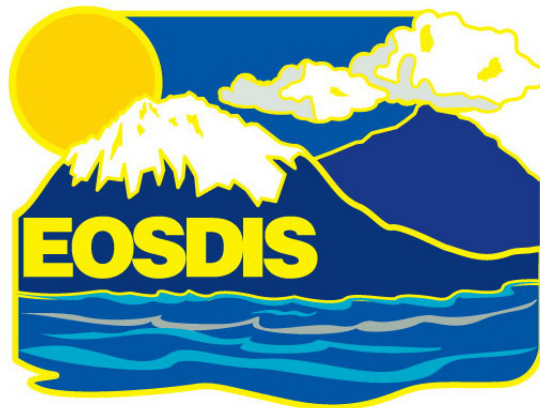GSFC ESDIS CMO
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Inter-Project Agreement (IPA) Between the <FULL FLT PROJ NAME> (<FLT PROJ ACRONYM>) Project and the Earth Science Data and Information System (ESDIS) Project for Science Data Archive and Distribution Support

Goddard Space Flight Center
Greenbelt, Maryland

National Aeronautics and
Space Administration

IPA between <FULL FLT PROJ NAME> (<FLT PROJ ACRONYM>) Project and the Earth Science Data and Information System (ESDIS) Project for Science Data Archive and Distribution Support

Signature/Approval Page

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[Electronic] Signatures available in B32 Room E148
online at: / https://ops1-cm.ems.eosdis.nasa.gov/cm2/

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Preface

This document is under ESDIS Project configuration control. Once this document is approved, ESDIS approved changes are handled in accordance with Class I and Class II change control requirements described in the ESDIS Configuration Management Procedures, and changes to this document shall be made by change bars or by complete revision.

Any questions should be addressed to: esdis-esmo-cmo@lists.nasa.gov

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Abstract

This agreement defines the responsibilities for the transfer, archive and distribution of <FLT PROJ ACRONYM> data from the <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> to the <DAAC ACRONYM> Distributed Active Archive Center (DAAC).

Keywords: <FLT PROJ ACRONYM>*, *<DAAC ACRONYM>*, **DAAC, ESDIS,** <DATA PROVIDER ACRONYM>

Change History Log

Revision	Effective Date	Description of Changes (Reference the CCR & CCB Approval Date)
Baseline/ Original	<TBD>	<TO BE FILLED IN BY ESDIS CMO>

Table of Contents

List of Tables

1   INTRODUCTION

1.1   Purpose and Scope

This Inter-Project Agreement (IPA) serves to establish the high-level responsibilities that support the transfer of the <FULL FLT PROJ NAME> (<FLT PROJ ACRONYM>) data products to the ESDIS project for archiving and distribution to the Earth science community. This agreement defines the responsibilities for the transfer, archive and distribution of <FLT PROJ ACRONYM> data from the <FLT PROJ ACRONYM> <FULL DATA PROVIDER NAME> (<DATA PROVIDER ACRONYM>) to the Distributed Active Archive Center (DAAC). The <FULL DAAC NAME> (<DAAC ACRONYM>) has been designated as the DAAC for the ingest, archive and distribution of the <PRODUCT LEVELS> <FLT PROJ ACRONYM> Mission Data.

This agreement may be modified only upon mutual agreement between the <FLT PROJ ACRONYM> and ESDIS Projects. This IPA will remain in force until the <DAAC ACRONYM> has received all the <FLT PROJ ACRONYM> data and artifacts to be archived and/or a date jointly agreed to by the signatories.

Organization
Section 1 contains the Introduction that includes the Purpose and Scope, Organization and Related Documentation
Section 2 contains a Mission Description that includes the Mission Background and Overview
Section 3 contains the Responsibilities of the ESDIS and <FLT PROJ ACRONYM> Projects
Section 4 describes the data products and volumes in support of the Mission
Section 5 lists information about the schedule and release dates
Appendix A is the Acronym List

1.2   Related Documentation

The latest versions of all documents below should be used. The latest Earth Science Data and Information Systems (ESDIS) Project documents can be obtained from URL: https://ops1-cm.ems.eosdis.nasa.gov. ESDIS documents have a document number starting with either 423 or 505. Other documents are available for reference in the ESDIS project library website at: https://doclib.eosdis.nasa.gov/ unless indicated otherwise.

1.2.1   Applicable Documents

The following documents are referenced within this IPA, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this IPA.

