

# 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, \$7,988,300,000, to remain available until September 30, 2024.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0120-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Science .....	7,099	7,301	7,988
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	640	875	932
1021 Recoveries of prior year unpaid obligations .....	37	57	57
1070 Unobligated balance (total) .....	677	932	989
Budget authority:			
1100 Appropriations, discretionary:			
1100 Appropriation .....	7,301	7,301	7,988
1120 Appropriations transferred to CECR [080-0130] .....	-4	.....	.....
1160 Appropriation, discretionary (total) .....	7,297	7,301	7,988
1930 Total budgetary resources available .....	7,974	8,233	8,977
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	875	932	989
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	4,793	5,075	4,952
3010 New obligations, unexpired accounts .....	7,099	7,301	7,988
3011 Obligations ("upward adjustments"), expired accounts .....	7	.....	.....
3020 Outlays (gross) .....	-6,770	-7,367	-7,395
3040 Recoveries of prior year unpaid obligations, unexpired .....	-37	-57	-57
3041 Recoveries of prior year unpaid obligations, expired .....	-17	.....	.....
3050 Unpaid obligations, end of year .....	5,075	4,952	5,488
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	4,793	5,075	4,952
3200 Obligated balance, end of year .....	5,075	4,952	5,488
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	7,297	7,301	7,988
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,639	2,993	3,275
4011 Outlays from discretionary balances .....	4,131	4,374	4,120
4020 Outlays, gross (total) .....	6,770	7,367	7,395
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	-2	.....	.....
4033 Non-Federal sources .....	-1	.....	.....
4040 Offsets against gross budget authority and outlays (total) ....	-3	.....	.....
Additional offsets against gross budget authority only:			
4052 Offsetting collections credited to expired accounts .....	3	.....	.....
4060 Additional offsets against budget authority only (total) .....	3	.....	.....
4070 Budget authority, net (discretionary) .....	7,297	7,301	7,988
4080 Outlays, net (discretionary) .....	6,767	7,367	7,395
4180 Budget authority, net (total) .....	7,297	7,301	7,988
4190 Outlays, net (total) .....	6,767	7,367	7,395

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,

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	2021 actual	2022 est.	2023 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	336	348	367
11.3 Other than full-time permanent .....	8	8	9
11.5 Other personnel compensation .....	1	1	1
11.9 Total personnel compensation .....	345	357	377
12.1 Civilian personnel benefits .....	121	126	132
21.0 Travel and transportation of persons .....	6	16	21
22.0 Transportation of things .....	16	16	18
23.2 Rental payments to others .....	8	8	8
23.3 Communications, utilities, and miscellaneous charges .....	9	9	10
24.0 Printing and reproduction .....	1	1	1
25.1 Advisory and assistance services .....	143	147	161
25.2 Other services from non-Federal sources .....	211	217	237
25.3 Other goods and services from Federal sources .....	260	267	293
25.4 Operation and maintenance of facilities .....	11	11	12
25.5 Research and development contracts .....	4,860	4,987	5,471
25.7 Operation and maintenance of equipment .....	66	68	74
26.0 Supplies and materials .....	29	30	33
31.0 Equipment .....	120	123	135
32.0 Land and structures .....	4	4	5
41.0 Grants, subsidies, and contributions .....	889	914	1,000
99.9 Total new obligations, unexpired accounts .....	7,099	7,301	7,988

### Employment Summary

Identification code 080-0120-0-1-252	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	2,410	2,361	2,404

### 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, \$971,500,000, to remain available until September 30, 2024.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

AERONAUTICS—Continued			
Program and Financing (in millions of dollars)			
Identification code 080-0126-0-1-402	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Aeronautics .....	845	829	972
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	29	20	32
1021 Recoveries of prior year unpaid obligations .....	7	12	12
1070 Unobligated balance (total) .....	36	32	44
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	829	829	972
1930 Total budgetary resources available .....	865	861	1,016
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	20	32	44
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	358	430	439
3010 New obligations, unexpired accounts .....	845	829	972
3020 Outlays (gross) .....	-763	-808	-873
3040 Recoveries of prior year unpaid obligations, unexpired .....	-7	-12	-12
3041 Recoveries of prior year unpaid obligations, expired .....	-3	.....	.....
3050 Unpaid obligations, end of year .....	430	439	526
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	358	430	439
3200 Obligated balance, end of year .....	430	439	526
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	829	829	972
Outlays, gross:			
4010 Outlays from new discretionary authority .....	470	448	525
4011 Outlays from discretionary balances .....	293	360	348
4020 Outlays, gross (total) .....	763	808	873
4180 Budget authority, net (total) .....	829	829	972
4190 Outlays, net (total) .....	763	808	873

