

KSC Historical Report 19
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UNITED STATES SPACE SHUTTLE FIRSTS



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Foreword

This summary of the United States Space Shuttle Program firsts was compiled from various reference publications available in the Kennedy Space Center Library Archives.

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SPACE SHUTTLE EVENTS

06/18/1977 Enterprise

First 747/cARRIER flight of the Space Shuttle orbiter.

08/12/1977 Enterprise

CREW: F. Haise Jr./G. Fullerton

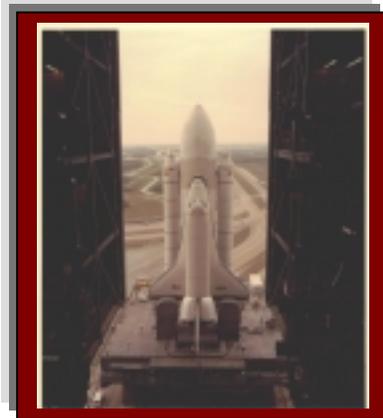
First crew assisted free flight of a Space Shuttle.

Pictured at the right are Fred Haise and Gordon Fullerton the crew of the flight [JSC Digital]



12/05-16/1977 N/A

First reported successful conclusion for the open sea test on shuttle retrieval performed at Port Everglades, Florida.



05/01/1979 Enterprise

First time the complete Space Shuttle configuration was assembled in the VAB and transported to Launch Complex 39A.

Shuttle orbiter Enterprise Rollout to Complex 39 [KSC Archives]

02/20/1981 STS 1 [Columbia]

First Flight Readiness Firing [FRF] of shuttle main engines.

STS-1 Static Firing of the Space Shuttle's three main engines overall view at Complex 39A



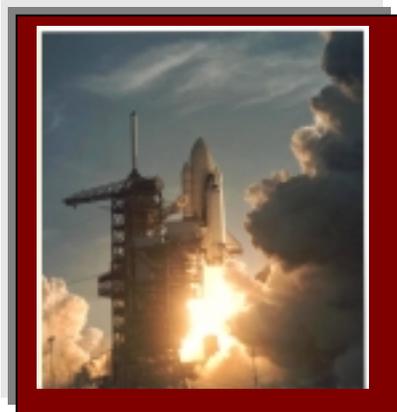
SPACE SHUTTLE EVENTS

04/12/1981 STS 1 [Columbia]

CREW: J. Young/R. Crippen

First flight of Space Transportation System [STS] reusable space vehicle which provided the first successful retrieval of the Solid Rocket Boosters [SRB].

*Launch view of Columbia for the STS-1 mission,
April 12, 1981*



*View of the UTC Liberty returning to Port
Canaveral with the solid rocket boosters (SRB).*

11/12/1981 STS 2 [Columbia]

CREW: J. Engle/R. Truly

First re-use of a crew assisted space vehicle.

*STS-2 liftoff from Complex 39A with astronauts Joe
Engle and Richard Truly aboard orbiter Columbia.
[KSC Archives]*



SPACE SHUTTLE EVENTS



03/22/1982 STS 3 [Columbia]

CREW: J. Lousma/G. Fullerton

First Space Shuttle landing at White Sands.

Columbia is shown seconds from touchdown with two T-38 chase planes following it in to the landing strip

06/27/1982 STS 4 [Columbia]

CREW: T. Mattingly/H. Hartsfield Jr.

First Getaway Specials aboard a shuttle mission.

First Getaway Special payload. [KSC Archives]



11/11/1982 STS 5 [Columbia]

CREW: V. Brand/R. Overmyer/J. Allen/W. Lenoir

First operational STS mission.
 First deployment of two commercial communications satellites.
 First flight of mission specialist astronauts.
 First spacecraft crew of four.

04/04/1983 STS 6 [Challenger]

CREW: P. Weitz/K. Bobko/D. Peterson/S. Musgrave

First flight of the orbiter Challenger.
 First Tracking and Data Relay Satellite successfully deployed.
 First Space Walk of Shuttle program [D. Peterson & S. Musgrave].



Wide-angle view of Launch pad 39A during Space Shuttle Challenger's first launch.

SPACE SHUTTLE EVENTS



06/18/1983 STS 7 [Challenger]

CREW: R. Crippen/F. Hauck/J. Fabian/S. Ride/N. Thagard

First flight by an American woman astronaut [S. Ride].

