

National Aeronautics and Space Administration



FY 2019

BUDGET ESTIMATES

www.nasa.gov

NASA and American Leadership



The United States shall

“Lead an innovative and sustainable program of exploration with commercial and international partners to enable human expansion across the solar system and to bring back to Earth new knowledge and opportunities. Beginning with missions beyond low-Earth orbit, the United States will lead the return of humans to the Moon for long-term exploration and utilization, followed by human missions to Mars and other destinations.”

- Presidential Space Policy Directive 1

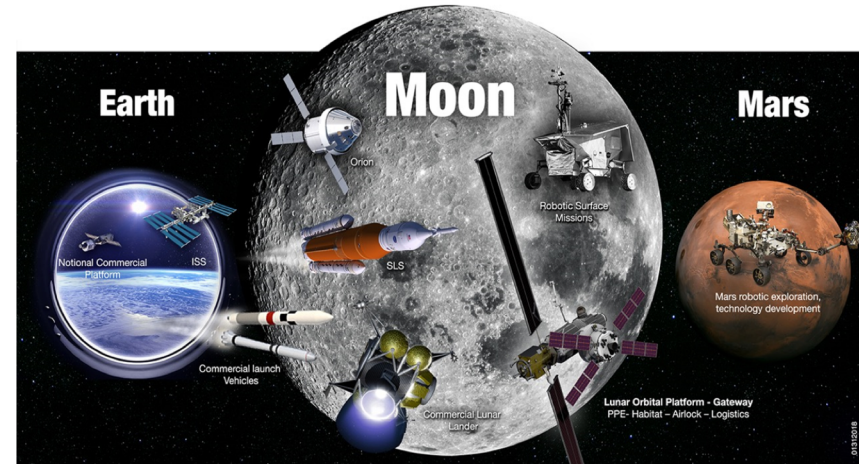
NASA is

- Enabling U.S. Global Leadership: Our scientific, technological, aeronautics and space exploration efforts are uniquely visible expressions of American leadership
- Extending Human Presence Deeper into Space Starting with the Moon for Long-term Exploration and Utilization
- Expanding Human Knowledge Through New Scientific Discoveries
- Addressing National Challenges that Catalyze Economic Growth
- Improving Capabilities and Operations

2019 Budget Highlights



- Provides \$19.9B, including \$10.5B to lead an innovative and sustainable campaign of exploration and lead the return of humans to the Moon for long-term exploration and utilization followed by human missions to Mars and other destinations.
- Refocuses existing NASA activities towards exploration, by redirecting funding to innovative new programs and providing additional funding to support new public-private initiatives.
- Conducts uncrewed SLS/Orion first flight in 2020, leading to Americans around the Moon in 2023. This will be the first human mission to the moon since Apollo 17 in 1972, and will establish U.S. leadership in cislunar space.



In LEO
Commercial & International
partnerships

In Cislunar Space
A return to the moon for
long-term exploration

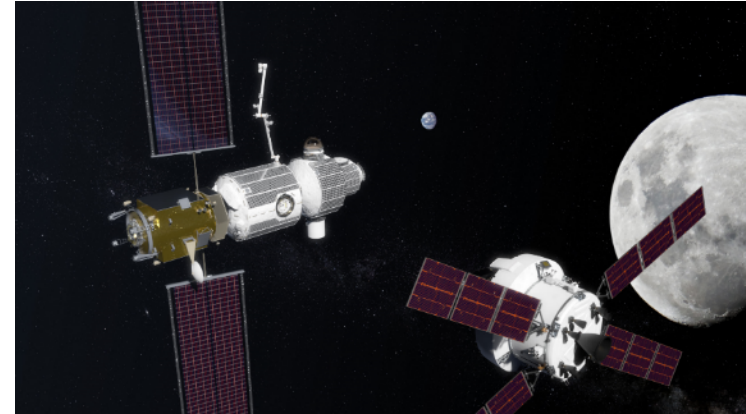
On Mars
Research to inform future
crewed missions



Highlights *(continued)*



- Serves as a catalyst for growth of a vibrant American commercial space industry expanding commercial partnerships to strengthen U.S. leadership in space.
- Achieves early Human Exploration milestone by establishing a Lunar Orbital Platform-Gateway in cislunar space; launching a power and propulsion space tug in 2022.
- Develops a series of progressively more capable robotic lunar missions to the surface of the moon using innovative acquisition approaches while meeting national exploration and scientific objectives.
- Begins transition to commercialization of low Earth orbit and ends direct federal government support of the International Space Station in 2025.
- Begins a new \$150M program to encourage development of new commercial Low Earth orbital platforms and capabilities for use by the private sector and NASA.



Highlights (*continued*)



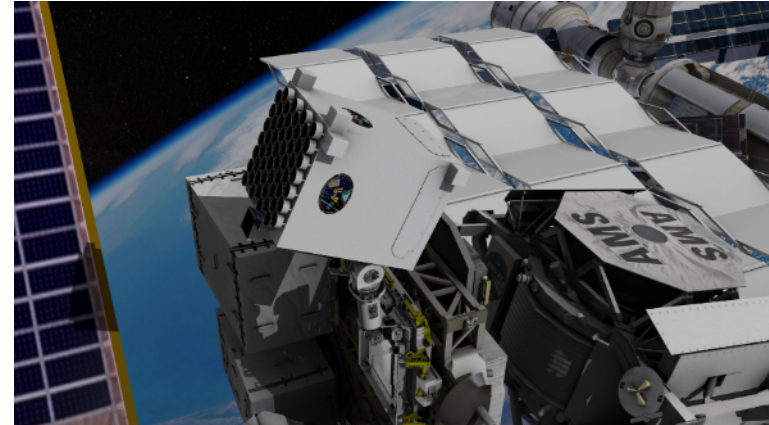
- Continues robotic exploration of the Solar System including funding for the next Mars rover launch in 2020, funding to explore possibilities of returning geological samples from Mars and a Europa Clipper mission to fly repeatedly by Jupiter's icy ocean moon Europa.
- Enables our wide-ranging science work on many fronts, which continues to lead the world in its size, scope, and scientific output.
- Supports a focused Earth science program; no funding for missions proposed for termination in FY18 budget (PACE, OCO-3, CLARREO Pathfinder, DSCOVR, and RBI).
- Continues exploring the universe with launch of James Webb Space Telescope.
- Cancels WFIRST due to its significant cost and higher priorities within NASA. Increases funding for competed astrophysics missions and research.



