

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## Federal Funds

### SCIENCE

For necessary expenses, not otherwise provided for, in the conduct and support of science research and development activities, including research, development, operations, support, and services; maintenance and repair, facility planning and design; space flight, spacecraft control, and communications activities; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$7,301,000,000]** \$7,931,400,000, to remain available until September 30, **[2022: Provided, That,** \$2,000,000,000 shall be for Earth Science; \$2,700,000,000 shall be for Planetary Science; \$1,356,200,000 shall be for Astrophysics; \$414,700,000 shall be for the James Webb Space Telescope; \$751,000,000 shall be for Heliophysics, and \$79,100,000 shall be for Biological and Physical Science: *Provided further,* That the National Aeronautics and Space Administration shall use the Space Launch System (SLS) for the Europa Clipper mission if the SLS is available and if torsional loading analysis has confirmed Clipper's appropriateness for SLS: *Provided further,* That, if the conditions in the preceding proviso cannot be met, the Administrator shall conduct a full and open competition, that is not limited to the launch vehicles listed in the NLS-II contract of the Launch Services Program as of the date of the enactment of this Act, to select a commercial launch vehicle for Europa Clipper] 2023. (*Science Appropriations Act, 2021.*)

### Program and Financing (in millions of dollars)

Identification code 080-0120-0-1-252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Science .....	7,271	7,301	7,931
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	744	639	758
1021 Recoveries of prior year unpaid obligations .....	92	119	119
1033 Recoveries of prior year paid obligations .....	1		
1050 Unobligated balance (total) .....	837	758	877
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	7,139	7,301	7,931
1120 Appropriations transferred to CECR [080-0130] .....	-1		
1121 Appropriations transferred from Space Operations [080-0115] .....	5		
1131 Unobligated balance of appropriations permanently reduced .....	-70		
1160 Appropriation, discretionary (total) .....	7,073	7,301	7,931
1930 Total budgetary resources available .....	7,910	8,059	8,808
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	639	758	877
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	4,368	4,792	4,812
3010 New obligations, unexpired accounts .....	7,271	7,301	7,931
3011 Obligations ("upward adjustments"), expired accounts .....	7		
3020 Outlays (gross) .....	-6,745	-7,162	-7,571
3040 Recoveries of prior year unpaid obligations, unexpired .....	-92	-119	-119
3041 Recoveries of prior year unpaid obligations, expired .....	-17		
3050 Unpaid obligations, end of year .....	4,792	4,812	5,053
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	4,368	4,792	4,812
3200 Obligated balance, end of year .....	4,792	4,812	5,053
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	7,073	7,301	7,931
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,909	2,993	3,252
4011 Outlays from discretionary balances .....	3,836	4,169	4,319
4020 Outlays, gross (total) .....	6,745	7,162	7,571
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	-1		
4033 Non-Federal sources .....	-1		

4040	Offsets against gross budget authority and outlays (total) ....	-2		
	Additional offsets against gross budget authority only:			
4052	Offsetting collections credited to expired accounts .....	1		
4053	Recoveries of prior year paid obligations, unexpired accounts .....	1		
4060	Additional offsets against budget authority only (total) .....	2		
4070	Budget authority, net (discretionary) .....	7,073	7,301	7,931
4080	Outlays, net (discretionary) .....	6,743	7,162	7,571
4180	Budget authority, net (total) .....	7,073	7,301	7,931
4190	Outlays, net (total) .....	6,743	7,162	7,571

The Science appropriation provides for NASA's science mission, which is comprised of the agency's Earth and space science programs: Earth Science, Planetary Science, Heliophysics, Biological and Physical Sciences, the James Webb Space Telescope, and Astrophysics. These programs, which are managed by the Science Mission Directorate, focus on three interdisciplinary objectives: discovering the secrets of the Universe; searching for life in the Solar System and beyond; and safeguarding and improving life on Earth. These objectives include research concerning the global Earth system; other planets in the solar system and around other stars; the connections among the Sun, Earth, and heliosphere; and the origin and evolution of planetary systems, the galaxy, and the universe, including the origin and distribution of life in the universe. Program objectives are pursued through robotic flight missions, ground-based scientific research and data analysis, and the development of new technologies for future missions. Additionally, the Budget funds within Science a lunar robotic exploration program that will support innovative approaches to achieving human and science exploration goals.

The Science appropriation provides for all of the research, development, operations, salaries and related expenses, and other general and administrative activities required to execute the programs within this account. Costs include labor, travel, and procurement. Performance goals associated with these activities are addressed in NASA's detailed budget request.

### Object Classification (in millions of dollars)

Identification code 080-0120-0-1-252	2020 actual	2021 est.	2022 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	291	326	337
11.3 Other than full-time permanent .....	5	5	5
11.5 Other personnel compensation .....	1	1	1
11.9 Total personnel compensation .....	297	332	343
12.1 Civilian personnel benefits .....	100	117	122
21.0 Travel and transportation of persons .....	11	21	19
22.0 Transportation of things .....	3	3	3
23.2 Rental payments to others .....	8	8	9
23.3 Communications, utilities, and miscellaneous charges .....	8	8	9
24.0 Printing and reproduction .....	1	1	1
25.1 Advisory and assistance services .....	155	156	169
25.2 Other services from non-Federal sources .....	237	238	259
25.3 Other goods and services from Federal sources .....	253	254	276
25.4 Operation and maintenance of facilities .....	12	12	13
25.5 Research and development contracts .....	5,136	5,098	5,565
25.7 Operation and maintenance of equipment .....	147	147	159
26.0 Supplies and materials .....	35	35	38
31.0 Equipment .....	36	36	39
32.0 Land and structures .....	2	2	2
41.0 Grants, subsidies, and contributions .....	830	833	905
99.9 Total new obligations, unexpired accounts .....	7,271	7,301	7,931

### Employment Summary

Identification code 080-0120-0-1-252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	2,175	2,295	2,266

## AERONAUTICS

For necessary expenses, not otherwise provided for, in the conduct and support of aeronautics research and development activities, including research, development, operations, support, and services; maintenance and repair, facility planning and design; space flight, spacecraft control, and communications activities; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$828,700,000]** \$914,800,000, to remain available until September 30, **[2022]** 2023. (*Science Appropriations Act, 2021.*)

