Determinación precisa del geoide

The Submetric Geoid of Mexico

Alternatives for a precise geoid determination

Ways to have a geoidal solution:
- Ask somebody to do it.
- Buy software and use it as a black box.
- Learn how to do it and do by oneself.

Determinación precisa del geoide

Stokes-Helmert Scheme

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STOKES-HELMERT SCHEME

REAL SPACE

HELMERT SPACE

ATMOSPHER
TERRAIN
GEOID
ELLIPSOID

Primary indirect effect

Direct effect

\[ \Delta g = \int \int \delta g \psi \, ds \]

INPUT DATA:

Digital Elevation Model
Detailed (1”x1”)
- average (30”x30”)
- global

Gravimetric Data
- point
- Global model

Lateral Density Model

REFERENCE DATA:

GPS /BM

RECOMMENDED INPUT DATA
Determinación precisa del geoide

TEST AREA SOLUTION

EVALUATION OF TEST AREA

rms ± 0.599 m