

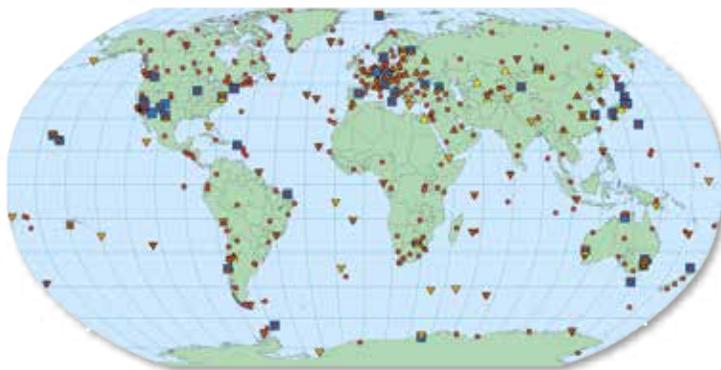


DATA & APPLICATIONS ONLINE

Crustal Dynamics Data Information System (CDDIS)

Overview

The Crustal Dynamics Data Information System (CDDIS) has served as NASA's data archive and information service in support of the international space geodesy community for over 30 years. The CDDIS provides public access to a continuous, long-term series of observational data and derived products required for a variety of applications. These include the determination of a global terrestrial reference frame and geodetic studies in plate tectonics, earthquake displacements, volcano monitoring, Earth orientation, and atmospheric angular momentum, among others.



The CDDIS distributes data from radio transmissions from satellites to ground receivers (GNSS/GPS), transmissions from ground stations to satellites (DORIS), observations of quasars over very long baselines (VLBI), and laser ranging using Earth satellites or the moon. A variety of methods yield extremely accurate positions on the Earth's surface. The dynamics of the Earth's crust are revealed by measuring changes in these positions over time, down to the centimeters per year movements of the Earth's crustal plates. The links below provide information on all these techniques.

About the Data

- GNSS - Global Navigation Satellite Systems http://cddis.gsfc.nasa.gov/Data_and_Derived_Products/GNSS/GNSS_data_and_product_archive.html
- Laser Ranging (to artificial satellites - SLR and to the moon - LLR) http://cddis.gsfc.nasa.gov/Data_and_Derived_Products/SLR/SLR_data_and_product_archive.html
- VLBI - Very Long Baseline Interferometry http://cddis.gsfc.nasa.gov/Data_and_Derived_Products/VLBI/VLBI_data_and_product_archive.html
- DORIS - Doppler Orbitography and Radiopositioning Integrated by Satellite http://cddis.gsfc.nasa.gov/Data_and_Derived_Products/DORIS/DORIS_data_and_product_archive.html

System: A resource to support scientific analysis using space geodesy, *Advances in Space Research*, Volume 45, Issue 12, 15 June 2010, Pages 1421-1440, ISSN 02783-1177, DOI: 10.1016/j.asr.2010.01.018

- *Sensing Our Planet*, 2013, Sizing a tsunami, <https://earthdata.nasa.gov/featured-stories/featured-research/sizing-tsunami>
- *Sensing Our Planet*, 2012, Where on Earth?, <https://earthdata.nasa.gov/featured-stories/featured-research/where-earth>

Data Access

- CDDIS provides detailed information on data formats and links to the FTP page for each technique at: http://cddis.gsfc.nasa.gov/Data_and_Derived_Products/index.html
- Search and order: <http://reverb.echo.nasa.gov/>

References

- C. Noll, The Crustal Dynamics Data Information



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<http://cddis.gsfc.nasa.gov>



EODIS DAACs
CDDIS is one of twelve NASA Earth Observing System Data and Information System (EODIS) Distributed Active Archive Centers (DAACs).

To learn more about data and tools available from EODIS, go to earthdata.nasa.gov.