NASA’s Big Earth Data Initiative Accomplishments

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Contributions from the “DAACs” - Distributed Active Archive Centers

- For the BEDI effort, 1508 SBA datasets were made more discoverable, accessible, and usable through:
  - Assignment of a Digital Object Identifier (DOI)
  - Registration of the Metadata in the Common Metadata Repository (CMR)
  - Making them available via OPeNDAP or other web-based APIs
  - Implementing layers in the Global Imagery Browse Services (GIBS)*

Distribution of BEDI Datasets among the Societal Benefit Areas

- The BEDI effort consisted of identifying approximately 1508 datasets that are applicable to at least one, and in many cases, several of the SBAs and making them more discoverable, accessible, usable, and interoperable
- The distribution of those datasets throughout the SBAs is shown below.

GIBS BEDI IMAGERY

- Over 490 layers of data have been added to GIBS under the BEDI effort.
- Historical datasets—many consisting of 10+ years and some with seven decades of data have been loaded into GIBS as a result of BEDI.
  - Comparison of multiple, available layers allows users to quickly see different anomalies and trends of interest.

BEDI Goal:
Make Societal Benefit Area (SBA) datasets more discoverable, accessible, usable, and interoperable...

Offering a more complete, accurate, and informed picture of our planet across all sectors of society.

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- The distribution of those datasets throughout the SBAs is shown below.

**DAACs** | BEDI-I | BEDI-II | Total # of Datasets
--- | --- | --- | ---
CDDIS | 35 | ---- | 35
ASDC | 238 | 29 | 267
GES DISC | 225 | 147 | 372
GHRC | 47 | 12 | 59
LP DAAC | 97 | 36 | 133
LAADS | 29 | ---- | 29
NSIDC | 98 | 57 | 155
OB DAAC | 43 | 49 | 92
ORNL | 15 | 10 | 25
PO DAAC | 240 | 31 | 271
SEDAC | 45 | 25 | 70
Total | 1112 | 396 | 1508

*If Applicable

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<th>BEDI-II</th>
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Example: MODIS Sea Surface Temperature
Comparison between a single day of Sea Surface Temperature (SST) values, monthly average SST, and annual average SST.

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<th>Single Day</th>
<th>Monthly Average</th>
<th>Annual Average</th>
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<tr>
<td>&lt; 0 °C</td>
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It is with tremendous appreciation to the following DAACs and their associated science teams that the work depicted here was accomplished:

- Atmospheric Science Data Center (ASDC), Crustal Dynamics Data Information System (CDDIS), Global Hydrology Resource Center (GHRC), Goddard Earth Sciences Data and Information Services Center (GES DISC), Land Process DAAC (LP DAAC), Level 1 and Atmosphere Archive and Distribution System (LAADS), National Snow and Ice Data Center (NSIDC), Oak Ridge National Laboratory (ORNL), Ocean Biology DAAC (OB.DAAC), Physical Oceanography DAAC (PO.DAAC), and Socioeconomic Data and Applications Data Center (SEDAC).

**References**

- Right Image in Title Block: Credit goes to Bonnie Cotier for the US Group on Earth Observations
- Ecosystem Services Image: [http://enviroatlas.epa.gov/](http://enviroatlas.epa.gov/)
- Session ID: IN21B-0042