

# 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, \$5,865,000,000, to remain available until September 30, 2020.

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

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

Identification code 080–0120–0–1–252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Science .....	5,799	5,726	5,865
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	301	298	361
1021 Recoveries of prior year unpaid obligations .....	34	63	60
1050 Unobligated balance (total) .....	335	361	421
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	5,765	5,726	5,865
1120 Appropriations transferred to other accts CECR [080–0130] .....	–3		
1160 Appropriation, discretionary (total) .....	5,762	5,726	5,865
1930 Total budgetary resources available .....	6,097	6,087	6,286
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	298	361	421
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	3,622	3,858	3,787
3010 New obligations, unexpired accounts .....	5,799	5,726	5,865
3011 Obligations ("upward adjustments"), expired accounts .....	7		
3020 Outlays (gross) .....	–5,523	–5,734	–6,155
3040 Recoveries of prior year unpaid obligations, unexpired .....	–34	–63	–60
3041 Recoveries of prior year unpaid obligations, expired .....	–13		
3050 Unpaid obligations, end of year .....	3,858	3,787	3,437
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	3,622	3,858	3,787
3200 Obligated balance, end of year .....	3,858	3,787	3,437
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	5,762	5,726	5,865
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,245	2,407	2,465
4011 Outlays from discretionary balances .....	3,278	3,327	3,690
4020 Outlays, gross (total) .....	5,523	5,734	6,155
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) .....	5,762	5,726	5,865
4080 Outlays, net (discretionary) .....	5,521	5,734	6,155
4180 Budget authority, net (total) .....	5,762	5,726	5,865
4190 Outlays, net (total) .....	5,521	5,734	6,155

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, and Astrophysics. These programs, which are managed by the Science Mission Directorate, seek to answer

fundamental questions 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 new 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, procurement, and test and fabrication costs. 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	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	238	260	249
11.3 Other than full-time permanent .....	3	3	3
11.5 Other personnel compensation .....	1	1	1
11.9 Total personnel compensation .....	242	264	253
12.1 Civilian personnel benefits .....	76	76	79
21.0 Travel and transportation of persons .....	23	24	24
22.0 Transportation of things .....	4	5	5
23.2 Rental payments to others .....	9	8	8
23.3 Communications, utilities, and miscellaneous charges .....	4	4	4
24.0 Printing and reproduction .....	1	1	1
25.1 Advisory and assistance services .....	90	77	80
25.2 Other services from non-Federal sources .....	217	91	93
25.3 Other goods and services from Federal sources .....	218	239	246
25.4 Operation and maintenance of facilities .....	21	9	9
25.5 Research and development contracts .....	4,047	4,055	4,166
25.7 Operation and maintenance of equipment .....	104	102	105
26.0 Supplies and materials .....	31	26	27
31.0 Equipment .....	31	32	33
32.0 Land and structures .....	1	1	1
41.0 Grants, subsidies, and contributions .....	680	712	731
99.9 Total new obligations, unexpired accounts .....	5,799	5,726	5,865

#### Employment Summary

Identification code 080–0120–0–1–252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	1,888	1,875	1,876

## 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, \$608,900,000, to remain available until September 30, 2020.

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 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	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Aeronautics .....	660	656	609
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	11	12	12
1021 Recoveries of prior year unpaid obligations .....	5		
1050 Unobligated balance (total) .....	16	12	12
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	660	656	609
1120 Appropriations transferred to other acct CECR [080–0130] .....	–4		
1160 Appropriation, discretionary (total) .....	656	656	609
1930 Total budgetary resources available .....	672	668	621
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	12	12	12
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	344	369	389
3010 New obligations, unexpired accounts .....	660	656	609
3011 Obligations ("upward adjustments"), expired accounts .....	1		
3020 Outlays (gross) .....	–629	–636	–609
3040 Recoveries of prior year unpaid obligations, unexpired .....	–5		
3041 Recoveries of prior year unpaid obligations, expired .....	–2		
3050 Unpaid obligations, end of year .....	369	389	389
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	344	369	389
3200 Obligated balance, end of year .....	369	389	389
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	656	656	609
Outlays, gross:			
4010 Outlays from new discretionary authority .....	340	321	298
4011 Outlays from discretionary balances .....	289	315	311
4020 Outlays, gross (total) .....	629	636	609
4180 Budget authority, net (total) .....	656	656	609
4190 Outlays, net (total) .....	629	636	609

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, and Transformative Aeronautics Concepts. Full costs of these programs cover all of the research; development; operations; salaries and related expenses; and other general and administrative activities required to execute the programs. Costs include labor, travel, procurement, test, and fabrication costs. 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	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
Personnel compensation:			
11.1 Full-time permanent .....	159	117	109
11.3 Other than full-time permanent .....	3	2	2
11.9 Total personnel compensation .....	162	119	111
12.1 Civilian personnel benefits .....	50	37	34
21.0 Travel and transportation of persons .....	6	5	5
23.3 Communications, utilities, and miscellaneous charges .....	7	7	6
25.1 Advisory and assistance services .....	11	21	20
25.2 Other services from non-Federal sources .....	48	41	39
25.3 Other goods and services from Federal sources .....	5	5	5
25.4 Operation and maintenance of facilities .....	26	23	21
25.5 Research and development contracts .....	230	274	254
25.7 Operation and maintenance of equipment .....	37	34	31
26.0 Supplies and materials .....	23	22	20

