

Upcoming Space Shuttle Missions

Updated June 21, 2009 (replaces June 17)

Kennedy Space Center Media Services

STS Mission No. (shuttle program flight no.)	STS-127 (127)	STS-128 (128)	STS-129 (129)	STS-130 (130)
Orbiter (orbiter flight no.)	Endeavour/OV-105 (23)	Discovery/OV-103 (37)	Atlantis/OV-104 (31)	Endeavour/OV-105 (24)
Primary Mission	29th ISS flight (2J/A) -- JEM EF, ELM-ES, ICC-VLD	30th ISS flight (17A) -- MPLM, LMC	31st ISS flight (ULF3) – ELC1, ELC2	32nd ISS flight (20A) - Tranquility Node 3, Cupola
Targeted Launch Date** Pad	July 11, 2009 39A	Aug. 18, 2009* 39A	Nov. 12, 2009 39A	Feb. 4, 2010 39A
Estimated Launch Window	5-10 minutes	5-10 minutes	5-10 minutes	5-10 minutes
Mission Duration	16 days	13 days	11 days	12 days
Inclination/ Orbital Insertion Altitude	51.6 degrees 122 nautical miles	51.6 degrees 122 nautical miles	51.6 degrees 122 nautical miles	51.6 degrees 122 nautical miles
Crew Members (no. of shuttle flights)	Cdr: Mark Polansky (3) Plt: Doug Hurley (1) MS: Christopher Cassidy (1) MS: Tom Marshburn (1) MS: Dave Wolf (4) MS: Julie Payette (CSA) (2) Up to ISS: Tim Kopra (1) Down from ISS: Koichi Wakata (JAXA) (3)	Cdr: Rick Sturckow (4) Plt: Kevin Ford (1) MS: John "Danny" Olivas (2) MS: Patrick Forrester (3) MS: Jose Hernandez (1) MS: Christer Fuglesang (ESA) (2) Up to ISS: Nicole Stott (1) Down from ISS: Tim Kopra (1)	Cdr: Charlie Hobaugh (3) Plt: Barry Wilmore (1) MS: Robert Satcher (1) MS: Michael Foreman (2) MS: Randy Bresnik (1) MS: Leland Melvin (2) Down from ISS: Nicole Stott (1)	Cdr: George Zamka (2) Plt: Terry Virts (1) MS: Robert Behnken (2) MS: Nicholas Patrick (2) MS: Kathryn Hire (2) MS: Stephen Robinson (4)

**Official launch dates are set at the Flight Readiness Review.

*Information was added since the last chart.

ASI = Italian Space Agency **Cdr** = Commander **CNES** = French Space Agency **CSA** = Canadian Space Agency **ELC** = EXPRESS Logistics Carrier **ELM-ES** = Experiment Logistics Module - Exposed Section **ESA** = European Space Agency **ESP** = External Stowage Platform **ICC** = Integrated Cargo Carrier **ISA** = Israel Space Agency **ISS** = International Space Station **ITS** = Integrated Truss Segment **JAXA** = Japan Aerospace eXploration Agency **JEM EF** = Japanese Experiment Module Exposed Facility **KSC** = Kennedy Space Center **Lab** = Laboratory **LMC** = Lightweight Multi-Purpose Experiment Support Structure Carrier **MPLM** = Multi-Purpose Logistics Module **MS** = Mission Specialist **no.** = number **OV** = Orbiter Vehicle **PDGF** = Power and Data Grapple Fixture **Plt** = Pilot **PS** = Payload Specialist **RMS** = Remote Manipulator System **RSA** = Russian Aviation and Space Agency **S** = Starboard **SLP-D2** = SPACEHAB Pallet - Deployable-2 **STS** = Space Transportation System **TBD** = to be determined **UF** = utility/utilization flight **ULF** = utilization and logistics flight **U/R** = under review **VLD** = Vertical Light Deployment