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VU4KV — Andaman & Nicobar Islands

Deepak Pathak, VU2CDP, Nand Kishore, VU2NKS, and Prasad Rajagopal, VU2PTT

THE IDEA OF RE-ACTIVATING Andaman after the successful VU7AG expedition of 2013 was not entirely our own. Krishna Kanakasapapathi (Krish), W4VKU, had been asked by many to consider putting VU4 back on the air especially since VU4 had climbed back into the Top 50 Most Wanted after being activated in 2011 (VU4PB). The demand for VU4 continued to remain high in North America East Coast from where it is a polar path. While VU4PB had had success in handing out a new one to many, there were still many hams looking for VU4 on many bands.

The idea germinated inside Krish's head and he undertook a solo trip to Port Blair, capital of the Andaman and Nicobar Islands, in March 2014. He even managed to get an operating permit approved and signed VU4K on the bands for a week while building up contacts for a multi-op effort. The benefit of hindsight was with him this time, having been a member of the VU4PB operation. The challenges of operating from Port Blair were well-known and therefore a new OTH had to be identified. At the same time, there was a fair bit of persuasion

from the IOTA community to consider putting the Nicobar Islands on the air. While they constitute the same DXCC entity, the Nicobar Islands are a separate IOTA group. A restricted group of islands where entry to Indian nationals too is difficult, getting permission from various agencies was always going to be a monumental challenge. But if there was one person who could make

> it happen, it was Krish, and he had the backing of the team as well as lots of support from friends across the world.

Putting it together

The challenges were nothing short of significant, especially with Nicobar thrown in the mix. Though the Anda-



mans are a popular travel destination, getting an operating licence remains an issue. The application had been submitted to New Delhi well in advance to avoid surprises at the last minute. The factors that were going to have a major impact on the overall expedition were operator availability, logistics and propagation.

The most significant among the above listed was the IOTA activation from Nicobar. There is a great deal of uncertainty in getting to Nicobar. Trans-

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From the President's desk

THE INTERNATIONAL DX CONVENTION (IDXC), held every April, is an annual marker for NCDXF. We hold a face-to-face board meeting, greet and thank volunteers who help make the Foundation run, and hold elections for directors and officers. We review the previous year's activities and we set our priorities for the coming year.

Between IDXC 2014 and IDXC 2015, NCDXF granted a total of \$175,000 in support of six DXpeditions, four of which have



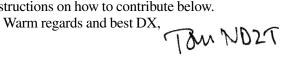
not yet been QRV. The amount of money we grant is an output measure; I much prefer outcome measures. During the same period, IDXC 2014 to IDXC 2015, NCDXF-supported DXpeditions put almost 400,000 QSOs into their logs. Not until a DXpedition puts QSOs in their log do we deliver value to our contributors.

So we choose our DXpeditions carefully. Our mission is to provide necessary financial support for well-organized DXpeditions to the rarest, most expensive, most difficult DXCC entities. When we evaluate a proposal, we also do research and get answers to many questions, amongst them are How rare is the entity? Can they get there and back safely? Do they have all necessary landing permissions and licenses? What is their operating plan? Who are the operators? What equipment and antennas are they taking? Do they really need our money?

A DXpedition to a rare entity is a huge undertaking and there are few among us who can put it all together. One feature of the banquet at IDXC is the stand-down or "last man standing" event where top DXers are recognized for their considerable lifetime achievement. My hat is off to the folk who stand long. Their big numbers always make me consider how far I have yet to go. But no one would be on the Honor Roll, much less at the Top of the Honor Roll, if it weren't for the efforts of DXpeditioners, many of whom are supported by contributors of NCDXF.

So next year, and every year, at the IDXC banquet in Visalia, and at the DX Dinner in Dayton, and at DX dinners and at DX clubs everywhere, I would like to see an additional stand-down. "Would everyone who has ever been on a DXpedition, please stand up." "Give these people a round of applause." "Stay standing if you went to a top 100 entity." "Stay standing if you went to a top 25 entity." "Stay standing if you went to a top 10 entity."

NCDXF delivers value when DXpeditions we support get on the air and put QSOs in their logs. No matter where in the world you live, you will be welcomed in NCDXF. DX propagation does not end at state or national borders. Please find instructions on how to contribute below.



