

STS-135 FACT SHEET

Vehicle: Atlantis (OV-104)

Duration: 12 Days

Crew: 4

135th and FINAL Space Shuttle Flight
33rd Flight of Atlantis



The Crew of STS-135



Christopher Ferguson; Captain US Navy (Ret.)
3rd Spaceflight; Commander; NASA
Age: 49; Hometown: Philadelphia, Penn.
Logged 27 Days in Space (STS-115, STS-126)
Married; 3 Children
Nickname: Fergie



Dr. Sandra Magnus
3rd Spaceflight; Mission Specialist 1; NASA
Age: 46; Hometown: Belleville, Illinois
Logged 144 Days in Space (Exp.18, STS-112)
Ph.D. in Material Science



Douglas Hurley; Colonel US Marine Corps
2nd Spaceflight; Pilot; NASA
Age: 44; Hometown: Endicott, New York
Logged 15 Days in Space (STS-127)
Married; 1 Child
Nickname: Chunky



Rex Walheim; Colonel US Air Force (Ret.)
3rd Spaceflight; Mission Specialist 2; NASA
Age: 48; Hometown: Redwood City, Cal.
Logged 23 Days in Space (STS-110, STS-122)
Married; 2 Children
3rd Flight on Atlantis

Launch

Launch Date	July 8, 2011
Launch Time	11:26 a.m. EDT
Launch Site	Kennedy Space Center Launch Pad 39A
Launch Window	10 Minutes
Launch Opportunities	July 8-31

Landing

Landing Date	NET 20 July 2011
Landing Time	07:04 a.m. EDT
Landing Site	KSC Shuttle Landing Facility
Runway	15 or 33 (Decision during flight)

Atlantis

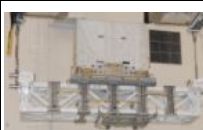


Vehicle	OV-104
Flights	32
Maiden Voyage	STS-51-J; Oct 3-7, 1985
Time in Space	293d18h
Orbits	4,648
Distance Traveled	120,650,900mi
Crews	191
MIR Dockings	7
ISS Dockings	11

Payloads



MPLM Raffaello, 4th Flight to ISS
(Multi-Purpose Logistics Module)
Filled with Internal Spares, Science
Racks, Food
16 Racks – Maximum Capacity



Robotic Refueling Mission RRM
Developed at Goddard Spaceflight Center,
To prove the concept of refueling Satellites
in Space



Lightweight Multipurpose Carrier LMC
Secures RRM for Ascent and Rendezvous,
Will be used to carry a failed Ammonia
Pump Module back to Earth

**Downmass
Payload**

**Failed Ammonia Pump Module PM
Science Experiments and Crew Material**

EVA

1 Spacewalk will be conducted by ISS Crewmembers Ron Garan and Mike Fossum with support of the STS-135 Crew.

Tasks: PM Module Removal and Installation in Payload Bay;
RRM Retrieval and Installation on ISS; Camera Group Repair

The Flightplan

FD	Activities
1	Launch; Orbital Insertion; RMS-Powerup
2	OBSS Survey; Docking Preparations; Spacesuit Checkout
3	RPM; Docking; Hatch Opening
4	MPLM Unberth&Installation; EVA Preparations; MPLM Outfitting
5	EVA-1; MPLM Transfer
6	MPLM Transfer; PAO Event; Focused Inspection if needed
7	MPLM Transfer; PAO Events; Off Duty Time
8	MPLM Transfer; Reboost; PAO Events
9	MPLM Transfer; PAO Events; MPLM Rack Config; News Conference
10	MPLM Deact, Un-Install&Payload Bay Berthing; Farewell; Hatch Closure
11	Undocking; Flyaround; Separation; Late Inspection
12	Cabin Stowage; FCS Checkout; RCS Hotfire; Comm Checks
13	Deorbit Preparations; Deorbit Burn; Landing

The Patch

The patch represents Space Shuttle Atlantis lifting off to resupply the International Space Station. Atlantis is centered over the elements of the NASA Emblem which shows how the Space Shuttle has been the heart of NASA for the last three decades.

It pays tribute to the entire NASA team and all contractors. It's a tribute to the people that made all the achievements that the Shuttle has accomplished possible. The yellow Omega shows the name of the mission. It is the last letter of the greek alphabet; it's a symbol for the end – the end of a 30-year era.