Portrait view of Astronaut Sally K. Ride, mission specialist for STS-7, standing outside of the Shuttle Mission Simulator (SMS). [JSC Digital]

08/30/1983 STS 8 [Challenger]

CREW: R. Truly/D. Brandenstein/D. Gardner/G. Bluford/W. Thornton

First night launch and landing of a Space Shuttle.
First space flight by an African American [G. Bluford].
First night landing at Edwards Air Force Base.

Shuttle Challenger prepares to touch down on a lighted Runway 22 at Edwards Air Force Base in California. This landing represented the first night touchdown for the Space Transportation System. [JSC Digital]

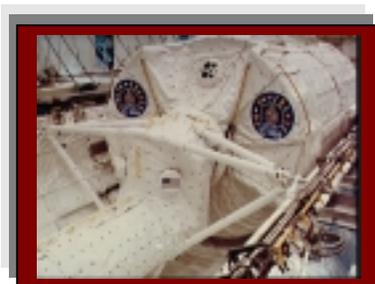


11/28/1983 STS 9 [Columbia]

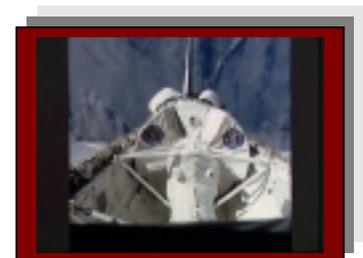
CREW: J. Young/B. Shaw Jr./O. Garriott/R. Parker/B. Lichtenberg/U. Merbold

First Spacelab mission.
First rollback of orbiter from Launch Complex 39A to Vehicle Assembly Building.
First flight with six crew members in single spacecraft.
First European Space Agency [ESA] astronaut representative. [U. Merbold]
First flight of payload specialist [B. Lichtenberg].

View taken through aft window on the flight deck of the Spacelab module in the payload bay of the Columbia during STS-9. [JSC Digital]



Technicians inspect the European made Spacelab installed in the cargo bay of the Space Shuttle orbiter Columbia before Spacelab's first flight. [JSC Digital]



SPACE SHUTTLE EVENTS

02/03/1984 STS 41B [Challenger]

CREW: V. Brand/R. Gibson/B. McCandless II/R. McNair/R. Stewart

First untethered space walks performed in space.

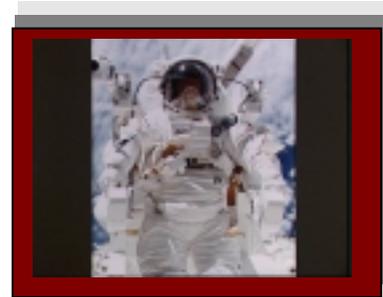
[B. McCandless & R. Stewart]

First use of the Manned Maneuvering Unit [MMU].

First satellite refurbished & flown again [SPAS].

First shuttle landing at KSC [Challenger].

First woman test conductor during U.S. space launch.



Manned Maneuvering Unit [MMU]. Close up frontal view of Astronaut Robert L. Stewart, mission specialist, as he participates in a extravehicular activity (EVA). [JSC Digital]

04/06/1984 STS 41C [Challenger]

CREW: R. Crippen/F. Scobee/G. Nelson/J. Van Hoften/T. Hart

First in-flight capture, repair and redeployment of an orbiting satellite [SMM and LDEF].

First direct ascent trajectory during Space Shuttle launch.

01/24/1985 STS 51C [Discovery]

CREW: T. Mattingly/L. Shriver/J. Buchli/E. Onizuka/G. Payton

First mission totally dedicated to Department Of Defense [DOD].

Launch of Shuttle Discovery and the STS 51-C mission.. This close-up view of the shuttle Discovery's engines during ignition was taken by a camera on the nearby service structure [JSC Digital]



04/12/1985 STS 51D [Discovery]

CREW: K. Bobko/D. Williams/R. Seddon/D. Griggs/J. Hoffman/C. Walker/J. Garn

First Congressional observer to make a space flight [U. S. Sen. E. J. "Jake" Garn (R-Utah)].

Official portrait Senator E. J. "Jake" Garn STS 51-D payload specialist. Senator Garn is wearing the blue shuttle flight suit.