31.0 Equipment .....	30	31	29
32.0 Land and structures .....	1	2	2
41.0 Grants, subsidies, and contributions .....	24	35	32
99.9 Total new obligations, unexpired accounts .....	660	656	609

**Employment Summary**

Identification code 080–0126–0–1–402	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	1,375	1,356	1,330

**EXPLORATION RESEARCH AND 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, \$912,700,000, to remain available until September 30, 2020.*

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

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

Identification code 080–0131–0–1–252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Space Technology .....	719	682	913
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	71	42	42
1021 Recoveries of prior year unpaid obligations .....	3		
1050 Unobligated balance (total) .....	74	42	42
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	687	682	913
1930 Total budgetary resources available .....	761	724	955
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	42	42	42
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	485	500	518
3010 New obligations, unexpired accounts .....	719	682	913
3011 Obligations ("upward adjustments"), expired accounts .....	1		
3020 Outlays (gross) .....	–699	–664	–764
3040 Recoveries of prior year unpaid obligations, unexpired .....	–3		
3041 Recoveries of prior year unpaid obligations, expired .....	–3		
3050 Unpaid obligations, end of year .....	500	518	667
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	485	500	518
3200 Obligated balance, end of year .....	500	518	667
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	687	682	913
Outlays, gross:			
4010 Outlays from new discretionary authority .....	281	239	320
4011 Outlays from discretionary balances .....	418	425	444
4020 Outlays, gross (total) .....	699	664	764
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) .....	687	682	913
4080 Outlays, net (discretionary) .....	698	664	764
4180 Budget authority, net (total) .....	687	682	913
4190 Outlays, net (total) .....	698	664	764

The FY 2019 President's Budget includes a new account structure for human space exploration and technology programs to improve alignment of funding with NASA's new strategic space exploration objectives. It re-names the Space Operations, Exploration, and Space Technology accounts as LEO and Spaceflight Operations, Deep Space Exploration Systems, and Exploration Research and Technology, and realigns some program funding. As part of this realignment, NASA also plans to restructure the Human Exploration and Operations Mission Directorate and Space Technology Mission Directorate.

This appropriation provides for the costs associated with the research and technology development needed for space exploration. 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 Exploration Research and Technology enable new missions by drawing on talent from the NASA workforce, academia, small businesses and the broader space enterprise to deliver innovative solutions that dramatically improve technological capabilities for NASA and the Nation, in addition to developing technologies and countermeasures to keep astronauts healthy and functional during deep space. The Exploration Research and Technology appropriation funds several programs: Small Business Innovative Research (SBIR), Small Business Technology Transfer (STTR), Early Stage Innovation & Partnerships, Technology Maturation, Technology Demonstrations, and Human Research Program (HRP). The Human Research Program and some technology efforts were previously included in the Exploration account, which is now Deep Space Exploration Systems. 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	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
<b>Personnel compensation:</b>			
11.1 Full-time permanent .....	86	82	94
11.3 Other than full-time permanent .....	1	1	1
11.9 Total personnel compensation .....	87	83	95
12.1 Civilian personnel benefits .....	27	27	31
21.0 Travel and transportation of persons .....	5	4	10
22.0 Transportation of things .....	3	2	2
25.1 Advisory and assistance services .....	27	25	31
25.2 Other services from non-Federal sources .....	37	41	44
25.3 Other goods and services from Federal sources .....	7	6	10
25.4 Operation and maintenance of facilities .....	3	4	5
25.5 Research and development contracts .....	436	411	560
25.7 Operation and maintenance of equipment .....	20	18	30
26.0 Supplies and materials .....	8	6	9
31.0 Equipment .....	16	15	16
41.0 Grants, subsidies, and contributions .....	43	40	70
99.9 Total new obligations, unexpired accounts .....	719	682	913

#### Employment Summary

Identification code 080-0131-0-1-252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	733	680	922

#### 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, \$4,558,800,000, to remain available until September 30, 2020.*

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115-56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0124-0-1-252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Exploration .....	4,317	4,295	4,559
<b>Budgetary resources:</b>			
<b>Unobligated balance:</b>			
1000 Unobligated balance brought forward, Oct 1 .....	43	81	187
1021 Recoveries of prior year unpaid obligations .....	31	106	106
1050 Unobligated balance (total) .....	74	187	293
<b>Budget authority:</b>			
<b>Appropriations, discretionary:</b>			
1100 Appropriation .....	4,324	4,295	4,559
1930 Total budgetary resources available .....	4,398	4,482	4,852
<b>Memorandum (non-add) entries:</b>			
1941 Unexpired unobligated balance, end of year .....	81	187	293
<b>Change in obligated balance:</b>			
<b>Unpaid obligations:</b>			
3000 Unpaid obligations, brought forward, Oct 1 .....	1,270	1,402	1,329
3010 New obligations, unexpired accounts .....	4,317	4,295	4,559
3011 Obligations ("upward adjustments"), expired accounts .....	2		
3020 Outlays (gross) .....	-4,152	-4,262	-4,528
3040 Recoveries of prior year unpaid obligations, unexpired .....	-31	-106	-106
3041 Recoveries of prior year unpaid obligations, expired .....	-4		
3050 Unpaid obligations, end of year .....	1,402	1,329	1,254
<b>Memorandum (non-add) entries:</b>			
3100 Obligated balance, start of year .....	1,270	1,402	1,329
3200 Obligated balance, end of year .....	1,402	1,329	1,254
<b>Budget authority and outlays, net:</b>			
<b>Discretionary:</b>			
4000 Budget authority, gross .....	4,324	4,295	4,559
<b>Outlays, gross:</b>			
4010 Outlays from new discretionary authority .....	2,886	2,878	3,055
4011 Outlays from discretionary balances .....	1,266	1,384	1,473
4020 Outlays, gross (total) .....	4,152	4,262	4,528
4180 Budget authority, net (total) .....	4,324	4,295	4,559
4190 Outlays, net (total) .....	4,152	4,262	4,528

