Table of Contents

Agency Summary

Exploration, Science, and Aeronautics

SPACE SCIENCE

Solar System Exploration

Development

MESSENGER
DEEP IMPACT
DAWN
NEW HORIZONS (PLUTO)
SMALL DEVELOPMENT PROJECTS

Operations
Research

Mars Exploration

Development

2005 MARS RECONNAISSANCE ORBITER (MRO)
SMALL DEVELOPMENT PROJECTS

Operations
Research
Technology and Advanced Concepts

Lunar Exploration

Technology and Advanced Concepts

LUNAR EXPLORATION

Astronomical Search for Origins

Development

HUBBLE SPACE TELESCOPE
SOFIA
KEPLER

Operations
Research
Technology and Advanced Concepts

JAMES WEBB SPACE TELESCOPE
## Table of Contents

### Structure and Evolution of the Universe

**Development**
- GRAVITY PROBE-B
- GAMMA-RAY LARGE AREA SPACE TELESCOPE (GLAST)
- SWIFT GAMMA-RAY BURST EXPLORER
- SMALL DEVELOPMENT PROJECTS

**Operations**
**Research**
**Technology and Advanced Concepts**

### Sun-Earth Connection

**Development**
- SOLAR TERRESTRIAL RELATIONS OBSERVATORY (STEREO)
- SOLAR DYNAMICS OBSERVATORY (SDO)
- SMALL DEVELOPMENT PROJECTS

**Operations**
**Research**
**Technology and Advanced Concepts**

### EARTH SCIENCE

### Earth System Science

**Development**
- CLOUDSAT
- CALIPSO
- GIFTS
- EOSDIS
- AURA
- NPOESS PREPARATORY PROJECT (NPP)

**Operations**
**Research**
**Technology and Advanced Concepts**
- TECHNOLOGY INFUSION PROGRAM
- MISSIONS IN FORMULATION

### Earth Science Applications

**Research**
- NATIONAL APPLICATIONS PROGRAM
- EARTH SCIENCE EDUCATION
- TECHNOLOGY AND ADVANCED CONCEPTS
- CROSSCUTTING SOLUTIONS
## Table of Contents

### BIOLOGICAL AND PHYSICAL RESEARCH

**ESAl 1-1**

#### Biological Sciences Research

**ESAl 12-1**

- Development
  - HABITAT HOLDING RACK (HHR)
  - HUMAN RESEARCH FACILITY (HRF) – 2
- Operations
  - FUNDAMENTAL SPACE BIOLOGY (FSB)
  - BIOASTRONAUTICS RESEARCH (BR)
- Research
  - FUNDAMENTAL SPACE BIOLOGY
  - BIOASTRONAUTICS RESEARCH

#### Physical Sciences Research

**ESAl 13-1**

- Development
  - FLUIDS AND COMBUSTION FACILITY (FCF)
  - LOW TEMPERATURE MICROGRAVITY PHYSICS FACILITY (LTMPF)
  - MATERIALS SCIENCE RESEARCH RACK-1 (MSRR-1)
- Operations
- Research

#### Research Partnerships and Flight Support

**ESAl 14-1**

- Operations
  - SPACE PRODUCT DEVELOPMENT
  - MULTI-USER SYSTEM AND SUPPORT
- Research
  - RESEARCH PARTNERSHIP CENTERS

### AERONAUTICS

**ESAl 15-1**

#### Aeronautics Technology

**ESAl 16-1**

- Technology and Advanced Concepts
  - AVIATION SECURITY AND SAFETY PROGRAM (AVSSP)
  - AIRSPACE SYSTEMS PROGRAMS
  - VEHICLE SYSTEMS PROGRAM
# Table of Contents

## EDUCATION PROGRAMS

<table>
<thead>
<tr>
<th>Education Programs</th>
<th>ESA 18-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>MINORITY UNIVERSITY RESEARCH AND EDUCATION PROGRAM EDUCATION</td>
<td></td>
</tr>
</tbody>
</table>

## Exploration Capabilities

<table>
<thead>
<tr>
<th>Exploration Capabilities</th>
<th>EC-SUM 1</th>
</tr>
</thead>
</table>

## EXPLORATION SYSTEMS

<table>
<thead>
<tr>
<th>Human and Robotic Technology</th>
<th>EC 2-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology and Advanced Concepts</td>
<td></td>
</tr>
<tr>
<td>CENTENNIAL CHALLENGE</td>
<td></td>
</tr>
<tr>
<td>PROJECT PROMETHEUS</td>
<td></td>
</tr>
<tr>
<td>ADVANCED SPACE TECHNOLOGY</td>
<td></td>
</tr>
<tr>
<td>INNOVATIVE TECHNOLOGY TRANSFER PARTNERSHIPS</td>
<td></td>
</tr>
<tr>
<td>TECHNOLOGY MATURATION</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transportation Systems</th>
<th>EC 3-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology and Advanced Concepts</td>
<td></td>
</tr>
<tr>
<td>CREW EXPLORATION VEHICLE</td>
<td></td>
</tr>
<tr>
<td>SPACE LAUNCH INITIATIVE</td>
<td></td>
</tr>
</tbody>
</table>

## SPACE FLIGHT

<table>
<thead>
<tr>
<th>International Space Station</th>
<th>EC 5-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td></td>
</tr>
<tr>
<td>ISS CORE DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>ISS CAPABILITY UPGRADES</td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>SPACECRAFT OPERATIONS</td>
<td></td>
</tr>
<tr>
<td>LAUNCH AND MISSION OPERATIONS</td>
<td></td>
</tr>
<tr>
<td>OPERATIONS PROGRAM INTEGRATION</td>
<td></td>
</tr>
<tr>
<td>ISS/CARGO CREW SERVICES</td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

## Space Shuttle

Development
- **ADVANCED HEALTH MANAGEMENT SYSTEM (AHMS)**
- **COCKPIT AVIONICS UPGRADE (CAU)**

Operations
- **PROGRAM INTEGRATION**
- **GROUND OPERATIONS**
- **FLIGHT OPERATIONS**
- **FLIGHT HARDWARE**
- **MISSIONS ASSURANCE PROGRAM (MAP)**

## Space and Flight Support

Development
- **PLUM BROOK REACTOR FACILITY DECOMMISSIONING**
- **ENVIRONMENTAL COMPLIANCE AND RESTORATION**

Operations

## Inspector General

## Supporting Data

Reconciliation of Appropriation to Budget Requests
- FY 2003 Appropriation by Budget Line Item
- Reimbursable Estimates
- Funds by Installation
- Civil Service Distribution
- Consulting Services
- Construction of Facilities
- Integrated Financial Management Program
- National Institute of Aerospace

## Proposed Appropriations Language

## Management and Performance

Full Cost Budgeting: Basics and FY 2005 Update
- Performance Assessment Rating Tool (PART)
- President’s Management Agenda (PMA) Update
- FY 2004 Performance Plan (Update)
- FY 2005 Performance Plan

## Reference

Document Format Overview and FY 2005 Changes
- How to Read a Data Sheet
- Acronyms

**TOC 1-5**