## E6AM - Niue DXpedition 2023

The idea to visit and activate the radio amateur bands of the island nation of Niue dates to the beginning of 2020. Then I planned and prepared the E6AM & A35GC DXpedition 2020. My plans were with one trip to the Pacific Ocean to visit and activate on the air two Pacific Ocean countries - Niue (E6) and the Kingdom of Tonga (A35).

Unfortunately, due to the outbreak of the Covid-19 pandemic, the restrictive measures related to it and the closed borders, my plans were ... foiled and postponed! Without going into details, I want to note that on March 12, 2020, I purchased all the plane tickets necessary for my travel to these two countries, and on March 13, 2020, the epidemic situation was declared, due to which we were totally closed and restricted, and travel were impossible!

However, in November 2022, after most of the restrictions were lifted, we carried out (with Ivan, LZ1PM) the activation of the radio amateur bands of the Kingdom of Tonga, as the A35GC DXpedition 2022.

Niue was then still closed to visitors. Due this reason, the E6AM expedition took place in 2023, from October 10 to October 23, 2023.

By the way, here is the place to mention that I had planned this expedition to be from 10 - 27 October 2023, but New Zealand Airlines canceled the flight on 27 October and offered us to fly back to Europe on 23 October 2023.

I am sure that many of the readers of this article have not heard and do not know about this small island country! Therefore, I will briefly describe some things about Niue.



Niue is a small, Pacific country - located more than 17,000 km from Bulgaria.

This island nation, with an area of 261 square km, which many do not know about, is a coral island located in the central part of the Pacific Ocean, northeast of New Zealand and Australia and bordered by the Kingdom of Tonga to the west and the Cook Islands to the east. The island has a volcanic origin. The entire island is surrounded by powerful coral reefs, and in the interior of the island there is a plateau with an altitude of 66 m. The population of Niue is about 1,600 people, 98% of whom are Christians. However, a large part of islanders (about 15,000) have permanently settled in New Zealand, where they work, study and live.

Since 1901, Niue has been under the rule of New Zealand, but since 1974 it has been self-governing! Niue has no industry and relies solely on imports. The capital of Niue is Alofi, which is the administrative center and has a population of about 600 people.

E6AM DXpedition 2023 was realized by 2 operators: Stan, LZ1GC and Dimo, LZ1ON. The preparation of the expedition was carried out entirely by me - Stan, LZ1GC. It took me several months to prepare and test the equipment, antennas and other equipment for it. Our plans were to activate Niue (E6) on the CW, SSB and FT8 modes.

I want to express my gratitude to Kolao, LZ1QZ and Hristo, LZ2HV for helping me learn the intricacies and specifics of FT8 mode operation. I also appreciate the help (in technical terms) that I received from Val, LZ1WX, as well as from Boris, LZ2JR, who providing us with his development - an ARGO ONE transceiver, which we used in FT8 and CW mode during the expedition. During the months of preparation for E6AM DXpedition 2023, I tried to anticipate everything that could happen. During this period of time, I exchanged dozens of e-mails related to the organization of this expedition - logistics, booking a good place for radio amateur activity (accommodation) and many other!

Packing the luggage for the expedition took an important place in the preparation of this expedition. Our equipment included 2 Kenwood TS 480 SAT transceivers, ARGO ONE transceiver, Yaesu FT DX 10 transceiver and 2 amplifiers: ACOM 1200S (1200 w) and ACOM 700S (700 w), as well as an antenna tuner ACOM 04AT. We are grateful for technical support of this expedition also from Iliyan, LZ3GA - assisting us with a Kenwood TS 480 SAT transceiver - 1 unit, and also from ACOM LTD Bulgaria, who provided us with an antenna tuner for the expedition - ACOM 04AT. The rest of the equipment used during the expedition is my personal property, purchased in the years before this expedition!

Our antenna equipment included - Exponential GP antenna having a prism shape - for 40 - 6 meter bands, Vertical with capacitive cap for 160/80/40 meters, INV. Vee on 60 m, verticals on the 30 and 20 meter bands, as well as sloopers for 17 and 15 m - a total of 7 antennas. Among our luggage, an important place was occupied by the coaxial cable - about 200 m.

We transported all this technical and antenna equipment in 2 suitcases - 23.8 kg each, as well as 2 paper but well-secured boxes, also 23.8 kg. I will add that our laptop bags containing every one 2 laptops and 1 transceiver they weighed 12-13 kg each.

The first part of our trip included 2 flights: Sofia (Bulgaria) - Heathrow (England) and Heathrow (England) - Sydney (Australia) with an hour and 20 minute stopover at Changi Airport (Singapore) to refuel the plane.

