

The DNSC08BAT Bathymetry developed from satellite altimetry

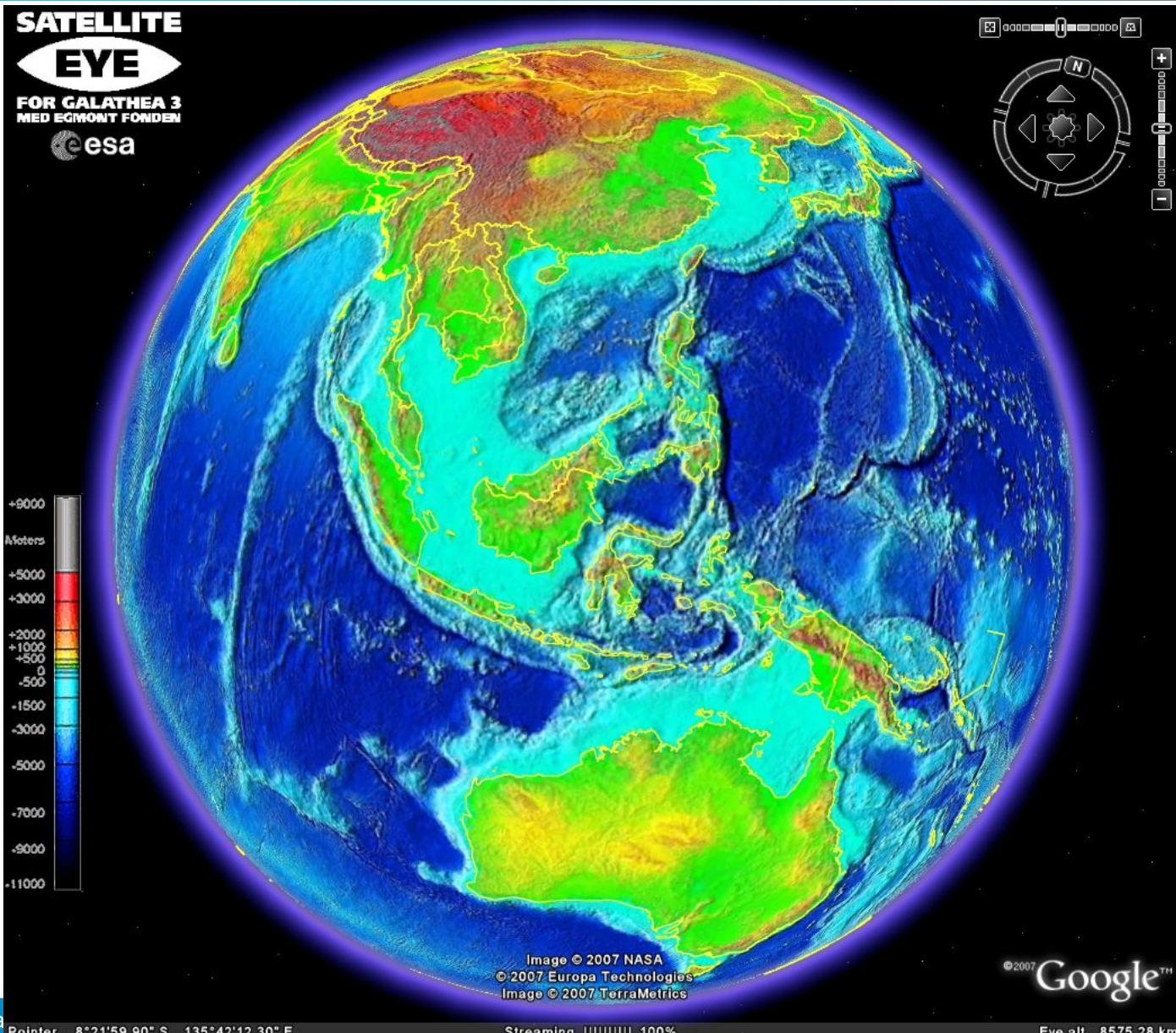
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DNOSC08 Bathymetry

