@garlic.com

AdvisorsLOU BEAUDET, K6TMB
HOWARD BRAINEN, WZ6Z

BOB FABRY, N6EK

BOB FERRERO, W6RJ

PETER JENNINGS, AB6WM/VE3SUN

DAVE LEESON, W6NL

STEVE LUND, K6UM

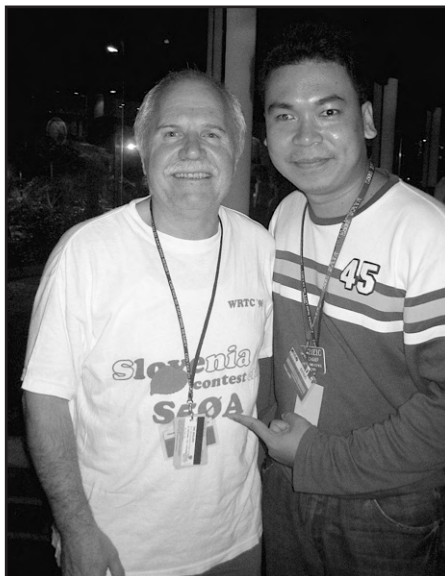
CHARLIE MASON, W4NJK

DICK WILSON, K6LRN

Managing EditorDEBI SHANK
itsdebi@sbcglobal.net

Webmaster.....DOUG BENDER, WW6D

Newsletter produced at *WorldRadio*



Two well-known contesters at WRTC: Tine, S5ØA, from Slovenia and Champ Muangamphun, E21EIC, from Thailand.

working from, say, the Caribbean, which is part of North America and thus contacts with stations in the USA count fewer points because both stations are within the same continent.

In addition to trying to “level the playing field” geographically, each WRTC team runs exactly the same output power and uses identical antennas at identical heights. Thus, most of the variables between stations are equalized. That allows for a more direct comparison of what the operators themselves can do relative to others similarly situated.

The gathering this year in Florianopolis was stunningly impressive. I counted contesters from 40 different DXCC entities and all continents

among the competitors, judges, referees and spectators. The headquarters location for WRTC 2006 was the beautiful Costão do Santinho Hotel, with its sandy beach right on the Atlantic Ocean, hiking trails, great Brazilian cuisine and a wonderful, relaxed environment in which to meet fellow hams. It was fantastic to finally place faces with all those familiar call signs I’ve been working on the air for decades.

New twists

The 2006 WRTC was coordinated by Liga de Amadores Brasileiros of Radio Emissao (LABRE) and the Araucaria DX Group and introduced several new twists not found in previ-



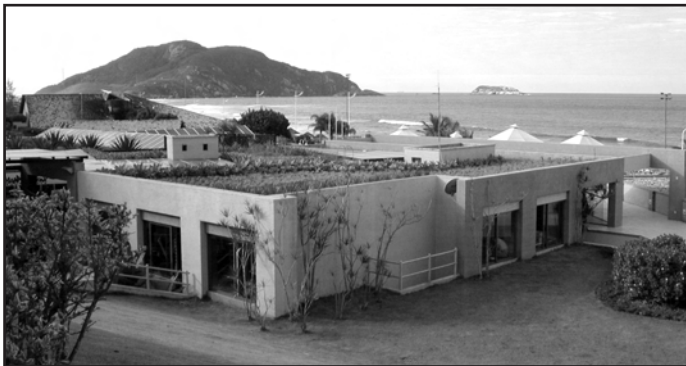
Eighth-place WRTC teammates Ward Silver, NØAX (left), and Christopher Hurlbut, KL9A (right) pore over the WRTC results at the closing ceremonies. Photo courtesy Ward Silver

Contributions

The NORTHERN CALIFORNIA DX FOUNDATION relies heavily upon the generosity of its members to fund various projects. We urge each member to consider making an annual contribution of US\$50 or its equivalent in foreign currency. However, we do not wish to exclude anyone from the FOUNDATION for financial reasons. If \$50 is not within your budget, then please give what other amount you can. Naturally, we welcome contributions in excess of \$50! The NCDXF is an organization described in Section 501(c)(3) of the Internal Revenue Code and all contributions are tax deductible to the extent permitted by law for U.S. taxpayers. Use the envelope supplied with the newsletter to send your contribution. If the envelope is missing, send your contribution to: NORTHERN CALIFORNIA DX FOUNDATION, P.O. Box 1328, Los Altos, CA 94023-1328, USA. You may also contribute and order supplies online via our secure server, visit www.ncdxf.org.

ous WRTC competitions. Competitors for most of the 46 two-person teams were selected solely based upon scores they had accumulated in major contests over the last three years. They had to “earn” their qualifying slots, rather than simply being invited to represent major contest clubs or national Amateur Radio societies, as was done in the past. The Brazilian hosts were careful, however, to reserve some

*The PW5Q team:
(from left)
Christopher Hurlbut, KL9A;
Jan-Eric Rehn, SM3CER;
Rubens Foryta, PP5RR,
and H. Ward Silver, NØAX.
Photo courtesy
Ward Silver*



The Costão do Santinho Hotel was the home for several hundred WRTC participants and spectators. Photo courtesy Ward Silver

slots ensuring that contesters from less densely populated areas (places other than Europe, the USA and Japan) also were able to secure positions on the teams. They also reserved a few teams exclusively for operators under the



The PW5Q antennas at the PP5RR QTH shows what all WRTC competitors were using. The tower is 17 meters high, topped with an 8-element log periodic and a 2-element 40 Meter Yagi; an 80/75 Meter dipole hangs below the beams. Photo courtesy Ward Silver

age of 21, ensuring that “new blood” got drawn into the sport of radio contesting. WRTC 2006 even saw the first-ever all YL team: Emily Thiel, P43E, and Ann Santos, WA1S.

The Brazilians introduced another innovative concept

by creating eight “multi-national, multi-single” teams. These MN/MS teams took advantage of some of the visiting international contesters who had come to WRTC but were not competing on one of the regular two-person teams. The WRTC organizers placed these international visitors at eight established major PY contest stations where they joined a handful of usually less-experienced Brazilian operators. The MN/MS teams were permitted to run full legal power and utilize existing antenna arrays at these contest superstations. This provided most of the Brazilian ops a chance to experience contesting as they had never seen it before and they were able to learn contesting techniques and secrets from some of the world’s most knowledgeable and experienced operators. Talk about an Elmering program designed to foster our next generation of contesters!

NCDXF interest

Given all the emphasis WRTC places on contesting and contesters, why would NCDXF, known mostly for its DX related activities, want to be one of the event’s sponsors?

The answer is quite simple. NCDXF spends thousands of dollars annually assisting DXpeditions to rare entities so that we DXers can work them and raise our standings on the DX ladder. NCDXF appreciates that contesters and DXpeditioners have several traits in common, most especially, they both usually try to get the greatest number of QSOs into their logbooks, as quickly and as accurately as possible, from as many different places as possible (these “places” might be other DXCC entities or contest multipliers).

