

## National Aeronautics and Space Administration President's FY 2011 Budget Request Summary

Budget Authority, \$ in million	FY 2009 Actual	Recovery Act	FY 2010 Enacted	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Science</b>	<b>4,503.0</b>	<b>400.0</b>	<b>4,493.3</b>	<b>5,005.6</b>	<b>5,248.6</b>	<b>5,509.6</b>	<b>5,709.8</b>	<b>5,814.0</b>
Earth Science	1,377.3	325.0	1,420.7	1,801.8	1,944.5	2,089.5	2,216.6	2,282.2
Planetary Science	1,288.1	0.0	1,341.3	1,485.7	1,547.2	1,591.2	1,630.1	1,649.4
Astrophysics	1,229.9	75.0	1,103.9	1,076.3	1,109.3	1,149.1	1,158.7	1,131.6
Heliophysics	607.8	0.0	627.4	641.9	647.6	679.8	704.4	750.8
<b>Aeronautics and Space Research and Technology</b>	<b>500.0</b>	<b>150.0</b>	<b>507.0</b>	<b>1,151.8</b>	<b>1,596.9</b>	<b>1,650.1</b>	<b>1,659.0</b>	<b>1,818.2</b>
Aeronautics Research	500.0	150.0	507.0	579.6	584.7	590.4	595.1	600.3
Space Technology	0.0	0.0	0.0	572.2	1,012.2	1,059.7	1,063.9	1,217.9
<b>Exploration</b>	<b>3,505.5</b>	<b>400.0</b>	<b>3,779.8</b>	<b>4,263.4</b>	<b>4,577.4</b>	<b>4,718.9</b>	<b>4,923.3</b>	<b>5,179.3</b>
Exploration Research and Development	0.0	0.0	0.0	1,551.4	2,577.4	3,318.9	3,623.3	3,979.3
Commercial Spaceflight	0.0	0.0	0.0	812.0	1,400.0	1,400.0	1,300.0	1,300.0
Constellation Transition	0.0	0.0	0.0	1,900.0	600.0	0.0	0.0	0.0
Constellation Systems	3,033.2	400.0	3,325.8	0.0	0.0	0.0	0.0	0.0
Advanced Capabilities	472.3	0.0	454.0	0.0	0.0	0.0	0.0	0.0
<b>Space Operations</b>	<b>5,764.7</b>	<b>0.0</b>	<b>6,180.6</b>	<b>4,887.8</b>	<b>4,290.2</b>	<b>4,253.3</b>	<b>4,362.6</b>	<b>4,130.5</b>
Space Shuttle	2,979.5	0.0	3,139.4	989.1	86.1	0.0	0.0	0.0
International Space Station	2,060.2	0.0	2,317.0	2,779.8	2,983.6	3,129.4	3,221.9	3,182.8
Space and Flight Support	725.0	0.0	724.2	1,119.0	1,220.6	1,123.9	1,140.7	947.7
<b>Education</b>	<b>169.2</b>	<b>0.0</b>	<b>183.8</b>	<b>145.8</b>	<b>145.8</b>	<b>145.7</b>	<b>145.7</b>	<b>146.8</b>
<b>Cross-Agency Support</b>	<b>3,306.4</b>	<b>50.0</b>	<b>3,095.1</b>	<b>3,111.4</b>	<b>3,189.6</b>	<b>3,276.8</b>	<b>3,366.5</b>	<b>3,462.2</b>
Center Mgmt & Ops	2,024.3	0.0	2,067.0	2,270.2	2,347.4	2,427.7	2,509.7	2,594.3
Agency Mgmt & Ops	921.2	0.0	941.7	841.2	842.2	849.1	856.8	867.9
Institutional Investments	293.7	50.0	23.4	0.0	0.0	0.0	0.0	0.0
Congressionally Directed Items	67.2	0.0	63.0	0.0	0.0	0.0	0.0	0.0
<b>Construction and Environmental Compliance and Restoration</b>	<b>0.0</b>	<b>0.0</b>	<b>448.3</b>	<b>397.3</b>	<b>363.8</b>	<b>366.9</b>	<b>393.5</b>	<b>398.5</b>
Construction of Facilities	0.0	0.0	381.1	335.2	316.3	319.5	344.6	349.0
Environmental Compliance and Restoration	0.0	0.0	67.2	62.1	47.5	47.4	48.9	49.5
<b>Inspector General</b>	<b>33.6</b>	<b>2.0</b>	<b>36.4</b>	<b>37.0</b>	<b>37.8</b>	<b>38.7</b>	<b>39.6</b>	<b>40.5</b>
<b>NASA FY 2011</b>	<b>17,782.4</b>	<b>1,002.0</b>	<b>18,724.3</b>	<b>19,000.0</b>	<b>19,450.0</b>	<b>19,960.0</b>	<b>20,600.0</b>	<b>20,990.0</b>
Year to Year Change			5.3%	1.5%	2.4%	2.6%	3.2%	1.9%

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# National Aeronautics and Space Administration