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	2021 actual	2022 est.	2023 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....			
11.1.3 Other than full-time permanent .....	178	181	202
11.3 Other than full-time permanent .....	6	6	7
11.9 Total personnel compensation .....	184	187	209
12.1 Civilian personnel benefits .....	65	66	74
21.0 Travel and transportation of persons .....	1	7	8
23.3 Communications, utilities, and miscellaneous charges .....	6	6	7
25.1 Advisory and assistance services .....	14	14	16
25.2 Other services from non-Federal sources .....	29	28	33
25.3 Other goods and services from Federal sources .....	7	7	8
25.4 Operation and maintenance of facilities .....	56	55	60
25.5 Research and development contracts .....	355	333	419
25.7 Operation and maintenance of equipment .....	42	41	43
26.0 Supplies and materials .....	9	9	10
31.0 Equipment .....	25	25	29
32.0 Land and structures .....	5	5	6
41.0 Grants, subsidies, and contributions .....	47	46	50

99.9 Total new obligations, unexpired accounts .....	845	829	972
<b>Employment Summary</b>			
Identification code 080-0126-0-1-402	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	1,404	1,425	1,493
<b>SPACE TECHNOLOGY</b>			
<i>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, \$1,437,900,000, to remain available until September 30, 2024.</i>			
Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.			
<b>Program and Financing (in millions of dollars)</b>			
Identification code 080-0131-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Space Technology .....	1,174	1,100	1,438
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	81	27	43
1021 Recoveries of prior year unpaid obligations .....	20	16	30
1070 Unobligated balance (total) .....	101	43	73
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	1,100	1,100	1,438
1930 Total budgetary resources available .....	1,201	1,143	1,511
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	27	43	73
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	723	806	851
3010 New obligations, unexpired accounts .....	1,174	1,100	1,438
3011 Obligations ("upward adjustments"), expired accounts .....	1	.....	.....
3020 Outlays (gross) .....	-1,068	-1,039	-1,245
3040 Recoveries of prior year unpaid obligations, unexpired .....	-20	-16	-30
3041 Recoveries of prior year unpaid obligations, expired .....	-4	.....	.....
3050 Unpaid obligations, end of year .....	806	851	1,014
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	723	806	851
3200 Obligated balance, end of year .....	806	851	1,014
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	1,100	1,100	1,438
Outlays, gross:			
4010 Outlays from new discretionary authority .....	501	473	618
4011 Outlays from discretionary balances .....	567	566	627
4020 Outlays, gross (total) .....	1,068	1,039	1,245
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources .....	-1	.....	.....
Additional offsets against gross budget authority only:			
Offsetting collections credited to expired accounts .....			
4052 1,100	1,100	1,438	1,438
4070 Budget authority, net (discretionary) .....	1,067	1,039	1,245
4080 Outlays, net (discretionary) .....	1,100	1,100	1,438
4180 Budget authority, net (total) .....	1,067	1,039	1,245
4190 Outlays, net (total) .....	1,100	1,100	1,438

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 are dedicated to developing transformative, cross-cutting technologies that support NASA's missions and contribute towards commercial and other government agencies needs. 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.

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

Identification code 080-0131-0-1-252 2021 actual 2022 est. 2023 est.

Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	117	110	125
11.3 Other than full-time permanent .....	3	3	4
11.9 Total personnel compensation .....	120	113	129
12.1 Civilian personnel benefits .....	43	39	46
21.0 Travel and transportation of persons .....	1	3	19
22.0 Transportation of things .....	5	5	6
23.2 Rental payments to others .....	1	1	1
25.1 Advisory and assistance services .....	56	52	69
25.2 Other services from non-Federal sources .....	32	30	39
25.3 Other goods and services from Federal sources .....	46	43	56
25.4 Operation and maintenance of facilities .....	4	4	5
25.5 Research and development contracts .....	762	714	940
25.7 Operation and maintenance of equipment .....	9	8	11
26.0 Supplies and materials .....	8	7	10
31.0 Equipment .....	10	9	12
41.0 Grants, subsidies, and contributions .....	77	72	95
99.9 Total new obligations, unexpired accounts .....	1,174	1,100	1,438

#### Employment Summary

Identification code 080-0131-0-1-252 2021 actual 2022 est. 2023 est.

1001 Direct civilian full-time equivalent employment .....	911	880	921
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### DEEP SPACE EXPLORATION SYSTEMS

*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, \$7,478,283,000, to remain available until September 30, 2024.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0124-0-1-252 2021 actual 2022 est. 2023 est.

Obligations by program activity:			
0001 Deep Space Exploration Systems .....	6,589	6,578	7,478
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	198	161	294
1011 Unobligated balance transfer from CECR [080-0130] .....	7	.....	.....
1021 Recoveries of prior year unpaid obligations .....	33	133	133
1070 Unobligated balance (total) .....	238	294	427
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	6,556	6,555	7,478

1120 Appropriations transferred to CECR [080-0130] .....	44	-25	.....
1121 Appropriations transferred from CECR [080-0130] .....	.....	48	.....
1160 Appropriation, discretionary (total) .....	6,512	6,578	7,478
1930 Total budgetary resources available .....	6,750	6,872	7,905
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	161	294	427

#### Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,692	3,015	2,993
3010 New obligations, unexpired accounts .....	6,589	6,578	7,478
3011 Obligations ("upward adjustments"), expired accounts .....	3	.....	.....
3020 Outlays (gross) .....	-6,231	-6,467	-7,177
3040 Recoveries of prior year unpaid obligations, unexpired .....	-33	-133	-133
3041 Recoveries of prior year unpaid obligations, expired .....	-5	.....	.....
3050 Unpaid obligations, end of year .....	3,015	2,993	3,161
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	2,692	3,015	2,993
3200 Obligated balance, end of year .....	3,015	2,993	3,161

#### Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross .....	6,512	6,578	7,478
Outlays, gross:			
4010 Outlays from new discretionary authority .....	3,691	3,753	4,262
4011 Outlays from discretionary balances .....	2,540	2,714	2,915
4020 Outlays, gross (total) .....	6,231	6,467	7,177
Offsets against gross budget authority and outlays:			
4033 Offsetting collections (collected) from:			
Non-Federal sources .....	-2	.....	.....
Additional offsets against gross budget authority only:			
4052 Offsetting collections credited to expired accounts .....	2	.....	.....
4070 Budget authority, net (discretionary) .....	6,512	6,578	7,478
4080 Outlays, net (discretionary) .....	6,229	6,467	7,177
4180 Budget authority, net (total) .....	6,512	6,578	7,478
4190 Outlays, net (total) .....	6,229	6,467	7,177

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. Major themes within the Deep Space Exploration Systems account include Common Exploration Systems Development, Artemis Campaign Development, Mars Campaign Development, and Human Exploration Requirements & Architecture and Mars. Performance goals associated with these activities are addressed in NASA's detailed budget request.

The Common Exploration Systems Development theme is comprised of NASA's human deep space exploration programs which include the Space Launch System, Orion, and Exploration Ground Systems. The objective of the theme is to design, develop, test, and evaluate the initial vehicles in these programs and any follow-on development projects needed to enhance the vehicles.

The Artemis Campaign Development theme is comprised of the Gateway, Advanced Cislunar and Surface Capabilities, the Human Lander System, and the xEVA and Surface Mobility Program. These programs are developing the systems that will enable humans to live and operate on and near the Moon in the Artemis campaign.

The Mars Campaign Development theme consists of the Exploration Capabilities Program. This program is investigating new technologies that will be needed in a system to carry humans to Mars.

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

Identification code 080-0124-0-1-252	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	390	431	355

## DEEP SPACE EXPLORATION SYSTEMS—Continued

## Object Classification—Continued

Identification code 080-0124-0-1-252	2021 actual	2022 est.	2023 est.
11.3 Other than full-time permanent .....	4	4	5
11.5 Other personnel compensation .....	3	3	3
11.8 Special personal services payments .....	1	1	1
11.9 Total personnel compensation .....	398	439	364
12.1 Civilian personnel benefits .....	143	154	128
21.0 Travel and transportation of persons .....	3	15	13
23.3 Communications, utilities, and miscellaneous charges .....	13	13	15
25.1 Advisory and assistance services .....	394	390	447
25.2 Other services from non-Federal sources .....	35	35	40
25.3 Other goods and services from Federal sources .....	23	23	26
25.4 Operation and maintenance of facilities .....	120	119	136
25.5 Research and development contracts .....	4,830	4,765	5,594
25.7 Operation and maintenance of equipment .....	86	85	98
26.0 Supplies and materials .....	32	32	36
31.0 Equipment .....	370	367	420
32.0 Land and structures .....	96	95	109
41.0 Grants, subsidies, and contributions .....	46	46	52
99.9 Total new obligations, unexpired accounts .....	6,589	6,578	7,478

## Employment Summary

Identification code 080-0124-0-1-252	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	2,927	3,212	2,704

## 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, \$150,100,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

## Program and Financing (in millions of dollars)

Identification code 080-0128-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 STEM Engagement .....	129	127	150
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	10	8	10
1021 Recoveries of prior year unpaid obligations .....	.....	2	2
1070 Unobligated balance (total) .....	10	10	12
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	127	127	150
1930 Total budgetary resources available .....	137	137	162
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	8	10	12
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	161	172	180
3010 New obligations, unexpired accounts .....	129	127	150
3020 Outlays (gross) .....	-117	-117	-131
3040 Recoveries of prior year unpaid obligations, unexpired .....	.....	-2	-2
3041 Recoveries of prior year unpaid obligations, expired .....	-1	.....	.....
3050 Unpaid obligations, end of year .....	172	180	197
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	161	172	180
3200 Obligated balance, end of year .....	172	180	197

## Budget authority and outlays, net:

4000 Discretionary:				
4000 Budget authority, gross .....	127	127	150	
4000 Outlays, gross:				
4010 Outlays from new discretionary authority .....	15	17	20	
4011 Outlays from discretionary balances .....	102	100	111	
4020 Outlays, gross (total) .....	117	117	131	
4180 Budget authority, net (total) .....	127	127	150	
4190 Outlays, net (total) .....	117	117	131	

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 reaches K-12 students and 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 provides cooperative agreement opportunities designed to establish partnerships between government, higher education, and industry in an effort to build stronger research and development capabilities in 28 eligible EPSCoR jurisdictions. 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. Performance goals associated with these activities are addressed in NASA's detailed budget request.