Good contesters have honed their skills to understand propagation, to know how to handle pileups and how to pull weaker stations out of the noise — skills highly prized by proficient DXpeditioners. What NCDXF has found is that the WRTCs have been hotbeds of DXpedition organizing. At these events top-flight contesters often meet DXpedition organizers looking for operators, or the contesters themselves organize the DXpeditions.

For instance, the recent DXpeditions to VP8GEO (South Georgia), VP8THU (South Sandwich) and FT5XO (Kerguelen) all trace their roots back to previous WRTC competitions. Just think about the “best” DXpeditions you have worked over the past 10 to 15 years and then look to see who the operators were. Chances are that one or more of those operators was either a competitor or an attendee at a WRTC event. When all is said and done, getting top-flight contesters involved with DXpeditions makes getting those elusive DX entities into our logbooks a whole lot easier.



VU4 Andaman Islands 2006

Joe Blackwell, AA4NN

I knew that Frank Rosenkranz, DL4KQ, was working on VU4 as a target for 2005, since it was he who invited me to join the team. I had been on two previous DXpeditions with Frank — Myanmar, XY3C, and Banaba, T33C — so I was confident in Frank's uncanny ability to pull off such a trip to VU4.

Meanwhile, the National Institute for Amateur Radio of India (NIAR) announced that a Hamfest would be held in Port Blair, Andaman Islands, and that foreign Hams would be invited to attend this memorable event. Not only that, foreign attendees would be allowed to operate their Amateur Radio stations during the Hamfest. What I didn't realize was that Frank had been working with NIAR to prepare the announcement.

NIAR, and its chairman, Mr. Suri, VU2MY — with his valuable contacts and intimate experience — organized the event, and Bharathi Prasad, VU2RBI, obtained permission in Delhi for radio operations from the Andaman Islands. Bharathi is also the person who organized the December 2004 DXpedition to VU4 which was interrupted by the tsunami.

Getting ready

Our team needed to get moving to obtain Indian visas and to apply for reciprocal Indian licenses, all of which eventually would be granted. Our equipment list was typical for a DXpedition and each member would transport equipment as personal checked airline baggage.

My equipment is transported in hard-sided golf bag and includes a Hy-Gain AV-640 modified to fit in the 4-foot long bag, a complete K9AY loop, RF power meter, 30A switching supply, connecting cables, tool kit, clothes, various spare connectors, fuses and cables. My second bag was a Pelican case, which housed a Tokyo Hy-Power prototype HL-1.5Kfx solid-state amp; and yet a third bag

contained 200 feet of RG8X, coax jumpers, CW keyer, spare 25A power supply, connectors and miscellaneous spare parts. My carry-on consisted of a laptop computer and suitcase with clothes, a K2/100 transceiver, MFJ-259B, and CW

paddle. In effect, I carried a complete Amateur Radio station with me.

A few members of our team arrived in the early morning hours at Chennai Airport and were welcomed by a host of local Hams headed by Jose, VU2JOS. They helped us with the baggage and transportation to a nearby hotel for some needed rest before our morning flight to Port Blair.

Upon arrival in Port Blair, Frank sought out the Ripples Resort, which he had reserved for our operating location. We wanted to have some distance between our camp and the other camps, most of which would be located at the various hotels in Port Blair. Unfortunately, the Ripples Resort was unacceptable for an operating location, so Frank and Sarath, VU3RSB, searched for another location, finding an ideal spot at the Megapode Tent Camping Resort, which had 11 tents and an unbelievable antenna horizon.

A government project, the Megapode Tent Resort had recently been completed, as we were the very first paying guests. Even the taxi drivers weren't aware of its location. We had the chef at the restaurant to ourselves and he strived to please us with our personal choices. Meals typically were less than US\$2, and a liter of Indian beer was less than 50¢.

Setting up

We began to setup on 15 April, af-



ter purchasing some bamboo poles at a local lumberyard. We put the Spider beams on 30-foot bamboo masts and for the 160/80M verticals we lashed two lengths of bamboo together and wound the wire helically to achieve needed electrical length. Sarath and I made frequent trips to Port Blair in search of various needed materials.

In all, we would have a 5-band Spider beam, a WARC Spider beam, two verticals for 160/80M, a 40M vertical, a Sigma 5, a tri-band vertical, Hy-Gain AV-640, two K9AY loops, an 80/40M combination dipole and a vertical dipole to listen for openings on the bands.

We were able to get word to David Collingham, K3LP, before he left the U.S. to bring more coax. Wire and common setup materials were purchased at local shops in Port Blair



Joe Blackwell, AA4NN, with one of many Ministry officials who visited the DL4KQ camp.

and Sarath even found some external keyboards to plug into our logging laptops since one laptop had a French keyboard and another had a German keyboard. Frank had brought along spreaders to construct the open wire feeders for the two 160/80M verticals. The staff at the resort, untiringly, helped in the setup tasks and the raising of antennas and masts.

The weather was extremely hot, easily reaching 95°F (37°C) for most of the daytime and, toward evening, we would often get cooling rain showers. The humidity never left and the rain did not deter our setup activity.

The 5-band Spider, fixed on Europe, was lashed to a fence post and the WARC Spider was usually pointing toward the U.S., but was at the mercy of the wind, so we kept a close watch on its direction.

One night we experienced a wind-storm, toppling one of the 160/80M verticals, but all else remained intact. We had frequent and unpredictable power failures, which were not necessarily due to storm activity and, normally, the power was restored within 10 to 15 minutes; except on the last three days when the power was out for hours. One of our CW positions was equipped with a huge marine battery and that kept one K2/100 alive during power outages.

There were two CW positions equipped with K2/100s plus amplifiers and LDG auto tuners. A spare K2 was used to monitor the bands for openings. At the two SSB positions were a 746Pro and a K2/100, while the digital position used a K2/100.

Arriving early afforded our team the time to find a good operating site and we also were able to set up our equipment and antennas before the Hamfest. It was a good feeling as we headed into the Hamfest festivities knowing our site was in good shape and ready for the pileups.

Throughout the operational period, various Indian Ministry officials and their guests visited our camp. Even operators from other teams visited us and truly envied our location. With 10 experienced operators and an ideal

location with good antennas and excellent equipment, everyone wondered why this dream team had totals just under 20,000 QSOs. One answer was lack of propagation and short to non-existent band openings.

There were many participants, foreign and Indian, attending the Hamfest; yet, according to a report published by NIAR, there were only eight operational teams representing 27 foreign Amateur Radio operators and three teams representing 21 Indian Ham operators. Each operator would prefix his VU3 Indian call with VU4AN in lieu of using a unique DX call for each team. Some on-air confusion may have ensued due to the proliferation of call signs, but apparently QSLing was not such a problem due to well-published QSL routes. In all, 86,800 QSOs were made during this memorable event.

Hamfest events

The main thrust of the Hamfest was to update those present with the latest technology in Amateur Radio as practiced in the different countries represented.

Foreign Hams were invited to speak on such topics as digital and voice communications, disaster management, emergency preparedness, EME experiments, integrating Amateur Radio into higher education, problems of BPL and the use of propagation beacons, all of which can benefit by the emergence of Amateur Radio and its capabilities.

The Governor of the Andamans and Nicobar Islands welcomed us and later presented Certificates of Merit to deserving Indian Hams.

