

5X3C + 5X3E : Uganda DXpedition - March 2019

Our Dxpediton to Uganda was scheduled for the end of 2019 since we had already announced our March activity from Chad. However, in spite of having already licenses and detailed plans, we had to advance the activity from Uganda, giving up Chad. In fact, the Italian Consul in N'Djamena strongly suggested such a move for security reasons, on the grounds of the current unstable conditions of the country. Luckily enough, we had already started the licensing process; with a little pressure on the Uganda Communication Commission, we got all the paperwork on time.

Skipping details, this change was not really a breeze: we had problems with license payments (the local bank refusing to credit the Ministry account, not understanding the purpose of the money transfer!), a 6000 € bank check - the deposit for temporary import duties, mailed in advance via DHL – lost and later found in the safe of a custom officer after our return to Italy, and many other issues to face.



In the end, after resolving a number of really discouraging difficulties, all went well. Our resort, the Nyange Resort & Marina, was a classic “ham radio-friendly” environment and all personnel was very hospitable and helpful. This time we brought along five complete and complementary stations, so as to be equally capable of operating SSB, CW, RTTY and FT8. Unfortunately, just a few days after our arrival, one of them broke down: in one stroke of bad luck, we lost an Elecraft K3 and an Elecraft KPA500: unbelievable. We had to carry on with only four stations.

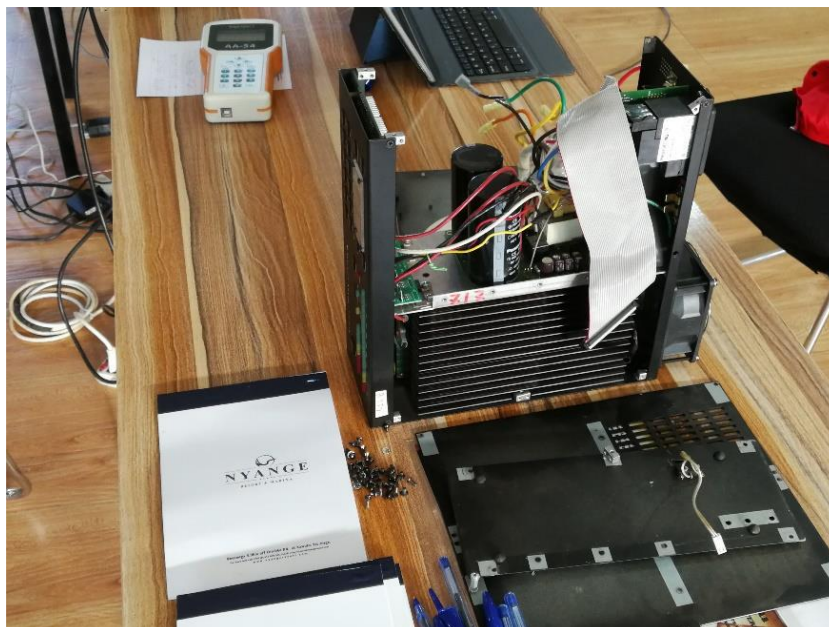
The propagation conditions were far from optimal, and the team strived to achieve a satisfactory number of contacts (see statistics below). This time, two new operators joined the team: I1FQH Franco e I2PJA Tony. A third one, IW1ARB Paolo, was also scheduled to join us, but a week before departure he had to give in for family reasons. These operators are long-time good friends of ours and we were more than happy to welcome them. Let’s read their impressions and comments:

I1FQH, Franco:

Well, I had been looking forward to a long time joining a Dxpediton by IDT. When the possibility emerged, I accepted with enthusiasm. Whoever enjoys Dxing longs for the thrill and challenge of the pileup. Every amateur who likes experimenting with setting up radios and antennas would like to challenge himself and his acquired knowledge. In addition, new travel destinations are always fascinating. So, at the request of my friends to join the Dxpediton, I thankfully and enthusiastically answered YES!

Skipping descriptions of our trip and related anecdotes and contingencies, reported in the Dxpediton video, let me tell you why the ITALIAN DXpedition TEAM is certainly one of the best groups of operators over the last decades.

