



# Space Shuttle Launches

KSC Historical Report No. 1B (KHR-1B)

Kennedy Space Center  
1981 - 2011

Total Space Shuttle Program Launches: 134

Space shuttles are launched from NASA facilities at Kennedy Space Center (KSC) in Florida. Landings have occurred at the two prime end-of-mission landings sites, KSC and Edwards Air Force Base (EAFB) in California. One landing occurred on Northrup Strip at White Sands Space Harbor in Las Cruces, N.M., which is the backup landing site. All liftoff and landing dates below reflect Eastern Standard or Eastern Daylight times. Challenger was lost during the STS-51L launch on Jan. 28, 1986. Columbia was lost during the re-entry of STS-107 on Feb. 1, 2003. Discovery flew its last planned mission, STS-133, in February and March 2011. Endeavour flew its final mission, STS-134, in May and June 2011. Atlantis is being prepared to fly its final planned mission, STS-135.

For more information on shuttle missions and payloads, go to

[www.nasa.gov/mission\\_pages/shuttle/shuttlemissions/list\\_main.html](http://www.nasa.gov/mission_pages/shuttle/shuttlemissions/list_main.html). For information on NASA missions and payloads that launch on expendable launch vehicles, go to

[www.nasa.gov/centers/kennedy/launchingrockets/archives/elv\\_archive-index.html](http://www.nasa.gov/centers/kennedy/launchingrockets/archives/elv_archive-index.html).

Columbia -- OV-102

Discovery -- OV-103

Atlantis -- OV-104

Endeavour -- OV-105

Challenger -- OV-099

Note: The numbers next to the shuttle names and crew names below indicate how many space shuttle missions each has flown, including that mission. No number indicates the first shuttle mission for that crew member.

## Space Shuttle Missions

Mission Name	Crew	Launch Date/ Landing Date	Shuttle	Primary Payload	Launch Pad/ Runway Landing
<b>Operational Test Flights</b>					
STS-1	Young, Crippen	04/12/81 04/14/81	Columbia <sup>1</sup>	DFI, ACIP	39A 23 EAFB
STS-2	Engle, Truly	11/12/81 11/14/81	Columbia <sup>2</sup>	OSTA-1	39A 23 EAFB
STS-3	Lousma, Fullerton	03/22/82 03/30/82	Columbia <sup>3</sup>	OSS-1	39A 17 White Sands
STS-4	Mattingly, Hartsfield	06/27/82 07/04/82	Columbia <sup>4</sup>	DoD	39A 22 EAFB
<b>Operational Flights</b>					
STS-5	Brand, Overmyer, Lenoir, J. Allen	11/11/82 11/16/82	Columbia <sup>5</sup>	SBS-C, Anik C-3	39A 22 EAFB
STS-6	Weitz, Bobko, Musgrave, Peterson	04/04/83 04/09/83	Challenger <sup>1</sup>	TDRS-1	39A 22 EAFB
STS-7	Crippen <sup>2</sup> , Hauck, Ride, Fabian, Thagard	06/18/83 06/24/83	Challenger <sup>2</sup>	Anik C-2, PALAPA-B1	39A 15 EAFB
STS-8	Truly <sup>2</sup> , Brandenstein, Bluford, D. Gardner, W. Thornton	08/30/83 09/05/83	Challenger <sup>3</sup>	INSAT-1B	39A 22 EAFB
STS-9	Young <sup>2</sup> , Shaw, Parker, Garriott, Merbold, Lichtenberg	11/28/83 12/08/83	Columbia <sup>6</sup>	Spacelab-1	39A 17 EAFB
STS-41B	Brand <sup>2</sup> , Gibson, Stewart, McNair, McCandless	02/03/84 02/11/84	Challenger <sup>4</sup>	WESTAR-VI, PALAPA-B2	39A 15 KSC
STS-41C	Crippen <sup>3</sup> , Scobee, van Hoften, G. Nelson, Hart	04/06/84 04/13/84	Challenger <sup>5</sup>	LDEF	39A 17 EAFB
STS-41D	Hartsfield <sup>2</sup> , Coats, Hawley, Resnik, Mullane, C. Walker	08/30/84 09/05/84	Discovery <sup>1</sup>	SBS-D, TELSTAR	39A 17 EAFB
STS-41G	Crippen <sup>4</sup> , McBride, Sullivan, Ride <sup>2</sup> , Leestma, Garneau, Scully-Power	10/05/84 10/13/84	Challenger <sup>6</sup>	ERBS, OSTA-3	39A 33 KSC
STS-51A	Hauck <sup>2</sup> , D. Walker, J. Allen <sup>2</sup> , A. Fisher, D. Gardner <sup>2</sup>	11/08/84 11/16/84	Discovery <sup>2</sup>	TELESAT-H, SYNCOM IV-1	39A 15 KSC
STS-51C	Mattingly <sup>2</sup> , Shriver, Buchli, Onizuka, Payton	01/24/85 01/27/85	Discovery <sup>3</sup>	DoD	39A 15 KSC
STS-51D	Bobko <sup>2</sup> , D. E. Williams, Seddon, Griggs, Hoffman, Garn, C. Walker <sup>2</sup>	04/12/85 04/19/85	Discovery <sup>4</sup>	TELESAT-L, SYNCOM IV-3	39A 33 KSC
STS-51B	Overmyer <sup>2</sup> , F. Gregory, Lind, Thagard <sup>2</sup> , W. Thornton <sup>2</sup> , van den Berg, Wang	04/29/85 05/06/85	Challenger <sup>7</sup>	Spacelab-3	39A 17 EAFB
STS-51G	Brandenstein <sup>2</sup> , Creighton, Lucid, Nagel, Fabian <sup>2</sup> , Baudry, Sultan Al-Saud	06/17/85 06/24/85	Discovery <sup>5</sup>	ARABSAT-A, Telstar-3D, MORELOS-A	39A 23 EAFB
STS-51F	Fullerton <sup>2</sup> , Bridges, Musgrave <sup>2</sup> , England, Henize, Acton, Bartoe	07/29/85 08/06/85	Challenger <sup>8</sup>	Spacelab-2	39A 23 EAFB
STS-51I	Engle <sup>2</sup> , Covey, van Hoften <sup>2</sup> , Lounge, W. Fisher	08/27/85 09/03/85	Discovery <sup>6</sup>	AUSSAT-1, ASC-1, SYNCOM IV-4	39A 23 EAFB
STS-51J	Bobko <sup>3</sup> , Grabe, Stewart <sup>2</sup> , Hilmers, Pailles	10/03/85 10/07/85	Atlantis <sup>1</sup>	DoD	39A 23 EAFB
STS-61A	Hartsfield <sup>3</sup> , Nagel <sup>2</sup> , Buchli <sup>2</sup> , Bluford <sup>2</sup> , Dunbar, Furrer, Ockels, Messerschmid	10/30/85 11/06/85	Challenger <sup>9</sup>	Spacelab D-1	39A 17 EAFB
STS-61B	Shaw <sup>2</sup> , O'Connor, Cleave, Spring, Ross, Neri Vela, C. Walker <sup>3</sup>	11/26/85 12/03/85	Atlantis <sup>2</sup>	MORELOS-B, AUSSAT-2, SATCOM KU-2	39A 22 EAFB
STS-61C	Gibson <sup>2</sup> , Bolden, Chang-Diaz, Hawley <sup>2</sup> , G. Nelson <sup>2</sup> , Cenker, B. Nelson	01/12/86 01/18/86	Columbia <sup>7</sup>	SATCOM KU-1	39A 22 EAFB
STS-51L	Scobee <sup>2</sup> , M. Smith, McNair <sup>2</sup> , Resnik <sup>2</sup> , Onizuka <sup>2</sup> , Jarvis, McAuliffe	01/28/86	Challenger <sup>10</sup>	TDRS-B Challenger and crew were lost 73 seconds after lift off	39B
STS-26	Hauck <sup>3</sup> , Covey <sup>2</sup> , Lounge <sup>2</sup> , Hilmers <sup>2</sup> , G. Nelson <sup>3</sup>	09/29/88 10/03/88	Discovery <sup>7</sup>	TDRS-C	39B 17 EAFB
STS-27	Gibson <sup>3</sup> , G. Gardner, Shepherd, Mullane <sup>2</sup> , Ross <sup>2</sup>	12/02/88 12/06/88	Atlantis <sup>3</sup>	DoD	39B 17 EAFB
STS-29	Coats <sup>2</sup> , Blaha, Buchli <sup>2</sup> , Springer, Bagian	03/13/89 03/18/89	Discovery <sup>8</sup>	TDRS-D	39B 22 EAFB

