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EUROPEAN DX FOUNDATION E.V.

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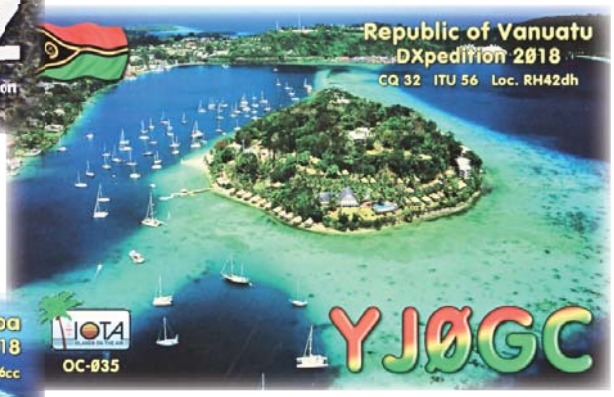

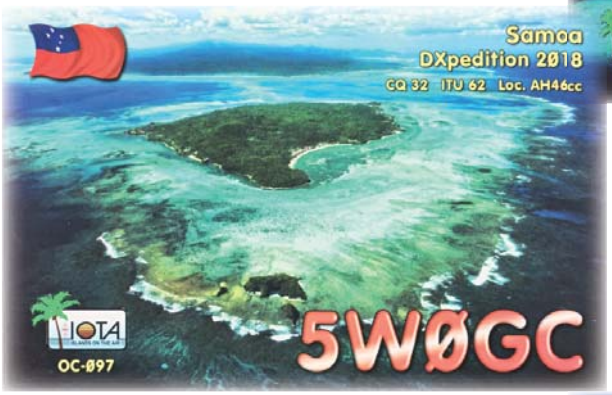

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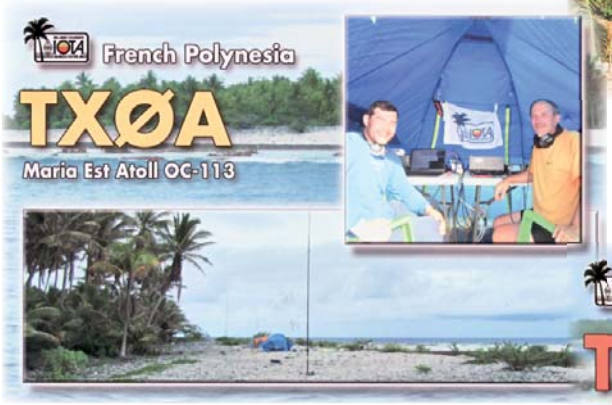

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Imprint

EUropean DX Founation e.V. – President: Dominik Weiel (DL5EBE), Kirchweg 13, 49356 Diepholz, Germany, e-mail: president@eudxf.eu, **Boardmember:** Ronald Stuy (PA3EWP), Hans P. Blondeel Timmerman (PB2T), Prof. Dr. Achim Rogmann (DF3EC), Jan B. C. Harders (DJ8NK), **Officemanager:** Alex van Hengel (PA1AW), **Standmanager:** Jan Stadman (PA1TT/DJ5AN), **Cashier, Office DL and Printing Support:** Robert F. Lörcks (DL1EBV), **Webmaster:** Alex van Hengel (PA1AW).

As always a new year means that the **membership fees** are due. Please transfer your **25 Euro** or more as soon as possible, preferably to **our Bank Account:** Volksbank Kleverland: IBAN: DE65 3246 0422 0205 1830 19 BIC: GENO DE D1KL L.

I trust that members living in the Euro zone will use this account only, because this implies the least costs for our foundation. Those who do not live in the Euro zone may also use PayPal to **cashier@eudxf.eu — or pay in cash on the Ham Radio (Friedrichshafen) stand A1-886.**

Welcoming Words of the President

Dear EUDXF Members,

welcome to the May edition of the EUDXF Newsletter! Half a year is gone again since publication of the last newsletter and we are looking back at months full of interesting DXpeditions. The highlights were definitely 5X3C, 5V7EI, 9LY1JM, TO19A, E6ET, XX9D, 7P8LB, XRØZRC, JX7GIA, C5DL, T31EU, V84SAA, A5A and E31A to name a few. EUDXF is again proud to be sponsor of some of these very successful activities! Thanks to the DXpeditioners for their efforts and giving us phantastic moments behind our radios. Upcoming promising DXpeditions in 2019 supported by EUDXF will be A35JT (September/October), T30GC (October), VU7RI (October) and VP6R (October). More funding applications are currently being reviewed.

Unfortunately, the announced 3YØI DXpedition to Bouvet Island was not able to reach their destination due to bad weather. After 3YØZ had already failed to reach this subantarctic island, this is already the 2nd unsuccessful attempt to land on Bouvet. It seems that Neptune keeps his territory well protected and the paid tribute was obviously not enough to let the Rebels climb the steep rocks and operate from most wanted number two. It seems the Rebels now target for a much warmer location and if all goes well they might hit the airwaves as 3D2CR from Conway Reef soon. Stay tuned!

A big tragic loss for the ham radio community was the sudden passing away of Monk Apollo, SV2ASP/A, from Dochiariou Monastery, Mount Athos, on the 5th of May. I knew Father Apollo since I was a student and I have visited him and his brothers many times, helping him to build up a radio station and maintain it for years. Dochiariou had become a spiritual home for me where in 2009 I even got baptised. Now the famous voice of Mount Athos is silent key and his signals will be missed by the DX community. It is questionable if and when a new licensed monk with permission by the Holy Community will be heard again from this rare DXCC entity. However, it is reported that a young monk shall be trained to continue the tradition of ham radio from Dochiariou Monastery.

The big highlight this month will be the Ham Radio Hamfest from 21. - 23.6. in Friedrichshafen, Germany, which will again attract thousands of ham radio enthusiasts from all parts of the world. EUDXF will be again present with a desk in hall A1 embedded into the socalled DX-Plaza where our EUDXF team will be happy to welcome you with drinks, snacks and a chat about everything related to DX and our organisation.

The traditional DX dinner will be held on Saturday, 22.06. in Tettnang. Don't forget to register by email via pa1tt@eudxf.eu as there are only limited seats available.

Also, I would like to remind you that there will be new EUDXF board elections in August this year during the AGM in Bad Bentheim, Germany. This means that we need from you candidate proposals for the positions of the EUDXF president and the 4 directors. If you know dedicated EUDXF members who you think would make a good part of the board team and who would like to support the work of EUDXF on board level, your candidate nominations are very welcome until the end of June. Please send your nominations by email to eudxf@eudxf.eu or use the special form prepared on the EUDXF website.

Have a good and safe trip to Friedrichshafen, enjoy the special flair of the DX-Plaza and ragchewing with DXers from all parts of the world and have fun during the DX dinner! Best 73s from Wolgograd & good DX!

Dominik R4BE - DL5EBE (EUDXF #598)
- EUDXF President -

DX-Plaza at the HAM RADIO

HAM RADIO has been traditionally a meeting point for many interested in DXing from all over the world. This is true for those activating rare entities or islands as well as the DXers chasing them. Many of these DXers are members of national or international clubs and foundations, whose main goal is to financially support DXpeditions. Quite a few of these clubs and foundations have attended HAM RADIO for years.

Amateur Radio on Tour – the motto of this year's HAM RADIO 2019 – appeals directly to the DXers. Some groups coincidently decided to set up their stands in one large area instead of being dispersed all over the hall. This is how DX-Plaza was born.

Participants of the DX-Plaza are:

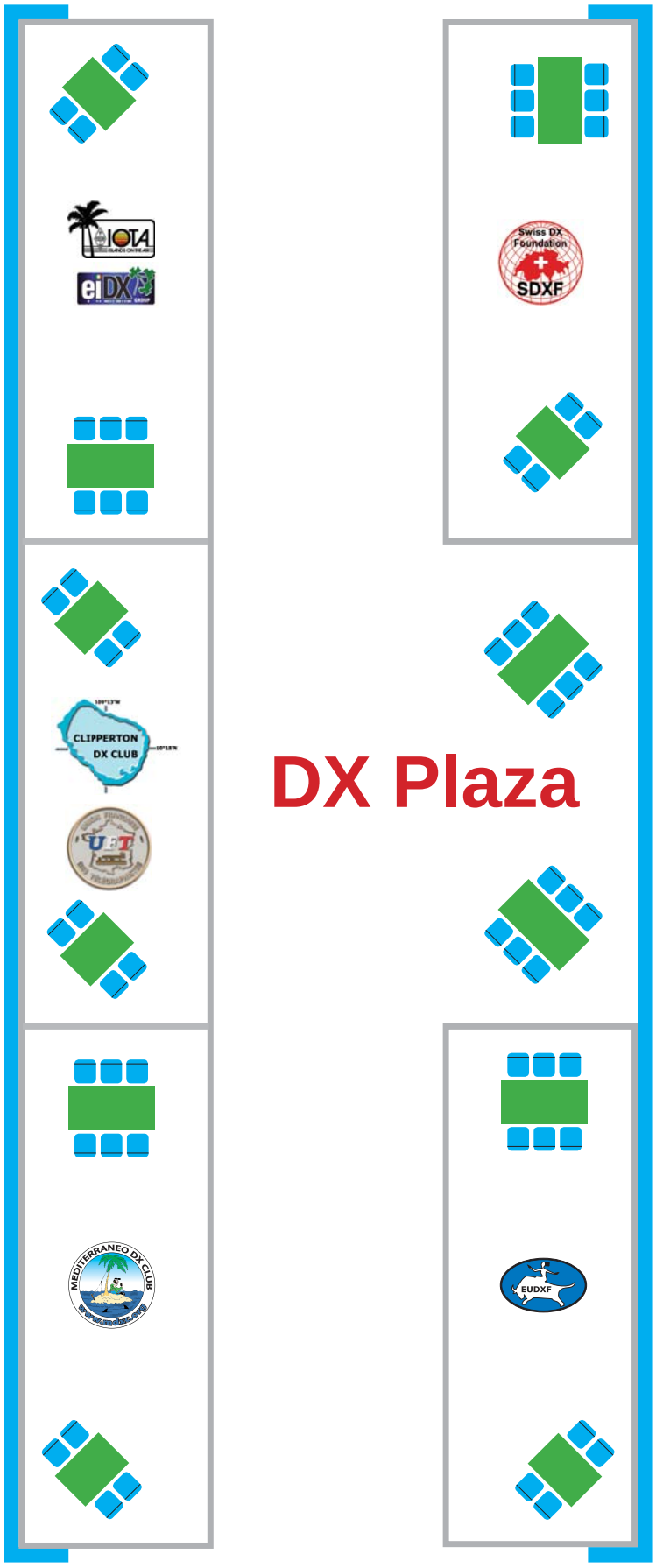
- European DX Foundation – EUDXF
- Swiss DX Foundation – SDXF
- Mediterraneo DX Club – MDXC
- Islands on the Air Ltd – IOTA
- Clipperton DX Club – CDXC
- EI DX Group
- Union Francaise des Télégraphistes (UFT)

The idea behind DX-Plaza is to facilitate discussions among all those interested in DXing, and also have a dialogue between the groups. We believe that this initiative will be successful, in which case we intend to keep DX-Plaza in place for years to come, perhaps with more groups joining in.