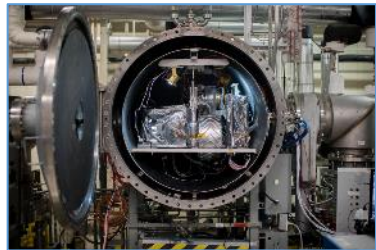
Highlights *(continued)*



- Focuses and integrates space technology investments to enable new robotic and human exploration capabilities and missions and contribute to economic development and growth by enabling innovative systems and services supporting the emerging space economy.
- Fully funds a supersonic X-plane and increases hypersonics research funding. Maintains robust investment in air traffic management improvements that will safely increase air traffic capacity, reduce flight delays, and enable safe, robust UAS integration.
- Redirects Office of Education funding to new initiatives supporting NASA's core mission of exploration.
- Strengthens cybersecurity capabilities, safeguarding critical systems and data, and continues to support improved overall management of IT.



Anticipated Accomplishments in FY 2019



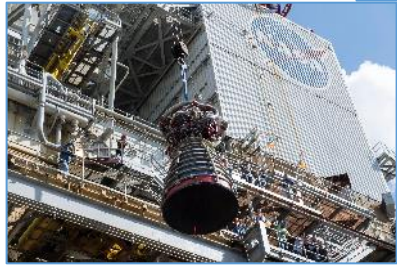
Advanced Exploration Systems

Power propulsion element requirements studies, acquisition planning, and partnership approaches. Ground testing of full size prototype cislunar habitats.



James Webb Space Telescope

Completes assembly and testing, ships to French Guiana, and launches between March and June of 2019.



Exploration Systems

Continues systems integration in preparation for Ascent Abort test in April 2019 and EM-1 launch.

Other Science

Use of emerging commercial lunar lander capabilities to deliver payloads to surface of the Moon. Selects next New Frontiers mission, Heliophysics Small Explorer, Astrophysics Medium Explorer and suite of Earth Venture Suborbital-3 investigations.



Commercial Crew

Completes developmental milestones and plans for post certification missions to begin in 2019.



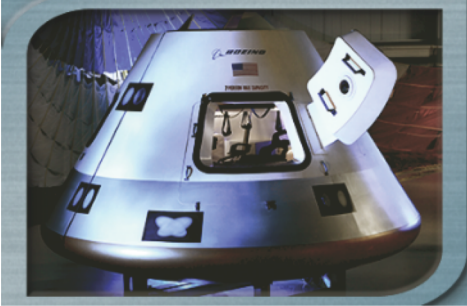
Exploration R&T

Launches 3 payloads demonstrating laser comm, green propellant, and precision navigation. Delivers MOXIE, MEDA, MEDLI2, and TRN to Mars 2020 mission.



Supersonic X-Plane

Completes a critical design review for the Low Boom Flight Demonstrator



FY 2019 Budget Request (\$M)



Budget Authority (\$ in millions)	Fiscal Year						
	2017	2018	2019	2020	2021	2022	2023
NASA TOTAL	\$19,653.3	\$19,519.8	\$19,892.2	\$19,592.2	\$19,592.2	\$19,592.2	\$19,592.2
Deep Space Exploration Systems	\$4,184.0	\$4,222.6	\$4,558.8	\$4,859.1	\$4,764.5	\$4,752.5	\$4,769.8
Exploration Systems Development	\$3,929.0		\$3,669.8	\$3,790.5	\$3,820.2	\$3,707.5	\$3,845.6
Advanced Exploration Systems	\$97.8		\$889.0	\$1,068.6	\$944.3	\$1,045.0	\$924.1
Exploration Research and Development	\$157.2		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Exploration Research and Technology	\$826.5	\$820.8	\$1,002.7	\$912.7	\$912.7	\$912.7	\$912.7
LEO and Spaceflight Operations	\$4,942.5	\$4,850.1	\$4,624.6	\$4,273.7	\$4,393.3	\$4,430.3	\$4,438.0
International Space Station	\$1,450.9		\$1,462.2	\$1,453.2	\$1,471.2	\$1,466.2	\$1,451.2
Space Transportation	\$2,589.0		\$2,108.7	\$1,829.1	\$1,858.9	\$1,829.2	\$1,807.3
Space and Flight Support (SFS)	\$902.6		\$903.7	\$841.4	\$888.2	\$934.9	\$954.6
Commercial LEO Development	\$0.0		\$150.0	\$150.0	\$175.0	\$200.0	\$225.0
Science	\$5,762.2	\$5,725.8	\$5,895.0	\$5,859.9	\$5,841.1	\$5,822.4	\$5,803.6
Earth Science	\$1,907.7		\$1,784.2	\$1,784.2	\$1,784.2	\$1,784.2	\$1,784.2
Planetary Science	\$1,827.5		\$2,234.7	\$2,199.6	\$2,180.8	\$2,162.1	\$2,143.3
Astrophysics	\$1,352.3		\$1,185.4	\$1,185.4	\$1,185.4	\$1,185.4	\$1,185.4
Heliophysics	\$674.7		\$690.7	\$690.7	\$690.7	\$690.7	\$690.7
Aeronautics	\$656.0	\$655.5	\$633.9	\$608.9	\$608.9	\$608.9	\$608.9
Education	\$100.0	\$99.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Safety, Security, and Mission Services	\$2,768.6	\$2,749.8	\$2,749.7	\$2,744.8	\$2,738.6	\$2,732.3	\$2,726.1
Center Management and Operations	\$1,986.5		\$1,949.6	\$1,945.4	\$1,939.8	\$1,934.1	\$1,928.5
Agency Management and Operations	\$782.1		\$800.1	\$799.4	\$798.8	\$798.2	\$797.6
Construction & Envrmtl Compl Restoration	\$375.6	\$358.3	\$388.2	\$293.8	\$293.8	\$293.8	\$293.8
Construction of Facilities	\$305.4		\$305.3	\$210.9	\$210.9	\$210.9	\$210.9
Environmental Compliance and Restoration	\$70.2		\$82.9	\$82.9	\$82.9	\$82.9	\$82.9
Inspector General	\$37.9	\$37.6	\$39.3	\$39.3	\$39.3	\$39.3	\$39.3
NASA TOTAL	\$19,653.3	\$19,519.8	\$19,892.2	\$19,592.2	\$19,592.2	\$19,592.2	\$19,592.2

