

November 2010: ZL8X – Kermadec islands DXpedition.

by Pierluigi “Luis” Mansutti, IV3PRK

This has been, as usual, a great low-band DXpedition by Dietmar DL3DXX and the well experienced German Team. In 17 days, they made 148.750 QSO's, with 4.225 of them on 160 meters. All the story, statistical data and pictures can be found on their website.

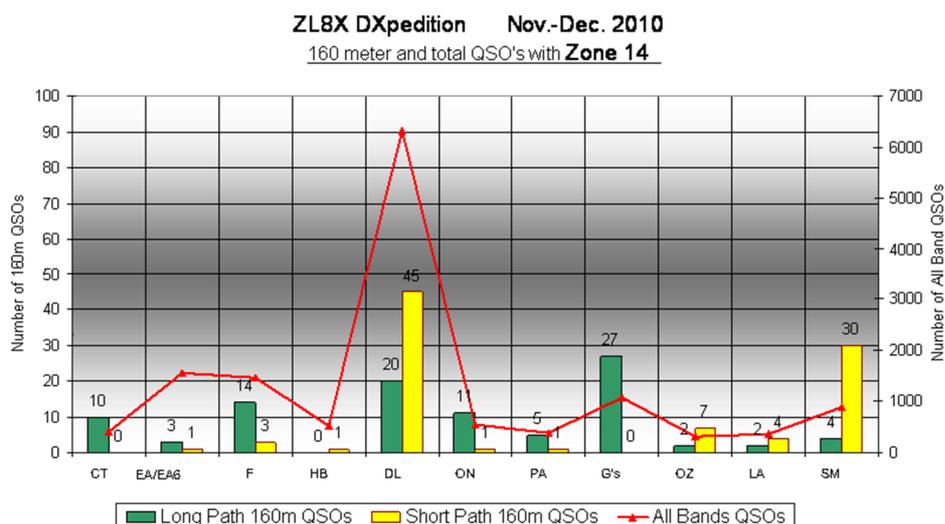
The path to ZL8X on Raoul Island in the Kermadec Group is 17,900 km at 31 degrees from my QTH, making it challenging due to its proximity to the auroral oval. While the route to ZL3 is slightly longer (over 18,000 km at 80–90 degrees), it is less affected by aurora. Fortunately, solar activity was still low, and the geomagnetic field has been quiet during all the DXpedition, reaching the best (almost dead) in the last days, when I managed to work them. These have been the daily numbers (Solar Flux/Ap Index) of the period: Nov. 20: 80/2 – Nov. 21: 78/4 – Nov. 22: 75/5 – Nov. 23: 75/7 - Nov. 24: 76/5 – Nov. 25: 78/3 – Nov. 26: 76/1 – Nov. 27: 77/6 – Nov. 28: 80/7 – Nov. 29: 83/3 – Nov. 30: 86/3 – Dec. 1: 87/2 – Dec. 2: 87/1 – Dec. 3: 87/0 – Dec. 4: 87/1 – Dec. 5: 88/1.

During the first 10 days of operation, I never heard a peep, while whole Europe, north and south of me, was working them. Suddenly, ZL8X jumped out of the noise on November 29 for half an hour, but the following days they have been peaking 579 for long time, really amazing! ...could have been steady ducting propagation conditions for such a long time?

Dietmar, DL3DXX, kindly sent me the complete ZL8IX log, and I got confirm that, since the first day of operations, Nov. 20 – while the page of my notebook is noted “ZL8X - nil”, they worked a lot of Europeans, including S50U, who is in my own grid square JN66 (but Dan has a wonderful DX location up on the mountains with long Beverages)! The next day, Nov. 21, they worked via Long Path the first CT ad F stations in the morning, then T77C in the afternoon... and, three days later, the first from southern Italy, and so on.

