# **EOL Data Management Services**

EOL offers the observational research community comprehensive data management, archival, and stewardship services. NSF-funded research teams rely on EOL to facilitate the development and implementation of tailored yet complete data management plans that comply with NSF expectations.



EOL provides data management support through all phases of a field campaign, including the long-term data analysis phase, and provides a secure, easily accessible archive of the collected data after a field deployment, including those from non-EOL sources. EOL is also responsible for developing and stewarding our data services and collaborative tools.

### **EOL Data Services offered**

- Customized data management planning and support
- Interactive mission support tools
- Real-time data sharing and visualization
- Collection of research and operational datasets

- · Collection of project documentation and dataset metadata
- Development of sounding composite datasets
- Long-term data stewardship and curation
- Long-term archival of observational datasets, discovery, and access
- Rescue of legacy datasets



#### **Data Management Planning and Field Support**

EOL staff work with each Principal Investigator team to develop a Project Data Management Strategy and a Project Data Policy to facilitate data sharing across the team while ensuring project data archival and investigator attribution. EOL collects supporting data and products in the field and makes them available in real time for mission planning and in-field decision-making. EOL also provides real-time monitoring and decisionmaking tools on the ground and onboard the NSF/NCAR research aircraft.

# **EOL Field Catalog**

The <u>EOL Field Catalog</u> provides a web-based tool for collecting, organizing, and presenting reports; quick-look data products from operational, research, and model-generated sources; and status information during the field phase of an observational experiment. The Field Catalog serves as the online hub for field project operations and has links to real-time mission coordination displays and communication tools. It also provides real-time visualization of data from varying temporal and spatial resolutions and allows researchers to interact with one another to guide the mission from anywhere in the world.



### **EOL Field Data Archive**

EOL archives project datasets on high-performance, redundant, and faulttolerant storage systems in collaboration with NCAR's Computational Information Systems Laboratory (CISL). The <u>EOL Field Data Archive</u> builds advanced functionality, such as data discovery, browsing, and subsetting into our data distribution systems upfront. It shares metadata from datasets in various formats, facilitating broad data discovery and linking data to those from other organizations, spreading its use and ensuring a longlasting scientific legacy. The archive provides long-term stewardship and curation of observational datasets.



facility is to provide responsive, high quality data services to researchers in field campaigns including pre-field phase planning, real-time decision-making tools, and long-term data curation to support the complete project life cycle.