CONTRIBUTIONS NCDXF relies heavily upon the generosity of its contributors to fund various projects. We ask you 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! 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. Send your contribution to: NCDXF, P.O. Box 2012, Cupertino, CA 95015-2012, USA. You may also contribute and order supplies online via our secure server, visit www.ncdxf.org/donate.



From left: Chetan, VU3DMP, on SSB; Deepak, VU2CDP, using N1MM+ with a TS 590 and a microHAM interface (all the equipment worked flawlessly), and Kiran, VU3KPL, got his first taste of a DXpedition pileup.

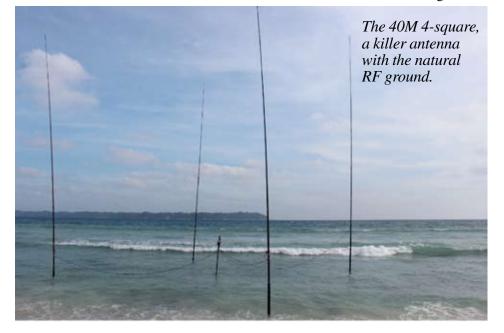
portation is either via a boat (cheap, but not very comfortable) or a helicopter (expensive, limited seating, low priority for visitors). Both these modes of transport have very fluid schedules that can change on a short notice, so advance reservations weren't possible. Add to this the entry permit, which is issued only after submitting an application along with a statement of purpose, confirmed place of stay and return journey details. Highly convoluted if you mention "wireless radio operation" anywhere in the application! All this meant there were multiple agencies that needed to sign off, including the Andaman & Nicobar Command, local police and the island administrator's office.

Given the uncertainty of transport and shipping cargo to Nicobar, it was eventually decided that the larger operation from the Andamans would have priority. While the idea of going to Nicobar sounded very exciting to the team members, the final toss-up meant the only operator who could accompany Krish to Nicobar would be Ananth Pai (Pai), VU2PAI. The VU4CB IOTA operation took place between 3-13 November 2014 and the VU4KV operation was scheduled from 16-30 Nov 2014. When a majority of the team assembled in Port Blair on 15 Nov, we had our first drop out, Pai, VU2PAI, who had to fly home.

Then there was the challenge of moving over $2\frac{1}{2}$ tons of gear to Neil Island.

Our QTH

Neil Island was chosen because of the availability of beach property and a reliable power supply. The property was a resort with comfortable rooms, at a tariff that wouldn't break our budget, and a backup generator. The resort's owner was kind enough to let



us put antennas up on his property, and ensured we were well taken care of during our stay. These are important factors in the success of any operation even though they may not seem critical from a technical aspect.

Our challenge was going to be transporting equipment and personnel on time. When the 2½ tons was noticed by the port staff in Port Blair, it led to signing of a few papers and guarantees that these were for the purpose they were



Corroded connectors after 10 days in the sea. A very small price for extra db.

intended. The Octroi Tax waiver was critical and meant that all paperwork had to be in order. Having taken care of that with our on-site liaison, transportation to Neil Island was the next task. The local ferry refused to take our luggage on board, even on multiple trips. We had been told that shipping any amount of cargo wouldn't be a problem, but that wasn't they way it was turning out. Professional cargo companies were quoting a bomb and we had struck those options even before departing. The next best option was to hire a local fishing boat, at a fifth of the price of a proper



Pictured, from left: Kumar, VU2BGS; Nandu, VU2NKS log on RTTY, and Krish, W4VKU, "Thank you, NCDXF!"

cargo boat, which actually turned out to be more reliable as the boat owners had contacts on Neil who could help unload the cargo. The same risks that were applicable to a professional shipping company were applicable here, minus the extra insurance cost.

Deepak, VU2CDP, was already on Neil before the rest of the team arrived and once the equipment arrived, along with Kiran Padiyar, VU3KPL, and Nandu, VU2NKS, they got down to getting everything ready for installation. Krish arrived along with Gajendra Kumar, VU2BGS, and Sangeeth Musaliar, A45WH, and pretty soon they were busy in the sun putting up the VDA antennas for 20M-10M. By the evening of 16 Nov, VU4KV was QRV with two stations with the first QSOs being made on 15M. The remaining station setups continued through the night and the following day the vertical arrays started to go up starting with 30M. Chetan Pujara, VU3DMP, joined the team a day later followed by Prasad, VU2PTT, on 19 Nov.

