



1  
00:00:13,669 --> 00:00:10,629  
here's our

2  
00:00:15,669 --> 00:00:13,679  
commander chris ferguson he's in the

3  
00:00:17,189 --> 00:00:15,679  
suit-up room

4  
00:00:21,109 --> 00:00:17,199  
he's

5  
00:00:23,029 --> 00:00:21,119  
having a fit check of his helmet

6  
00:00:26,710 --> 00:00:23,039  
pilot doug hurley

7  
00:00:28,630 --> 00:00:26,720  
this is his second trip into space

8  
00:00:32,150 --> 00:00:28,640  
he completed his first space flight on

9  
00:00:34,470 --> 00:00:32,160  
sts-127 and he's logged more than 376

10  
00:00:36,389 --> 00:00:34,480  
hours in space

11  
00:00:38,150 --> 00:00:36,399  
mission specialist number one sandy

12  
00:00:41,190 --> 00:00:38,160  
magnus

13  
00:00:42,069 --> 00:00:41,200

this is her third space flight she spent

14

00:00:43,750 --> 00:00:42,079

more than

15

00:00:46,069 --> 00:00:43,760

four months in space aboard the

16

00:00:48,229 --> 00:00:46,079

international space station

17

00:00:50,470 --> 00:00:48,239

this is rex walheim

18

00:00:52,069 --> 00:00:50,480

he's our mission specialist number two

19

00:00:53,830 --> 00:00:52,079

he's making his

20

00:00:56,549 --> 00:00:53,840

third space flight he's spent more than

21

00:01:01,189 --> 00:00:56,559

24 days in space

22

00:01:10,830 --> 00:01:01,199

on sts-110 and sts-122 and he's had five

23

00:01:10,840 --> 00:01:39,270

hours oh

24

00:01:41,910 --> 00:01:40,710

got a great shot of doug here over on

25

00:01:43,030 --> 00:01:41,920

the right he's looking over pretty much

26

00:01:43,990 --> 00:01:43,040

directly at the camera what he's

27

00:01:45,109 --> 00:01:44,000

actually looking at is he's got a

28

00:01:46,069 --> 00:01:45,119

checklist over there that he's taking a

29

00:01:47,670 --> 00:01:46,079

look at

30

00:01:50,789 --> 00:01:47,680

and he's talking with uh fergie right

31

00:01:50,799 --> 00:01:54,630

otc ms2

32

00:01:54,640 --> 00:01:58,789

i got you loud and clear help me

33

00:02:07,429 --> 00:02:00,550

i'd be loud and clear also roberta thank

34

00:02:10,790 --> 00:02:09,109

so that was our last comm check with the

35

00:02:12,309 --> 00:02:10,800

otc and you can see rex after the first

36

00:02:14,229 --> 00:02:12,319

com check is bringing his visor down and

37

00:02:15,990 --> 00:02:14,239

locking it with that bar that comes down

38

00:02:17,270 --> 00:02:16,000

and that's what makes the seal airtight

39

00:02:19,350 --> 00:02:17,280

and now he'll be doing his communication

40

00:02:21,830 --> 00:02:19,360

check with the nasa test director here

41

00:02:24,070 --> 00:02:21,840

at florida and then with mission control

42

00:02:29,110 --> 00:02:24,080

in houston

43

00:02:33,670 --> 00:02:31,430

go for main engine start

44

00:02:34,550 --> 00:02:33,680

t-minus ten nine

45

00:02:35,509 --> 00:02:34,560

eight

46

00:02:36,710 --> 00:02:35,519

seven

47

00:02:38,150 --> 00:02:36,720

six

48

00:02:40,790 --> 00:02:38,160

five

49

00:02:41,589 --> 00:02:40,800

all three engines up and burning

50

00:02:42,470 --> 00:02:41,599

two

51  
00:02:45,670 --> 00:02:42,480  
one

52  
00:02:47,910 --> 00:02:45,680  
zero and liftoff the final liftoff of

53  
00:02:54,150 --> 00:02:47,920  
atlantis on the shoulders of the space

54  
00:02:58,070 --> 00:02:56,550  
roger roll atlantis

55  
00:03:00,470 --> 00:02:58,080  
houston now controlling the flight of

56  
00:03:02,630 --> 00:03:00,480  
atlantis the space shuttle spreads its

57  
00:03:06,710 --> 00:03:02,640  
wings one final time for the start of a

58  
00:03:11,430 --> 00:03:09,350  
24 seconds into the flight road program

59  
00:03:13,030 --> 00:03:11,440  
complete atlantis now heads down wings

60  
00:03:14,869 --> 00:03:13,040  
level on the proper alignment for its

61  
00:03:16,149 --> 00:03:14,879  
eight and a half minute ride to orbit

62  
00:03:17,990 --> 00:03:16,159  
four and a half million pounds of

63  
00:03:21,670 --> 00:03:18,000

hardware and humans taking aim on the

64

00:03:25,509 --> 00:03:23,670

40 seconds into the flight the three

65

00:03:27,589 --> 00:03:25,519

liquid fuel main engines throttling back

66

00:03:29,270 --> 00:03:27,599

to 72 percent of rated performance in

67

00:03:30,869 --> 00:03:29,280

the bucket reducing stress on the

68

00:03:34,949 --> 00:03:30,879

shuttle as it goes transonic for the

69

00:03:45,589 --> 00:03:36,869

engines now revving up standing by for

70

00:03:49,990 --> 00:03:47,670

booster officer confirms staging a good

71

00:03:52,229 --> 00:03:50,000

solid rocket booster separation guidance

72

00:03:53,910 --> 00:03:52,239

now converging the main engine steering

73

00:03:56,630 --> 00:03:53,920

the shuttle on a pinpoint path to its

74

00:03:58,470 --> 00:03:56,640

preliminary orbit two minutes 20 seconds

75

00:04:01,350 --> 00:03:58,480

into the flight atlantis already

76  
00:04:09,110 --> 00:04:01,360  
traveling 3200 miles an hour 35 miles in

77  
00:04:12,550 --> 00:04:10,710  
and the guidance officer here in mission

78  
00:04:14,710 --> 00:04:12,560  
control confirms that the computers are

79  
00:04:20,870 --> 00:04:14,720  
commanding the main engines to swivel

80  
00:04:24,550 --> 00:04:22,790  
we've rolled to a heads-up position now

81  
00:04:26,950 --> 00:04:24,560  
providing better communications to the

82  
00:04:30,230 --> 00:04:26,960  
tracking and data relay satellite system

83  
00:04:36,310 --> 00:04:30,240  
as atlantis heads up hill

84  
00:04:40,150 --> 00:04:38,310  
booster officer confirms main engine

85  
00:04:41,909 --> 00:04:40,160  
cutoff

86  
00:04:44,390 --> 00:04:41,919  
for the last time the space shuttle's

87  
00:04:46,150 --> 00:04:44,400  
main engines have fallen silent as the

88  
00:04:49,590 --> 00:04:46,160

shuttle slips into the final chapter of

89

00:04:51,189 --> 00:04:49,600

a storied 30-year adventure

90

00:05:01,670 --> 00:04:51,199

now standing by for external tank

91

00:05:05,029 --> 00:05:03,670

atlantis off the tank

92

00:05:06,710 --> 00:05:05,039

commander chris ferguson will be

93

00:05:08,870 --> 00:05:06,720

maneuvering atlantis now into an

94

00:05:10,710 --> 00:05:08,880

orientation to enable sandy magnus to

95

00:05:12,950 --> 00:05:10,720

capture digital still imagery of the

96

00:05:15,029 --> 00:05:12,960

external fuel tank as it drifts away