



DL3IAS/p

QRPp Experiments on 2 m & 10 GHz

@ March Contest 2024



For the March contest it was foreseeable that my 2m contest group **DR2X** (JO40QL) would not be QRV. But I did not really feel like operating from home either. So why not doing some portable operation with very little effort (QRPp)? And so I decided to spend a few hours on Saturday afternoon until sunset on one of the highest mountains of the Palatinate: The **Kalmit** (673 m a.s.l.) in JN49AH. I was accompanied by **Helmut DC1UR**, who did not make any QSOs himself.

The equipment used for 2m was a very rare QRP old-timer from the 1980s: A **Mizuho MX-2**. The power output is just only **250 mW** on a simple **dipole** antenna at a height of 4 metres. A mini transverter for 10 GHz was also included: The so-called "**Portabele Simple**" by **Jürgen DC0DA**. The concept also dates back to the 80s. And with only **0.25 mW** on a **17 dBD horn** antenna not only QRP, but extreme QRPp! An **FT817** was ready as a back-up for 2m, but only used for 10 GHz as an the IF transceiver for 2m.

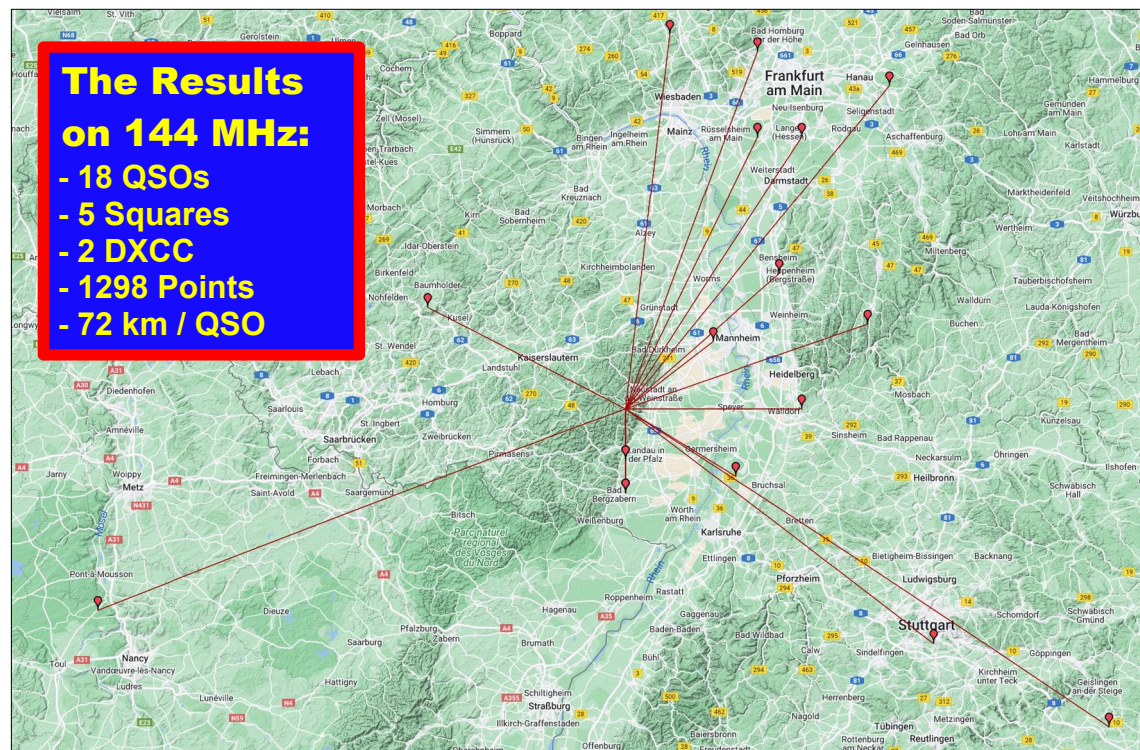
I actually managed a total of **18 QSOs** with the MX-2. But operation was not easy. Firstly, I had unexpected tuning problems with the frequency, which I did not see before. I suspect that the cold temperature was affecting the variable film capacitor. Secondly, I could only operate from 144.250 MHz to 144.350 MHz, as the MX-2 only covers two frequency ranges of 50 kHz each using pulled crystals.

After a little more than two hours of operation I had 18 QSOs in my paper log. I was particularly pleased of the QSO with **F8KID** at Nancy (JN38AT). I know this 2m contest station because I was QRV there during Marconi Contest 2019. However, I first had to ask **Pascal F5LEN** via WhatsApp to turn the big 4 x 10 element antenna group to me. And there was also a big pile up in Lorraine. But the ODX was **Frank DL2CC** from a distance of 161 km in JN48WM. Unfortunately, the only planned QSO on the 10 GHz band was not possible. But there was still Sunday left. More about this on the next page.

What was the weather like? Dry, cold and windless. But above all, we had a fantastic visibility!



Helmut DC1UR monitoring 2m



Above: View in north-east direction to the Odenwald

Below: View in south-east direction to the northern part of the Black Forest



I had planned only one QSO on 10 GHz for Saturday afternoon: With **Daniel DL3IAE** in JN49DG. We had line of sight, and a short distance only 15 km. Unfortunately, a sked was not possible as Daniel was not QRV until after dark. Other stations were not QRV within the range of the QRPp transverter. So the microwave highlight was limited to the reception of the two beacons **DB0UX** near Karlsruhe (JN48FX) and **DB0MOT** on the Feldberg / Taunus (JO40FF).

The second attempt took place on late Sunday morning. This time from the Upper Rhine Plain at my 10 GHz rain scatter QTH in JN49DJ. And not far away from my home QTH. The distance to JN49DG is only 16 km, but now without a line of sight! As a "booster", the horn antenna was replaced with a **48 cm dish by PROCOM**. This gave me 10 dB more antenna gain and **100 mW of ERP**. The QSO to Daniel went without problems in CW, and even SSB was possible. My **250 µW** were received with about 15 dB over noise. Even with the horn antenna, a CW QSO would certainly have been possible. Again I was only able to receive the **DB0UX** and **DB0MOT** beacons. The **DB0ANU** beacon in Ansbach JN59GG was too weak for the high noise figure of this simple mini transverter.

Video "Reception 10 GHz Beacon DB0UX" (Size 4,4 MB) <https://c.web.de/@337150638448182491/qu2QqUb6QGWRTWgfm9rJ9g>



*Thanks for all the QSOs
and hope to hear you again*

Vy 73

Nino DL3IAS

