

## Tokelau 2014

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We started to plan this expedition in late autumn 2013. After consultations with Jan DJ8NK and Günter DL2AWG we decided on Tokelau ZK3. Günter activated ZK3 in 2013 and provided us tips on where to stay. It was the most vital information, as Tokelau has no hotels and visas can be obtained by invitation only. We contacted one of the most prominent persons at Nukunonu and obtained his permission to stay and operate from his house. As it turned out, he hosted nearly all ZK3 expeditions over the last years.

Tokelau is a self-governed country, with a population of 1400, spread across three atolls, some 500 km north of Samoa. There is one way to get there - by PB Matua, the only regular boat operator. ZK3 is entirely dependent on economic support provided by New Zealand. While each atoll has certain autonomy, the country administration is coordinated by the Liaison Office located in Apia, Samoa. ZK3 is the country of "green energy" as electricity is generated by solar panels. The entire system with an output of 1 megawatt is made up of three photovoltaic hybrid systems, one on each atoll.



Logistics turned out to be complicated due to significant amount of luggage. We had to take over 100kg, including only 10kg of personal belongings. Moreover, we had to include layovers in Apia in our plans, to accommodate PB Matua uncertain schedule. Anticipating the wait time in Apia, we also applied for Samoan call signs.



We took three transceivers, including one spare, and two 500W PAs. We planned to use a BigIR from StepIR and a set of other vertical antennas supported by the Spiderbeam fiberglass poles.

We left Warsaw in the end of September 2014. Upon arrival at Apia, we realized that the ship departure date was still uncertain. The operator gave us a chill by forgetting to update our reservations after multiple schedule changes he made. Finally, everything was resolved.

Awaiting the departure, we launched our stations and made over 1500 QSOs in two days, using 5W0AF (SP5EAQ) and 5W0AG (SP5ES) call signs.

Finally we departed on 8th October. After a day of sailing we landed at Nukunonu atoll. Our host turned out to be charming and very helpful. During the entire stay we were treated as family members. The only drawback of this QTH was the very limited space, practically eliminating the TopBand activation.



The next day, we installed the BigIR and wire antennas covering 40 to 10m. However, due to a mechanical failure of the BigIR, we were unable to switch bands as quickly as expected. But a few hours later we started to work as ZK3Q (SP5EAQ) and ZK3E (SP5ES).



While the pile-ups were tremendous, the propagation into Europe on upper bands looked like a disaster. The short path to Europe was not working at all and highly

demanding 10 and 12m turned out to be extremely difficult, especially for Central and Eastern EU stations on the long path. At the same time the US stations enjoyed several hours of openings. During the last week there, we were happy to log several EU QSOs on 80m using 18m vertical with resonated radials.



To make contesters happy, we entered CQWW Contest on 15 and 10 meters, also providing multipliers on other bands. Most EU stations were barely readable at ZK3 though. The propagation peaked for some EU countries for less than 10 minutes daily (and usually only on LP) making contacts very difficult. Eventually, we decided not to mount the 160 m vertical at all.

While we discussed several installation options, the dilemma was solved by some heavy tropical gales of 9 degrees strength in Beaufort scale that took place over the last week.

We made over 27,000 CW/SSB QSOs during our stay at Nukunonu. On the return trip, our 5W calls were activated again, yielding the total of 7,200 5W QSOs. Unlike ZK3, the Samoa propagation to EU was excellent. We would like to thank all our sponsors and donors that helped us cover some expenses. This was 'a suitcase expedition' and we tried to activate ZK3 on as many HF bands as possible.



*Edited for GDXF by DJ9HX, Prof. Dr. Uwe Jaeger*