



Columbia (OV-102)

Shuttle orbiter Columbia (OV-102) was the first Space Shuttle vehicle of NASA's fleet of reusable winged spaceships to fly in space. Columbia's first mission, STS-1, launched from Kennedy Space Center's pad 39A on April 12, 1981.

On Feb. 1, 2003, Columbia and her seven-member crew were lost over east Texas on her landing descent to KSC, approximately 16 minutes before landing. She was returning from mission STS-107, a microgravity research mission. During the months that followed, searchers recovered more than 83,800 pieces of debris, representing approximately 38 percent of Columbia's dry weight.

During her 24 years of service, Columbia launched on a total of 28 missions, traveled more than 123 million statute miles in space and spent more than 300 cumulative days in space, including her last launch from KSC on mission STS-107, Jan. 16, 2003.

Columbia initiated NASA's Space Shuttle flight program when it lifted off in the spring of 1981, carrying the two-person crew of John Young and Robert Crippen. Columbia proved the operational concept of a winged, reusable spaceship by successfully completing the Orbital Flight Test Program—missions STS-1 through STS-4.

During her years of service, Columbia achieved an unprecedented list of firsts in NASA's Space Shuttle flight program, including first reuse (STS-2 on Nov. 12, 1981) of a crew-assisted space vehicle and first operational STS mission (STS-5 on Nov. 11, 1982).

Columbia made the first and only Space



Shuttle landing at White Sands, N.M., on mission STS-3 (March 22, 1982), carried the first four-member crew (STS-5) and the first six-member crew (STS-9).

During mission STS-9, launched Nov. 28, 1983, Columbia carried the Spacelab aloft for the first time.

Mission STS-61C, launched Jan. 12, 1986, was the first flight of Columbia after its first Orbiter Maintenance Down Period (OMDP) in Palmdale, Calif. (1984-85).

Columbia underwent two subsequent scheduled OMDPs in Palmdale (1991-92 and 1994-95).

Columbia again went through an Orbiter Major

Modification (OMM) in 1999-2001, in Palmdale. She experienced more than 100 improvements, including the inspection and repair of more than 215 miles of wiring. A new Multifunctional Electronic Display Subsystem, or "glass cockpit," replaced the 32 analog gauges and four cathode ray tube monitors in the old cockpit with 11 state-of-the-art, full-color panel displays.

Mission STS-50, launched June 25, 1992, was Columbia's first extended duration flight on the U.S. Microgravity Laboratory-1 mission. The mission was 13 days, 19 hours and 30 minutes long. Columbia flew 12 of the Space Program's 13 longest duration Shuttle missions. The record to date, held by Columbia, on Mission STS-80, is 17 days, 15 hours and 53 minutes, launched Nov. 19, 1996.

Columbia also earned the distinction of being the first orbiter commanded by the first female astronaut (Eileen Collins) on mission STS-93, launched July 23, 1999.

The orbiter Columbia was named after the Boston-based sloop captained by American Robert Gray. On May 11, 1792, Gray and his crew maneuvered the Columbia past the dangerous sandbar at the mouth of a river extending more than 1,000 miles through what is today southeastern British Columbia, Canada, and the Washington-Oregon border.

Other sailing ships have further enhanced the luster of the name *Columbia*. The first U.S. Navy ship to circle the globe bore that title, as did the command module for Apollo 11, the first lunar landing mission.

Flights of Columbia (OV-102)

(1981 to 2003)