The FY 2019 President's Budget includes a new account structure for human space exploration and technology program to improve alignment of funding with NASA's new strategic space exploration objectives. It re-names the Space Operations, Exploration, and Space Technology accounts as LEO and Spaceflight Operations, Deep Space Exploration Systems, and Exploration Research and Technology, and realigns some program funding. As part of this realignment, NASA also plans to restructure the Human Exploration and Operations Mission Directorate and Space Technology Mission Directorate.

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.

NASA's human space exploration programs include the Space Launch System, Orion, Exploration Ground Systems under the Exploration Systems Development theme, as well as cislunar and lunar surface programs. The Human Research Program and some technology programs that were previously included in the Exploration account are now reflected in the Exploration Research and Technology account.

## DEEP SPACE EXPLORATION SYSTEMS—Continued

## Object Classification (in millions of dollars)

Identification code 080–0124–0–1–252	2017 actual	2018 est.	2019 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	320	337	327
11.3 Other than full-time permanent .....	2	2	2
11.5 Other personnel compensation .....	2	1	2
11.8 Special personal services payments .....		1	
11.9 Total personnel compensation .....	324	341	331
12.1 Civilian personnel benefits .....	105	109	107
21.0 Travel and transportation of persons .....	13	13	15
22.0 Transportation of things .....	1	1	1
23.3 Communications, utilities, and miscellaneous charges .....	17	14	15
25.1 Advisory and assistance services .....	466	442	473
25.2 Other services from non-Federal sources .....	52	45	49
25.3 Other goods and services from Federal sources .....	42	40	43
25.4 Operation and maintenance of facilities .....	108	103	110
25.5 Research and development contracts .....	2,850	2,858	3,063
25.7 Operation and maintenance of equipment .....	142	148	159
26.0 Supplies and materials .....	32	26	28
31.0 Equipment .....	46	44	47
32.0 Land and structures .....	62	52	55
41.0 Grants, subsidies, and contributions .....	57	59	63
99.9 Total new obligations, unexpired accounts .....	4,317	4,295	4,559

## Employment Summary

Identification code 080–0124–0–1–252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	2,701	2,651	2,549

## EDUCATION

Unobligated balances previously appropriated under this heading shall be available for purposes of the closure of the Office of Education, including but not limited to, ongoing administration, oversight, monitoring, and funding of grants previously awarded by the Office of Education.

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

## Program and Financing (in millions of dollars)

Identification code 080–0128–0–1–252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Education .....	105	99	
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	11	8	12
1021 Recoveries of prior year unpaid obligations .....	2	4	4
1050 Unobligated balance (total) .....	13	12	16
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	100	99	
1930 Total budgetary resources available .....	113	111	16
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	8	12	16
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	180	157	51
3010 New obligations, unexpired accounts .....	105	99	
3020 Outlays (gross) .....	–124	–201	–47
3040 Recoveries of prior year unpaid obligations, unexpired .....	–2	–4	–4
3041 Recoveries of prior year unpaid obligations, expired .....	–2		
3050 Unpaid obligations, end of year .....	157	51	
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	180	157	51
3200 Obligated balance, end of year .....	157	51	
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	100	99	

Outlays, gross:			
4010 Outlays from new discretionary authority .....	12	99	
4011 Outlays from discretionary balances .....	112	102	47
4020 Outlays, gross (total) .....	124	201	47
4180 Budget authority, net (total) .....	100	99	
4190 Outlays, net (total) .....	124	201	47

The Budget proposes the termination of the Office of Education and its portfolio of programs and projects. Unobligated balances previously appropriated under this heading may be used to support close-out costs. Moving forward, a small team at NASA headquarters funded out of Agency Management and Operations will be accountable for strategic direction and coordination of the agency's STEM engagement efforts.