The team was further hampered when Sangeeth, A45WH, received a phone call requiring him to fly back home immediately; the team was now down to seven operators.

The antenna setup was eventually completed with some local help and we had 2-element phased arrays for 80M and 30M, a 4-square for 40M, a toploaded vertical for 160M and a Hex-Beam. The HexBeam, unfortunately, was no match for the VDAs which were performing amazingly well near the salt water.

The remaining days passed by in a blur with an operating roster that left very little time for any kind of sightseeing or side activities. There was one evening though when we had to shut



The cottages at Tango Beach Resort had comfortable air-conditioned rooms that were a big plus in the heat and humidity of the Andamans.

down operations because of a huge thunderstorm, a forced break which was welcomed by the operators. The static build up was so high that one of the operators got a jolt when disconnecting the coax, making him jump at least a foot high. There was a lot of lightning



Sangeeth, A45WH (VU2WH) and Prasad, VU2PTT.

and thunder that particular evening and it caused concern because the phased verticals were in the water and the tide had come in. Thankfully, no equipment was damaged. A couple of days later, when VU2CDP was about to end his shift at 6 a.m., he felt a sudden loss of balance as the laptop appeared to slide on the desk, or was it the chair, he couldn't recollect. He attributed it to lack of sleep and fatigue but continued operating 30M. It was only later, when he got out for some sunlight that he was greeted by VU2BGS who asked something like, "So, young man, did you feel the tremors?!"

The Andaman & Nicobar Islands experience tremors quite frequently, most of them quite mild. The entire belt is seismically sensitive and the worst example of this was the 24 Dec 2004 earthquake and ensuing tsunami that caused incomprehensible damage. Ten years later, the islanders have learned to treat tremors without alarm and go

Band	CW	PH	RTTY	FM	Total
160	321	0	0	0	321
80	1,816	3	0	0	1,819
40	2,641	1,965	573	0	5,179
30	3,428	0	1,034	0	4,462
20	2,836	3,276	1,316	0	7,428
17	2,322	2,536	1,368	0	6,226
15	3,746	3,152	1,076	0	79,734
12	3,897	2,981	1,071	0	7,949
10	4,125	3,524	521	0	8,170
6	0	0	234	38	272
Totals	25,132	17,437	7,193	38	49,800

about their lives nonchalantly. A sign of resilience, though many still recall the tragedy like it occurred yesterday.

Six Meters

We had planned to operate 6M from VU4 since this would probably be our last chance in this solar cycle to do so; however, the whole exercise was not very successful. The rules in India permit 6M operation allowing a maximum power of only 25w and the published modes in the rule book are F1B, F2B, F3E and F3C. Go figure! We had requested the authorities to allow us to operate A1A and J3E modes as a special case but our request was turned down; we had no choice but to comply. Our 6M setup was a homebrewed 5-element Yagi paired with a K3 radio. We made about 200odd QSOs on RTTY and a TS480 radio later gave some very lucky individuals a once-in-a-lifetime QSO with VU4 on 6M FM. Needless to say, this was a very frustrating experience as almost all the 6M QSOs were with JA.

The anomaly in the rules had been highlighted to the authorities well in advance and assurances had been given to us that it would be corrected. At the time of writing this, the proposed correction is still under review.

RTTY

RTTY deserves a special mention here. We have all seen that the demand for this once obscure mode is now on the upswing. What was a nice-to-have mode is now a mainstay with many DXpeditions having dedicated RTTY stations

and specialist operators handing out QSOs to the "digitally deserving." We were fortunate to have Nandu, VU2NKS, as our specialist RTTY operator who managed well over 7,000 QSOs alone. A terrific effort under any circumstances. Nandu mentioned having good pileups well into the last hour of the operation, which coincided with the COWW CW contest.

QRT

VU4KV SSB operations ceased on the Friday before CQWW when Krish and the other SSB operators tore down the phased arrays and left for home. The only antennas remaining were the VDAs for the higher bands and a wire vertical was rigged up for the contest. The idea behind doing the contest was to maximize count of uniques and hand out a rare double-multiplier to contesters. In the end, we finished with 49.8k QSOs and feel that demand for VU4 shall fall down a few places in the wanted lists.