On two separate nights during the Hamfest, all foreign Hams were invited to attend special meetings at the Megapode Nest. The first meeting was a get-acquainted affair where each person was asked to present his personal Ham experience and how he thought he could further the cause of Amateur Radio in India. The second meeting was for goodwill and a chance to relax with drinks and good food.

Much to our surprise, the Hamfest

was cut short. After a lengthy second day, all presentations were finished and we were free to begin the serious radio operation.

We give our special thanks to Bharathi, VU2RBI, whose influence was instrumental in achieving permission to operate from the Andaman Islands. We thank Mr. Suri, VU2MY, NIAR's chairman, for helping us with our many application forms and for his untiring efforts to make the Hamfest such a great success. None of this



A local climber attaches a rope and pulley for our 80/40M dipole combination.




(Left) A view of the camp from the antenna farm while Sylvain Lefevre, F4EGD, and Flo Moudar, F5CWU, assemble one of two Spider beams. (Right) Preparing the mast for raising the 5-band Spider beam.

could have been possible without the sponsorship of the Indian Department of Information Technology, namely Mr. Ajeer Vydia, the Department of Tourism and the Andaman and Nicobar Administration. The Minis-


try of Home Affairs, the Ministry of Defense, HRD and the Department of Telecommunications provided wholehearted support for this event and we thank them all for allowing us to participate in this “first time ever” foreign

operation from the Andaman Islands.

Our team would like to thank all the individual contributors to our effort, and especially to the Northern California DX Foundation for its generous financial support. 

VU4 and the DL7DF team

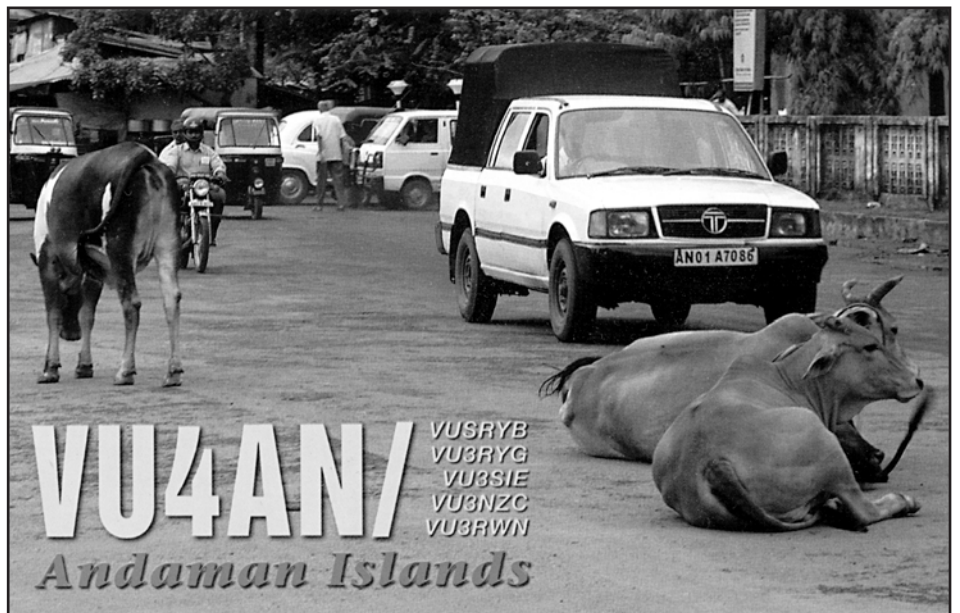
Dr. Manfred Gronak, DK1BT

 The Andaman and Nicobar Islands, VU4, are one of the “most wanted” destinations and in the autumn of 2005 we learned that that Indian radio Amateurs were planning a Hamfest in Port Blair, the capital city of the islands. We also learned that foreign radio Amateurs could get a license for the Hamfest.

Amateur Radio gained publicity during the tsunami disaster in December 2004, when Indian radio Amateurs organized a stable radio connection between the islands and the mainland — this Hamfest was born as a result of the disaster.

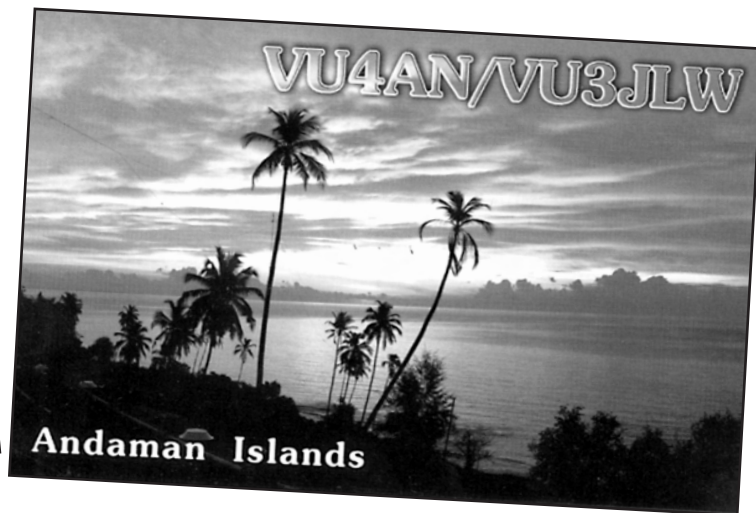
Preparations

In January 2006 we learned from Frank Rosenkranz, DL4KQ, details about our license application. He had connections to the NIAR and had visited Port Blair in 2005, but nothing was confirmed. We could only hope. NIAR had planned only three days



for the operational time and under such conditions it was very difficult to assemble a good team, but after a week, we found a good one. The people ready to go through the obstacles were myself, Manfred Gronak,

DK1BT; Les Fabianski, SP3DOI; Jurek Smoczyk, SP3GEM; Jan Ambrozy, SP3CYY, and Siegfried (Sigi) Presch, DL7DF. We came together as a mixed German-Polish team of experienced DXpedition operators.



Our first obstacle was the Indian bureaucracy. We needed to fill out equipment lists for Customs and the NIAR and send them to India, and we had to organize the required visas in a very short time. I couldn't get a visa from the consulate in Port Blair and our Polish team members had to travel 650 kilometers to Warsaw to obtain their visas.

Frank, DL4KQ, had a specially prepared webpage that kept us up to date with new requirements for the participation in the Hamfest and we needed to write articles for the souvenir paper and proposals for lectures. DL7DF wrote about his TY900 linear PA and I prepared a 50 MHz report from the 3XY7C DXpedition.

In March 2006 we got some good news: our operational time was increased to eight days. We booked our flights and the first hotel in Port Blair for three days, but our licenses were still uncertain. Two days before our flight we got the licenses. DL7DF got VU3RYG; DKIBT, VU3SIE; SP3GEM, VU3RWN; SP3ARM, VU3RYG, and SP3DOI, VU3RYB.

We began our trip on 15 April 2006 and met in Berlin with a lot of baggage. We flew British Airways to London and then Chennai, India, where we met Jose Jacob, VU2JOS, who gave us a lot of useful information. Hours later we were in Port Blair and connected with a group of Indian radio Amateurs, including Barathi Prasad, VU2RBI and S. Suri, VU2MY.