STS-30	D. Walker <sup>2</sup> , Grabe <sup>2</sup> , Thagard <sup>3</sup> , Cleave <sup>2</sup> , Lee	05/04/89 05/08/89	Atlantis <sup>4</sup>	Magellan	39B 22 EAFB
STS-28	Shaw <sup>3</sup> , R. Richards, Leestma <sup>2</sup> , Adamson, M. Brown	08/08/89 08/13/89	Columbia <sup>8</sup>	DoD	39B 17 EAFB
STS-34	D. E. Williams <sup>2</sup> , McCulley, E. Baker, Chang-Diaz <sup>2</sup> , Lucid <sup>2</sup>	10/18/89 10/23/89	Atlantis <sup>5</sup>	Galileo	39B 23 EAFB
STS-33	F. Gregory <sup>2</sup> , Blaha <sup>2</sup> , Musgrave <sup>3</sup> , K. Thornton, Carter	11/22/89 11/27/89	Discovery <sup>9</sup>	DoD	39B 4 EAFB
STS-32	Brandenstein <sup>3</sup> , Wetherbee, Dunbar <sup>2</sup> , Ivins, Low	01/09/90 01/20/90	Columbia <sup>9</sup>	SYNCOM IV-F5, LDEF Retrieval	39A 22 EAFB
STS-36	Creighton <sup>2</sup> , Casper, Hilmers <sup>3</sup> , Mullane <sup>3</sup> , Thuot	02/28/90 03/04/90	Atlantis <sup>6</sup>	DoD	39A 23 EAFB
STS-31	Shriver <sup>2</sup> , Bolden <sup>2</sup> , Hawley <sup>3</sup> , McCandless <sup>2</sup> , Sullivan <sup>2</sup>	04/24/90 04/29/90	Discovery <sup>10</sup>	Hubble Space Telescope	39B 22 EAFB
STS-41	R. Richards <sup>2</sup> , Cabana, Shepherd <sup>2</sup> , Melnick, Akers	10/06/90 10/10/90	Discovery <sup>11</sup>	Ulysses	39B 22 EAFB
STS-38	Covey <sup>3</sup> , Culbertson, Meade, Springer <sup>2</sup> , Gemar	11/15/90 11/20/90	Atlantis <sup>7</sup>	DoD	39A 33 KSC
STS-35	Brand <sup>3</sup> , G. Gardner <sup>2</sup> , Lounge <sup>3</sup> , Hoffman <sup>2</sup> , Parker <sup>2</sup> , Parise, Durrance	12/02/90 12/10/90	Columbia <sup>10</sup>	ASTRO-1	39B 22 EAFB
STS-37	Nagel <sup>3</sup> , Cameron, Apt, Godwin, Ross <sup>3</sup>	04/05/91 04/11/91	Atlantis <sup>8</sup>	Gamma Ray Observatory	39B 33 EAFB
STS-39	Coats <sup>3</sup> , Hammond, Harbaugh, McMonagle, Bluford <sup>3</sup> , Hieb, Veach	04/28/91 05/06/91	Discovery <sup>12</sup>	DoD	39A 15 KSC
STS-40	O'Connor <sup>2</sup> , Gutierrez, Jernigan, Seddon <sup>2</sup> , Bagian <sup>2</sup> , Gaffney, Hughes-Fulford	06/05/91 06/14/91	Columbia <sup>11</sup>	Spacelab Life Sciences-1	39B 22 EAFB
STS-43	Blaha <sup>3</sup> , M. Baker, Adamson <sup>2</sup> , Low <sup>2</sup> , Lucid <sup>3</sup>	08/02/91 08/11/91	Atlantis <sup>9</sup>	TDRS-E	39A 15 KSC
STS-48	Creighton <sup>3</sup> , Reightler, Buchli <sup>4</sup> , M. Brown <sup>2</sup> , Gemar <sup>2</sup>	09/12/91 09/18/91	Discovery <sup>13</sup>	Upper Atmosphere Research Satellite	39A 22 EAFB
STS-44	F. Gregory <sup>3</sup> , Henricks, Musgrave <sup>4</sup> , Runco, J. S. Voss, Hennen	11/24/91 12/01/91	Atlantis <sup>10</sup>	Defense Support Program Satellite	39A 5 EAFB
STS-42	Grabe <sup>3</sup> , Oswald, Readdy, Thagard <sup>4</sup> , Hilmers <sup>4</sup> , Bondar, Merbold <sup>2</sup>	01/22/92 01/30/92	Discovery <sup>14</sup>	IML-1	39A 22 EAFB
STS-45	Bolden <sup>3</sup> , Duffy, Sullivan <sup>3</sup> , Leestma <sup>3</sup> , Foale, Frimout, Lichtenberg <sup>2</sup>	03/24/92 04/02/92	Atlantis <sup>11</sup>	ATLAS-1	39A 33 KSC
STS-49	Brandenstein <sup>4</sup> , Chilton, Melnick <sup>2</sup> , Akers <sup>2</sup> , K. Thornton <sup>2</sup> , Hieb <sup>2</sup> , Thuot <sup>2</sup>	05/07/92 05/16/92	Endeavour <sup>1</sup>	Intelsat VI repair	39B 22 EAFB
STS-50	R. Richards <sup>3</sup> , Bowersox, Dunbar <sup>2</sup> , Meade <sup>2</sup> , E. Baker <sup>2</sup> , Trinh, DeLucas	06/25/92 07/09/92	Columbia <sup>12</sup>	USML-1	39A 33 KSC
STS-46	Shriver <sup>3</sup> , A. Allen, Hoffman <sup>3</sup> , Ivins <sup>2</sup> , Chang-Diaz <sup>3</sup> , Nicollier, Malerba	07/31/92 08/08/92	Atlantis <sup>12</sup>	TSS-1, EURECA	39B 33 KSC
