Safety and Mission Assurance

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ESEP Mission Assurance Requirements

- Proposers shall describe the plan for implementing mission assurance requirements throughout the lifecycle. The requirements are in the Earth System Explorers Program Mission Assurance Requirements (MAR).

- Proposers shall develop a MAR compliance matrix that identifies requirements compliance status.
  - It should include variance and acceptance rationale for processes, procedures, and standards that are proposed as alternatives to those specified by the contract (DID 1-1).

  - It should also include identification of requirements for which relief is requested via the Inherited Item Risk Assessment process (see Section 1.9 "Use of Inherited Products/Items").

The mission assurance matrix should address:

- The overall mission assurance implementation of requirements for hardware, software, parts, materials, safety, reliability, workmanship, contamination control, and related critical ground support equipment
- Implementation of right-sized practices from NPR 8705.4A Risk Classification for NASA Payloads and NASA-STD-8739.10 Electrical, Electronic, and Electromechanical (EEE) Parts Assurance Standard
- Insight-based Class C approach that considers the resources and constraints that go along with Class C
- Use of developer practices and minimizing the need for waivers when proven practices are employed

Available Goddard Space Flight Center Resources

- Available Goddard services to support Projects selected to continue after Phase A include:
  - Systems Safety Engineer
  - Commodities Risk Assessment Engineer
  - Materials and Processes Assurance Engineer
  - Hardware and Software Quality Engineers
  - Parts and Radiation Assurance Engineer
  - Reliability Engineer
  - Supply Chain Assurance Lead