## Program and Financing (in millions of dollars)

Identification code 080–0126–0–1–402	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Aeronautics .....	788	829	915
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	27	29	50
1021 Recoveries of prior year unpaid obligations .....	6	21	21
1050 Unobligated balance (total) .....	33	50	71
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	784	829	915
1930 Total budgetary resources available .....	817	879	986
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	29	50	71
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	405	358	410
3010 New obligations, unexpired accounts .....	788	829	915
3020 Outlays (gross) .....	–826	–756	–847
3040 Recoveries of prior year unpaid obligations, unexpired .....	–6	–21	–21
3041 Recoveries of prior year unpaid obligations, expired .....	–3		
3050 Unpaid obligations, end of year .....	358	410	457
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	405	358	410
3200 Obligated balance, end of year .....	358	410	457
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	784	829	915
Outlays, gross:			
4010 Outlays from new discretionary authority .....	478	448	494
4011 Outlays from discretionary balances .....	348	308	353
4020 Outlays, gross (total) .....	826	756	847
4180 Budget authority, net (total) .....	784	829	915
4190 Outlays, net (total) .....	826	756	847

This appropriation provides for the full costs associated with NASA's Aeronautics Research mission, which aims to expand the boundaries of aeronautical knowledge for the benefit of the nation and the broad aeronautics community. The mission is managed by NASA's Aeronautics Research Mission Directorate, and consists of the following integrated research programs: Airspace Operations and Safety, Advanced Air Vehicles, Integrated Aviation Systems, Transformative Aeronautics Concepts, and Aerosciences Evaluation and Test Capabilities. Full costs of these programs include all labor, travel, procurement, test, and fabrication costs associated with the research, development, operations, and other general and administrative activities required to execute the programs. Performance goals associated with these activities are addressed in NASA's detailed budget request.

## Object Classification (in millions of dollars)

Identification code 080–0126–0–1–402	2020 actual	2021 est.	2022 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	170	181	187
11.3 Other than full-time permanent .....	5	5	6
11.9 Total personnel compensation .....	175	186	193

12.1 Civilian personnel benefits .....	59	65	68
21.0 Travel and transportation of persons .....	3	7	7
23.3 Communications, utilities, and miscellaneous charges .....	2	2	2
25.1 Advisory and assistance services .....	13	14	15
25.2 Other services from non-Federal sources .....	42	44	49
25.3 Other goods and services from Federal sources .....	8	8	9
25.4 Operation and maintenance of facilities .....	60	63	70
25.5 Research and development contracts .....	295	303	350
25.7 Operation and maintenance of equipment .....	44	46	51
26.0 Supplies and materials .....	13	14	15
31.0 Equipment .....	22	23	26
32.0 Land and structures .....	6	6	7
41.0 Grants, subsidies, and contributions .....	46	48	53
99.9 Total new obligations, unexpired accounts .....	788	829	915

## Employment Summary

Identification code 080–0126–0–1–402	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	1,394	1,419	1,434

## SPACE TECHNOLOGY

For necessary expenses, not otherwise provided for, in the conduct and support of space technology research and development activities, including research, development, operations, support, and services; maintenance and repair, facility planning and design; space flight, spacecraft control, and communications activities; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$1,100,000,000]** \$1,425,000,000, to remain available until September 30, **[2022: Provided, That \$227,000,000 shall be for RESTORE-L/Space Infrastructure DEXterous Robot: Provided further, That \$110,000,000 shall be for the development, production, and demonstration of a nuclear thermal propulsion system, of which \$80,000,000 shall be for the design of a flight demonstration system: Provided further, That, not later than 180 days after the enactment of this Act, the National Aeronautics and Space Administration shall provide a plan for the design of a flight demonstration]** 2023. (*Science Appropriations Act, 2021.*)

## Program and Financing (in millions of dollars)

Identification code 080–0131–0–1–252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Space Technology .....	1,090	1,100	1,425
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	67	82	112
1021 Recoveries of prior year unpaid obligations .....	5	30	30
1050 Unobligated balance (total) .....	72	112	142
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	1,100	1,100	1,425
1930 Total budgetary resources available .....	1,172	1,212	1,567
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	82	112	142
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	613	722	741
3010 New obligations, unexpired accounts .....	1,090	1,100	1,425
3011 Obligations ("upward adjustments"), expired accounts .....	1		
3020 Outlays (gross) .....	–975	–1,051	–1,218
3040 Recoveries of prior year unpaid obligations, unexpired .....	–5	–30	–30
3041 Recoveries of prior year unpaid obligations, expired .....	–2		
3050 Unpaid obligations, end of year .....	722	741	918
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	613	722	741
3200 Obligated balance, end of year .....	722	741	918

## Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross .....	1,100	1,100	1,425
Outlays, gross:			
4010 Outlays from new discretionary authority .....	473	473	613

4011	Outlays from discretionary balances .....	502	578	605
4020	Outlays, gross (total) .....	975	1,051	1,218
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4033	Non-Federal sources .....	-1		
	Additional offsets against gross budget authority only:			
4052	Offsetting collections credited to expired accounts .....	1		
4070	Budget authority, net (discretionary) .....	1,100	1,100	1,425
4080	Outlays, net (discretionary) .....	974	1,051	1,218
4180	Budget authority, net (total) .....	1,100	1,100	1,425
4190	Outlays, net (total) .....	974	1,051	1,218

This appropriation provides for the costs associated with research and development in space technologies serving multiple customers within NASA, private industry, academia, and other government agencies. The full costs provide for all of the research, development, operations, salaries and related expenses, and other general and administrative activities required to execute the programs within this account. Costs include labor, travel, procurement, and those associated with fabrication, tests and flight demonstrations.

The programs within the Space Technology account enhance research and development at NASA to contribute to the United States' leadership in space technology and enable human and robotic exploration of the Moon, Mars, and Beyond. The Space Technology appropriation funds several programs: Small Business Innovative Research (SBIR), Small Business Technology Transfer (STTR), Early Stage Innovation & Partnerships, Technology Maturation, and Technology Demonstrations. Performance goals associated with these activities are addressed in NASA's detailed budget request.

