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New concepts in magnetic observatories operation

Jean L. Rasson and Sebastien van Loo

Institut Royal Météorologique de Belgique, Centre de Physique du Globe, B-5670 Dourbes, Belgium (jr@oma.be)

Unlike astronomical, seismological or meteorological observatories, magnetic observatories could not be automatized until now, because the tasks of absolute angles measurements need the intervention of the human operator, who unlike a robot, can be easily made non-magnetic. However, there is a need for unattended geomagnetic observatories operating with state of the art accuracies, be it for reasons of cost or staff logistics, or because the impossibility for an operator to access it, like at remote islands or on the sea-floor. We present recent developments and design in the automatisation of those absolute measurements at our lab and elsewhere. We look into the possibilities offered by the new automatic DIflux for the future magnetic observatories, and try to project how next generation magnetic observatories will operate and look like.