## President's FY 2011 Budget Request Detail

Budget Authority, \$ in million	FY 2009 Actual	FY 2010 Enacted	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Science</b>	<b>4,903.0</b>	<b>4,493.3</b>	<b>5,005.6</b>	<b>5,248.6</b>	<b>5,509.6</b>	<b>5,709.8</b>	<b>5,814.0</b>
<b>Earth Science</b>	<b>1,702.3</b>	<b>1,420.7</b>	<b>1,801.8</b>	<b>1,944.5</b>	<b>2,089.5</b>	<b>2,216.6</b>	<b>2,282.2</b>
<i>Earth Science Research</i>	<u>437.4</u>	<u>383.3</u>	<u>438.1</u>	<u>489.6</u>	<u>513.6</u>	<u>523.4</u>	<u>543.3</u>
Earth Science Research and Analysis	313.7	278.9	324.6	348.2	365.9	391.0	406.4
Computing and Management	123.7	104.4	113.5	141.4	147.8	132.4	136.9
<i>Earth Systematic Missions</i>	<u>893.7</u>	<u>723.4</u>	<u>809.3</u>	<u>993.9</u>	<u>1,120.8</u>	<u>1,226.8</u>	<u>1,223.5</u>
Global Precipitation Measurement (GPM)	143.8	155.6	128.8	125.7	90.0	52.8	35.7
Glory Mission	61.0	27.1	21.9	5.5	7.7	8.3	8.6
Landsat Data Continuity Mission (LDCM)	200.9	120.6	156.8	157.9	69.5	3.1	3.1
NPOESS Preparatory Project (NPP)	42.2	104.6	64.4	5.2	5.1	5.1	5.4
Ice, Cloud, and land Elevation Satellite (ICESat-2)	38.8	39.2	68.5	116.0	178.6	153.9	94.9
Soil Moisture Active and Passive (SMAP)	103.3	70.0	82.5	139.0	163.8	80.0	10.0
Other Missions and Data Analysis	303.6	206.3	286.5	444.7	606.0	923.6	1,065.9
<i>Earth System Science Pathfinder</i>	<u>122.1</u>	<u>86.0</u>	<u>303.8</u>	<u>204.3</u>	<u>196.4</u>	<u>190.1</u>	<u>228.9</u>
Aquarius	46.9	18.3	17.0	5.4	5.2	2.4	4.6
OCO-2	0.0	25.0	171.0	91.0	51.0	13.0	4.0
Venture Class Missions	21.0	12.9	79.5	75.1	106.9	140.5	185.3
Other Missions and Data Analysis	54.3	29.8	36.2	32.7	33.4	34.2	35.0
<i>Earth Science Multi-Mission Operations</i>	<u>146.0</u>	<u>149.9</u>	<u>161.2</u>	<u>164.5</u>	<u>160.5</u>	<u>165.8</u>	<u>169.8</u>
Earth Science Multi-Mission Operations	146.0	149.9	161.2	164.5	160.5	165.8	169.8
<i>Earth Science Technology</i>	<u>55.3</u>	<u>45.9</u>	<u>52.8</u>	<u>53.9</u>	<u>57.1</u>	<u>64.7</u>	<u>68.0</u>
Earth Science Technology	55.3	45.9	52.8	53.9	57.1	64.7	68.0
<i>Applied Sciences</i>	<u>47.8</u>	<u>32.2</u>	<u>36.6</u>	<u>38.3</u>	<u>41.1</u>	<u>45.9</u>	<u>48.7</u>
Pathways	47.8	32.2	36.6	38.3	41.1	45.9	48.7
<b>Planetary Science</b>	<b>1,288.1</b>	<b>1,341.3</b>	<b>1,485.7</b>	<b>1,547.2</b>	<b>1,591.2</b>	<b>1,630.1</b>	<b>1,649.4</b>
<i>Planetary Science Research</i>	<u>166.2</u>	<u>160.7</u>	<u>180.4</u>	<u>190.8</u>	<u>195.2</u>	<u>214.2</u>	<u>240.9</u>
Planetary Science Research and Analysis	135.6	132.1	131.0	139.0	142.4	147.4	150.4
Other Missions and Data Analysis	19.5	21.4	23.9	23.7	23.4	30.2	29.0
Education and Directorate Management	7.4	1.4	5.1	7.7	8.9	16.0	40.8
Near Earth Object Observations	3.7	5.8	20.3	20.4	20.5	20.6	20.7
<i>Lunar Quest Program</i>	<u>69.1</u>	<u>103.6</u>	<u>136.6</u>	<u>136.4</u>	<u>131.7</u>	<u>109.7</u>	<u>110.5</u>
Lunar Science	28.9	33.3	74.7	77.6	108.7	105.4	103.9
Lunar Atmosphere and Dust Environment Explorer	30.2	55.3	57.9	54.7	18.7	0.0	0.0
International Lunar Network	10.0	15.0	4.0	4.1	4.2	4.3	6.6
<i>Discovery</i>	<u>234.8</u>	<u>209.2</u>	<u>202.0</u>	<u>216.8</u>	<u>235.9</u>	<u>263.0</u>	<u>312.9</u>
Gravity Recovery and Interior Laboratory (GRAIL)	152.9	124.1	104.8	41.4	4.7	0.0	0.0
Other Missions and Data Analysis	81.9	85.1	97.2	175.4	231.2	263.0	312.9

