



1
00:00:11,110 --> 00:00:09,190
good morning houston uh we are uh

2
00:00:13,110 --> 00:00:11,120
getting ready for undock today we get to

3
00:00:16,470 --> 00:00:13,120
do one last lap of the planet around the

4
00:00:17,670 --> 00:00:16,480
iss and then start our trip home thanks

5
00:00:19,830 --> 00:00:17,680
houston

6
00:00:21,830 --> 00:00:19,840
sounds great atlantis have a good fly

7
00:00:24,070 --> 00:00:21,840
around

8
00:00:25,429 --> 00:00:24,080
hey station atlantis uh on the big loop

9
00:00:28,070 --> 00:00:25,439
it looks like the sun's getting ready to

10
00:00:29,910 --> 00:00:28,080
go down and we just wanted to tell you

11
00:00:31,189 --> 00:00:29,920
one more time thanks so much for hosting

12
00:00:34,229 --> 00:00:31,199
us uh

13
00:00:37,190 --> 00:00:34,239

it's a great station and uh it's been an

14

00:00:38,310 --> 00:00:37,200

absolute pleasure um to participate in

15

00:00:40,869 --> 00:00:38,320

three different shuttle missions that

16

00:00:42,470 --> 00:00:40,879

have come up and talked uh to you and uh

17

00:00:44,950 --> 00:00:42,480

and help you get bigger and better with

18

00:00:46,790 --> 00:00:44,960

every pass so uh we'll see you out there

19

00:00:48,630 --> 00:00:46,800

at 600 feet

20

00:00:49,910 --> 00:00:48,640

capital parking we really appreciate it

21

00:00:56,630 --> 00:00:49,920

and

22

00:00:59,189 --> 00:00:56,640

good pictures here

23

00:01:01,510 --> 00:00:59,199

atlantis station mike on the big loop

24

00:01:05,750 --> 00:01:01,520

station is ready for undocking

25

00:01:09,670 --> 00:01:08,710

physical separation houston

26

00:01:13,109 --> 00:01:09,680

houston

27

00:01:16,469 --> 00:01:13,119

undocking confirmed

28

00:01:17,990 --> 00:01:16,479

at 1 28 am central time

29

00:01:19,990 --> 00:01:18,000

atlanta's ways anchor from the

30

00:01:21,590 --> 00:01:20,000

international space station for the last

31

00:01:23,270 --> 00:01:21,600

time

32

00:01:25,190 --> 00:01:23,280

twelve and a half years of shuttle

33

00:01:36,469 --> 00:01:25,200

missions to build and service a million

34

00:01:41,270 --> 00:01:38,390

atlantis departing the international

35

00:01:43,190 --> 00:01:41,280

space station for the last time

36

00:01:46,389 --> 00:01:43,200

thank you for your 12 doc missions to

37

00:01:48,870 --> 00:01:46,399

the iss and for capping off 37 space

38

00:01:50,870 --> 00:01:48,880

shuttle missions to construct

39

00:01:52,230 --> 00:01:50,880

orbiting research facility

40

00:01:54,469 --> 00:01:52,240

we'll miss you guys

41

00:01:57,109 --> 00:01:54,479

godspeed soft landing and we'll see you

42

00:02:00,310 --> 00:01:57,119

back on earth in the fall

43

00:02:02,950 --> 00:02:00,320

hey thanks uh ron usos lead and uh to

44

00:02:05,590 --> 00:02:02,960

the uh station commander andre borisenko

45

00:02:07,190 --> 00:02:05,600

we appreciate your hospitality again

46

00:02:08,949 --> 00:02:07,200

hey what a great uh when a generation

47

00:02:10,710 --> 00:02:08,959

could accomplish is a great thing it's

48

00:02:13,830 --> 00:02:10,720

got a right to stand back and for just a

49

00:02:15,510 --> 00:02:13,840

moment admire and take pride in its work

50

00:02:16,949 --> 00:02:15,520

from our unique vantage point right here

51
00:02:18,390 --> 00:02:16,959
perched above the earth we can see the

52
00:02:20,390 --> 00:02:18,400