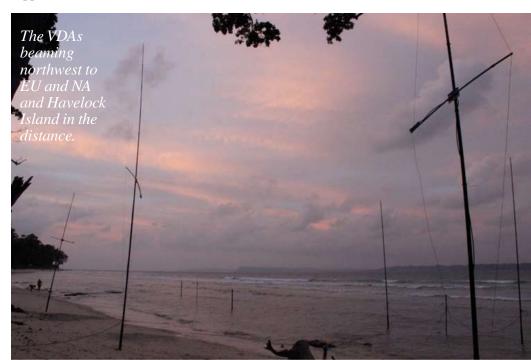
Acknowledgements

As always, a big thank you to the Northern California DX Foundation for making VU4KV and so many other DXpeditions happen. The early financial support received from NCDXF is what actually makes DX happen and this point can't be stressed enough. Thank yous are also in order for the other foundations and clubs who showed their confidence in our abilities and supported us. A special mention of Clublog, which provides DXpeditions with a great tool-set. Right from the planning stages when determining demand is critical to providing an online log search capability and the super-efficient OQRS, Michael, G7VJR, and the team deserve lot of credit.

We would also like to mention the support we have always received from friends like Carl, N4AA. By sharing inputs from his Most Wanted survey as well as sagely advice, Carl is one of the most-liked gentlemen DXers around. A thank you also to our friends Chandra, VU2RCT; YL Sarla, VU2SWS; Sri, KJ4DAQ, and Pai, VU2PAI, whose support was critical in various stages of the operation.

Last and by no means least, a key factor in the overall success of our last two expeditions has been our communications team. Our team of pilots who have taken the flak for us and never allowed criticism to affect us, handled the pressure of demanding dxers and kept us on course to deliver results. Thank you Gary, DF2RG; Mark, N1UK; Stan, KH6CG; Luc, LU1FAM, and Scott, W7XC, you guys were a great support system to have.

We hope you could work VU4KV for either an all-time new one, or a new band-mode country and had fun in the chase. See you again!



Ultimate success with a new entity, EP6T

Kostas Stamatis, SV1DPI

"HEY, WHERE AM I?" I SHOOK MY head as I was in deep sleep. "Oh yes, I'm in an airplane, but which airplane?"

I changed planes eight times to go to Kish Island and back; that was over 20 hours in an airplane plus over 20 hours in a car. I turned my head and I saw Ron Stuy, PA3EWP, beside me. He was also sleeping. I searched for the other guys. I felt better when I counted them one by one.

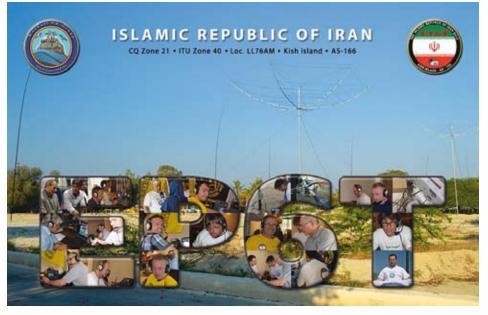
"What an adventure," I told myself, "15 days shrunk to one looong day."

The beginning

Our story started more than three years earlier, when Patrick Godderie, ON4HIL, and the other guys of the Rockall group, decided to put a DXpedition to Iran (EP) as their next target. Patrick made numerous calls, sent hundreds of emails and letters and even made some trips before he was able to finally get a license to operate from Iran and give an all time new one to many Amateurs. Patrick invited me to join the team, giving me the opportunity for a unique experience. Participating in a well-organized DXpedition is a dream for every Amateur Radio operator.

The destination

Iran, once known as Persia, has 80 million inhabitants, but only 13 of them



are Amateur Radio operators with a license to operate (there are more who have a call sign, but are waiting for a license). Our destination, located in southern Iran in the Persian Gulf, was the resort island of Kish (AS166 for IOTA). There, the Amateur Radio community anxiously awaited us and we had that feeling prior to our arrival.

We arrived at Teheran's Imam Khomeini International Airport at midnight on Thursday and then had to endure Customs; we had to open almost every suitcase and explain every item. I think they stopped asking when



The team at the Tehran airport with local Amateurs and Dr. Fard.

they saw more than one suitcase filled with 1,000 meters of wires! When we left the airport, we thought nothing else would stop us.

