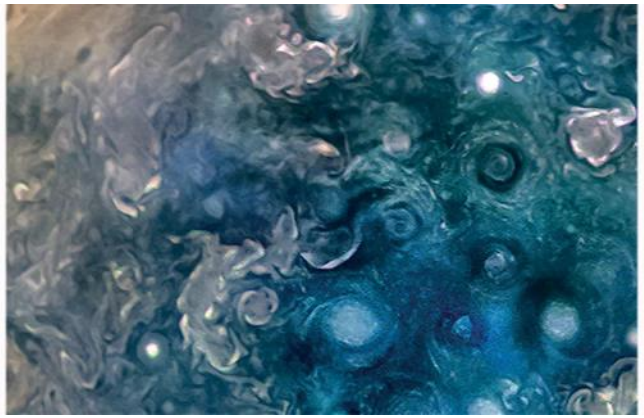
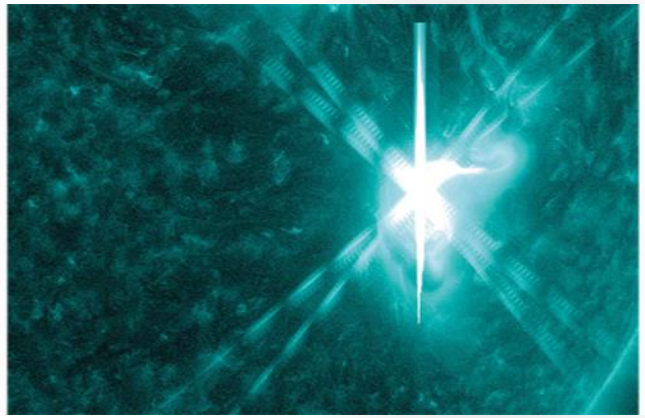
SCIENCE

National Aeronautics and Space Administration



Science Mission Directorate Class D Town Hall

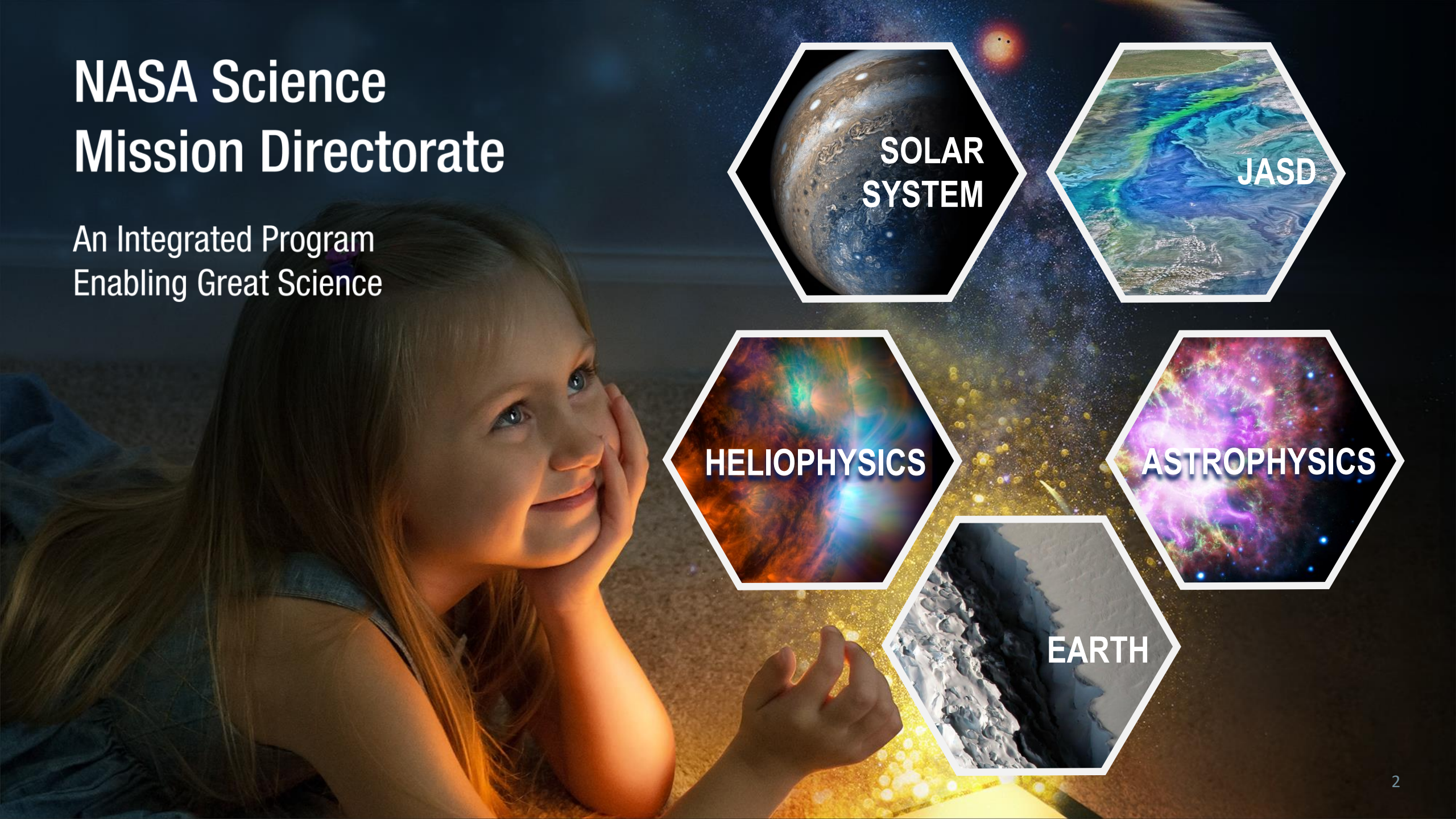
Thomas H. Zurbuchen
Associate Administrator