FY 2017 reflects funding amounts specified in Public Law 115-31, Consolidated Appropriations Act, 2017. Table does not reflect emergency supplemental funds also appropriated in FY 2017, totaling \$184 million.

FY 2018 reflects Continuing Resolution funding as enacted under Public Law 115-56, as amended..

NASA Mission Launches (Fiscal Years 2018 – 2023)



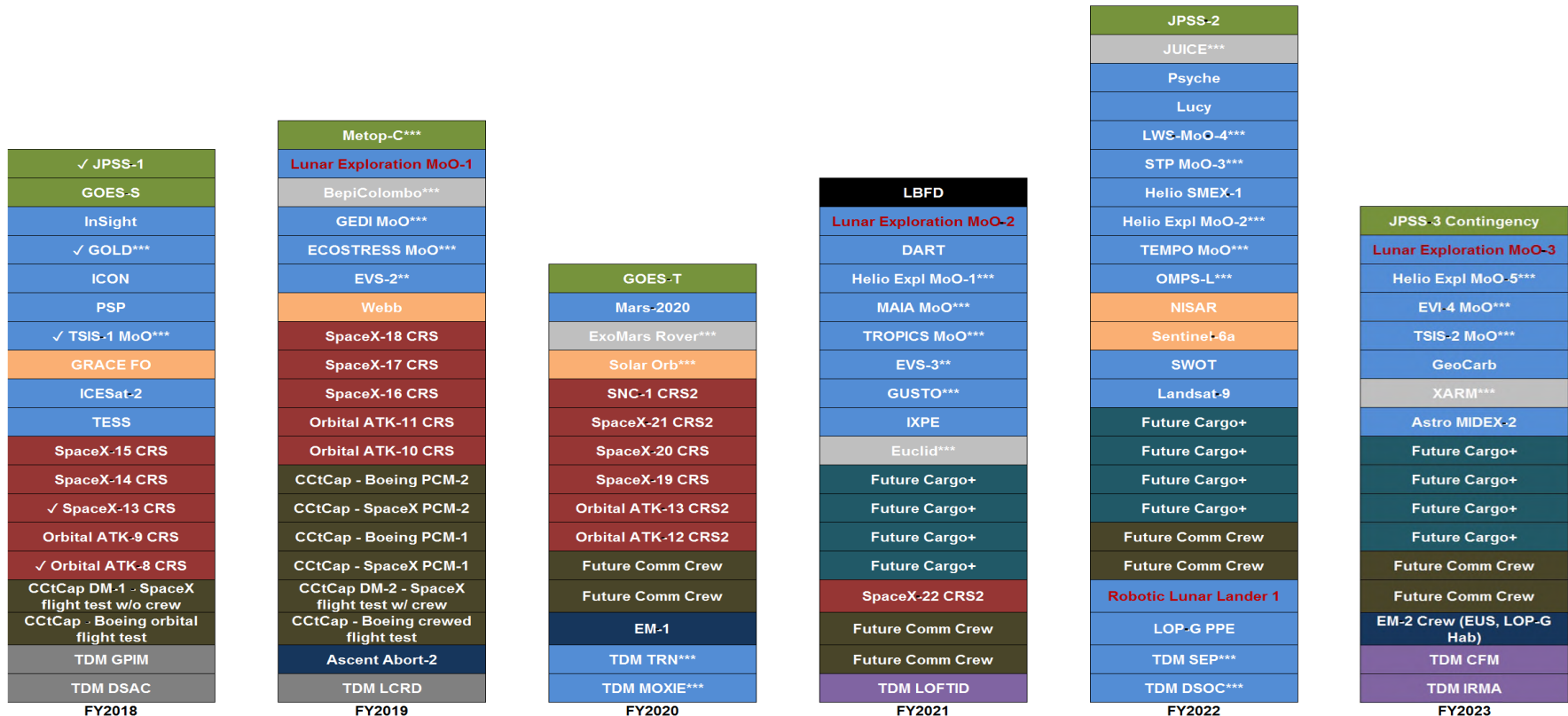
- NASA Mission on US ELV
- Reimbursable Mission for NOAA
**** NASA does not directly manage/control
- Joint NASA-Int'l Partner Mission
- Int'l Mission with NASA contribution
- Joint NASA-USAF Mission
- Joint NASA-Public/Private Partnership