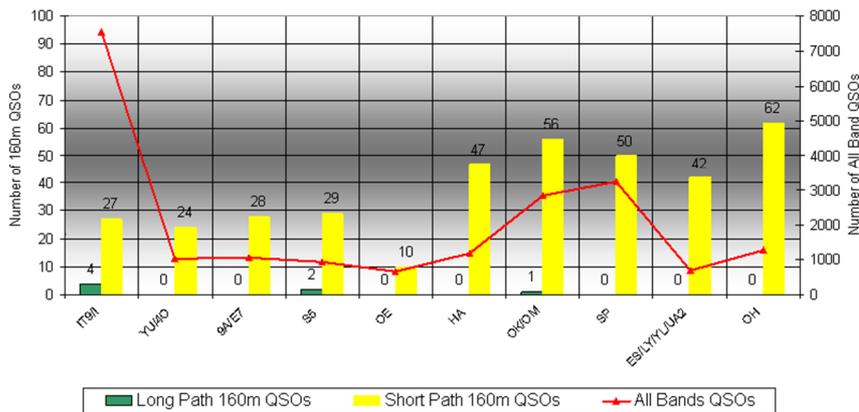
I never made a 160 m. QSO over the long path with anybody in my life, and thus it was a big surprise the discovery on ZL8X log of 105 QSOs with Europe over the LONG PATH. Not only all the G's and most western EU, but also four Italian stations managed to work them between 06.37 to 06.48z of Nov. 29. There have been seven openings between Nov.21 and Dec. 02, around ZL8 sunset and EU sunrise, and it's likely the path was along the Terminator, thus demonstrating that “on 160m Gray Line over Long Path can be very efficient”.

From their website statistics and the final logs, sent to me, I built the following graphs showing the 160 m. LP and SP QSO distribution among the European countries related to their all-band total contacts.



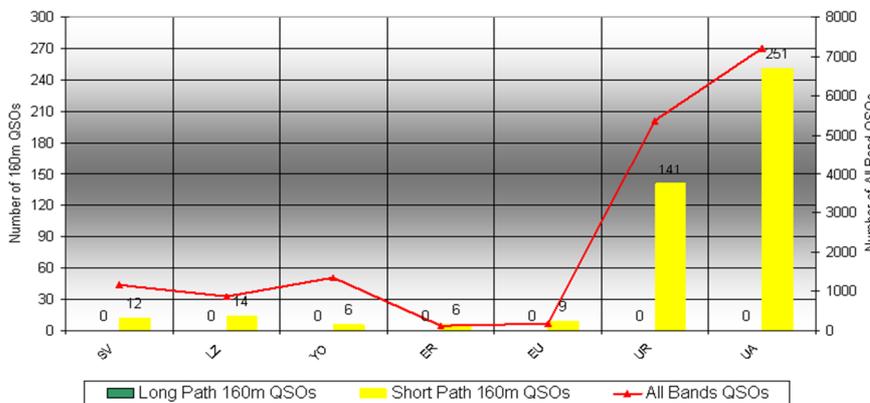
The left scale shows the number of 160 m QSOs for each country, categorized as long path (green column) or short path (yellow). The red line corresponds to the right scale, which represents the total band QSOs in each country.

ZL8X DXpedition Nov.-Dec. 2010
 160 meter and total QSO's with **Zone 15**



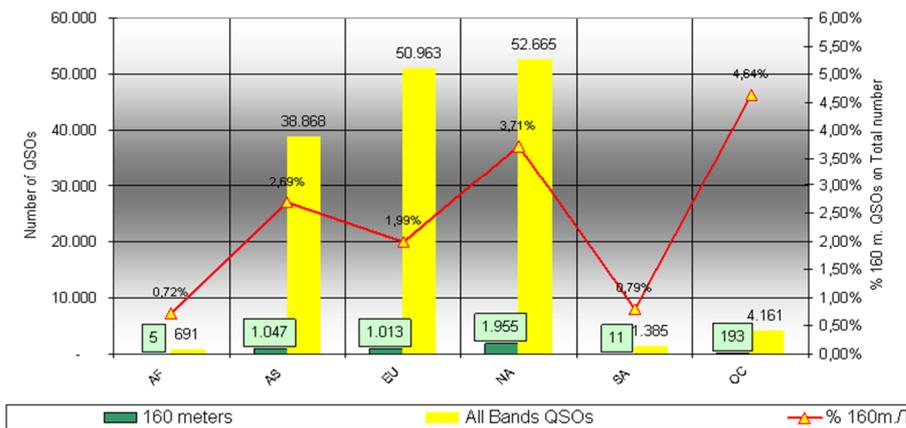
In the previous graph for zone 14, we can see that most, if not all, the QSOs in western Atlantic facing countries were made via the long path. Differently to the ZL7 case, these were really long-path contacts, being all around 21-22,000 km., three to four thousand longer than the short path.

