

NASA's Big Earth Data Initiative Accomplishments



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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

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)*
- *If Applicable

GIBS BEDI IMAGERY

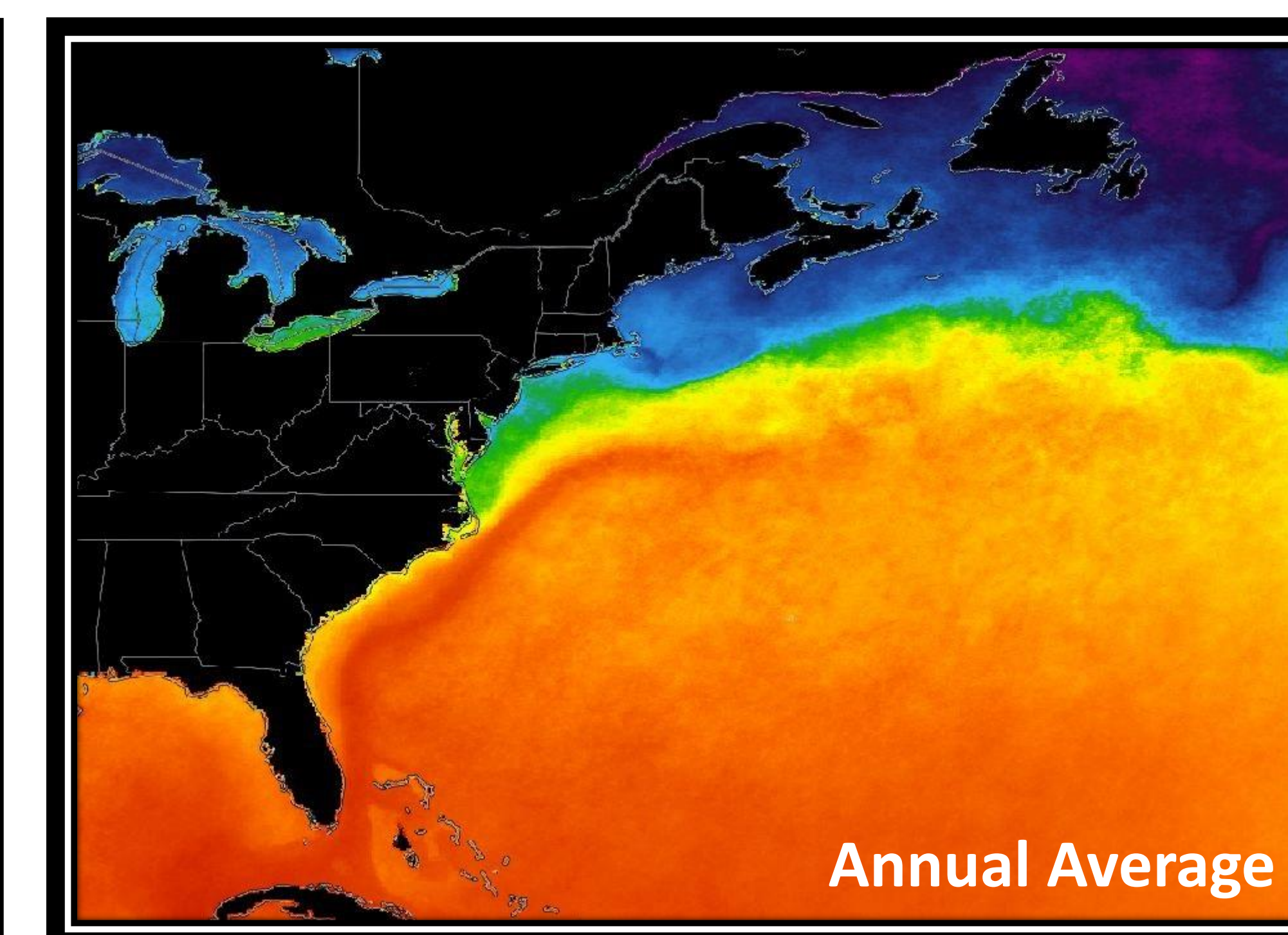
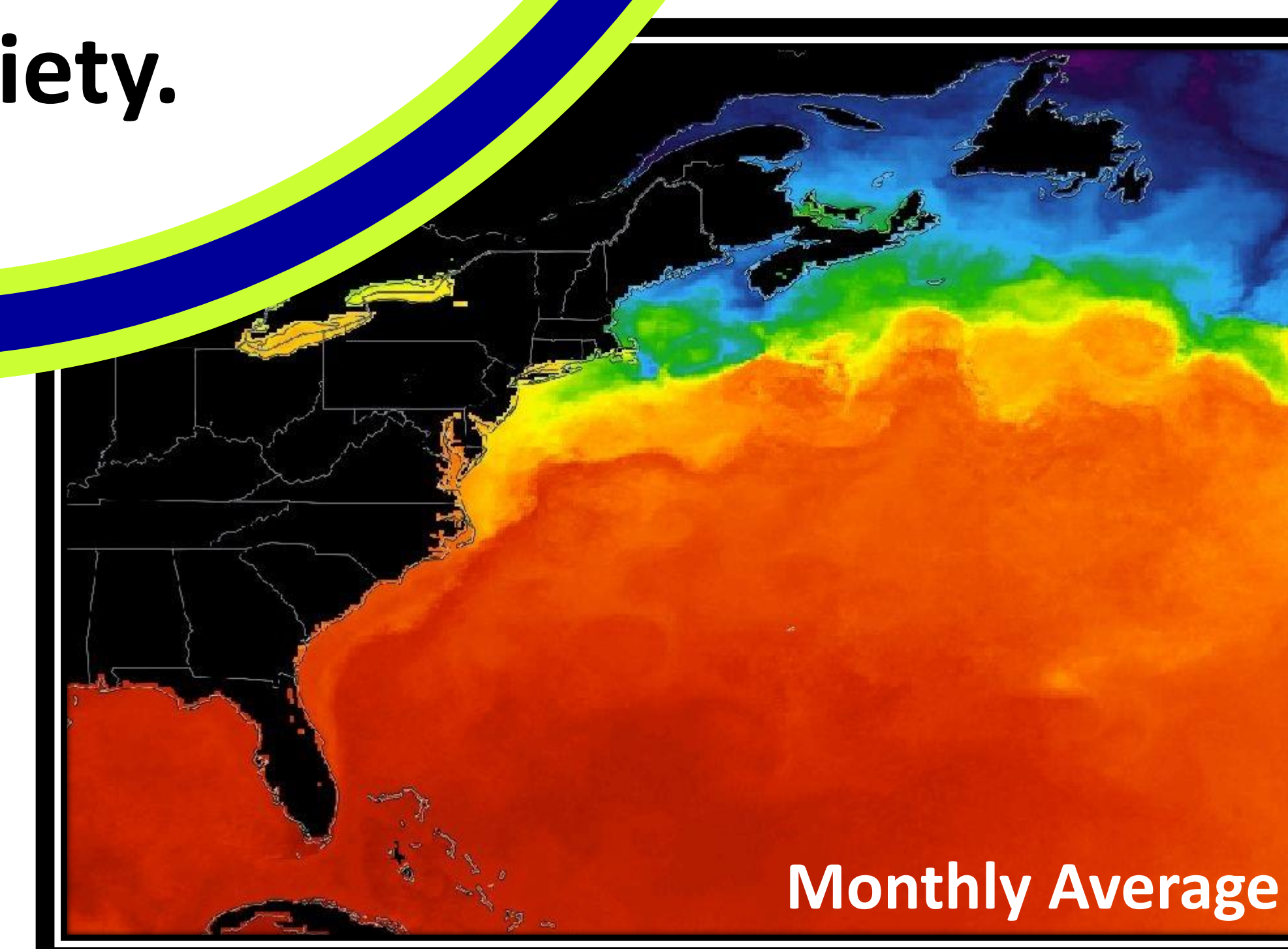
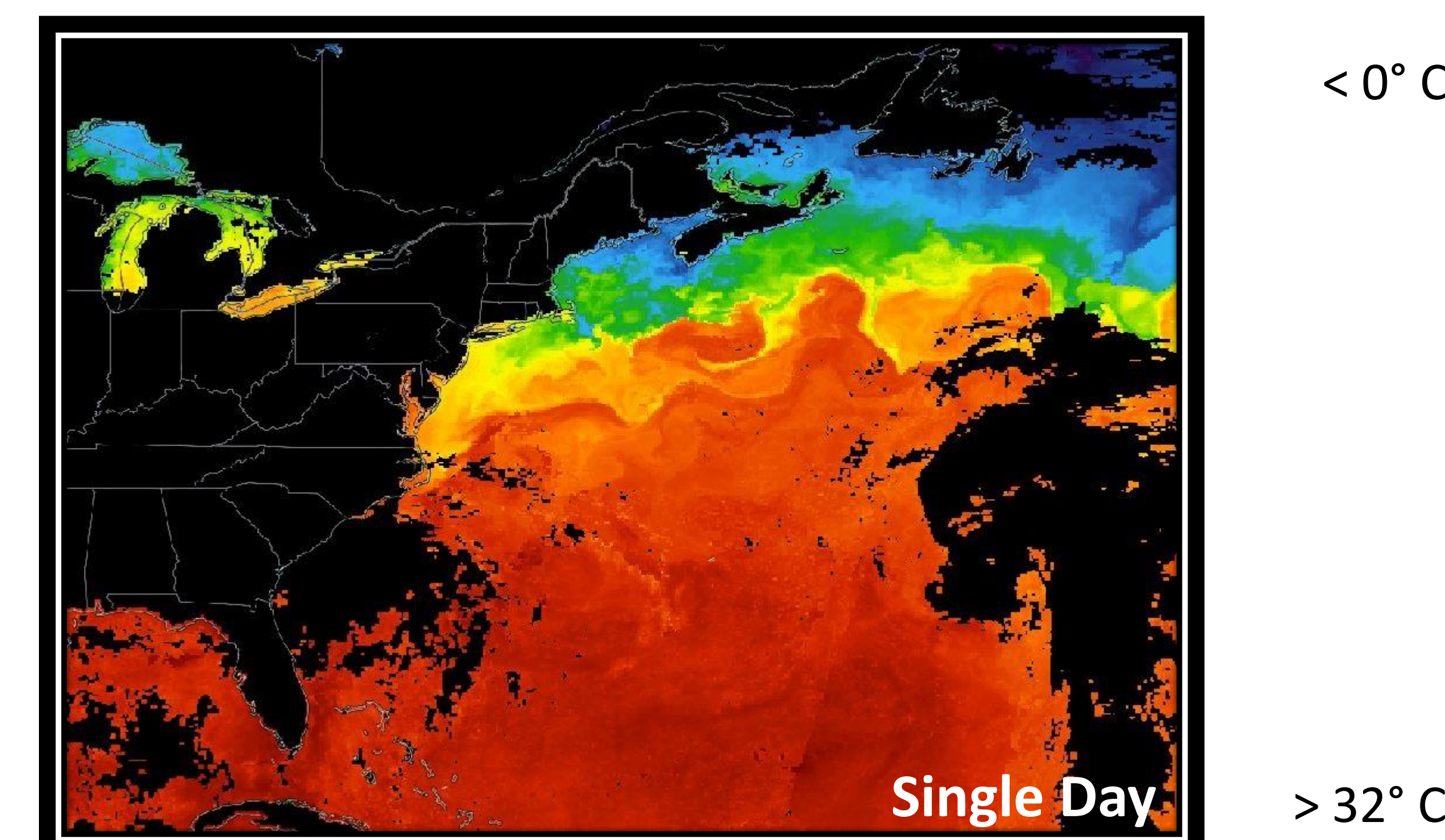
- ✓ Over 490 layers of data have been added to GIBS under the BEDI effort.
- ✓ Historical datasets— many consisting of 10+ years and some with seven decades of data have been loaded into GIBS as a result of BEDI.
- ✓ Comparison of multiple, available layers allow users to quickly see different anomalies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