- Exploration Systems Development Mission
- Commercial Crew Mission
- Commercial Resupply Services Mission
- Future Commercial Resupply Mission
- Aeronautics Mission

New lunar missions in red text

- ✓ Mission successfully launched
- X Mission unsuccessful

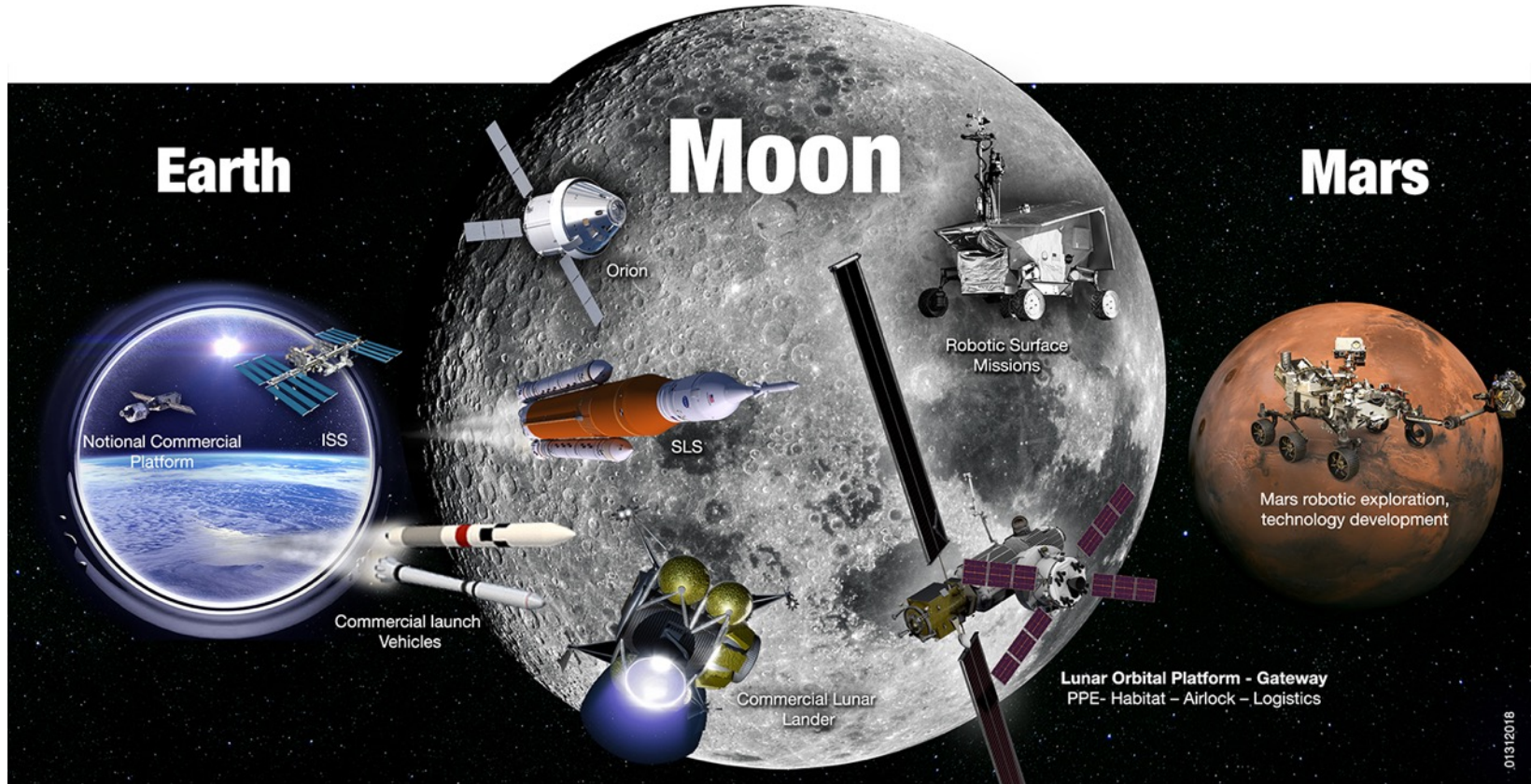
** Ground-based elements (includes suborbital) block of 5 missions
 *** Instrument only
 + Future CRS Capabilities unknown, will be updated after award of CRS-2 when cargo delivery capabilities are known



Notional

Dates reflect Agency Baseline Commitments or updated Agency schedules and may include schedule margin beyond any manifested launch dates

The Lunar Exploration Campaign



In LEO
Commercial & International
partnerships

In Cislunar Space
A return to the moon for
long-term exploration

On Mars
Research to inform future
crewed missions

NASA Exploration Campaign

NOTIONAL LAUNCHES

EARLY SCIENCE & TECHNOLOGY INITIATIVE

 SMD—Pristine Apollo Sample, Virtual Institute

 HEO/SMD—Lunar CubeSats


SMD/HEO—Science & Technology Payloads


SMALL COMMERCIAL LANDER INITIATIVE

HEO—Lunar Catalyst & Tipping Point

SMD/HEO—Small Commercial Landers/Payloads

MID TO LARGE LANDER INITIATIVE TOWARD HUMAN-RATED LANDER

 HEO/SMD—Mid-sized Landers (~500kg–1000kg)

 HEO/SMD—Human Descent Module Lander (5-6000kg)


 SMD/HEO—Payloads & Technology/Mobility & Sample Return

 SMD—Mars Robotics

LUNAR ORBITAL PLATFORM—GATEWAY

 HEO—Orion/SLS (Habitation Elements/Systems)

