

MODERN TECHNOLOGICAL APPROACHES FOR DEPLOYMENT OF INTERMAGNET OBSERVATORIES IN RUSSIA

A. A. Soloviev, V. I. Kaftan, R. I. Krasnoperov, R. V. Sidorov

Geophysical Center of the Russian Academy of Sciences (GC RAS, Russia)

r.krasnoperov@gcras.ru

The presented report gives an outlook of modern technological approaches for geodetic support of geomagnetic observations. Among the problems which arise during areal magnetic survey is setting out the regular survey grid within the analyzed area and coordinate referencing of survey pickets. These procedures are required for allocation and mapping of magnetic anomalies. These problems are efficiently solved using modern electronic tacheometers (total stations), which allow modeling and setting out the survey grids of practically any desired configuration and survey interval. Deployment of geomagnetic observatories includes an accurate determination of the azimuth mark (mira) heading, which is required for absolute measurements of magnetic declination and inclination. The proposed technological approach is based on using GPS/GLONASS receiving equipment, an electronic tacheometer or a high-precision optical theodolite.