

## **EXPERIENCES IN THE OPERATION OF LOW-COST CONSTRUCTED OBSERVATORIES**

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The Helmholtz Centre Potsdam GFZ German Research Institute for Geosciences collaborates with several international institutions to upgrade existing magnetic observatories or to establish new observatories in unique locations. The main aim is to improve the data quality of geomagnetic time series for scientific studies, but also to collect data in remote locations where previously no measurements have been done. The observatories at Keetmanshoop in Namibia and on the island of St. Helena were newly established to obtain geomagnetic field information relating to the secular variation characteristics of southern Africa, as influenced by the South Atlantic Anomaly in particular. To avoid cost-intensive building constructions, in both cases a concrete pillar with a simple but effective roofing was erected for the absolute measurements. The variometers were placed inside buried containers, filled with water bottles for temperature stabilization. Data quality was a prime consideration and presented a special challenge with this particular construction and design. The experiences of the operation of both the observatories are presented.

Observatory construction, requirements, data quality

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