

MAGNETIC FIELD MEASUREMENTS DURING THE NOVARA EXPEDITION (1857-1859)

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The Austrian-Hungarian Navy undertook a world circumnavigation from April 1857 to August 1859 with the frigate Novara under the command of Kommodore Bernhard von Wüllerstorff-Urbair. The Imperial Academy of Sciences Vienna (now Österreichische Akademie der Wissenschaften) acted as scientific advisory board. Among the various scientific goals in a broad range of disciplines, the geomagnetic measurements conducted by the scientists onboard were supposed to increase significantly the knowledge of geomagnetism 20 years after the foundation of the Göttinger Magnetischer Verein. The magnetic field instrument was a Lamont theodolite, calibrated at the Central Institute for Meteorology and Geomagnetism Vienna by Kreil. Due to instrumental difficulties some of the field measurements demanded further corrections during and after the cruise. Nevertheless, the magnetic field values at 17 land-based locations and additional measurements (declination only) onboard the Novara on open sea could be derived. These measurements improved the knowledge of the terrestrial magnetic field and its variations.

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