SPACE SHUTTLE EVENTS

04/29/1985 STS 51B [Challenger]

CREW: R. Overmyer/F. Gregory/D. Lind/N. Thagard/W. Thornton/L. van den Berg/T. Wang

First operational flight for the European Space Agency Spacelab 3.
First flight of animals with Shuttle flight crew - two monkeys and 24 rodents.

A squirrel monkey similar to those selected to fly aboard the science module of Spacelab 3 in Challenger's cargo bay for STS 51-B. [JSC Digital]



08/30/1984 STS 41D [Discovery]

CREW: H. Hartsfield Jr./M. Coats/J. Resnik/R. Mullaine/S. Hawley/C. Walker

First flight of orbiter Discovery.
First pad abort at T-4 seconds.
First deployment of three satellites on single mission.

View of the launch of the shuttle Discovery and the 41-D mission. [JSC Digital]

10/05/1984 STS 41G [Challenger]

CREW: R. Crippen/J. McBride/D. Leestma/S. Ride/K. Sullivan/P. Scully-Power/M. Garneau

First space flight to include two women [S. Ride & K. Sullivan].
First American woman to walk in space [K. Sullivan].



Astronaut Kathryn Sullivan checks the latch of the SIR-B antenna in the Challenger's open cargo bay during her extravehicular activity (EVA) [JSC Digital]

SPACE SHUTTLE EVENTS

11/08/1984 STS 51A [Discovery]

CREW: F. Hauck/D. Walker/A. Fisher/D. Gardner/J. Allen

First retrieval and return of satellites from Earth orbit.

Astronaut Dale A. Gardner, having just completed the major portion of his second extravehicular activity (EVA) period in three days, holds up a "for sale" sign. Astronaut Joseph P. Allen IV, who also participated in the two EVA's, is reflected in Gardner's helmet visor. A portion of each of two recovered satellites is in the lower right corner, with Westar nearer Discovery's aft. [JSC Digital]



10/03/1985 STS 51J [Atlantis]

CREW: K. Bobko/R. Grabe/R. Stewart/D. Hilmers/W. Pailes

First flight of orbiter Atlantis.

First launch of the shuttle orbiter Atlantis. This close-up view of the orbiter just leaving the pad was taken from a camera at the base of the launch complex. The shuttle rocket boosters can be seen fully ignited.. [JSC Digital]

10/30/1985 STS 61A [Challenger]

CREW: B. Shaw Jr./B. O'Connor/M. Cleave/S. Spring/J. Ross/R. Vela/C. Walker

First dedicated German Spacelab mission.

Crewmembers in Spacelab D-1 science module. Mission specialist Guion S. Bluford prepares to perform a physics experiment. In the background, three European payload specialists busy themselves with experiment chores. [JSC Digital]



01/12/1986 STS 61C [Columbia]

CREW: R. Gibson/C. Bolden Jr./F. Chang-Diaz/S. Hawley/G. Nelson/R. Cenker/B. Nelson [Congressman]

First flight of Columbia after major modifications.

SPACE SHUTTLE EVENTS



Official portrait of the STS 51-L crewmembers [JSC Digital]

01/28/1986 STS 51L [Challenger]

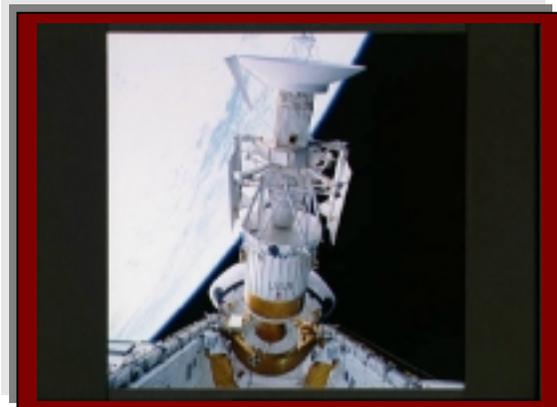
CREW: F. Scobee/M. Smith/J. Resnik/E. Onizuka/R. McNair/S. McAuliffe/G. Jarvis

First in-flight accident involving a Space Shuttle.
 First teacher in space [McAuliffe].
 First Shuttle launch from LC 39B.
 First woman astronaut to die during space flight [Resnik].