#### Object Classification (in millions of dollars)

Identification code 080-0131-0-1-252	2020 actual	2021 est.	2022 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	102	108	117
11.3 Other than full-time permanent .....	2	2	3
11.9 Total personnel compensation .....	104	110	120
12.1 Civilian personnel benefits .....	36	39	42
21.0 Travel and transportation of persons .....	3	4	3
22.0 Transportation of things .....	2	2	3
25.1 Advisory and assistance services .....	44	44	58
25.2 Other services from non-Federal sources .....	59	60	77
25.3 Other goods and services from Federal sources .....	62	63	81
25.4 Operation and maintenance of facilities .....	3	3	4
25.5 Research and development contracts .....	666	663	892
25.7 Operation and maintenance of equipment .....	24	24	31
26.0 Supplies and materials .....	9	9	12
31.0 Equipment .....	8	8	10
41.0 Grants, subsidies, and contributions .....	70	71	92
99.9 Total new obligations, unexpired accounts .....	1,090	1,100	1,425

#### Employment Summary

Identification code 080-0131-0-1-252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	819	840	975

#### EXPLORATION

For necessary expenses, not otherwise provided for, in the conduct and support of exploration research and development activities, including research, development, operations, support, and services; maintenance and repair, facility planning and design; space flight, spacecraft control, and communications activities; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$6,555,400,000]** \$6,880,400,000, to remain available until September 30, **[2022: Provided, That not less than \$1,406,700,000 shall be for the Orion Multi-Purpose Crew Vehicle: Provided further, That not less than \$2,585,900,000 shall be for the Space Launch System (SLS) launch vehicle, which shall have a lift capability not less than 130**

metric tons and which shall have core elements and an Exploration Upper Stage developed simultaneously to be used to the maximum extent practicable, including for Earth to Moon missions and Moon landings: *Provided further, That of the amounts provided for SLS, not less than \$400,000,000 shall be for SLS Block 1B development including the Exploration Upper Stage and associated systems including related facilitization, to support an SLS Block 1B mission available to launch in 2025 in addition to the planned Block 1 missions for Artemis 1 through Artemis 3: Provided further, That \$590,000,000 shall be for Exploration Ground Systems and associated Block 1B activities, including \$74,000,000 for a second mobile launch platform: Provided further, That the National Aeronautics and Space Administration shall provide to the Committees on Appropriations of the House of Representatives and the Senate, concurrent with the annual budget submission, a 5-year budget profile for an integrated system that includes the SLS, the Orion Multi-Purpose Crew Vehicle, and associated ground systems that will ensure a crewed launch as early as possible, as well as a system-based funding profile for a sustained launch cadence that contemplates the use of an SLS Block 1B cargo variant and associated ground systems: Provided further, That \$1,972,800,000 shall be for exploration research and development* **[ 2023. (Science Appropriations Act, 2021.)**

#### Program and Financing (in millions of dollars)

Identification code 080-0124-0-1-252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Deep Space Exploration Systems .....	5,998	6,530	6,880
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	198	198	310
1021 Recoveries of prior year unpaid obligations .....	38	112	112
1050 Unobligated balance (total) .....	236	310	422
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	6,018	6,555	6,880
1120 Appropriations transferred to CECR [080-0130] .....	-58	-25	
1160 Appropriation, discretionary (total) .....	5,960	6,530	6,880
1930 Total budgetary resources available .....	6,196	6,840	7,302
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	198	310	422
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,117	2,692	2,927
3010 New obligations, unexpired accounts .....	5,998	6,530	6,880
3011 Obligations ("upward adjustments"), expired accounts .....	1		
3020 Outlays (gross) .....	-5,382	-6,183	-6,610
3040 Recoveries of prior year unpaid obligations, unexpired .....	-38	-112	-112
3041 Recoveries of prior year unpaid obligations, expired .....	-4		
3050 Unpaid obligations, end of year .....	2,692	2,927	3,085
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	2,117	2,692	2,927
3200 Obligated balance, end of year .....	2,692	2,927	3,085
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	5,960	6,530	6,880
Outlays, gross:			
4010 Outlays from new discretionary authority .....	3,447	3,787	3,990
4011 Outlays from discretionary balances .....	1,935	2,396	2,620
4020 Outlays, gross (total) .....	5,382	6,183	6,610
4180 Budget authority, net (total) .....	5,960	6,530	6,880
4190 Outlays, net (total) .....	5,382	6,183	6,610

This appropriation provides for costs associated with the development of systems and capabilities required for human exploration of space. The capabilities include launch and crew vehicles for missions beyond low Earth orbit; providing integrated systems to keep astronauts safe, healthy, and functional during deep space missions; and advancing the tools to increase exploration capabilities and reduce the launch mass and cost of deep space missions. The full costs provide for the research, development, operations, salaries and related expenses, and other general and administrative activities required to execute the programs within this account. Costs include labor, travel, procurement, test, and fabrication costs. Performance goals associated with these activities are addressed in NASA's detailed budget request.

## EXPLORATION—Continued

NASA's human deep space exploration programs include the Space Launch System, Orion, Exploration Ground Systems under the Exploration Systems Development theme, as well as the Exploration Research and Development theme which consists of Advanced Exploration Systems, the Gateway, Advanced Cislunar and Surface Capabilities, the Human Landing System, and the Human Research Program.

## Object Classification (in millions of dollars)

Identification code 080-0124-0-1-252	2020 actual	2021 est.	2022 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	366	441	459
11.3 Other than full-time permanent .....	4	4	5
11.5 Other personnel compensation .....	2	2	2
11.8 Special personal services payments .....	1	1	1
11.9 Total personnel compensation .....	373	448	467
12.1 Civilian personnel benefits .....	130	157	164
21.0 Travel and transportation of persons .....	7	14	14
23.2 Rental payments to others .....	1	1	1
23.3 Communications, utilities, and miscellaneous charges .....	26	28	30
25.1 Advisory and assistance services .....	412	449	473
25.2 Other services from non-Federal sources .....	39	42	45
25.3 Other goods and services from Federal sources .....	39	42	45
25.4 Operation and maintenance of facilities .....	140	152	161
25.5 Research and development contracts .....	4,274	4,590	4,840
25.7 Operation and maintenance of equipment .....	209	228	240
26.0 Supplies and materials .....	45	49	52
31.0 Equipment .....	194	211	223
32.0 Land and structures .....	57	62	65
41.0 Grants, subsidies, and contributions .....	52	57	60
99.9 Total new obligations, unexpired accounts .....	5,998	6,530	6,880

## Employment Summary

Identification code 080-0124-0-1-252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	2,897	3,211	3,325

## SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS ENGAGEMENT

For necessary expenses, not otherwise provided for, in the conduct and support of aerospace and aeronautical education research and development activities, including research, development, operations, support, and services; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$127,000,000] \$147,000,000**, to remain available until September 30, **[2022, of which \$26,000,000 shall be for the Established Program to Stimulate Competitive Research and \$51,000,000 shall be for the National Space Grant College and Fellowship Program] 2023. (Science Appropriations Act, 2021.)**

## Program and Financing (in millions of dollars)

Identification code 080-0128-0-1-252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 STEM Engagement .....	121	127	147
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	9	8	14
1021 Recoveries of prior year unpaid obligations .....		6	2
1050 Unobligated balance (total) .....	9	14	16
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	120	127	147
1930 Total budgetary resources available .....	129	141	163
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	8	14	16
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	149	162	166

3010 New obligations, unexpired accounts .....	121	127	147
3020 Outlays (gross) .....	-107	-117	-116
3040 Recoveries of prior year unpaid obligations, unexpired .....		-6	-2
3041 Recoveries of prior year unpaid obligations, expired .....	-1		
3050 Unpaid obligations, end of year .....	162	166	195
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	149	162	166
3200 Obligated balance, end of year .....	162	166	195

## Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross .....	120	127	147
Outlays, gross:			
4010 Outlays from new discretionary authority .....	14	17	19
4011 Outlays from discretionary balances .....	93	100	97
4020 Outlays, gross (total) .....	107	117	116
4180 Budget authority, net (total) .....	120	127	147
4190 Outlays, net (total) .....	107	117	116

This appropriation provides for costs associated with the Office of Science, Technology, Engineering, and Mathematics (STEM) Engagement. This includes support for the following projects: the Minority University Research and Education Project (MUREP), to broaden participation in engineering and other STEM fields; Space Grant, which funds education and research projects through a national network of university-based consortia; Next Gen STEM, which provides competitive awards for informal educational institutions and sustains a national network of museums and science centers; and the Established Program to Stimulate Competitive Research (EPSCoR), which supports partnerships between government, higher education, and industry to build stronger research and development capabilities in eligible states or regions. NASA will expand its efforts to broaden diversity and inclusion in STEM, including working with partner organizations to attract and retain underrepresented students in STEM fields and providing greater access to NASA STEM learning opportunities.

## Object Classification (in millions of dollars)

Identification code 080-0128-0-1-252	2020 actual	2021 est.	2022 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent .....	5	7	7
11.9 Total personnel compensation .....	5	7	7
12.1 Civilian personnel benefits .....	2	2	2
21.0 Travel and transportation of persons .....	1	1	1
25.1 Advisory and assistance services .....	1	1	1
25.2 Other services from non-Federal sources .....	5	5	6
25.5 Research and development contracts .....	5	5	6
25.7 Operation and maintenance of equipment .....	5	5	6
41.0 Grants, subsidies, and contributions .....	97	101	118
99.9 Total new obligations, unexpired accounts .....	121	127	147

## Employment Summary

Identification code 080-0128-0-1-252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	37	45	45

## SAFETY, SECURITY AND MISSION SERVICES

For necessary expenses, not otherwise provided for, in the conduct and support of science, aeronautics, space technology, exploration, space operations and education research and development activities, including research, development, operations, support, and services; maintenance and repair, facility planning and design; space flight, spacecraft control, and communications activities; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; not to exceed \$63,000 for official reception and representation expenses; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$2,936,500,000] \$3,049,200,000**, to remain available until September 30, **[2022: Provided, That if available balances in the "Science, Space, and Technology Education Trust Fund" are not sufficient to provide for the grant disbursements required under the third and fourth provisos under such heading in the Department of Housing and Urban Development-Independent**

Agencies Appropriations Act, 1989 (Public Law 100–404) as amended by the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 1995 (Public Law 103–327) up to \$1,000,000 shall be available from amounts made available under this heading to make such grant disbursements **2023**. (*Science Appropriations Act, 2021*.)

**Program and Financing** (in millions of dollars)

Identification code 080–0122–0–1–252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Safety, Security and Mission Services .....	2,950	2,937	3,049
0801 Cross Agency Support (Reimbursable) .....	1,596	1,932	1,458
0900 Total new obligations, unexpired accounts .....	4,546	4,869	4,507
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	781	941	989
1021 Recoveries of prior year unpaid obligations .....	31	48	48
1050 Unobligated balance (total) .....	812	989	1,037
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	2,973	2,937	3,049
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	1,295	1,932	1,458
1701 Change in uncollected payments, Federal sources .....	407		
1750 Spending auth from offsetting collections, disc (total) .....	1,702	1,932	1,458
1900 Budget authority (total) .....	4,675	4,869	4,507
1930 Total budgetary resources available .....	5,487	5,858	5,544
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	941	989	1,037
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,134	2,167	1,365
3010 New obligations, unexpired accounts .....	4,546	4,869	4,507
3011 Obligations ("upward adjustments"), expired accounts .....	15		
3020 Outlays (gross) .....	–4,476	–5,623	–4,853
3040 Recoveries of prior year unpaid obligations, unexpired .....	–31	–48	–48
3041 Recoveries of prior year unpaid obligations, expired .....	–21		
3050 Unpaid obligations, end of year .....	2,167	1,365	971
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1 .....	–1,908	–1,867	–1,867
3070 Change in uncollected pymts, Fed sources, unexpired .....	–407		
3071 Change in uncollected pymts, Fed sources, expired .....	448		
3090 Uncollected pymts, Fed sources, end of year .....	–1,867	–1,867	–1,867
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	226	300	–502
3200 Obligated balance, end of year .....	300	–502	–896
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	4,675	4,869	4,507
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,527	3,007	2,935
4011 Outlays from discretionary balances .....	1,949	2,616	1,918
4020 Outlays, gross (total) .....	4,476	5,623	4,853
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	–1,532	–1,682	–1,208
4033 Non-Federal sources .....	–207	–250	–250
4040 Offsets against gross budget authority and outlays (total) ....	–1,739	–1,932	–1,458
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired .....	–407		
4052 Offsetting collections credited to expired accounts .....	444		
4060 Additional offsets against budget authority only (total) .....	37		
4070 Budget authority, net (discretionary) .....	2,973	2,937	3,049
4080 Outlays, net (discretionary) .....	2,737	3,691	3,395
4180 Budget authority, net (total) .....	2,973	2,937	3,049
4190 Outlays, net (total) .....	2,737	3,691	3,395

Safety, Security, and Mission Services (SSMS) manages agency-wide mission support functions and some of NASA's research facilities. This appropriation provides for the operations and maintenance, salaries and related expenses, and other general and administrative activities that support all NASA's missions. SSMS programs, projects and activities fall under the two Themes described below.

