

GEOPHYSICAL SURVEY IN THE NEW MAGNETIC OBSERVATORY SITE IN COENEO, MICHOACAN (MÉXICO)

GERARDO CIFUENTES-NAVA, Maria Teresa Velázquez-Jiménez,
Esteban Hernández-Quintero

Universidad Nacional Autónoma de México, Instituto de Geofísica,
e-mail: gercifue@geofisica.unam.mx

We present the complete Geophysical Survey focused to the new magnetic observatory site located in Coeneo, Michoacan (México). These new observatory is going to replace in a near future Teoloyucan Magnetic Observatory (TEO) that operates since 1914. TEO have actually serious problems caused by the urban Mexico City grown up, mainly the construction of the Suburban Electric Train near to the observatory emplacement.

The terrains have all the facilities and infrastructure to place a Geophysical Observatory, nowadays an Interplanetary Scintillation Antenna (call MEXART) is operating by our institution.

Several Geophysical Methods were developed such as magnetic, electrical, gravimetric, GPR, and seismic during 10 days of surveying. Results demonstrate that the site is adequate to place a Geomagnetic Observatory, showed in the geophysical results. Intercomparison of Geophysical Methods is useful to have a complete analysis methodology.

The main advantage in this new place is that we have a complete terrain dedicate only for geomagnetic measures, independently from other geophysics disciplines; and we have a place too far from possible urban deployments, so we will be able to have a very long time geomagnetic observations.

Observatory, survey, Mexico

Universidad Nacional Autónoma de México, Instituto de Geofísica, Ciudad Universitaria,
04510, Coyoacán, D. F., MÉXICO,
e-mail: gercifue@geofisica.unam.mx