First of all, the atmosphere of being among real OMs, something forgotten by many of us (suffice it to read the daily comments on the cluster or the Forums). In this team everybody helps, nobody is in the last row, nobody in the first one. Silvano is everybody's reference point, but if you wish to make him angry call him "Team Leader" (this is forbidden in the IDT). The organization level is outstanding, every piece of equipment perfect, tested and working in advance, nothing left to chance. The choice of location is dictated by the requirements for installing stations and antennas, with planimetry and specific tasks about "what to do" and "when to do" for each member. This includes check-in procedures at departure for crates and holders, packing lists and custom procedures at the arrival. All perfectly run and managed, even at ham costs and not at corporate costs as is the case for other DXpeditions. In order to reach top-level achievements, nothing is overlooked: it is this professionalism that brought 5 IDT operators to the top ranking for an overall number of DXpeditions made. Just one question to my IDT friends: when do we leave next time? I1FQH Franco



Here is Toni's (I2PJA) brief account:

This was my first experience with a true Dxpedition, over more than 45 years of radio. In 2004, I took part as IH9P in the CQWW SSB Contest (Multi-Single) from Pantelleria island, but nothing to do with this occurrence. In the past, I had no chance to join an IDT activity for family reasons. This adventure has been a beautiful and fascinating experience in many respects, from the specific ham side to the awareness of the huge efforts spent in logistics and preparation. Without direct exposure, it would be hard to believe what such a Dxpedition implies. Eighteen boxes to ship, on top of our personal ones, 420kg of equipment (cables, radios, antenna poles, computers, amplifiers, spare parts ...) is not an easy task. But a perfect organization made everything easy, even considering our destination: Africa! Handling furious pileups was an exciting challenge, although followed at times by lengthy gaps of fruitless calling owing to poor conditions. I wish to thank my fellow friends for their nice companionship and for having offered a two-weeks experience full of anecdotes, pleasantries and jokes. Thank you all! I2PJA Tony



Following these notes from the new members, this is the account of our activity, mostly on the lower bands, by Alfeo 11HJT:

When activating a new country on the lower bands, many factors must be considered in order to optimize the Dxpedition throughput. To start with, in that period of the year the nights were already shortening, which put emphasis on the Grey Line for reaching difficult zones. We made special efforts at dawn with long calls on 160m, trying to reach the USA West Coast, as that was the only possible slot over the whole day. Similarly, we tried to contact JA stations by searching openings at their dawn, even if for us it was already evening and signals from Europe were strengthening. A positive factor was the relatively low atmospheric noise, whereas propagation conditions were erratic, owing to the very low solar activity. However, we enjoyed some openings on the higher bands during the day, which implied penalties during the night though. The CW station was equipped with two RX antennas, a DHDL and a Diamond, which were instrumental in digging weak signals out from the noise. Neither antenna was clearly better than the other, and the operator chose antennas depending on circumstances. We tried to mount a Diamond for the SSB station for 80m, but results were not as expected, possibly because of the proximity to a power line. Sadly, the greatest penalty on 80m SSB was not coming from technical issues, but rather from lack of discipline among the callers, reducing heavily our ability to handle traffic on the pileups. Another serious issue originated from LED lamps, in widespread use and source of wide-band noise. Thankfully, the security staff agreed to switch them off at night, thus improving the situation. We had carried along with a "noise killer", but in the end, we did not have to use it. The transmitting antennas were Verticals for 40 and 80m, the one for SSB with a switch for use also on CW and FT8, whereas on 160m we used our well tested vertical with a capacitive hat. The nature of the soil played a significant and positive role, it being of rocky nature but with a reddish color, indicating a high content in Iron which helped the efficiency of our verticals. On the contrary, we did not receive significant help from the proximity to Lake Victoria, to the South of us and therefore in a less useful direction. Finally, a real asset was powerful amplifiers, such as the Hercules 1500 by ITALAB and the HL1200 by Atlantic (more than 1200W), which definitely contributed to our signal strength. 11HJT ALFEO