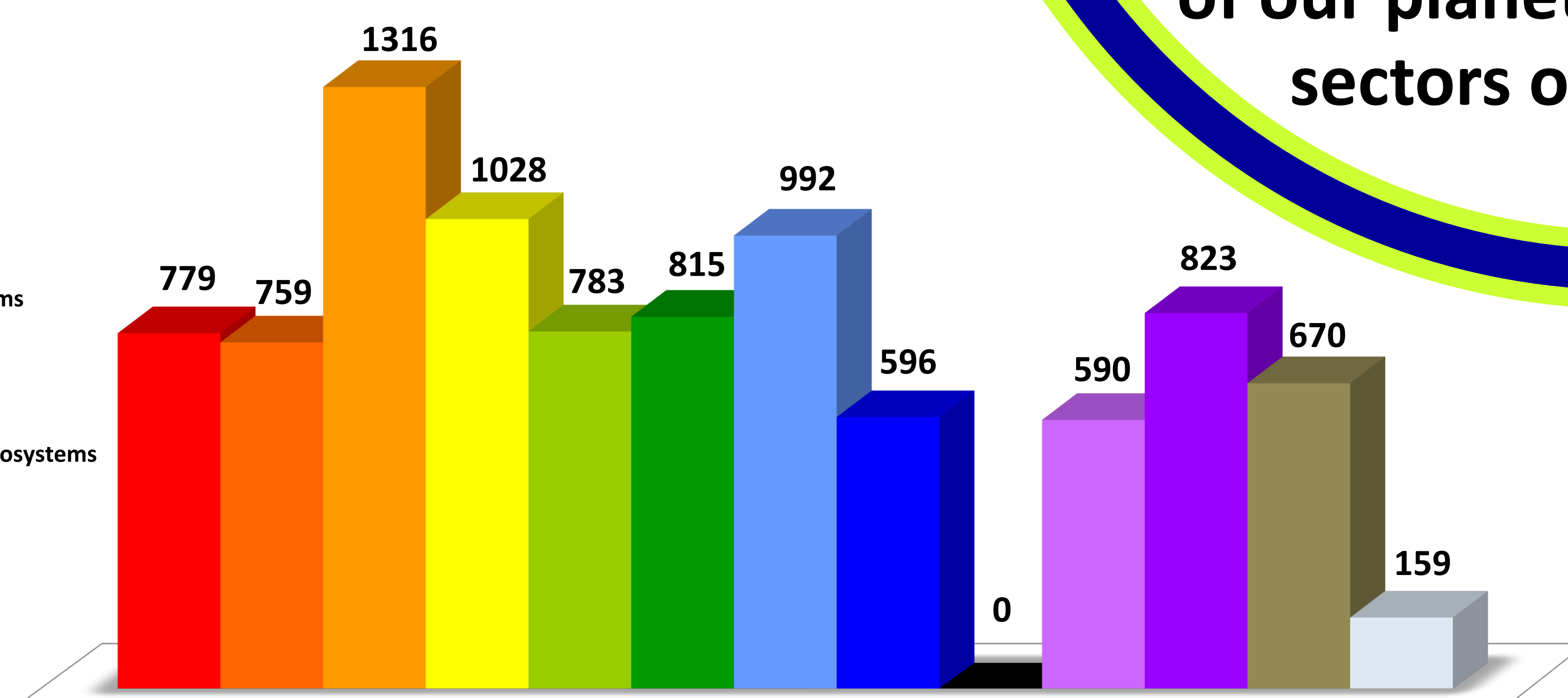
Example: MODIS Sea Surface Temperature Comparison between a single day of Sea Surface Temperature (SST) values, monthly average SST, and annual average SST.



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.

- Agriculture and Forestry
- Biodiversity
- Climate
- Disasters
- Terrestrial and Freshwater Ecosystems
- Energy and Mineral Resources
- Human Health
- Ocean and Coastal Resources and Ecosystems
- Space Weather
- Transportation
- Water Resources
- Weather
- Reference Measurements



- 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/>
- Session ID: IN21B-0042