



1  
00:00:08,470 --> 00:00:06,550  
six six and a half minutes from

2  
00:00:10,870 --> 00:00:08,480  
atlantis's touchdown this shuttle is

3  
00:00:13,990 --> 00:00:12,870  
uh two times the speed of sound at the

4  
00:00:18,790 --> 00:00:14,000  
moment

5  
00:00:36,229 --> 00:00:18,800  
and is currently 86 000 feet above

6  
00:00:39,910 --> 00:00:38,150  
atlantis is approaching the imaginary

7  
00:00:41,190 --> 00:00:39,920  
circle leading towards the runway that's

8  
00:00:43,350 --> 00:00:41,200  
created by the

9  
00:00:44,869 --> 00:00:43,360  
microwave scan beam landing system

10  
00:00:46,709 --> 00:00:44,879  
that'll allow the commander and pilot to

11  
00:00:48,709 --> 00:00:46,719  
guide the vehicle as it makes its final

12  
00:00:49,670 --> 00:00:48,719  
approach to runway 33 at kennedy space

13  
00:00:51,590 --> 00:00:49,680

center

14

00:00:53,350 --> 00:00:51,600

commander will be taking control of the

15

00:00:55,110 --> 00:00:53,360

shuttle's steering once its speed is

16

00:00:56,630 --> 00:00:55,120

dropped below mach 1. it's below the

17

00:00:59,830 --> 00:00:56,640

speed of sound

18

00:01:01,430 --> 00:00:59,840

atlantis is currently

19

00:01:03,510 --> 00:01:01,440

traveling at two times the speed of

20

00:01:07,429 --> 00:01:03,520

sound we actually have the runway inside

21

00:01:07,439 --> 00:01:12,070

copy

22

00:01:12,080 --> 00:01:35,109

i couldn't have picked a clearer day

23

00:01:35,119 --> 00:01:40,310

fifty bucks

24

00:01:43,429 --> 00:01:41,830

five minutes now until it lands this

25

00:01:44,469 --> 00:01:43,439

touchdown

26

00:01:45,990 --> 00:01:44,479

currently

27

00:01:47,510 --> 00:01:46,000

uh 60 seconds

28

00:01:49,429 --> 00:01:47,520

approaching the hack

29

00:01:52,310 --> 00:01:49,439

no change to the weather the winds will

30

00:01:55,749 --> 00:01:52,320

be all headwind 12 peak 18.

31

00:01:57,910 --> 00:01:55,759

nominal shoot

32

00:02:19,670 --> 00:01:57,920

where did we copy all 12 peak 18 all

33

00:02:22,550 --> 00:02:21,270

seeing here the same view that the

34

00:02:26,390 --> 00:02:22,560

commander and pilot are seeing from

35

00:02:28,630 --> 00:02:26,400

their heads up display as they approach

36

00:02:30,550 --> 00:02:28,640

kennedy space center they'll be

37

00:02:32,150 --> 00:02:30,560

performing the header meeting the

38

00:02:33,910 --> 00:02:32,160

heading alignment circle here in just a

39

00:02:36,309 --> 00:02:33,920  
moment

40

00:02:38,309 --> 00:02:36,319  
where they'll be making a 300 degree

41

00:02:42,630 --> 00:02:38,319  
turn right hand

42

00:02:42,640 --> 00:02:47,990  
to line up with runway 33

43

00:02:50,869 --> 00:02:49,350  
commander

44

00:02:53,910 --> 00:02:50,879  
charlie hobo now

45

00:02:55,830 --> 00:02:53,920  
uh flying space shuttle atlantis

46

00:02:58,550 --> 00:02:55,840  
now that the shuttle is uh

47

00:03:00,910 --> 00:02:58,560  
reached its subsonic speed it's going

48

00:03:04,309 --> 00:03:00,920  
now at a rate of

49

00:03:06,390 --> 00:03:04,319  
625 miles per hour

50

00:03:10,470 --> 00:03:06,400  
currently 44 000

51  
00:03:59,429 --> 00:03:11,750  
less than four minutes now until

52  
00:03:59,439 --> 00:04:04,630  
atlanta is slightly low at the 180.

53  
00:04:10,869 --> 00:04:07,670  
capcom chris ferguson reporting on

54  
00:04:12,630 --> 00:04:10,879  
atlantis's ground track as it makes its

55  
00:04:14,309 --> 00:04:12,640  
heading alignment circle turn into

56  
00:04:16,789 --> 00:04:14,319  
community space centers runway three

57  
00:04:17,830 --> 00:04:16,799  
three shuttle also just announced its

58  
00:04:19,509 --> 00:04:17,840  
arrival

59  
00:04:23,749 --> 00:04:19,519  
at the space shuttle leaning facility

60  
00:04:27,590 --> 00:04:26,390  
pilot barry wilmore now in control of

61  
00:04:29,189 --> 00:04:27,600  
the

62  
00:04:30,870 --> 00:04:29,199  
steering of space shuttle atlantis for a

63  
00:04:33,030 --> 00:04:30,880

moment

64

00:04:39,510 --> 00:04:33,040

and now back with the commander in

65

00:04:45,590 --> 00:04:42,870

atlanta slightly low at the 90.

66

00:04:49,430 --> 00:04:47,749

90 degrees left in its

67

00:04:52,310 --> 00:04:49,440

heading alignment circle turn before it

68

00:04:54,830 --> 00:04:52,320

lines up with the runway now two minutes

69

00:04:56,469 --> 00:04:54,840

away from touchdown on runway

70

00:04:57,590 --> 00:04:56,479

3-3

71

00:05:00,390 --> 00:04:57,600

shuttle is still

72

00:05:01,670 --> 00:05:00,400

going at a rate of 355 miles per hour

73

00:05:03,990 --> 00:05:01,680

will be

74

00:05:05,670 --> 00:05:04,000

touching down at a rate of 224 miles per

75

00:05:18,310 --> 00:05:05,680

hour

76

00:05:37,189 --> 00:05:21,189

hey it's been working

77

00:05:42,150 --> 00:05:40,390

one runway 3-3 here in view as

78

00:05:44,950 --> 00:05:42,160

commander charlie hobaugh lines space

79

00:05:52,390 --> 00:05:44,960

shuttle atlantis up for its touchdown in

80

00:06:31,670 --> 00:05:55,749

when it is a speed 356 miles per hour

81

00:06:31,680 --> 00:06:44,629

foreign

82

00:06:49,909 --> 00:06:46,870

commander charlie obama firing up the

83

00:06:51,589 --> 00:06:49,919

shuttle's nose for landing in

84

00:06:59,510 --> 00:06:51,599

so you can see the

85

00:06:59,520 --> 00:07:03,670

main gear touchdown

86

00:07:12,070 --> 00:07:06,070

pilot barry wilmore deploying the

87

00:07:17,749 --> 00:07:14,629

nose gear touchdown

88

00:07:19,749 --> 00:07:17,759

atlantis now rolling out on runway 33 at

89

00:07:22,670 --> 00:07:19,759

kennedy space center

90

00:07:25,189 --> 00:07:22,680

wrapping up a 4 million 490

91

00:07:42,469 --> 00:07:25,199

138 mile flight to the international

92

00:07:45,830 --> 00:07:44,390

roger will stop atlantis that was a

93

00:07:47,749 --> 00:07:45,840

picture-perfect end to a top-field

94

00:07:49,189 --> 00:07:47,759

mission to the space station everybody

95

00:07:51,990 --> 00:07:49,199

welcome back to earth especially you