It was Friday morning by the time we reached our hotel and we had all the documents we needed, so we started to build the antennas. Even though we had been awake for more than 24 hours, our plan was to be on the air late that afternoon. Suddenly a guard appeared and after many questions and negotiations with Mohammed Mobini, EP3MIR (who helped us a lot and he was with us all the time), he ordered us to stop. He said Mohammad needed a license from his boss before we could continue building our antennas. Friday is a public holiday in Iran! So as Mohammed would say, "We have a problem," and we had to wait until noon the following day to get that license. In the meantime, we decided to put up a temporary antenna, assemble the shack and start the operation.

Finally operating

We were on the air and pileups were heavy. Extremely strong Europeans, many Japanese and Russians; unfortunately we worked just a few North Americans with weak signals. We lost Saturday's opening to NA because we



The antennas: 80M vertical, phased array 30M, HexBeam 15-20, HexBeam 17, 4-square 40M and beam 10M.

needed to get the license so we could continue building our antennas.

We were very optimistic that, when we finished the antennas, we would have strong signals everywhere and be able to work everybody. Soon we had three HexBeams (12M, 15M, 17M and 20M) ready, plus a 5el Yagi for 10M, two verticals for 30M, a 4-square for 40M, a vertical for 80M and a 26-meter vertical for 160M. Also a beverage to EU/NA, a K9AY to JA and two more loops for RX. We put over six kilometers of radials there! Besides all the antennas, we had five complete stations with amplifiers, interfaces, high and low power bandpass filters, rx distribution system, combiners, computers, etc.

After the antenna work was finished we were very tired but ready to fill the

radio waves. Everything was going according our schedule. The number of QSOs was quickly growing, pileups were very big, Japan's openings were really good, we worked Europe all day and some Africa and South America were also in the log. Unfortunately, the propagation and our local manmade noise did not help us to hear North America. The signals were low (S3-S5) most of the time and we had a local electrical noise (S9) on some bands. We bought a portable radio to investigate the source of the noise and found the main problem. After fixing that, the noise dropped to S5, and after two more days of searching we found the problem was the charger for an electric scooter.

Many shops rent electric scooters so visitors can explore the island and the scooters are charged during the afternoon and night, the same time we had openings to NA! The closest shop to us was 15 meters from our beverage antenna, but other shops were located 50 and 100 meters away.

Even when the noise broke our morale and became tiring, we still did our best. Then Murphy came again and again. Two power outages lasting a total of 10 hours, and during NA openings. An amplifier that broke during shipping and was repaired by Henk, ON4AHF, stopped working. This is



Operators busy in the shack.



Ronald Stuy, PA3EWP, being interviewed by Iranian TV.

"Insha'Allah" (God willing), any way that does not allow us to work as much North America as we want.

We kept fighting between the pileups, Mr. Murphy's visits and the visits of the many Iranian friends and authorities. We tried to work with the radios in addition to being good hosts; that was the most important. We were not just trying to make QSOs, but also promote Amateur Radio in Iran and we were proud because we made it possible. Now we all will have the opportunity to work again with Iranian Amateurs or conduct future DXpeditions. Dr. Fard, president of Iran's Communications Regulatory Authority (CRA), made this possible. During our departure he was clear, "The second DXpedition will be

easier with less problems, the third better and so on...."

The most important achievement for us is not that we gave more than 68,000 QSOs to fellow Amateurs, but that we planted the seed and we will have the opportunity to hear more and more Amateurs from Iran. We sent books to Iran in Farsi so candidates could study Amateur Radio and we prepared the material for the examinations. We showed Dr. Fard and the CRA how to organize Amateur Radio to be more friendly, and we already have 60 new Amateurs. Some of them visited us on Kish and we have new friends and people ready to satisfy the demand for EP.

My thanks

Personally, I had the chance to be part of a great group. Rockall's DX group consists of wonderful people who are dedicated in what they are doing, well organized and ready to learn from mistakes.

I want to thank Patrick Godderie, ON4HIL, because he gave me the chance; Henk Hinssen, ON4AHF, for driving more than 250 kilometers



Patrick Godderie, ON4HIL, running pileup in SSB.

for me and for his patience in listening; Ron Stuy, PA3EWP, for teaching me how to manage the pileups and explaining everything; Wim Hamblok, ON6DX, for the courage during our flight to Kish on an old airplane; Luc Kerkhofs, ON4IA, for teaching me the low band tricks; Marc Cosemans, ON6CC, for his cooperation with the computers; Marc Michiels, ON4AMX, because he was a perfect roommate; Carlo Houben, ON4BR, for his positive feeling; Franky, ON7UR, for his wife's tiramisu; Mohamed Mobini, EP3MIR, for the high speed connection, and Dr. Fard for his open mind and the way he welcomed Amateur Radio in Iran.