420-01-01	Program Level Requirements Appendix Appendix XX—Earth Systematic Missions Program Plan Program-Level Requirements for the
SPD-41a URL	Science Mission Directorate Policy Document (SPD-41a) Dated September 26, 2022 and approved for Public release Dec 8, 2022
423-SPEC-001	NASA Earth Science Data Preservation Content Specification
423-RQMT-003	Metadata Requirements – Base Reference for NASA Earth Science Data Products

423-ICD-009	Interface Control Document Between The Global Imagery Browse Services (GIBS) and Imagery Providers
<TBD>	<FLT PROJ ACRONYM> Science Data Management and Archive Plan

2 MISSION DESCRIPTION

2.1 Background

<MISSION BACKGROUND>

2.2 Overview

The <FLT PROJ ACRONYM> Project and the ESDIS Project will jointly satisfy the NASA ground system requirements for the <FLT PROJ ACRONYM> Mission. The <FLT PROJ ACRONYM> Project will perform instrument operations and data processing. The ESDIS Project will archive and distribute data products, documentation, software and algorithms. The ESDIS Project is responsible for the development, management and operation of the DAACs. The ESDIS Project participates with the <FLT PROJ ACRONYM> ground systems team and the <DAAC ACRONYM> to arrange for optimal distribution and long-term archive of mission products. The ESDIS Project and <FLT PROJ ACRONYM> Project acquire their funding independently and do not have any exchange of funds in order to support this IPA.

The <FLT PROJ ACRONYM> and ESDIS Projects will mutually agree upon scheduling milestones and will coordinate systems that track and report progress.

3   RESPONSIBILITIES

3.1   Overview

The responsibilities described in this document are derived from a combination of ESDIS/<DAAC ACRONYM> requirements and <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> requirements.

3.2   Responsibility Allocations

Table 3.1 lists the allocation of responsibilities to ESDIS/<DAAC ACRONYM> and the <FLT PROJ ACRONYM> Project. Each item in the table describes how the allocation of a specific responsibility is divided between ESDIS/<DAAC ACRONYM> and the <FLT PROJ ACRONYM> Project.

Table 3-1. Allocation of Responsibilities to ESDIS and <FLT PROJ ACRONYM> Project (1 of 3)

Item	ESDIS Responsibilities	<FLT PROJ ACRONYM> Responsibilities
1	Provide the ingest, archive and distribution of the <FLT PROJ ACRONYM> data listed in Table 3-2	Provide to the <DAAC ACRONYM> all data products listed in Table 3-2 in compliance with the Interface Control Document between the <FLT PROJ ACRONYM> Project and the <DAAC ACRONYM>
2	Ingest, archive and openly distribute all scientific source code for algorithm software, coefficients, metadata, and ancillary data used to generate the <FLT PROJ ACRONYM> products to the <DAAC ACRONYM> in accordance with SPD-41a, dated September 26, 2022.	Provide the scientific source code for algorithm software, coefficients, metadata, and ancillary data used to generate the <FLT PROJ ACRONYM> products to the <DAAC ACRONYM> in accordance in accordance with SPD-41a, dated September 26, 2022
3	Archive and provide open access to source software and provide guidance on best practices for Earth Science citation for source code and open source software.	Deliver source code and open source software to the <DAAC ACRONYM> in accordance with SPD-41a, dated September 26, 2022, at the time of the initial data delivery and throughout the lifetime of the project as new versions of software are developed, and be citable using a persistent identifier.
4	Archive and provide open access to ATBD's	Deliver Algorithm Theoretical Basis Documents (ATBD's), to the <DAAC ACRONYM> at the time of initial data delivery and with subsequent releases throughout the lifetime of the project