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Budget Authority, \$ in million	FY 2009 Actual	FY 2010 Enacted	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<u><i>New Frontiers</i></u>	<u>279.0</u>	<u>264.1</u>	<u>223.8</u>	<u>229.5</u>	<u>237.9</u>	<u>247.7</u>	<u>258.5</u>
Juno	260.1	237.2	184.2	46.4	17.8	18.1	16.8
Other Missions and Data Analysis	19.0	26.9	39.6	183.1	220.1	229.6	241.6
<u><i>Mars Exploration</i></u>	<u>361.7</u>	<u>416.1</u>	<u>532.8</u>	<u>514.8</u>	<u>549.9</u>	<u>569.6</u>	<u>485.8</u>
2009 Mars Science Lab	229.3	204.0	231.6	91.8	42.0	38.5	0.0
MAVEN	6.7	53.4	161.2	210.9	170.5	25.8	18.4
Other Missions and Data Analysis	125.7	158.7	140.0	212.1	337.4	505.3	467.3
<u><i>Outer Planets</i></u>	<u>104.8</u>	<u>98.6</u>	<u>103.5</u>	<u>157.9</u>	<u>152.0</u>	<u>144.0</u>	<u>155.8</u>
Outer Planets	104.8	98.6	103.5	157.9	152.0	144.0	155.8
<u><i>Technology</i></u>	<u>72.4</u>	<u>89.0</u>	<u>106.5</u>	<u>101.1</u>	<u>88.7</u>	<u>82.0</u>	<u>85.1</u>
Technology	72.4	89.0	106.5	101.1	88.7	82.0	85.1
<b>Astrophysics</b>	<b>1,304.9</b>	<b>1,103.9</b>	<b>1,076.3</b>	<b>1,109.3</b>	<b>1,149.1</b>	<b>1,158.7</b>	<b>1,131.6</b>
<u><i>Astrophysics Research</i></u>	<u>136.0</u>	<u>149.0</u>	<u>156.1</u>	<u>178.1</u>	<u>188.4</u>	<u>194.6</u>	<u>199.6</u>
Astrophysics Research and Analysis	60.0	60.0	60.2	64.7	65.8	67.4	69.1
Balloon Project	25.6	26.7	27.1	32.4	32.7	35.3	36.8
Other Missions and Data Analysis	50.4	62.3	68.7	80.9	89.8	91.9	93.7
<u><i>Cosmic Origins</i></u>	<u>850.0</u>	<u>684.1</u>	<u>687.7</u>	<u>669.4</u>	<u>667.5</u>	<u>640.5</u>	<u>599.2</u>
Hubble Space Telescope (HST)	203.1	112.6	102.7	104.5	99.8	98.0	98.6
James Webb Space Telescope (JWST)	466.9	440.3	444.8	379.2	335.2	259.3	119.2
Stratospheric Observatory for Infrared Astronomy (SOFIA)	77.4	72.8	79.6	80.1	79.2	81.1	81.3
Other Missions And Data Analysis	102.5	58.4	60.6	105.7	153.4	202.2	300.1
<u><i>Physics of the Cosmos</i></u>	<u>111.1</u>	<u>116.8</u>	<u>103.3</u>	<u>114.4</u>	<u>151.7</u>	<u>176.4</u>	<u>202.0</u>
Other Missions and Data Analysis	111.1	116.8	103.3	114.4	151.7	176.4	202.0
<u><i>Exoplanet Exploration</i></u>	<u>72.1</u>	<u>46.2</u>	<u>42.5</u>	<u>54.1</u>	<u>83.0</u>	<u>93.8</u>	<u>117.6</u>
Other Missions and Data Analysis	72.1	46.2	42.5	54.1	83.0	93.8	117.6
<u><i>Astrophysics Explorer</i></u>	<u>135.7</u>	<u>107.9</u>	<u>86.7</u>	<u>93.3</u>	<u>58.5</u>	<u>53.3</u>	<u>13.2</u>
Nuclear Spectroscopic Telescope Array (NuStar)	38.7	59.9	32.1	10.8	6.2	0.0	0.0
Gravity and Extreme Magnetism	1.7	0.0	21.0	57.7	44.7	40.8	2.1
Other Missions and Data Analysis	95.2	48.0	33.6	24.8	7.6	12.6	11.1
<b>Heliophysics</b>	<b>607.8</b>	<b>627.4</b>	<b>641.9</b>	<b>647.6</b>	<b>679.8</b>	<b>704.4</b>	<b>750.8</b>
<u><i>Heliophysics Research</i></u>	<u>204.7</u>	<u>173.0</u>	<u>166.9</u>	<u>165.4</u>	<u>168.7</u>	<u>172.9</u>	<u>172.9</u>
Heliophysics Research and Analysis	31.5	31.0	31.7	32.2	33.0	33.8	34.2
Sounding Rockets	45.1	65.3	48.9	49.7	51.8	53.0	53.8
Research Range	32.3	19.2	19.6	20.1	20.6	21.1	21.4
Other Missions and Data Analysis	95.8	57.5	66.7	63.4	63.4	65.0	63.5
<u><i>Living with a Star</i></u>	<u>222.6</u>	<u>240.2</u>	<u>214.3</u>	<u>207.9</u>	<u>216.5</u>	<u>243.0</u>	<u>288.8</u>
Radiation Belt Storm Probes (RBSP)	154.4	129.1	140.0	92.2	30.2	22.0	9.1
Solar Probe Plus	18.0	40.0	14.1	49.7	104.3	104.4	148.2
Other Missions and Data Analysis	50.2	71.1	60.2	66.0	82.0	116.6	131.5

