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Boeing Exploration Launch Systems, Vice President

Ares I Progress: Upper Stage and IUA
NASA Percentage of Federal Budget

Challenges Lie Ahead

♦ NASA’s priorities

♦ Competition for funding

♦ Changing business models and partnerships
NASA and Industry Partnership

NASA Roles
- Program Management
- Requirements Development
- Interface Control
- Assembly Facilities
- Operations & Maintenance

Industry Roles
- Producibility Supplier Management
- Manufacturing & Assembly
- Integration & Test
- Logistics
- Sustaining Engineering

NASA and Industry are working together in new ways

Strong Design Partnership
We’re Growing at MAF

- Staffed MAF with Skills Critical to Activation
  - Manufacturing
  - System Safety
  - Manufacturing Execution System (I-GOLD)
  - Manufacturing Engineering
  - Weld Processes
  - Facilities

- Site Team Providing Shop Floor Perspective
  - NDT Requirements Development
  - Facility Capability Assessments
  - Trade Study Development
  - Capturing Related ET Lessons
  - Production Flow Detail Definitions & Enhancements
Detailed Development is Underway . . .

- Flight Computer Demonstration
- First Upper Stage Test Article Hardware Complete
- Closeout Welding of Thruster Manifold
. . . And Hardware is in Flow

- Delivery of Robotic Weld Tool
  Michoud Assembly Facility, LA

- Composite Interstage Pathfinder Development Panels are being fabricated in Seattle

- Upper Stage Manufacturing Development Process
  Marshall Space Flight Center, AL

- Flight Computer Hardware and Demonstration

- Test coupons fabricated from interstage pathfinder development panel
In Summary

We are making great progress in the development of Ares I . . .

But we have more to do . . .
Our 2¢…

- Extend ISS to capture maximum value
- Continue making investments that apply beyond ISS, including Ares I and Orion
- Our Challenge is keeping a decision made
- Human Space Flight must be a certain Enterprise to attract young talent

Preserve Beyond LEO Options
Questions?