## Object Classification (in millions of dollars)

Identification code 080-0128-0-1-252	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent .....	5	6	7
11.9 Total personnel compensation .....	5	6	7
12.1 Civilian personnel benefits .....	2	3	3
21.0 Travel and transportation of persons .....	.....	1	1
25.1 Advisory and assistance services .....	1	1	1
25.2 Other services from non-Federal sources .....	4	4	5
25.5 Research and development contracts .....	8	8	9
25.7 Operation and maintenance of equipment .....	5	5	6
31.0 Equipment .....	3	3	3
41.0 Grants, subsidies, and contributions .....	101	96	115
99.9 Total new obligations, unexpired accounts .....	129	127	150

## Employment Summary

Identification code 080-0128-0-1-252	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	41	45	55

## 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 zero emission passenger motor vehicles and supporting charging or fueling infrastructure; not to exceed \$63,000 for official reception and representation expenses; and purchase, lease, charter, maintenance, and operation of mission and administrative aircraft, \$3,208,700,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)			
Identification code 080-0122-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Safety, Security and Mission Services .....	3,025	2,937	3,209
0801 Cross Agency Support (Reimbursable) .....	1,463	1,671	1,458
0900 Total new obligations, unexpired accounts .....	4,488	4,608	4,667
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	941	763	891
1021 Recoveries of prior year unpaid obligations .....	41	128	48
1070 Unobligated balance (total) .....	982	891	939
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	2,937	2,937	3,209
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	1,342	1,671	1,458
1701 Change in uncollected payments, Federal sources .....	-10	.....	.....
1750 Spending auth from offsetting collections, disc (total) .....	1,332	1,671	1,458
1900 Budget authority (total) .....	4,269	4,608	4,667
1930 Total budgetary resources available .....	5,251	5,499	5,606
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	763	891	939
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,167	2,075	1,719
3010 New obligations, unexpired accounts .....	4,488	4,608	4,667
3011 Obligations ("upward adjustments"), expired accounts .....	8	.....	.....
3020 Outlays (gross) .....	-4,534	-4,836	-4,802
3040 Recoveries of prior year unpaid obligations, unexpired .....	-41	-128	-48
3041 Recoveries of prior year unpaid obligations, expired .....	-13	.....	.....
3050 Unpaid obligations, end of year .....	2,075	1,719	1,536
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1 .....	-1,867	-1,687	-1,687
3070 Change in uncollected pymts, Fed sources, unexpired .....	10	.....	.....
3071 Change in uncollected pymts, Fed sources, expired .....	170	.....	.....
3090 Uncollected pymts, Fed sources, end of year .....	-1,687	-1,687	-1,687
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	300	388	32
3200 Obligated balance, end of year .....	388	32	-151
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	4,269	4,608	4,667
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,582	2,918	3,063
4011 Outlays from discretionary balances .....	1,952	1,918	1,739
4020 Outlays, gross (total) .....	4,534	4,836	4,802
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	-1,277	-1,208	-1,208
4033 Non-Federal sources .....	-232	-463	-250
4040 Offsets against gross budget authority and outlays (total) ....	-1,509	-1,671	-1,458
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired .....	10	.....	.....
4052 Offsetting collections credited to expired accounts .....	167	.....	.....
4060 Additional offsets against budget authority only (total) .....	177	.....	.....
4070 Budget authority, net (discretionary) .....	2,937	2,937	3,209
4080 Outlays, net (discretionary) .....	3,025	3,165	3,344
4180 Budget authority, net (total) .....	2,937	2,937	3,209
4190 Outlays, net (total) .....	3,025	3,165	3,344

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. Performance goals associated with these activities are addressed in NASA's detailed budget request.

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	2021 actual	2022 est.	2023 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	912	944	999
11.3 Other than full-time permanent .....	22	22	23
11.5 Other personnel compensation .....	57	55	60
11.9 Total personnel compensation .....	991	1,021	1,082
12.1 Civilian personnel benefits .....	331	341	361
13.0 Benefits for former personnel .....	1	1	1
21.0 Travel and transportation of persons .....	2	17	13
22.0 Transportation of things .....	1	1	1
23.1 Rental payments to GSA .....	34	36	37
23.2 Rental payments to others .....	1	1	1
23.3 Communications, utilities, and miscellaneous charges .....	77	75	82
24.0 Printing and reproduction .....	2	2	2
25.1 Advisory and assistance services .....	392	382	415
25.2 Other services from non-Federal sources .....	235	129	196
25.3 Other goods and services from Federal sources .....	50	49	53
25.4 Operation and maintenance of facilities .....	235	228	249
25.5 Research and development contracts .....	171	166	181
25.6 Medical care .....	8	8	8
25.7 Operation and maintenance of equipment .....	281	272	299
26.0 Supplies and materials .....	14	14	15
31.0 Equipment .....	154	149	163
32.0 Land and structures .....	28	27	31
41.0 Grants, subsidies, and contributions .....	17	18	19
99.0 Direct obligations .....	3,025	2,937	3,209
99.0 Reimbursable obligations .....	1,463	1,671	1,458
99.9 Total new obligations, unexpired accounts .....	4,488	4,608	4,667