Operation setup

Arriving at our hotel, the Megapode Nest, we found that three other teams had already set up their antennas, so we searched for a better QTH. The hotel management offered us a bungalow ruin located just 100 meters away from the hotel. The place was not bad, although it was near the other teams. During our set-up the hotel staff eliminated the rubbish in the bungalow and built a connection to the power supply. We used a lamp mast to mount our antennas: a multiband Cushcraft R7, a 5-band hexbeam and several vertical antennas including the V80 Titanex. Once we had electrical power we were able to set up our stations but in the heat it was a hard work and our new flat had no climate system.

At exactly 0:00 local time, the operation started with a big pile-up, especially on 40 Meters. We worked with three stations parallel and used two Icom IC-735s and one Yaesu FT-857D.

The following three days we stopped operations to take part in the Hamfest sessions. It was a very interesting time and we met the Indian radio Amateurs. Mr. Muri, president of the NIAR, spoke at the opening session and the governor of Andaman and Nicobar Islands was in attendance; there were also a lot of official political VIPs. The Hamfest featured lectures focused around disaster management and a number of foreign guests presented interesting lectures as well, like Dr. Heinz-Josef Pick,

DK5WL, about EME operation.

Other events included a multimedia show in the old Cellular Jail where we learned about the colonial time of the islands.

On 22 April we had a special event: NIAR organized a birthday celebration for Les, SP3DOI, and a lot of people came by the party — it was an unforgettable experience, especially for Les.

We worked whenever we could with as many stations as possible. The breaks we had been caused by power failures; sometimes several a day. Some days we had good conditions on 12M and 10M to Europe — a result of good planning and solid working equipment. Very important was the usage of the new TX-filters built by Siegfried Blechschmidt, DM2AYO, to work parallel with three stations with a minimum of distortion. We did our best using the short opening time and we had 22,950 QSOs in the log. We also had 29 QSOs in SSTV and 489 QSOs in RTTY/PSK31 — an acceptable result for the short time. Our last QSO was on 24 April at 24:00 local time. ☺



60ØN Somalia 2006

Alfeo Caputo, 11HJT and Silvano Borsa, I2YSB



In March 2005 we received the terrible news that Adan, 60ØN, one of the promoters of the 2005 DXpedition in Somalia, had been killed in a car crash. We considered how to honor him and decided to dedicate the next DXpedition to him.

The Somalia operation was not our initial target. We had worked for months to activate another rare country, but our request was denied at the last minute. It was too late to go to any other new and rare place so we decided to return to Somalia where we still maintained good connections and we knew we would be very welcome. The 2005 expedition lacked proper coverage for the low frequency bands so we decided to concentrate our 2006 effort there. Solar activity was near the bottom of the sunspot cycle, so a good antenna and CW crew would assure us of big pileups on the low bands.

The team prepares

The team was composed of seven members: Alfeo Caputo, 11HJT; Silvano Borso, I2YSB; Carlo Brasso, IK1AOD; Carlo deMari, IK1HJS; Vinicio Ravizza, IK2CIO; Angelo Selva, IK2CKR and Marcello Casenelli, IK2DIA.

Once we were prepared and packed, we drove from northern Italy to Paris to catch our 9-hour flight on Daallo Airlines to Djibouti.

From Djibouti we flew to Galkayo aboard an old Antonov AN-24. Our flight arrived early so Hussein and Hasan, 60ØXJ, were not yet at the airport to meet us. Instead, we had to face Customs on our own. Thank God, our luggage arrived with us. We went by car to our guesthouse, the same one we rented the year before, where we planned to install the SSB station.

The four-element, six-band Yagi we left in Galkayo was still there; we just needed to collect it and install it on top of the house. We also installed an inverted-V for 40 Meters and a di-

pole for 80 Meters.

The energy supply in Galkayo was still a problem, even worse than a year ago. The electric power was off for many hours during the day and often the voltage was unstable and below 200 volts, so it was necessary to rent a generator to assure our power needs.

The SSB operators IK1AOD, IK1HJS, IK2DIA remained to operate from this location and we decided that a CW operator will turnover here in the night.

Station sites

We originally planned to install three stations. Once the first site was ready, we went to inspect the second location at Galkayo University. Immediately we realized the yard was not big enough to allow us to install a beam so we moved to the medical centre, five kilometers from the city. This turned out to be a wonderful site for our operation with a big yard on which to lay the radials of the vertical antenna.

The medical centre had been left vacant since our previous visit and we found a lot of available space inside and out. At sunrise we began to install the five-element, seven-band beam on top of the roof, a vertical for 30M-40M-80M and an inverted-V for 40M. The setup was ready by late morning. The Battle Creek still needed to be erected but the weather was getting bad; there was a strong wind and black clouds threatened rain. The fact that there were some rain drops proved to be an exceptional event; no one had recorded rain in this season. Was it the effect of the radio activity?

After some complications and some moments of panic, the Battle



Creek — a 15-meter-tall antenna dedicated to 80M and 160M — was erected. To improve the efficiency, we laid a number of radials and had 1,000 meters of wire on the ground at the end of the job.

Lastly, we installed two EWE antennas used for low-band receiving. One was directed to the USA, the other to Japan. The EWE antenna had been strongly recommended by Vinicio, IK2CIO, who used it during his IH9P operation. We had to admit that it was the key to our brilliant results in low bands.

The medical centre was not connected to the local electric network so we needed a 10kW generator. Normally, lighting in the hospital is powered by solar panels, but they weren't sufficient for our requirements. The generator room was rather far from our location and a certain voltage drop occurred. The supply never exceeded 200V under load, so consequently the Acom 1000 amplifier output was lower than we expected.

As soon we started to transmit, we realized the pileup was huge and we decided to turnover to avoid stopping the operation during lunch and dinner. We just stopped in the early morning to service the generator because after sunrise all the bands were off for at least for an hour and it was possible to stop then without our QSO rate suffering too much.

The Atlas was constantly in op-

eration to keep the grey line under control, and we were ready to call the North American west coast long path, to give them a new one and a new zone. The United States' West Coast area is almost at the antipode from Somalia and the contacts on the low bands were possible for less than an hour during our sunset, which corresponded to their sunrise. We started calling on 40M then moved to 80M CW and then to 75M on SSB. It was amazing to realize that the station we were working were just on the grey line, starting from W6 and W7 and moving north toward VE. It was not possible to work in this way every day; sometimes the noise and static was too high even for the EWE antennas and it was also hard to operate on 40M.

The low solar activity negatively affected the propagation on the high bands, and just a little activity on 10M and 12M was possible. We had no conditions to operate on 6 Meters. Nevertheless, in the second week of activity, we added an additional station in the medical centre to cover some spare time. Using an IC 706 and a dipole tuned on 15M and looking carefully for band openings, we logged almost 1,000 CW QSOs barefoot!

Feedback and contacts

We found a good Internet point in Galkayo that allowed us to download email. What Gianni Vincis, ISØVSG, our pilot station, sent us daily was especially helpful giving us some feedback from Europe. It was also possible to upload the log online every two days.

