

070



1
00:00:05,170 --> 00:00:02,440
this is shuttle launch control or

2
00:00:06,340 --> 00:00:05,180
standing by now to receive video tape

3
00:00:08,529 --> 00:00:06,350
we've got the flight crew having

4
00:00:12,220 --> 00:00:08,539
breakfast this morning this was recorded

5
00:00:15,220 --> 00:00:12,230
earlier mission specialist Pierce do it

6
00:00:18,189 --> 00:00:15,230
this is his first trip into space for

7
00:00:21,100 --> 00:00:18,199
mission st s36 also the first trip for

8
00:00:23,740 --> 00:00:21,110
pilot John Casper

9
00:00:26,140 --> 00:00:23,750
and commander Crichton John Crichton is

10
00:00:28,980 --> 00:00:26,150
making his second trip to today

11
00:00:32,019 --> 00:00:28,990
mission specialist David Hill murs and

12
00:00:37,030 --> 00:00:32,029
mission specialist Mike Mullane making

13
00:00:41,050 --> 00:00:39,790

this is taken from the crew quarters and

14

00:00:59,940 --> 00:00:41,060

the operations and check-out building

15

00:00:59,950 --> 00:01:04,420

the crew insignia for this flight

16

00:01:04,430 --> 00:01:11,950

in their gear

17

00:01:11,960 --> 00:01:20,820

you

18

00:01:20,830 --> 00:01:26,560

ready to go

19

00:01:26,570 --> 00:01:36,570

running aboard the astronaut van

20

00:01:36,580 --> 00:02:03,360

you

21

00:02:09,490 --> 00:02:07,000

and Houston flight reporting we are go

22

00:02:12,190 --> 00:02:09,500

for weather here at Kennedy and tell

23

00:02:15,790 --> 00:02:12,200

site weather is go countdown clock will

24

00:02:18,520 --> 00:02:15,800

be picking up three two one t-minus five

25

00:02:23,050 --> 00:02:18,530

minutes and Counting we have a go for

26
00:02:25,210 --> 00:02:23,060
what our AP you start pilot caspar now

27
00:02:35,070 --> 00:02:25,220
flipping switches in the cockpit start

28
00:02:39,510 --> 00:02:37,920
and commander Crichton has been asked to

29
00:02:58,690 --> 00:02:39,520
we can figure the orbiter heaters for

30
00:03:13,490 --> 00:03:01,119
t-minus four minutes 15 seconds and

31
00:03:18,650 --> 00:03:15,650
coming up on the t minus 4 minute and

32
00:03:21,560 --> 00:03:18,660
Counting mark main engine final purge

33
00:03:24,290 --> 00:03:21,570
sequences underway main engine valves

34
00:03:26,810 --> 00:03:24,300
are being configured for flight orbiter

35
00:03:28,220 --> 00:03:26,820
flight control surfaces elabon speed

36
00:03:30,500 --> 00:03:28,230
brake and rudder are now being moved

37
00:03:34,100 --> 00:03:30,510
through a pre-programmed pattern to

38
00:03:34,110 --> 00:03:45,559

2-3 minutes 40 seconds and counting

39

00:03:53,830 --> 00:03:48,709

three main engines now being gimble in a

40

00:03:53,840 --> 00:03:58,630

and they will be positioned for launch

41

00:03:58,640 --> 00:04:13,080

2-3 minutes 15 seconds and counting

42

00:04:19,110 --> 00:04:16,379

t-minus three minutes and Counting at

43

00:04:21,890 --> 00:04:19,120

two t-minus two minutes 55 seconds will

44

00:04:24,570 --> 00:04:21,900

start external tank liquid oxygen

45

00:04:27,330 --> 00:04:24,580

pressurization and we just received the

46

00:04:29,670 --> 00:04:27,340

go for that and we begin gaseous

47

00:04:33,560 --> 00:04:29,680

nitrogen purges of the main engines will

48

00:04:40,220 --> 00:04:33,570

begin terminating that that activity

49

00:04:47,080 --> 00:04:42,380

and pilot Casper has been instructed to

50

00:04:53,070 --> 00:04:50,170

a gaseous oxygen vent alarm is now being

51
00:04:55,750 --> 00:04:53,080
retracted away from the external tank

52
00:05:07,500 --> 00:04:55,760