#### Employment Summary

Identification code 080-0122-0-1-252	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	6,679	7,154	7,054
2001 Reimbursable civilian full-time equivalent employment .....	25	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, \$424,300,000, to remain available until September 30, 2028: 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 2023 in an amount not to exceed \$25,000,000: 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.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

#### CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION

##### [(INCLUDING TRANSFER OF FUNDS)]

[(INCLUDING TRANSFER OF FUNDS)] For an additional amount for "Construction and Environmental Compliance and Restoration" for repair at National Aeronautics and Space Administration facilities damaged by Hurricanes Zeta and Ida, \$321,400,000, to remain available until expen-

CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION—Continued  
ded: *Provided*, That up to 15 percent of such amount may be transferred to "Exploration" for necessary expenses related to flight hardware, tooling, production and schedule delays caused by Hurricane Ida: *Provided further*, That except as provided in the preceding proviso, the amounts appropriated under this heading in this Act shall not be available for transfer under any transfer authority provided for the National Aeronautics and Space Administration in an appropriation Act for fiscal year 2022. (Disaster Relief Supplemental Appropriations Act, 2022.)

Program and Financing (in millions of dollars)			
Identification code 080-0130-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Construction and Environmental Compliance and Restoration (Direct) .....	426	688	424
0801 Construction and Environmental Compliance and Restoration (Reimbursable) .....	30	30	
0900 Total new obligations, unexpired accounts .....	426	718	454
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	288	335	412
1010 Unobligated balance transfer to Exploration [080-0124] .....	-7	.....	
1021 Recoveries of prior year unpaid obligations .....	19	87	87
1033 Recoveries of prior year paid obligations .....	1	.....	
1070 Unobligated balance (total) .....	301	422	499
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	390	390	424
1100 Appropriation [Disaster Relief Supplemental] .....	.....	321	.....
1120 Appropriations transferred to Exploration [080-0124] .....	.....	-48	.....
1121 Appropriations transferred from Science [080-0120] .....	4	.....	.....
1121 Appropriations transferred from Exploration [080-0124] .....	44	25	.....
1121 Appropriations transferred from Space Operations [080-0115] .....	1	.....	.....
1160 Appropriation, discretionary (total) .....	439	688	424
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	21	20	30
1900 Budget authority (total) .....	460	708	454
1930 Total budgetary resources available .....	761	1,130	953
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	335	412	499
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	819	826	1,000
3010 New obligations, unexpired accounts .....	426	718	454
3020 Outlays (gross) .....	-399	-457	-524
3040 Recoveries of prior year unpaid obligations, unexpired .....	-19	-87	-87
3041 Recoveries of prior year unpaid obligations, expired .....	-1	.....	.....
3050 Unpaid obligations, end of year .....	826	1,000	843
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	819	826	1,000
3200 Obligated balance, end of year .....	826	1,000	843
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	460	708	454
Outlays, gross:			
4010 Outlays from new discretionary authority .....	14	55	29
4011 Outlays from discretionary balances .....	385	402	495
4020 Outlays, gross (total) .....	399	457	524
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources .....	-23	-20	-30
4040 Offsets against gross budget authority and outlays (total) ....	-23	-20	-30
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) .....	439	688	424
4080 Outlays, net (discretionary) .....	376	437	494
4180 Budget authority, net (total) .....	439	688	424
4190 Outlays, net (total) .....	376	437	494

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. Performance goals associated with these activities are addressed in NASA's detailed budget request.

Object Classification (in millions of dollars)			
Identification code 080-0130-0-1-252	2021 actual	2022 est.	2023 est.
Direct obligations:			
23.3 Communications, utilities, and miscellaneous charges .....	2	2	2
25.1 Advisory and assistance services .....	21	20	21
25.2 Other services from non-Federal sources .....	68	64	66
25.3 Other goods and services from Federal sources .....	16	16	16
25.4 Operation and maintenance of facilities .....	75	292	75
25.5 Research and development contracts .....	11	11	11
25.7 Operation and maintenance of equipment .....	3	13	3
26.0 Supplies and materials .....	.....	13	.....
31.0 Equipment .....	1	14	1
32.0 Land and structures .....	229	243	229
99.0 Direct obligations .....	426	688	424
99.0 Reimbursable obligations .....	.....	30	30
99.9 Total new obligations, unexpired accounts .....	426	718	454

## 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, \$4,266,317,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)			
Identification code 080-0115-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Space Operations .....	3,922	3,988	4,266
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	111	290	494
1021 Recoveries of prior year unpaid obligations .....	113	204	204
1033 Recoveries of prior year paid obligations .....	1	.....	.....
1070 Unobligated balance (total) .....	225	494	698
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	3,988	3,988	4,266
1120 Appropriations transferred to CECR [080-0130] .....	-1	.....	.....
1160 Appropriation, discretionary (total) .....	3,987	3,988	4,266
1900 Budget authority (total) .....	3,987	3,988	4,266
1930 Total budgetary resources available .....	4,212	4,482	4,964
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	290	494	698
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	2,346	2,247	2,116
3010 New obligations, unexpired accounts .....	3,922	3,988	4,266
3011 Obligations ("upward adjustments"), expired accounts .....	4	.....	.....
3020 Outlays (gross) .....	-3,903	-3,915	-4,143
3040 Recoveries of prior year unpaid obligations, unexpired .....	-113	-204	-204
3041 Recoveries of prior year unpaid obligations, expired .....	-9	.....	.....
3050 Unpaid obligations, end of year .....	2,247	2,116	2,035

