



1
00:00:07,129 --> 00:00:11,129
This Week at NASA...

2
00:00:11,129 --> 00:00:17,960
Carrying a six-astronaut crew -- STS-132 Commander
Ken Ham, Pilot Tony Antonelli

3
00:00:17,960 --> 00:00:23,369
and Mission Specialists Garrett Reisman, Steve
Bowen, Mike Good and Piers Sellers -

4
00:00:23,369 --> 00:00:28,029
space shuttle Atlantis concluded its final
flight, a 12-day trip to the International

5
00:00:28,029 --> 00:00:30,749
Space
Station, with a smooth landing at the Kennedy

6
00:00:30,749 --> 00:00:31,749
Space Center.

7
00:00:31,749 --> 00:00:35,390
"And Houston Atlantis we have wheel stop!
Copy Houston wheel stop Atlantis.

8
00:00:35,390 --> 00:00:41,690
Sock that landing was something your air force
crewmates would be proud of that

9
00:00:41,690 --> 00:00:43,180
was pretty sweet"

10
00:00:43,180 --> 00:00:47,840
STS-132 delivered to the ISS the Russian Rassvet,
or "dawn," Mini-Research Module-

11
00:00:47,840 --> 00:00:53,460
1, only the second Russian module ever to

be carried into space by a shuttle. With

12
00:00:53,460 --> 00:00:59,300
their delivery of Rassvet, the STS-132 crew
continued the space station's transition

13
00:00:59,300 --> 00:01:04,540
from assembly phase to its exclusive role
as the world's only scientific research

14
00:01:04,540 --> 00:01:06,220
laboratory in microgravity.

15
00:01:06,220 --> 00:01:16,710
"Ignition and liftoff of Atlantis a new
orbiter just joins the shuttle fleet and it

16
00:01:16,710 --> 00:01:17,710
has
cleared the tower."

17
00:01:17,710 --> 00:01:21,850
Atlantis, OV-104, was delivered to Kennedy
Space Center in April 1985. It lifted off

18
00:01:21,850 --> 00:01:25,249
on
its maiden voyage on Oct. 3, 1985, on mission

19
00:01:25,249 --> 00:01:30,829
51-J, the second dedicated Department
of Defense flight. Later missions included

20
00:01:30,829 --> 00:01:37,619
the launch of the Galileo interplanetary
probe to Jupiter on STS-34 in October 1989,

21
00:01:37,619 --> 00:01:43,219
and STS-37, with the Gamma Ray
Observatory (GRO) as its primary payload,

22

00:01:43,219 --> 00:01:45,740
in April 1991.

23

00:01:45,740 --> 00:01:50,920
Atlantis has visited the International Space
Station eleven times, delivering hardware

24

00:01:50,920 --> 00:01:55,179
that has included the United States' Destiny
Laboratory and Europe's Columbus

25

00:01:55,179 --> 00:02:01,810
module. Among many other milestones during
its 120 million miles of flight is Atlantis'

26

00:02:01,810 --> 00:02:08,369
distinction as the first shuttle to dock to
the Russian Space Station Mir in June 1995.

27

00:02:08,369 --> 00:02:14,780
And in May of last year, Atlantis flew the
STS-125 crew to the Hubble Space Telescope

28

00:02:14,780 --> 00:02:17,750
where they brought new life to the observatory.

29

00:02:17,750 --> 00:02:22,780
Atlantis is named after a two-masted sailing
ship that was operated for the Woods Hole

30

00:02:22,780 --> 00:02:29,860
Oceanographic Institute from 1930 to 1966.

31

00:02:29,860 --> 00:02:34,160
Students from community colleges in 28 states
and Puerto Rico had an out-of-this-

32

00:02:34,160 --> 00:02:39,110

world experience at the Johnson Space Center.
As the guests of NASA, seventy-six

33
00:02:39,110 --> 00:02:44,470
participants teamed up in fictitious companies
to design and develop robotic space

34
00:02:44,470 --> 00:02:50,830
rovers for the exploration of alien worlds.
Each team created a prototype rover, a line

35
00:02:50,830 --> 00:02:54,040
drawing of their vehicle, and a company infrastructure.

36
00:02:54,040 --> 00:02:58,810
“I would like to work on programming the
robotics and rovers and all that stuff,

37
00:02:58,810 --> 00:03:03,420
you know, I want to be that person that was
on the team making that program that

38
00:03:03,420 --> 00:03:05,560
the robot used to come to Mars.”

39
00:03:05,560 --> 00:03:09,870
To qualify for their expenses-paid sojourn
to Houston, the students successfully

40
00:03:09,870 --> 00:03:14,790
completed Web-based assignments and maintained
a classroom average of 95 during

41
00:03:14,790 --> 00:03:20,060
the school year. Their visit culminated the
National Community College Aerospace

42
00:03:20,060 --> 00:03:25,441
Scholars program. The pilot project encourages
students to enter careers in science,

43

00:03:25,441 --> 00:03:28,620

technology, engineering and math.