An amazing email we received from Casale Monferrato at the ARI section informed us that the International Space Station (ISS) was looking for a sked. We had the frequency and the time schedule for the most suitable orbits for Somalia. The ISS operator, Commander Bill McArthur, NA1SS, was working for a DXCC from space and Somalia would be a new one for him. Only three orbits were suitable for us and at the due time we were ready; the QSO was logged at the first attempt with a good signal.


The unexpected visit by the Mayor of Galkayo made us proud, and we were invited for dinner at the Taar Hotel, the most prestigious in town, as a gesture of friendliness by the Galkayo community. During the dinner, Isak, 6OØMY, director of SARFEN, gave a lifetime Somali Radio Ham license to newcomers Alfeo, 6OØHT; Vinicio, 6OØIO; Angelo, 6OØKR; Carlo, 6OØJS; Carlo, 6OØOD, and Silvano, 6OØN.

Finally the DXpedition was over and, after dismantling and packing our stuff, we were ready for the airport. While waiting for our departure, many soldiers and cars arrived because the Somali president's aircraft was landing. Hasan, 6OØXJ, told us that the president knew about our visit and he invited three of us to meet him. The president shook our hands and asked us, in Italian, if all was okay.

After the DXpedition was over, we received many positive comments on the air, on QSL cards and in the mail. The log contains approximately 35,000 QSOs, most of them for Europe, but many from the USA and JA.

We want to thank all friends and sponsors: NCDXF, INDEXA,

EUDXF, GMDX, GDXF, CDXC, Danish Group, SWODXA, MDXC, Marconi Club, Western New York Assn., DX 425 News, ARI, ARI Casale M., ARI Bergamo, ARI Sanremo, ARI Broni/Stradella and ARI Scandicci. Thanks to their generosity, it was possible to leave to Radio Galkayo some spare electronic tubes for the AM transmitter, antennas, an HF radio and an Acom 1000 amplifier which will help them to enlarge the covered area of their broadcasting.

During the time we were guests at the medical centre, it was not in operation. This is because Doctor Abdul was back in Italy working to raise money for its support and while he is away, there is no one to run the hospital. Because of this forced hospital inactivity, a number of children cannot be cured and dozens of them are without hope. We did meet Doctor Jama, the centre's director, who recorded a video on which he thanks all the radio amateurs who sent help to the hospital, and he invites them to pursue this solidarity operation. Please visit www.i2ysb.com/comsed/index.htm for more information. 

The NCDXF Educational Fund

In late 1997 Don Doughty, W6EEN, funded what was to become the NCDXF Educational Fund with a \$20,000 donation. Our agreement with Don was to keep the corpus of the fund whole and use investment returns and additional contributions to provide scholarships to young Amateurs to further their education in schools of higher learning. We decided not to limit applicants to universities, but to include trade schools and junior colleges as well. We do require some evidence of an interest in DXing.

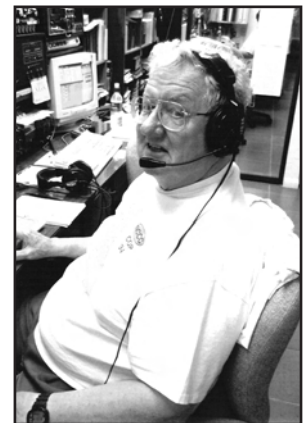
Over the past eight years we have funded, in \$1,000 to \$2,000 increments, a total of \$20,000 to 12 student applicants.

In 2005 we turned over the applicant administration to the ARRL and they received over 140 applications

for educational grants.

We believe that higher and advanced education is very important and we want to continue to support more and larger scholarships. If you agree and wish to designate any portion of a contribution to this endeavor, please contact Bruce Butler, NCDXF Treasurer, at W6OSP@aol.com.

For a glimpse at the current scholarship recipients, please turn to page 13.



Don Doughty

403T – Montenegro DXCC

Bob Grimmick, N6OX

Four Oscar Three Tango — this was the call sign used by some 60 operators to celebrate the independence of Montenegro under the International DX Festival organized by Ranko Boca, YT6A.

Ranko, YT6A, quickly enlisted a core group as his organizing committee in order to achieve a successful outcome to the DX adventure. His committee consisted of himself, Dragan Djordjevic, YT6Y; Kele (Vladan) Kecman, YT3T; Linda Churma Sumner, KA1ZD; Dave Sumner, K1ZZ; Wayne Mills, N7NG; Marti Laine, OH2BH; Hans Blondeel Timmerman, PB2T, and myself, Bob, N6OX. Each member played an important role in developing the goals and objectives of the three-week-long International DX Festival to be held in July 2006.

The country

Montenegro declared its independence on 3 June 2006, and on 28 June the United Nations General Assembly acknowledged the independent status of Montenegro, thereby paving the way for a new DXCC country, number 336.

Formerly one of the six Yugoslavian republics, Montenegro has a population of 640,000. It is located in the southeastern part of Europe, bordering Albania to the southwest, Serbia to the northeast, Bosnia-Herzegovina

to the northwest and Croatia to the west; her beautiful coastline along the Adriatic Sea is to the south.

The country is rich in history and its natural beauty is only surpassed by the friendliness of its people. Montenegro is accessible by all modes of travel within Europe and is even relatively easy to reach from the U.S.

The locations

The radio operations were established in three separate locations — Obosnik, Klinci and Bar — each offering a very different set of operating environments.

Obosnik is on a mountaintop situated on a peninsula rising approximately 600 meters above sea level and is home to the Sky Contest Club station. This is a world-class contest station and is the result of Ranko's

dedication to Amateur Radio. This location is best described as a full size house built exclusively for Ham radio contesting and it's the only house in the neighborhood! The Sky Contest Club station served as our central location throughout the DX Festival.

"I survived the road to Obosnik" was a slogan adopted by many who traveled the rocky trail up the hill to Obosnik, accessible only by four-wheel-drive vehicles. Top speed driving to Obosnik was about 10 mph after we spent almost an hour of non-stop bouncing, rocking, jerking, rolling and banging around — it was an unforgettable ride to say the least. Upon arrival at the top of Obosnik, we were greeted by the fantastic set-up at the Sky Contest Club station. Multiple towers with antenna stacks everywhere and operating positions inside satisfied everyone's dream of operating from a world-class station. This would be the central command headquarters for the festival.

Klinci, the second operating facility, was a former military base overlooking the entrance to Kotor Bay and a very good operating location in its own right. Klinci is located on the way to Obosnik so it was the initial meeting point and a secure area for parking vehicles before traveling "up the hill" to Obosnik. As one might expect from a military installation, the facility reminded me more of boot camp than a DX festival. The antennas and radios were set up in typical



Above: Ranko, YT6A, working on logs.
Left: Terry, F5MOO, working all of Europe in big SSB pileup.



(Left) Pertti, OH2RF, using Armstrong method to rotate 6 Meter beam. (Right) Ranko, YT6A, giving instructions to antenna crew erecting 2 Meter stacked array.

Field Day fashion.