Mission Services and Capabilities (MSaC) delivers enterprise solutions through three programs: Information Technology; Mission Enabling Services; and Infrastructure and Technical Capabilities. These programs meet workforce, infrastructure, information technology and business operations requirements necessary to enable NASA's mission. MSaC ensures that critical Agency operations across all NASA Centers are effective, efficient, safe, and meet statutory, regulatory, and fiduciary responsibilities.

Engineering, Safety, and Operations (ESO) provides for the ongoing management of NASA Headquarters, nine Centers, and component facilities. It funds medical and engineering technical authorities and contributes to the reduction of program risks by ensuring that technical skills and assets are ready and available to meet program and project requirements. ESO ensures that Center practices are technically and scientifically sound and that specialized infrastructure at the Centers is safe and reliable.

**Object Classification** (in millions of dollars)

Identification code 080–0122–0–1–252	2020 actual	2021 est.	2022 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	909	915	928
11.3 Other than full-time permanent .....	23	23	24
11.5 Other personnel compensation .....	48	48	50
11.9 Total personnel compensation .....	980	986	1,002
12.1 Civilian personnel benefits .....	317	317	376
13.0 Benefits for former personnel .....	1	1	1
21.0 Travel and transportation of persons .....	9	16	16
22.0 Transportation of things .....	1	1	1
23.1 Rental payments to GSA .....	35	35	36
23.2 Rental payments to others .....	3	3	3
23.3 Communications, utilities, and miscellaneous charges .....	73	73	75
24.0 Printing and reproduction .....	3	3	3
25.1 Advisory and assistance services .....	251	250	259
25.2 Other services from non-Federal sources .....	254	233	219
25.3 Other goods and services from Federal sources .....	44	44	45
25.4 Operation and maintenance of facilities .....	225	224	233
25.5 Research and development contracts .....	179	178	185
25.6 Medical care .....	9	9	9
25.7 Operation and maintenance of equipment .....	463	461	479
26.0 Supplies and materials .....	17	17	18
31.0 Equipment .....	34	34	35
32.0 Land and structures .....	31	31	32
41.0 Grants, subsidies, and contributions .....	18	18	19
42.0 Insurance claims and indemnities .....	3	3	3
99.0 Direct obligations .....	2,950	2,937	3,049
99.0 Reimbursable obligations .....	1,596	1,932	1,458
99.9 Total new obligations, unexpired accounts .....	4,546	4,869	4,507

**Employment Summary**

Identification code 080–0122–0–1–252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	7,010	7,154	7,058
2001 Reimbursable civilian full-time equivalent employment .....	300	300	300

**CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION**

For necessary expenses for construction of facilities including repair, rehabilitation, revitalization, and modification of facilities, construction of new facilities and additions to existing facilities, facility planning and design, and restoration, and acquisition or condemnation of real property, as authorized by law, and environmental compliance and restoration, **[\$390,278,000] \$390,300,000**, to remain available until September 30, **[2026] 2027: Provided**, That proceeds from leases deposited into this account shall be available for a period of 5 years to the extent and in amounts as provided in annual appropriations Acts: *Provided further*, That such proceeds referred to in the preceding proviso shall be available for obligation for fiscal year **[2021] 2022** in an amount not to exceed **[\$18,700,000] \$20,000,000: Provided further**, That each annual budget request shall include an annual estimate of gross receipts and collections and proposed use of all funds collected pursuant to section 20145 of title 51, United States Code. (*Science Appropriations Act, 2021*.)

## CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION—Continued

## Program and Financing (in millions of dollars)

Identification code 080–0130–0–1–252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Construction and Environmental Compliance and Restoration (Direct) .....	479	415	390
0801 Construction and Environmental Compliance and Restoration (Reimbursable) .....	23	30	30
0900 Total new obligations, unexpired accounts .....	502	445	420
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	319	288	363
1021 Recoveries of prior year unpaid obligations .....	16	75	75
1033 Recoveries of prior year paid obligations .....	1		
1050 Unobligated balance (total) .....	336	363	438
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	373	390	390
1120 Appropriations transferred to Space Operations [080–0115] .....	–2		
1121 Appropriations transferred from Science [080–0120] .....	1		
1121 Appropriations transferred from Exploration [080–0124] .....	58	25	
1121 Appropriations transferred from Space Operations [080–0115] .....	2		
1160 Appropriation, discretionary (total) .....	432	415	390
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	22	30	20
1900 Budget authority (total) .....	454	445	410
1930 Total budgetary resources available .....	790	808	848
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	288	363	428
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	753	818	694
3010 New obligations, unexpired accounts .....	502	445	420
3020 Outlays (gross) .....	–421	–494	–428
3040 Recoveries of prior year unpaid obligations, unexpired .....	–16	–75	–75
3050 Unpaid obligations, end of year .....	818	694	611
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	753	818	694
3200 Obligated balance, end of year .....	818	694	611
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	454	445	410
Outlays, gross:			
4010 Outlays from new discretionary authority .....	14	29	26
4011 Outlays from discretionary balances .....	407	465	402
4020 Outlays, gross (total) .....	421	494	428
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	–1		
4033 Non-Federal sources .....	–22	–30	–20
4040 Offsets against gross budget authority and outlays (total) ....	–23	–30	–20
Additional offsets against gross budget authority only:			
4053 Recoveries of prior year paid obligations, unexpired accounts .....	1		
4070 Budget authority, net (discretionary) .....	432	415	390
4080 Outlays, net (discretionary) .....	398	464	408
4180 Budget authority, net (total) .....	432	415	390
4190 Outlays, net (total) .....	398	464	408

This appropriation provides for NASA's construction and environmental compliance and restoration activities, and makes available the net proceeds from Enhanced Use Leases, received under the authority of section 20145 of the National Aeronautics and Space Act (51 U.S.C. 20145), for maintenance, capital revitalization, and improvement of real property assets and related personal property at NASA Centers.

