

# Discovery (OV-103)

**D**iscovery was NASA's third space shuttle orbiter to join the fleet at Kennedy Space Center in Florida. Discovery also is known inside the space agency by its designation Orbiter Vehicle-103, or OV-103.

Construction of Discovery began on Aug. 27, 1979 and was completed four years later.

Discovery rolled out of the assembly plant building in Palmdale, Calif., October 1983 and was first launched Aug. 30, 1984.

When first flown, Discovery became the third operational orbiter, and it currently is the oldest orbiter in service.

It was named after two historic, Earth-bound exploring ships of the past. One was a vessel used by Henry Hudson in the early 1600s to explore the Hudson Bay and search for a northwest passage from the Atlantic to the Pacific.

The other was one of two ships used by the British explorer James Cook in the 1770s. Cook's voyages in the South Pacific led to the discovery of the Hawaiian Islands. Another of his ships was the Endeavour, the namesake of NASA's newest shuttle.

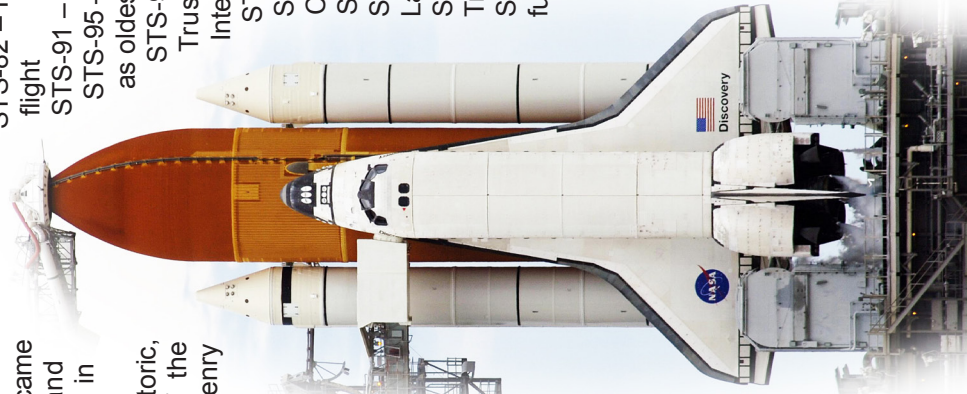
Discovery has had many notable flights and was the Return to Flight shuttle following both the Challenger and Columbia accidents. Discovery is targeted to liftoff on its final mission, STS-133, on Nov. 1, 2010. It will be the first space shuttle retired from NASA's fleet.

## KEY DISCOVERY MISSIONS

STS-41D - Maiden Flight  
STS-26 - Return to Flight after Challenger accident  
STS-31 - Launch of Hubble Space Telescope  
STS-60 - First flight of a Russian cosmonaut on a shuttle  
STS-63 - First Mir rendezvous; first female pilot  
STS-70 - First on-orbit shift in new Mission Control Center  
STS-82 - Highest altitude known for a shuttle flight  
STS-91 - Final shuttle-Mir docking  
STS-95 - Flight to return John Glenn to orbit as oldest human to fly in space  
STS-92 - Installation of the Z1 Integrated Truss Structure and PMA-3 to the International Space Station  
STS-102 - First ISS crew rotation  
STS-114 - Return to Flight after Columbia accident  
STS-116 - P5 Truss installed  
STS-124 - Delivery of Japan's Kibo Laboratory to ISS  
STS-119 - Completed ISS Integrated Truss Segment  
STS-128 - Final use of the shuttle for full ISS crew rotation

## THE NUMBERS (Prior to STS-133)

Total miles traveled: 142,917,535  
Total days in orbit: 351  
(8,441 hours, 50 minutes, 41 seconds)  
Total orbits: 5,628  
Total flights: 38  
Total crew members: 246  
Mir dockings: 1  
International Space Station dockings: 12