We look forward to welcoming many visitors and having interesting exchanges.

Jan, PA1TT
Stephan, HB9DDO

The DX Plaza on the Hamradio @ Friedrichshafen
Contact persons for the DX clubs are: **Jan DJ5AN / PA1TT**
Stephan HB9DDO



You will find us in Hall A1 next to the DARC stand

DX dinner 2019 at the Ham Radio in Friedrichshafen

Also this year there will be a DX dinner for EUDXF members (and their partners) during the Ham Radio.
The dinner will take place in Gasthof Traube, Storchenstraße 1, 88069 Tettnang (www.traube-tettnang.de) on Saturday 22 June 2019. Start will be around 19:00 h local time.

Participation is only possible for EUDXF members who paid their annual membership dues and who made a reservation in advance.

The maximum number of seats available is 50. Reservations are on a first come first served basis. Reservations via e-mail can be made until 15 June 2019, or until the maximum number of 50 is reached, via the EUDXF stand manager Jan, PA1TT (pa1tt@eudxf.eu).
There will be a set menu. Special dietary requirements should be communicated in advance. We hope to meet you in Tettnang!

Attention, the BCC DX dinner this year will be on Friday, so make your reservation in time!
Jan DJ5AN / PA1TT Standmanger.

The KH1/KH7Z Baker Island Story

BY DON GREENBAUM, N1DG

What does a freezer full of underwear, 2.914 Nautical Miles and a little red rubber boat have in common? A remote island in the middle of the Pacific called Baker Island National Wildlife Refuge.

Planning:

The Dateline DX Association was founded in 1995 to mount a DXpedition to Wake Island. Two years later members again went to KH9, and in subsequent years members have operated from many places along the Dateline in the Pacific. Our previous DXpedition in 2009 was to Midway Island, also along the Dateline. During these trips we demonstrated to the relevant agencies our stewardship of the fragile ecosystems in these locations. In 2015 we contacted the United States Fish and Wildlife Service (USFWS), Pacific Island Refuges and Monuments Office, seeking permission to operate from Howland Island. After a year and a half we were asked to withdraw our application for Howland pending news of an opportunity for Baker Island National Wildlife Refuge (Baker), which we did. We also continued to work with USFWS on standards and suggestions for a compatibility determination.

In late April of 2017, the USFWS released a "draft compatibility determination for Amateur Radio operations on Baker Island". The public comment period ended May 8, and the USFWS received some 24 emails in support of a DXpedition to Baker Island National Wildlife Refuge, none opposing, and four applications were received for operations from KH1.

In early July 2017, the Pacific Islands Refuges and Monuments Office of the USFWS selected the Dateline DX Association to conduct an Amateur Radio DXpedition to Baker and issued Special Use Permit number 12511-18001. This was a sound choice based on the group's successful operations from other USFWS locations. The team was very well known to USFWS Hawaii based personnel and provided a lot of input to them on safe Amateur Radio operations from sensitive environmental locations.

The co-leaders for this DXpedition were Don Greenbaum, N1DG, Tom Harrell, N4XP, and Kevin Rowett, K6TD. We quickly added team members from past Dateline operations, mostly veterans of the aforementioned Midway DXpedition and other Pacific operations. We formed teams for boat selection, antennas, radios, IT infrastructure and fund raising. Many others who would not make the trip also volunteered with logistics, propagation forecasting and equipment loans. A website domain of baker2018.net was chosen, K6MM built a website, and we were off and running.

The Baker Island NWR consists of Baker Island and all surrounding waters within 12 nautical miles of the island. The island itself is only 0.81 square miles, roughly ¾ mile by 1 mile. The USFWS website describes Baker Island as "the crest of an ancient steep-sided coral reef cap and massive underlying extinct volcano emerging from the deep ocean floor of the equatorial Pacific. The equatorial undercurrent deflects off the western flank of the seamount, pushing nutrient-rich waters up into the sunlight zone, thereby increasing marine productivity and benefiting many species of marine life. This phenomenon only exists on Baker, Howland, Jarvis and a few other Pacific equatorial islands." It is treeless, very hot and humid. We were told it rarely if ever rains in June and July.

Baker and Howland Islands are best known as the destination in 1937 of the ill fated Amelia Earhart journey. A little known fact about the island is that in 1935 Hawaii sent teams of recently graduated high school students to Howland, Baker and Jarvis Islands to colonize them. They eked out a meager existence in these harsh environs until 1942, when they were evacuated because of the danger of the war years. We decided early on to commemorate these brave pioneers on this DXpedition. Full details of both these events are found on our website, www.baker2018.net.

The KH1 DXCC entity, Baker and Howland Islands, ranked number five worldwide on Club Log's Most Wanted List. The last DXpedition to KH1 was K1B on Baker Island in May 2002. It had been the only major DXpedition to Baker. AH1A was the only major DXpedition to Howland in 1993. Both DXpeditions were made during solar

cycle highs. This would be the first during a solar minimum. Yet, demand was high and given the time it took to obtain the permit the window for going during an active sunspot period had passed.

Our permit was contingent on finding an acceptable vessel (to us and USFWS), a date when the Pacific Islands Refuges and Monuments Office of USFWS could send a resource monitor and approval of the team of hams chosen. The operating dates would also depend on sea and landing conditions. The permit also limited the team to 11 permanent ops on the Baker Island reserve so 3 of the team would be on the ship and members would rotate on and off as surf conditions allowed.

Regarding Special Use Permits, they allow for one activity. Our permit was specific to "Amateur Radio Operation." If we wanted to dive and look at the fish, that's another permit. Swim? Take a professional video? Beach volleyball? Those are all separate permits.

After a month of searching, a very experienced vessel out of Fiji called the Nai'a was chosen. The Nai'a had been to this area many times on searches for Amelia Earhart and was very experienced with a crew that could safely get us on the island, help move the tons of equipment to the stations, and provide food on a daily basis.

The team of DXers on this trip included many veterans of prior DXpeditions. 9V1YC, AA7A, AA7JV, HA7RY, JN1THL, KN4EEI, K6MM, K6TD, N1DG, N4HU, N7CW, N6HC, VA7DX and WJ2O had all been to rare and environmentally sensitive locations. More importantly many had travelled together on past trips so we knew each other's habits and operating skills.

Equipment:

The radios of choice for this harsh environment were Elecraft K3S transceivers, Elecraft eagerly agreed to loan us 8 radios and 8 KPA500 linears. They would be proven to be ironclad. None of these radios failed in the heat. NONE.

DXEngineering provided all the coax, connectors, tape, fiberglass poles, RX antenna supports, etc. Anything we needed was just a phone call away!

The USFWS permit dictated that no antennas could be higher than 43 ft and only guyed verticals were allowed. This challenged the engineering talents of the team and we assigned George, AA7JV, the well known low-band DXpeditioner, to design efficient verticals for all bands. During the winter before our trip George built some 2 element phased verticals for the HF bands, a vertical for 160 m with a tuner that would compensate for changing tide levels, and a "fat" 80 m vertical that would also tune on 40 and 30 m. The idea was to get the low band verticals as close to the water mid tide level (which meant IN THE WATER at high tide).

In addition to George's homemade verticals, we contacted SteppIR antennas for 3 Big IR and 3 Small IR antennas to ensure all radios had flexibility on many bands. The SteppIR verticals allowed us to operate up to 8 radios at a time. Like the Elecraft radios, we had no antenna failures due to electronics (storms were to be a different matter).

Nai'a arriving in Pago Pago to pick up team

Operating in tents with operators close to one another requires headsets with good noise rejection. Bob Heil outfitted the team with the latest Pro7 Headsets that also were useful in eliminating local environmental QRN/M (birds!).

Among other important donors, Rig Expert provided their AA-54 antenna analyzers which made antenna building a snap and UX5UO Print provided our QSL cards that are now being received all over the world.

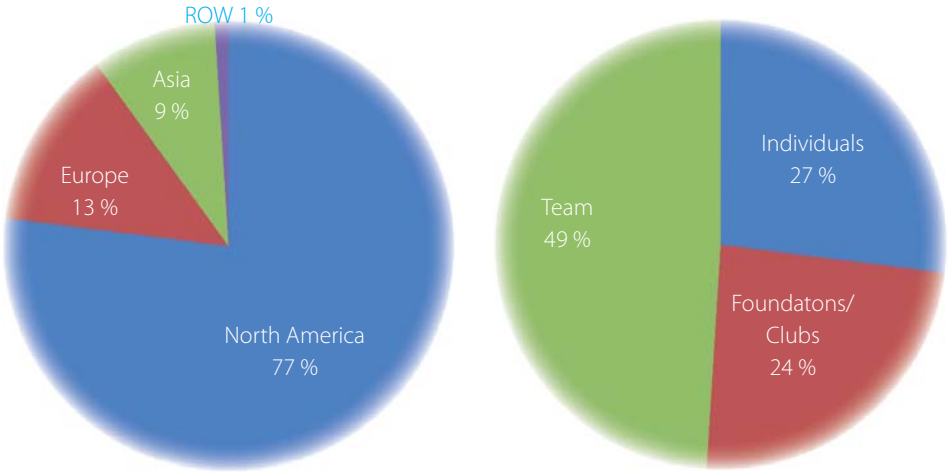
IT:

Ned, AA7A, was assigned to be our IT guy. We decided early on to network the stations as they would be separated by 100-200 meters to reduce station interference. This allowed for communications between stations and easy log collection. We used N1MM+ as our logging software. We also were planning on experimenting with remote operation from the boat for the ops staying there overnight.