09/29/1988 STS 26 [Discovery] – Return to Flight –

CREW: F. Hauck/R. Covey/J. Lounge/D. Hilmers/G. Nelson

First flight of Space Shuttle since Challenger accident.



Inertial upper stage (IUS) with Magellan spacecraft is deployed from the payload bay (PLB) of Atlantis, Orbiter Vehicle (OV) 104, during STS-30. [JSC Digital]

05/04/1989 STS 30 [Atlantis]

CREW: D. Walker/R. Grabe/N. Thagard/M. Cleave/M. Lee

First U.S. planetary mission in 11 years and the first deep space probe on a Space Shuttle mission [Magellan].

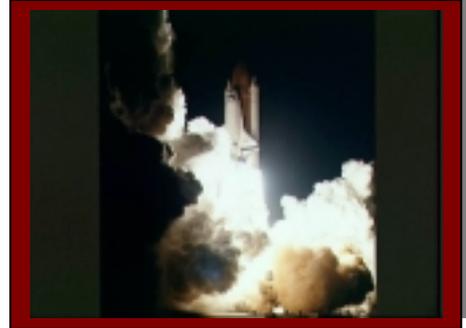
SPACE SHUTTLE EVENTS

01/09/1990 STS 33 [Discovery]

CREW: F. Gregory/J. Blaha/S. Musgrave/K. Thornton/
M. Carter Jr.

First night launch since Return to Flight.

STS-33 Discovery, Orbiter Vehicle (OV) 103, lifts off from Kennedy Space Center (KSC) Launch Complex (LC) Pad 39B at 7:23:29:989 am Eastern Standard Time (EST) [JSC Digital]



08/02/1991 STS 43 [Atlantis]

CREW: J. Blaha/M. Baker/J. Adamson/G. D. Low/S. Lucid

First scheduled landing at KSC since 1986



05/07/1992 STS 49 [Endeavour]

CREW: D. Brandenstein/K. Chilton/B. Melnick/T. Akers/R. Hieb/K. Thornton/P. Thuot

First flight of orbiter Endeavour.

First use of drag chute during landing; deployed after nose gear touchdown for data collection only.

STS-49 Endeavour, Orbiter Vehicle (OV) 105, lands on concrete runway 22 at Edwards Air Force Base (EAFB), California. [JSC Digital]

06/25/1992 STS 50 [Columbia]

CREW: R. Richards/K. Bowersox/B. Dunbar/C. Meade/E. Baker/L. DeLucas/E. Trinh

First Extended Duration Orbiter mission.

First flight for the U. S. Microgravity Laboratory-1 [USML-1].

Clean-suited crewmembers and technicians examine and test USML-1 spacelab (SL) module systems during preflight procedures in Operations and Checkout (O&C) Building. [JSC Digital]



SPACE SHUTTLE EVENTS

09/20/1992 STS 47 [Endeavour]

CREW: R. Gibson/C. Brown Jr./M. Lee/J. Davis/M. Jemison/M. Mohri

First time drag chute deployed in operational mode before nose gear touchdown.

First African-American woman to fly in space [M. Jemison].

First married couple to fly in space [M. Lee & J. Davis].

Official portrait includes the seven crew members wearing launch and entry suits. [JSC Digital]



06/21/1993 STS 57 [Endeavour]

CREW: R. Grabe/B. Duffy/G. D. Low/N. Sherlock/J. Voss/P. Wisoff

First flight of commercially-developed SPACEHAB module

STS-57 crew members work inside the SPACEHAB-01 module aboard OV-105. [JSC Digital]

09/12/1993 STS 51 [Discovery]

CREW: F. Culbertson Jr./W. Readdy/J. Newman/D. Bursch/C. Walz

First Kennedy Space Center night landing.

Discovery nears the completion of a ten-day mission on the Shuttle landing facility at the Kennedy Space Center (KSC). [JSC Digital]



SPACE SHUTTLE EVENTS

12/02/1993 STS 61 [Endeavour]

CREW: R. Covey/K. Bowersox/S. Musgrave/J. Hoffman/K. Thornton/T. Akers/C. Nicollier

First Hubble Space Telescope Servicing mission.