STS-47	Gibson <sup>4</sup> , C. Brown, Lee <sup>2</sup> , Davis, Apt <sup>2</sup> , Jemison, Mohri	09/12/92 09/20/92	Endeavour <sup>2</sup>	Spacelab-J	39B 33 KSC
STS-52	Wetherbee <sup>2</sup> , M. Baker <sup>2</sup> , Shepherd <sup>3</sup> , Jernigan <sup>2</sup> , Veach <sup>2</sup> , MacLean	10/22/92 11/01/92	Columbia <sup>13</sup>	LAGEOS II, USMP-1	39B 33 KSC
STS-53	D. Walker <sup>3</sup> , Cabana <sup>2</sup> , Bluford <sup>4</sup> , J. S. Voss <sup>2</sup> , Clifford	12/02/92 12/09/92	Discovery <sup>15</sup>	DoD	39A 22 EAFB
STS-54	Casper <sup>2</sup> , McMonagle <sup>2</sup> , Runco <sup>2</sup> , Harbaugh <sup>2</sup> , Helms	01/13/93 01/19/93	Endeavour <sup>3</sup>	TDRS-F	39B 33 KSC
STS-56	Cameron <sup>2</sup> , Oswald <sup>2</sup> , Cockrell, Foale <sup>2</sup> , Ochoa	04/08/93 04/17/93	Discovery <sup>16</sup>	ATLAS-2	39B 33 KSC
STS-55	Nagel <sup>4</sup> , Henricks <sup>2</sup> , Ross <sup>4</sup> , Precourt, Harris, Walter, Schlegel	04/26/93 05/06/93	Columbia <sup>14</sup>	Spacelab D-2	39A 22 EAFB
STS-57	Grabe <sup>4</sup> , Duffy <sup>2</sup> , Low <sup>3</sup> , Sherlock-Currie, J. E. Voss, Wisoff	06/21/93 07/01/93	Endeavour <sup>4</sup>	SPACEHAB-1, EURECA retrieval	39B 33 KSC
STS-51	Culbertson <sup>2</sup> , Readdy <sup>2</sup> , Newman, Bursch, Walz	09/12/93 09/22/93	Discovery <sup>17</sup>	ACTS-TOS, ORFEUS-SPAS	39B 15 KSC
STS-58	Blaha <sup>4</sup> , Searfoss, Seddon <sup>3</sup> , W. McArthur, Wolf, Lucid <sup>4</sup> , Fettman	10/18/93 11/01/93	Columbia <sup>15</sup>	Spacelab Life Sciences-2	39B 22 EAFB
STS-61	Covey <sup>4</sup> , Bowersox <sup>2</sup> , Musgrave <sup>5</sup> , Hoffman <sup>4</sup> , K. Thornton <sup>3</sup> , Akers <sup>2</sup> , Nicollier <sup>2</sup>	12/02/93 12/13/93	Endeavour <sup>5</sup>	First Hubble Servicing Mission	39B 33 KSC
STS-60	Bolden <sup>4</sup> , Reightler <sup>2</sup> , Chang-Diaz <sup>4</sup> , Davis <sup>2</sup> , Sega, Krikalev	02/03/94 02/11/94	Discovery <sup>18</sup>	SPACEHAB-2 WSF-1	39A 15 KSC
STS-62	Casper <sup>3</sup> , A. Allen <sup>2</sup> , Gemar <sup>3</sup> , Ivins <sup>3</sup> , Thuot <sup>4</sup>	03/04/94 03/18/94	Columbia <sup>16</sup>	USMP-2, OAST-2	39B 33 KSC
STS-59	Gutierrez <sup>2</sup> , Chilton <sup>2</sup> , Godwin <sup>2</sup> , Apt <sup>3</sup> , Clifford <sup>2</sup> , Jones	04/09/94 04/20/94	Endeavour <sup>6</sup>	SRL-1	39A 22 EAFB
STS-65	Cabana <sup>3</sup> , Halsell, Hieb <sup>3</sup> , D. Thomas, Walz <sup>2</sup> , Chiao, Mukai	07/08/94 07/23/94	Columbia <sup>17</sup>	IML-2	39A 33 KSC
STS-64	R. Richards <sup>4</sup> , Hammond <sup>2</sup> , Helms <sup>2</sup> , Meade <sup>3</sup> , Lee <sup>3</sup> , Linenger	09/09/94 09/20/94	Discovery <sup>19</sup>	LITE	39B 04 EAFB
STS-68	M. Baker <sup>3</sup> , Wilcutt, Jones <sup>2</sup> , Bursch <sup>2</sup> , Wisoff <sup>2</sup> , S. Smith	09/30/94 10/11/94	Endeavour <sup>7</sup>	SRL-2	39A 22 EAFB
STS-66	McMonagle <sup>3</sup> , C. Brown <sup>2</sup> , Ochoa <sup>2</sup> , Tanner, Parazynski, Clervoy	11/03/94 11/14/94	Atlantis <sup>13</sup>	ATLAS-3, CRISTA-SPAS	39B 22 EAFB
STS-63	Wetherbee <sup>3</sup> , Collins, Foale <sup>3</sup> , J. E. Voss <sup>2</sup> , Harris <sup>2</sup> , Titov	02/03/95 02/11/95	Discovery <sup>20</sup>	SPACEHAB-3	39B 15 KSC
STS-67	Oswald <sup>3</sup> , W. Gregory, Jernigan <sup>3</sup> , Grunsfeld, Lawrence, Parise <sup>2</sup> , Durrance <sup>2</sup>	03/02/95 03/18/95	Endeavour <sup>8</sup>	ASTRO-2	39A 22 EAFB
STS-71	Gibson <sup>5</sup> , Precourt <sup>2</sup> , E. Baker <sup>3</sup> , Dunbar <sup>4</sup> , Harbaugh <sup>3</sup> ; Up to Mir: Solovyev, Budarin; Down from Mir: Thagard <sup>2</sup> , Strekalov <sup>2</sup> , Dezhurov	06/27/95 07/07/95	Atlantis <sup>14</sup>	First Shuttle/Mir docking	39A 15 KSC