The third location was near the town of Bar, the major seaport of Montenegro. Bar is also well known for its radio history as Marconi used Bar for one of the early sites where he conducted his wireless radio experiments. How thrilling it was to think that we were in close proximity to the same operating QTH as Marconi. Our operating location was a commercial maritime radio site just outside the city limits and their commercial antenna array and vertical antennas provided excellent results for our transmitting station. During our second week of operation we installed a receiving antenna that, as you might expect, was a tremendous help in receiving signals on the low bands.

The operation

Ranko is very dedicated to our hobby and he recognizes the need to bring young people into our Amateur Radio. In this regard, 18-year-old Nikola Ilic, YZ6AMD, made the first QSO.

A multi-national team of some 60 operators came together over the course of this three-week operation. The success of any large scale DXpedition is directly related to the skill and ability of its entire team and the 4O3T team demonstrated its ability to work together under a variety of conditions and operating problems. Despite a few logistical problems,

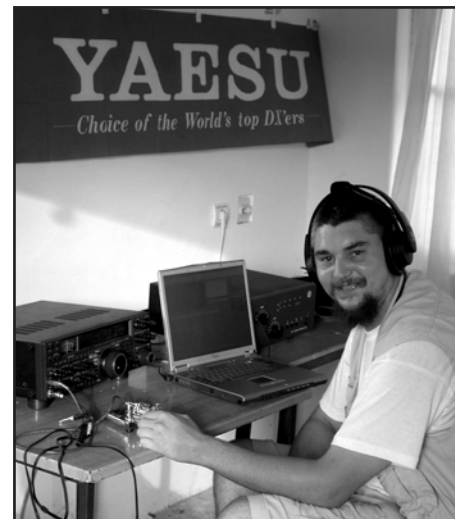
power failures and occasional lightning and thunderstorms that caused some amazing static crashes on the bands, everyone worked in harmony to produce a truly successful International DX Festival.

The operators responsible for this event include Emir Mahmutovic, 9A6AA; Markus Van Bergerem, DJ7EO; Franz Langner, DJ9ZB; Dietmar Kasper, DL3DXX; Felix Kuntzsch, DL7FER; FØGYT, Terry Bodin, F5MOO; Nigel Cawthorne, G3TXF; Mauro Pregliasco, I1JQJ; Massimo Mucci, I8NHJ; Valeria Pregliasco, IK1ADH; Andrea Panati, IK1PMR; Luciano Nanni, IK8HBA; Claudia Fava, K2LEO; Richard L. Gelber, K2WR; Bruce Butler, W6OSP; Nick Iconomoff, LZ1JY; Jordan Radkov Yankov, LZ2UU; Stefan Kaiser, OE8SKQ; Lena, OH2BE; Pertti Turunen, OH2RF; Pekka Holstila, OH2TA; Milan Cerny, OK3AA; Luc Kerkhofs, ON4IA; Karel Noerman, ON5TN; Anton Mandos, ON6NL; Rein Couperus, PAØR; Zbugbuew (Zick) Wojtysiak, SP3BJK; Robert Lusnia, SP5XVY; Przemek Wojtysiak, SQ3RX; Braco, T94J; Darko Rusman, T95A; Andrew Chesnokov, UA3AB; Victor F. Pronin, UA4HBW; Alex, UA4HOX; Venci Ristov, Z32AF; Jane Atanasov, Z35G; Darko Obucina, YT1RX; Slobodan-Boban Kojic, YZ1AU; Toma Petrovic,

YU1AB; Zoran Mladenvovic, YU1EW; Milan Milovanovic, YU1ZZ; Veso, YU6A; Ilija, YU6AY; Goran, YU6GS; Milojka, YU6YL; Zeljko, YU6ZD; Boro, YU6ZZ; Sava, YT6PS; Grebovic Zeljko, YT6ZMG, and Nikola Ilic, YZ6AMD.

“Thanks for the new one,” was a common reply given to the operators of 4O3T, and that is really what it is all about. Like the conductor of an orchestra, it’s sweet music to the operators of any DXpedition. The final count: over 117,000 QSOs.

On behalf of the entire 4O3T team, we extend our sincere appreciation to all of you for working us and especially our sponsors: Yaesu, SteppIR, Acom and NCDXF.



Karel, ON5TN, giving the Yaesu FT2000 a workout.

W9DXCC supports NCDXF – again!

Al Burnham, K6RIM, VP, NCDXF

If you haven't attended W9DXCC near Chicago, Illinois, you might wish to add it to your DX convention itinerary. It's held every year in September; this year, it was held on Saturday, 16 September, at the Holiday Inn in Elk Grove Village, Illinois. There is a free shuttle from O'Hare, and the ride is only about 30 minutes, so this is a convention that's very easily accessible.

W9DXCC attracts a large crowd of the deserving; about 300 people attended this year's event. There were lots of nice prizes and excellent programs throughout the day, not to mention the evening banquet, featuring Bob Allphin, K4UEE, with a colorful and fascinating program on the Peter I DXpedition, 3YØX.

The grand prize was an Icom 756 Pro III; the raffle prize was an Icom 7000. Tickets for the raffle prize were sold for \$1 each, with all proceeds

donated by W9DXCC to the NCDXF. This year W9DXCC raised \$2,170 for NCDXF, and over the last five years W9DXCC has generously contributed almost \$9,000 to NCDXF.

Attendees were predominately from the Midwest, but included




(From left) NCDXF VP Al Burnham, K6RIM and W9DXCC Chairman Bill Smith, W9VA, pose with lucky winner Frank Baker, KWØL, holding his prize.



Al Burnham, K6RIM (right), accepts a check from Bill Smith, W9VA, for the raffle proceeds.

two officials from NCDXF (myself, K6RIM and Tim Totten, N4GN), as well as others from assorted locations.

It's a very friendly crowd, and well worth your time to attend! 

Meet our webmaster

Doug Bender, WW6D, was born and raised in Nebraska. While working for his First Class Scout and Radio Merit Badge, his "Elmer," Gary, KØSRV, said that all he needed to do was study a bit more and he'd have his Amateur Radio license. That didn't take much convincing. Gary was an enthusiastic teacher, an avid builder (much of his Ham shack was homebrew) and antenna designer. Doug was subsequently licensed as a Novice with the call WNØJRB in 1964.

In those days, the Novice class only ran for a year and was nonrenewable. So, working with his uncle, Fritz, KØFPB, Doug improved his code speed and studied more. He then took and passed the General Class exam in Omaha the following year and received the call WAØJRB. His dad, Wally, became a Ham in the '70s and holds call WBØGXT.




NCDXF President Len Gerald, K6ANP (left), and Vice President Al Burnham, K6RIM (right), present Doug Bender, WW6D, with a plaque honoring his untiring efforts as an advisor and webmaster for NCDXF.

After moving to California in 1980, the DX bug bit when he met Lyle Meek, W6WF, and Len Gerald, K6ANP, both members of the Redwood Empire DX Association (REDXA). Both Len and Lyle were officers in the NCDXC Club and Doug

needed to obtain DXCC to join. He was quite impressed with both clubs and worked DX every spare moment he could, even making trips home from work during his lunch hour.