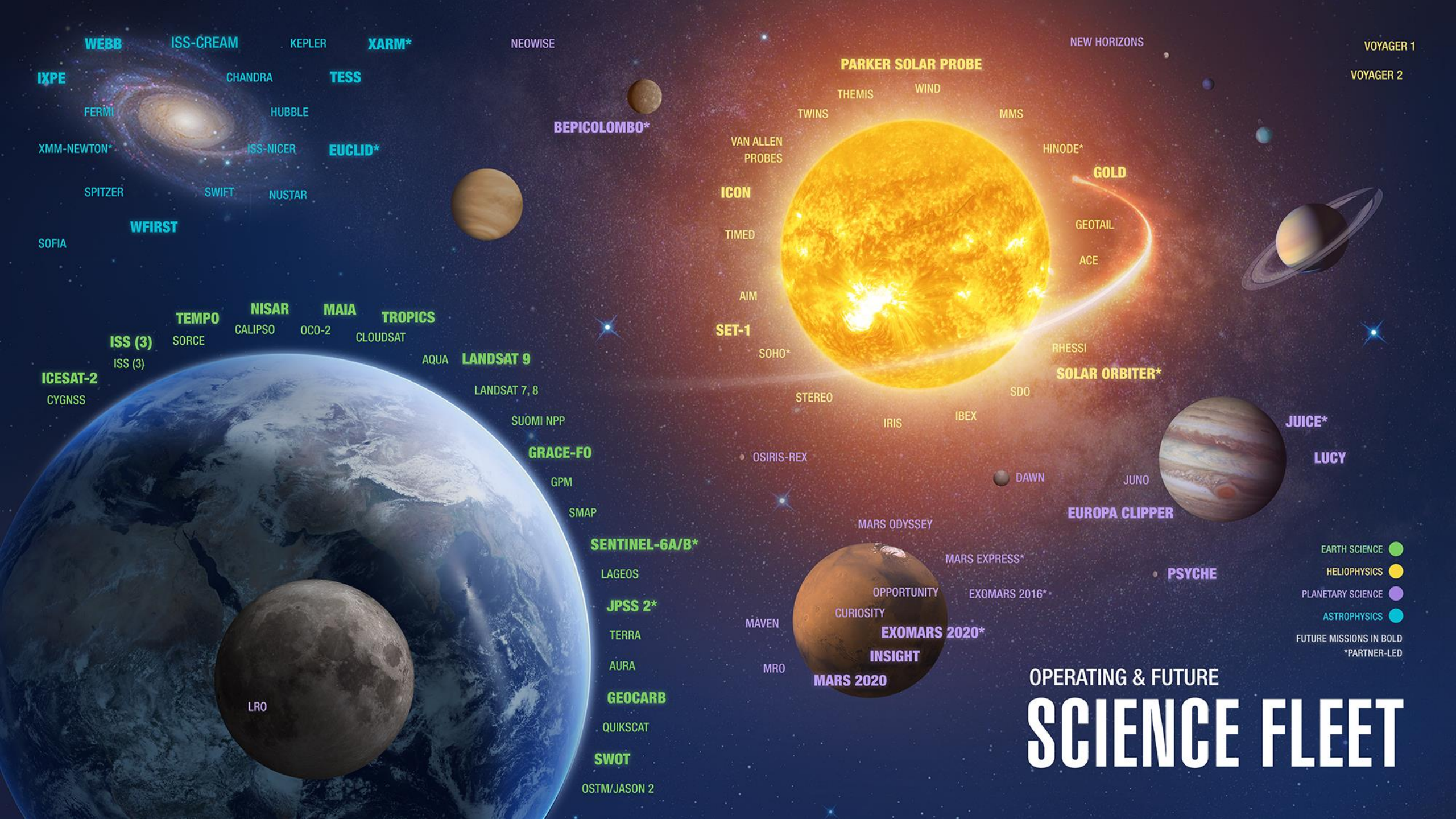
Gregory L. Robinson
Deputy Associate Administrator for Programs

