

Flight Systems Implementation Branch

The Flight Systems Implementation branch uses a multidisciplinary team approach that integrates science, engineering and operations to ensure mission success and compliance with customer requirements in the development and integration of bioscience payloads. Payload capabilities include design, fabrication, requirements definition, flight certification, operations and management of bioscience experiments for manned and unmanned spaceflight projects. Over 100 payloads have been developed and flown by the Flight Systems Implementation Branch.

Payload Development and Integration

- Flight experiment hardware provider
- New design development, modification of Commercially available Off-The Shelf (COTS) or existing inventories
- Manned and unmanned payload integration

Space Flight Verification Testing/Analysis

- Understanding space flight hardware requirements
- Ability to perform tests on site to verify hardware
- Preparation of written analysis and reports
- Selection and certification of COTS equipment for space

Payload Management and Operations

- Project oversight for hardware development, science and operations management
- Scheduling and Risk Management
- International Experiment Coordination and Operations

Payload Support

- Pre and post launch logistics support
- Payload operations coordination and process development
- Data and Biospecimen collection and archiving

Ground Acceleration Facilities

Human-rated and Nonhuman rated Centrifuges

- Human, non-human and hardware research/testing activities
- Protocols are fully customizable to specific experimental trials
- Unique hardware for specific experiments can be designed and manufactured in-hours per investigators needs
- Biosensors, instrumentation and data collection



NASA Ames Research Center
SPACE BIOSCIENCES



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