international space station is a

53
00:02:22,229 --> 00:02:20,400
wonderful accomplishment he's born at

54
00:02:25,030 --> 00:02:22,239
the end of the cold war it's enabled

55
00:02:26,869 --> 00:02:25,040
many nations to speak one in space

56
00:02:28,550 --> 00:02:26,879
as the iss now enters the era of

57
00:02:31,110 --> 00:02:28,560
utilization we'll never forget the role

58
00:02:33,110 --> 00:02:31,120
the space shuttle played in its creation

59
00:02:34,790 --> 00:02:33,120
like a proud parent we anticipate great

60
00:02:36,949 --> 00:02:34,800
things to follow from the men and women

61
00:02:38,390 --> 00:02:36,959
who build operate and live there

62
00:02:40,470 --> 00:02:38,400
from this unique vantage point we can

63
00:02:44,869 --> 00:02:40,480

see a great thing has been accomplished

64

00:02:48,229 --> 00:02:47,350

a few minutes after atlantis reaches the

65

00:02:49,830 --> 00:02:48,239

point

66

00:02:51,509 --> 00:02:49,840

600 feet directly in front of the

67

00:02:53,670 --> 00:02:51,519

station the international space station

68

00:02:55,509 --> 00:02:53,680

will begin a yaw maneuver of 90 degrees

69

00:02:56,630 --> 00:02:55,519

under the control of russian segment

70

00:02:58,949 --> 00:02:56,640

thrusters

71

00:03:01,430 --> 00:02:58,959

that yaw maneuver will occur while

72

00:03:03,270 --> 00:03:01,440

atlantis is in a period of about 27

73

00:03:05,030 --> 00:03:03,280

minutes of station keeping directly in

74

00:03:07,910 --> 00:03:05,040

front of the complex

75

00:03:10,869 --> 00:03:07,920

once the station has yawed to the proper

76
00:03:13,030 --> 00:03:10,879
orientation doug hurley will begin a 600

77
00:03:15,270 --> 00:03:13,040
foot radial fly around of a half lap

78
00:03:16,710 --> 00:03:15,280
around the complex while magnus and

79
00:03:19,030 --> 00:03:16,720
walheim use

80
00:03:21,430 --> 00:03:19,040
digital cameras with high-powered lenses

81
00:03:23,670 --> 00:03:21,440
to snap away collecting imagery of the

82
00:03:27,350 --> 00:03:23,680
longitudinal axis of the station its

83
00:03:30,630 --> 00:03:29,030
in station atlantis you'll be happy to

84
00:03:33,270 --> 00:03:30,640
know you look just as good from the side

85
00:03:35,030 --> 00:03:33,280
as you do from the front

86
00:03:37,910 --> 00:03:35,040
thanks bertie not sure how to answer

87
00:03:39,750 --> 00:03:37,920
that one but thanks

88
00:03:41,190 --> 00:03:39,760

almost directly above the international

89

00:03:43,670 --> 00:03:41,200

space station

90

00:03:46,229 --> 00:03:43,680

you can see uh the varying views the

91

00:03:49,430 --> 00:03:46,239

solar arrays that are angled through the

92

00:03:51,670 --> 00:03:49,440

beta gimbal assemblies to optimize

93

00:03:54,550 --> 00:03:51,680

solar array

94

00:03:57,429 --> 00:03:54,560

absorption of sunlight to be converted

95

00:03:59,589 --> 00:03:57,439

into electricity on the far right of the

96

00:04:01,990 --> 00:03:59,599

axis of the space station

97

00:04:04,390 --> 00:04:02,000

that is the harmony module

98

00:04:06,149 --> 00:04:04,400

in the horizontal position basically as

99

00:04:08,470 --> 00:04:06,159

you look at this view that's where

100

00:04:10,470 --> 00:04:08,480

atlantis was docked to and on either

101

00:04:12,789 --> 00:04:10,480

side those two large modules at the

102

00:04:15,429 --> 00:04:12,799

bottom is the european space agency's

103

