



Challenger (OV-099)

Shuttle orbiter Challenger (OV-099) joined NASA's fleet of reusable winged spaceships in July 1982. It flew nine successful Space Shuttle missions, more than any other orbiter.

On January 28, 1986, the Challenger and its seven-member crew were lost 73 seconds after launch when a booster failure resulted in breakup of the vehicle.

Challenger started out as a high-fidelity structural test article (STA-099). As part of the Shuttle development program, it underwent 11 months of intensive vibration testing. Next, it was modified at Rockwell International's Palmdale, Calif., plant under a contract that called for Challenger's conversion from test vehicle to full operational status.

Spaceship Challenger was rolled out of the Palmdale facility on June 30, 1982. Ferried to the Kennedy Space Center, the vehicle became the second orbiter in the Shuttle fleet.

On April 4, 1983, Challenger blasted off from Complex 39's Pad A on its maiden space voyage. On this flight, the sixth of the Space Shuttle program, Challenger and its crew carried the first Tracking and Data Relay satellite.

Challenger's missions also included: the first night launch and landing of the Shuttle program (STS-8), the first landing of the Shuttle at Kennedy Space Center (41-B), and

the first in-orbit satellite capture and repair operation (41-C). The ship also was used for three Spacelab missions.

The orbiter Challenger became the workhorse of the space fleet, completing 87 earth orbits and logging more than 69 cumulative days in space. A wide variety of commercial and scientific payloads was deployed from

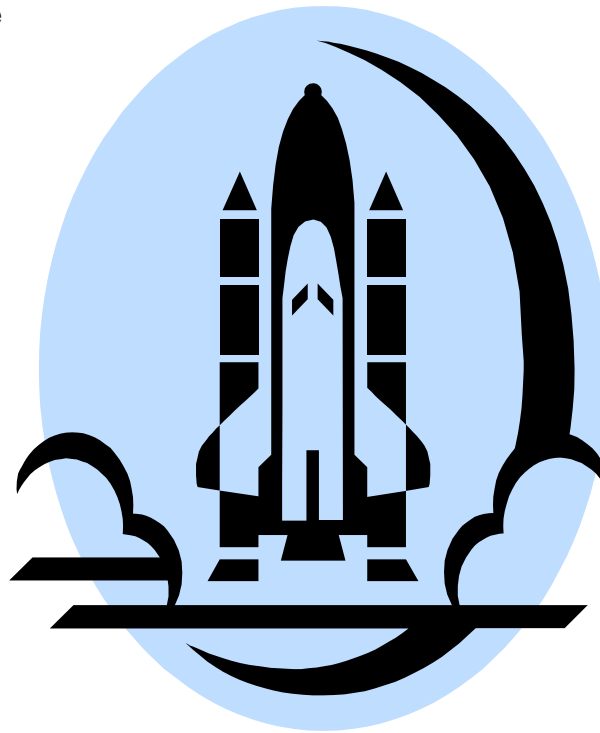
its payload bay.

Sixty men and women served on Challenger crews, several logging repeat flights on OV-099. The orbiter holds the record for the largest crew (8) ever to fly in space on a single mission (61-A, the D-1 German Spacelab flight).

Other firsts were achieved with Challenger: the first spacewalk of the Shuttle program (STS-6), the first American woman in space (STS-7), the first flight of an African American (STS-8), and the first untethered spacewalks using the Manned Maneuvering Units (41-B).

Challenger was named after an American Naval research vessel that sailed the Atlantic and Pacific oceans during the 1870s. The Apollo 17 lunar module also carried the name of Challenger. Like her historic predecessors, Space Shuttle Challenger and her crews made significant contributions to America's scientific growth.

Following the 51-L accident, a seven-month ocean salvage operation located and recovered approximately 45 percent of the orbiter. After analysis, the remnants were transported to an abandoned Minuteman missile complex on Cape Canaveral Air Force Station in January 1987. There, in two silos and adjacent rooms, they will remain in long-term storage.



Flights of Challenger (OV-099)

(1983-1986)

Times OV-99 Flown	Mission Name	Crew	Launch Pad	Launch Date	Landing Date & Site	Primary Payload
1	STS-6	Weitz, Bobko, Peterson, Musgrave	39A	4/4/83	4/9/83 at Edwards	TDRS-1
2	STS-7	Crippen, Hauck, Ride, Fabian, Thagard	39A	6/18/83	6/24/83 at Edwards	Anik C-2/Palapa B-1
3	STS-8	Truly, Brandenstein, Bluford, Gardner, Thornton	39A	8/30/83	9/5/83 at Edwards	INSAT 1 B
4	STS-41-B	Brand, Gibson, Stewart, McNair, McCandless	39A	2/3/84	2/11/84 at KSC	Westar VI/Palapa B-2
5	STS-41-C	Crippen, Scobee, van Hoften, Nelson, Hart	39A	4/6/84	4/13/84 at Edwards	Long Duration Exposure Facility
6	STS-41-G	Crippen, McBride, Sullivan, Ride, Leestma, Garneau, Scully-Power	39A	10/5/84	10/13/84 at KSC	ERBS/OSTA-3
7	STS-51-B	Overmyer, Gregory, Lind, Thagard, Thornton, van den Berg, Wang	39A	4/39/85	5/6/85 at Edwards	Spacelab 3
8	STS-51-F	Fullelton, Bridges, Musgrave, England, Henize, Acton, Bartoe	39A	7/29/85	8/6/85 at Edwards	Spacelab 2
9	STS-61-A	Hartsfield, Nagel, Buchli, Bluford, dunbar, Furrer, Ockels, Messerschmid	39A	10/30/85	11/6/85 at Edwards	Spacelab D-1
10	STS-51-L	Scobee, Smith, McNair, Resnik, Onizuka, Jarvis, McAuliffe	39B	1/28/86	-----	TDRS-B