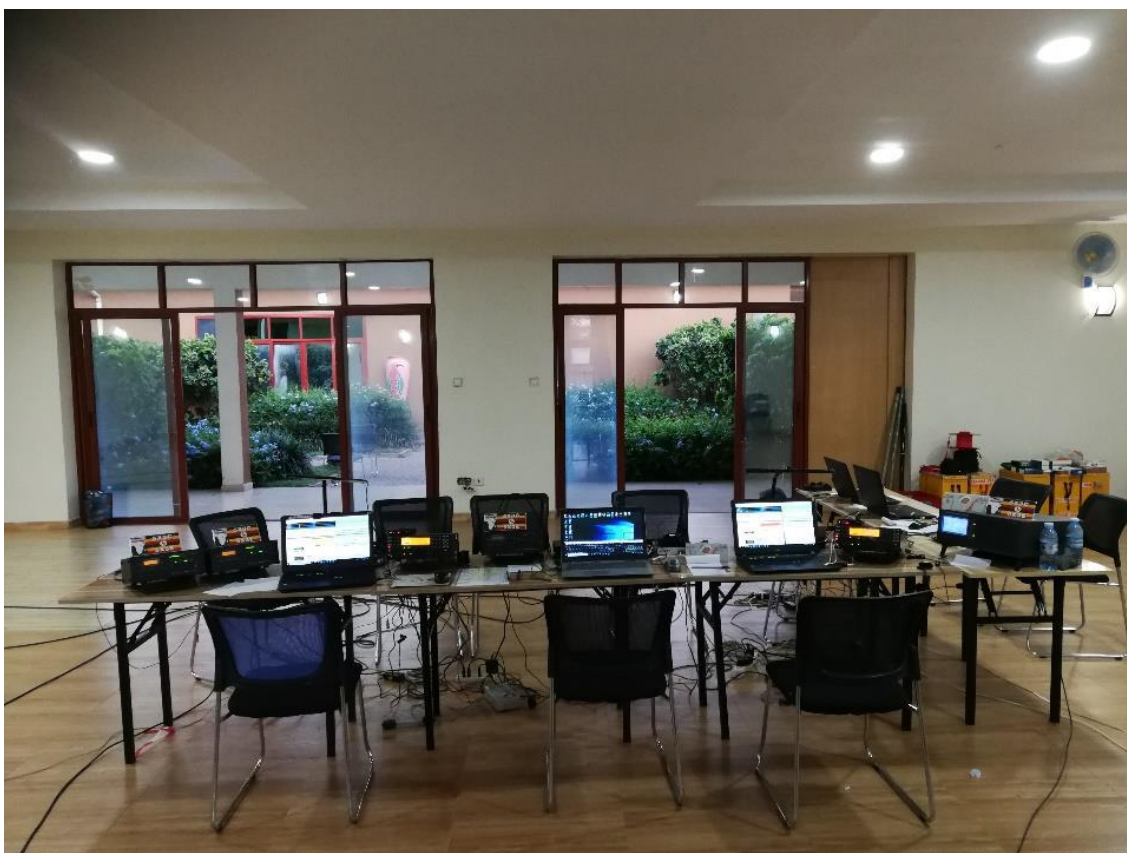


In conclusion, I wish to comment on the new FT8 mode. After our first, positive experience from Rwanda, we decided to improve our setup by configuring the 5 stations also for this digital mode. As expected, because of the novelty of the software and the impossibility to configure our setup for multi/multi on all computers in the network, some problems arose. We always test and configure our radios and computers before departure, and it was the case also this time. Unfortunately, just two days before departure with all

equipment already packed in their respective crates, the WSJT-X developer's team released a new version addressing issues in the log database (not all of them, though).

As a consequence, we could install the new version of the software only hours before the beginning of operations as 5X3E, which created some minor problems. We succeeded thanks to the efforts of Stefano IK2 HKT and the contribution of Ms. Mercy, in charge of logistics at the Nyange Resort & Marina, recently graduated in Informatics Engineering. She managed to sort out a serious problem concerning the upload of our online log. In fact, just a few hours into operations, we realized that some QSOs were disappearing from the log, whereas others were doubled in the records. Thanks to Ms. Mercy and Stefano, all contacts were retrieved and set correctly in the log. Originally, the FT8 log was to be updated every 2 to 3 minutes; in the end, in order to avoid further complications, Ms. Mercy produced quickly a patch refreshing and updating the log every day. After a few hours of total panic, a solution was found and applied successfully. A most useful lesson for our next Dxpedition.