Memorandum (non-add) entries:			
3100	Obligated balance, start of year .....	2,346	2,247
3200	Obligated balance, end of year .....	2,247	2,116
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000	Budget authority, gross .....	3,987	3,988
	Outlays, gross:		4,266
4010	Outlays from new discretionary authority .....	2,065	2,273
4011	Outlays from discretionary balances .....	1,838	1,642
4020	Outlays, gross (total) .....	3,903	3,915
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) .....	3,987	3,988
4080	Outlays, net (discretionary) .....	3,901	3,915
4180	Budget authority, net (total) .....	3,987	3,988
4190	Outlays, net (total) .....	3,901	3,915
		4,266	
		4,143	

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, Commercial LEO Development, and Exploration Operations. 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 Exploration Operations theme is comprised of the Orion Production and Sustainment Program, SLS Production and Sustainment Program, EGS Production and Sustainment Program and the Exploration Operation Program. The objective of the theme is to build, sustain, and launch the SLS/Orion crew transportation system and plan, train, and fly Artemis missions.

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 Research

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	2021 actual	2022 est.	2023 est.
<b>Direct obligations:</b>			
11.1 Personnel compensation:			
11.1.1 Full-time permanent .....	281	292	326
11.1.3 Other than full-time permanent .....	3	3	3
11.1.5 Other personnel compensation .....	2	2	2
11.9 Total personnel compensation .....	286	297	331
12.1 Civilian personnel benefits .....	102	104	116
21.0 Travel and transportation of persons .....	4	14	16
22.0 Transportation of things .....	1,580	1,607	1,670
23.2 Rental payments to others .....	1	1	1
23.3 Communications, utilities, and miscellaneous charges .....	9	9	10
25.1 Advisory and assistance services .....	115	117	125
25.2 Other services from non-Federal sources .....	159	162	173
25.3 Other goods and services from Federal sources .....	49	50	53
25.4 Operation and maintenance of facilities .....	31	32	34
25.5 Research and development contracts .....	1,330	1,336	1,458
25.7 Operation and maintenance of equipment .....	197	200	214
26.0 Supplies and materials .....	13	13	14
31.0 Equipment .....	18	18	20
32.0 Land and structures .....	7	7	8
41.0 Grants, subsidies, and contributions .....	21	21	23
99.9 Total new obligations, unexpired accounts .....	3,922	3,988	4,266

#### Employment Summary

Identification code 080-0115-0-1-252	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment .....	2,046	1,963	2,259

#### OFFICE OF INSPECTOR GENERAL

*For necessary expenses of the Office of Inspector General in carrying out the Inspector General Act of 1978, \$48,400,000, to remain available until September 30, 2024.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0109-0-1-252	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Office of Inspector General (Direct) .....			
0801 Office of Inspector General (Reimbursable) .....	1	2	2
0900 Total new obligations, unexpired accounts .....	44	46	50
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000.1 Unobligated balance brought forward, Oct 1 .....	1	.....	.....
Budget authority:			
1100 Appropriations, discretionary:			
1100.1 Appropriation .....	44	44	48
1700 Spending authority from offsetting collections, discretionary:			
1700.1 Collected .....	1	2	2
1900 Budget authority (total) .....			
1900.1 Budget authority (total) .....	45	46	50
1930 Total budgetary resources available .....			
1930.1 Memorandum (non-add) entries:	46	46	50
1940 Unobligated balance expiring .....			
1940.1 Unobligated balance expiring .....	-2	.....	.....
<b>Change in obligated balance:</b>			
3000 Unpaid obligations, brought forward, Oct 1 .....			
3000.1 Unpaid obligations, brought forward, Oct 1 .....	6	6	6
3010 New obligations, unexpired accounts .....			
3010.1 New obligations, unexpired accounts .....	44	46	50

OFFICE OF INSPECTOR GENERAL—Continued  
Program and Financing—Continued

Identification code 080-0109-0-1-252		2021 actual	2022 est.	2023 est.
3020	Outlays (gross) .....	-43	-46	-50
3041	Recoveries of prior year unpaid obligations, expired .....	-1		
3050	Unpaid obligations, end of year .....	6	6	6
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year .....	6	6	6
3200	Obligated balance, end of year .....	6	6	6
	<b>Budget authority and outlays, net:</b>			
	Discretionary:			
4000	Budget authority, gross .....	45	46	50
	Outlays, gross:			
4010	Outlays from new discretionary authority .....	37	40	44
4011	Outlays from discretionary balances .....	6	6	6
4020	Outlays, gross (total) .....	43	46	50
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources .....	-1	-2	-2
4180	Budget authority, net (total) .....	44	44	48
4190	Outlays, net (total) .....	42	44	48

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.