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<u>Solar Terrestrial Probes</u>	<u>143.0</u>	<u>143.0</u>	<u>162.9</u>	<u>175.1</u>	<u>178.5</u>	<u>161.7</u>	<u>121.4</u>
Magnetospheric Multiscale (MMS)	115.9	118.6	143.8	155.8	158.9	141.4	96.1
Other Missions and Data Analysis	27.1	24.4	19.1	19.3	19.6	20.3	25.3
<u>Heliophysics Explorer Program</u>	<u>34.8</u>	<u>69.4</u>	<u>97.7</u>	<u>99.2</u>	<u>116.1</u>	<u>126.8</u>	<u>167.8</u>
IRIS	15.0	0.0	69.0	37.6	9.2	7.3	1.2
Other Missions and Data Analysis	19.8	69.4	28.7	61.6	106.9	119.5	166.5
<u>New Millennium</u>	<u>2.7</u>	<u>1.8</u>	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
New Millennium	2.7	1.8	0.1	0.0	0.0	0.0	0.0
<b>Aeronautics and Space Research and Technology</b>	<b>650.0</b>	<b>507.0</b>	<b>1,151.8</b>	<b>1,596.9</b>	<b>1,650.1</b>	<b>1,659.0</b>	<b>1,818.2</b>
<b>Aeronautics Research</b>	<b>650.0</b>	<b>507.0</b>	<b>579.6</b>	<b>584.7</b>	<b>590.4</b>	<b>595.1</b>	<b>600.3</b>
<u>Aviation Safety</u>	<u>89.3</u>	<u>75.0</u>	<u>79.3</u>	<u>78.9</u>	<u>81.2</u>	<u>81.9</u>	<u>82.7</u>
<u>Airspace Systems</u>	<u>121.5</u>	<u>80.0</u>	<u>82.2</u>	<u>82.9</u>	<u>85.9</u>	<u>86.6</u>	<u>87.4</u>
<u>Fundamental Aeronautics</u>	<u>307.6</u>	<u>220.0</u>	<u>228.5</u>	<u>231.4</u>	<u>236.0</u>	<u>241.8</u>	<u>244.6</u>
<u>Aeronautics Test</u>	<u>131.6</u>	<u>72.0</u>	<u>76.4</u>	<u>76.4</u>	<u>75.6</u>	<u>77.4</u>	<u>78.2</u>
<u>Integrated Systems Research</u>	<u>0.0</u>	<u>60.0</u>	<u>113.1</u>	<u>115.1</u>	<u>111.7</u>	<u>107.4</u>	<u>107.4</u>
<b>Space Technology</b>	<b>0.0</b>	<b>0.0</b>	<b>572.2</b>	<b>1,012.2</b>	<b>1,059.7</b>	<b>1,063.9</b>	<b>1,217.9</b>
<u>Early Stage Innovation</u>	<u>0.0</u>	<u>0.0</u>	<u>298.6</u>	<u>304.4</u>	<u>300.4</u>	<u>305.1</u>	<u>314.7</u>
Space Technology Research Grants	0.0	0.0	70.0	70.0	70.0	70.0	70.0
NIAC Phase I and Phase II	0.0	0.0	3.0	6.0	7.0	7.0	8.0
Center Innovations Fund	0.0	0.0	50.0	50.0	50.0	50.0	50.0
SBIR/STTR	0.0	0.0	165.6	168.4	163.4	168.1	176.7
Centennial Challenges	0.0	0.0	10.0	10.0	10.0	10.0	10.0
<u>Game Changing Technology</u>	<u>0.0</u>	<u>0.0</u>	<u>129.6</u>	<u>359.3</u>	<u>349.1</u>	<u>349.1</u>	<u>424.2</u>
Game-Changing Developments	0.0	0.0	123.6	329.3	319.1	319.1	394.2
Small Satellite Subsystem Technologies	0.0	0.0	6.0	30.0	30.0	30.0	30.0
<u>Crosscutting Capability Demonstrations</u>	<u>0.0</u>	<u>0.0</u>	<u>102.0</u>	<u>302.0</u>	<u>362.0</u>	<u>362.0</u>	<u>424.0</u>
Technology Demonstration Missions	0.0	0.0	75.0	265.0	325.0	325.0	387.0
Edison Small Satellite Demonstration Missions	0.0	0.0	10.0	20.0	20.0	20.0	20.0
Flight Opportunities	0.0	0.0	17.0	17.0	17.0	17.0	17.0
<u>Partnership Development and Strategic Integration</u>	<u>0.0</u>	<u>0.0</u>	<u>42.0</u>	<u>46.5</u>	<u>48.2</u>	<u>47.7</u>	<u>55.0</u>
Partnership Development and Strategic Integration	0.0	0.0	42.0	46.5	48.2	47.7	55.0