JANUARY 2018

NASA Science Mission Directorate

An Integrated Program
Enabling Great Science

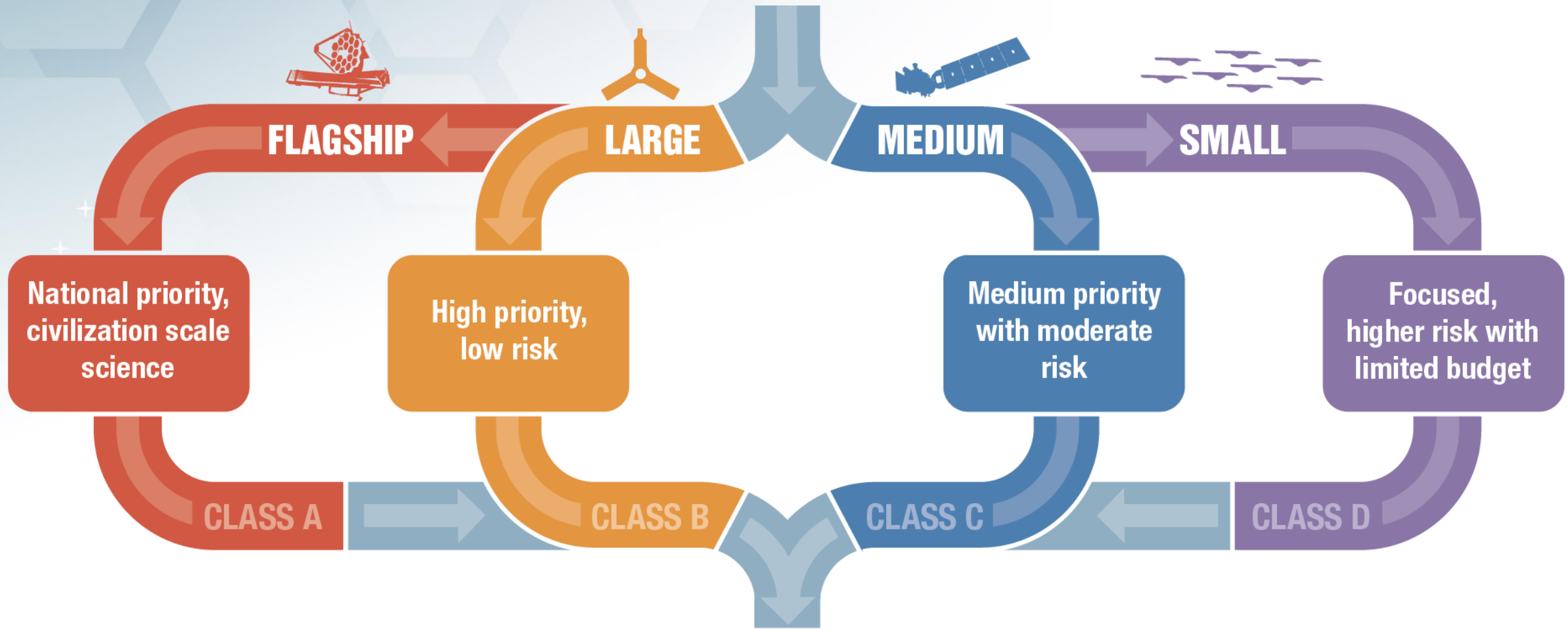




OPERATING & FUTURE

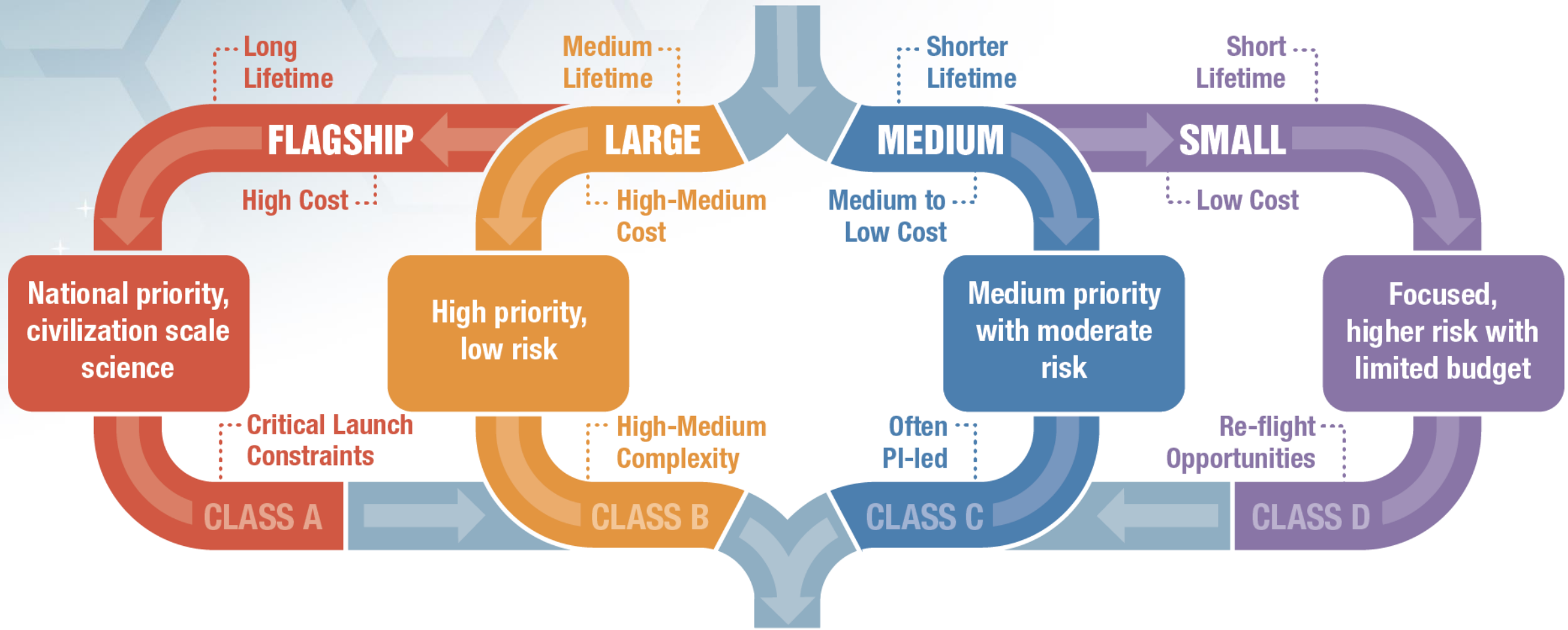
SCIENCE FLEET

BALANCED MISSION PORTFOLIO

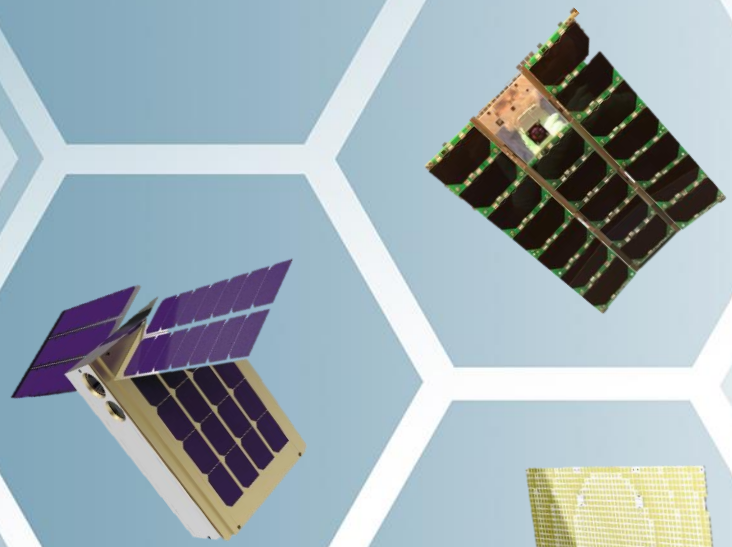


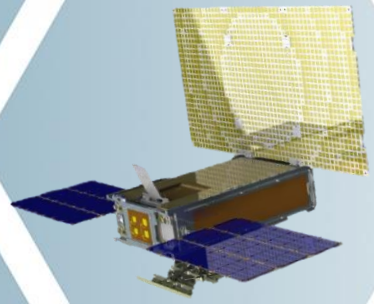
GREAT SCIENCE

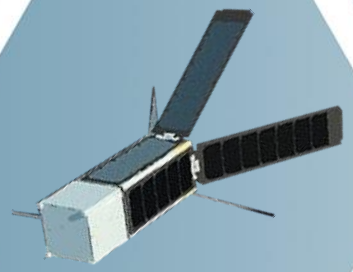
BALANCED MISSION PORTFOLIO



GREAT SCIENCE







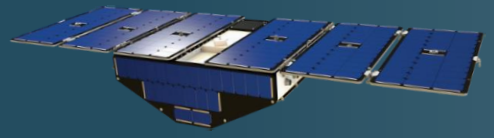