## Object Classification (in millions of dollars)

Identification code 080–0130–0–1–252	2020 actual	2021 est.	2022 est.
Direct obligations:			
23.3 Communications, utilities, and miscellaneous charges .....	1	1	1
25.1 Advisory and assistance services .....	15	13	12
25.2 Other services from non-Federal sources .....	47	41	38
25.3 Other goods and services from Federal sources .....	64	55	52
25.4 Operation and maintenance of facilities .....	54	47	44
25.5 Research and development contracts .....	11	10	9
25.7 Operation and maintenance of equipment .....	7	6	6
31.0 Equipment .....	1	1	1
32.0 Land and structures .....	279	241	227
99.0 Direct obligations .....	479	415	390
99.0 Reimbursable obligations .....	23	30	30
99.9 Total new obligations, unexpired accounts .....	502	445	420

## SPACE OPERATIONS

For necessary expenses, not otherwise provided for, in the conduct and support of space operations research and development activities, including research, development, operations, support and services; space flight, spacecraft control, and communications activities, including operations, production, and services; maintenance and repair, facility planning and design; program management; personnel and related costs, including uniforms or allowances therefor, as authorized by sections 5901 and 5902 of title 5, United States Code; travel expenses; purchase and hire of passenger motor vehicles; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, **[\$3,988,200,000] \$4,017,400,000**, to remain available until September 30, **[2022] 2023**. (*Science Appropriations Act, 2021*.)

## Program and Financing (in millions of dollars)

Identification code 080–0115–0–1–252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 LEO and Spaceflight Operations .....	4,357	3,988	4,017
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	99	112	514
1021 Recoveries of prior year unpaid obligations .....	235	402	402
1050 Unobligated balance (total) .....	334	514	916
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	4,140	3,988	4,017
1120 Appropriations transferred to CECR [080–0130] .....	–2		
1120 Appropriations transferred to Science [080–0120] .....	–5		
1121 Appropriations transferred from CECR [080–0130] .....	2		
1160 Appropriation, discretionary (total) .....	4,135	3,988	4,017
1900 Budget authority (total) .....	4,135	3,988	4,017
1930 Total budgetary resources available .....	4,469	4,502	4,933
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	112	514	916
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,592	2,346	1,829
3010 New obligations, unexpired accounts .....	4,357	3,988	4,017
3011 Obligations ("upward adjustments"), expired accounts .....	4		
3020 Outlays (gross) .....	–4,366	–4,103	–4,106
3040 Recoveries of prior year unpaid obligations, unexpired .....	–235	–402	–402
3041 Recoveries of prior year unpaid obligations, expired .....	–6		
3050 Unpaid obligations, end of year .....	2,346	1,829	1,338
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	2,592	2,346	1,829
3200 Obligated balance, end of year .....	2,346	1,829	1,338
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	4,135	3,988	4,017
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,353	2,273	2,290
4011 Outlays from discretionary balances .....	2,013	1,830	1,816
4020 Outlays, gross (total) .....	4,366	4,103	4,106

Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4033	Non-Federal sources .....	-2		
Additional offsets against gross budget authority only:				
4052	Offsetting collections credited to expired accounts .....	2		
4060	Additional offsets against budget authority only (total) .....	2		
4070	Budget authority, net (discretionary) .....	4,135	3,988	4,017
4080	Outlays, net (discretionary) .....	4,364	4,103	4,106
4180	Budget authority, net (total) .....	4,135	3,988	4,017
4190	Outlays, net (total) .....	4,364	4,103	4,106

This appropriation provides for the full costs associated with human-related Low Earth Orbit (LEO) and spaceflight operations activities of the Agency. The full costs include all labor, travel, procurement, test, and fabrication costs associated with the research, development, operations, and other general and administrative activities conducted by the programs within this account. Major themes within the Space Operations account include the International Space Station, Space Transportation, Space and Flight Support, and Commercial LEO Development. Performance goals associated with these activities are addressed in NASA's detailed budget request.

The International Space Station (ISS) is a complex of research laboratories in LEO where America and its international partners, including Russia, Canada, Europe, and Japan, conduct unique scientific and technological investigations in a microgravity environment. The objective of the International Space Station is to support human space exploration and conduct science experiments and technology development activities unique to the on-orbit attributes of the facility.

The Space Transportation theme is comprised of the Commercial Crew Program and Crew and Cargo Program, which transport U.S. astronauts and cargo safely back and forth to the ISS and, in the future, to other orbital platforms and destinations. Maintaining the ISS requires a fleet of vehicles and launch locations to transport astronauts, science experiments, supplies, maintenance hardware, and propellant to the ISS, and to dispose of waste generated on the ISS. The Commercial Crew Program partners with two U.S. companies, SpaceX and Boeing, to develop and operate safe, reliable, and affordable crew transportation to LEO. The Crew and Cargo Program purchases cargo transportation services to the ISS through contracts with Northrop Grumman, SpaceX, and Sierra Nevada and purchases crew transportation services from Boeing and SpaceX. Payments to develop and test commercial crew vehicles, and for initial Post Certification Missions for each provider are funded by the Commercial Crew Program, whereas subsequent payments for operational commercial crew missions are funded by the Crew and Cargo Program.

Space and Flight Support is comprised of multiple programs that provide ongoing support for a wide range of services required for safe and successful space mission operations. These programs include Space Communications and Navigation, Communications Services Program, Human Space Flight Operations, Launch Services, and Rocket Propulsion Testing. Services are provided to a wide range of customers including NASA, other U.S. Federal agencies, foreign governments, and industry partners.

Commercial LEO Development supports efforts to expand commercial activities in LEO, with a focus on enabling, developing, and deploying commercial platforms that can be used by NASA and other customers and on supporting the growth of private sector activity in LEO.