## Object Classification (in millions of dollars)

Identification code 080–0128–0–1–252	2017 actual	2018 est.	2019 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent .....	5	3	
11.8 Special personal services payments .....	1	1	
11.9 Total personnel compensation .....	6	4	
12.1 Civilian personnel benefits .....	1	2	
25.1 Advisory and assistance services .....	2	4	
25.2 Other services from non-Federal sources .....	4	6	
25.5 Research and development contracts .....	4	6	
25.7 Operation and maintenance of equipment .....	1	2	
41.0 Grants, subsidies, and contributions .....	87	75	
99.9 Total new obligations, unexpired accounts .....	105	99	

## Employment Summary

Identification code 080–0128–0–1–252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	51	30	

## 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, \$2,749,700,000, to remain available until September 30, 2020.

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

## Program and Financing (in millions of dollars)

Identification code 080–0122–0–1–252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Cross Agency Support (Direct) .....	2,777	2,750	2,750
0801 Cross Agency Support (Reimbursable) .....	2,357	2,816	2,051
0900 Total new obligations, unexpired accounts .....	5,134	5,566	4,801
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	303	451	499
1021 Recoveries of prior year unpaid obligations .....	32	48	48
1050 Unobligated balance (total) .....	335	499	547
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	2,769	2,750	2,750
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	2,238	2,816	2,051

1701	Change in uncollected payments, Federal sources .....	243		
1750	Spending auth from offsetting collections, disc (total) .....	2,481	2,816	2,051
1900	Budget authority (total) .....	5,250	5,566	4,801
1930	Total budgetary resources available .....	5,585	6,065	5,348
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year .....	451	499	547
<b>Change in obligated balance:</b>				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1 .....	2,226	2,185	2,847
3010	New obligations, unexpired accounts .....	5,134	5,566	4,801
3011	Obligations ("upward adjustments"), expired accounts .....	9		
3020	Outlays (gross) .....	-5,145	-4,856	-5,905
3040	Recoveries of prior year unpaid obligations, unexpired .....	-32	-48	
3041	Recoveries of prior year unpaid obligations, expired .....	-7		
3050	Unpaid obligations, end of year .....	2,185	2,847	1,695
Uncollected payments:				
3060	Uncollected pymts, Fed sources, brought forward, Oct 1 .....	-1,443	-1,613	-1,613
3070	Change in uncollected pymts, Fed sources, unexpired .....	-243		
3071	Change in uncollected pymts, Fed sources, expired .....	73		
3090	Uncollected pymts, Fed sources, end of year .....	-1,613	-1,613	-1,613
Memorandum (non-add) entries:				
3100	Obligated balance, start of year .....	783	572	1,234
3200	Obligated balance, end of year .....	572	1,234	82
<b>Budget authority and outlays, net:</b>				
Discretionary:				
4000	Budget authority, gross .....	5,250	5,566	4,801
Outlays, gross:				
4010	Outlays from new discretionary authority .....	2,990	3,157	2,897
4011	Outlays from discretionary balances .....	2,155	1,699	3,008
4020	Outlays, gross (total) .....	5,145	4,856	5,905
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources .....	-2,091	-2,548	-1,846
4033	Non-Federal sources .....	-220	-268	-205
4040	Offsets against gross budget authority and outlays (total) ....	-2,311	-2,816	-2,051
Additional offsets against gross budget authority only:				
4050	Change in uncollected pymts, Fed sources, unexpired .....	-243		
4052	Offsetting collections credited to expired accounts .....	73		
4060	Additional offsets against budget authority only (total) .....	-170		
4070	Budget authority, net (discretionary) .....	2,769	2,750	2,750
4080	Outlays, net (discretionary) .....	2,834	2,040	3,854
4180	Budget authority, net (total) .....	2,769	2,750	2,750
4190	Outlays, net (total) .....	2,834	2,040	3,854

Safety, Security, and Mission Services (SSMS) manages agency-wide mission support functions and some of NASA's unique 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.

Under SSMS, Center Management and Operations includes the basic costs to manage and operate each of the nine NASA field centers and to maintain the technical capabilities required to support the Agency's Mission. The SSMS budget is not directly allocated or aligned to specific program or project requirements, but is centralized for efficient and effective administration and operation of the NASA Centers.

Under SSMS, Agency Management and Operations provides for the management and oversight of corporate programs, the performance of agency-wide activities and functions, and the maintenance of unique research capabilities and facilities. Responsibilities include budget formulation and execution; establishment of management policies, procedures, and performance criteria; evaluation of progress; and coordination and integration of the Agency's activities.

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

Identification code 080-0122-0-1-252	2017 actual	2018 est.	2019 est.
Direct obligations:			
Personnel compensation:			
11.1	Full-time permanent .....	883	994
11.3	Other than full-time permanent .....	17	20
11.5	Other personnel compensation .....	30	29
11.8	Special personal services payments .....		1

11.9	Total personnel compensation .....	930	1,044	915
12.1	Civilian personnel benefits .....	281	314	278
13.0	Benefits for former personnel .....	1	1	1
21.0	Travel and transportation of persons .....	22	19	22
22.0	Transportation of things .....	2	2	2
23.1	Rental payments to GSA .....	7	6	7
23.2	Rental payments to others .....	22	20	22
23.3	Communications, utilities, and miscellaneous charges .....	59	53	59
24.0	Printing and reproduction .....	3	3	3
25.1	Advisory and assistance services .....	249	222	247
25.2	Other services from non-Federal sources .....	264	234	261
25.3	Other goods and services from Federal sources .....	49	43	48
25.4	Operation and maintenance of facilities .....	220	195	217
25.5	Research and development contracts .....	176	157	175
25.6	Medical care .....	8	7	8
25.7	Operation and maintenance of equipment .....	403	357	405
26.0	Supplies and materials .....	16	15	16
31.0	Equipment .....	33	29	32
32.0	Land and structures .....	16	15	16
41.0	Grants, subsidies, and contributions .....	16	14	16
99.0	Direct obligations .....	2,777	2,750	2,750
99.0	Reimbursable obligations .....	2,357	2,816	2,051
99.9	Total new obligations, unexpired accounts .....	5,134	5,566	4,801

