



Explorers Program Overview

Sridhar Manthripragada
Explorers Program Manager
June 30, 2026



Explorers Program Overview (1 of 2)



- NASA's oldest, continuous program
 - Over 100 successful missions since 1958
- Program Objective—Frequent flight opportunities for world-class, scientific investigations
- Uncoupled program of missions with unique science capabilities supporting astrophysics and heliophysics science goals



Explorers Program Overview (2 of 2)



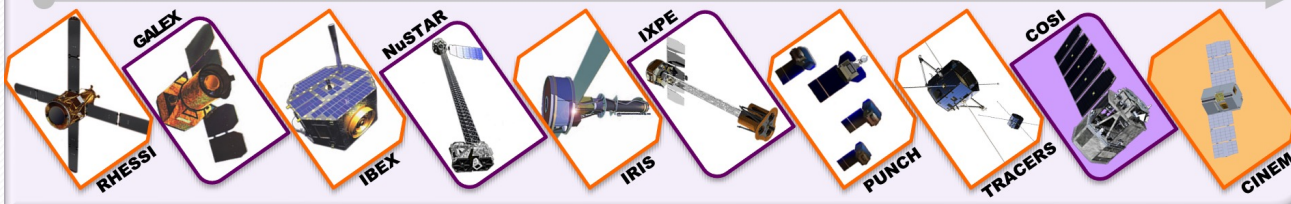
- Mission class characterized by size, schedule, and budget cost caps
 - APEX - Astrophysics Probe Explorer
 - MIDEX – Medium-Class Explorers (MIDEX) Missions
 - SMEX – Small Explorers
 - MoO – Mission of Opportunity
- Missions solicited through Announcement of Opportunity
- Missions developed in Principal Investigator mode
- Mission oversight provided by the Explorers Program Office at GSFC

Astrophysics & Heliophysics Explorers Missions

Medium-Class Explorers (MIDEX)



Small Explorers (SMEX)



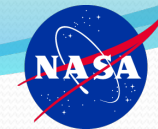
Strategic • Mission of Opportunity (MO) • Internationals



 Astrophysics Missions
 Current Astrophysics Missions
 Heliophysics Missions
 Current Heliophysics Missions



Explorers & Heliophysics Projects Division (EHPD) Organization – Code 460



GSFC Code 460

Sridhar Manthripragada
Explorers and LWS/STP Program Manager (Assoc. Dir. EHPD)
Rick Carter -- Dep. Assoc. Dir. EHPD (Acting)

Joy Bretthauer, Dep. Prog. Mgr. LWS/STP/SPWx (Detail)
Matt Mazur, LWS/STP Business Manager
Lourdes Wisniewski, LWS/STP Deputy Business Manager

David Carter, Dep. Prog. Mgr. – Explorers (Detail)
Jahi Wartts, Explorers Business Manager
Ken Lee, Financial Manager

Paige Wood Administrative Assistants Vacant

5/19/26 v3



- Explorers-Astrophysics**
- **Astro Probes Explorer (AO)**
 - CASE (ESA's ARIEL mission)
 - COSI
 - LISA (ESA's LISA mission)
 - UVEX

- Explorers-Heliophysics**
- EUVST*
 - HelioSwarm*
 - MUSE*
 - **AIM**
 - AWE
 - EZIE
 - GOLD
 - IBEX
 - **ICON**
 - CINEMA*
 - CMEs*
 - SunRISE*
 - IRIS
 - PUNCH
 - THEMIS
 - TRACERS
- *Post Launch Support funded by Explorers PO Budget

- LWS-STP Heliophysics**
- **GDC Trailblazer***
 - HERMES*
 - JEDI (ESA's Vigil Mission)*
 - DYNAMIC - DAPHNE
 - ESCAPEDE
 - Carruthers
 - IMAP
 - Parker Solar Probe
 - Solar Orbiter
 - STEREO
 - TIMED
- *Post Launch Support funded by LWS PO Budget

- Space Weather**
- SWx Instrument Pipeline
 - SST
 - SPAN-E
 - ECP-Lite

Note: **Yellow Text:** Phase A Missions
Black Text: Phase B-D Missions
Blue Text: Phase E or Extended Phase E Missions
Red Text: indicates missions in Phase F.



Explorers Program Office

Roles/Responsibilities (1 of 2)



- Support the Principal Investigator in achieving mission success and ensure that the mission complies with all applicable government and NASA-specific policies and regulations.
- Provide comprehensive oversight of the mission development process by conducting ongoing assessments of the mission's cost, schedule and technical progress.
- Provide mission status to NASA GSFC and HQ through monthly reviews, weekly reporting and timely notification of problems & resolution plans.



Explorers Program Office

Roles/Responsibilities (2 of 2)



- Coordinate the provision of certain services and equipment as required, such as space communication support, launch services, etc.
- Provide recommendations for the chair and membership of the Standing Review Board.
- Appoint a Mission Manager for full missions not managed by GSFC and all missions of opportunity.
 - Mission Manager is typically assigned after Phase A is completed
- Allocate funding to PI-led Phase A Concept Study teams, remain neutral, unbiased and attend site visit meetings as an observer.



Mission Manager Roles/Responsibilities



- The Mission Manager will:
 - Serve as the Goddard point of contact and the Contracting Officer’s Representative or Task Monitor, as required.
 - Lead the GSFC engineering, mission assurance and business teams in obtaining detailed cost, schedule and technical insight to facilitate reporting to GSFC and HQ.
 - Provide access to the Goddard services and support as requested (e.g., EEE parts lab, board coupon testing, materials lab, SMA services and engineering services).
 - Ensure that adequate government resources are applied to the mission as required.



Explorers Program Team



- Mission Manager
 - Systems Engineer
 - Instrument Systems Engineer
 - Mission Assurance Lead
 - Senior Resource Analyst
 - Scheduling/Planning
 - Configuration Management
- Other Program Support Available:
 - Instrument Systems
 - Electrical Systems
 - Mechanical Systems
 - Quality Engineering
 - System Safety
 - EVM Lead



Available Goddard Services



- Available GSFC services include:
 - EEE parts testing
 - Radiation effects analysis/testing
 - Materials engineering support (includes board coupon testing)
 - Thermal coatings engineering support
 - Discipline engineering support
 - Space communications support
 - Instrument detector systems support
 - Tiger Team and Anomaly Review Team Support



Safety & Mission Assurance



- Mission Risk Classification is defined as D per NPR 8705.4
- Science Mission Directorate (SMD) Mission Assurance Requirements (MAR)
 - Class D MAR Released April 2021
 - SMD Policy Document SPD-39
- Implementation of the MAR will be defined in the MAR Compliance matrix or Mission Assurance Implementation Plan (MAIP)
 - A draft MAR Compliance Matrix and/or MAIP to be developed during Phase A and delivered with the concept study report.
 - MAIP can be based on existing organizational practices to show compliance to MAR
- Additional SMA Requirements may be levied by the access to space provider (ISS, spacecraft host, rideshare provider, etc.)

For any questions please contact the EHPD Program CSO
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