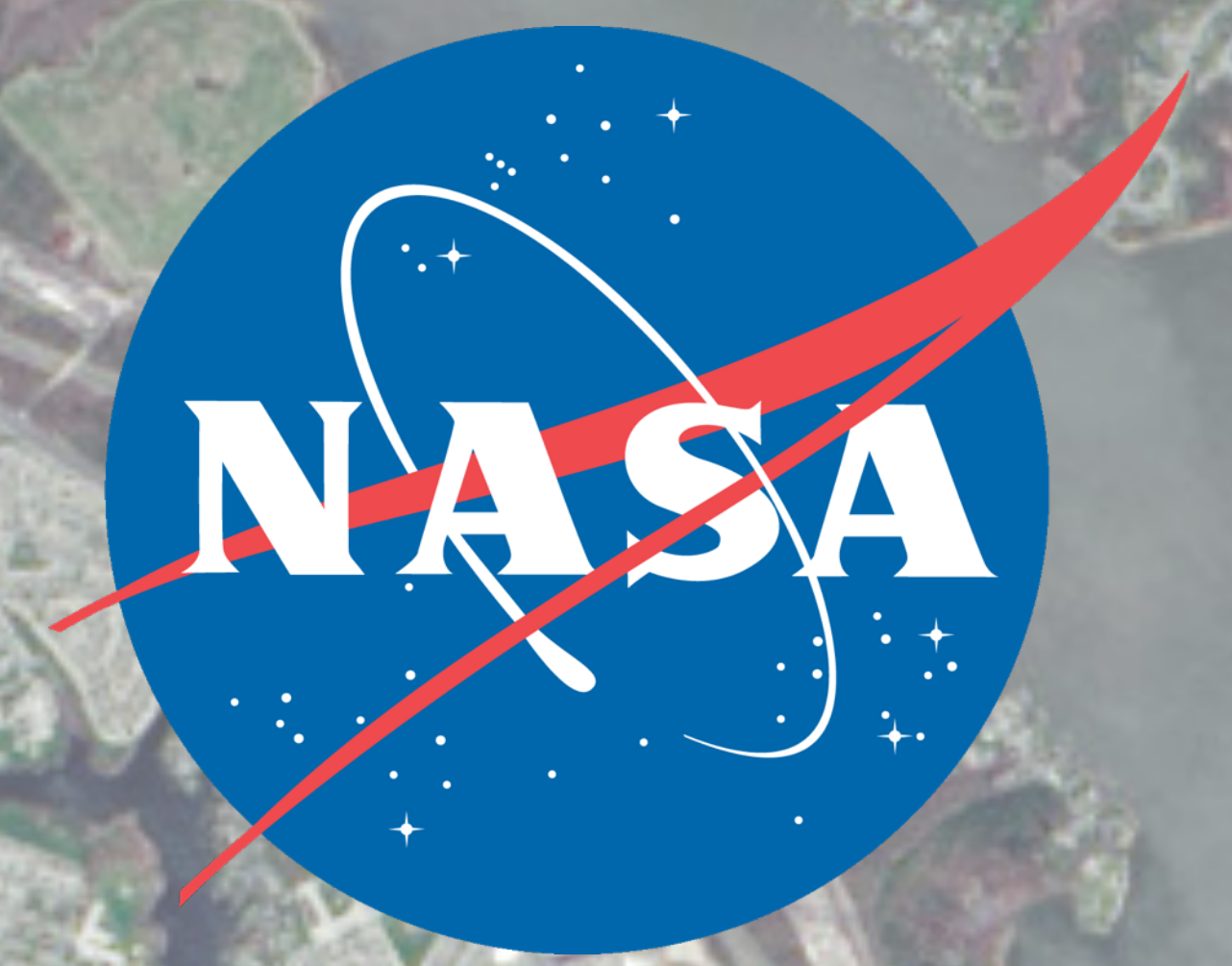


ESDIS Standards Office (ESO)



The ESDIS Standards Office assists the ESDIS Project in formulating standards policy for NASA Earth Science Data Systems (ESDS), coordinates standards activities within ESDIS, and provides technical expertise and assistance with standards related tasks within the NASA Earth Science Data System Working Groups (ESDSWG).