ZL8X DXpedition Nov.-Dec. 2010
 160 meter and total QSO's with **Zones 16 and 20**



We can also appreciate how much DX activity is carried on in each country (Italy leads with over 7 thousand all band QSO's, followed by Russia and Germany) and how many of them on 160 meters.

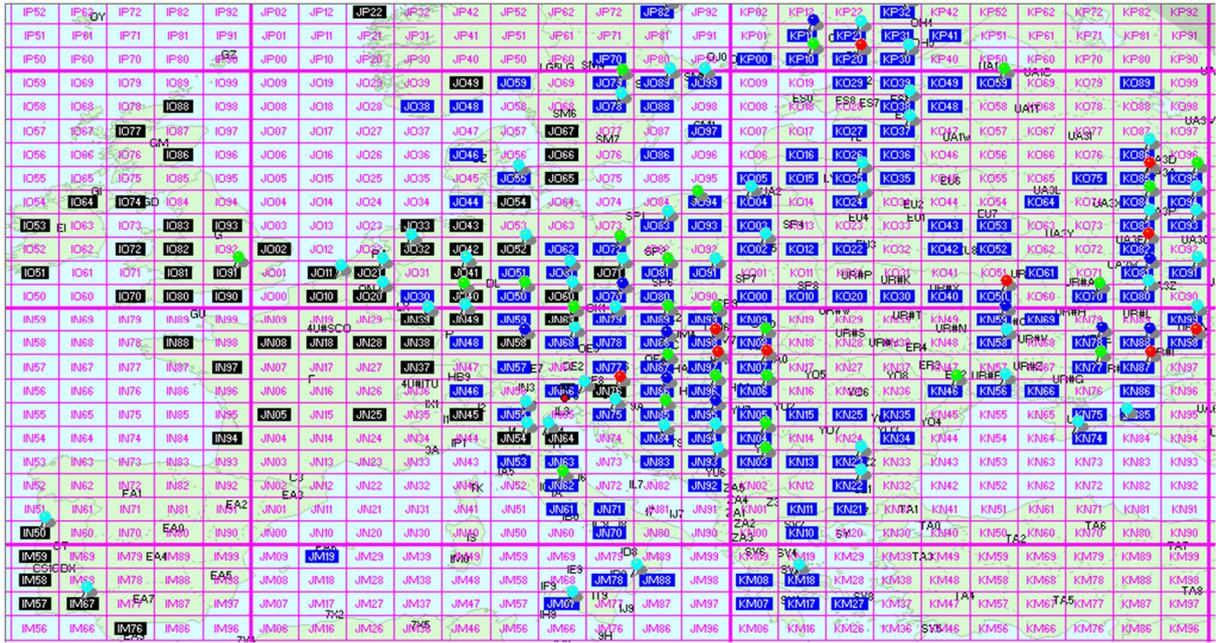
ZL8X DXpedition Nov.-Dec. 2010
 160 meter and total QSO's with **all Continents**