44

00:03:28,620 --> 00:03:34,680

A new, advanced instrument designed to shed more light on the mysteries of the sun

45

00:03:34,680 --> 00:03:40,520

was prepared for shipment to its launch site. SUMI, the Solar Ultraviolet Magnetograph

46

00:03:40,520 --> 00:03:45,570

Investigation, is targeted to liftoff on a sounding rocket from White Sands Test Facility

47

00:03:45,570 --> 00:03:47,990

in New Mexico on June 8.

48

00:03:47,990 --> 00:03:52,610

Built by solar physicists and engineers at the Marshall Space Flight Center, SUMI will

49

00:03:52,610 --> 00:03:59,140

travel to an altitude between 120 and 190 miles. From there, it will act like polarized

50

00:03:59,140 --> 00:04:03,819

sunglasses and gauge the strength and direction of magnetic fields between the sun's

51

00:04:03,819 --> 00:04:08,410

surface, or photosphere, and its corona, the extended outer atmosphere, a region

52

00:04:08,410 --> 00:04:09,560

impossible to see from Earth.

53

00:04:09,560 --> 00:04:13,440

Scientists hope data captured during by SUMI can help determine how energy is

54
00:04:13,440 --> 00:04:16,540
transferred between different regions of the sun.

55
00:04:16,540 --> 00:04:21,359
"At this point time I want I want to introduce Alan Poindexter and he'll introduce

56
00:04:21,359 --> 00:04:26,660
the rest of the crew."

57
00:04:26,660 --> 00:04:31,000
Space shuttle Discovery's STS-131 crew members were heartily welcomed to

58
00:04:31,000 --> 00:04:33,590
Headquarters by its employees.

59
00:04:33,590 --> 00:04:39,010
Mission Commander Alan Poindexter, a Washington area native from Rockville, Md.,

60
00:04:39,010 --> 00:04:44,130
was assisted by five 131 crewmates in presenting highlights of their April journey to

61
00:04:44,130 --> 00:04:45,970
the International Space Station.

62
00:04:45,970 --> 00:04:50,190
"Discover out at launch pad 39 an early morning..."

63
00:04:50,190 --> 00:04:55,270
Jim Dutton was Discovery's pilot. Veteran flyers and Mission Specialists Rick

64
00:04:55,270 --> 00:05:00,660
Mastracchio, Stephanie Wilson and Clay Anderson
were joined by Dottie Metcalf-

65
00:05:00,660 --> 00:05:05,791
Lindenburger, the last of three teachers selected
as educator astronauts to fly on the

66
00:05:05,791 --> 00:05:18,500
shuttle

67
00:05:18,500 --> 00:05:24,340
Discovery traveled more than 6.2 million miles
over 15 days to deliver science racks,

68
00:05:24,340 --> 00:05:31,230
new crew sleeping quarters, and other equipment
and supplies to the ISS.

69
00:05:31,230 --> 00:05:36,600
The Stratospheric Observatory for Infrared
Astronomy, or SOFIA, has conducted its

70
00:05:36,600 --> 00:05:43,401
"First Light" mission, producing this composite
infrared image of Jupiter. A recent

71
00:05:43,401 --> 00:05:47,490
visual-wavelength picture of approximately
the same side of Jupiter is shown for

72
00:05:47,490 --> 00:05:53,450
comparison. The white stripe in the infrared
image is a region of relatively transparent

73
00:05:53,450 --> 00:05:59,140
clouds through which the warm interior of
Jupiter can be seen. Recording the

74

00:05:59,140 --> 00:06:03,320

observatory's initial imagery was the recently-installed Faint Object Infrared Camera, or

75

00:06:03,320 --> 00:06:08,850

FORCAST. FORCAST will be used to study celestial objects such as planets and star-

76

00:06:08,850 --> 00:06:15,000

forming regions. It's one of the first instruments designed for the telescope and will

77

00:06:15,000 --> 00:06:17,250

provide SOFIA with the highest spatial resolutions of protostellar environments: young

78

00:06:17,250 --> 00:06:19,720

star clusters, molecular clouds, and galaxies.

79

00:06:19,720 --> 00:06:24,250

Eleven years ago, space shuttle Discovery became the first orbiter to dock to the

80

00:06:24,250 --> 00:06:27,670

International Space Station on STS-96.

81

00:06:27,670 --> 00:06:28,670

"Its coming down during the last part of the rendezvous, and really just moments

82

00:06:28,670 --> 00:06:29,670

before the first ever docking with the International Space Station."

83

00:06:29,670 --> 00:06:33,449

The Spacehab module and additional cargo was delivered to the station by Discovery

84

00:06:33,449 --> 00:06:38,260

and its crew of seven -- Commander Kent Rominger,

Mission Specialists Tamara

85

00:06:38,260 --> 00:06:45,000

Jernigan, Ellen Ochoa, Daniel Barry, Julie
Payette and Valery Tokarev and Pilot Rick

86

00:06:45,000 --> 00:06:49,540

Husband, who was among the seven astronauts
lost with space shuttle Columbia on

87

00:06:49,540 --> 00:06:54,350

STS-107 less than three years later.

88

00:06:54,350 --> 00:06:56,380

And that's This Week at NASA!