 HEO/SMD—Gateway Elements (PPE, Commercial Logistics)/Crew Support of Lunar Missions

 HEO/SMD—Lunar Sample Return Support

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

Timelines are tentative and will be developed further in FY 2019

MARCH 2018

Exploration Campaign



- Prioritize human exploration and related activities
- Expand Exploration by
 - Providing funding to start transition of low Earth orbit human space flight operations to commercial partners
 - Pursuing a Cislunar strategy that establishes U.S. preeminence to, around, and on the Moon, including commercial partnerships and innovative approaches, to achieve human and science exploration goals

Budget Authority (\$ in millions)	Fiscal Year						
	Enacted	CR	Request	Notional			
	2017	2018	2019	2020	2021	2022	2023
Deep Space Exploration Systems	\$4,184.0	\$4,222.6	\$4,558.8	\$4,859.1	\$4,764.5	\$4,752.5	\$4,769.8
Exploration Research and Technology	\$826.5	\$820.8	\$1,002.7	\$912.7	\$912.7	\$912.7	\$912.7
LEO and Spaceflight Operations	\$4,942.5	\$4,850.1	\$4,624.6	\$4,273.7	\$4,393.3	\$4,430.3	\$4,438.0
Exploration Campaign CoF	\$45.5	\$22.4	\$44.8	\$0.0	\$0.0	\$0.0	\$0.0
Elements of Science	\$39.0	\$36.0	\$268.0	\$268.0	\$268.0	\$268.0	\$268.0
EXPLORATION CAMPAIGN TOTAL	\$10,037.5	\$9,951.9	\$10,498.9	\$10,313.5	\$10,338.5	\$10,363.5	\$10,388.5

*Elements of Science includes funding for the new Lunar Exploration and Discovery program and technology development and studies related to future exploration-related Mars missions.

Deep Space Exploration Systems: Exploration Systems Development



(\$M)	2019	2020	2021	2022	2023
ESD	\$3,670	\$3,791	\$3,820	\$3,708	\$3,846

- Provides funding for SLS, Orion and EGS to prepare for Exploration Mission (EM-1), the first pairing of Orion, with cubesat secondary payloads and SLS and EM-2, the first crewed mission.
- Enables humans back to the vicinity of the Moon in 2023.
- Provides for mating of Orion's major components (Launch Abort System, Orion Crew Module, and Service Module) and delivering to Ground Operations for final preparation and stacking at KSC.
- Begins final assembly of the components for EM-1 by integrating the Interim Cryogenic Propulsion Stage (ICPS), Launch Vehicle Stage Adapter (LVSA) and Boosters including the Solid Rocket Motor Segments.
- Validates all EGS software and hardware.

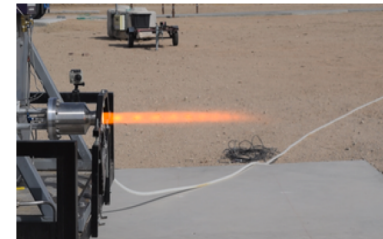


Deep Space Exploration Systems: Advanced Exploration Systems



(\$M)	2019	2020	2021	2022	2023
AES	\$889	\$1,069	\$944	\$1,045	\$924

- Leads Exploration Campaign with new cislunar capabilities utilizing innovative public-private partnerships.
- Pioneers new human spaceflight systems development, including habitation capabilities and systems, crew mobility systems, vehicle systems, autonomous systems, and robotic precursors for future human missions beyond low Earth orbit.
- Establishes a Lunar Orbital Platform (LOP) - Gateway by the early 2020s.
- Supports launch of the Power and Propulsion Element on a commercial launch vehicle as the first component of the LOP - Gateway.
- Moves Human Research Program to Exploration Research and Technology to better align with research portfolio.



Exploration Research and Technology



(\$M)	2019	2020	2021	2022	2023
Exp. R&T	\$1,003	\$913	\$913	\$913	\$913



- Focuses investments in research and technologies applicable to deep-space exploration, prioritizing environmental control and life support; power and propulsion; advanced materials; communications; navigation and avionics, robotic assembly and manufacturing; entry, descent and landing; autonomous systems and enabling humans to live and work in the space.
- Delivers flight hardware for demonstration of in-situ resource utilization, and entry, descent and landing technologies for the Mars 2020 mission.
- Begins fabrication of flight hardware for high-powered solar electric propulsion system that will enable efficient in-orbit transfer and accommodate increasing power demands for satellites.

- Completes Laser Communications Relay Demonstration mission payload to support 2019 launch readiness.
- Funds public-private partnerships to flight demonstrate robotic in-space manufacturing technologies used to build large structures in a space environment.
- Delivers 2 CubeSats selected via NEXTStep Phase One, and 3 robotic precursor technologies missions, and 2 Pathfinder Technology flight Demonstrator missions.
- Continues cutting edge research on the effects of spaceflight to the human body using the ISS and supports Deep Space Exploration habitat design and development to ensure crew health and performance.
- Continues pilot opportunities to accelerate small businesses ability to advance the commercial aerospace sector and NASA missions through the SBIR/STTR programs.

LEO and Spaceflight Operations: International Space Station



(\$M)	2019	2020	2021	2022	2023
ISS	\$1,462	\$1,453	\$1,471	\$1,466	\$1,451

- Proposes to end direct U.S. financial support for ISS in 2025, with a seamless transition to the use of future commercial capabilities.
- Continues ISS Focus Areas:
 - Enable long-duration human deep space exploration via research and technology demonstrations
 - Enable development and advancement of a commercial marketplace in low Earth orbit
 - Return benefits to humanity on Earth through space-based research and technology development
 - Maintain U.S. global leadership of space exploration
- Through use of the National Laboratory, supports above focus areas, expands the number of researchers and companies using ISS, and enables new public-private partnerships.