Subsequently, Doug has gone on to work more than 275 countries, mostly on CW. He has served in all board positions with REDXA except Secretary/Treasurer. He is currently the REDXA webmaster and their contest chairman. His Amateur Radio interests are primarily HF, including chasing DX (of course), contesting, building and restoring, and antenna design. He also combines amateur meteorology with Ham radio by checking into the California Weather Net for the past 18 years and serves as an occasional NCS.

Doug is a retired electrical engineer. He spent 25 years working for Hewlett-Packard and its spin-off, Agilent Technologies, as a marketing engineer and as a software development engineer. 

Northern California DX Association 2006 Scholarship Profiles

William Fisher, W4WJF, Vale, NC



A graduate of West Lincoln High School in 2005, William is currently ranked first in his class of 3,972 at North Carolina State University (NCSU), having achieved the Dean's List in his first semester.

William is a member of the NCSU Amateur Radio Society, the Carolina DX Association, the AA4ZZ Contest Team and Lincoln County RACES/ARES. Introduced to Amateur Radio by his father, William holds an Extra Class license and currently operates on 2, 6, 10, 15 and 20 Meters on SSB and CW. With an eye toward a career as a computer engineer, William is studying computer and electrical engineering.



Jonathan Jewell, KI4ETM, Paducah KY



As an honor student at Lone Oak High School, Jonathan carries a 3.6 grade point average. He received numerous awards during high school including Who's Who among American High School Students and the President's Award of Educational Excellence. Holding a General Class Amateur Radio license, Jonathan joined

ARES in March 2004 and participates in Field Day and local Emergency Power Events and enjoys Digital modes, DX and rag chewing on 2 and 80 Meters. Jonathan plans to pursue his interest in power generation and electronics with a major in mechanical engineering at the University of Kentucky College of Engineering at Paducah.



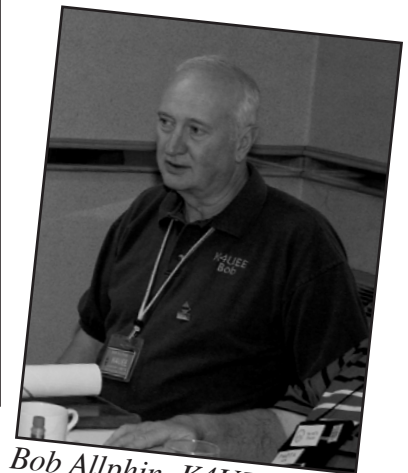
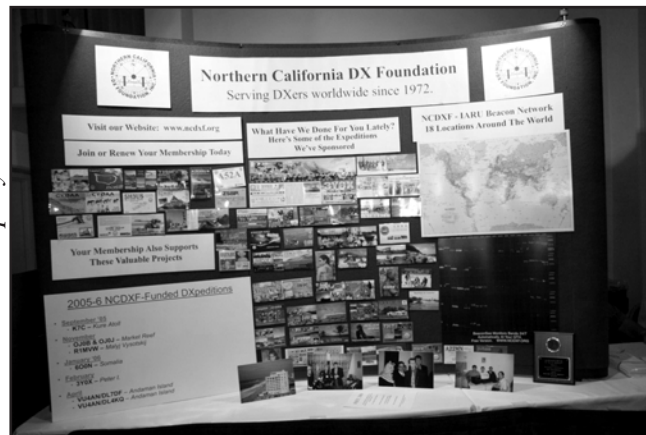
NCDXF at Visalia — 2006

Photos by Dave Pugatch,
KI6WF

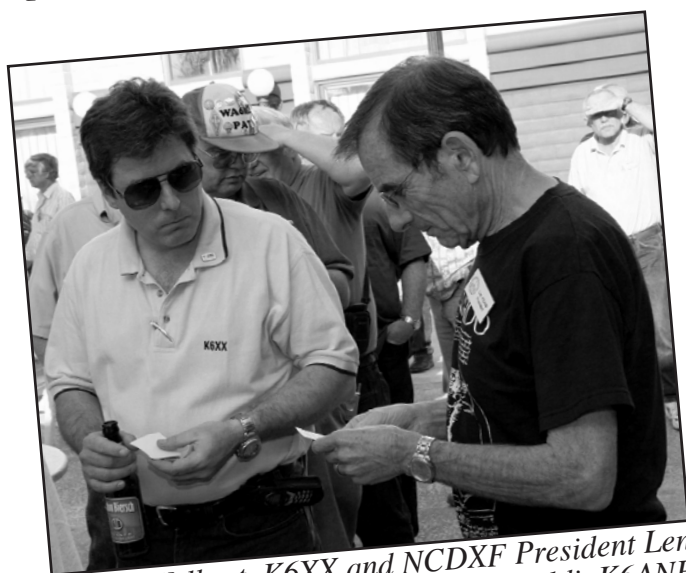


Tim Totten, N4GN

The NCDXF display table



Bob Allphin, K4UEE



Bob Wolbert, K6XX and NCDXF President Len Geraldi, K6ANP



NCDXF VP Al Burnham, K6RIM



Len Geraldi, K6ANP and Steve Merchant, K6AW

Pacific DX group

Kimo Chun, KH7U

Unlike my first trip to Palmyra Atoll, via an eight-day boat trip, my return in November 2005 took just over four hours aboard a chartered Grumman/Gulfstream G-1 turbo-prop plane from Honolulu, HI. The plane carried supplies along with two Nature Conservancy staff members, Mike Gibson, KH6ND, and myself.

Background

Part of the Northern Line Islands, the atoll is located about 1,000 miles south of Hawaii and about 5° above the Equator in the Pacific. Cooper Island, with a 5,000-plus-foot landing strip (a WWII remnant) and a scientific research station, is owned and run by The Nature Conservancy (TNC) in conjunction with the U.S. Fish and Wildlife Service. The camp on the island was converted from first class tents to permanent wood structures to include a research lab, offices and support facilities.

This trip was part of an ongoing effort by Pat Guerin, NH6UY, and myself, to support the efforts of TNC by providing free communications support (technical, labor and some material) for their facility. This is a continuation of a project

started by Chuck Brady, N4BQW (SK), and executed by the Kingman Reef – Palmyra DX Group culminating in the Kingman Reef 2000 DXpedition. Through our continuing relationship with TNC, I hope we can gain some support for others to be able to operate from this island paradise

as well. While on the island, we do as much DXing as our limited spare time allowed. We are lucky to be able to support them in a worthy project and be allowed to give out contacts while we are there; a privilege that could easily be permanently revoked.

On previous trips, we installed a 53-foot, Rohn 25 tower along with HF dipole antennas, VHF antennas and weather equipment. Amateur dipoles and a deployable HF vertical were also left there along with amplifiers and transceivers.

We spent many months planning our 2005 trip as it was to be more than just annual routine maintenance to work on computers, marine communications, satcomm and Amateur Radio gear, and I wanted to spend more than the usual 24 to 48 hours on the island.

On prior trips we worked all day and into the night, then stayed up as long as possible to get a few hours in on the radio before we left, exhausted, the next day. We had several extensive projects planned for this 2-week trip; one was to put up a second tower and create a second operating position. Not being on the island to plan this, however, required email correspondence with the island manager so I could have a concrete foundation and material ready. I also took advantage of the annual supply barge earlier in the year to transport



Mike Gibson, KH6ND, stands by his operating position in the Yacht Club, which is adorned with mementos marking stopovers by visitors over the years.

tower sections and other heavy material that I knew we would need.