Item	ESDIS Responsibilities	<FLT PROJ ACRONYM> Responsibilities
5	Work with the <DATA PROVIDER ACRONYM> to schedule the public release of product versions and associated documentation	Coordinate with the <DAAC ACRONYM> on the timing of the release of product versions, to ensure completeness and accuracy of quality information, validation status, and metadata of the <FLT PROJ ACRONYM> science data products
6	Support the <FLT PROJ ACRONYM> in the identification of the end-of-mission artifact collection for the long-term archive of the <FLT PROJ ACRONYM> datasets. Provide the long-term archive for the artifacts and data.	Coordinate with the <DAAC ACRONYM> to transfer the data and information about the products required for long-term preservation in accordance with the NASA Earth Science Data Preservation Content Specification https://www.earthdata.nasa.gov/esdis/esco/standards-and-practices/preservation-content-spec, and take necessary steps for end-of-mission artifact collection.
7	Support the <DATA PROVIDER ACRONYM> in defining the format of the <FLT PROJ ACRONYM> standard data products.	Provide science data products in formats that conform to the ESD-approved Data System Standards - https://earthdata.nasa.gov/esdis/esco/standards-and-practices#data-formats
8	Support the <DATA PROVIDER ACRONYM> in defining the content of the standard data products metadata.	Work with the metadata specialist at the <DAAC ACRONYM> prior to launch to define and provide metadata that conforms to the Data Product Development Guide for Data Producers Version 1.1, dated Oct 21, 2021, and specified at: https://earthdata.nasa.gov/esdis/esco/standards-and-practices#metadata.
9	Generate full-resolution browse products for all data products that can be meaningfully represented as images. Provide the browse imagery to GIBS per the GIBS ICD. https://earthdata.nasa.gov/about/science-system-description/eosdis-components/global-imagery-browse-services-gibs	Support the <DAAC ACRONYM> in identifying the full-resolution browse products to be generated, and in reviewing the quality of the products for display in Worldview
10	Coordinate with the <DATA PROVIDER ACRONYM> to make NRT products available through LANCE. https://www.earthdata.nasa.gov/learn/find-data/near-real-time	Coordinate the delivery for any Near Real-time (NRT) data products listed in Table 3-2 with the <DAAC ACRONYM> for NRT distribution and availability through the LANCE system.

Item	ESDIS Responsibilities	<FLT PROJ ACRONYM> Responsibilities
11	Lead the development and maintenance of an ICD between <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> and <DAAC ACRONYM>.	Support ESDIS in the development and maintenance of an ICD between all interfaces.
12	Implement the system interface to obtain <FLT PROJ ACRONYM> forward processed and reprocessed data from <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> in accordance with the established ICD between <FLT PROJ ACRONYM> and <DAAC ACRONYM>.	Implement the system interface to make <FLT PROJ ACRONYM> forward processed and reprocessed data available to ESDIS/<DAAC ACRONYM> in accordance with the established ICD between <FLT PROJ ACRONYM> and ESDIS/<DAAC ACRONYM>.
13	Capture archive and distribution metrics using the EOSDIS Metrics System (EMS). Make these metrics available to the <FLT PROJ ACRONYM> Project.	Keep the ESDIS/<DAAC ACRONYM> informed of any major delays in product availability
14	Lead the development and maintenance of Product User Guide documentation and other associated dataset documents. Make these documents publicly available to users.	Support the <DAAC ACRONYM> in the development and maintenance of the Product User Guide and associated dataset documents.
15	Provide and maintain Digital Object Identifiers (DOIs) for <FLT PROJ ACRONYM> data products.	Receive the DOIs and record them in the <FLT PROJ ACRONYM> Product metadata
16	Support the <FLT PROJ ACRONYM> Project by testing all interfaces between the <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> and the ESDIS/<DAAC ACRONYM> including the ingest and distribution of simulated data sets.	Lead the system testing of the interfaces between the <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> and the <DAAC ACRONYM>.

Table 3-1. Allocation of Responsibilities to ESDIS/<DAAC ACRONYM> and <FLT PROJ ACRONYM> Project (2 of 3)

Item	ESDIS Responsibilities	<FLT PROJ ACRONYM> Responsibilities
17	Participate in major <FLT PROJ ACRONYM> Project Reviews as requested by the <FLT PROJ ACRONYM> Project and defined in the <FLT PROJ ACRONYM> Table 4-1.	Provide the schedule and major milestones (see Table 4-1) to be met in support of the <FLT PROJ ACRONYM> mission to the ESDIS Project and the <DAAC ACRONYM>. Keep the ESDIS Project and the <DAAC ACRONYM> informed of any changes to key project milestones to be met in support of the <FLT PROJ ACRONYM> mission.
18	Provide User Services and assist data recipients with information related to archive and distribution functions.	Work with the <DAAC ACRONYM> to help identify services needed in order to make <FLT PROJ ACRONYM> data more easily usable and understandable to users.
19	For the purpose of disaster recovery, utilize the <DATA PROVIDER ACRONYM>capability for ad hoc processing for data regeneration (L1+ data products). The cost for recovering data products is the responsibility of ESDIS.	For the purpose of disaster recovery, <DATA PROVIDER ACRONYM> system will have the capability to perform ad hoc processing during the life of the mission. <DATA PROVIDER ACRONYM> will also provide the source code to recreate the system and algorithms.
20	Store an archive copy of the data and a disaster recovery copy of the L0 data.	Store a local copy of all products produced by the <DATA PROVIDER ACRONYM> system for 7 days.

