DL0EF: Astropeiler gerd@dj5bv.de operating https://astropeiler.de/ reported a great experience during the ARRL EME Contest Weekend on 23 cm. -- Astropeiler is an old timer among the radio telescopes. Built in 1956 and operated by Bonn University till 1995 when scientific work went to its „sister" Telescope in Effelsberg (100m dish). Scrapping the telescope was prevented by a club consisting of a mixed crew of radio-amateurs, hobby-radio astronomers and scientists finally achieving the status of a „Historical Landmark" for the telescope in 2005. The 25m telescope, an additional 10m and 3m dish, some antennas and electronic labs are all now maintained and operated under the responsibility of the ASTROPEILER e.V, club. During the Contest I was given the one-time chance of using the 25m dish for a 12-hour period – RX only-. It took me some days to prepare the equipment for a flawless operation but as a result everything worked ok! On Saturday evening the rig (2 receivers + SDRuno+ 3 Laptops) was set up on a spare table in the control room. While waiting for the moon we checked a couple of local beacons (yes, the 25m dish is AZ/EL controlled, while the 10m dish is polar mounted, not too good for beacon checking!). Some of the beacons (less than 50 km away) almost blasted the receivers. The moon was on time! The first signal heard: DF3RU 589 at moon rise, led the other radio amateur present (Walter, DK8EU, running the dish positioning), to the statement: "impossible, this must be a direct, terrestrial signal, no EME ", he changed his mind when SP3ITF answered with a comparable signal „only "579. And surprise also caught other visiting hams during the contest when they looked at the spectrum display: „don´t be kidding, this is microwave? It looks like 80m "! Yes, at times there were up to 50 stations simultaneously on the screen between 1296.000 and .100. I had planned to look for „weak "stations during the contest to give them a report but that mission failed, since there are NO weak stations on a 25m dish!! The tracking and all the rest of the equipment worked perfectly. During the 9-hour operational period (in the remaining 3 hours an old man had to sleep) I logged 91 different calls from all continents plus another 11 stations on 70 cm using a temporary feed placed in the dish. Due to the construction of the instrument there is no chance to use it in an active mode TX/RX. Summing up this was a life time experience, a travel in a different world comparing it against my first EME experience some 40 years ago when I used 16 x loop-yagis on 23cm and there were weak signals, but ONLY weak signals! This beautiful ancient instrument is still going strong with its precisely controlled mass of more than 90 t. It is used now for education; a lot of visiting schools, for university grade seminars and is open to the public (guided tours) during the summer months and further scientific work on specific subjects and operating campaigns, some of which also raised my interest in radio-astronomy after 60 years in all disciplines of ham radio. Technically speaking the Astropeiler did not age at all (as I did.) In some technical features (antenna control, pre-amplifiers, signal processors and computers) it is now more modern and capable than at the days when it was put in operation. I wish and hope this telescope will survive and serve some further generations to come.

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25m dish @ ASTROPEILER / DL0EF