LEO and Spaceflight Operations: Space Transportation



(\$M)	2019	2020	2021	2022	2023
Space Transport	\$2,109	\$1,829	\$1,859	\$1,829	\$1,807

- Continues NASA's partnership with U.S. commercial space industry to regain capability to send astronauts into space safely, reliably, and affordably from American soil by 2019.
- Assures U.S. crew and cargo transportation to the ISS, bolsters American leadership, and ends our dependence on Russian spaceflight capabilities for crew transportation.
- Enables continued research and technology development on ISS by providing stable crew and cargo flight plan.
- Stimulates growth of the space transportation industry available to all potential customers, strengthening America's space industrial base.



LEO and Spaceflight Operations: Space and Flight Support



(\$M)	2019	2020	2021	2022	2023
SFS	\$904	\$841	\$888	\$935	\$955

- Continues mission critical space communications and navigation services to customer missions, including human, science, and commercial crew and cargo missions.
- Begins planning for the transition of the Space Network communications network to commercial partnerships and services.
- Supports readiness and crew health for all NASA human space flight endeavors.
- Provides safe, reliable, and cost-effective launch services for NASA payloads in FY 2019 and launch vehicle acquisition and advisory services to over 40 NASA scientific spacecraft missions in various phases of development.
- Continues certification of new commercial launch vehicles.
- Provides NASA's rocket testing capability to meet US rocket testing requirements and provides valuable propulsion data for EM-1 and EM-2.



LEO and Spaceflight Operations: Commercial LEO Development



(\$M)	2019	2020	2021	2022	2023
CLD	\$150	\$150	\$175	\$200	\$225

- Assists commercial space industry to develop a sustained commercial low earth orbit presence.
- Initiates planning to transition low Earth orbit human space flight operations to commercial partners.
- Encourages commercial development of platforms and capabilities for use by the private sector and NASA to enable a seamless transition from ISS.
- Increases efforts to facilitate developing a commercial space economy in LEO.



Science: Earth Science



(\$M)	2019	2020	2021	2022	2023
Earth Science	\$1,784	\$1,784	\$1,784	\$1,784	\$1,784

- Launches GRACE Follow-On, ICESat-2, ECOSTRESS, and GEDI.
- Supports formulation and development of Landsat-9, NISAR, SWOT, TEMPO, OMPS-L, Sentinel-6, and TSIS-2.
- Selects Earth Venture Suborbital-3 investigations from the AOs released in 2016 and 2017.
- Releases AOs for Earth Venture Mission (EVM)-3, and Earth Venture Instrument (EVI)-6.
- Operates 19 additional missions, and the Airborne Science project.
- Invests in CubeSats/SmallSats that can achieve entirely new science at lower cost.
- Plans to engage stakeholders in order to incorporate new Earth Science Decadal Survey recommendations into the Earth Science portfolio
- Proposes to terminate PACE, OCO-3, CLARREO Pathfinder, and DSCOVR. Following a detailed review in Jan. 2018, RBI has been cancelled and is not funded in this Budget.

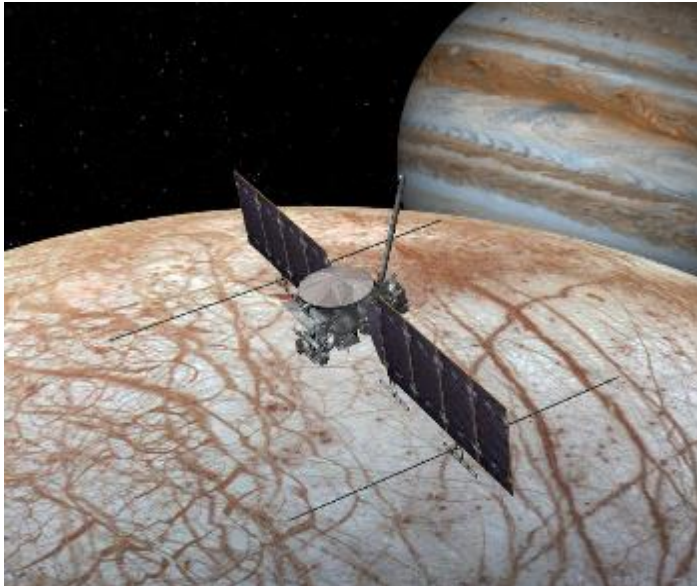


Science: Planetary Science



(\$M)	2019	2020	2021	2022	2023
Planetary Science	\$2,235	\$2,200	\$2,181	\$2,162	\$2,143

- Creates a robotic Lunar Discovery and Exploration program, that supports commercial partnerships and innovative approaches to achieving human and science exploration goals.
- Continues development of Mars 2020 and Europa Clipper.
- Establishes a Planetary Defense program, including the Double Asteroid Redirection Test (DART) and Near-Earth Object Observations.
- Studies a potential Mars Sample Return mission incorporating commercial partnerships.



- Formulates the Lucy and Psyche missions.
- Selects the next New Frontiers mission.
- Invests in CubeSats/SmallSats that can achieve entirely new science at lower cost.
- Operates 10 Planetary missions.
 - OSIRIS-REx will map asteroid Bennu.
 - New Horizons will fly by its Kuiper belt target.

Science: Astrophysics



(\$M)	2019	2020	2021	2022	2023
Astrophysics	\$1,185	\$1,185	\$1,185	\$1,185	\$1,185



- Launches the James Webb Space Telescope.
- Moves Webb into the Cosmic Origins Program within the Astrophysics Account.
- Terminates WFIRST due to its significant cost and higher priorities elsewhere within NASA. Increases funding for future competed missions and research.