**Operational Flights (continued)**

STS-70	Henricks <sup>3</sup> , Kregel, Sherlock-Currie <sup>2</sup> , D. Thomas <sup>2</sup> , Weber	07/13/95 07/22/95	Discovery <sup>21</sup>	TDRS-G	39B 33 KSC
STS-69	D. Walker <sup>4</sup> , Cockrell <sup>2</sup> , J. S. Voss <sup>3</sup> , Newman <sup>2</sup> , Gernhardt	09/07/95 09/18/95	Endeavour <sup>9</sup>	Spartan 201-03, WSF-2	39A 33 KSC
STS-73	Bowersox <sup>3</sup> , Rominger, K. Thornton <sup>4</sup> , Coleman, Lopez-Alegria, Leslie, Sacco	10/20/95 11/05/95	Columbia <sup>18</sup>	USML-2	39B 33 KSC
STS-74	Cameron <sup>3</sup> , Halsell <sup>2</sup> , Ross <sup>5</sup> , W. McArthur <sup>2</sup> , Hadfield	11/12/95 11/20/95	Atlantis <sup>15</sup>	Second Shuttle/Mir docking	39A 33 KSC
STS-72	Duffy <sup>3</sup> , Jett, Chiao <sup>2</sup> , Barry, Scott, Wakata	01/11/96 01/20/96	Endeavour <sup>10</sup>	SFU retrieval, OAST-Flyer	39B 15 KSC
STS-75	A. Allen <sup>3</sup> , Horowitz, Chang-Diaz <sup>2</sup> , Cheli, Hoffman <sup>5</sup> , Nicollier <sup>3</sup> , Guidoni	02/22/96 03/09/96	Columbia <sup>19</sup>	TSS-1R, USMP-3	39B 33 KSC
STS-76	Chilton <sup>3</sup> , Searfoss <sup>2</sup> , Godwin <sup>3</sup> , Clifford <sup>3</sup> , Sega <sup>2</sup> ; Up to Mir: Lucid <sup>5</sup>	03/22/96 03/31/96	Atlantis <sup>16</sup>	Third Shuttle/Mir docking, SPACEHAB	39B 22 EAFB
STS-77	Casper <sup>4</sup> , C. Brown <sup>3</sup> , Bursch <sup>3</sup> , Runco <sup>3</sup> , Garneau <sup>2</sup> , A. Thomas	05/19/96 05/29/96	Endeavour <sup>11</sup>	SPACEHAB-4, Spartan-IAE	39B 33 KSC
STS-78	Henricks <sup>4</sup> , Kregel <sup>2</sup> , Helms <sup>3</sup> , Linnehan, Brady, Favier, Thirsk	06/20/96 07/07/96	Columbia <sup>20</sup>	Life and Microgravity Spacelab	39B 33 KSC
STS-79	Readdy <sup>3</sup> , Wilcutt <sup>2</sup> , Akers <sup>4</sup> , Apt <sup>4</sup> , Walz <sup>2</sup> ; Up to Mir: Blaha <sup>3</sup> ; Down from Mir: Lucid <sup>5</sup>	09/16/96 09/26/96	Atlantis <sup>17</sup>	Fourth Shuttle/Mir docking, SPACEHAB	39A 15 KSC
STS-80	Cockrell <sup>3</sup> , Rominger <sup>2</sup> , Jernigan <sup>4</sup> , Jones <sup>3</sup> , Musgrave <sup>5</sup>	11/19/96 12/07/96	Columbia <sup>21</sup>	ORFEUS-SPAS II, WSF-3	39B 33 KSC
STS-81	M. Baker <sup>4</sup> , Jett <sup>2</sup> , Grunfeld <sup>2</sup> , Ivins <sup>4</sup> , Wisoff <sup>3</sup> ; Up to Mir: Linenger <sup>2</sup> ; Down from Mir: Blaha <sup>3</sup>	01/12/97 01/22/97	Atlantis <sup>18</sup>	Fifth Shuttle/Mir docking, SPACEHAB-DM	39B 33 KSC
STS-82	Bowersox <sup>4</sup> , Horowitz <sup>2</sup> , Lee <sup>4</sup> , Hawley <sup>4</sup> , Harbaugh <sup>4</sup> , S. Smith <sup>2</sup> , Tanner <sup>2</sup>	02/11/97 02/21/97	Discovery <sup>22</sup>	Second Hubble Servicing Mission	39A 15 KSC
STS-83	Halsell <sup>3</sup> , Still-Kilrain, J. E. Voss <sup>3</sup> , D. Thomas <sup>3</sup> , Gernhardt <sup>2</sup> , Crouch, Linteris	04/04/97 04/08/97	Columbia <sup>22</sup>	MSL-1	39A 33 KSC