With the low sunspots, remote location of Baker to Europe, and the desire to operate on 12, 10 and 6 meters we planned on integrating FT8 into our mode plan to take advantage of weak signal opportunities. FT8 is also a faster digital mode to work than RTTY. The team went one step further and contacted Joe Taylor about the possibility of adding a DXpedition mode to WSJT-X that would allow us to work more stations faster. As the fall of 2017 progressed the idea of a multi-stream fox/hound option took shape and the WSJT-X team released beta versions of what today is known as version 1.9.1 with fox/hound modes. Our last on-the-air test in May 2018 demonstrated this was a stable and reliable software version and it performed flawlessly once on the island.

Biological protocol:

An important consideration to the team, USFWS and our permit was the protection of the environment. Our ship was subject to inspection in Pago Pago after a thorough hull cleaning. Everything not made of plastic or metal had to be frozen for 48 hours and put in sealed bags. All clothes going to the island had to be purchased new before freezing. Our wives are



Sources of funding and geographic breakdown excluding team members

used to all sorts of radio shenanigans from us. Filling the freezer with underwear must take the cake. All used antennas, tent poles, masts etc. had to be thoroughly cleaned and sealed. The goal was that no seeds or insects be brought to the island by us. Our diet was restricted to foods without seeds as well. We are confident that we left no new species on the island.

Finance:

Visiting a remote DX location like Baker Island National Wildlife Reserve is an expensive undertaking. Our final expenses topped $470,000, 50 % of this cost was underwritten by the team members. The Northern California DX Foundation made a substantial grant of $75,000 to this undertaking. Other US clubs and foundations donated $25,000 and foreign foundations and clubs added $12,500 in total funding. Individuals donated $65,750 between the time we announced the trip and began transmitting. Another $24,000 came in from then until we turned on OQRS. Lastly, $32,000 was contributed by OQRS fees (as of the date of this article, 45 days after turning on OQRS). Without the support of foundations and clubs, expensive DXpeditions to rare locations just would not take place because of timing. Most of the expenses occur before the teams leave home. Our sources of funding were:

European Foundations and clubs were 9.6 % of the total institutional support. Total EU contributions (the above clubs and individuals, pre and post operations) totaled 13 % of our total non team funding. EU stations made 17.3 % of the total QSOs.

The Dateline DX Association is a firm believer in disclosing all finances to the DX community. We hope others will join us in this full disclosure effort.

Testing:

All equipment was assembled and tested in April. The tents were built in Georgia to ensure all parts were there while the radios/amps/network/software/antennas were deployed and thoroughly tested at K6TD's QTH in California after the International DX Convention in Visalia. It should be noted that once on Baker, every station, antenna, PC, tent etc. was deployed without failure and stayed deployed until we left, a testimonial to good planning and quality of the equipment we took.

Getting there and setting up:

An advance team arrived in Fiji to move our 5.800 pounds of gear air freighted from San Francisco and move it from the forwarder and onto the Nai'a. They also purchased last minute supplies. Then the Nai'a sailed to Pago Pago on the 15th of June. Team members travelled from 3 continents and 5 countries to assemble on June 19th in Pago Pago to board the Nai'a and depart on the morning of the 20th of June. Before departure we had a final meeting with the team, ship crew and USFWS personnel to go over setup plans, team assignments, and goals

Freight delivery to Nai'a

of our DXpedition. We also had a safety briefing from the crew, and upon boarding the ship we had the traditional Fiji welcome complete with songs from the crew. The Nai'a passed all inspections, cleared customs, immigration and off we went.

Our voyage was uneventful and we passed through the waters of Tokelau and Kiribas before entering the Reserve on the evening of the 24th. The team and crew then started pulling supplies out of the hold and pre staging the order of gear to be moved to the island. Tents for shelter and the 7 day survival food and water were first. At daybreak we had our first sighting of the day beacon on Baker and a warm welcome from the inhabitants, millions of birds!

At daybreak captain Rob and several of his crew went ashore to test the passage and landing procedure. The channel that the military had carved through the reef in the 1950s was long gone. Probably a good thing as 11 landing craft was lost. It was a learning curve for them and us. It should be noted that over the next 10 days not one piece of gear went into the water (not the same for our team and crew) and no one was hurt getting on and off the beach. You can view a video of our landing procedure at https://youtu.be/zuqLeO_B5Pg.

Notice the skiff in the video? Rob, the boat owner, consulted with the NOAA people about the best way on the island. Rob's wife, Cat, pointed out that where many men during a

Daybreak and the first view of Baker Island

mid-life crisis trade in their luxury Lexus or Audi for a spirited red Porsche, Rob bought a little rubber boat!

The advance team of Kevin K6TD, George, AA7JV, Don, N1DG, James, 9V1YC, and Allie, US-FWS, were on the island by 7:30 AM local time. The landing was not too bad, but the weather on Baker was brutal. By 10 AM it was well over 100 degrees F and Baker has no trees, so we worked in direct sun. The tide was rapidly getting rough as well but the Nai'a crew got all the tents, generators and emergency food and water supplies with Mike, KN4EEI, Rick, N4HU, Arnie, N6HC, and Tomi, HA7RY, on the beach before the surf cut off access for the morning.

This team put up the operating tents and main meeting tent, and set up the basic camp layout. Members of the ship's crew dug a hole for the latrine (taking care of number 2 was job number 1).

At 2 PM, the high tide allowed reinforcements to arrive with fresh energy and the totally exhausted original landing team departed. This new group put up the sleeping tents and moved radios, antennas and generators to the storage and operating tents. Most of the equipment, fuel, water and emergency food needed for the DXpedition was now safely on the island and distributed.

By sunset, everyone was off the island so we could rest up. A hearty meal was had by all and shortly after sunset ship was eerily quiet. By 7 am Day 2 team members were again headed to the island. Antenna building was the number one priority before the sun got too hot and by lunch there were two antennas up in the CW area (160 m and the 80/40/30 m antennas). The SSB tent had a Big IR ready for action. Once the day got too hot on the beach, the radios, generators and network operations took place and by sunset on the 27th we had three stations operating. The team was exhausted but ecstatic that we were operating ahead of schedule. All but 2 of the team slept on the island.

Our joy at the speed of our setup came to a halt around midnight local time when a major squall came onshore from the West accompanied by a nasty tide. So much for the assurances that it never rains on Baker in June! The low band antennas at the water's edge were no match for the water as the aluminum bases sheared off. After a four hour stint we were QRT in the operating tents while those who had gone to bed were now awake in their tents and holding them up for support.

Since we were on the island at first light we quickly moved all hands to repair the broken antennas and put up the full complement of SSB and CW antennas digital tent antennas and radios were set up. By sunset of Day three (June 28th) the complete camp was up and running and operations were in full swing. Our meals arrived from the ship at times the tides permitted and the team rotated back to the ship a few men at a time for showers and rest (keeping the full time contingent to 11 ops). Life for the next week would be like this.

By day 4 we had all 8 stations going, with team members taking four hour shifts. Digital operations began and the FT8 station on six meters was beaconing away (no contacts were ever made on six). Almost 11,000 QSOs would be made this day as conditions were good to all parts of the globe. Signals out of Western Europe were particularly strong and our decision to ALWAYS have two stations on 20 m when the band was open paid off. We never missed a European opening. At one point during some days we had three stations on 20 m as the good separation between the camps allowed FT8 to slip between the SSB and CW stations without interfering. In fact, the CW tent did more interfering with SSB than FT8.

Band conditions over the next five days declined slowly but we still averaged over 8,000 QSOs a day. The weather continued hot and humid around the clock and we often had afternoon and evening storms. Some were so strong that the ship had to leave the island and go out to sea to get away from the reefs. But none of these storms did any damage since we had moved the antennas away from the waterline and laid down more radials instead.

On July 4th, after 7 ½ days of operating, the captain warned us that a storm was approaching which would make getting off the island dangerous in 2 days. The decision was made to take down the low band antennas at sunrise on the 5th and pack a few of the stations dur-

Why are these men smiling? They are doing what they like BEST!

ing the day with the goal of consolidating the 3 operating tents into 2. The furthest station from the beach departure point was completely dismantled and moved off the island before sunset. Around midnight local time after the HF bands were all but closed, we went QRT (12 UTC 5 July).

At daybreak, with the Nai'a crew we tore down the rest of the stations, packed the remaining tents and spent the rest of the morning loading everything onto the beach for the crew to retrieve back to the ship. By early afternoon everything was aboard the Nai'a, and we began our homeward journey back to Fiji with the Baker Island dolphins leading the way. The storm as forecasted, created high seas and the return five day voyage had its share of rough waters. However, with almost 70,000 QSOs (18,100 uniques) under our belt and emails pouring in congratulating us on a fine job we enjoyed the voyage and especially the rest we all needed.

FT8:

Our use of FT8 during the DXpedition was both controversal when announced but very successful when implemented. Many curmudgeons have bemoaned the use of computers in making contacts (even those using them for RTTY) so we took a bit of grief in the run up to June. Yet, on day three when we started operating FT8 in earnest, reports from the DX community were overwhelmingly in favor of this new mode as many hams with modest stations made contact with us for the first time. In fact, for almost 900 stations (1/3 of them EU stations) one QSO on FT8 would be their only KH1 contact. Despite a late start (they were the last stations to be built), FT8 would account for 16,670 QSOs, roughly 24 % of our total. We worked 5,664 unique stations on FT8, almost 1/3 of our total unique total. And, it was fun watching ops on our team who had not planned on any digital operation vying for a place in the chair.

250 stations in Europe made an FT8 QSO that would be their only QSO.

The biggest problem we experienced with regards to FT8 was the number of people who did not get the message about the need to use WSJT-X 1.9.1 in hound mode. Many were copied but never completed a QSO because the software didn't respond to being answered. As the week went on, more and more callers figured it out and made it through during the last few days.

Other thoughts:

When we announced our trip to KH1, quite a few hams questioned our decision to go in June, at the bottom of the cycle, and at the expense of the operation. More than a few would-be supporters questioned whether ANY Europeans would work us, low band operators questioned the summer conditions, and some even suggested we postpone our trip for a few years for better conditions.