DNOSC08 Bathymetry
In Google Earth

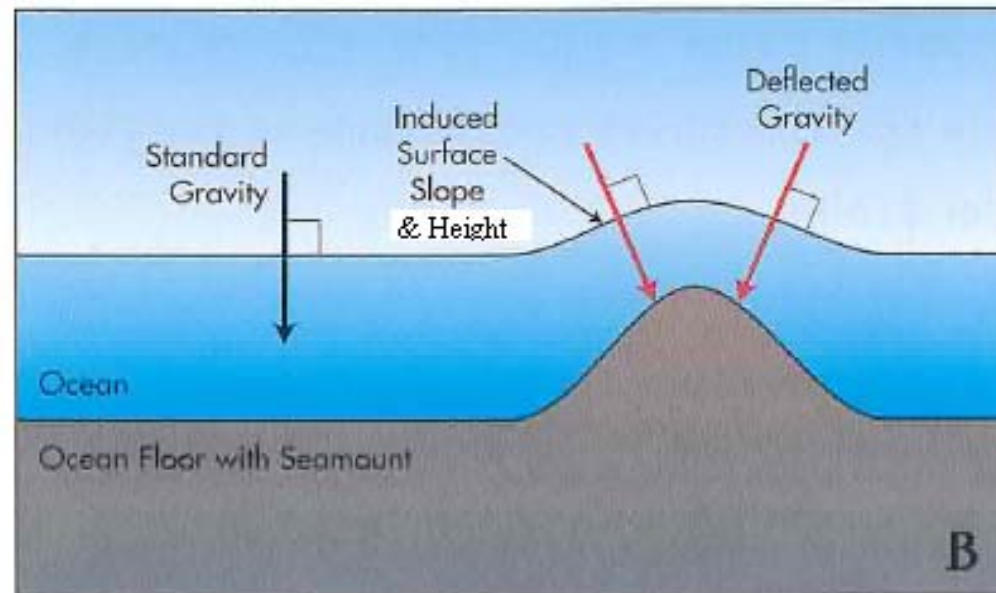




The DNSC08 Bathymetry

- High Quality MSS/Gravity field can be used to map bathymetry.
- The GEBCO-1 minute is co-registered with DNSC08 used to derive bathymetry
- Using Spectral separation through filtering (20 and 120 km)
- Adjusting wavelength 20 km – 120 km based on DNSC08 gravity optimizing coherency (outside these bands GEBCO-1 is used)
- Adjusting depth where GEBCO-1 > 100 meters.

- Principle of using
- Gravity to predict Bathymetry
- (From Sandwell/Smith)





