Agenda

• NASA and MSFC

• Three Main Mission Areas

• MSFC and the Office of Center Operations and some other updates
NASA has 10 Centers

Armstrong Flight Research Center
Aerospace and Small Spacecraft
Moffett Field, Calif.

Jet Propulsion Laboratory
Deep Space Robotic Rovers and Networks
Pasadena, Calif.

Johnson Space Center
Human Space Flight Operations
Houston, Texas

Stennis Space Center
Vehicle Engine Testing
Bay St. Louis, Miss.

Santa Susana Field Lab
Former Test Site

Goddard Space Flight Center
Science Missions and Telescopes
Greenbelt, Md.

Langley Research Center
Aviation and Space Research
Hampton, Va.

Marshall Space Flight Center
Vehicle Engine Testing
Bay St. Louis, Miss.

Michoud Assembly Facility
Large Vehicle Manufacturing
New Orleans, La.

Glenn Research Center
Aeronautics and Spacecraft Technology
Cleveland, Ohio

NASA Headquarters
Washington, D.C.

Kennedy Space Center
Space Vehicle Launch and Landing
Cape Canaveral, Fla.

Johnson Space Center
Human Space Flight Operations
Houston, Texas

NASA Headquarters
Washington, D.C.
Marshall Space Flight Center is Integral to our Community

6,000 employees
$7B economic impact

Nationwide impact of over 38,000 jobs

2nd largest employer
Huntsville / Madison County

Fueling the Economy
Three Main Mission Areas

- Living and Working in Space
- Understanding Our World and Beyond
- Traveling To and Through Space
Traveling To and Through Space

Space Launch System (SLS)
America’s next human-rated heavy-lift rocket – safe, affordable, and sustainable for beyond Earth orbit exploration

Commercial Spaceflight
Partnering for success – sharing facilities and expertise

Research for the Future
New fuels, new manufacturing and test methods, and advanced concepts

Launching SLS in 2019
Supporting Commercial Spaceflight
Affordable Testing for Nuclear Fuel Prototypes
Methane Engine Testing
In-space Cryogenic Fuel Storage Concept
Deep Space Concepts
The Space Launch System (SLS) Block 1- will fly EM1 around the moon in late 2019.

- **Launch Abort System (LAS)** – Produced and tested at multiple sites
- **Multipurpose Crew Vehicle (MPCV)/Orion Capsule** – Produced at Michoud Assembly Facility (MAF), Tests at multiple sites
- **Orion Stage Adapter (OSA)** – Tests at MSFC 4699 (completed) and Denver (Spacecraft Payload Integration and Evolution (SPIE))
- **Interim Cryogenic Propulsion Stage** – Produced at United Launch Alliance (ULA), Tests at MSFC 4699 (completed) (SPIE)
- **Launch Vehicle Stage Adapter (LVSA)** – Tested at MSFC 4699 (SPIE)
- **Liquid Oxygen (LOX) Tank** – Produced at MAF, Structural Test at MSFC 4697
- **Intertank** – Produced at MAF, Structural Test at MSFC 4619
- **Liquid Hydrogen (LH2) Tank** – Produced at MAF, Structural Test at MSFC 4693
- **Engine Section** – Produced at MAF, Structural Test at MSFC 4619 (On-site, prepping for test)

Solid Rocket Boosters are made and tested in Utah.
OCO Support to SLS for the Structural Tests

MAF

BARGE

Redstone/MSFC

Self propelled motorized transport (SPMT)
Living and Working in Space

Lab Training Complex

Payload Operations Center

ECLSS testing at Marshall

Microgravity Science Glovebox

ISS U.S. Destiny Lab
Understanding Our World and Beyond

Observing Earth

Weather & Climate Monitoring
SERVIR

Studying Our Solar System
Solar Dynamic Observatory
Discovery & New Frontiers

Exploring Our Universe
Chandra
James Webb Space Telescope
Office of Center Operations (OCO)
MSFC Organization Chart

MSFC Center Director: Todd May
Deputy Center Director: Jody Singer
Associate Center Director: Jonathan Pettus

Office of the Chief Financial Officer (Bill Hicks)
Office of Procurement (Steve Miley)
Office of Chief Counsel (Audrey Robinson)
Office of the Chief Information Officer (IS) (Neil Rodgers)
Office of Human Capital (Marcus Lea)
Office of Diversity & Equal Opportunity (Loucious Hires)
Office of Strategic Analysis & Comm. (CS) (Johnny Stephenson)
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Office of Strategic Analysis & Comm. (CS) (Johnny Stephenson)
Office of Center Operations (AS) (Roy Malone)