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<b>Exploration</b>	<b>3,905.5</b>	<b>3,779.8</b>	<b>4,263.4</b>	<b>4,577.4</b>	<b>4,718.9</b>	<b>4,923.3</b>	<b>5,179.3</b>
<b>Exploration Research and Development</b>	<b>0.0</b>	<b>0.0</b>	<b>1,551.4</b>	<b>2,577.4</b>	<b>3,318.9</b>	<b>3,623.3</b>	<b>3,979.3</b>
<i>Technology Demonstration</i>	<u>0.0</u>	<u>0.0</u>	<u>652.4</u>	<u>1,262.4</u>	<u>1,807.9</u>	<u>2,013.3</u>	<u>2,087.3</u>
<i>Heavy Lift and Propulsion Technology</i>	<u>0.0</u>	<u>0.0</u>	<u>559.0</u>	<u>594.0</u>	<u>597.0</u>	<u>598.0</u>	<u>754.0</u>
<i>Robotic Precursor Missions</i>	<u>0.0</u>	<u>0.0</u>	<u>125.0</u>	<u>506.0</u>	<u>699.0</u>	<u>797.0</u>	<u>923.0</u>
<i>Human Research</i>	<u>0.0</u>	<u>0.0</u>	<u>215.0</u>	<u>215.0</u>	<u>215.0</u>	<u>215.0</u>	<u>215.0</u>
<b>Commercial Spaceflight</b>	<b>0.0</b>	<b>0.0</b>	<b>812.0</b>	<b>1,400.0</b>	<b>1,400.0</b>	<b>1,300.0</b>	<b>1,200.0</b>
<i>Commercial Cargo</i>	<u>0.0</u>	<u>0.0</u>	<u>312.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<i>Commercial Crew</i>	<u>0.0</u>	<u>0.0</u>	<u>500.0</u>	<u>1,400.0</u>	<u>1,400.0</u>	<u>1,300.0</u>	<u>1,200.0</u>
<b>Constellation Transition</b>	<b>0.0</b>	<b>0.0</b>	<b>1,900.0</b>	<b>600.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Constellation Systems</b>	<b>3,433.2</b>	<b>3,325.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Constellation Systems</i>	<u>3,190.1</u>	<u>3,286.7</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<i>Commercial Crew and Cargo</i>	<u>243.0</u>	<u>39.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<b>Advanced Capabilities</b>	<b>472.3</b>	<b>454.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Human Research Program</i>	<u>151.9</u>	<u>151.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<i>Exploration Technology Development</i>	<u>264.1</u>	<u>283.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<i>Lunar Precursor Robotic Program</i>	<u>56.3</u>	<u>19.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<b>Space Operations</b>	<b>5,764.7</b>	<b>6,180.6</b>	<b>4,887.8</b>	<b>4,290.2</b>	<b>4,253.3</b>	<b>4,362.6</b>	<b>4,130.5</b>
<b>Space Shuttle</b>	<b>2,979.5</b>	<b>3,139.4</b>	<b>989.1</b>	<b>86.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Space Shuttle Program</i>	<u>2,979.5</u>	<u>3,139.4</u>	<u>989.1</u>	<u>86.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Program Integration	458.5	678.1	284.8	25.1	0.0	0.0	0.0
Flight and Ground Operations	1,037.4	1,035.1	373.2	28.6	0.0	0.0	0.0
Flight Hardware	1,483.6	1,426.2	331.1	32.3	0.0	0.0	0.0
<b>International Space Station</b>	<b>2,060.2</b>	<b>2,317.0</b>	<b>2,779.8</b>	<b>2,983.6</b>	<b>3,129.4</b>	<b>3,221.9</b>	<b>3,182.8</b>
<i>International Space Station Program</i>	<u>2,060.2</u>	<u>2,317.0</u>	<u>2,779.8</u>	<u>2,983.6</u>	<u>3,129.4</u>	<u>3,221.9</u>	<u>3,182.8</u>
ISS Operations	1,594.9	1,689.0	1,923.0	1,797.8	1,903.9	1,934.2	1,971.2
ISS Cargo Crew Services	465.2	628.0	856.8	1,185.7	1,225.5	1,287.6	1,211.6

## National Aeronautics and Space Administration President's FY 2011 Budget Request Detail

Budget Authority, \$ in million	FY 2009 Actual	FY 2010 Enacted	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Space and Flight Support (SFS)</b>	<b>725.0</b>	<b>724.2</b>	<b>1,119.0</b>	<b>1,220.6</b>	<b>1,123.9</b>	<b>1,140.7</b>	<b>947.7</b>
<i><u>21st Century Space Launch Complex</u></i>	<i><u>0.0</u></i>	<i><u>0.0</u></i>	<i><u>428.6</u></i>	<i><u>500.0</u></i>	<i><u>400.0</u></i>	<i><u>400.0</u></i>	<i><u>200.0</u></i>
21st Century Space Launch Complex	0.0	0.0	428.6	500.0	400.0	400.0	200.0
<i><u>Space Communications and Navigation</u></i>	<i><u>582.9</u></i>	<i><u>485.3</u></i>	<i><u>452.9</u></i>	<i><u>478.0</u></i>	<i><u>479.5</u></i>	<i><u>488.4</u></i>	<i><u>489.6</u></i>
Space Communications Networks	342.2	372.8	371.2	404.7	412.3	429.2	436.1
Space Communications Support	86.7	86.6	62.6	50.7	53.8	59.2	53.5
TDRS Replenishment	154.0	26.0	19.0	22.6	13.4	0.0	0.0
<i><u>Human Space Flight Operations</u></i>	<i><u>0.0</u></i>	<i><u>102.3</u></i>	<i><u>114.4</u></i>	<i><u>115.8</u></i>	<i><u>117.7</u></i>	<i><u>118.1</u></i>	<i><u>121.0</u></i>
Human Space Flight Operations	0.0	102.3	114.4	115.8	117.7	118.1	121.0
<i><u>Launch Services</u></i>	<i><u>91.7</u></i>	<i><u>83.8</u></i>	<i><u>78.9</u></i>	<i><u>82.6</u></i>	<i><u>82.5</u></i>	<i><u>86.0</u></i>	<i><u>87.9</u></i>
Launch Services	91.7	83.8	78.9	82.6	82.5	86.0	87.9
<i><u>Rocket Propulsion Test</u></i>	<i><u>41.8</u></i>	<i><u>44.3</u></i>	<i><u>44.3</u></i>	<i><u>44.2</u></i>	<i><u>44.2</u></i>	<i><u>48.2</u></i>	<i><u>49.2</u></i>
Rocket Propulsion Testing	41.8	44.3	44.3	44.2	44.2	48.2	49.2
<i><u>Crew Health &amp; Safety</u></i>	<i><u>8.6</u></i>	<i><u>8.6</u></i>	<i><u>0.0</u></i>	<i><u>0.0</u></i>	<i><u>0.0</u></i>	<i><u>0.0</u></i>	<i><u>0.0</u></i>
Crew Health and Safety	8.6	8.6	0.0	0.0	0.0	0.0	0.0
<b>Education</b>	<b>169.2</b>	<b>183.8</b>	<b>145.8</b>	<b>145.8</b>	<b>145.7</b>	<b>145.7</b>	<b>146.8</b>
<b>Education</b>	<b>169.2</b>	<b>183.8</b>	<b>145.8</b>	<b>145.8</b>	<b>145.7</b>	<b>145.7</b>	<b>146.8</b>
<i><u>Higher Ed. STEM Education</u></i>	<i><u>107.7</u></i>	<i><u>121.2</u></i>	<i><u>81.0</u></i>	<i><u>81.0</u></i>	<i><u>81.0</u></i>	<i><u>81.0</u></i>	<i><u>81.0</u></i>
STEM Opportunities (Higher Education)	9.5	12.4	16.9	16.9	16.9	16.9	16.9
NASA Space Grant	40.0	45.5	27.7	27.7	27.7	27.7	27.7
Experimental Program to Stimulate Competitive Research	20.0	24.9	9.3	9.3	9.3	9.3	9.3
Minority University Research & Education Program	28.2	28.4	27.2	27.2	27.2	27.2	27.2
Global Climate Change Education	10.0	10.0	0.0	0.0	0.0	0.0	0.0
<i><u>K-12 STEM Education</u></i>	<i><u>47.5</u></i>	<i><u>46.5</u></i>	<i><u>62.8</u></i>	<i><u>62.8</u></i>	<i><u>62.7</u></i>	<i><u>62.7</u></i>	<i><u>63.8</u></i>
STEM Student Opportunities (K-12)	15.2	17.2	46.1	46.1	46.1	46.1	46.1
STEM Teacher Development (K-12)	16.3	14.3	16.7	16.7	16.6	16.6	17.7
K-12 Competitive Educational Grant Program	16.0	15.0	0.0	0.0	0.0	0.0	0.0
<i><u>Informal STEM Education</u></i>	<i><u>14.0</u></i>	<i><u>16.1</u></i>	<i><u>2.0</u></i>	<i><u>2.0</u></i>	<i><u>2.0</u></i>	<i><u>2.0</u></i>	<i><u>2.0</u></i>
Science Museums and Planetarium Grants	7.0	7.0	0.0	0.0	0.0	0.0	0.0
NASA Visitor Centers	7.0	6.4	0.0	0.0	0.0	0.0	0.0
NASA Informal Education Opportunities	0.0	2.7	2.0	2.0	2.0	2.0	2.0