#### Employment Summary

Identification code 080-0122-0-1-252	2017 actual	2018 est.	2019 est.
1001	Direct civilian full-time equivalent employment .....	7,337	7,690
2001	Reimbursable civilian full-time equivalent employment .....	326	263

#### 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, \$348,200,000, to remain available until September 30, 2024: 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 2019 in an amount not to exceed \$9,470,300: 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 2018 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, 2018 (Division D of P.L. 115-56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0130-0-1-252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001	Construction and Environmental Compliance and Restoration (Direct) .....	439	408
0801	Construction and Environmental Compliance and Restoration (Reimbursable) .....	4	9
0900	Total new obligations, unexpired accounts .....	443	417
<b>Budgetary resources:</b>			
Unobligated balance:			
1000	Unobligated balance brought forward, Oct 1 .....	134	269
1021	Recoveries of prior year unpaid obligations .....	14	62
1050	Unobligated balance (total) .....	148	331
Budget authority:			
Appropriations, discretionary:			
1100	Appropriation .....	544	358
1121	Appropriations transferred from other acct Space Operations [080-0115] .....	8	
1121	Appropriations transferred from other acct Aeronautics [080-0126] .....	4	
1121	Appropriations transferred from other acct Science [080-0120] .....	3	
1160	Appropriation, discretionary (total) .....	559	358
1700	Spending authority from offsetting collections, discretionary: Collected .....	5	9

CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION—Continued  
Program and Financing—Continued

Identification code 080–0130–0–1–252	2017 actual	2018 est.	2019 est.
1900 Budget authority (total) .....	564	367	357
1930 Total budgetary resources available .....	712	698	700
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	269	281	293
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	719	658	652
3010 New obligations, unexpired accounts .....	443	417	407
3020 Outlays (gross) .....	–490	–361	–483
3040 Recoveries of prior year unpaid obligations, unexpired .....	–14	–62	–62
3050 Unpaid obligations, end of year .....	658	652	514
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	719	658	652
3200 Obligated balance, end of year .....	658	652	514
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	564	367	357
Outlays, gross:			
4010 Outlays from new discretionary authority .....	45	22	22
4011 Outlays from discretionary balances .....	445	339	461
4020 Outlays, gross (total) .....	490	361	483
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources .....	–5	–9	–9
4180 Budget authority, net (total) .....	559	358	348
4190 Outlays, net (total) .....	485	352	474

This appropriation provides for NASA's construction and environmental compliance and restoration activities, and makes available to use the net proceeds from Enhanced Use Leases for maintenance, capital revitalization, and improvement of real property assets and related personal property at NASA Centers received under the authority of section 20145 of the National Aeronautics and Space Act (51 U.S.C. 20145). The funding provides for all of the research; development; operations; design, repair, rehabilitation, modification of facilities, and construction of new facilities; and other general and administrative activities required to execute the programs within this account.

## Object Classification (in millions of dollars)

Identification code 080–0130–0–1–252	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
23.3 Communications, utilities, and miscellaneous charges .....	1	1	1
25.1 Advisory and assistance services .....	33	31	30
25.2 Other services from non-Federal sources .....	17	16	16
25.3 Other goods and services from Federal sources .....	20	18	18
25.4 Operation and maintenance of facilities .....	93	86	84
25.5 Research and development contracts .....	8	8	8
25.7 Operation and maintenance of equipment .....	22	20	20
31.0 Equipment .....	2	1	1
32.0 Land and structures .....	243	227	220
99.0 Direct obligations .....	439	408	398
99.0 Reimbursable obligations .....	4	9	9
99.9 Total new obligations, unexpired accounts .....	443	417	407

## LEO AND SPACEFLIGHT 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, \$4,509,600,000, to remain available until September 30, 2020.