Importance of Small, Innovative Missions

- **Expand** science programs to take advantage of small satellite rapid innovation to achieve breakthrough science
- **Enable** fast access to space with focused science measurements to fill a critical gap between large flight projects
- **Leverage** technology investments to further improve potential of science instruments
- **Partner** with commercial entities to acquire new capabilities of small satellite platforms

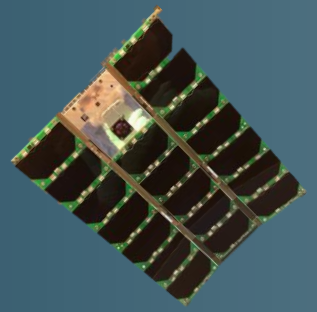
Class D Examples

IN FLIGHT

CYGNSS



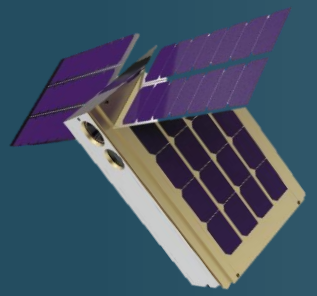
MinXSS



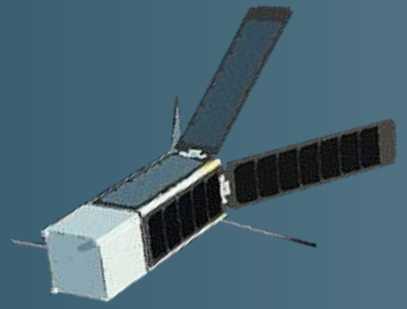
RAVAN

IN DEVELOPMENT

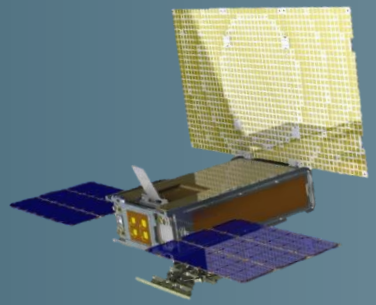
LunaH-Map



TROPICS

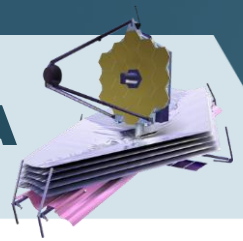


MarCO



SMD Portfolio Defined

CLASS A

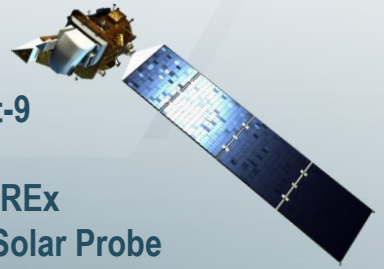


- High priority
- Very high significance
- High complexity
- Long mission lifetime
- High cost
- Critical launch constraints
- No re-flight opportunities