## National Aeronautics and Space Administration President's FY 2011 Budget Request Detail

Budget Authority, \$ in million	FY 2009 Actual	FY 2010 Enacted	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
<b>Cross-Agency Support</b>	<b>3,356.4</b>	<b>3,095.1</b>	<b>3,111.4</b>	<b>3,189.6</b>	<b>3,276.8</b>	<b>3,366.5</b>	<b>3,462.2</b>
<b>Center Management and Operations</b>	<b>2,024.3</b>	<b>2,067.0</b>	<b>2,270.2</b>	<b>2,347.4</b>	<b>2,427.7</b>	<b>2,509.7</b>	<b>2,594.3</b>
<i>Center Management and Operations</i>	<u>2,024.3</u>	<u>2,067.0</u>	<u>2,270.2</u>	<u>2,347.4</u>	<u>2,427.7</u>	<u>2,509.7</u>	<u>2,594.3</u>
Center Institutional Capabilities	1,542.1	1,591.7	1,776.1	1,830.5	1,890.9	1,956.3	2,021.8
Center Programmatic Capabilities	482.2	475.3	494.0	516.8	536.8	553.4	572.5
<b>Agency Management and Operations</b>	<b>921.2</b>	<b>941.7</b>	<b>841.2</b>	<b>842.2</b>	<b>849.1</b>	<b>856.8</b>	<b>867.9</b>
<i>Agency Management</i>	<u>389.3</u>	<u>398.9</u>	<u>432.0</u>	<u>451.1</u>	<u>455.8</u>	<u>460.6</u>	<u>467.0</u>
Agency Management	389.3	398.9	432.0	451.1	455.8	460.6	467.0
<i>Safety and Mission Success</i>	<u>179.8</u>	<u>192.9</u>	<u>201.6</u>	<u>203.8</u>	<u>205.8</u>	<u>206.6</u>	<u>208.7</u>
Safety and Mission Assurance	44.3	48.2	49.0	49.5	49.9	50.5	51.2
Chief Engineer	87.0	101.1	103.6	105.2	106.8	106.9	108.4
Chief Health and Medical Officer	3.6	3.6	4.1	4.1	4.1	4.1	4.2
Independent Verification and Validation	45.0	40.0	45.0	45.0	45.0	45.0	45.0
<i>Agency IT Services (AITS)</i>	<u>163.9</u>	<u>145.3</u>	<u>177.8</u>	<u>157.5</u>	<u>157.7</u>	<u>159.5</u>	<u>161.7</u>
IT Management	18.1	28.6	16.1	16.6	16.4	16.7	17.0
Applications	64.0	68.4	79.1	70.6	70.9	71.7	72.6
Infrastructure	81.8	48.3	82.6	70.4	70.4	71.1	72.1
<i>Innovative Partnerships Program</i>	<u>160.2</u>	<u>175.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Technology Infusion	9.1	10.0	0.0	0.0	0.0	0.0	0.0
Small Business Innovative Research	113.4	124.1	0.0	0.0	0.0	0.0	0.0
Small Business Technology Transfer Research	13.6	14.1	0.0	0.0	0.0	0.0	0.0
Innovation Incubator	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Future Centennial Challenges	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Partnership Development	24.1	20.0	0.0	0.0	0.0	0.0	0.0
Innovative Technology	0.0	2.0	0.0	0.0	0.0	0.0	0.0
<i>Strategic Capabilities Assets Program</i>	<u>28.0</u>	<u>29.4</u>	<u>29.8</u>	<u>29.8</u>	<u>29.8</u>	<u>30.1</u>	<u>30.5</u>
Simulators	11.5	11.7	11.7	11.7	11.7	11.8	12.2
Thermal Vacuum Chambers	7.2	8.3	8.4	8.4	8.4	8.5	8.5
Arc Jets	9.3	9.4	9.7	9.7	9.7	9.8	9.8
<b>Institutional Investments</b>	<b>343.7</b>	<b>23.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Institutional Construction of Facilities</i>	<u>268.9</u>	<u>23.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Institutional Construction Of Facilities	268.9	23.4	0.0	0.0	0.0	0.0	0.0
<i>Environmental Compliance and Restoration</i>	<u>74.8</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Environmental Compliance and Restoration	74.8	0.0	0.0	0.0	0.0	0.0	0.0
<b>Congressionally Directed Items</b>	<b>67.2</b>	<b>63.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Congressionally Directed Items</i>	<u>67.2</u>	<u>63.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Congressionally Directed Items	67.2	63.0	0.0	0.0	0.0	0.0	0.0