00:04:17,030 --> 00:04:15,439

columbus laboratory and on the top of

104

00:04:19,349 --> 00:04:17,040

harmony as you look at this view from

105

00:04:21,509 --> 00:04:19,359

directly above the space station

106

00:04:25,030 --> 00:04:21,519

is the large japanese segment of the

107

00:04:30,390 --> 00:04:25,040

complex the kibo module and its external

108

00:04:34,469 --> 00:04:32,629

and uh iss atlantis on the big loop uh

109

00:04:36,230 --> 00:04:34,479

we're essentially complete with our fly

110

00:04:37,830 --> 00:04:36,240

around uh we'll be uh coming out

111

00:04:39,749 --> 00:04:37,840

underneath you and i should have a good

112

00:04:41,189 --> 00:04:39,759

view from the cupola i'm not sure when

113

00:04:42,870 --> 00:04:41,199

we're gonna break down the big loop but

114

00:04:45,270 --> 00:04:42,880

uh if it's anytime soon we just wanted

115

00:04:46,790 --> 00:04:45,280

to give you a final uh goodbye

116

00:04:48,710 --> 00:04:46,800

hey thanks very we'll be watching you

117

00:04:50,070 --> 00:04:48,720

from the uh sm windows and uh you guys

118

00:04:51,909 --> 00:04:50,080

look really good on the firearms from

119

00:04:53,430 --> 00:04:51,919

what we can see and

120

00:04:54,469 --> 00:04:53,440

again thank you so much for all that you

121

00:04:55,990 --> 00:04:54,479

guys

122

00:04:59,430 --> 00:04:56,000

have done for us up here we really

123

00:05:04,629 --> 00:05:02,629

hey fergie from the ulf 7 orbit 1 team

124

00:05:06,070 --> 00:05:04,639

in the iss mission control room here in

125

00:05:07,909 --> 00:05:06,080

houston we just want to let you know

126

00:05:09,909 --> 00:05:07,919

that it's been our pleasure and honor to

127

00:05:11,990 --> 00:05:09,919

support this the 37th mission of the

128

00:05:13,909 --> 00:05:12,000

space shuttle to the iss

129

00:05:15,749 --> 00:05:13,919

and we're proud to be the last in a

130

00:05:17,749 --> 00:05:15,759

countless line of mission control teams

131

00:05:20,870 --> 00:05:17,759

that have had the honor to watch over

132

00:05:22,790 --> 00:05:20,880

the iss while discovery and endeavor and

133

00:05:24,870 --> 00:05:22,800

atlantis have visited over the last 13

134

00:05:26,710 --> 00:05:24,880

years from this room we've watched and

135

00:05:28,150 --> 00:05:26,720

supported as the shuttle has enabled the

136

00:05:30,230 --> 00:05:28,160

station to grow from

137

00:05:32,390 --> 00:05:30,240

a humble single module that was grappled

138

00:05:34,550 --> 00:05:32,400

by the shuttle's arm to a stunning

139

00:05:36,629 --> 00:05:34,560

facility that is so large that some

140

00:05:38,870 --> 00:05:36,639

astronauts have even momentarily gotten

141

00:05:39,749 --> 00:05:38,880

lost in it you can you can take it from

142

00:05:42,150 --> 00:05:39,759

me

143

00:05:44,150 --> 00:05:42,160

so of course the iss wouldn't be here

144

00:05:45,909 --> 00:05:44,160

without the space shuttle so while we

145

00:05:48,390 --> 00:05:45,919

have the communication link up for the

146

00:05:50,790 --> 00:05:48,400

last time we wanted to say thank you and

147

00:05:53,110 --> 00:05:50,800

farewell to the magnificent machines

148

00:05:55,909 --> 00:05:53,120

that delivered assembled and staffed our

149

00:05:58,629 --> 00:05:55,919

world-class laboratory in space

150

00:06:00,870 --> 00:05:58,639

so fergie chunky sandy and rex get her