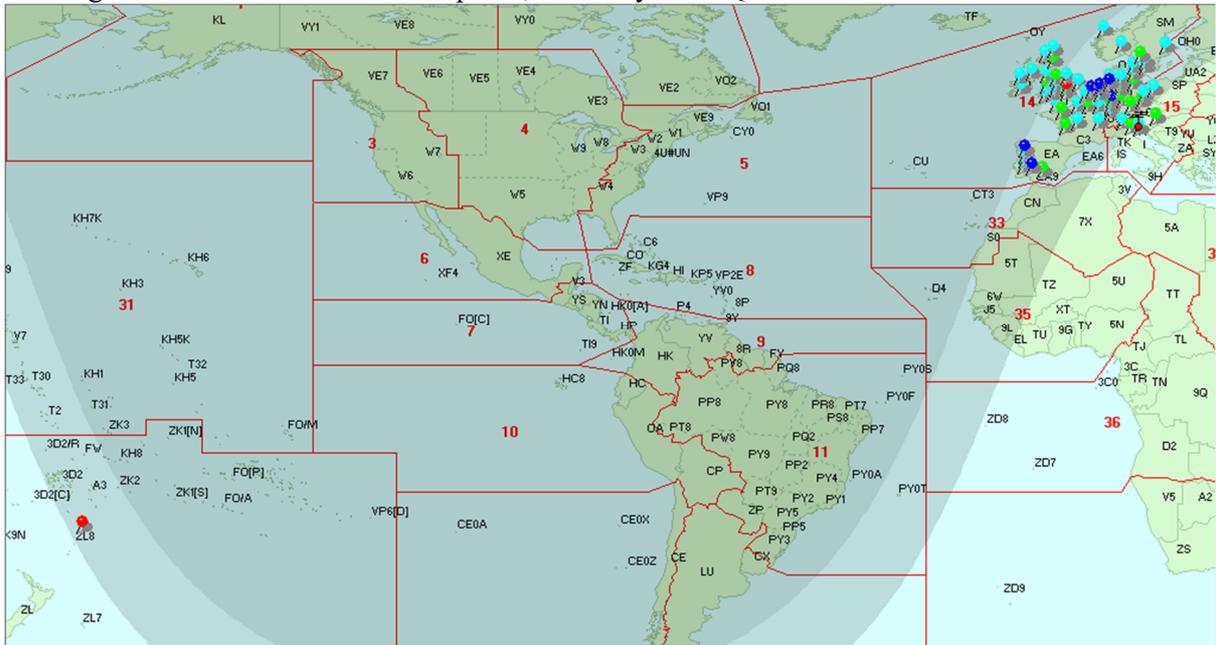
The final ZL8X log contains 1.013 QSO's with Europe on 160 m., 24% of the 4.224 total, and about 400 of them are with Ukraine and European Russia. This graph shows the sums of all the continents.

From their final log I extracted all the European callsigns, matched with their own grid locator and filled the grid squares on the DX-Atlas map: bleu-coloured squares are for standard short path QSOs, while the black squares have been worked via Long Path.

I also added the coloured stick pins with the following code for the number of stations worked in that grid square: azure = 3 or more; green = 5 or more; blue = 7 or more; red = 10 or more. (I kept the same pin codes and scale to compare with the previous 3D2KJ analysis).



The following DX Atlas map, taken on Nov.29 at 06.30z, shows the Gray-Line long path between ZL8 and Western Europe, with pins on the worked squares. On that magic morning, the first entry in the log, at 0620 was DJ7MI This was followed by European Topband friends, such as DF2PY, DJ6RX, PA3GCV, G3OLB, G3SED... and many others. Then came S58N in JN76 (east of me) and also the Italians IK4DRY, I4IKW, I4GAD, and my friend Cesar I2ZFD in Milan, who used a long Beverage to the West. In total 44 Europeans, closed by GI3OQR at 07.33z. Awesome!



DL3DXX e-mailed me the following further comment about their ZL8X long-path achievement:

«Luis,

For your interest I tell you that more long path contacts would have been possible from a better location. Unfortunately, no better location was available on Raoul Island. We were pretty happy to find such good short path location; however long-path was behind the mountains.



You can see it on the attached picture. Our QTH was close to the group of Norfolk pine trees in the background. The picture is made from the hilltop as a view from the long path direction to the camp. 73 Dietmar».

December 2010

Luis IV3PRK