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

## Program and Financing (in millions of dollars)

Identification code 080–0115–0–1–252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Space Operations .....	4,996	4,917	4,510
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	104	91	449
1021 Recoveries of prior year unpaid obligations .....	39	358	108
1033 Recoveries of prior year paid obligations .....	1		
1050 Unobligated balance (total) .....	144	449	557
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....	4,951	4,917	4,510
1120 Appropriations transferred to other accts CECR [080–0130] .....	–8		
1160 Appropriation, discretionary (total) .....	4,943	4,917	4,510
1900 Budget authority (total) .....	4,943	4,917	4,510
1930 Total budgetary resources available .....	5,087	5,366	5,067
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	91	449	557
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	1,717	2,431	1,567
3010 New obligations, unexpired accounts .....	4,996	4,917	4,510
3011 Obligations ("upward adjustments"), expired accounts .....	7		
3020 Outlays (gross) .....	–4,242	–5,423	–4,716
3040 Recoveries of prior year unpaid obligations, unexpired .....	–39	–358	–108
3041 Recoveries of prior year unpaid obligations, expired .....	–8		
3050 Unpaid obligations, end of year .....	2,431	1,567	1,253
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	1,717	2,431	1,567
3200 Obligated balance, end of year .....	2,431	1,567	1,253
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	4,943	4,917	4,510
Outlays, gross:			
4010 Outlays from new discretionary authority .....	2,589	3,147	2,887
4011 Outlays from discretionary balances .....	1,652	2,276	1,829
4020 Outlays, gross (total) .....	4,241	5,423	4,716
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources .....	–5		
4040 Offsets against gross budget authority and outlays (total) ...	–5		
Additional offsets against gross budget authority only:			
4052 Offsetting collections credited to expired accounts .....	4		
4053 Recoveries of prior year paid obligations, unexpired accounts .....	1		
4060 Additional offsets against budget authority only (total) .....	5		
4070 Budget authority, net (discretionary) .....	4,943	4,917	4,510
4080 Outlays, net (discretionary) .....	4,236	5,423	4,716
Mandatory:			
Outlays, gross:			
4101 Outlays from mandatory balances .....	1		
4180 Budget authority, net (total) .....	4,943	4,917	4,510
4190 Outlays, net (total) .....	4,237	5,423	4,716

The FY 2019 President's Budget includes a new account structure for human space exploration and technology programs to improve alignment of funding with NASA's new strategic space exploration objectives. It re-names the Space Operations, Exploration, and Space Technology accounts as LEO and Spaceflight Operations, Deep Space Exploration Systems, and Exploration Research and Technology, and realigns some program funding. As part of this realignment, NASA also plans to restructure the Human Exploration and Operations Mission Directorate and Space Technology Mission Directorate.

This appropriation provides for the full costs associated with Low Earth Orbit (LEO) and spaceflight operations activities of the agency. The full

costs include all labor, travel, procurement, test, and fabrication costs to execute these programs, which provide for all of the research, development, operations, salaries and related expenses, and other general and administrative activities supporting the programs within this account. Major themes within the LEO and Spaceflight 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 unique to the on-orbit attributes of the facility.

Space Transportation's objective is to transport U.S. astronauts and cargo safely back and forth to the ISS and potentially, in the future, to other orbital platforms and destinations. This theme includes the Commercial Crew Program and Crew and Cargo Program. Maintaining the ISS requires a fleet of vehicles and launch locations to transport astronauts, science experiments, critical 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 to the ISS under commercial resupply services contracts with Orbital ATK, SpaceX, and Sierra Nevada and purchases crew transportation from the Russian Roscosmos State Corporation, Boeing, and SpaceX. Payments to develop and test commercial crew vehicles, and for initial Post Certification Missions (PCMs) 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, 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 commercial customers.

Commercial LEO Development will support 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.

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

Identification code 080-0115-0-1-252	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
<b>Personnel compensation:</b>			
11.1 Full-time permanent .....	293	309	296
11.3 Other than full-time permanent .....	3	2	3
11.5 Other personnel compensation .....	2	2	2
11.9 Total personnel compensation .....	298	313	301
12.1 Civilian personnel benefits .....	95	98	96
21.0 Travel and transportation of persons .....	15	13	12
22.0 Transportation of things .....	1,594	1,493	1,362
23.2 Rental payments to others .....	2	3	3
23.3 Communications, utilities, and miscellaneous charges .....	4	4	4
24.0 Printing and reproduction .....	1	1	.....
25.1 Advisory and assistance services .....	95	84	77
25.2 Other services from non-Federal sources .....	149	127	116
25.3 Other goods and services from Federal sources .....	29	25	23
25.4 Operation and maintenance of facilities .....	49	37	34
25.5 Research and development contracts .....	2,362	2,414	2,204
25.7 Operation and maintenance of equipment .....	225	233	212
26.0 Supplies and materials .....	18	19	17
31.0 Equipment .....	13	16	15
32.0 Land and structures .....	7	5	4
41.0 Grants, subsidies, and contributions .....	40	32	30
99.9 Total new obligations, unexpired accounts .....	4,996	4,917	4,510

#### Employment Summary

Identification code 080-0115-0-1-252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	2,407	2,404	2,252

#### OFFICE OF INSPECTOR GENERAL

*For necessary expenses of the Office of Inspector General in carrying out the Inspector General Act of 1978, \$39,300,000, to remain available until September 30, 2020.*

Note.—A full-year 2018 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, 2018 (Division D of P.L. 115-56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