## National Aeronautics and Space Administration President's FY 2011 Budget Request Detail

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<b>Construction and Environmental Compliance and Restoration</b>	<b>0.0</b>	<b>448.3</b>	<b>397.3</b>	<b>363.8</b>	<b>366.9</b>	<b>393.5</b>	<b>398.5</b>
<b>Construction of Facilities</b>	<b>0.0</b>	<b>381.1</b>	<b>335.2</b>	<b>316.3</b>	<b>319.5</b>	<b>344.6</b>	<b>349.0</b>
<i>Institutional CoF</i>	<u>0.0</u>	<u>249.3</u>	<u>280.8</u>	<u>316.3</u>	<u>319.5</u>	<u>344.6</u>	<u>349.0</u>
Institutional CoF	0.0	249.3	280.8	316.3	319.5	344.6	349.0
<i>Science CoF</i>	<u>0.0</u>	<u>13.7</u>	<u>40.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Science CoF	0.0	13.7	40.5	0.0	0.0	0.0	0.0
<i>Exploration CoF</i>	<u>0.0</u>	<u>90.8</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Exploration CoF	0.0	90.8	0.0	0.0	0.0	0.0	0.0
<i>Space Operations CoF</i>	<u>0.0</u>	<u>27.3</u>	<u>14.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Space Operations CoF	0.0	27.3	14.0	0.0	0.0	0.0	0.0
<b>Environmental Compliance and Restoration</b>	<b>0.0</b>	<b>67.2</b>	<b>62.1</b>	<b>47.5</b>	<b>47.4</b>	<b>48.9</b>	<b>49.5</b>
<i>Environmental Compliance and Restoration</i>	<u>0.0</u>	<u>67.2</u>	<u>62.1</u>	<u>47.5</u>	<u>47.4</u>	<u>48.9</u>	<u>49.5</u>
Environmental Compliance and Restoration	0.0	67.2	62.1	47.5	47.4	48.9	49.5
<b>Inspector General</b>	<b>35.6</b>	<b>36.4</b>	<b>37.0</b>	<b>37.8</b>	<b>38.7</b>	<b>39.6</b>	<b>40.5</b>
<b>Inspector General</b>	<b>35.6</b>	<b>36.4</b>	<b>37.0</b>	<b>37.8</b>	<b>38.7</b>	<b>39.6</b>	<b>40.5</b>
<i>IG Program</i>	<u>35.6</u>	<u>36.4</u>	<u>37.0</u>	<u>37.8</u>	<u>38.7</u>	<u>39.6</u>	<u>40.5</u>
Inspector General	35.6	36.4	37.0	37.8	38.7	39.6	40.5
<b>NASA FY 2011</b>	<b>18,784.4</b>	<b>18,724.3</b>	<b>19,000.0</b>	<b>19,450.0</b>	<b>19,960.0</b>	<b>20,600.0</b>	<b>20,990.0</b>

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## Table of Contents

### FY 2011 Budget Request Summary Message from the Administrator

SUM -1

### Science

<b>Science Overview</b> .....	<b>SCI-1</b>
<b>Earth Science</b> .....	<b>EARTH-1</b>
Earth Science Research, EARTH-9	
Earth Systematic Missions, EARTH-16	
Glory Mission [Development], EARTH-30	
NPOESS Preparatory Project (NPP) [Development], EARTH-37	
Global Precipitation Measurements (GPM) [Development], EARTH-42	
Landsat Data Continuity Mission (LDCM) [Development], EARTH-49	
Ice, Cloud, and land Elevation Satellite (ICESat II) [Formulation], EARTH-54	
Soil Moisture Active and Passive (SMAP) [Formulation], EARTH-57	
Earth System Science Pathfinder, EARTH-60	
Aquarius [Development], EARTH-65	
OCO-2 [Formulation], EARTH-69	
Earth Science Multi-Mission Operations, EARTH-72	
Earth Science Technology, EARTH-79	
Applied Science, EARTH-83	
<b>Planetary Science</b> .....	<b>PLANET-1</b>
Planetary Science Research, PLANET-8	
Lunar Quest, PLANET-15	
Lunar Atmosphere & Dust Environment Expl (LADEE) [Formulation], PLANET-20	
Discovery, PLANET-23	
Gravity Recovery and Interior Laboratory (GRAIL) [Development], PLANET-31	
New Frontiers, PLANET-35	
Juno [Development], PLANET-40	
Mars Exploration, PLANET-47	
2009 Mars Science Lab (MSL) [Development], PLANET-54	
Mars Atmosphere & Volatile Evolution (MAVEN), [Formulation], PLANET-60	
Outer Planets, PLANET-64	
Technology, PLANET-68	
<b>Astrophysics</b> .....	<b>ASTRO-1</b>
Astrophysics Research, ASTRO-7	
Cosmic Origins, ASTRO-12	
James Webb Space Telescope (JWST) [Development], ASTRO-18	
Stratospheric Observatory for Infrared Astronomy (SOFIA) [Development], ASTRO-26	
Physics of the Cosmos, ASTRO-31	
Exoplanet Exploration, ASTRO-35	
Astrophysics Explorer, ASTRO-38	
Nuclear Spectroscopic Telescope Array (NuStar) [Formulation], ASTRO-44	
Gravity Extreme Magnetism (SMEX 13) (GEMS) [Formulation], ASTRO-48	