Another priority was better antennas and fortune smiled on us: two SteppIR BiggIR antennas might possibly be available. A team was using the new SteppIR antennas on Kure, two of which were the BiggIR 6M through 40M verticals. With the help of Mike Mraz, N6MZ, and his petitions on my behalf to the NCDXF to sponsor the antennas, we were able to acquire the two verticals after the K7C Kure DXpedition.

Palmyra again

Finally, we landed on Palmyra in early November 2005. Mike and I took inventory of the supplies that had been accumulated from the barge trip, previous flights and those we brought with us. We agreed to start work the next morning, but getting a station on the air that night was our first priority. Retrieving and assembling a Cushcraft R-7 vertical from storage, we clamped it to a tower guy anchor support buried in a concrete pier at the lagoon's edge.

The island has a varied supply of construction and tool supplies, but we couldn't count on having everything so most of the critical supplies were sent in advance or brought with us. It's funny how every scrap of galvanized cap screw, threaded rod and eyebolt that I picked out of my



Kimo Chun, KH7U, takes a break from work to go snorkeling at the atoll's pristine coral garden.



One of two SteppIR BiggIR verticals donated by NCDXF is hauled up the tower. Its tip is about 100 feet high, making it one of the tallest things on the island.

junk box ended up being used on one project or another.

Over the next couple of days we erected a short tower next to the warehouse, bolting it to the building using an 8x8 wooden crosspiece attached to two vertical legs of the tower and a support column of the building.

We also installed a new mast and marine VHF antenna through the roof of the patio outside the lab. Mike fashioned block clamps out of 4x4s while I added cross bracing to the gable end roof truss. Seven of my cap screws and threaded rod pieces did the trick.

We assembled one of the BiggIRs and temporarily placed it on another pipe near the tower anchor at the pier. It was a test bed to see if we could make the antenna work predictably before putting it up on the Yacht Club tower.

Myriad tasks on several projects took place simultaneously in preparation for jobs to be done the following week.

- A new anchor eye was epoxied into a concrete base for guys as the WWII-vintage steel piece we had been using was about to give out.

- A new anchor pipe was installed in another concrete pier to give us a better angle for the guy and prevent

it from going under water at high tide.

- We blocked and braced a warehouse roof truss and installed a support pipe through the roof for the second BiggIR vertical using the steel skin of the warehouse as the ground plane.

Operations

Nightly we operated using the two BiggIRs plus a full wave 80M delta loop we erected in the top of a Norfolk pine behind the Yacht Club. Mike operated in the WAE RTTY contest the first weekend we were there. He also



Nature Conservancy employee, Todd Anderson, lends a hand to install the antenna support mount for the warehouse roof antenna.

tore off CW QSOs as fast as he could (which was quite fast).

As I'm the lesser CW operator, I planned to stay on SSB most of the time at the second station.

Most of the time the noise at night on 20M and 40M was anywhere from S5 to S9, making it difficult to copy stations, and we got a lot of requests for repeats, causing rates to suffer. Mike did better on CW, as evidenced by his recording twice as many QSOs in his log than I did.

I only managed one day-time period of operation — a 2-hour stint when I stole into the office during a lull in our work and got "trapped" into working pileups until my absence was noticed.

The second week was spent working on the existing tower by the Yacht Club. We stripped the tower of antennas, raised it higher by two sections, making it 73 feet, re-guyed it and installed the BiggIR on top with their marine VHF on the side of the tower and the marine SSB fan dipole lower down on the tower. In doing so, we got the vertical above most of the trees.

We managed to get the BiggIR up on the tower the day before we left, however, guying it and setting the elevated radials did not get finished until just before the plane arrived to pick us up. We had interspersed those tasks with cleaning our rooms, packing equipment for storage and getting our gear together to take home.

We made around 7,400 QSOs on that trip. Conditions were not favorable for working EU, but we made as many as we could. The lion's share of the contacts were with Asia, and a number of U.S. mainland Hams figured out that we were only operating at night and that they'd have to catch us in the wee hours of their night and morning.

We would like to thank NCDXF for sponsoring the antennas and SteppIR for supporting their product so well. Kudos must also go to the KH6ND/KH5 QSL manager, Ralph Fariello, K2PF, and KH7U/KH5 QSL manager, Bev Yuen, AH6NF. As we have a permanent QSL card for these trips, many QSLs went out immediately.

Aloha and thanks for the support.



Kimo, KH7U, and Mike, KH6ND, stand atop a WWII-era building, now overgrown by plants. Kimo points to where Mike operated from a tent for several months in 2000 and gave out 24,000 QSOs.

DXPEDITION LENDING LIBRARY

The NORTHERN CALIFORNIA DX FOUNDATION has a number of VHS/DVD videos and Microsoft® PowerPoint presentations on CD-ROM available for loan to organizations wishing to show them at their meetings. There is no charge for using programs in the FOUNDATION's library, but clubs borrowing materials are responsible for postage in both directions. If your request is received no later than two weeks prior to your meeting, it will be sent "Special Fourth Class" (\$1.75 for one video, \$2.25 for two); otherwise it will be sent "Priority Mail" (\$4.25 for one video, \$4.50 for two). Please give the name of the club, your meeting date and an alternative selection in case your first request is not available. Please return all material promptly so that it will be available for others. Mail your request to Dick Wilson, K6LRN, PO Box 273, Somerset, CA 95684-0273, USA; e-mail k6lrn@arrl.net.

The following is a very abbreviated listing of videos, DVDs and CD-ROMs; for a complete listing of programs available for your club's use, please visit our website, www.ncdx.org, and click on "Videos."

For items 1-109, please visit website, www.ncdx.org

- | | | |
|--|--|---|
| 110. Ham Radio Olympics (WRTC 2000) | 114. VP8THU South Sandwich, 2002 | 121. Banaba T33C 2004 (VHS/DVD) |
| 111. K5K Kingman Reef, 2002 | 115. VP8GEO South Georgia, 2002 | 122. TJ3FR/TJ3SP Cameroons (VHS/DVD) |
| 112. D68C Comoros Islands | 116. WRTC 2002, Finland | 123. FT5XO Kerguelen 2005 (DVD) |
| 113. I2UIY Niger/5U 2001 & 2002 (PowerPoint) | 117. 3XY7C Guinea 2002, DL7DF | 124. K7C Kure Atoll DXpedition 2005 (DVD) |
| | 118. K4UEE Top Expeditions | 125. 6OØN Somalia 2006 (PowerPoint) |
| | 119. 3B9C Rodrigues (VHS/DVD) | |
| | 120. TN3B/TN3W Congo 2003 (PowerPoint) | |



Return Service Requested

NORTHERN CALIFORNIA DX FOUNDATION
P.O. Box 1328
Los Altos, CA 94023-1328
USA

Presorted
First Class
U.S. Postage
Paid
Permit No. 2840
Sacramento, CA