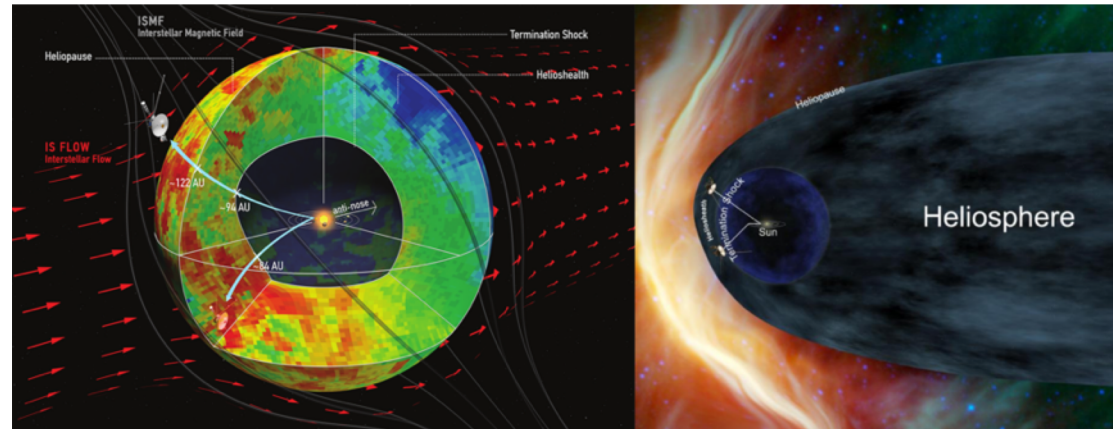
- Supports the TESS exoplanet mission following launch by June 2018.
- Formulates or develops, IXPE, GUSTO, XARM, Euclid, and a new MIDEX mission to be selected in FY 2019.
- Operates ten missions and the balloon project.
- Invests in CubeSats/SmallSats that can achieve entirely new science at lower cost.
- All Astrophysics missions beyond prime operations (including SOFIA) will be subject to senior review in 2019.

Science: Heliophysics



(\$M)	2019	2020	2021	2022	2023
Heliophysics	\$691	\$691	\$691	\$691	\$691

- Continues support of Parker Solar Probe, Ionospheric Connection Explorer (ICON), readying for launch in FY 2018 and recently launched Global-scale Observations of the Limb and Disk (GOLD).
- Continues Solar Orbiter Collaboration (SOC) partnership with ESA.
- Includes a \$3 million increase for collaborating with other agencies to improve space weather observation and forecasting capabilities.
- Invests in CubeSats/SmallSats that can achieve entirely new science at lower cost.
- Supports the Sounding Rockets and CubeSat projects.
- Operates 17 additional missions.



Aeronautics



(\$M)	2019	2020	2021	2022	2023
Aeronautics	\$634	\$609	\$609	\$609	\$609

- Completes a critical design review of the Low Boom Flight Demonstrator X-Plane that will demonstrate quiet overland supersonic flight, which enables a new market for U.S. industry.
- Increases funding for hypersonic fundamental research which will enhance development of tools and methods to more efficiently design future hypersonic vehicles
- Continues to develop and mature key promising subsonic aircraft technologies that dramatically reduce fuel consumption, noise, and emissions.
- Advances electric propulsion systems by flight testing an all electric aircraft, the X-57.
- Develops and tests key technologies that will integrate UAS operations in the National Air Space, as well as realize safe, low-altitude operations of small UAS.
- Demonstrates new air traffic management tools that integrate aircraft arrival, departure, and airport surface operations to reduce flight delays and increase air traffic capacity and safety.
- Completes the Advanced Composites project which will deliver a variety of computational tools and guidance that will significantly reduce the time needed to develop and certify new composite structures for aerospace applications.



Education



- Proposes to terminate NASA's Office of Education, including its portfolio of grants and cooperative agreements and redirects funds to NASA's core mission of exploration. NASA headquarters will continue to be accountable for strategic direction and coordination of the agency's STEM engagement efforts.
- Continues internships, fellowships, and outreach activities funded outside the Office of Education.
- SMD's Science Activation program will continue to focus on delivering SMD content to learners of all ages through cooperative agreement awards.

Safety, Security, and Mission Services and Construction



(\$M)	2019	2020	2021	2022	2023
SSMS	\$2,750	\$2,745	\$2,739	\$2,732	\$2,726
Construction & ECR	\$388	\$294	\$294	\$294	\$294

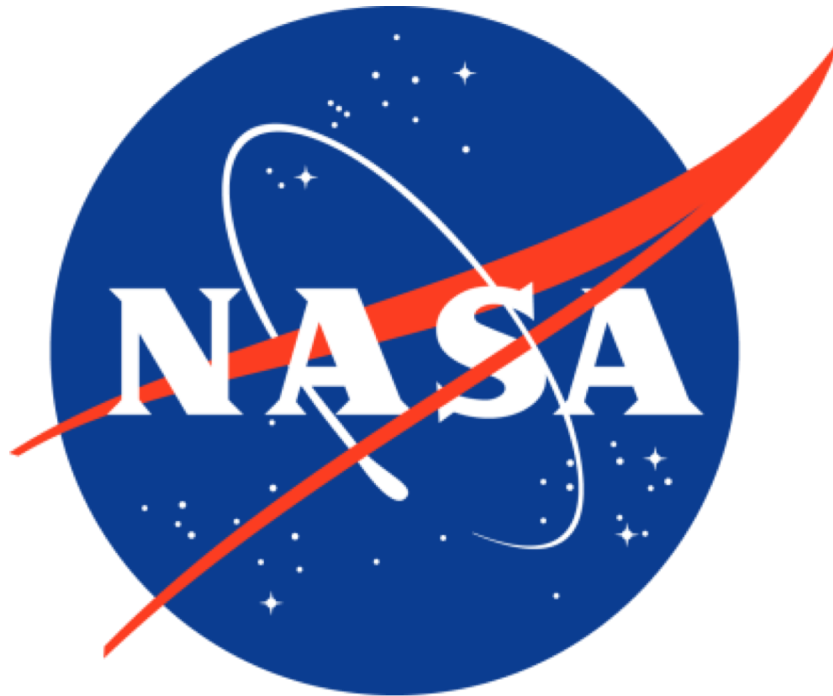
➤ Safety, Security, and Mission Services