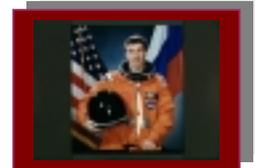
Astronaut Hoffman signals directions to Swiss astronaut Claude Nicollier, as the latter controls the Remote Manipulator System [RMS] during the Hubble Space Telescope servicing mission. [JSC Digital]



02/03/1994 STS 60 [Discovery]

CREW: C. Bolden Jr./K. Reightler Jr./F. Chang-Diaz/J. Davis/R. Sega/S. Krikalev

First flight of a Russian Cosmonaut aboard Space Shuttle [S. Krikalev].



Official portrait of Cosmonaut Sergei Krikalev. [JSC Digital]

09/20/1994 STS 64 [Discovery]

CREW: R. Richards/B. Hammond Jr./S. Helms/C. Meade/M. Lee/J. Linenger

First untethered U.S. space walk in 10 years [M. Lee/C. Meade].



Official portrait of Eileen M. Collins, first female Shuttle pilot. [JSC Digital]

02/03/1995 STS 63 [Discovery]

CREW: J. Wetherbee/E. Collins/B. Harris Jr./M. Foale/J. Voss/V. Titov

First female Shuttle pilot [Collins].
First approach / fly around with Mir.



Space Station Mir as seen from Discovery during fly around. [JSC Digital]

SPACE SHUTTLE EVENTS

03/18/1995 STS 67 [Endeavour]

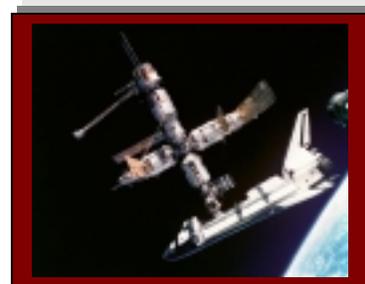
CREW: S. Oswald/W. Gregory/T. Jernigan/W. Lawrence/J. Grunsfeld/S. Durrance/R. Parise

First advertised Space Shuttle mission connected to an Internet linkup.

06/27/1995 STS 71 [Atlantis]

CREW: R. Gibson/C. Precourt/E. Baker/G. Harbaugh/B. Dunbar

First docking of a Space Shuttle to Mir space station.



This view of the Space Shuttle Atlantis still connected to Russia's Mir Space Station was photographed by the Mir-19 crew on July 4, 1995 [GRIN Photo Gallery]

07/13/1995 STS 70 [Discovery]

CREW: T. Henricks/K. Kregel/N. Currie/D. Thomas/M. Weber

First use of the newly opened Mission Control Center at Johnson Space Center.

09/07/1995 STS 69 [Endeavour]

CREW: D. Walker/K. Cockrell/J. Voss/M. Gernhardt/J. Newman

First time two different payloads were retrieved and deployed during same mission.
[Spartan 201-03 and Wake Shield Facility-2]

09/16/1996 STS 79 [Atlantis]

CREW: W. Readdy/T. Wilcutt/T. Akers/J. Apt/C. Walz

First U.S. crew exchange aboard Russian Space Station Mir
First U.S. and world human spaceflight record set [S. Lucid].
Lucid's long duration spaceflight set new U. S. record as well as world record for a woman in space.

U.S. astronaut Shannon Lucid, surrounded by family, answers questions about her record-setting stay aboard the Russian Space Station Mir.
[KSC Digital]



SPACE SHUTTLE EVENTS

11/19/1996 STS 80 [Columbia]

CREW: K. Cockrell/K. Rominger/T. Jernigan/T. Jones/S. Musgrave

First time two free-flying research spacecraft deployed and retrieved.
[ORFEUS-SPAS II and Wake Shield Facility-3]



In NASA's Building AE on Cape Canaveral Air Station, the Wake Shield Facility-3 (WSF-3) is just about ready for flight.



In the Multi-Payload Processing Facility, the Orbiting and Retrievable Far and Extreme Ultraviolet Spectrograph-Shuttle Pallet Satellite (ORFEUS-SPAS) is just about ready for flight.

01/12/1997 STS 81 [Atlantis]

CREW: M. Baker/B. Jett Jr./P. Wisoff/J. Grunsfeld/M. Ivins

First plants to complete a life cycle in space – a crop of wheat grown from seed to seed.

07/01/1997 STS 94 [Columbia]

CREW: J. Halsell Jr./S. Still/J. Voss/M. Gernhardt/D. Thomas/R. Crouch/G. Linteris

First re-flight of same vehicle, crew and payloads.