#### Object Classification (in millions of dollars)

Identification code 080-0115-0-1-252				
	2020 actual	2021 est.	2022 est.	
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent .....	292	298	298
11.3	Other than full-time permanent .....	3	3	3
11.5	Other personnel compensation .....	2	2	2
11.9	Total personnel compensation .....	297	303	303
12.1	Civilian personnel benefits .....	102	107	107
21.0	Travel and transportation of persons .....	7	15	15
22.0	Transportation of things .....	1,675	1,533	1,544
23.2	Rental payments to others .....	1	1	1

23.3	Communications, utilities, and miscellaneous charges .....	8	7	7
25.1	Advisory and assistance services .....	115	105	106
25.2	Other services from non-Federal sources .....	120	110	111
25.3	Other goods and services from Federal sources .....	38	35	35
25.4	Operation and maintenance of facilities .....	28	26	26
25.5	Research and development contracts .....	1,625	1,433	1,447
25.7	Operation and maintenance of equipment .....	253	232	233
26.0	Supplies and materials .....	27	25	25
31.0	Equipment .....	12	11	11
32.0	Land and structures .....	5	5	5
41.0	Grants, subsidies, and contributions .....	44	40	41
99.9	Total new obligations, unexpired accounts .....	4,357	3,988	4,017

#### Employment Summary

Identification code 080-0115-0-1-252		2020 actual	2021 est.	2022 est.
1001	Direct civilian full-time equivalent employment .....	2,225	2,167	2,085

#### OFFICE OF INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General in carrying out the Inspector General Act of 1978, **[\$44,200,000, of which \$500,000 shall] \$46,00,0000, to remain available until September 30, [2022] 2023.** (*Science Appropriations Act, 2021.*)

#### Program and Financing (in millions of dollars)

Identification code 080-0109-0-1-252		2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>				
0001	Office of Inspector General (Direct) .....	42	44	46
0801	Office of Inspector General (Reimbursable) .....	1	2	2
0900	Total new obligations, unexpired accounts .....	43	46	48
<b>Budgetary resources:</b>				
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation .....	42	44	46
Spending authority from offsetting collections, discretionary:				
1700	Collected .....	1	2	2
1900	Budget authority (total) .....	43	46	48
1930	Total budgetary resources available .....	43	46	48
<b>Change in obligated balance:</b>				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1 .....	5	7	8
3010	New obligations, unexpired accounts .....	43	46	48
3011	Obligations ("upward adjustments"), expired accounts .....	1		
3020	Outlays (gross) .....	-41	-45	-48
3041	Recoveries of prior year unpaid obligations, expired .....	-1		
3050	Unpaid obligations, end of year .....	7	8	8
Memorandum (non-add) entries:				
3100	Obligated balance, start of year .....	5	7	8
3200	Obligated balance, end of year .....	7	8	8
<b>Budget authority and outlays, net:</b>				
Discretionary:				
4000	Budget authority, gross .....	43	46	48
Outlays, gross:				
4010	Outlays from new discretionary authority .....	36	40	42
4011	Outlays from discretionary balances .....	5	5	6
4020	Outlays, gross (total) .....	41	45	48
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources .....	-1	-2	-2
4180	Budget authority, net (total) .....	42	44	46
4190	Outlays, net (total) .....	40	43	46

This appropriation provides for the operations of the NASA Office of Inspector General. The mission of the Office of Inspector General is to conduct audits and investigations of agency activities to prevent and detect fraud, waste, abuse, and mismanagement. The Inspector General keeps the NASA Administrator and the Congress informed of problems and deficiencies in agency programs and operations.

## OFFICE OF INSPECTOR GENERAL—Continued

## Object Classification (in millions of dollars)

Identification code 080-0109-0-1-252	2020 actual	2021 est.	2022 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	23	25	27
11.3 Other than full-time permanent .....	1	1	1
11.5 Other personnel compensation .....	1	1	1
11.9 Total personnel compensation .....	25	27	29
12.1 Civilian personnel benefits .....	9	10	10
21.0 Travel and transportation of persons .....	1	1	1
25.2 Other services from non-Federal sources .....	3	2	2
25.3 Other goods and services from Federal sources .....	1	1	1
25.7 Operation and maintenance of equipment .....	2	1	1
26.0 Supplies and materials .....	1	1	1
31.0 Equipment .....	1	1	1
99.0 Direct obligations .....	42	44	46
99.0 Reimbursable obligations .....	1	2	2
99.9 Total new obligations, unexpired accounts .....	43	46	48

## Employment Summary

Identification code 080-0109-0-1-252	2020 actual	2021 est.	2022 est.
1001 Direct civilian full-time equivalent employment .....	175	187	190
2001 Reimbursable civilian full-time equivalent employment .....	6	6	6

## WORKING CAPITAL FUND

## Program and Financing (in millions of dollars)

Identification code 080-4546-0-4-252	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0801 Working Capital Fund (Reimbursable) .....	526	595	571
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	31	27	18
1021 Recoveries of prior year unpaid obligations .....	4	6	6
1050 Unobligated balance (total) .....	35	33	24
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	518	580	574
1930 Total budgetary resources available .....	553	613	598
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	27	18	27
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	213	241	263
3010 New obligations, unexpired accounts .....	526	595	571
3020 Outlays (gross) .....	-494	-567	-594
3040 Recoveries of prior year unpaid obligations, unexpired .....	-4	-6	-6
3050 Unpaid obligations, end of year .....	241	263	234
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	213	241	263
3200 Obligated balance, end of year .....	241	263	234
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	518	580	574
Outlays, gross:			
4010 Outlays from new discretionary authority .....	4	348	344
4011 Outlays from discretionary balances .....	490	219	250
4020 Outlays, gross (total) .....	494	567	594
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	-494	-541	-529
4033 Non-Federal sources .....	-24	-39	-45
4040 Offsets against gross budget authority and outlays (total) ....	-518	-580	-574
4080 Outlays, net (discretionary) .....	-24	-13	20
4180 Budget authority, net (total) .....			
4190 Outlays, net (total) .....	-24	-13	20

The Working Capital Fund provides goods and services on a reimbursable basis. The Fund finances four program activities. The first is the Solutions for Enterprise-wide Procurement program, which finances, on an agency-wide basis, scientific and engineering workstation procurement. The second program is the Information Technology Infrastructure Integration Program which consolidates and centralizes management of NASA information technology services in the areas of customer service and ordering, web services and technologies, enterprise business and management applications, integrated network/communications services, end user services, and data center services. The third program, NASA's Shared Services Center, performs selected financial management, human resources, information technology, and procurement services for NASA Headquarters and Centers. The last program, the National Center for Critical Information Processing and Storage, provides federal customers collocation services with complete redundancy in the electrical distribution system from the national grid to the rack level.