STS-84	Precourt <sup>3</sup> , Collins <sup>2</sup> , Noriega, Lu, Clervoy <sup>2</sup> , Kondakova; Up to Mir: Foale <sup>4</sup> ; Down from Mir: Linenger <sup>3</sup>	05/15/97 05/24/97	Atlantis <sup>19</sup>	Sixth Shuttle/Mir docking	39A 33 KSC
STS-94	Halsell <sup>4</sup> , Still-Kilrain <sup>2</sup> , J. E. Voss <sup>3</sup> , Crouch <sup>2</sup> , D. Thomas <sup>4</sup> , Gernhardt <sup>3</sup> , Linteris <sup>2</sup>	07/01/97 07/17/97	Columbia <sup>23</sup>	MSL-1	39A 33 KSC
STS-85	C. Brown <sup>4</sup> , Rominger <sup>3</sup> , Davis <sup>3</sup> , Curbeam, Robinson, Tryggvason	08/07/97 08/19/97	Discovery <sup>23</sup>	CRISTA-SPAS-02	39A 33 KSC
STS-86	Wetherbee <sup>4</sup> , Bloomfield, Titov <sup>2</sup> , Lawrence <sup>2</sup> , Parazynski <sup>2</sup> , Chretien; Up to Mir: Wolf <sup>2</sup> ; Down from Mir: Foale <sup>5</sup>	09/25/97 10/06/97	Atlantis <sup>20</sup>	Seventh Shuttle/Mir docking	39A 15 KSC
STS-87	Kregel <sup>3</sup> , Lindsey, Scott <sup>2</sup> , Chawla, Doi, Kadenyuk	11/19/97 12/05/97	Columbia <sup>24</sup>	USMP-4, Spartan 201-04	39B 33 KSC
STS-89	Wilcutt <sup>3</sup> , Edwards, Dunbar <sup>5</sup> , M. Anderson, Reilly, Sharipov; Up to Mir: A. Thomas <sup>2</sup> ; Down from Mir: Wolf <sup>3</sup>	01/22/98 01/31/98	Endeavour <sup>12</sup>	Eighth Shuttle/Mir docking	39A 15 KSC
STS-90	Searfoss <sup>3</sup> , Altman, Linnehan <sup>2</sup> , Hire, D. R. Williams, Buckey, Pawelczyk	04/17/98 05/03/98	Columbia <sup>25</sup>	NeuroLab, GAS	39B 33 KSC
STS-91	Precourt <sup>4</sup> , Gorie, Lawrence <sup>2</sup> , Chang-Diaz <sup>6</sup> , Kavandi, Ryumin <sup>4</sup> ; Down from Mir: A. Thomas <sup>3</sup>	06/02/98 06/12/98	Discovery <sup>24</sup>	Ninth Shuttle/Mir docking, SPACEHAB-SM	39A 33 KSC
STS-95	C. Brown <sup>5</sup> , Lindsey <sup>2</sup> , Parazynski <sup>3</sup> , Robinson <sup>2</sup> , Duque, Mukai <sup>2</sup> , Glenn	10/29/98 11/07/98	Discovery <sup>25</sup>	SPACEHAB	39B 33 KSC
STS-88	Cabana <sup>4</sup> , Sturckow, Sherlock-Currie <sup>3</sup> , Ross <sup>5</sup> , Newman <sup>3</sup> , Krikalev <sup>2</sup>	12/04/98 12/15/98	Endeavour <sup>13</sup>	First ISS Flight, Unity module, Hitchhiker	39A 15 KSC
STS-96	Rominger <sup>4</sup> , Husband, Ochoa <sup>3</sup> , Jernigan <sup>5</sup> , Barry <sup>2</sup> , Payette, Tokarev	05/27/99 06/06/99	Discovery <sup>26</sup>	Second ISS Flight, Strela, STARSHINE	39B 15 KSC
STS-93	Collins <sup>3</sup> , Ashby, Hawley <sup>5</sup> , Coleman <sup>2</sup> , Tognini	07/23/99 07/27/99	Columbia <sup>26</sup>	Chandra X-ray Observatory	39B 33 KSC
STS-103	C. Brown <sup>6</sup> , S. Kelly, S. Smith <sup>3</sup> , Foale <sup>6</sup> , Grunfeld <sup>3</sup> , Nicollier <sup>4</sup> , Clervoy <sup>2</sup>	12/19/99 12/27/99	Discovery <sup>27</sup>	Third Hubble Servicing Mission	39B 33 KSC
STS-99	Kregel <sup>4</sup> , Gorie <sup>2</sup> , Kavandi <sup>2</sup> , J. E. Voss <sup>5</sup> , Mohr <sup>2</sup> , Thiele	02/11/00 02/22/00	Endeavour <sup>14</sup>	Shuttle Radar Topography Mission	39A 33 KSC