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

Identification code 080-0109-0-1-252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Office of Inspector General (Direct) .....	38	38	39
0801 Office of Inspector General (Reimbursable) .....	1	2	2
0900 Total new obligations, unexpired accounts .....	39	40	41
<b>Budgetary resources:</b>			
<b>Budget authority:</b>			
<b>Appropriations, discretionary:</b>			
1100 Appropriation .....	38	38	39
<b>Spending authority from offsetting collections, discretionary:</b>			
1700 Collected .....	1	2	2
1900 Budget authority (total) .....	39	40	41
1930 Total budgetary resources available .....	39	40	41
<b>Change in obligated balance:</b>			
<b>Unpaid obligations:</b>			
3000 Unpaid obligations, brought forward, Oct 1 .....	4	4	4
3010 New obligations, unexpired accounts .....	39	40	41
3011 Obligations ("upward adjustments"), expired accounts .....	1	.....	.....
3020 Outlays (gross) .....	-39	-40	-41
3041 Recoveries of prior year unpaid obligations, expired .....	-1	.....	.....
3050 Unpaid obligations, end of year .....	4	4	4
<b>Memorandum (non-add) entries:</b>			
3100 Obligated balance, start of year .....	4	4	4
3200 Obligated balance, end of year .....	4	4	4
<b>Budget authority and outlays, net:</b>			
<b>Discretionary:</b>			
4000 Budget authority, gross .....	39	40	41
<b>Outlays, gross:</b>			
4010 Outlays from new discretionary authority .....	35	36	37
4011 Outlays from discretionary balances .....	4	4	4
4020 Outlays, gross (total) .....	39	40	41
<b>Offsets against gross budget authority and outlays:</b>			
<b>Offsetting collections (collected) from:</b>			
4030 Federal sources .....	-1	-2	-2
4180 Budget authority, net (total) .....	38	38	39
4190 Outlays, net (total) .....	38	38	39

This appropriation provides for the full costs associated with 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	2017 actual	2018 est.	2019 est.
<b>Direct obligations:</b>			
11.1 Personnel compensation: Full-time permanent .....	23	23	24
12.1 Civilian personnel benefits .....	9	9	9
21.0 Travel and transportation of persons .....	1	1	1
25.2 Other services from non-Federal sources .....	3	3	3
25.3 Other goods and services from Federal sources .....	1	1	1
25.7 Operation and maintenance of equipment .....	1	1	1

## OFFICE OF INSPECTOR GENERAL—Continued

## Object Classification—Continued

Identification code 080–0109–0–1–252	2017 actual	2018 est.	2019 est.
99.0 Direct obligations .....	38	38	39
99.0 Reimbursable obligations .....	1	2	2
99.9 Total new obligations, unexpired accounts .....	39	40	41

## Employment Summary

Identification code 080–0109–0–1–252	2017 actual	2018 est.	2019 est.
1001 Direct civilian full-time equivalent employment .....	186	186	186
2001 Reimbursable civilian full-time equivalent employment .....	6	6	6

## SCIENCE, AERONAUTICS, AND EXPLORATION

## Program and Financing (in millions of dollars)

Identification code 080–0114–0–1–999	2017 actual	2018 est.	2019 est.
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	1	1	1
Budget authority:			
Appropriations, discretionary:			
1131 Unobligated balance of appropriations permanently reduced .....			–1
1930 Total budgetary resources available .....	1	1	
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	1	1	
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	1	1	
3020 Outlays (gross) .....		–1	
3050 Unpaid obligations, end of year .....	1		
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	1	1	
3200 Obligated balance, end of year .....	1		
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....			–1
Outlays, gross:			
4011 Outlays from discretionary balances .....		1	
4180 Budget authority, net (total) .....			–1
4190 Outlays, net (total) .....		1	

The Science, Aeronautics, and Exploration account shows spending from balances prior to the account restructuring. In FY 2019, obligated balances will be transferred and merged into Treasury account 80–0130. Unobligated balances will be returned to Treasury and thereafter, this account will be closed.

## HUMAN SPACE FLIGHT

## Program and Financing (in millions of dollars)

Identification code 080–0111–0–1–252	2017 actual	2018 est.	2019 est.
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	6	1	1
3020 Outlays (gross) .....	–1		
3041 Recoveries of prior year unpaid obligations, expired .....	–4		
3050 Unpaid obligations, end of year .....	1	1	1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	6	1	1
3200 Obligated balance, end of year .....	1	1	1
<b>Budget authority and outlays, net:</b>			
Discretionary:			
Outlays, gross:			
4011 Outlays from discretionary balances .....	1		

4180 Budget authority, net (total) .....			
4190 Outlays, net (total) .....	1		

The Human Space Flight account shows spending from balances prior to the account restructuring. In FY 2019, obligated balances will be transferred and merged into Treasury accounts 80–0122, 80–0115 and 80–0130. Unobligated balances will be returned to Treasury and thereafter, this account will be closed.

## SCIENCE, AERONAUTICS AND TECHNOLOGY

## Program and Financing (in millions of dollars)

Identification code 080–0110–0–1–999	2017 actual	2018 est.	2019 est.
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	1	1	1
Budget authority:			
Appropriations, discretionary:			
1131 Unobligated balance of appropriations permanently reduced .....			–1
1930 Total budgetary resources available .....	1	1	
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	1	1	
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	1	1	1
3050 Unpaid obligations, end of year .....	1	1	1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	1	1	1
3200 Obligated balance, end of year .....	1	1	1
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....			–1
4180 Budget authority, net (total) .....			–1
4190 Outlays, net (total) .....			

The Science, Aeronautics, and Technology account shows spending from balances prior to the account restructuring. In FY 2019, obligated balances will be transferred and merged into Treasury account 80–0130. Unobligated balances will be returned to Treasury and thereafter, this account will be closed.