Here are some of the reasons why we pursued KH1 now. First, our permit was for a period ending in September 2018 and was subject to the US Fish & Wildlife Service having a resource officer available to accompany us. We went when we could. The low sunspot activity just meant we had to make sure our equipment was up to the task, 43 ft antennas notwithstanding. We put on our engineering hats, made sure we had a ship and crew up to handling the harsh environment of Baker Island, and took along what we think are some of the best operators on the planet.

Despite the low sunspot number, KH1/KH7Z logged 69,000 QSOs with 18,106 unique QSOs. In fact, we worked more unique stations in Europe, 5,673, than Asia, 4,876. NA added 6,858 to the total of uniques. And in summer conditions we also worked 12,407 stations on 40, 60, 80 and 160 meters. Our 160 m total alone was 1,706. Our test of the new Fox/Hound mode on FT8 netted over 16,000 contacts, of these 900 only made that one contact.

Geographically, our QSOs were divided 42.1 % Asia, 36.6% North America, 17.3 % Europe and 4.0 % Rest of World. By mode, the breakdown was 47 % CW, 28 % SSB, 25% Digital. Who says CW is dead? Our decision to stick to 20 meters when it was open paid off as 40 % of our QSOs were made there. 90 % of our German QSOs were made on 20 meters.

Despite the low sunspot number, we worked more unique stations in Europe, 5,673, than Asia, 4,876 and Europe accounted for 17.3 % of total QSOs. And, despite the cost, there is not one team member (the team put up 50 % of the total cost of the trip) who feels we would have had the success we did without the Nai'a.

Our visit to Baker Island also did some good. The ship's crew fixed the falling down sign that marks the Island. And while we were immersed in the pileups the crew walked the entire beach picking up and removing the debris they found. Bags and bags of plastics, fish buoys, metals, and all sorts of trash were returned to the boat and brought to Fiji for proper disposal. We left the refuge with no sign of human activity, our goal from the beginning.

We are also pleased with the support of the DX Foundations and Clubs who along with the team members provided 85 % of the pre-operation funding. Individuals quickly realized we were going to put them in the log once we started operations and they too contributed to our efforts. As of this writing there are still some unfunded expenses, but we hope OQRS income covers the deficit as the requests continue to come in.

Thank you EUDXF!

Last, but not in any way least, was the support of the Pacific Islands Refuges & Monuments Office, U.S. Fish and Wildlife Service, Department of the Interior office in Hawaii. Their people provided guidance during the permit process and subsequently in our planning of the operation. Allie Hunter was an engaged member of the team assisting in everything from building the latrine to erecting tents and joining the ops in the radio tents. This trip would not have occurred without the assistance of the USFWS personnel. Thank you.

Don Greenbaum, N1DG, for the Dateline DX Association, KH1/KH7Z

Dear EUDXF members,

Have you already paid your membership fee for 2019?

If so, then I would like to thank you very much.

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5WØGC & YJØGC DXpedition 2018

BY STANISLAV "STAN" VATEV, LZ1GC

The idea of activating Samoa (5W) and Vanuatu (YJ) occurred to me immediately after the end of the H4ØGC DXpedition 2017. Originally I had other plans, but in February 2018 I decided to activate these two destinations. At that time, Samoa (5W) was ranking on place 127 of the ClubLog most wanted list and Vanuatu (YJ) on place 75. Some brief general information about Samoa and Vanuatu (Wikipedia):

5W – Samoa

Samoa, known as Western Samoa, consists of two main islands. Savai'i and Upolu account for 99 % of the total land area, and eight small islets. Samoa has a total area of 2,842 square km. Samoa is located south of the equator, about halfway between Hawaii and New Zealand in the Polynesian region of the Pacific Ocean. The capital city of Samoa is Apia, located on the main island of Upolu. Samoa has a population of around 194,000. About three quarters of population live on the main island of Upolu. 92 % of the population are Samoans, 7 % Euronesians - people of mixed European and Polynesian ancestry and 0.4 % are Europeans.

YJ – Republic of Vanuatu

Officially, the Republic of Vanuatu is a Pacific nation island located in the Southern Pacific Ocean. The archipelago, which is of volcanic origin is 1,750 km east from Australia (VK), 540 km northeast of New Caledonia (FK), east of New Guinea (P29), southeast of Solomon Islands (H44) and west of Fiji Republic (3D2). The fourteen Vanuatu islands that have surface areas of more than 100 square km are, from largest to smallest: Espiritu Santo, Malakula, Efate, Erromango, Ambrym, Tanna, Penfecost, Epi, Ambae (Aoba), Gaua, Vanua Lava, Maewo, Malo and Aneityum (Anatom).

The nation's largest towns are the capital Port Vila on Efate Island and Luganville on Espiritu Santo Island. Vanuatu has a population of about 243,000. The inhabitants of Vanuatu are called Ni-Vanuatu. The Ni-Vanuatu are 98,5 % of Melanesian descent with the remainder made up of a mix of Europeans, Asians and other Pacific islanders.

The DXpedition

The organization and preparation for the 5WØGC and YJØGC DXpedition 2018 took 7 months - a time of hard work involving almost of all my spare time. After a successful initial research on these two destinations regarding travel, visas and accommodation, I decided to carry out the 5WØGC activity from September 28th to October 14th 2018 and YJØGC from October 15th to November 4th 2018. In March 2018 after contacts with the government officials responsible for radio licenses at the Telecoms of Samoa and Vanuatu, I was able to get the necessary licenses. I received permission to use the call sign 5WØGC from Samoa and YJØGC from Vanuatu.

The next step in the preparing for this DXpedition was to buy the necessary airline tickets and make reservations for Samoa and Vanuatu accommodations. During this time I received a nice invitation from Atsu, 5W1SA, to visit him and activate 5WØGC from his home. His hospitality was most gracious and made it easier for me to optimize my station setup and location. I am grateful to Atsu for the invitation, hospitality and help which he provided to me during my stay in Apia, Samoa. Thanks, Atsu!

For choosing a place to stay at Port Vila, Vanuatu, I received assistance from Chungki, VA7YM (YJØYM). The proposed location was the Blue Pango Motel in Port Vila which turned out to be a very good place for the planned YJØGC activity. In May 2018 I had a conversation with Lubo, OM5ZW, a good friend from our T2GC DXpedition in 2015. He expressed a desire to participate as an operator for YJØGC. He further recommended Karel, OK2WM, to join our team. Now, the team of the upcoming DXpedition to Vanuatu had grown to 3 operators.

The months from May to September 2018 passed by with preparing and testing the radios and antennas to be used on the DXpedition. During these months I also sought for potential sponsors. To all the radio amateur associations, foundations, clubs and individual sponsors who responded to my request for support to this DXpedition, I give my wholehearted "Thank You".

It is 26th of September 2018. Again, I am on my way to the Pacific Ocean, far from motherland.

Stan, LZ1GC (5WØGC) at 5W1SA location

This time my goal is Samoa (5W) and Vanuatu (YJ) - two island countries located thousands of kilometers from Bulgaria. After three flights, two of which were about 11 hours, I arrived in Nadi, Fiji, in the early morning of September 28th. On the same day at 13:40 h local time followed the connection flight to Apia, Samoa. According to plan, at about 17:00 h local time, I was in the passenger arrival hall of Faleolo International Airport (Apia), where Atsu, 5W1SA, was expected to meet me.

I was quickly recognized by Atsu, 5W1SA. With so much luggage and ACOM stickers on one of my boxes it was impossible not to recognize me. We met for the first time! After a short conversation we boarded his Jeep and headed to his house, located near the highest point of a mountainous area and about 700 meters above sea level.

Arriving at Atsu's home, I immediately installed my radio equipment. It was dark outside when I began to work on the air with Atsu's dipole antennas. During the first night I worked CW on 40 and 80 meters. The tempo was good and I stayed committed to the big pile up. I was so energized that I operated throughout the whole night. At dawn, I shut down the station and began to install the vertical antenna for the 160/80/40 m bands. This was the same antenna which I had successfully used on my previous Dxpeditions. Next to Atsu's property, the 5W1SA QTH had plenty of empty space and though overgrown with grass and other vegetation, it was possible to install numerous antennas without any problems.

At about 11:00 h on September 29th, Atsu and I prepared and raised the 160 m/80 m vertical. On the same day I began to work on 160 m CW. During my time as 5WØGC, I tried to make the most out of the windows of good propagation for the different continents. Despite the poor propagation, the rate of contacts was good. Samoa is known for its daily rains in October. Indeed, during my entire stay in Samoa, there was rain every day, often accompanied by strong winds. This interfered with the installation of my second antenna – a multi-band GP, designed to work from 10 – 40 m. It was on the 3rd day of my arrival on Samoa that I successfully mounted this antenna. Although the focus of this DXpedition was on the low bands, I was very active on the other bands also, running CW, SSB and RTTY.

5WØGC's vertical antenna on 160/80/40 m during a storm

The 5WØGC activity took place from late afternoon of September 28th to early morning of October 14th. During the night I was active on 160/80/40 m and during the day from 30 to 10 m. Daily pauses were no more than 3 to 4 hours for sleeping and antenna repair. After two weeks, 14,094 QSOs were logged on all HF bands using CW, SSB and RTTY. I am delighted that from Samoa (5W) I gave a new one to many DXers, not only on the low bands but also on the higher bands.

The 5WØGC operation by Stan, LZ1GC, ended at 02:00 h on October 14th. After I went QRT, I disassembled and packed the technical equipment and prepared for a late afternoon departure. At dawn, I began dismantling and packing the antennas. The flight to Nadi, Fiji, was at 17:40 h. However, when arriving at Apia's Faleolo Airport with Atsu, 5W1SA, we found out that the flight would have a delay of 2 hours. Due to the announced delay of my flight to Fiji, Atsu returned to his home and I stayed at Faleolo Airport waiting for my upcoming flight. Time was passing and I was already thinking about the upcoming activity from Vanuatu. Then, just when I was expecting information about my flight to Fiji, I heard the announcement that flight FJ 254 from Apia to Nadi, Fiji, was canceled. This was very unpleasant news!