STS-101	Halsell <sup>5</sup> , Horowitz <sup>3</sup> , Weber <sup>2</sup> , J. S. Voss <sup>4</sup> , J. Williams, Helms <sup>4</sup> , Usachev	05/19/00 05/29/00	Atlantis <sup>21</sup>	Third ISS Flight, hardware, supplies	39A 15 KSC
STS-106	Wilcutt <sup>4</sup> , Altman <sup>2</sup> , Lu <sup>2</sup> , Malenchenko, Morokov, Mastracchio, Burbank	09/08/00 09/20/00	Atlantis <sup>22</sup>	Fourth ISS Flight, hardware, supplies	39B 15 KSC
STS-92	Duffy <sup>4</sup> , Melroy, Chiao <sup>3</sup> , W. McArthur <sup>3</sup> , Wisoff <sup>4</sup> , Lopez-Alegria <sup>2</sup> , Wakata <sup>2</sup>	10/11/00 10/24/00	Discovery <sup>28</sup>	ISS Z1 truss, PMA-3	39A 22 EAFB
STS-97	Jett <sup>3</sup> , Bloomfield <sup>2</sup> , Tanner <sup>3</sup> , Noriega <sup>2</sup> , Garneau <sup>3</sup>	11/30/00 12/11/00	Endeavour <sup>15</sup>	ISS P6 truss solar arrays	39B 15 KSC
STS-98	Cockrell <sup>4</sup> , Polansky, Curbeam <sup>2</sup> , Jones <sup>4</sup> , Ivins <sup>5</sup>	02/07/01 02/20/01	Atlantis <sup>23</sup>	ISS Destiny lab, PMA-2	39A 22 EAFB
STS-102	Wetherbee <sup>5</sup> , J. Kelly, A. Thomas <sup>4</sup> , P. Richards; Up to ISS: J. S. Voss <sup>5</sup> , Helms <sup>5</sup> , Usachev <sup>2</sup> ; Down from ISS: Shepherd <sup>4</sup> , Gidzenko, Krikalev <sup>3</sup>	03/08/01 03/21/01	Discovery <sup>29</sup>	ISS MPLM Leonardo	39B 15 KSC
STS-100	Rominger <sup>5</sup> , Ashby <sup>2</sup> , Hadfield <sup>2</sup> , Phillips, Guidoni <sup>2</sup> , Lonchakov, Parazynski <sup>4</sup>	04/19/01 05/01/01	Endeavour <sup>16</sup>	ISS Canadarm2, MPLM Raffaello	39A 22 EAFB
STS-104	Lindsey <sup>3</sup> , Hobaugh, Kavandi <sup>3</sup> , Gernhardt <sup>4</sup> , Reilly <sup>2</sup>	07/12/01 07/24/01	Atlantis <sup>24</sup>	ISS Quest Joint Airlock	39B 15 KSC
STS-105	Horowitz <sup>4</sup> , Sturckow <sup>2</sup> , Barry <sup>3</sup> , Forrester; Up to ISS: Culbertson <sup>3</sup> , Dezhurov <sup>2</sup> , Tyurin; Down from ISS: Usachev <sup>3</sup> , Helms <sup>5</sup> , J. S. Voss <sup>5</sup>	08/10/01 08/22/01	Discovery <sup>30</sup>	ISS MPLM Leonardo, Early Ammonia Servicer	39A 15 KSC
STS-108	Gorie <sup>3</sup> , M. Kelly, Godwin <sup>4</sup> , Tani; Up to ISS: Onufrienko, Bursch <sup>4</sup> , Walz <sup>4</sup> ; Down from ISS: Culbertson <sup>4</sup> , Dezhurov <sup>3</sup> , Tyurin <sup>2</sup>	12/05/01 12/17/01	Endeavour <sup>17</sup>	ISS MPLM Raffaello	39B 15 KSC
STS-109	Altman <sup>3</sup> , Carey, Grunfeld <sup>4</sup> , Massimino Linnehan <sup>3</sup> , Newman <sup>4</sup> , Sherlock-Currie <sup>4</sup>	03/01/02 03/12/02	Columbia <sup>27</sup>	Fourth Hubble Servicing Mission	39A 33 KSC
STS-110	Bloomfield <sup>3</sup> , Frick, Ross <sup>7</sup> , S. Smith <sup>3</sup> , Ochoa <sup>4</sup> , Morin, Walheim	04/08/02 04/19/02	Atlantis <sup>25</sup>	ISS S0 truss, Mobile Transporter	39B 33 KSC
STS-111	Cockrell <sup>5</sup> , Lockhart, Chang-Diaz <sup>7</sup> , Perrin; Up to ISS: Korzun, Whitson, Treschev; Down from ISS: Onufrienko <sup>2</sup> , Bursch <sup>5</sup> , Walz <sup>5</sup>	06/05/02 06/19/02	Endeavour <sup>18</sup>	ISS MBS, MPLM Leonardo	39A 22 EAFB