3.3   Data products and volumes

The End of Mission Volume includes the forward stream and the bulk reprocessing campaigns. The <FLT PROJ ACRONYM> prime mission lifetime shall be 1 year following completion of IOC. There are <X> bulk reprocessing campaigns currently planned, volumes are shown in the Reprocessing Volume column. The first one is <X> months of data, and the second is <X> months of data.

Table 3-2. Data Products and Volumes

Level	Data Products & Description	Daily Volume (XB)	Reproc #1 Volume (XB)	Reproc #2 Volume (XB)	End of Mission Volume (XB)
Level 0					
Level 1					
Level 2					
Ancillary					
Auxiliary					
TOTAL					

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3.4   Data Descriptions and Latencies

Table 3-3. Data Descriptions and Latencies

Data Product	Description	Initial data delivery to <DAAC ACRONYM>	Initial calibrated delivery to <DAAC ACRONYM>	Nominal Latency (TBD) of Delivery to <DAAC ACRONYM>
Level 0		<X> months after IOC	N/A	Within <X> hours of receipt at <X>
Level 1		<X> months after IOC	<X> months after IOC	Within <X> hours of receipt at <X>
Level 2		<X> months after IOC	<X> months after IOC	Within <X> hours of receipt at <X>
Ancillary	Orbit, Attitude Data	<X> months after <X>	<X> months after <X>	Within <X> days of <X>
Auxiliary	TBD (files from other sources)	<X> months after <X>	<X> months after <X>	Within <X> days of <X>

4 <FLT PROJ ACRONYM> SCHEDULE

4.1 <FLT PROJ ACRONYM> Project Key Milestones

The <FLT PROJ ACRONYM> Project expects the <DAAC ACRONYM> to actively participate in the project reviews such as <DATA PROVIDER ACRONYM> Preliminary Design Review (PDR), <DATA PROVIDER ACRONYM> Critical Design Review (CDR), and Operational Readiness Review (ORR).

Table 4-1. <FLT PROJ ACRONYM> Project Key Milestones

<FLT PROJ ACRONYM> Project Dates	
Project PDR	<X>
Mission Sys PDR	<X>
Project CDR	<X>
MS CDR	<X>
MS Thread Tests	<X>
ORTs	<X>
*ORR	<X>
Launch	<X>

* <DAAC ACRONYM> presentation is expected.

The schedule for maturing the ICD between <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> and <DAAC ACRONYM> is as follows:

- <X> <DATA PROVIDER ACRONYM> -PDR: Prelim version of the ICD
- <X> <DATA PROVIDER ACRONYM> -CDR: Baseline version of the ICD

4.2 <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> Planned Release Dates

Table 4-2. <FLT PROJ ACRONYM> <DATA PROVIDER ACRONYM> Planned Release Dates

<DATA PROVIDER ACRONYM> Release Dates	Dates	<FLT PROJ ACRONYM> Project Milestone	DAAC interface tests
Release-1	<X>		
Release-2	<X>		
Release-3	<X>		
Release-4	<X>		

Abbreviations and Acronyms

ATBD	Algorithm Theoretical Basis document
CCB	Configuration Change Board
CCR	Configuration Change Request
CDR	Critical Design Review
CMO	Configuration Management Officer
DAAC	Distributed Active Archive Center
DCN	Document Change Notice
DOI	Digital Object Identifiers
EMS	EOSDIS Metrics System
EOS	Earth Observing System
EOSDIS	Earth Observing System Data Information System
ESD	Earth Science Division
ESDIS	Earth Science Data Information System
GSFC	Goddard Space Flight Center
ICD	Interface Control Document
IPA	Inter-Project Agreement
ISO	International Organization for Standardization
NASA	National Aeronautics and Space Administration
ORR	Operational Readiness Review
PDR	Preliminary Design Review
SMD	Science Mission Directorate
TB	Terabyte
TBD	To be determined
URL	Uniform Resource Locator
<DAAC ACRONYM>	<FULL DAAC NAME>
<FLT PROJ ACRONYM>	<FULL FLT PROJ NAME>
<DATA PROVIDER ACRONYM>	<FULL DATA PROVIDER NAME>