During the preparation of my DXpeditions, I always prepare for any problems. I usually find solutions, but in this case I was unpleasantly surprised and couldn't do anything. I had previously arranged with Lubo (OM5ZW) and Karel (OK2WM) to meet on October 15th at Nadi Air-

Here are the ClubLog statistics for the 5WØGC activity:

Band	160	80	60	40	30	20	17	15	12	10	Total	Total %
AF	0	4	0	16	10	12	11	4	0	0	57	0.4 %
AN	0	0	0	0	0	0	0	0	0	0	0	0.0 %
AS	116	536	3	994	708	804	915	727	401	135	5,339	37.9 %
EU	135	335	9	838	646	1,478	82	4	1	0	3,528	25.0 %
NA	236	453	0	933	171	425	1,243	835	241	3	4,540	32.2 %
OC	19	47	0	114	47	72	51	35	15	0	400	2.8 %
SA	3	8	0	59	25	27	42	42	17	7	230	1.6 %
Totals	509	1,383	12	2,954	1,607	2,818	2,344	1,647	675	145	14,094	100.0 %

Stan, LZ1GC, and Lubo, OM5ZW, preparing the 160 m and 80 m verticals

Stan, LZ1GC (left), and Lubo, OM5ZW (right), with multiband GP antenna on the beach

port, Fiji at 08:35 h. I wanted to meet them in the passenger arrival hall and then we would travel together in the early afternoon to Port Vila, Vanuatu. Now, everything was messed up! The meeting as planned was not possible! After some initial confusion about the canceled flight, things started to work out - some of the passengers sought to rebook new round-trip flights. Others like me were informed that the next flight to Nadi would depart on the next day at 17:00 h. So, that evening on the 14th I stayed at the Sheraton Hotel in Apia.

The first thing I did from the hotel was to email Lubo (OM5ZW) and Karel (OK2WM) about my canceled flight and that our meeting would have to be rescheduled. Fortunately, they were traveling with their own equipment and could get on the air quickly with Yaesu FT-991, Elecraft K3 and two amplifiers: an ACOM 700S and SPE Expert 1.5. They traveled with extra luggage, which included two vertical antennas from 10 – 40 m and a low frequency receiving antenna donated by Array Solutions. I asked them to activate the bands immediately on their arrival at the motel in Vanuatu. I told them that I would join them as soon as possible once I confirmed the flight from Fiji to Vanuatu. The masts and antenna equipment for the 160 and 80 meter bands were part of my extra baggage. Those bands would be activated later.

On October 15th the flight from Apia arrived on Fiji airport at 18:30 h. After passing through Fiji customs, I checked for the first flight to Port Vila, Vanuatu. It turned out that the flight would be at 09:00 h on October 17th, the day after tomorrow. As a compensation for the missed flight to Vanuatu I got a courtesy stay at Nadi's Flamingo Hotel thanks to Fiji Airways. From the hotel, I emailed Lubo (OM5ZW) and Karel (OK2WM) that I would join them soon after my arrival 11:30 h on October 17th at Port Vila, Vanuatu. Lookig up the DX summit website, I was happy to see YJØGC was already on the air. Kudos to Lubo and Karel on their success! That really settled my nerves. YJØGC was making QSOs on 20 and 40 m!

On the next day, October 16th, I tried to rest from the exhausting 5WØGC activity and the psychological stress caused by the canceled flight. The time had passed slowly during these two days, knowing all time that I should be already in Vanuatu. Finally, on October 17th and after a 2 hour flight I arrived in Port Vila, Vanuatu. After the usual customs check at Port Vila Airport, I took a taxi to the Blue Pango Motel where Lubo (OM5ZW) and Karel (OK2WM) were waiting for me. When I arrived at the motel, we immediately began preparing for the raising of the two vertical antennas for 160 m and 80 m. It took three hours to get both antennas in place. That evening YJØGC was QRV on both 80 and 160 meters simultaneously. On the next day we also installed a multiband ground plane antenna to operate from 10 to 40 meters.

For the majority of the YJØGC activity our team had 5 TX antennas and one RX antenna array, namely separate vertical antennas for 160 and 80 m, 1 SteppIR vertical antenna, 1 multiband GP antenna, and 1 vertical antenna for 10 – 40 m for transmitting and a AS-SAL-30-MK2-DX receiving antenna, kindly donated by Array Solutions. We used the receiving antenna on 160 meters. We also had 3 operating sites, each one complete with a separate linear amplifier. Unfortunately, we could not fully use these resources due to the proximity of the antennas to each other. However, we did manage to work with two radios simultaneously during the entire activity. The third operating site was not used efficiently! In order to work on 160 m we had to stop the other stations because of interference.

Stan, LZ1GC, at the key as YJØGC

Band/Mode breakdown

Band	CW	SSB	RTTY	FT8	Total	Total %
160	838	0	0	0	838	3.6 %
80	2,591	0	0	0	2,591	11.0 %
60	70	0	0	0	70	0.3 %
40	3,732	381	358	24	4,495	19.2 %
30	3,768	0	640	29	4,437	18.9 %
20	2,863	574	336	104	3,877	16.5 %
17	2,667	506	257	207	3,637	15.5 %
15	1,193	236	165	0	1,594	6.8 %
12	565	166	241	0	972	4.1 %
10	617	79	241	0	937	4.0 %
Totals	18,904	1,942	2,238	364	23,448	100.0 %

However, I think that the YJØGC activity was successful despite of these operational issues! Many contacts were made on 160, 80 and 40 meters, so that the mission of the DXpedition with a focus on the low bands was fulfilled. At the same time many contacts were also made on the higher bands to hopefully satisfy many DXers with an ATNO. Between October 15th and November 4th 2018, we made 23,448 QSOs with 129 different countries on CW, SSB, RTTY and FT8. The YJØGC statistics from Club Log are shown in the following two tables:

Continent By Band

Band	160	80	60	40	30	20	17	15	12	10	Total	Total %
AF	1	5	2	21	19	13	9	0	0	1	71	0.3 %
AN	0	0	0	0	1	1	0	0	0	0	2	0.0 %
AS	231	655	3	998	875	1,315	1,323	816	781	872	7,869	33.6 %
EU	246	820	49	1,869	2,730	1,739	786	28	1	0	8,268	35.3 %
NA	308	983	15	1,356	628	590	1,323	701	175	53	6,132	26.2 %
OC	42	89	0	155	99	161	128	29	8	8	719	3.1 %
SA	10	39	1	96	85	58	68	20	7	3	387	1.7 %
Totals	838	2,591	70	4,495	4,437	3,877	3,637	1,594	972	937	23,448	100.0 %

Do not think that the YJØGC DXpedition went without any problems. Because our vertical antennas for 160 m and 80 m were just outside of the motel, there were attacks to them! Several times we detected some of the radials and parts of the guy wires for the verticals were missing. Apparently, some of the local residents caused us these problems. Fortunately, I had packed spare radials and ropes, so that these attacks did not significantly affect the YJØGC operation. An unexpected experience during the YJØGC DXpedition was experiencing an earthquake with a magnitude of 4.8 on the Richter scale which was easily felt in Port Vila at 20:33 h on October 20. It was a strong horizontal quake lasting about 5 to 6 seconds. I had the feeling that the table on which the equipment was installed was moving. Despite of the quake we continued our activity on the air non-stop!

From October 16th to October 27th 2018, the YJØGC activity was performed by 3 operators: Stan, LZ1GC, Lubo, OM5ZW, and Karel, OK2WM. On October 28th, it was time for Lubo to return home to Slovakia. His work did not allow him to stay until the end of the DXpedition. With Lubo's departure the YJØGC DXpedition continued to operate with two operators running at full throttle. At dawn on November 4th 2018, YJØGC made its last QSO and went QRT. After nearly 5 hours of dismantling the antennas and packing up, Karel and I headed for Port Vila airport to begin our long journey back to Europe. On our way back to Vienna we would travel via Nadi, Fiji, and Seoul, South Korea. Our journey back to Europe went as planned without cancellation of any flights nor problems with customs. For Karel and me an unforgettable experience was our pre-arranged meeting with Antoine, 3D2AG, at the airport in Nadi, Fiji. We gave to him as a gift parts of the antenna equipment which we had used during our YJØGC activity. We stayed at a local hotel, chatting all night with Antoine about ham radio related things.

The YJØGC team (from left to right): Lubo, OM5ZW, Stan, LZ1GC, and Karel, OK2WM

On the next day, November 5th after an 11 hour flight with Korean Airlines, we stopped in Seoul, South Korea. There, awaiting our arrival was Aves Kang, DS2AGH, a good friend of mine for many years, who as usual, entertained us during our short stay in Korea. I thank Aves Kang for his help and, of course, his hospitality.

From left to right: Karel, OK2WM, Tony, 3D2AG, and Stan, LZ1GC

On November 6th, after another 11 hour flight on a Korean Airlines Boeing 777, we arrived at Vienna International Airport, Austria, where we were expecting Wolfgang, OE1WEU, and Lubo, OM5ZW. Finally, my 43 day 5WØGC and YJØGC DXpedition to the Pacific Ocean in 2018 ended successfully on November 7th after an hour's flight from Vienna to Sofia, Bulgaria. At the end of this article, I want to express my gratitude for the support we have received from many DX foundations, associations and radio clubs: GDXF, SDXF, EUDXF, LA DX GROUP, CDXC (U.K.), Mediterraneo DX Club, Clipperton DX Club, KC5WXA – Jake McClain Driver Memorial A.R.C., GM DX GROUP, SWODXA, WVDXA, GSDXA, Mile-HI DX Association, Willamette Valley DX Club, Thracian Rose Club and LYNX DX GROUP. I also want to thank our corporate sponsors who supported this expedition: ACOM Ltd. Bulgaria, SILPA Ltd. Bulgaria, microHam, ARRAY SOLUTIONS, Spiderbeam Ltd. and GES ELECTRONICS. Thanks also to ClubLog, DXNEWS and all individual sponsors, before and after this DXpedition! With respect and vy 73! Stan, LZ1GC

The Kingdom of Tonga 2018, A35EU

BY RONALD STUY, PA3EWP

How did this adventure start? During a few beers during the Hamfest in Friedrichshafen we were talking about our next destination and named a few destinations in the Pacific. Personally, I don't like to go twice to the same country. A few destinations were out of our scope because of the cost and the difficulty to go to these DXCC countries. Frank, DL4KQ, mentioned Myanmar and everybody thought that was a great idea. From July to mid September we have been working on this destination. Frank did most of the work because he had some contacts in Myanmar. He also flew to Myanmar for some arrangements with the local government. Everything seemed fine, but after 1 month back home, we still didn't receive the official papers. We wanted to go to Myanmar in October, so only a few weeks left to organize this trip. We started to look for a backup plan. At the Hamfest we talked about Tonga as one of the alternative destinations. This is an easy place to activate, a lot of tourists go there, daily flights and a license is also no problem. Tonga is not so high ranked on the most wanted list, but for Europe still interesting. Within 2 weeks nearly everything (license, location, flights) was organized. So, we were ready for the following step. End of September we decided to postpone Myanmar and focus on Tonga. Only Tom, GM4FDM, Martin, PA4WM, and Ronald, PA3EWP, wanted to go to Tonga, but we needed a fourth operator. Soon this place was filled by Pat, EI5IX. The team was ready to go for a new adventure.