Database issues aside, we can say that FT8 was a pleasant surprise. We managed to collect a considerable number of contacts, maybe the current record on this mode for a Dxpedition, but we are not certain of that. Such statistics are not our turf.



We often set FT8 in beacon mode, with the station calling in sequence first on 10 and then on 12 meters while keeping an eye on possible signals received. As soon as conditions allowed, we shifted to CW and SSB, in order to glean those few but precious QSOs on the higher bands. The opposite of the lower bands: we were amazed by the ability of this mode to anticipate the normal openings on CW and SSB to JA, USA and Europe with respect to forecasts. Up to 2 hours before normal openings FT8 allowed high-rate QSOs, up to the point when switching to CW or SSB was a natural occurrence (but for cases when the operators were busy on other bands).

We used the well-proven Fox/Hound mode of WSJT-X on all bands but for 160m; here we missed since the QSO rate is inferior to the normal Fox/Hound mode. In the future, we shall certainly use the Fox/Hound mode also on 160m, but for QSOs with JA stations. For them, we must use the normal mode, since their allowed frequency is confined to 1.908 MHz.

Despite the existence of several articles and manuals about the Fox/Hound mode, we noticed several stations calling below the canonical 1000Hz, thus wasting their time and generating QRM. We invite all interested hams to read the instructions carefully, rather than hitting buttons at random creating confusion and QRM.

In a few minutes (not more) you can find the appropriate instructions, in a synthetic and simple form, also on our website.



As additional information, we have complemented our normal setup with Elecraft K3 transceivers and the new SunSDR PRO HF by Expert Electronics. The latter one is a small-size SDR transceiver (it fits in your computer bag) with an output of 20W and interfaced via a single LAN cable for maximum flexibility of use. Obviously, we had to insert appropriate filters between RTX and antenna, in order to attenuate the signals on other bands (we were working in multi/multi mode). In the end, this experiment was quite positive; we plan to use this type of apparatus for the digital modes, taking advantage of its direct sampling characteristics for maximum performance. This radio remained on throughout the entire Dxpedition, without any loss of performance. The only requirement is for a cooling fan since the dissipated heat under continuous operation is considerable.



Operating in FT8 is valid for the digital mode, but we devoted a few hours also to the venerable RTTY for those fond (or nostalgic) of this mode. However, we realized that this had been a waste of time: out of 550 RTTY QSOs, 497 calls had already worked us via FT8 on the same band. Given that the validity of RTTY and

FT8 QSOs toward DXCC is the same, we decided for the future that FT8 will be the standard digital mode, barring special circumstances requiring specifically RTTY.

We concluded our FT8 operations with more than 18,000 QSOs, of which 6006 unique calls. Unfortunately, we managed only a handful of contacts on 10 and 12m, but we got a lot of satisfaction from 15 to 80m. We devoted only one night to 160m, but the “normal” mode slowed down our QSO rate considerably. Changing the rules on the go was unfeasible, given the risk of creating utter confusion ...A serious activity on 160m-FT8 will take place on our next Dxpedition.

Nothing more for now, but for the great satisfaction arising from the many thankful emails from radio amateurs from Japan, USA, Europe and Italy who got a new digital one from Africa on difficult bands such as 80, 40 and 30m. These messages of appreciation are our best incentive to push ahead.



Finally, a few statistics to summarize our results. Further anecdotes or details are left to the presentations that I and the rest of the Team will give around the world, in particular at Sections and Associations which have been sponsoring us over the years in our “roving Africa”.

See (or hear from) you soon and 73,
Silvano I2YSB

QSOs:

Total QSOs	Uniques	Uniques %	QSOs/day	QSOs/hour
57,964	18,989	32.8 %	4,878	203

per Band:

160m	80m	40m	30m	20m	17m	15m	12m	10m
1,958	3,178	7,492	5,543	20,102	12,043	5,915	886	847

per Mode:

CW	Phone	Digital
21,144	17,926	18,894