## MISSION SUPPORT

## Program and Financing (in millions of dollars)

Identification code 080–0112–0–1–999	2017 actual	2018 est.	2019 est.
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	1	1	2
1033 Recoveries of prior year paid obligations .....		1	
1050 Unobligated balance (total) .....	1	2	2
Budget authority:			
Appropriations, discretionary:			
1131 Unobligated balance of appropriations permanently reduced .....			–2
1930 Total budgetary resources available .....	1	2	
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	1	2	
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....			–2
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources .....		–1	
Additional offsets against gross budget authority only:			
4053 Recoveries of prior year paid obligations, unexpired accounts .....		1	
4070 Budget authority, net (discretionary) .....			–2
4080 Outlays, net (discretionary) .....		–1	



4180	Budget authority, net (total) .....	-2
4190	Outlays, net (total) .....	-1

The Mission Support account shows spending from residual balances associated with construction of facilities activities prior to 2004.

In FY 2019, obligated balances will be transferred and merged into Treasury accounts 80-0122 and 80-0130. Unobligated balances will be returned to Treasury and thereafter, this account will be closed.

#### WORKING CAPITAL FUND

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

Identification code 080-4546-0-4-252	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0801 Working Capital Fund (Reimbursable) .....	436	504	521
<b>Budgetary resources:</b>			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	13	15	17
1021 Recoveries of prior year unpaid obligations .....	1	3	.....
1050 Unobligated balance (total) .....	14	18	17
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1700 Collected .....	437	503	523
1930 Total budgetary resources available .....	451	521	540
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	15	17	19
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1 .....	168	182	191
3010 New obligations, unexpired accounts .....	436	504	521
3020 Outlays (gross) .....	-421	-492	-517
3040 Recoveries of prior year unpaid obligations, unexpired .....	-1	-3	.....
3050 Unpaid obligations, end of year .....	182	191	195
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	168	182	191
3200 Obligated balance, end of year .....	182	191	195
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	437	503	523
Outlays, gross:			
4010 Outlays from new discretionary authority .....	240	302	314
4011 Outlays from discretionary balances .....	181	190	203
4020 Outlays, gross (total) .....	421	492	517
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources .....	-422	-478	-493
4033 Non-Federal sources .....	-15	-25	-30
4040 Offsets against gross budget authority and outlays (total) ....	-437	-503	-523
4080 Outlays, net (discretionary) .....	-16	-11	-6
4180 Budget authority, net (total) .....	.....	.....	.....
4190 Outlays, net (total) .....	-16	-11	-6

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 Tier 1 service desk 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 at a Tier III level 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	2017 actual	2018 est.	2019 est.
Reimbursable obligations:			
11.1 Personnel compensation: Full-time permanent .....	15	16	16
12.1 Civilian personnel benefits .....	5	6	6
21.0 Travel and transportation of persons .....	1	1	1
23.2 Rental payments to others .....	1	1	1
23.3 Communications, utilities, and miscellaneous charges .....	4	4	4
25.2 Other services from non-Federal sources .....	46	55	60
25.3 Other goods and services from Federal sources .....	1	3	5
25.4 Operation and maintenance of facilities .....	19	25	25
25.7 Operation and maintenance of equipment .....	343	391	401
26.0 Supplies and materials .....	1	2	2
99.9 Total new obligations, unexpired accounts .....	436	504	521

##### Employment Summary

Identification code 080-4546-0-4-252	2017 actual	2018 est.	2019 est.
2001 Reimbursable civilian full-time equivalent employment .....	158	158	158

#### 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	2017 actual	2018 est.	2019 est.
0100 Balance, start of year .....	15	16	16
0198 Rounding adjustment .....	1	.....	.....
0199 Balance, start of year .....	16	16	16
Receipts:			
Current law:			
1140 Earnings on Investments, Science, Space and Technology Education Trust Fund .....	2	1	1
2000 Total: Balances and receipts .....	18	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	2017 actual	2018 est.	2019 est.
<b>Obligations by program activity:</b>			
0001 Science, Space, and Technology Education Trust Fund .....	1	1	1
0900 Total new obligations (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

## SCIENCE, SPACE, AND TECHNOLOGY EDUCATION TRUST FUND—Continued

## Program and Financing—Continued

Identification code 080–8978–0–7–503		2017 actual	2018 est.	2019 est.
<b>Memorandum (non-add) entries:</b>				
5000	Total investments, SOY: Federal securities: Par value .....	16	17	17
5001	Total investments, EOY: Federal securities: Par value .....	17	17	17

## ADMINISTRATIVE PROVISIONS

## (INCLUDING TRANSFERS OF FUNDS)

*Funds for any announced prize otherwise authorized shall remain available, without fiscal year limitation, until the 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, or provided for the National Aeronautics and Space Administration under previous appropriations Acts that remain available for obligation or expenditure in fiscal year 2019, 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 such funds transferred to "Construction and Environmental Compliance and Restoration" for construction activities shall not increase that appropriation 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.*

*The spending plan required by this Act shall be provided by NASA 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.*

## GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)

	2017 actual	2018 est.	2019 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 .....	3	2	2
General Fund Intragovernmental payments .....	3	2	2