Standards Process

Individuals and organizations are encouraged to contact the ESO with suggestions for existing or developing standards and practices. The ESO will provide support to submitters in creating or validating submissions to the standards process.

Document Submission

Identify a currently used standard, convention, or common practice that could be of benefit to NASA Earth Science Data Systems (ESDS). Contact the ESO (ESDIS Standards Office) at eso-staff@lists.nasa.gov and explain the potential submission. Documents submitted for consideration under the Standards Process are called Request for Comment (RFC) documents.

Initial Screening

ESO reviews the RFC, then convenes a Technical Working Group (TWG). The TWG reviews the RFC for completeness and to ensure the RFC is ready to be reviewed more broadly. This review could lead to more revisions, with assistance from the ESO.

Community Review

Community reviews can cover one or both of the following areas: technical content and operational readiness. Technical content reviews are required only for specifications that were developed outside of a standards organization. These reviews are meant to address whether the specification is well-documented and is technically implementable. Operational readiness reviews address whether the standard or convention is suitable for operational use and how organizations that have already implemented it have benefited from it.

The TWG analyzes community responses and makes a recommendation to ESDIS whether to approve the RFC. If the recommendation of the TWG to ESDIS is positive, and if ESDIS concurs, then the RFC is approved and is posted on list of Standards and References in the ESO section of the Earthdata web site.

Requirements, Standards and Practices

Requirements

Airborne and Satellite Mission Data Systems Requirements

The Airborne Mission Data System Requirements and Satellite Mission Data Requirements from the NASA HQ Earth Science Division include the ESDIS Mission Requirements as well as the approved list of standards shown below. ESDIS Mission Requirements are managed through the ESDIS configuration control process involving review and comments from all affected organizations. Additional standards and conventions approved for use in NASA Earth science data systems are managed by the ESDIS Standards Office (ESO). ESDIS Mission Requirements include:

- [ISO 19115 Geographic Information Metadata Standard](#)
- [NASA Earth Science Data Preservation Content Specification](#)

Related Technical Information

- [Mapping HDF5 to DAP2](#)
- [Guidelines for a Common File Format for Aura Instruments](#)
- [Creating File Format Guidelines: The Aura Experience](#)
- [Interoperability between OGC CS/W and WCS Protocols](#)
- [Backtrack Orbit Search Algorithm](#)
- [Lessons Learned Regarding WCS Server Design and Implementation](#)

Under Development or Review

- [Dataset Interoperability Recommendations for Earth Science](#)
- [Unified Metadata Model](#)

Legacy Standards

- [HDF4](#)
- [HDF-EOS2](#)

Standards and Practices

ESO coordinates standards policy and activities within ESDIS. ESO follows a three-phase Standards Process for identification of appropriate standards and practices and their subsequent adoption for use in NASA Earth science data systems.

Standards and Practices approved for use in NASA Earth Science Data Systems

Discovery and Access

- [The Data Access Protocol - DAP 2.0](#)
- [OpenGIS @ Web Map Service Version 1.1.1](#)
- [CEOS OpenSearch](#)

Data Format

- [HDF 5](#)
- [HDF EOS 5](#)
- [NetCDF Classic](#)
- [NetCDF-4/HDF5 File Format](#)
- [OGC KML](#)
- [ASCII File Format Guidelines for Earth Science Data](#)

Metadata

- [GCMD Directory Interchange Format \(DIF\)](#)
- [NetCDF Climate and Forecast \(CF\) Metadata Conventions](#)
- [ECHO Metadata Standard](#)
- [Updates to GCMD Directory Interchange Format \(DIF\)](#)

ASCII Data Formats

- [International Consortium for Atmospheric Research on Transport and Transformation \(ICARTT\) File Format Standards](#)
- [SeaBASS Data File Format](#)
- [NASA Aerogeophysics ASCII File Format Convention](#)



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ESO Home Page

<http://earthdata.nasa.gov/eso>

ESO Collaborative Work Area

<http://wiki.earthdata.nasa.gov/display/eso>