11/19/1997 STS 87 [Columbia]

CREW: K. Kregel/S. Lindsey/W. Scott/K. Chawla/T. Doi/L. Kadenyuk

First Heads-Up ascent during first stage of liftoff.

01/22/1998 STS 89 [Endeavour]

CREW: T. Wilcutt/J. Edwards Jr./B. Dunbar/M. Anderson/J. Reilly II/S. Sharipov/A. Thomas

First flight Space Shuttle Main Engine Block IIA.

SPACE SHUTTLE EVENTS

04/17/1998 STS 90 [Columbia]

CREW: R. Searfoss/S. Altman/R. Linnehan/D. Williams/K. Hire/J. Buckey/J. Pawelczyk

First Kennedy Space Center employee to be chosen as an astronaut and to fly on Space Shuttle mission.

STS-90 Mission Specialist Kathryn (Kay) Hire prepares for launch during suitup activities. [JSC Digital]



06/02/1998 STS 91 [Discovery]

CREW: C. Precourt/D. Gorie/F. Chang-Diaz/J. Kavandi/V. Ryumin

First flight of the Super Lightweight External Tank.
First docking mission for Discovery. Orbiter docked with the Mir space station in the final Shuttle-Mir docking mission.

Preliminary reports indicate the Space Shuttle's first super lightweight external tank (SLWT) is in excellent condition following the completion of a tanking test yesterday [JSC Digital]



10/29/1998 STS 95 [Discovery]

CREW: C. Brown/S. Lindsey/S. Parazynski/S. Robinson/P. Duque/C. Mukai/J. Glenn

First Mercury astronaut to fly in Space Shuttle [J. Glenn]
First Space Shuttle launch attended by a U.S. President [Clinton]

U.S. Sen. John H. Glenn Jr. (D.-Ohio) is assisted in suiting up for a training exercise [JSC Digital]

SPACE SHUTTLE EVENTS

12/04/1998 STS 88 [Endeavour]

CREW: R. Cabana/F. Sturckow/N. Currie/J. Ross/J. Newman/S. Krikalev

First U.S. assembly flight of International Space Station.

The mated Russian-built Zarya (left) and U.S.-built Unity modules are backdropped against the blackness of space. [JSC Digital]



07/23/1999 STS 93 [Columbia]

CREW: E. Collins/J. Ashby/S. Hawley/C. Coleman/M. Tognini

First flight with female mission commander [E. Collins].

Astronaut Eileen M. Collins, mission commander, enters notes on a log at the commander's station on Columbia's flight deck. [JSC

12/19/1999 STS 103 [Discovery]

CREW: C. Brown/S. Kelly/S. Smith/M. Goale/J. Grunsfeld/C. Nicollier/J. Clervoy

First Space Shuttle crew to spend Christmas in Space.
[Hubble Space Telescope was released on Christmas day from Discovery's cargo bay after the third servicing.]

Astronaut Steven L. Smith, payload commander, prepares to use a 35mm camera during the final space walk of the STS-103 mission.. [JSC Digital]



SPACE SHUTTLE EVENTS

05/19/2000 STS 101 [Atlantis]

CREW: J. Halsell Jr./S. Horowitz/M. Weber/J. Williams/J. Voss/S. Helms/Y. Usachev

First flight of the glass cockpit [Atlantis].

This image illustrates NASA's Multifunction Electronic Display Subsystem (MEDS), otherwise known as "glass cockpit." [JSC Digital]



10/11/2000 STS 92 [Discovery]

CREW: B. Duffy/P. Melroy/K. Wakata/L. Chiao/P. Wisoff/M. Lopez-Alegria/W. McArthur

First California landing in three years.

STS 92 marked the 100th Space Shuttle mission and included the 100th spacewalk in the U. S. space program.



The drag chute on the Space Shuttle Discovery is deployed as the vehicle rolls toward mission completion at Edwards Air Force Base. [JSC Digital]

Astronauts Peter J.K. (Jeff) Wisoff and Michael Lopez-Alegria on final of four STS-92 space walks. [JSC Digital]



SPECIAL NOTE: 1997 was the **first** year that every flight ended with a KSC landing.

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Space Shuttle Mission Chronology 1981-1996, NP-1997-12-08-KSC

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