t-minus two minutes 20 seconds and

53
00:05:13,320 --> 00:05:09,420
pilot Caskey reports there are no

54
00:05:17,610 --> 00:05:15,570
t-minus two minutes and Counting the

55
00:05:21,439 --> 00:05:17,620
crew has been instructed to close and

56
00:05:28,210 --> 00:05:23,869
and we have a go for pressurization of

57
00:05:44,250 --> 00:05:31,120
t-minus one minute 45 seconds it's 90

58
00:05:50,400 --> 00:05:48,360
t-minus one minute 30 seconds

59
00:05:52,680 --> 00:05:50,410
less than two minutes away now for

60
00:05:54,270 --> 00:05:52,690
launch for a launch sequencer will

61
00:06:13,250 --> 00:05:54,280
verify that the main engines are ready

62
00:06:17,870 --> 00:06:16,010
t-minus one minute and Counting the

63
00:06:20,060 --> 00:06:17,880

sound suppression water system is now

64

00:06:23,240 --> 00:06:20,070

armed three lifts off water will be

65

00:06:25,100 --> 00:06:23,250

released at t-minus sixteen seconds the

66

00:06:28,590 --> 00:06:25,110

solid rocket booster joint heaters have

67

00:06:33,840 --> 00:06:32,070

t-minus 45 seconds and counting all

68

00:06:42,559 --> 00:06:33,850

systems are go for the launch of

69

00:06:48,230 --> 00:06:45,559

t minus 31 seconds and counting we have

70

00:06:49,969 --> 00:06:48,240

a go for autosequence start Atlantis's

71

00:06:54,109 --> 00:06:49,979

for redundant computers have assumed

72

00:06:58,810 --> 00:06:54,119

primary control of the vehicle t minus

73

00:07:09,610 --> 00:07:06,670

Jim I was 15 13 12 11 10 9 we have a go

74

00:07:16,030 --> 00:07:09,620

for main engine start seven six five

75

00:07:29,040 --> 00:07:16,040

four three two one zero ignition and

76
00:07:46,580 --> 00:07:33,040
program have begun that program puts the

77
00:07:53,300 --> 00:07:50,990
guidance officer three engines now

78
00:07:54,740 --> 00:07:53,310
throttling back as Atlantis passes

79
00:08:08,990 --> 00:07:54,750
through the area of maximum dynamic

80
00:08:14,279 --> 00:08:11,520
three APU looking good all engines

81
00:08:16,649 --> 00:08:14,289
looking good velocity is 1,200 feet per

82
00:08:28,420 --> 00:08:16,659
second atlantis now down range three

83
00:08:36,500 --> 00:08:31,010
crew has received a go at throttle up

84
00:08:40,700 --> 00:08:36,510
all the three engines I got back at 104

85
00:09:31,360 --> 00:08:40,710
percent velocity 2,200 feet per second

86
00:09:39,310 --> 00:09:33,680
separation of the top

87
00:09:39,320 --> 00:10:15,660
per second 39 miles down

88
00:10:23,260 --> 00:10:18,790

dynamic self-service no performance at

89

00:10:26,140 --> 00:10:23,270

the state and the crew has received the

90

00:10:28,150 --> 00:10:26,150

two engine transatlantic abort landing

91

00:10:29,980 --> 00:10:28,160

call which means they could reach that

92

00:10:32,260 --> 00:10:29,990

transatlantic site on two engines if

93

00:10:36,220 --> 00:10:32,270

that were necessary all three engines

94

00:10:39,250 --> 00:10:36,230

are looking good all three AP use

95

00:10:42,310 --> 00:10:39,260

running properly velocity is now 6,000

96

00:10:59,040 --> 00:10:42,320

feet per second Atlantis 86 miles away

97

00:11:03,880 --> 00:11:01,960

crew has gotten a message on their

98

00:11:05,620 --> 00:11:03,890

reaction control system however ground

99

00:11:07,720 --> 00:11:05,630

controllers believe that is a transducer

100

00:11:10,000 --> 00:11:07,730

only and those Jets are not required at

101
00:11:26,070 --> 00:11:10,010
this time if they were required they

102
00:11:33,900 --> 00:11:28,530
this is Mission Control can now see

