



"Mode Transition" Testing

1
00:00:14,419 --> 00:00:12,740
this week at NASA after almost six

2
00:00:17,390 --> 00:00:14,429
months aboard the International Space

3
00:00:19,670 --> 00:00:17,400
Station expedition 25 Commander Doug

4
00:00:21,890 --> 00:00:19,680
Wheelock and flight engineers Yoda

5
00:00:23,990 --> 00:00:21,900
yurchikhin and shannon walker landed

6
00:00:27,980 --> 00:00:24,000
safely in their soyuz spacecraft on the

7
00:00:30,859 --> 00:00:27,990
steppes of kazakhstan the trio launched

8
00:00:33,260 --> 00:00:30,869
to the ISS in june left behind aboard

9
00:00:35,270 --> 00:00:33,270
the orbiting complex or expedition 26

10
00:00:37,670 --> 00:00:35,280
commander Scott Kelly and flight

11
00:00:39,860 --> 00:00:37,680
engineers alexander kaleri and oleg

12
00:00:42,670 --> 00:00:39,870
skripochka the three other members of

13
00:00:45,979 --> 00:00:42,680

the expedition 26 crew dmitry kondratyev

14

00:00:47,990 --> 00:00:45,989

paolo nespoli and Cady Coleman are

15

00:00:50,209 --> 00:00:48,000

scheduled to launch to the station from

16

00:00:54,650 --> 00:00:50,219

the Baikonur cosmodrome in kazakhstan on

17

00:00:56,389 --> 00:00:54,660

december 15 this is turning out to be a

18

00:00:58,549 --> 00:00:56,399

little more complicated from an analysis

19

00:01:01,580 --> 00:00:58,559

standpoint and it doesn't ease end

20

00:01:04,250 --> 00:01:01,590

itself to a very easy answer sts-133

21

00:01:06,859 --> 00:01:04,260

will now begin no earlier than December

22

00:01:08,450 --> 00:01:06,869

17 that moves discoveries possible

23

00:01:11,120 --> 00:01:08,460

liftoff for the International Space

24

00:01:13,789 --> 00:01:11,130

Station from a November 30th December

25

00:01:15,920 --> 00:01:13,799

sixth launch window technicians at the

26
00:01:18,469 --> 00:01:15,930
Kennedy Space Center's launch pad 39a

27
00:01:20,899 --> 00:01:18,479
have completed repairs to the shuttle

28
00:01:23,030 --> 00:01:20,909
but program managers say they want more

29
00:01:25,760 --> 00:01:23,040
time to test and analyze whether it's

30
00:01:27,800 --> 00:01:25,770
now safe to fly or additional

31
00:01:31,060 --> 00:01:27,810
modifications are needed what happened

32
00:01:34,280 --> 00:01:31,070
on the first time we loaded the tank is

33
00:01:36,950 --> 00:01:34,290
when that first bending moment started

34
00:01:41,510 --> 00:01:36,960
on the stringer a crack appeared along

35
00:01:43,010 --> 00:01:41,520
one of the feet of the stringer and the

36
00:01:45,679 --> 00:01:43,020
stringer basically cracked on the other

37
00:01:48,170 --> 00:01:45,689
side in an overload condition and popped

38
00:01:50,149 --> 00:01:48,180

out about a half of an inch program

39

00:01:51,679 --> 00:01:50,159

managers will meet again before deciding

40

00:01:54,230 --> 00:01:51,689

whether to target a launch date within

41

00:01:56,420 --> 00:01:54,240

the new Ford a window that ends December

42

00:02:04,740 --> 00:01:56,430

twentieth

43

00:02:06,870 --> 00:02:04,750

three two one take flitop the SpaceX

44

00:02:09,330 --> 00:02:06,880

corporation has reached a milestone in

45

00:02:12,120 --> 00:02:09,340

commercial spaceflight SpaceX's dragon

46

00:02:14,610 --> 00:02:12,130

spacecraft has been granted a license by

47

00:02:16,950 --> 00:02:14,620

the Federal Aviation Administration to

48

00:02:19,350 --> 00:02:16,960

re-enter Earth's atmosphere on its

49

00:02:21,780 --> 00:02:19,360

return from space the dragon a

50

00:02:23,130 --> 00:02:21,790

free-flying reusable spacecraft in

51
00:02:26,310 --> 00:02:23,140
development under NASA's commercial

52
00:02:29,400 --> 00:02:26,320
orbital transportation services or cots

53
00:02:31,710 --> 00:02:29,410
program is designed to transport cargo

54
00:02:34,170 --> 00:02:31,720
and or crew members to the International

55
00:02:36,390 --> 00:02:34,180
Space Station its first demonstration

56
00:02:38,640 --> 00:02:36,400
test flight atop SpaceX's Falcon 9

57
00:02:41,250 --> 00:02:38,650
launch vehicle is scheduled for early

58
00:02:43,740 --> 00:02:41,260
next month this is the first license

59
00:02:47,270 --> 00:02:43,750
issued by the FAA or a commercial

60
00:02:50,100 --> 00:02:47,280
spacecraft re-entry from Earth's orbit

61
00:02:51,930 --> 00:02:50,110
do you have a telescope on board and if

62
00:02:54,300 --> 00:02:51,940
so what can you see through it hi

63
00:02:56,730 --> 00:02:54,310

Elizabeth good question we do not have a

64

00:02:59,370 --> 00:02:56,740

telescope on board but we have very very

65

00:03:00,840 --> 00:02:59,380

powerful camera lenses and some

66

00:03:03,840 --> 00:03:00,850

binoculars and things that we use

67

00:03:05,729 --> 00:03:03,850

students from to DC area middle schools

68

00:03:08,220 --> 00:03:05,739

got answers to their questions about