## Table of Contents

<b>Heliophysics .....</b>	<b>HELIO-1</b>
Heliophysics Research, HELIO-7	
Living with a Star, HELIO-13	
Radiation Belt Storm Probes (RBSP) [Development], HELIO-19	
Solar Probe Plus [Formulation], HELIO-25	
Solar Terrestrial Probes, HELIO-28	
Magnetospheric Multiscale (MMS) [Development], HELIO-31	
Heliophysics Explorer, HELIO-36	
Interface Region Imaging Spectrograph (IRIS) [Formulation], HELIO-42	
New Millennium, HELIO-45	

## Aeronautics and Space Research and Technology

<b>Aeronautics Research Overview .....</b>	<b>AERO-1</b>
Aviation Safety, AERO-8	
Airspace Systems, AERO-15	
Fundamental Aeronautics, AERO-20	
Aeronautics Test, AERO-28	
Integrated Systems Research, AERO- 33	
<b>Space Technology Overview .....</b>	<b>TECH-1</b>
Early Stage Innovation, TECH-5	
Game Changing Technology, TECH-11	
Crosscutting Capability Demonstrations, TECH-14	
Partnership Development and Strategic Integration, TECH-17	

## Exploration

<b>Exploration Systems Overview .....</b>	<b>EXP-1</b>
<b>Exploration Research and Development .....</b>	<b>EXP-4</b>
Technology Demonstration, EXP-5	
Heavy Lift and Propulsion Technology, EXP-8	
Exploration Precursor Robotic Missions, EXP-9	
Human Research, EXP-11	
<b>Commercial Spaceflight.....</b>	<b>EXP-12</b>
Commercial Cargo, EXP-13	
Commercial Crew, EXP-14	
<b>Constellation Transition .....</b>	<b>EXP-15</b>

## Space Operations

<b>Space Operations Overview .....</b>	<b>SPA-1</b>
<b>Space Shuttle.....</b>	<b>SPA-5</b>
Space Shuttle, SPA-8	
<b>International Space Station .....</b>	<b>SPA-13</b>
International Space Station, SPA-19	
<b>Space and Flight Support .....</b>	<b>SPA-23</b>
21 <sup>st</sup> Century Launch Complex, SPA-28	

## Table of Contents

Space Communications and Navigation, SPA-29	
TDRS Replenishment [Development], SPA-37	
Human Space Flight Operations (HSFO), SPA-41	
Launch Services, SPA-45	
Rocket Propulsion Testing, SPA-49	

### Education

<b>Education Overview</b> .....	<b>EDU-1</b>
Higher Ed. STEM Education, EDU-9	
K-12 STEM Education, EDU-16	
Informal STEM Education, EDU-21	

### Cross-Agency Support

<b>Cross-Agency Support Overview</b> .....	<b>CROSS-1</b>
<b>Center Management and Operations</b> .....	<b>CROSS-7</b>
Center Management and Operations, CROSS-9	
<b>Agency Management and Operations</b> .....	<b>CROSS-13</b>
Agency Management, CROSS-16	
Safety and Mission Success, CROSS-22	
Agency Information Technology Services (AITS), CROSS-28	
Shared Capabilities Assets Program (SCAP), CROSS-32	

### Construction and Environmental Compliance and Restoration

<b>Construction and Environmental Compliance and Restoration Overview</b> .....	<b>CECR-1</b>
<b>Construction of Facilities</b> .....	<b>CECR-3</b>
<b>Environmental Compliance and Restoration</b> .....	<b>CECR-13</b>
Environmental Compliance and Restoration, CECR-14	

### Inspector General

<b>Inspector General Overview</b> .....	<b>IG-1</b>
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<b>Supporting Data</b> .....	<b>SUP-1</b>
Civil Service Full-Time Equivalent Distribution by Center, SUP-2	
Budget for FY 2011 by Object Class Code, SUP-3	
Status of Unobligated Funds, SUP-4	
Reimbursable Estimates, SUP-5	
Enhanced Use Leasing, SUP-6	
Budget for Safety Oversight, SUP-7	
Budget for Public Relations, SUP-9	
Consulting Services, SUP-10	
E-Gov Initiatives and Benefits, SUP-11	

## Table of Contents

<b>Management and Performance .....</b>	<b>MAN-1</b>
<b>Major Program Annual Reports (MPAR) Summary.....</b>	<b>MAN-3</b>
<b>Proposed Appropriation Language .....</b>	<b>APP-1</b>
<b>Reference</b>	
<b>Acronyms .....</b>	<b>REF-1</b>