Times OV-102 Flown	Mission Name	Crew	Launch Pad	Launch Date	Landing Date & Site	Primary Payload
1	STS-1	Young, Crippen	39A	04/12/81	04/14/81 at Edwards	—
2	STS-2	Engle, Truly	39A	11/12/81	11/14/81 at Edwards	OSTA-1
3	STS-3	Lousma, Fullerton	39A	03/22/82	03/30/82 at White Sands	OSS-1
4	STS-4	Mattingly, Hartsfield	39A	06/27/82	07/04/82 at Edwards	DOD 82-1
5	STS-5	Brand, Overmyer, Lenoir, Allen	39A	11/11/82	11/16/82 at Edwards	SBS-C; Anik C-3
6	STS-9	Young, Shaw, Parker, Garriott, Merbold, Lichtenberg	39A	11/28/83	12/08/83 at Edwards	Spacelab-1
7	61-C	Gibson, Bolden, Chang-Diaz, Hawley, Nelson, Cenker, Nelson	39A	01/12/86	01/18/86 at Edwards	SATCOM Ku-1
8	STS-28	Shaw, Richards, Leestma, Adamson, Brown	39B	08/08/89	08/13/89 at Edwards	DOD
9	STS-32	Brandenstein, Wetherbee, Dunbar, Ivins, Low	39A	01/09/90	01/20/90 at Edwards	SYNCOM IV-5; LDEF retrieval
10	STS-35	Brand, Gardner, Lounge, Hoffman, Parker, Parise, Durrance	39B	12/02/90	12/10/90 at Edwards	Astro-1
11	STS-40	O'Connor, Gutierrez, Jernigan, Seddon, Bagian, Gaffney, Hughes-Fulford	39B	06/05/91	06/14/91 at Edwards	SLS-1
12	STS-50	Richards, Bowersox, Dunbar, Baker, Meade, DeLucas, Trinh	39A	06/25/92	07/09/92 at KSC	USML-1
13	STS-52	Wetherbee, Baker, Veach, Jernigan, Shepherd, MacLean	39B	10/22/92	11/1/92 at KSC	LAGEOS II; USMP-1
14	STS-55	Nagel, Hendricks, Ross, Precourt, Harris, Walter, Schlegel	39A	4/26/93	5/6/93 at KSC	Spacelab-D2
15	STS-58	Blaaha, Searfoss, Seddon, McArthur, Wolf, Lucid, Fettman	39B	10/18/93	11/1/93 at Edwards	SLS-2
16	STS-62	Casper, Allen, Thuot, Gemar, Ivins	39B	3/4/94	3/18/94 at KSC	OAST-2; USMP-2
17	STS-65	Cabana, Halsell, Haib, Thomas, Walz, Chiao, Naito-Mukai	39A	7/8/94	7/23/94 at KSC	IML-2
18	STS-73	Bowersox, Rominger, Thornton, Lopez-Alegria, Coleman, Sacco, Leslie	39B	10/20/95	11/5/95 at KSC	USML-2
19	STS-75	Allen, Horowitz, Chang-Diaz, Hoffman, Cheli, Nicollier, Guidoni	39B	2/22/96	3/9/96 at KSC	TSS-1 R, USMP-3
20	STS-78	Henricks, Kregel, Helms, Linnehan, Brady, Favier, Thirsk	39B	6/20/96	7/7/96 at KSC	Life and Microgravity Spacelab (LMS)
21	STS-80	Cockrell, Rominger, Jernigan, Jones, Musgrave	39B	11/19/96	12/7/96 at KSC	ORFUEUS-SPAS-2, WSF-3
22	STS-83	Halsell, Still, Voss, Gernhardt, Thomas, Crouch, Linteris	39A	4/4/97	4/8/97 at KSC	Microgravity Science Laboratory -1 (MSL-1)
23	STS-94	Halsell, Still, Voss, Gernhardt, Thomas, Crouch, Linteris	39A	7/01/97	7/17/97 at KSC	Microgravity Science Laboratory -1 (MSL-1)
24	STS-87	Kregel, Lindsey, Scott, Chawla, Doi, Kadenyuk	39B	11/19/97	12/5/97 at KSC	U.S. Microgravity Payload-4 (USMP-4); Spartan-201-04
25	STS-90	Searfoss, Altman, Linnehan, Williams, Hire, Buckey, Paweczyk	39B	4/17/98	5/3/98 at KSC	Neurolab; GAS (Get-Away Special)
26	STS-93	Collins, Ashby, Hawley, Coleman, Tognini	39B	7/23/99	7/27/99 at KSC	Chandra X-ray Observatory
27	STS-109	Altman, Carey, Grunsfeld, Currie, Newman, Linnehan, Massimino	39B	3/01/02	3/12/02 at KSC	4th Hubble Space Telescope Servicing Mission
28	STS-107	Husband, McCool, Anderson, Chawla, Brown, Clark, Ramon	39A	1/16/03	2/01/03 Columbia and Crew Lost During Reentry	