69

00:03:10,830 --> 00:03:08,230

life in orbit Rumph International Space

70

00:03:13,350 --> 00:03:10,840

Station astronauts Doug Wheelock shannon

71

00:03:15,360 --> 00:03:13,360

walker and scott kelly in a special

72

00:03:18,330 --> 00:03:15,370

event held at the US Department of

73

00:03:20,790 --> 00:03:18,340

Education in Washington how is food on

74

00:03:22,740 --> 00:03:20,800

earth different from food in space the

75

00:03:24,660 --> 00:03:22,750

main difference between food on earth

76
00:03:26,940 --> 00:03:24,670
and feeding spaces so much of what we

77
00:03:29,370 --> 00:03:26,950
have up here is dehydrated hosted by

78
00:03:31,080 --> 00:03:29,380
Education Secretary Arne Duncan and

79
00:03:33,990 --> 00:03:31,090
NASA's associate administrator for

80
00:03:35,910 --> 00:03:34,000
education astronaut leland melvin the

81
00:03:38,250 --> 00:03:35,920
live 20-minute hook up with the three

82
00:03:41,220 --> 00:03:38,260
expedition 25 crew members in space

83
00:03:42,900 --> 00:03:41,230
helped celebrate international education

84
00:03:45,150 --> 00:03:42,910
week I want to thank you guys so much

85
00:03:46,530 --> 00:03:45,160
for taking the time to spend of our

86
00:03:50,059 --> 00:03:46,540
students again this is just fascinating

87
00:03:53,300 --> 00:03:50,069
I look forward to this so much each year

88
00:03:55,160 --> 00:03:53,310

a series of tests deducted inside the

89

00:03:57,679 --> 00:03:55,170

Glenn Research Center's ten by ten

90

00:04:00,770 --> 00:03:57,689

supersonic wind tunnel could help

91

00:04:03,890 --> 00:04:00,780

further routine and efficient access to

92

00:04:05,929 --> 00:04:03,900

space the combined cycle engine test

93

00:04:09,709 --> 00:04:05,939

series is meant to demonstrate how the

94

00:04:14,300 --> 00:04:09,719

cce can smoothly transition from turbine

95

00:04:16,909 --> 00:04:14,310

to scram jet power showing that this

96

00:04:19,400 --> 00:04:16,919

so-called mode transition is possible

97

00:04:21,770 --> 00:04:19,410

may boost the future use of highly

98

00:04:24,980 --> 00:04:21,780

efficient air-breathing propulsion as a

99

00:04:27,110 --> 00:04:24,990

less costly and more efficient method of

100

00:04:29,029 --> 00:04:27,120

sending vehicles into space this new

101
00:04:31,640 --> 00:04:29,039
method of going into space should be

102
00:04:33,710 --> 00:04:31,650
more cost efficient because the

103
00:04:36,170 --> 00:04:33,720
traditional method with the Space

104
00:04:39,620 --> 00:04:36,180
Shuttle is expensive with air-breathing

105
00:04:41,839 --> 00:04:39,630
propulsion we'll be able to reduce the

106
00:04:46,610 --> 00:04:41,849
launch vehicle costs with more airport

107
00:04:48,920 --> 00:04:46,620
like operations astronaut and Cleveland

108
00:04:51,710 --> 00:04:48,930
area native Mike good made a series of

109
00:04:54,379 --> 00:04:51,720
appearances in his hometown a veteran of

110
00:04:56,210 --> 00:04:54,389
four spacewalks good signed autographs

111
00:04:57,740 --> 00:04:56,220
in the NASA Glenn visitors center

112
00:05:00,439 --> 00:04:57,750
located at the Great Lakes Science

113
00:05:03,890 --> 00:05:00,449

Center and before introducing the

114

00:05:05,540 --> 00:05:03,900

omnimax movie Hubble good recounted his

115

00:05:09,020 --> 00:05:05,550

experiences aboard space shuttle

116

00:05:12,469 --> 00:05:09,030

atlantis 'as sts-125 servicing mission

117

00:05:14,149 --> 00:05:12,479

to the telescope in may 2009 please

118

00:05:17,010 --> 00:05:14,159

welcome Colonel good to the queue as he

119

00:05:19,619 --> 00:05:17,020

returns to Cleveland

120

00:05:22,409 --> 00:05:19,629

good also attended to local sporting

121

00:05:24,869 --> 00:05:22,419

roots an NBA basketball match between

122

00:05:27,450 --> 00:05:24,879

his hometown Cavaliers and the visiting

123

00:05:29,610 --> 00:05:27,460

indiana pacers at which he presented the

124

00:05:33,629 --> 00:05:29,620

Cavs when the team jersey flown with him

125

00:05:35,670 --> 00:05:33,639

aboard atlantis during sts-132 earlier

126

00:05:37,980 --> 00:05:35,680

this year that mission to the

127

00:05:40,200 --> 00:05:37,990

international space station also carried

128

00:05:43,200 --> 00:05:40,210

into space a cleveland browns jersey

129

00:05:46,080 --> 00:05:43,210

good presented it at the Browns new york

130

00:05:48,210 --> 00:05:46,090

jets game to a local student athlete who

131

00:05:50,180 --> 00:05:48,220

suffered a severe spinal injury playing

132

00:05:53,309 --> 00:05:50,190

high school football last year

133

00:05:56,120 --> 00:05:53,319

undeterred Cory weeda plans on majoring

134

00:05:59,879 --> 00:05:56,130

in aeronautical engineering and someday

135

00:06:02,490 --> 00:05:59,889

working for NASA and that's this week