The Kingdom of Tonga

Tonga is a Polynesian country and archipelago comprising 169 islands, of which 36 are inhabited. The total surface area is about 750 square kilometers (290 sq. miles) scattered over 700,000 square kilometers of the Southern Pacific Ocean. The sovereign state has a population of approx. 100,000 people of whom 70 % reside on the main island of Tongatapu. The Tongan people first encountered Europeans in 1616 when the Dutch vessel Eendracht, captained by Willem Schouten, made a short visit to trade. Later came other Dutch explorers, including Jacob Le Maire (who called on the northern island of Niuatoputapu); and in 1643 Abel Tasman (who visited Tongatapu and Ha'apai). Later noteworthy European visitors included James Cook (Royal Navy) in 1773, 1774, and 1777. Tonga became independent in 1970, but still belongs to the Commonwealth of Nations.

Abel Tasman landing place

Blow holes

Arrival in Tonga with some local music.

Families relaxing on Tonga

Location on the Island

We found a nice location on the western part of the main Island. A previous Scottish DXpedition used this QTH also and they gave us a lot of useful information. It was possible to setup the antennas at the border of the beach. On the beach itself it was impossible to install antennas because it was used also by other visitors. The beach resort Heilala at Kanokupolu is located at the Ha'atafu beach. Because of the low season we got card blanche to setup our antennas wherever we wanted, we only had to take care of not disturbing the few other guests.

Big challenge

Our biggest challenge would be the low sunspots. Nearly at the bottom of this sunspot cycle it would be difficult to reach Europe. Looking at the propagation prediction programs it would

be possible to work western Europe only on 20, 30 and 40 meters, but with weak signals. So, the challenge became bigger. We new that every additional dB of gain would be very helpful. We decided to make VDA's for 17, 20 and 30 meters. Martin with help from Jan, PA4JJ, and Henk, PA3GCV, built the VDA's and the other wire antennas. They did a great job!

Travel to the Kingdom of Tonga

It would be a long journey to travel to our destination. The team meeting-point would be Doha in Qatar. Tom flew from Edinburgh, Pat from London and Martin and I from Amsterdam. We left Tuesday 23rd of November for a 6 hour flight to Doha. Pat joined us a one hour after we arrived. We received a message that Tom had a challenge. His plain was broken and could not leave Scotland. He would have difficulties to catch his connection flights. When we boarded our plane to Auckland, we received a message that his delay was 5 hours and maybe we would meet him in Auckland. For the next 17 hours it would be quiet without any info from Tom. This was the second longest flight at this moment, and we can say that is long! We arrived in Auckland and heard that Tom would leave Doha in a few hours, so he would arrive only 1 day later in Tonga.

We had still 11 hours transit time in Auckland before our next flight. We put all our luggage in a storage room and went by taxi to Auckland city, had a nice short walk and visited the sky-tower to overview Auckland from 220 m height. After a lunch we went back to the airport for the last part of our trip to Tonga. This flight was only 2 ½ hours. We arrived at Tonga airport at around 19.30 h local time. After collecting our luggage and a nearly 1 hour drive, we arrived at the resort Heilala at 21.30 h.

Antenna setup

Early next morning after breakfast we started assembling our antennas. We would focus on 17, 20, 30 and 40 meters for the first day. We soon noticed that we would have a challenge with the coax cables. We brought approximately 500 meters of coax cable with us. From the shack to the beach it was circa 100 meters.

Around noon I had to leave to meet with

17 m VDA

30 m VDA

40 m vertical on the beach

40 m vertical, 17 m VDA, 30 m VDA, 20 m VDA, 80 m vertical

Martin assembling the 17 m VDA

Tom at the airport. He arrived at around 13.00 h. From the airport we went to the Telecommunications office to collect our license. We had already a few times contact by email and phone with the office of Telecommunications about the license. They had added the possibility to operate on 60 meters and we were very pleased about this extension. For many or maybe everyone it would be a new DXCC on 60 m. After leaving the office we went shopping and back to the resort. Martin and Pat were ready with the 17 and 20 m VDA, and only the 30 m VDA still had to be installed. We needed 4 men to finish this job. The 40 m vertical was also ready to use.

The next day we would finish the other antennas, a 10/12/15 m multiband vertical and a 80 m vertical. For RX we used a DHDL antenna. We called for a local guy to climb into a 17 m high palm tree to connect a rope to the top of it for the 160 m vertical. After 2 days and nobody showing up, we decided to throw a rope over a palm tree and did the job ourselves. We chose a palm tree of ca. 12 m hight to connect the 160 m and another palm tree for the 60 m antenna. A few hours later both antennas were ready for use. The antenna farm was completed. Luckily there were not many other guests, so we could use all the space we needed for our antennas.

Equipment:

We had 3 complete stations operational and one spare radio. Some hours of the day we operated 3 stations simultaneously.

Radio setup:

Radio	Amplifier
Elecraft K3	Expert 1.3
Elecraft K3	THP 1.1
SUNSDR	Homemade 600 Watt

Antennas:

Band	Antenna
160 m	Inverted Vee
80 m	Vertical +1 elevated radial on 18 m Spiderbeam pole
60 m	Inverted Vee
40 m	Vertical +1 elevated radial on 18 m fiber pole
30 m	VDA on 18 m Spiderbeam pole
20 m	VDA on 12 m fiber pole
17 m	VDA on 12 m fiber pole
10-15 m	Multiband vertical +1 elevated radial per band on 11 m fiber pole

We were using bandpass filters between radio and amplifier. Logging was done with Win-Test and WSJT-X. The computers were wireless networked. We used the Microkeyer MK2 as interface between radio and computer. There was a good internet connection, so we uploaded our log to clublog on a daily basis.

Operating and propagation

All operators were mixed mode operators with everyone having his preferred mode. We focused on the main modes CW, SSB and RTTY. Due to bad propagation most of the QSOs were done in CW and we did a lot of mode changes. We noticed that due to bad propagation we were forced to use FT8. There was a high demand for this mode. Searching the bands for signals there was no activity except on the FT8 frequencies (*we hope this will change quickly*).

During the morning hours there was not much propagation at all, so we did some site seeing and other necessary things like shopping.

Tom in CW

Pat enjoying CW and his drink

Martin enjoying his SSB pile-up

Local market.

Martin and Ronald shopping on the bike

In the morning we used mainly 17 and 20 m. Around noon, 15 m sometimes opened for a few hours, mainly to Japan and some North America. 12 m was only open to Japan. For Europe 17 and 20 m were the best bands. By the way, 20 m was the best band for all continents. 30, 40 and 80 m were also good bands, but difficult for western Europe. On day 3 we moved the 40 m vertical more to the beach. The noise level

on 40 m was very high. After we moved the antenna the noise was reduced by least 6 dB. As we had no coax cable left, we had to combine 17 m and 40 m.

It seemed that everything located in 350 to 10 degrees direction (western Europe) was extremely difficult to reach. That is the reason why there are only a few F, DL, ON, PA, G and GM stations in the log. The propagation stopped around Poland and it simply didn't move further to the West. On 60 m we had a tremendous S9+ QRM which was generated in our resort. We replaced the polarization of the antenna from vertical to horizontal, but that didn't help. The day after we hang the dipole 50 m further away from the buildings, but the QRM was still the same. We could have made much more QSO's in the log without this QRM. FT8 was doing a good job reading the weak signals out of the QRM. On the last morning the QRM level was very low and we logged many Western Europeans on 60 m.

Our DHDL receiving antenna was not performing well. We tried it on the first day, but without any success on all the low bands. Propagation on 160 m was terrible. We were forced to use an inverted vee instead of an inverted L. The noise on this band was S9, very difficult to copy anything. On the DHDL antenna the signals were not readable at all. I tried also to listen on the 80 m vertical, but the noise was still very high. So we were forced to use FT8 also on this band. We didn't make many QSOs on 160 m. We focused our efforts on the other bands due to the high noise level on the magic band.

In total we made a little bit more than 17,098 QSOs of which 7,240 were unique calls. We expected to make more contacts, but the circumstances did not allow a better result. During our last weekend on Tonga we participated in the CQ WW CW Contest. Participating in a contest from the Pacific is completely different than contesting from Europe. It was a nice experience and we learned a lot from it. In total we made 1,700 QSOs in the contest. Without the contest we would have made more QSOs in the same time. It was difficult to find a clear frequency and to keep it. Many times we were covered by the NA and EU mesh.