## Object Classification (in millions of dollars)

Identification code 080-0109-0-1-252		2021 actual	2022 est.	2023 est.
<b>Direct obligations:</b>				
	Personnel compensation:			
11.1	Full-time permanent .....	24	24	26
11.3	Other than full-time permanent .....	1	1	1
11.5	Other personnel compensation .....	1	1	1
11.9	Total personnel compensation .....	26	26	28
12.1	Civilian personnel benefits .....	10	10	11
21.0	Travel and transportation of persons .....		1	1
25.2	Other services from non-Federal sources .....	4	4	5
31.0	Equipment .....	3	3	3
99.0	Direct obligations .....	43	44	48
99.0	Reimbursable obligations .....	1	2	2
99.9	Total new obligations, unexpired accounts .....	44	46	50

## Employment Summary

Identification code 080-0109-0-1-252		2021 actual	2022 est.	2023 est.
1001	Direct civilian full-time equivalent employment .....	171	187	190
2001	Reimbursable civilian full-time equivalent employment .....	7	7	7

## WORKING CAPITAL FUND

## Program and Financing (in millions of dollars)

Identification code 080-4546-0-4-252		2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>				
0801	Working Capital Fund (Reimbursable) .....	500	522	379
<b>Budgetary resources:</b>				
	Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1 .....	27	55	56
1021	Recoveries of prior year unpaid obligations .....	3	6	6
1070	Unobligated balance (total) .....	30	61	62
	Budget authority:			
	Spending authority from offsetting collections, discretionary:			
1700	Collected .....	525	517	384
1930	Total budgetary resources available .....	555	578	446

1941	Memorandum (non-add) entries:			
	Unexpired unobligated balance, end of year .....	55	56	67
<b>Change in obligated balance:</b>				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1 .....	242	249	205
3010	New obligations, unexpired accounts .....	500	522	379
3020	Outlays (gross) .....	-490	-560	-438
3040	Recoveries of prior year unpaid obligations, unexpired .....	-3	-6	-6
3050	Unpaid obligations, end of year .....	249	205	140
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year .....	242	249	205
3200	Obligated balance, end of year .....	249	205	140
<b>Budget authority and outlays, net:</b>				
	Discretionary:			
4000	Budget authority, gross .....	525	517	384
	Outlays, gross:			
4010	Outlays from new discretionary authority .....	238	310	230
4011	Outlays from discretionary balances .....	252	250	208
4020	Outlays, gross (total) .....	490	560	438
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources .....	-494	-472	-339
4033	Non-Federal sources .....	-31	-45	-45
4040	Offsets against gross budget authority and outlays (total) ....	-525	-517	-384
4080	Outlays, net (discretionary) .....	-35	43	54
4180	Budget authority, net (total) .....	-35	43	54
4190	Outlays, net (total) .....	-35	43	54

The Working Capital Fund provides goods and services on a reimbursable basis. The Fund currently 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.

In FY 2023, NASA's existing authority under 51 U.S.C. 30102 would be amended to make the Working Capital Fund available for IT Modernization activities and to transfer amounts from NASA's Safety, Security and Mission Services account into the Working Capital Fund to finance such activities.

## Object Classification (in millions of dollars)

Identification code 080-4546-0-4-252		2021 actual	2022 est.	2023 est.
<b>Reimbursable obligations:</b>				
	Personnel compensation:			
11.1	Full-time permanent .....	19	18	18
11.5	Other personnel compensation .....	1	1	1
11.9	Total personnel compensation .....	20	19	19
12.1	Civilian personnel benefits .....	7	6	6
23.2	Rental payments to others .....	1	1	1
23.3	Communications, utilities, and miscellaneous charges .....	15	15	10
25.1	Advisory and assistance services .....	130	178	111
25.2	Other services from non-Federal sources .....	45	45	30
25.3	Other goods and services from Federal sources .....	1	1	1
25.4	Operation and maintenance of facilities .....	22	22	12
25.7	Operation and maintenance of equipment .....	173	149	123
26.0	Supplies and materials .....	1	1	1
31.0	Equipment .....	82	82	62
32.0	Land and structures .....	3	3	3
99.9	Total new obligations, unexpired accounts .....	500	522	379

Employment Summary			
Identification code 080-4546-0-4-252	2021 actual	2022 est.	2023 est.
2001 Reimbursable civilian full-time equivalent employment .....	173	169	165

**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	2021 actual	2022 est.	2023 est.
0100 Balance, start of year .....	16	16	16
Receipts:			
Current law:			
1140     Earnings on Investments, Science, Space and Technology Education Trust Fund .....	1	.....	.....
2000 Total: Balances and receipts .....	17	16	16
Appropriations:			
Current law:			
2103     Science, Space, and Technology Education Trust Fund .....	-1	.....	.....
Proposed:			
2201     Science, Space, and Technology Education Trust Fund .....	.....	.....	-16
2999 Total appropriations .....	-1	.....	-16
5099 Balance, end of year .....	16	16	.....