- Funds ongoing operations of NASA Centers and major component facilities to achieve a safe, healthy, and environmentally responsible workplace.
- Provides independent technical and safety oversight of NASA missions and operations.
- Ensures core services are ready and available for performing mission roles and responsibilities by optimizing acquisition, human capital management, budget management, and facilities management to maintain a minimum set of capabilities.
- Provides strategic IT investments to improve security, reduce costs, and increase efficiency by modernizing systems, increasing automation, and delivering affordable enterprise-wide solution.
- Strengthens cybersecurity capabilities by safeguarding critical systems and data plus continues to support improved overall management of IT.



➤ Construction and Environmental Compliance and Restoration

- Funds repair, revitalization, demolition, and recapitalization projects that reduce the Agency's footprint and provide efficient, modernized facilities.
- Invests in energy savings projects to reduce utility usage and costs.
- Constructs new or modified facilities to conduct NASA's program missions.
- Manages NASA's environmental clean-up responsibilities.



Organizational and Budget Alignment



NASA will restructure the Agency to align with the Administration's *Exploration Campaign* focus. NASA will assess options and be prepared for implementation at the start of FY 2019.

NASA is proposing several budget structure changes to align with its Exploration focus and reorient space technology to serve exploration needs:

- Exploration account is renamed Deep Space Exploration Systems
- Exploration Research and Development Theme goes away and is replaced by Advanced Exploration Systems Theme
 - ER&D content is dispersed to: AES (habitats, Lunar Orbiting platform - gateway) and ER&T account (some of AES and HRP)
- Space Technology account plus HRP and elements of AES is merged into the new Exploration Research and Technology account
- Space Operations account is renamed LEO and Space Flight Operations with same content plus new Commercial LEO development theme.

Acronyms



- AES: Advanced Exploration Systems
- CRS: Cargo Resupply Services
- DART: Double Asteroid Redirection Test
- DSAC: Deep Space Atomic Clock
- DSG: Deep Space Gateway
- ECOSTRESS: Ecosystem Spaceborne Thermal Radiometer Experiment on Space Station
- EGS: Exploration Ground Systems
- EVI: Earth Venture Instrument
- EVM: Earth Venture Mission
- EVS: Earth Venture Sub-Orbital solicitation
- GEDI: Global Ecosystem Dynamics Investigation
- GeoCarb: Geostationary Carbon Cycle Observatory
- GOES: Geostationary Operational Environmental Satellite
- GOLD: Global Scale Observations of the Limb and Disk
- GPIM: Green Propellant Infusion Mission
- GRACE-FO: Gravity Recovery and Climate Experiment – Follow-On
- GUSTO: Galactic/extragalactic ULDB Spectroscopic Terahertz Observatory
- ICESat: Ice Cloud and Land Elevation Satellite
- ICON: Ionospheric Connection Explorer
- ICPS: Interim Cryogenic Propulsion Stage
- ISS: International Space Station
- IXPE: Imaging X-ray Polarimetry Explorer
- JPSS: Joint Polar Satellite System
- JUICE: Jupiter Icy Moons Explorer
- JWST: James Webb Space Telescope
- Lbfd: Low-Boom Flight Demonstration
- LCRD: Laser Communications Relay Demonstration
- LEO: Low-Earth Orbit
- LVSA: Launch Vehicle Stage Adapter
- LWS: Living With a Star
- MAIA: Multi-Angle Imager for Aerosols
- MEDA: Mars Environmental Dynamics Analyzer
- MEDLI2: Mars Entry, Descent, and Landing Instrumentation 2
- MetOp – Meteorological Operational Satellite
- MoO: Missions-of-Opportunity
- MOXIE: Mars Oxygen In-Situ Resource Utilization Experiment
- NextSTEP: Next Space Technologies for Exploration Partnership
- NISAR: NASA-ISRO Synthetic Aperture Radar
- OMPS: Ozone Mapping Profiler Suite
- OSIRIS-Rex: Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer
- PSP: Parker Solar Probe
- SBIR: Small Business Innovation Research
- SLS: Space Launch System
- SMD: Science Mission Directorate
- SMEX: Small Explorer class
- SOC: Solar Orbiter Collaboration
- STEM: Science, Technology, Engineering and Mathematics
- STP: Solar Terrestrial Probes
- STTR: Small business Technology Transfer
- SWOT: Surface Water and Ocean Topography
- TDM: Technology Demonstration Mission
- TEMPO: Tropospheric Emissions Monitoring of Pollution
- TESS: Transiting Exoplanet Survey Satellite
- TRN: Terrain Relative Navigation
- TROPICS: Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats
- TSIS: Total and Spectral Solar Irradiance Sensor
- UAS: Unmanned Aircraft Systems
- XARM: X-ray Astronomy Recovery Mission
- WFIRST: Wide Field Infra Red Survey telescope (AFTA: Astrophysics Focused Telescope Assets)