# NASAfacts

# Flights of Discovery (OV-103)

Times Flown	Mission Name	Crew	Launch Pad	Launch Date	Landing Date & Site	Primary Payload
1	41-D	Hartsfield, Coats, Resnik, Mullane, Hawley, Walker	39A	08/30/84	09/05/84 at Edwards	SBS; SYNCOM IV-2
2	51-A	Hauck, Walker, Fisher, Gardner, Allen	39A	11/08/84	11/16/84 at KSC	TELESAT-H; SYNCOM IV-1
3	51-C	Mattingly, Shriver, Buchli, Onizuka, Payton	39A	01/24/85	01/27/85 at KSC	DoD
4	51-D	Bobko, Williams, Seddon, Griggs, Hoffman, Walker, Garn	39A	04/12/85	04/19/85 at KSC	TELESAT-1; SYNCOM IV-3
5	51-G	Brandenstein, Creighton, Lucid, Nagel, Fabian, Baudry, Salman Al-Saud	39A	06/17/85	06/24/85 at Edwards	MORELOS-A; ARABSAT-A
6	51-I	Engle, Covey, Van Hoften, Lounge, Fisher	39A	08/27/85	09/03/85 at Edwards	AUSSAT-1; SYNCOM IV-4
7	STS-26	Hauck, Covey, Lounge, Hilmers, Nelson	39B	09/29/88	10/03/88 at Edwards	TDRS-3
8	STS-29	Coats, Blaha, Buchli, Springer, Bagian	39B	03/13/89	03/18/89 at Edwards	TDRS-4
9	STS-33	Gregory, Blaha, Musgrave, Thornton, Carter	39B	11/22/89	11/27/89 at Edwards	DoD
10	STS-31	Shriver, Bolden, Hawley, McCandless, Sullivan	39B	04/24/90	04/29/90 at Edwards	Hubble Space Telescope
11	STS-41	Richards, Cabana, Shepherd, Melnick, Akers	39B	10/06/90	10/10/90 at Edwards	Ulysses
12	STS-39	Coats, Hammond, Bluford, Hieb, Harbaugh, McMonagle, Veach	39A	04/28/91	05/06/92 at KSC	DoD
13	STS-48	Creighton, Reightler, Brown, Gemar, Buchli	39A	09/12/91	09/18/91 at Edward	UARS
14	STS-42	Grabe, Oswald, Readdy, Merbold, Thagard, Hilmers, Bondar	39A	01/22/92	01/30/92 at Edwards	IML-1
15	STS-53	Walker, Cabana, Bluford, Voss, Clifford	39A	12/02/92	12/09/92 at Edwards	DoD
16	STS-56	Cameron, Oswald, Cockrell, Foale, Ochoa	39B	04/08/93	04/17/93 at KSC	ATLAS-2
17	STS-51	Culbertson, Readdy, Newman, Bursch, Walz	39B	09/12/93	09/22/93 at KSC	ACTS
18	STS-60	Bolden, Reightler, Chang-Diaz, Davis, Sega, Krikalev	39A	02/03/94	02/11/94 at KSC	Wake Shield Facility-1; SPACEHAB-2
19	STS-64	Richards, Hammond, Helms, Meade, Lee, Linenger	39B	09/09/94	09/20/94 at Edwards	LITE; SPARTAN-201
20	STS-63	Wetherbee, Collins, Harris, Voss, Foale, Titov	39B	02/03/95	02/11/95 at KSC	Mir rendezvous; SPACEHAB-3
21	STS-70	Henricks, Kregel, Currie, Thomas, Weber	39B	07/13/95	07/22/95 at KSC	TDRS-7
22	STS-82	Bowersox, Horowitz, Lee, Hawley, Harbaugh, Smith, Tanner	39A	02/11/97	02/21/97 at KSC	2nd Hubble Space Telescope servicing
23	STS-85	Brown, Rominger, Davis, Curbeam, Robinson, Tryggvason	39A	08/07/97	08/19/97 at KSC	CRISTA-SPAS-2, JEM, TAS-1, IEH-2
24	STS-91	Precourt, Gorie, Lawrence, Chang-Diaz, Kavandi, Ryumin; Thomas (down from Mir)	39A	06/02/98	06/12/98 at KSC	9th and final Shuttle-Mir docking
25	STS-95	Brown, Lindsey, Parazynski, Robinson, Duque, Mukai, Glenn	39B	10/29/98	11/07/98 at KSC	SPACEHAB- SM; Spartan-201; HOST; IEH-26
26	STS-96	Rominger, Husband, Ochoa, Jernigan, Barry, Payette, Tokarev	39B	05/27/99	06/06/99 at KSC	Orbital Transfer Device, Strela, ISS supplies
27	STS-103	Brown, Kelly, Smith, Foale, Grunsfeld, Nicollier, Clervoy	39B	12/19/99	12/27/99 at KSC	3rd Hubble Space Telescope servicing
28	STS-92	Duffy, Melroy, Chiao, McArthur, Wisoff, Lopez-Alegria, Wakata	39A	10/11/00	10/24/00 at Edwards	100th Shuttle Flight, Zenith Z1 Truss,
29	STS-102	Wetherbee, Kelly, Thomas, Richards, Voss, Helms, Usachev	39B	03/08/01	03/21/01 at KSC	MPLM Leonardo, Expedition 2 Crew Up
30	STS-105	Horowitz, Sturckow, Barry, Forrester, Culbertson, Tyurin, Dezhurov	39A	08/10/01	08/22/01 at KSC	Expedition 3 Crew Up, Early Ammonia Servicer
31	STS-114	Collins, Kelly, Robinson, Thomas, Camarda, Lawrence, Noguchi	39B	07/26/05	08/09/05 at Edwards	RTF, MPLM Raffaello, HRF-2, OBSS
32	STS-121	Lindsey, Kelly, Fossum, Nowak, Wilson, Sellers, Reiter	39B	07/04/06	07/17/06 at KSC	Umbilical Reel Assembly, MPLM Leonardo
33	STS-116	Polansky, Oefelein, Curbeam, Higginbotham, Patrick, Fuglesang; Williams (up to ISS); Rieter (down from ISS)	39B	12/09/06	12/22/06 at KSC	P5 truss
34	STS-120	Melroy, Zamka, Parazynski, Wheelock, Wilson, Nespoli; Tani (up to ISS); Anderson (down from ISS)	39A	10/23/07	11/07/07 at KSC	Harmony Node 2
35	STS-124	Kelly, Ham, Nyberg, Garan, Fossum, Hoshide; Chamitoff (up to ISS); Reisman (down from ISS)	39A	05/31/08	06/14/08 at KSC	Kibo Japanese Pressurized Module
36	STS-119	Archambault, Antonelli, Acaba, Arnold, Phillips, Swanson; Wakata (up to ISS); Magnus (down from ISS)	39A	03/15/09	03/28/09 at KSC	S6 truss
37	STS-128	Sturckow, Ford, Olivas, Forrester, Hernandez, Fuglesang; Stott (up to ISS); Kopra (down from ISS)	39A	08/28/09	09/11/09 at Edwards	MPLM Leonardo
38	STS-131	Anderson, Dutton, Mastracchio, Metcalf-Lindenburger, Poindexter, Wilson, Yamazaki	39A	04/05/10	04/20/10 at KSC	MPLM Leonardo
39	STS-133	Lindsey, Boe, Drew, Barratt, Kopra, Stott	39A		International Space Station mission with the PMM, ELC-4 and Robonaut 2. Final planned mission for Discovery.	