STS-112	Ashby <sup>4</sup> , Melroy <sup>2</sup> , Wolf <sup>4</sup> , Sellers, Magnus, Yurchikhin	10/07/02 10/18/02	Atlantis <sup>26</sup>	ISS S1 truss, CETA Cart A	39B 33 KSC
STS-113	Wetherbee <sup>6</sup> , Lockhart <sup>2</sup> , Lopez-Alegria <sup>3</sup> , Herrington; Up to ISS: Bowersox <sup>5</sup> , Budarin <sup>2</sup> , Pettit; Down from ISS: Korzun <sup>2</sup> , Whitson <sup>2</sup> , Treschev <sup>2</sup>	11/23/02 12/07/02	Endeavour <sup>19</sup>	ISS P1 truss, CETA Cart B	39A 33 KSC
STS-107	Husband <sup>2</sup> , McCool, M. Anderson <sup>2</sup> , Chawla <sup>2</sup> , D. Brown, Clark, Ramon	01/16/03	Columbia <sup>28</sup>	ISS SPACEHAB, FREESTAR, SIMPLEX, RAMBO	39A Columbia and crew were lost over east Texas
STS-114	Collins <sup>4</sup> , J. Kelly <sup>2</sup> , Noguchi, Robinson <sup>3</sup> , A. Thomas <sup>5</sup> , Lawrence <sup>4</sup> , Camarda	07/26/05 08/09/05	Discovery <sup>31</sup>	ISS OBSS laser scanner, new launch cameras	39B 22 EAFB
STS-121	Lindsey <sup>4</sup> , M. Kelly <sup>2</sup> , Sellers <sup>2</sup> , Fossum, Nowak, Wilson; Up to ISS: Reiter	07/04/06 07/17/06	Discovery <sup>32</sup>	ISS MPLM Leonardo	39B 15 KSC
STS-115	Jett <sup>4</sup> , Ferguson, Tanner <sup>4</sup> , Burbank <sup>2</sup> , MacLean <sup>3</sup> , Stefanyshyn-Piper	09/09/06 09/21/06	Atlantis <sup>27</sup>	ISS P3/P4 truss	39B 33 KSC
STS-116	Polansky <sup>2</sup> , Oefelein, Curbeam <sup>3</sup> , Higginbotham, Patrick, Fuglesang; Up to ISS: S. Williams; Down from ISS: Reiter <sup>2</sup>	12/09/06 12/22/06	Discovery <sup>33</sup>	ISS P5 truss	39B 15 KSC
STS-117	Sturckow <sup>3</sup> , Archambault, Reilly <sup>3</sup> , Olivas, Swanson, Forrester <sup>2</sup> ; Up to ISS: Anderson; Down from ISS: S. Williams <sup>2</sup>	06/08/07 06/22/07	Atlantis <sup>28</sup>	ISS S3/S4 truss	39A 22 EAFB
STS-118	S. Kelly <sup>2</sup> , Hobaugh <sup>2</sup> , D. R. Williams <sup>2</sup> , Drew, Mastracchio <sup>2</sup> , Caldwell-Dyson, Morgan	08/08/07 08/21/07	Endeavour <sup>20</sup>	ISS S5 truss, CMG ESP-3	39A 15 KSC
STS-120	Melroy <sup>3</sup> , Zamka, Parazynski <sup>5</sup> , Wheelock, Wilson <sup>2</sup> , Nespoli; Up to ISS: Tani <sup>2</sup> ; Down from ISS: Anderson <sup>2</sup>	10/23/07 11/07/07	Discovery <sup>34</sup>	ISS Harmony module	39A 33 KSC
STS-122	Frick <sup>2</sup> , Poindexter, Walheim <sup>2</sup> , Love, Melvin, Schlegel <sup>2</sup> ; Up to ISS: Eyharts; Down from ISS: Tani <sup>3</sup>	02/07/08 02/20/08	Atlantis <sup>29</sup>	ISS Columbus science lab	39A 15 KSC
STS-123	Gorie <sup>4</sup> , G. H. Johnson, Linnehan <sup>4</sup> , Behnken, Foreman, Doi <sup>2</sup> ; Up to ISS: Reisman; Down from ISS: Eyharts <sup>2</sup>	03/11/08 03/26/08	Endeavour <sup>21</sup>	ISS Kibo ELM-PS, Dextre	39A 15 KSC
STS-124	M. Kelly <sup>3</sup> , Ham, Nyberg, Garan, Fossum <sup>2</sup> , Hoshide; Up to ISS: Chamitoff; Down from ISS: Reisman <sup>2</sup>	05/31/08 06/14/08	Discovery <sup>35</sup>	ISS Kibo JEM-PM, Kibo RMS	39A 15 KSC