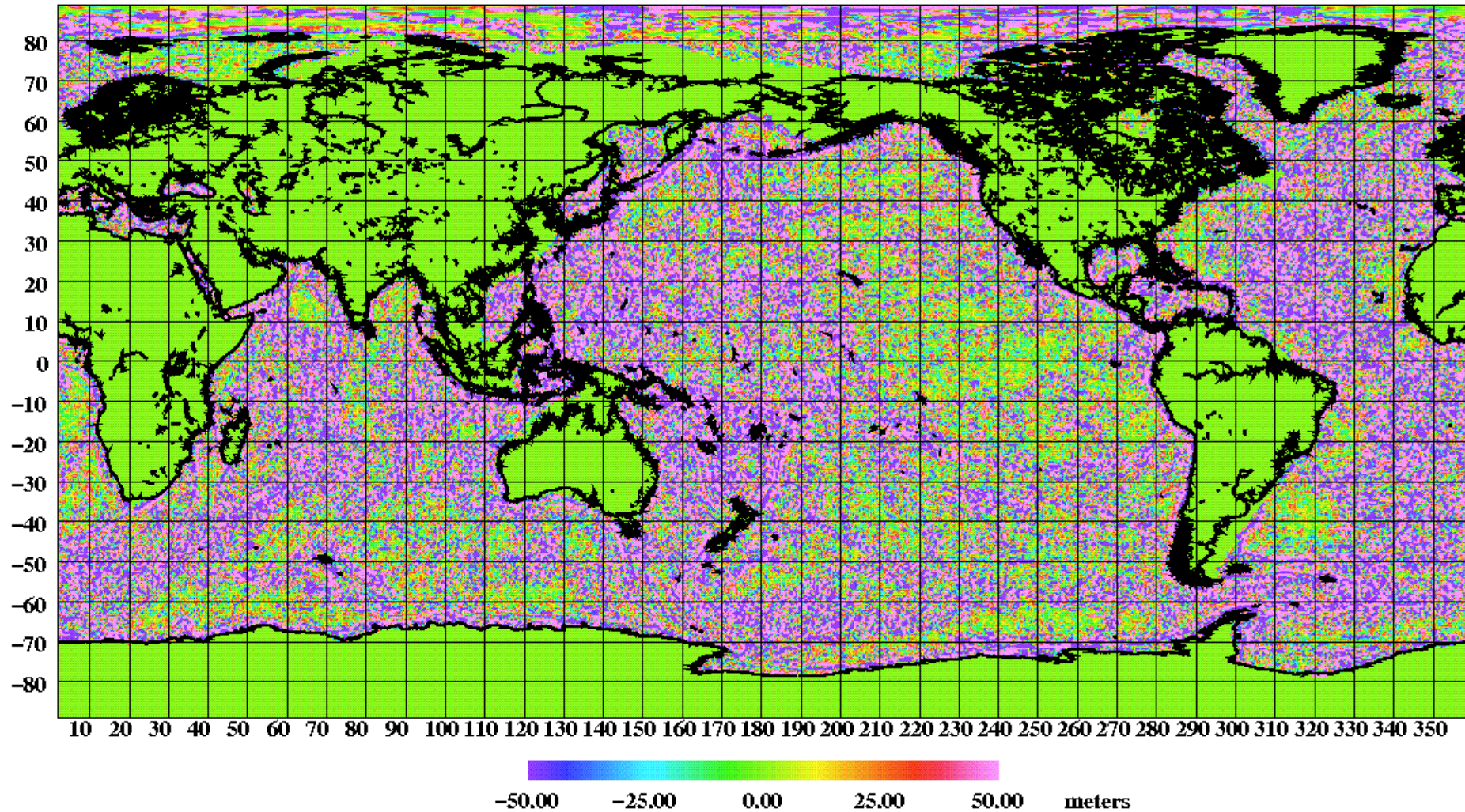
GEBCO-1 Global Bathymetry



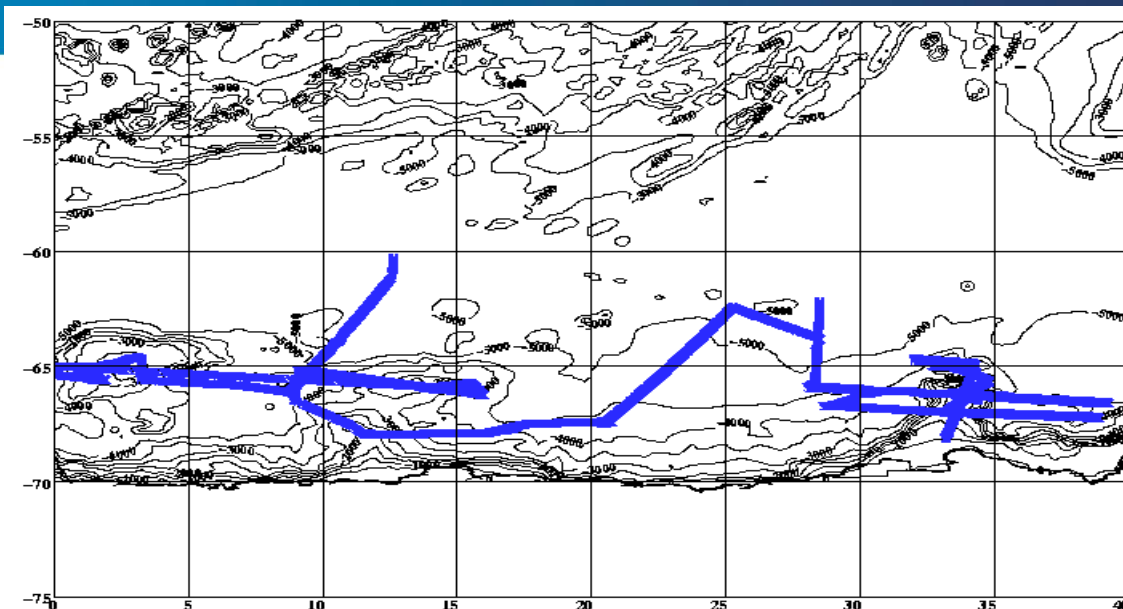


Difference with GEBCO-1 Global Bathymetry

DNOSC07BAT-GEBCO1



Survey example
around Antarctica



11.981 obs	Std Dev. (meters)	Max difference (meters)
ETOPO 5 (5 minute)	531	3014
ETOPO 2 (2 minute) (Altimetry enhanced)	243	1642
GEBCO – 1 minute	201	1792
DNOSC08 – 1 minute	132	1188



Summary

- **DNOSC08 Bathymetry**
 - Resolution: 1 minute by 1 minute (2 km by 2 km)
 - True global fields (90°S to 90°N)
- **DNOSC08BAT** <ftp.spacecenter.dk/pub/BATHYMETRY>
- **DNOSC08 All files** <ftp.spacecenter.dk/pub/DNOSC08>
DVD: Contact oa@space.dtu.dk
- **Consistent Products available:**
 - Altimetric (geometrical) MSS **DNOSC08-MSS**
 - Altimetric derived Bathymetry **DNOSC08-BAT**
 - Altimetryc derived MDT **DNOSC08-MDT**
 - Altimetric Marine Gravity field **DNOSC08-GRA**
- **Products also available in Google Earth**