On 06 October 2023 at 12:00 Stan, LZ1GC and Dimo, LZ1ON with 120 kg of luggage were already at Sofia Airport, waiting for our flight from Sofia (Bulgaria) via Heathrow (England) to Sydney, Australia. At the airport in Sofia, we were cordially sent off, with wishes for a successful trip and a successful expedition, by Victor, LZ3NY and Vesco, LZ2JE. The journey to Sydney, Australia was long and hard. As I wrote above, Sofia - Heathrow - 3 hours flight, followed by a flight from Heathrow, England to Changi, Singapore - almost 14 hours flight, and then from Changi, Singapore - Sydney, Australia - 7 hours and 40 minutes flight! Over the years, since 2014, traveling to such distant destinations, I have realized from personal experience that only, the sleeping time on the plane is not wasted! That's why on such long flights - I sleep and wake up only when I hear the flight attendants delivering breakfast or dinner with the carts. That's what I did too! Dimo, LZ1ON for whom this was the first trip of such a long distance spent most of the flight talking with his seat neighbors on the plane and watching the travel route on the tablet.

The trip to Sydney, Australia was the first leg of our trip to the island of Niue. We arrived at Sydney International Airport, Australia at 06:50 on 8 October 2023. At the airport in Sydney, Australia we were met by our friendly family (Bulgarians) - Olga, LZ1QG and Nick, LZ1QP, who have been living in Sydney, Australia for more than 25 years. Nick and Olga - true friends! What's more, I feel them like my brother and sister! For several years now they have met, sent and sheltered me with all comforts on my journey for the my Pacific Ocean Expeditions! I have no words to describe their dedication and support! I guess readers understand how important it is to be in the right place and with the right people after long journeys and expeditions! Nick and Olga "give" me what no one could give me - peace, comfort, true friendship!

Arriving in Sydney, Australia, we could say that we have covered 2/3 of the distance of our trip to Niue Island. The last two parts left to travel were: Sydney, Australia - Auckland, New Zealand and Auckland, New Zealand - Niue. Our flight to Auckland, New Zealand was on 09 October 2023 at 19:35 local time. In New Zealand we had a nearly 10 hour layover until our flight to Niue, which time was spent in the transit area at Auckland Airport. On October 10, 2024 at 13:45, after a 4-hour flight, the New Zealand Airlines plane landed at the airport in Niue.

We were so happy, indeed.....

The both of us - Stan, LZ1GC and Dimo, LZ1ON felt joyful and happy that we were already on Niue and very soon E6AM would be on the air!

Arriving in Niue, after a quick passport check and without undue delay, we were met as we had previously agreed by the owners of the accommodation and the place where we would be staying - Mr. Kupa and Ms. Mary.

Mr. Kupa and Ms. Mary were notified in advance that we would be carrying a lot of luggage and they were waiting for us with two cars!

Before to go to the accommodation place, we had to do a few things: to get the E6AM license from the local licensing office, arrange things with the Internet at the local Telecom and to shoping for food for a few days, so that we not waste our precious time in the next few days.

Our meeting with Mr. Sioneheke in charge of amateur radio licenses was short but cordial! The E6AM license was ready and handed over to us. Our visit to the local Telecom took us over an hour, but however we were at our accommodation around 17:00 local time.

The location was very convenient for placing various antennas. There were a little time until nightfall, due this reason, we immediately began unpacking our baggage and prepared to install at least one vertical antenna to be on the air faster. At 07:12 GMT (20:12 Niue time) E6AM was already on the air – on 14074 KHZ in FT8 mode, and we continued late into the night unpacking and equipping the workplaces with the necessary equipment.

At dawn, after 3 hours of sleep, Dimo and me started still in dark to prepare for lifting EXP. GP antenna for 40 - 10 m + WARC bands and the Vertical antenna for 160/80/40 m. We, both managed it, but it took us a lot of time and effort. E6AM was already on the air with 2 working places!

The same day we also installed a sloper dipole antenna for the 17 meters band. With the antennas installed we started working on FT8 and CW on the various bands. The next day we installed vertical antennas for the 30 and 40 meter bands, the INV. Vee on 60m and sloper dipole on 12m. In 3 days we installed 7 antennas for the different radio amateur bands. What struck me was that the sloper dipoles antennas worked perfectly!

A problem for our activity from Niue was the interruption of the power supply - twice, for 8 and 4 hours, respectively, and the necessary dismantling and a new installation of two of our antennas: the Vertical antenna for 30 m and the Vertical antenna for 160/80/40 m, which we erected again but in a different place.