Continent By Mode

Band	SSB	CW	RTTY	FT8	Total	Total %
AF	25	43	0	17	85	0.5 %
AN	0	0	0	0	0	0.0 %
AS	1,625	4,225	615	1,622	8,087	47.3 %
EU	996	3,486	177	1,011	5,670	33.2 %
NA	99	1,804	38	562	2,503	14.6 %
OC	168	326	12	112	618	3.6 %
SA	17	79	3	36	135	0.8 %
Totals	2,930	9,963	845	3,360	17,098	100.0 %

Band/Mode breakdown

Band	CW	FT8	SSB	RTTY	Total	Total %
160	50	64	0	0	114	0.7 %
80	1,347	280	0	0	1,627	9.5 %
60	38	214	0	0	252	1.5 %
40	1,654	244	382	0	2,280	13.3 %
30	1,980	652	0	42	2,674	15.6 %
20	2,589	700	1,773	455	5,517	32.3 %
17	1,262	782	516	208	2,768	16.2 %
15	829	381	145	60	1,415	8.3 %
12	214	43	114	80	451	2.6 %
Totals	9,963	3,360	2,930	845	17,098	100.0 %

Breakdown by Continent

Continent	Total	Total %
Africa	85	0.5 %
Asia	8,087	47.3 %
Europe	5,670	33.2 %
North Ameria	2,503	14.6 %
Oceania	618	3.6 %
South America	135	0.8 %
Totals	17,098	100.0 %

Continent By Band

Band	160	80	60	40	30	20	17	15	12	Total	Total %
AF	0	4	5	28	10	36	2	0	0	85	0.5 %
AN	0	0	0	0	0	0	0	0	0	0	0.0 %
AS	42	717	8	836	672	2,243	1,952	1,177	440	8,087	47.3 %
EU	9	533	146	945	1,739	2,123	166	9	0	5,670	33.2 %
NA	55	343	89	331	201	805	535	140	4	2,503	14.6 %
OC	8	30	4	128	37	232	93	79	7	618	3.6 %
SA	0	0	0	12	15	78	20	10	0	135	0.8 %
Totals	114	1,627	252	2,280	2,674	5,517	2,768	1,415	451	17,098	100.0 %

F - France

Mhz	2	4	5	7	10	14	18	21	24	28	Total
QSO's	0	0	0	0	20	80	22	0	0	0	122

DL - Germany

Mhz	2	4	5	7	10	14	18	21	24	28	Total
QSO's	0	14	30	46	178	74	0	0	0	0	342

K - USA

Mhz	2	4	5	7	10	14	18	21	24	28	Total
QSO's	50	311	79	296	182	730	491	128	3	0	2,270

JA - Japan

Mhz	2	4	5	7	10	14	18	21	24	28	Total
QSO's	33	601	0	680	573	1,837	1,737	1,080	429	0	6,970

Last day

We had to pay a lot of overweight coming to Tonga which we didn't want to pay again on the way back. The price for overweight was exceeding the value for a new mast and coax-cable. We decided to find another way to send the fiber mast and coax back home. The alternative was to leave the material on Tonga and buy new equipment at home. But why not sending it to Tarawa for our next DXpedition to Kanton, T31EU? After a few telephone calls we made the decision to send it to Tarawa which was much cheaper than sending it back home and take it with us to Kanton in February. On the last morning we packed the ski-bag (35 kg) and brought it to Fiji Airways for transport to Tarawa via Fiji. Chuck, our contact person on Tarawa, would take care of the final handling of the ski-bag.

We had another quick visit in town before we went back by bus to the resort. The last stuff was packed and at the end of the afternoon we were ready to leave for the airport. After a 2 ½ hour flight we arrived at Auckland airport. We went to a hotel for a few hours of sleep. At 09.00 h in the morning we went by taxi to the city center for a breakfast. After breakfast we walked around a little bit and went back to the airport. The bumpy flight from Auckland to Doha was 17 ½ hours. Arriving at Doha airport we had another 8 hours transfer till our departure back home. We went to a lounge to relax, had a nice shower and breakfast. After a few hours the team separated, Pat went back to London, Tom to Edinburgh, Martin and I to Amsterdam. 6 hours later we were back in the Netherlands after travelling for two days.

Ski-bag ready for transport to Canton for T31EU

QSL

Tom, GM4FDM, is our QSL manager. All QSLs will be answered via buro, OQRS or direct. A short time after our DXpedition the logs were uploaded to LOTW. Many thanks for the support from the DX-clubs: OHDXF Finland, SDXF Swiss DX Foundation, EUDXF European DX Foundation, LYNX DX Group, Clipperton DX Club, BARTG, LADXG - LA DX Group Norway, FEDXP Far East DX Ploiters, EIDX Group, GPDX Portuguese DX Group , CDXC The UX DX Foundation, ETDXA The East Tennessee DX Association, Lone Star DX Association, Mediterraneo DX Club, GDXF German DX Foundation, GMDX Group and RSGB. And the many individual sponsors, especially Alex, PA1AW, for his support and maintaining the website. For more information, statistics and photos see our website

http://tonga.lldxt.eu and Clublog.

A35EU - Photo Gallery

EUDXF - Martin, Pat, Ronald and Tom

A35EU

Girl helping with the Tapa Cloth

Local children

Local handcar

Local houses

Our shack at Heilala

Tom GM4FDM

Site seeing on the bike

The beach

French Polynesia DXpedition: TXØA/TXØM

BY CEZAR TRIFU, VE3LYC

The DXCC entity of French Polynesia (FO) includes about 100 islands and atolls within a large area of the Southern Pacific, extending approximately 2,200 km in the NW-SE direction, and up to 800 km perpendicular to it. While FO is world-wide ranked #165 by Club Log in Mixed, #149 in CW, and #158 in SSB, the ranking for Central EU is much higher: #46 in Mixed, #31 in CW, and #63 in SSB. In the view of the relatively high ranking for Central Europe, the EUropean DX Foundation has generously allocated a grant towards a project bringing FO on the air.

Just landed on Morane atoll

TXØA camp site

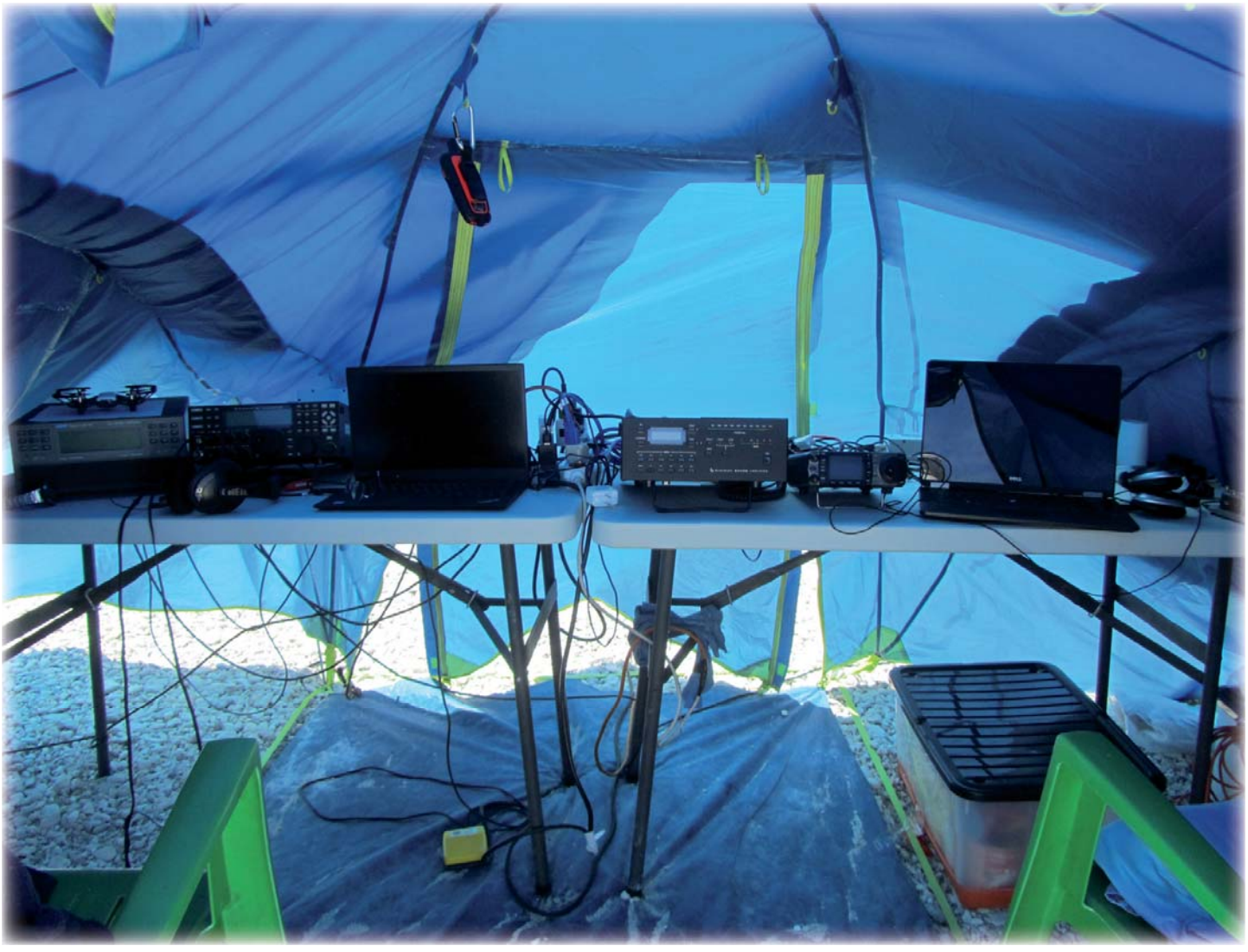
Worth noting, the islands of French Polynesia are grouped into 12 IOTA references. Except for Morane (OC-297), which has been designated a new IOTA reference in October 2018, the Actaeon group (OC-113) is the rarest. There was only one operation from OC-113, carried out in April 1990 by FO5BI/P from Marutea Sud, one of its atoll counters. Ranked #6 on the Most Wanted IOTA List, this reference is in demand by 98 % of all IOTA members.

Jean-Yves Lepage and his wife Sandrine, who planned to visit French Polynesia aboard their yacht L'Ile d'Elle during the last part of 2018 agreed to provide transportation to these two IOTA groups for a small team of radio operators. They purchased in Tahiti all the materials we requested, which included a Honda generator in addition to the one they owned and offered to lend us, two deep cycle batteries and a charger, as part of our contingency plan, sealed drums, tents, gas, food and water supplies, etc.

The operating team included Adrian,

Adrian (KO8SCA) operating K3 and SPE Expert 1.3K-FA

Cezar (VE3LYC) using IC-7000 and KPA-500



The operations tent

KO8SCA, and mysel, VE3LYC. For the OC-113 reference we targeted for Maria Est, located 153 km to the northeast of Morane (OC-297). Both atolls are small and uninhabited, with fully enclosed lagoons. Landing and leaving their reefs required well planned and executed logistics, and our skipper Jean-Yves was joined by his friend Bernard, a resident of the Gambier Islands.

Given the weather conditions at the time of our arrival in Gambier, the skipper decided to sail first to Morane and then to Maria Est. On Morane, Bernard installed a long rope which allowed the operators and the equipment to be moved in safely at high tide with a dinghy. We operated from there as TXØM between December 6th and 10th, using an IC-7000 and K3 transceivers, KPA-500 and SPE Expert 1.3K-FA amplifiers and multi-band verticals powered by Honda generators.

The log includes 7,514 QSOs with 4,727 stations in 99 DXCC on 6 continents. About 23 % of the contacts were made on each of 40 m and 30 m, 35 % on 20 m, 18 % on 17 m, and a few on 15 m. Almost 90 % of the QSOs were in CW, with the rest in SSB. The continental distribution was AS 29 %, EU 31 %, NA 36 %, OC 2 %, SA 2 %,

and AF <1 %.