## Object Classification (in millions of dollars)

Identification code 080-4546-0-4-252	2020 actual	2021 est.	2022 est.
Reimbursable obligations:			
11.1 Personnel compensation: Full-time permanent .....	18	20	20
12.1 Civilian personnel benefits .....	6	7	7
23.2 Communications, utilities, and miscellaneous charges .....	3	3	3
25.2 Other services from non-Federal sources .....	48	53	53
25.3 Other goods and services from Federal sources .....	2	2	2
25.4 Operation and maintenance of facilities .....	20	22	22
25.7 Operation and maintenance of equipment .....	418	476	452
26.0 Supplies and materials .....	1	1	1
31.0 Equipment .....	2	2	2
32.0 Land and structures .....	8	9	9
99.9 Total new obligations, unexpired accounts .....	526	595	571

## Employment Summary

Identification code 080-4546-0-4-252	2020 actual	2021 est.	2022 est.
2001 Reimbursable civilian full-time equivalent employment .....	172	169	169

## Trust Funds

## SCIENCE, SPACE, AND TECHNOLOGY EDUCATION TRUST FUND

## Special and Trust Fund Receipts (in millions of dollars)

Identification code 080-8978-0-7-503	2020 actual	2021 est.	2022 est.
0100 Balance, start of year .....	16	16	16
Receipts:			
Current law:			
1140 Earnings on Investments, Science, Space and Technology Education Trust Fund .....		1	1
2000 Total: Balances and receipts .....	16	17	17
Appropriations:			
Current law:			
2101 Science, Space, and Technology Education Trust Fund .....	-1	-1	-1
5098 Rounding adjustment .....	1		
5099 Balance, end of year .....	16	16	16

## Program and Financing (in millions of dollars)

Identification code 080-8978-0-7-503	2020 actual	2021 est.	2022 est.
<b>Obligations by program activity:</b>			
0001 Science, Space, and Technology Education Trust Fund .....	1	1	1
0900 Total new obligations, unexpired accounts (object class 41.0) .....	1	1	1
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	1	1	1
Budget authority:			
Appropriations, mandatory:			
1201 Appropriation (special or trust fund) .....	1	1	1
1930 Total budgetary resources available .....	2	2	2



Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year .....	1	1 1
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3010	New obligations, unexpired accounts .....	1	1 1
3020	Outlays (gross) .....	-1	-1 -1
<b>Budget authority and outlays, net:</b>			
Mandatory:			
4090	Budget authority, gross .....	1	1 1
Outlays, gross:			
4100	Outlays from new mandatory authority .....		1 1
4101	Outlays from mandatory balances .....	1	
4110	Outlays, gross (total) .....	1	1 1
4180	Budget authority, net (total) .....	1	1 1
4190	Outlays, net (total) .....	1	1 1
<b>Memorandum (non-add) entries:</b>			
5000	Total investments, SOY: Federal securities: Par value .....	16	15 15
5001	Total investments, EOY: Federal securities: Par value .....	15	15 15

## ADMINISTRATIVE PROVISIONS

(INCLUDING TRANSFERS OF FUNDS)

Funds for any announced prize otherwise authorized shall remain available, without fiscal year limitation, until a prize is claimed or the offer is withdrawn.

Not to exceed 5 percent of any appropriation made available for the current fiscal year for the National Aeronautics and Space Administration in this Act may be transferred between such appropriations, but no such appropriation, except as otherwise specifically provided, shall be increased by more than 10 percent by any such transfers. Any funds transferred to "Construction and Environmental Compliance and Restoration" for construction activities shall not increase that account by more than 20 percent. Balances so transferred shall be merged with and available for the same purposes and the same time period as the appropriations to which transferred. Any transfer pursuant to this provision shall be treated as a reprogramming of funds under section [505] 504 of this Act and shall not be available for obligation except in compliance with the procedures set forth in that section.

Not to exceed 5 percent of any appropriation provided for the National Aeronautics and Space Administration under previous appropriations Acts that remains available for obligation or expenditure in fiscal year [2021] 2022 may be transferred between such appropriations, but no such appropriation, except as otherwise specifically provided, shall be increased by more than 10 percent by any such transfers. Any transfer pursuant to this provision shall retain its original availability and shall be treated as a reprogramming of funds under section [505] 504 of this Act and shall not be available for obligation except in compliance with the procedures set forth in that section.

The spending plan required by this Act shall be provided by the National Aeronautics and Space Administration at the theme [.] and program [.] project, and

activity] level. The spending plan, as well as any subsequent change of an amount established in that spending plan that meets the notification requirements of section [505] 504 of this Act, shall be treated as a reprogramming under section [505] 504 of this Act and shall not be available for obligation or expenditure except in compliance with the procedures set forth in that section.

[Not more than 40 percent of the amounts made available in this Act for the Gateway; Advanced Cislunar and Surface Capabilities; Commercial LEO Development; Human Landing System; and Lunar Discovery and Exploration, excluding the Lunar Reconnaissance Orbiter, may be obligated until the Administrator submits a multi-year plan to the Committees on Appropriations of the House of Representatives and the Senate that identifies estimated dates, by fiscal year, for Space Launch System flights to build the Gateway; the commencement of partnerships with commercial entities for additional LEO missions to land humans and rovers on the Moon; and conducting additional scientific activities on the Moon. The multi-year plan shall include key milestones to be met by fiscal year to achieve goals for each of the lunar programs described in the previous sentence and funding required by fiscal year to achieve such milestones, as well as funding provided in fiscal year 2021 and previous years.]

[Of the amounts provided for Exploration Systems Development, \$25,000,000 shall be transferred to Construction and Environmental Compliance and Restoration (CECR) for Exploration Construction of Facilities consistent with direction provided in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act). The authority provided by this paragraph is in addition to the authority provided by the second paragraph under this heading.]

Not more than 20 percent or [\$50,000,000] \$25,000,000, whichever is less, of the amounts made available in the current-year CECR appropriation may be applied to CECR projects funded under previous years' CECR appropriation Acts. Use of current-year funds under this provision shall be treated as a reprogramming of funds under section [505] 504 of this act and shall not be available for obligation except in compliance with the procedures set forth in that section. (*Science Appropriations Act, 2021.*)

## GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)

	2020 actual	2021 est.	2022 est.
Offsetting receipts from the public:			
080-322000 All Other General Fund Proprietary Receipts Including Budget Clearing Accounts .....	21	4	4
General Fund Offsetting receipts from the public .....	21	4	4
Intragovernmental payments:			
080-388500 Undistributed Intragovernmental Payments and Receivables from Cancelled Accounts .....	1	2	2
General Fund Intragovernmental payments .....	1	2	2