103
00:11:38,340 --> 00:11:33,910
Atlantis visually at Dryden APU one will

104
00:11:42,620 --> 00:11:40,530
mechanical systems officer reports that

105
00:11:48,350 --> 00:11:42,630
a p1

106
00:11:48,350 --> 00:11:48,360
Atlantis now at 1.6 71,000

107
00:12:37,280 --> 00:11:52,790
over California in about 39 miles away

108
00:12:51,540 --> 00:12:40,710
this is Mission Control velocity now

109
00:12:57,030 --> 00:12:54,350
Atlantis just about a minute from

110
00:13:00,030 --> 00:12:57,040
intercepting the heading alignment

111
00:13:19,240 --> 00:13:02,280
mechanical systems officer reports that

112
00:13:23,079 --> 00:13:21,190
chemical assistance officer expect

113
00:13:33,360 --> 00:13:23,089

safety you want to be able to support

114

00:13:37,650 --> 00:13:35,610

flight dynamics officer reports that

115

00:13:40,050 --> 00:13:37,660

Atlantis looks good coming on to the

116

00:13:44,680 --> 00:13:40,060

heading alignment circle velocity is now

117

00:13:49,850 --> 00:13:44,690

800 feet per second 37,000 feet altitude

118

00:13:54,050 --> 00:13:51,829

and the flight dynamics officer reports

119

00:13:55,579 --> 00:13:54,060

that energy is right on target as

120

00:14:28,340 --> 00:13:55,589

Atlantis comes around the heading

121

00:14:33,480 --> 00:14:30,920

velocity now on 700 feet per second

122

00:14:36,389 --> 00:14:33,490

altitude 20,000 feet

123

00:14:50,539 --> 00:14:36,399

atlanta is coming down at about 330 feet

124

00:14:56,260 --> 00:14:53,609

coming in now to the final approach at

125

00:15:11,390 --> 00:14:56,270

about 14,000 feet

126
00:15:15,520 --> 00:15:13,670
mechanical systems officer reports ap

127
00:15:18,230 --> 00:15:15,530
you learn still performing all right

128
00:15:43,660 --> 00:15:18,240
velocity is 400 feet per second altitude

129
00:15:48,249 --> 00:15:45,430
this is Mission Control flight dynamics

130
00:15:49,629 --> 00:15:48,259
officer reports Atlantis is lined up

131
00:15:54,980 --> 00:15:49,639
right on the glide slope over around my

132
00:15:59,660 --> 00:15:57,829
name the same 18 gusting to twenty two

133
00:16:39,860 --> 00:15:59,670
knots headwind

134
00:16:39,870 --> 00:16:48,780
not too now about 700 feet

135
00:16:48,790 --> 00:17:03,120
landing gear is down

136
00:17:03,130 --> 00:17:13,630
main gear touchdown

137
00:17:13,640 --> 00:17:56,340
nose gear touchdown

138
00:18:07,630 --> 00:17:59,970

and we'll stop recorded by a mission

139

00:18:14,020 --> 00:18:11,850

Capcom Steve oswal greeted the crew with

140

00:18:26,140 --> 00:18:14,030

congratulations on a great flight guys

141

00:18:30,830 --> 00:18:28,280

this is Mission Control we have the

142

00:18:32,470 --> 00:18:30,840

flight crew coming from Atlantis now Jo

143

00:18:34,330 --> 00:18:32,480

Creighton

144

00:18:37,850 --> 00:18:34,340

on Casper

145

00:18:40,989 --> 00:18:37,860

being greeted by dr. William

146

00:18:44,439 --> 00:18:40,999

John hoodie and Michael coats

147

00:18:47,370 --> 00:18:44,449

up here through it and died filmers am

148

00:18:49,440 --> 00:18:47,380

Richard Mullane also there

149

00:18:51,720 --> 00:18:49,450

dr. Lenore is the associate

150

00:18:55,110 --> 00:18:51,730

administrator for Space Flight for the

151

00:18:56,880 --> 00:18:55,120

agency mr. Donnell putty is the director

152

00:18:58,930 --> 00:18:56,890

of flight crew operations at the Johnson

153

00:19:09,650 --> 00:18:58,940

Space Center

154

00:19:15,010 --> 00:19:12,720

crew walking around looking at the

155

00:19:17,860 --> 00:19:15,020

outside of it