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

Identification code 080-8978-0-7-503	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Science, Space, and Technology Education Trust Fund .....	1	.....	.....
0900 Total new obligations, unexpired accounts (object class 41.0) .....	1	.....	.....
<b>Budgetary resources:</b>			
Unobligated balance:			
1000     Unobligated balance brought forward, Oct 1 .....	1	1	1
Budget authority:			
Appropriations, mandatory:			
1203     Appropriation (previously unavailable)(special or trust) ....	1	.....	.....
1930 Total budgetary resources available .....	2	1	1
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	.....	.....
3020     Outlays (gross) .....	-1	.....	.....
<b>Budget authority and outlays, net:</b>			
Mandatory:			
4090     Budget authority, gross .....	1	.....	.....
Outlays, gross:			
4101     Outlays from mandatory balances .....	1	.....	.....
4180 Budget authority, net (total) .....	1	.....	.....
4190 Outlays, net (total) .....	1	.....	.....
<b>Memorandum (non-add) entries:</b>			
5000 Total investments, SOY: Federal securities: Par value .....	15	15	16
5001 Total investments, EOY: Federal securities: Par value .....	15	16	16

**Summary of Budget Authority and Outlays** (in millions of dollars)

	2021 actual	2022 est.	2023 est.
Enacted/requested:			
Budget Authority .....	1	.....	.....
Outlays .....	1	.....	.....
Legislative proposal, subject to PAYGO:			
Budget Authority .....	.....	.....	16
Outlays .....	.....	.....	16
Total:			
Budget Authority .....	1	.....	16
Outlays .....	1	.....	16

## SCIENCE, SPACE, AND TECHNOLOGY EDUCATION TRUST FUND

## (Legislative proposal, subject to PAYGO)

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

Identification code 080-8978-4-7-503	2021 actual	2022 est.	2023 est.
<b>Obligations by program activity:</b>			
0001 Science, Space, and Technology Education Trust Fund .....	.....	.....	16
0900 Total new obligations, unexpired accounts (object class 41.0) .....	.....	.....	16

**Budgetary resources:**

Budget authority:			
Appropriations, mandatory:			
1201     Appropriation (special or trust fund) .....	.....	.....	16
1930 Total budgetary resources available .....	.....	.....	16

**Change in obligated balance:**

Unpaid obligations:			
3010     New obligations, unexpired accounts .....	.....	.....	16
3020     Outlays (gross) .....	-1	.....	-16

**Budget authority and outlays, net:**

Mandatory:			
4090     Budget authority, gross .....	.....	.....	16
Outlays, gross:			
4101     Outlays from new mandatory authority .....	.....	.....	16
4180 Budget authority, net (total) .....	.....	.....	16
4190 Outlays, net (total) .....	.....	.....	16

**Memorandum (non-add) entries:**

5001 Total investments, EOY: Federal securities: Par value .....	.....	.....	-16
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For FY 2023, the Administration will transmit a legislative proposal to provide the remaining balance of the Science, Space, and Technology Education Trust Fund to the Challenger Center for Space Science Education, in combination with repeal of 51 U.S.C. 40901.

**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 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 2023 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 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 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 504 of this Act, shall be treated as a reprogramming under section 504 of this Act and shall not be available for obligation or expenditure except in compliance with the procedures set forth in that section.*

*Of the amounts provided for Orion Multi-purpose Crew Vehicle, up to \$718,000,000 may be transferred to Space Operations for Orion Production and Operations consistent with direction provided in the explanatory statement accom-*

panying this 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 \$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 504 of this act and shall not be available for obligation except in compliance with the procedures set forth in that section.

Section 30102(b) of title 51, United States Code, is amended by:

- (1) Redesignating existing paragraph (3) to (4); and
- (2) Inserting, after paragraph (2), the following:

(3) **INFORMATION TECHNOLOGY (IT) MODERNIZATION.**—The fund shall also be available for the purpose of funding IT Modernization activities, as described in section 1077(b)(3)(A)–(E) of Public Law 115–91, on a non-reimbursable basis.

Not to exceed \$18,162,000 made available for the current fiscal year in this Act within "Safety, Security and Mission Services" may be transferred to the Working Capital Fund of the National Aeronautics and Space Administration. Balances so transferred shall be available until expended only for activities described in section

30102(b)(3) of title 51, United States Code, as amended by this Act, and shall remain available until expended. Any transfer pursuant to this provision shall be treated as a reprogramming of funds under section 504 of this Act and shall not be available for obligation except in compliance with the procedures set forth in that section.

## GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)

	2021 actual	2022 est.	2023 est.
Offsetting receipts from the public:			
080-322000 All Other General Fund Proprietary Receipts Including Budget Clearing Accounts .....	2	4	4
General Fund Offsetting receipts from the public .....	2	4	4
Intragovernmental payments:			
080-388500 Undistributed Intragovernmental Payments and Receivables from Cancelled Accounts .....	2	2	2
General Fund Intragovernmental payments .....	2	2	2