STS-126	Ferguson <sup>2</sup> , Boe, Bowen, Kimbrough, Stefanyshyn-Piper <sup>2</sup> , Pettit <sup>2</sup> ; Up to ISS: Magnus <sup>2</sup> ; Down from ISS: Chamitoff	11/14/08 11/30/08	Endeavour <sup>22</sup>	ISS MPLM Leonardo temporary runway, EAFB	39A
STS-119	Archambault <sup>2</sup> , Antonelli, Acaba, Arnold, Phillips <sup>2</sup> , Swanson <sup>2</sup> ; Up to ISS: Wakata <sup>3</sup> ; Down from ISS: Magnus <sup>3</sup>	03/15/09 03/28/09	Discovery <sup>36</sup>	ISS S6 truss	39A 15 KSC
STS-125	Altman <sup>4</sup> , G. C. Johnson, Good, Feustel, M. McArthur, Grunfeld <sup>5</sup> , Massimino <sup>2</sup>	05/11/09 05/24/09	Atlantis <sup>30</sup>	Fifth Hubble Servicing Mission	39A 22 EAFB
STS-127	Polansky <sup>3</sup> , Hurley, Cassidy, Marshburn, Wolf <sup>2</sup> , Payette <sup>2</sup> ; Up to ISS: Kopra; Down from ISS: Wakata <sup>4</sup>	07/15/09 07/31/09	Endeavour <sup>23</sup>	ISS Kibo JEM-EF, Kibo ELM-ES, ICC-VLD	39A 15 KSC
STS-128	Sturckow <sup>4</sup> , Ford, Forrester <sup>3</sup> , Hernandez, Fuglesang <sup>2</sup> , Olivas <sup>2</sup> ; Up to ISS: Stott; Down from ISS: Kopra <sup>2</sup>	08/28/09 09/11/09	Discovery <sup>37</sup>	ISS MPLM Leonardo	39A 22 EAFB
STS-129	Hobaugh <sup>3</sup> , Wilmore, Melvin <sup>2</sup> , Bresnik, Foreman <sup>2</sup> , Satcher; Down from ISS: Stott <sup>2</sup>	11/16/09 11/27/09	Atlantis <sup>31</sup>	ISS ELC-1, ELC-2	39A 33 KSC
STS-130	Zamka <sup>2</sup> , Virts, Hire <sup>2</sup> , Robinson <sup>4</sup> , Patrick <sup>2</sup> , Behnken <sup>2</sup>	02/08/10 02/21/10	Endeavour <sup>24</sup>	ISS Tranquility module, cupola	39A 15 KSC
STS-131	Poindexter <sup>2</sup> , Dutton, Mastracchio <sup>3</sup> , Metcalf-Lindenburger, Wilson <sup>3</sup> , Anderson <sup>3</sup> , Yamazaki	04/05/10 04/20/10	Discovery <sup>38</sup>	ISS MPLM Leonardo	39A 33 KSC
STS-132	Ham <sup>2</sup> , Antonelli <sup>2</sup> , Reisman <sup>3</sup> , Good <sup>2</sup> , Bowen <sup>2</sup> , Sellers <sup>3</sup>	05/14/10 05/26/10	Atlantis <sup>32</sup>	ISS Rassvet Mini-Research Module	39A 33 KSC
STS-133	Lindsey <sup>6</sup> , Boe <sup>2</sup> , Drew <sup>2</sup> , Bowen <sup>3</sup> , Barratt, Stott <sup>3</sup>	02/24/11 03/09/11	Discovery <sup>39</sup>	ISS PMM, ELC-4, Robonaut 2	39A 15 KSC
STS-134	M. Kelly <sup>4</sup> , G. H. Johnson <sup>2</sup> , Fincke, Vittori, Feustel <sup>2</sup> , Chamitoff <sup>3</sup>	05/16/11 06/01/11	Endeavour <sup>25</sup>	ISS AMS, ELC-3	39A 15 KSC
STS-135	Ferguson <sup>3</sup> , Hurley <sup>2</sup> , Magnus <sup>4</sup> , Walheim <sup>3</sup>	Scheduled for 07/08/11	Atlantis <sup>33</sup>	ISS MPLM Raffaello	39A



National Aeronautics and Space Administration

**John F. Kennedy Space Center**  
Kennedy Space Center, Fla., 32899

[www.nasa.gov](http://www.nasa.gov)

FS-2011-6-132-KSC