From October 10 to October 23, 2023, E6AM was permanently on the air working with 2 and sometimes 3 working places on different bands and modes – CW, FT8, SSB. During this time period we made 42,066 radio contacts (with only about 100 doubles), with 156 countries on CW, FT8 and SSB - on all HF radio amateur bands.

I provide Clublog statistics on the work of E6AM, which readers can familiarize themselves with below in the attached tables:

## Continent By Band

Band	160	80	60	40	30	20	17	15	12	10	Total	Total %
AF	0	7	8	11	23	42	26	30	32	40	219	0.5%
AN	0	0	0	0	0	0	0	0	0	0	0	0.0%
AS	179	756	11	1724	1250	1690	1762	2370	1959	1927	13628	32.5%
EU	7	377	332	800	1984	3060	2359	1849	1772	1394	13934	33.2%
NA	60	602	174	872	556	850	1236	2113	2202	2446	11111	26.5%
OC	29	111	17	267	100	309	191	372	185	230	1811	4.3%
SA	1	9	10	46	29	104	201	303	269	271	1243	3.0%
Totals	276	1862	552	3720	3942	6055	5775	7037	6419	6308	41946	

## Breakdown by Continent

Continent	Total QSOs	%
Africa	219	0.5
Asia	13628	32.5
Europe	13934	33.2
North America	11111	26.5
Oceania	1811	4.3
South America	1243	3.0
Totals	41946	100.0

The propagation during E6AM activity was very good on the high bands and not so good on the low ham bands. However, we have spent a lot of time on the 160, 80 and 60 meter bands to enable radio amateurs to make contact with Niue on those difficult radio amateur bands as well.

In addition to the two-time interruption of the electricity supply and the relocation of two of our antennas, we also had another problem - in the dark part of the day, we had a loud noise from the street lighting, located about 100-150 meters from us. This disturbance made it difficult to work on the air, especially on the low bands.

Unfortunately, we could not eliminate this problem! E6AM was on air until 15:00 GMT (06:00 local Niue time) on 23 October 2023. Throughout the night of the 22nd and 23rd of October, we dismantled the antennas and prepared the luggage for our departure.

An assessment of this expedition will be made by those we have worked with on air! In view of the fact that we were only 2 operators and the short time of this expedition - only 12 full days, I personally think that E6AM was a good expedition! Of course, it could have been better, but considering our modest resources at our disposal, I think it turned out to be a good activity!

In the last part of this article, I want to share some things about the locals that made an impression on me. The local people, as I already mentioned, are about 1,600 people on the island and they really all they know each other. They are very responsive and kind to foreigners. A national characteristic of the inhabitants of Niue is their overweight. Maybe it's down to a gene!? At least 70-80% of the locals are overweight!

On the island of Niue on Saturday and Sunday are not working days. The Sunday is a day for prayers and church attendance. I remember that from October 17 to 21, 2023, there in Alofi - the capital of Niue celebrated the "Constitution Day". These all days (week) were declared holidays and all local institutions rested except the local Telecom, which works around the clock! This holiday (The "Constitution Day") has also become a kind of gathering of local producers and artisans! I was impressed that the locals knew how to celebrate and had fun doing it with all their heart and soul!

On October 23, 2023, at 15:00 with a flight NZ 937 on New Zealand Airlines, we departed from Niue and after 4 hours we arrived in Auckland, New Zealand, where we stayed for 4 days, as our next flight to Sydney was on October 28, 2023. In Auckland we stayed in a guest house where the conditions were very good for rest and relaxation after 2 weeks of sleep deprivation during our Niue expedition. We returned to Bulgaria on October 30, 2023, after flights from Auckland, New Zealand and Sydney, Australia to Heathrow and Sofia, Bulgaria.

As the organizer of E6AM DXpedition 2023, I want to express my gratitude to all the individual sponsors who helped us to be this expedition successful!

Thanks to all the amateur radio Foundations, Associations and Clubs that have supported us, namely: German DX Foundation, EUDXF, Swiss DX Foundation, INDEXA, Chiltern DX Club (U.K.), Twin City DX Association, Oklahoma DX Association, SouthEastern DX Club, LA DX Group, GM DX Group, Clipperton DX Club, Mediterraneo DX Club and Jake McClain Driver Memorial Amateur Radio Club.

Thank you for your trust and support!!!

73! Stan, LZ1GC ( E6AM )



14 Mhz Vertical



Exp. GP antenna of E6AM



Obtaining of E6AM License



Stan & Dimo



Stan E6AM



**E6AM Team**