We'll be back.

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DXPEDITION LENDING LIBRARY

NCDXF has a number of VHS/ DVD videos and Microsoft[®] PowerPoint presentations on CD-ROM available for loan to organizations



at their meetings. There is no charge to use the programs in the **FOUNDATION'S** library, but clubs bor-

rowing materials are responsible for postage in both directions. To view the complete listing of programs available for your club's use, visit our website, *www.ncdxf.org*, and click on "Videos."



The team (standing, from left): Marc Michiels, ON4AMX; Carlo Houben, ON4BR; Luc Kerkhofs, ON4IA; Marc Cosemans, ON6CC; Henk Hinssen, ON4AHF; Patrick Godderie, ON4HIL; Ronald Stuy, PA3EWP; Kostas Stamatis, SV1DPI, and Mohammad Mobini, EP3MIR. Kneeling, Beuselinck Franky (Frank), ON7RU, and Wim Hamblok, ON6DX.

Murphy and Eritrea – E3ØFB

Paul Ewing, N6PSE

MURPHY'S LAW IS AN ADAGE OR term that is used when anything that can go wrong, will go wrong. "Murphy" visits most DXpeditions in one form or another; sometimes it's in the form of small nagging issues and at other times Murphy is a major issue, which challenges any team to overcome. Sometimes, no matter how much preparation and testing is done, Murphy is a major impediment to success and only through sheer determination can the Murphy effect be overcome.

Murphy was a constant presence for the E3ØFB team. He showed up in the beginning with two antennas having been damaged in transit. Our ability to get onto the WARC bands was severely impacted until we could repair the antennas. Murphy also allowed one of our laptops to be damaged in transport. Imagine our difficulty in trying to buy a new laptop in Asmara, Eritrea. They do not have any of the big box stores that we so take for granted.

This is the story of the E3ØFB DXpedition and how Murphy was a constant source of difficulty and frus-



tration. This is our story of how we overcame and prevailed.

Why Eritrea

The E3ØFB DXpedition was organized with the aim of supporting Eritrea and its participation in the 2020 Tokyo Olympic and Paralympic Games. In



David Jorgensen, WD5COV, and Dmitry Zhikharev, RA9USU, prepare a low band vertical antenna.

addition, the goal was to assist Eritrea in improving education and health. During our stay in Eritrea, members of our team attended a number of meetings and discussions with the Eritrean government and its representatives. These meetings were very fruitful and this DXpedition was just one aspect of those fruitful meetings. Eritrea is trying to catch up and to compete on the international level with respect to the Olympics and the Paralympics. We were very delighted to help Eritrea be able to compete at this level for the first time in the 2020 Tokyo Olympics.

Eritrea is a small country of six million inhabitants in the Horn of Africa, bordering Ethiopia, Djibouti and Sudan; just across the Red Sea is Saudi Arabia and Yemen.

During the 1870s to 1941, Eritrea was an Italian colony known as Italian Eritrea. That changed in 1941 after the Battle of Keren, where the British expelled the Italians and took control. In the 1950s Ethiopia made claim to Eritrea and, in 1950, the UN made a resolution to federate Eritrea with Ethiopia. In the 1960s Eritrea began a 30-year war of independence with Ethiopia until 1991, when Ethiopian forces were defeated and Eritrea took control



From left: Zorro Miyazawa, JH1AJT, working 10 Meters SSB; David Jorgensen, WD5COV, working 20 CW all across North America, and Tom Kramer, NQ7R working the pileups.

of Addis Ababa, the capitol of Ethiopia. A subsequent UN supervised referendum gave Eritrea its independence in 1993. Since then, Eritrea continues to have border conflicts with Ethiopia and Djibouti.

Zorro's vision

You might say that Zorro Miyawawa, JH1AJT, is a determined man. A successful businessman, philanthropist and humanitarian, Zorro has made a number of visits to Eritrea over the past two decades, including two previous DXpeditions from Eritrea.