As the wind direction changed, we were forced to depart from across the lagoon, which required a sustained effort and took much longer than landing. Once returned to the yacht it took us 15 hours to sail to Maria Est. Landing there was done by driving the dinghy carefully over the reef, in order to avoid hitting its razor-sharp edges.

We operated from Maria Est between December 12th and 16th and logged 5,135 QSOs with 3,446 stations in 79 DXCCs on 6 continents. About 35 % of the contacts were on 40 m, 18 % on 30 m, 26 % on 20 m and 21 % on 17 m, with almost 95 % of the QSOs in CW, and the rest in SSB. The continental distribution of QSOs was AS 22 %, EU 33 %, NA 39 %, SA 3 %, OC 3 %, and AF <1 %.

TXØM camp site

We stayed on the air during night time as long as the bands were open, but weren't able to sleep during the day at all because of the very high temperature and humidity. Instead, we preferred to visit the remains of the nearby old seasonal settlement used for copra production or to search for shade to cool off a little. For meals, Bernard spoiled us with his tasty fish and lobster cooking skills. Leaving the atoll had to be done from across the lagoon, a 6 hour long effort under the burning sun.

Since propagation conditions on 20 m to EU were poor, particularly for the western and northern areas of the continent, we decided instead to focus on 30 and 40 m to reach more EU stations. As such, we focused on 17 m and 20 m for AS and NA. During our two stops we made a total of 12,636 QSOs with stations in 106 DXCCs. Table 1 presents the top 15 DXCCs by number of QSOs and stations in the logs.

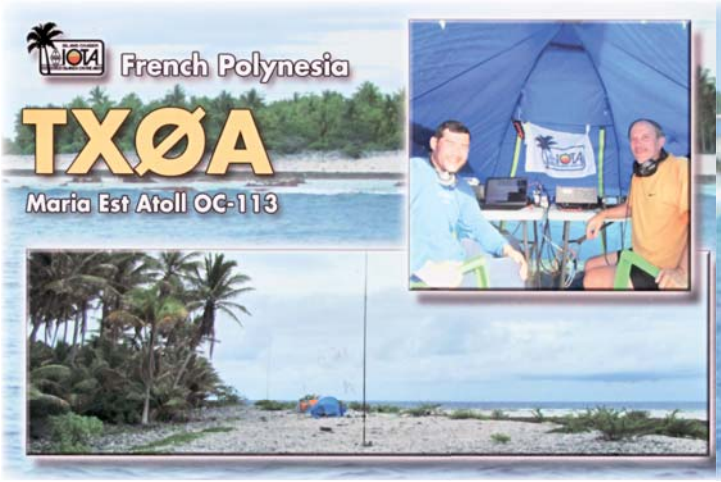
Rank of DXCCs by number of contacts and stations in the logs

DXCC	TXØA				TXØM			
(#)	QSOs		Stations		QSOs		Stations	
1	1,843	K	1,189	K	2,470	K	1,533	K
2	1,022	JA	577	JA	1,858	JA	1,053	JA
3	378	I	275	I	492	I	297	I
4	210	DL	173	DL	323	UA	228	UA
5	203	UA	168	UA	267	DL	202	DL
6	149	F	106	F	212	F	136	F
7	128	VE	80	VE	172	VE	102	UA9
8	84	PY	56	UA9	164	UA9	100	VE
9	77	EA	53	PY	133	EA	90	EA
10	76	UA9	52	EA	103	UR	1	UR
11	63	UR	52	UR	87	VK	55	G
12	56	G	44	G	71	G	54	VK
13	56	VK	42	VK	63	PY	48	SP
14	45	OK	33	OK	63	SP	44	OK
15	40	ON	31	ON	62	OK	39	ON

Dinner prepared by *Chef* Bernard

We wish to thank Jean-Yves, Sandrine, and Bernard for their strong logistical assistance. We remain indebted to the International Radio Expedition Foundation (IREF), German DX Foundation, RSGB, DX News, Clipperton European DX Foundation, DX Club, CDXC: The UK Foundation, Swiss DX Foundation, Orca DX and Contest Club, and Dorna DX Club, for their generous grants. Johan (PA3EXX) - pilot station, Mehdi (F5PFP) - logistics, George (VE3GHK) - technical assistance, Maury (IZ1CRR) - website support, and Jean-Paul - our host in Tahiti, are acknowledged for their help. We are grateful to DG2AT, DL6DQW, KD1CT, I2YDX, SM3NXS, N4WW, and N6FX for their exceptional support, to the top donors DL4KQ, JE1DXC, JF4VZT, JJ8DEN, KØDEQ, K1HT, K5MT, K9RR, N4II, N5UR, OE3SGA, OE3WWB, ON4IZ, PT7WA, SM3DMP, SM3EVR, SM6CVX, VE7DP, VE7QCR, VK5MAV, W1JR, W6RLL, WB2YQH, WC6DX, and many others who offered financial help.

Departing Maria Est from across the lagoon required a serious effort



The New Member Story

BY DIRK DE BOER, PA1BD (EUDXF # 973)

Dear members of the EUDXF,

my name is Dirk, I was born in 1964 and my callsign nowadays is PA1BD. I got involved in radio in the early 1980's and discovered DX a few years later on the 11 meters band like many of us I think. It was a great time working DX with QRP power and a homemade HB9CV 2 elements beam. In these years I was (and still I am) an SWL and became a member of VERON who assigned the listener number NL-10355 to me.

I started to study for lamateur radio license back in 1990 and succeeded in April 1991 for my C license (PE1OAV) which gave me access to the VHF and higher bands plus a special permit for 50 MHz. I'm not very intrested in VHF as my goal was HF, so I had to learn the morsecode to get my A license. In December 1992 I passed the morsecode test and received the callsign PA3GHP. Back in 1998, ham radio amateurs got the opportunity to obtain a vanity callsign. Therefore, I changed my callsign a couple of times in PA9KW, PA2C and recently since the 1st of August 2018 in PA1BD which will be my final callsign. The things I like most in ham radio is working DX, contesting, building antennas and Dxpeditioning. The modes I prefer are SSB and CW. I also like to experiment with vertical antennas near the seacoast.

In 2010 I visited a friend of mine, VK5ZMM, in Adelaide South Australia. We came up with the plan to go on IOTA DXpedition and activate Kangaroo Island (OC-139) for a couple of days and so we did with my Australian callsign VK5AUQ. It was a great experience and we've learned a lot. Maybe in the future there will be an opportunity to go on DXpedition again, I hope so. I have also been a member of the PI4COM Contestgroup Oude Maas for several years and learned a lot from Ronald, PA3EWP, and Alex, PA1AW, about contesting.

Now I'm working on my pretty small home station. I have built an antenna mast myself, but due to special circumstances the mast is still on the ground in the garden. Fortunately the future looks a bit better now and I can go on with building up my station. I just ordered a Hexbeam G3TXQ at Anthony's, MWØJZE. I hope to put up mast and antenna in springtime. Hamradio is fun and I love it!

73 es gud dx de Dirk, PA1BD (EUDXF # 973)

change of addess

I would like to remind you that members who changed their postal or e-mail address inform our treasurer at

eudxf@eudxf.eu


Serving DX Community since 1986
EUDXF
European DX Foundation

EUDXF NEWSLETTER ARCHIVE

Dear Member/New Member,
You can find all of our newsletters published since 2009 for download here …
(To download please click on the photo of the desired issue)

Older issues have only been produced on paper. Enjoy reading! — Enjoy your work.

EUROPEAN DX FOUNDATION E.V.

Data Protection Declaration
(Members)

Section 1

By joining of a member, the association records the name, first name, date of birth (optional), home address and e-mail address of the member. This information is stored in the computer systems of the executive committee. Each club member is assigned a membership number. The personal data are protected by appropriate technical and organizational measures against the knowledge of third parties. Other information about the members and information about non-members are only processed or used by the association if they are useful for the promotion of the purpose of the association and there are no indications that the data subject has a legitimate interest, which precludes the processing or use.

Section 2

The board announces special events of the association life, in particular the execution of events in the club magazine and/or on the club's own internet pages. Personal member data can be published at this juncture. The individual member may at any time object to the publication of such data by the board. In this case, there will be no further publication in relation to this member on the notice board and/or in the club magazine and/or the club's own websites.

Section 3

Only board members and other members who perform a special function in the association, which requires the knowledge of certain member data, receive a list of members with the required membership data.

Section 4

The association informs the amateur radio related media about special events. Such information is also published on the website of the association. The individual member may at any time object to the publication of his personal data or revoke his consent to publication on the Internet. In the case of an objection or revocation, further publications regarding his person are omitted. Personal data of the withdrawing member will be removed from the homepage of the association.

Section 5

Upon resignation, the data of the member named under section 1 will be deleted from the member list. Personal data of the withdrawing member concerning the cash management will be kept for up to ten years from the written confirmation of departure by the Board in accordance with the tax regulations.

EUROPEAN DX FOUNDATION E.V.

MEMBERSHIP APPLICATION

☐ I herewith request membership in the European DX Foundation e.V. (EUDXF). Membership fees are a minimum of ***€ 25 per year*** and payable at the beginning of the year. Membership will be ***renewed automatically*** unless written notice is given not later than 6 weeks before the end of the year.

Surname: _____ Date of birth: (optional) _____

First name: _____

Call Sign: _____ Title: _____

Address: _____

Postal code: _____

City: _____

Country: _____

E-mail: _____ @ _____

☐ I am already a member of EUDXF, but I would like to become a life member:
(The price of life membership is still EUR 400)

Method of payment:

☐ I will pay the contribution to the bank account of EUDXF:

Bank: Volksbank Kleverland
IBAN: DE65 3246 0422 0205 1830 19
BIC: GENO DE D1KL L

☐ I will transfer the contribution via PayPal to cashier@eudxf.eu

I have read the privacy policy and herewith accept it.
I can revoke my consent at any time for the future.

Signature: _____ Date: _____

Please mail this application to:

EUDXF e.V.
Robert F. Lörcks, DL1EBV
Sommerlandstraße 23
47551 BEDBURG-HAU
GERMANY

You can e-mail your application to:

eudxf@eudxf.eu

Or get into contact with EUDXF via internet: http://www.eudxf.eu

€UDXF `01 2019

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