Cassini
Webb
Europa Clipper
Mars 2020

CLASS B

- High priority
- High significance
- High to medium complexity
- Medium mission lifetime
- High to medium cost
- Medium launch constraints



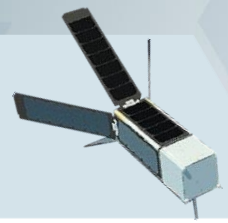
Juno
Landsat-9
InSight
OSIRIS-REx
Parker Solar Probe

CLASS C

- Medium priority
- Medium significance
- Medium to low complexity
- Short mission lifetime
- Medium to low cost
- Few launch constraints

MMS
ICESat-2
TESS
GRACE Follow-on
ICON

CLASS D



- Low priority
- Low to medium significance
- Short mission lifetime
- Medium / low complexity
- Low cost
- Few to no launch constraints
- Re-flight opportunities

CYGNSS
NICER
TROPICS
GeoCarb
ECOSTRESS

Class D Strategy Implementation

Accepting higher risk for scientific gain by implementing a tailored, streamlined classification approach

SMD Implementation
Reviews

- Lifecycle Reviews conducted by project implementing institution
- Only two NASA required reviews during the Project development lifecycle
- Delegated Decision Authority
- Review Teams as small as practicable

SMD Implementation
Documentation

- Only final documentation submitted to NASA HQs for approval; no preliminary documentation
- Final Project documentation approved at the Division Director level
- Merging documentation encouraged
- Tailoring Mission Assurance Requirements (MAR), with a goal to reduce documentation deliverables and reviews

SMD Implementation
Performance Management

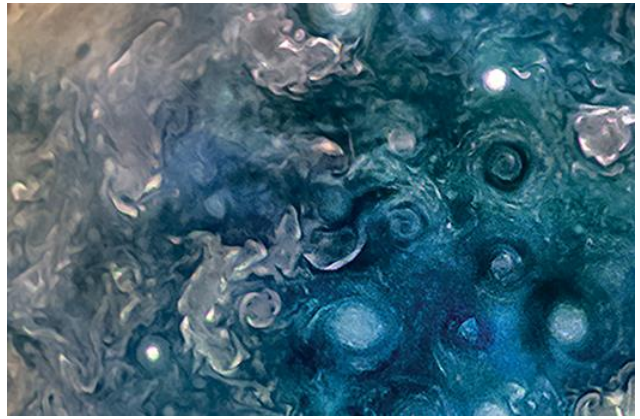
- Formal Earned Value Management (EVM) and a certified EVM system is not required
- NASA will develop only one NASA ICE/ISE
- KDP-C decision will be made based on 60% confidence levels, and not based on the usual 70%
- 7 Basic principles apply: Per Robert Lightfoot memo 9/26/14, AO website: https://soma.larc.nasa.gov/standardao/

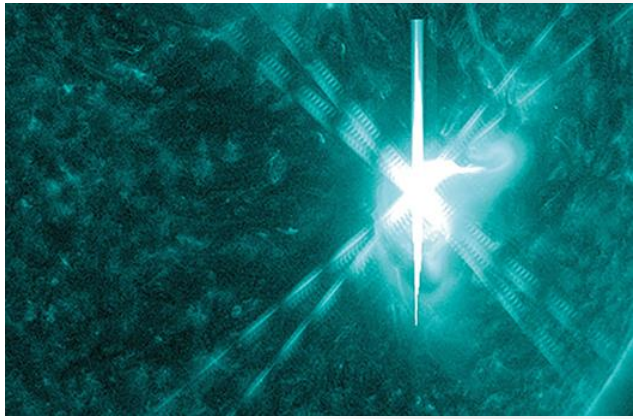
Questions

- Information can be found at https://soma.larc.nasa.gov/standardao/ClassD.html
- Contact Gregory.I.robinson@nasa.gov with questions and comments

SCIENCE

National Aeronautics and Space Administration



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