Zorro is the founder and CEO of SEISA and the Foundation for Global Children. After their successful efforts



David Jorgensen, WD5COV, Franz Langner, DJ9ZB, and Kazu Fujita, JH1OGX, wrestle our 160 Meter vertical to the roof.

in Bangladesh, culminating with a very successful S21YZ DXpedition, Zorro set his sights on Myanmar, resulting in his DXpedition as XZ1J. This DXpedition was planned to support the above project in the hope that funds would be raised through the Amateur Radio activities. It is these humanitarian activities that have led to the Eritrean government's full trust in Zorro.

Eritrea had not been activated in over a decade and Zorro felt that the timing and conditions were right to make another attempt. Zorro received permission to carry out a demonstration operation as E3ØFB, so with a SteppIR vertical and 100 watts from the roof of the Asmara Palace Hotel, he began to operate.

Being an avid DXer and DXpeditioner with previous DXpedition experiences in Eritrea, Yemen, Ethiopia, Kenya, Bhutan, Bangladesh, Cambodia and Myanmar, Zorro recognized the significance of the elevation of the Asmara Palace Hotel. At six floors, this hotel was one of the tallest buildings in Asmara. It was also located on the fringe of Asmara, next to the airport. The hotel would provide a superb venue for the E3ØFB DXpedition. We would be QRV on 6 March 2015 and we would QRT the morning of 17 March.

On 5 March, the entire team met in Istanbul, Turkey, for our flight to Asmara, making a brief stop in Saudi Arabia on the way. All of our equipment was shipped with us as air cargo at considerable cost. We arrived in Asmara at approximately 2:30 a.m. and were treated as an important delegation,



Kazu Fujita, JH1OGX, wades into the tremendous EU pileups.

being met by various Eritrean government representatives. We were ushered into a VIP section of the air terminal that was more representative of the interior of a palace than an airport and Zorro immediately received a renewed E3ØFB license from the representatives. Soon we were delivered to our hotel, about one mile from the airport.

Setting up

As it was still dark, the team got a little rest and after breakfast we began to set up the various Yagis, verticals and dipoles on the roof of the hotel. We utilized two different rooms on opposing wings of the hotel for our radio shacks.

Since Eritrea is the 20th most-



Dima Zhikharev, RA9USU, working 160 Meters.

wanted entity, we knew we would be facing some very large pileups. On the east wing of the hotel, we set up a Force 12 C3SS for 10-15-20 Meters and a 30 Meter vertical antenna. On the west wing, we set up a two element SteppIR Yagi intended for the WARC bands, as well as a SteppIR vertical for 10-80 Meters. We also used a Cushcraft R8 for 17 and 30 Meters. At the very top of the building, we placed a very tall vertical for 80/160 Meters. We feared that noise might be a problem; however hours later we were relieved to find that the noise threshold was very tolerable and did not face a significant problem.

As was done in Myanmar, we again enjoyed the very nice set of 4O3A high power band pass filters and tri-plexer. This allowed us to run three stations concurrently from our Force 12 triband antenna at 600 watts output. This is amazing technology that works very well and saves a lot of time in setting up only a single antenna for three bands.

Soon we were on the air working Asia and EU with tremendous pileups. It was fun to hear the excitement in the voices of the many SSB callers. Later in the evening, propagation on the high bands shifted to North and South America and it was necessary to ask Europe to QRX as we could work them at almost any time on the higher bands. We wanted to be fair to every region of the globe and to give as many Amateurs as possible a good chance to work a rare and much needed entity. Initially, propagation on the higher bands was exceptionally good. We enjoyed amazing propagation on 10, 12, 15 and 20 Meters, but 17 Meters did not propagate as well as the other higher bands. The following evening, we went QRV

on the low bands and conditions on 30, 40 and 80 Meters were average. We found on 160 Meters that we were being heard much better than we could hear the stations calling us.

Solar flare

On 12 March, there was a monster X-Class solar flare that briefly blanked out HF reception around the globe with additional disturbed conditions in the days following the event. We experienced one day of almost complete blackout conditions. Even working Europe was quite difficult. Bands such as 10 and 12 Meters that had been exceptionally good in the previous days were not productive during the flare. After about a day and a half, conditions improved and we enjoyed good but often fluctuating propagations, much less predictable than the days prior to the solar storm.

A visit to Asmara

During the solar storm, some of the team members decided to make a morning visit to Asmara to get a glimpse of how the Eritreans worked and lived. There is very little tourism in Eritrea and, in fact, the country is seemingly not active in issuing tourist visas.