Space Launch Systems (SLS) (XP) (John Honeycutt)
Science and Technology (ST) (David Burns)
Human Exploration Development and Ops (HP) (Bobby Watkins)
Michoud Assembly Facility (MAF) Office (Keith Hefner)

Engineering Directorate (ED) (Preston Jones)
Safety & Mission Assurance Directorate (Rick Burt)

Spacecraft & Vehicle Systems Department
Instrument & Payload Systems Department
Propulsion Systems Department
Test Laboratory
Materials & Processes Laboratory (EM)
SSFL Operations – AS01

- **Facility Operations**
  - Demo/A&E
  - Historical Preservation

- **Environmental Management**
  - Ground and Soils Remediation
Environmental Engineering & Occupational Health – AS10

Agency Responsibilities
- Manage NASA principal center for regulatory risk and analysis communication. Identify and communicate regulatory driven risks.
- Support environmental managers panel.

Environmental Compliance
- Hazardous waste management
- Chemical management
- Wastewater/storm water management
- Environmental assessments
- Air emissions management
- Environmental training
- Audits/inspections
- Green procurement
- Natural and cultural resources
- Toxic substances
- Recycling

Restoration/Cleanups
- MSFC Superfund
- Investigation and cleanup
- MAF Resource Conservation and Recover Act (RCRA) investigation and cleanup
- SSFL RCRA investigation and cleanup
Facilities Management – AS20

Facilities Planning
- Real Property
- Roads and Parking
- Geographical Information System (GIS)
- Signage
- Master Planning
- Historical/Cultural
- Space Management
- Americans with Disabilities Act
- Army Coordination
- Leases
- Enhanced Use Lease
- Memoranda of Agreement
- Space Act Agreements

Facilities Engineering
- Configuration Control
- Demolition
- Engineering Analysis
- Architectural/Engineering Services
- Project Integration
- Cost Engineering
- Project Planning
- Project Scheduling
- Project Management
- Construction
- Design
- Facilities Utilization Review Committee (FURC)

Sustaining Facilities
- Energy and Utility Management
- Systems (HVAC) Availability
- Custodial
- Grounds/Landscaping
- Equipment Operations
- Outage Coordination
- Utility Control System and Building Automation
- Unscheduled Maintenance
- Scheduled Maintenance
- Operations De-ionized, Chilled Water, Steam, etc.
Michoud Assembly Facility (MAF) Operations – AS60

- **Facility Operation and Maintenance Management**
  - Facility Projects oversight CoF/A&E Planning and Implementation
  - Floor Plan Layout
  - Port/ Harbor
  - Emergency Management Program
  - Office Space Coordination

- **Site Services**
  - Trash, Vending, Cafeteria
  - Security

- **Health & Welfare Management**
  - Medical Operation
  - Bloodborne Pathogens

- **Logistics**
  - Shipping/Receiving
  - Transportation
  - Property Management/Tracking

- **Environmental Management**
  - Remediation
  - Permitting

- **Protective Services Change Support**
  - New Directives
  - Update Directives
Some Other Updates....
Redstone Arsenal Land Use

38,125 acres...20 M ft² of combined facility space... $6.7 B combined replacement value...
1,841 acres…
4.5 M ft² of facility space…
$2.2 B replacement value…
6,000 employees
Some Other Updates....

- The Facilities Operations and Maintenance Support Services (FOMSS) Contract was awarded this summer as an 8 year contract.

- The Synergy-Achieving Consolidated Operations and Maintenance Contract (SACOM) is in place at Michoud Assembly Facility (MAF) and Stennis Space Center (SSC).

- The Multiple Award Construction Contract (MACC) II supporting MSFC, MAF, SSC, Johnson Space Center (JSC) and Kennedy Space Center (KSC) is currently being competed.

- We continue to use the ACOE MATOCs as needed. At last count, in the last five years, we had involvement with six ACOE offices: Mobile District, New Orleans District, Los Angeles District, Baltimore District, Memphis, Marine Design Center (Philadelphia).
Some Other Updates…. (Continued)

• Over the next few years we will be working to get off cross country steam, and become more energy efficient.

• The Agency is holistically looking at how it does Facility services.

• We are also preparing to undergo a major Masterplan update that will target reductions in square footage, partnership, and our next generation of new buildings starting around 2022.

• There is a substantial environmental remediation effort that we are preparing for at SSFL. To get a better sense of this… look up the Department of Toxic Substance Control (DTSC) preliminary Environmental Impact Report (PEIR)