There was little for a visitor to see or do in Asmara, but we did visit an old Catholic and Orthodox church, a large mosque and the old post office. We strolled through an outdoor shopping area where locals buy their wares and visited a large recycling yard where child labor was very evident. The many horse and donkey carts on the roadway were almost as common as automobiles and trucks.

Operating strategy

Back at the hotel, we had an operating strategy for our first weekend, which coincided with the ARRL SSB contest. In order to avoid contention with the contest, we would be ORV on the WARC bands of 12, 17 and 30 Meters primarily. Our strategy was immediately derailed when we found that we could not easily tune either of our two SteppIR antennas. The SteppIR vertical that Zorro had enjoyed previously was damaged internally and was set aside. The two-element Yagi was also damaged internally; however Dmitry (Dima) Zhikharev, RA9USU, works for a company in Russia that sells and services SteppIR antennas and he was eventually able to repair the SteppIR Yagi where we enjoyed it on 12 Meters.

During the contest, I found myself operating on 20 Meters SSB (Simplex), which was very arduous and challenging and I am sure that many callers thought that I had rocks in my head, but operating simplex was better than not operating at all. As soon as the contest





We were able to run three stations concurrently on our Force 12 C3SS.

was over, we operated split exclusively for the remainder of the DXpedition and it was a challenge to keep our pileups to within 15 Kc wide. Our RTTY strategy was to operate exclusively on 15 Meters and even though our 15 RTTY pileup was still quite large on our last day, this strategy proved quite effective in giving everyone a chance to work this mode.

Soon, we fell into our rhythm, operating around the clock, taking two or three hours here and there for a rest break. We worked hard to keep four stations on the air at all times. David Jorgensen, WD5COV, and Dima, RA9USU, gave particular attention to the low bands, working 30, 40, 80 and 160 Meters each night until our sunrise. Our opening to North America started at about 10 p.m. local time on the high bands and I enjoyed working all across North America, following the propagation from East to West. Our West Coast opening took place each morning at about 3 a.m. and sometimes continued until about 4:30 a.m. where propagation would end with KH6 and VK/ ZL stations. After a few hours rest, we would start all over again working Asia and Europe.

Our challenges

Our challenges were many and varied. It was quite challenging to keep four stations on the air 24-7 with a small but capable team. Each team member was pushed to his limits to balance

operating, eating and sleeping and being ready for his next shift. Murphy visited us many times on this DXpedition. We saw antenna failures and laptop failures and Zorro had to shop around in Asmara for a replacement logging laptop. Each time Murphy visited us, we battled back with skill and determination, not willing to give in.

Meters, the interstation interference was extreme and we immediately had to shut down 80 Meters until we could resolve the issue. Dima, RA9USU, and David, WD5COV, did a lot of fine tuning to enable 80 Meter operations without adverse impact to our other operations.

This was a fun and enjoyable DXpedition. Many of the team members had operated together previously and our skills and styles complemented each other. Everyone was focused on making an impact to the need for E3 contacts. We are pleased to have been able to make 64,500 contacts with 20,326 of them being unique callers. We are very grateful to the Northern California DX Foundation and all of our foundation, club and individual sponsors.



A very proud E3ØFB team (from left): Paul Ewing, N6PSE; David Jorgensen, WD5COV; Thomas Kramer, NQ7R; Zorro Miyazawa, JH1AJT; Jay Oka, JA1TRC; Dima Zhikharev, RA9USU; Franz Langner, DJ9ZB; Kazu Fujita, JH1OGX, and Yuki Uchiyama, JH1NBN.

When we initially activated 80



Left: At the 2014 Annual Meeting, the NCDXF Board authorized a grant for scholarships for young contesters to attend the Contest University at the Dayton Hamvention. Shown in the photo (from left) are Tim Duffy, K3LR, founder of Contest University, and the four "students" who attended in 2015: Teri Grizer, K8MNJ; Thomas Getz; Ryan Cutshall, KD9DAB, and Neil Rapp, WB9VPG.

Right: VKØEK Heard Island organizer Bob Schmieder, KK6EK (left) receives NCDXF's contribution of \$50,000 from Rusty Epps, W6OAT; Tom Berson, ND2T, and John Miller, K6MM.



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