
PAO

1
00:00:03,510 --> 00:00:02,070
good morning welcome to the

2
00:00:04,950 --> 00:00:03,520
international space station flight

3
00:00:07,030 --> 00:00:04,960
control in the mission control center in

4
00:00:08,549 --> 00:00:07,040
houston uh as you know one of the things

5
00:00:10,950 --> 00:00:08,559
that the space station crew really

6
00:00:12,709 --> 00:00:10,960
focuses on is getting uh the information

7
00:00:15,030 --> 00:00:12,719
we need to be able to send crews farther

8
00:00:16,310 --> 00:00:15,040
than ever into deep space and the

9
00:00:18,950 --> 00:00:16,320
spacecraft that we'll be doing that with

10
00:00:20,310 --> 00:00:18,960
is the orion it's being built at kennedy

11
00:00:22,870 --> 00:00:20,320
space center getting it ready for its

12
00:00:24,390 --> 00:00:22,880
first flight test coming up in december

13
00:00:26,310 --> 00:00:24,400

but in the meantime we actually have a

14
00:00:28,150 --> 00:00:26,320
parachute test scheduled for wednesday

15
00:00:29,349 --> 00:00:28,160
and we have laura kearney from the orion

16
00:00:31,029 --> 00:00:29,359
program here to tell us a little bit

17
00:00:33,430 --> 00:00:31,039
about that thanks so much for joining us

18
00:00:34,950 --> 00:00:33,440
laura sure my pleasure glad to be here

19
00:00:36,549 --> 00:00:34,960
all right so tell us a little bit about

20
00:00:38,229 --> 00:00:36,559
orion and the parachute system that

21
00:00:40,709 --> 00:00:38,239
we're going to be testing on wednesday

22
00:00:41,590 --> 00:00:40,719
okay we have a very complex parachute

23
00:00:45,510 --> 00:00:41,600
system

24
00:00:47,670 --> 00:00:45,520
what we depend on to make sure the crews

25
00:00:49,110 --> 00:00:47,680
get home and land safely

26
00:00:50,950 --> 00:00:49,120
we'll be testing

27
00:00:52,549 --> 00:00:50,960
this wednesday the full sequence of

28
00:00:54,630 --> 00:00:52,559
events that

29
00:00:56,389 --> 00:00:54,640
lead the parachute system home it goes

30
00:00:58,950 --> 00:00:56,399
all the way from the time the mortars

31
00:01:00,869 --> 00:00:58,960
fire the ford bay cover parachutes all

32
00:01:02,709 --> 00:01:00,879
the way down to the time we land so

33
00:01:03,670 --> 00:01:02,719
we've done several of these tests and i

34
00:01:05,750 --> 00:01:03,680
know there have been a number of

35
00:01:07,750 --> 00:01:05,760
different sequences we've tried some

36
00:01:08,950 --> 00:01:07,760
failures um kind of simulating different

37
00:01:10,710 --> 00:01:08,960
things that could go wrong just to be

38
00:01:11,910 --> 00:01:10,720

sure that we'd be okay even if they did

39
00:01:13,750 --> 00:01:11,920
but this is going to be the full

40
00:01:15,429 --> 00:01:13,760
sequence and i think you mentioned the

41
00:01:18,550 --> 00:01:15,439
forward bay cover that

42
00:01:20,070 --> 00:01:18,560
is a cover over orion that that has to

43
00:01:22,149 --> 00:01:20,080
go away before the parachute can deploy

44
00:01:24,230 --> 00:01:22,159
right yeah that's right um for the whole

45
00:01:26,950 --> 00:01:24,240
test sequence we'll actually deploy out

46
00:01:27,830 --> 00:01:26,960
of the c-17 at about 35 000

47
00:01:29,830 --> 00:01:27,840
feet

48
00:01:31,830 --> 00:01:29,840
and the spacecraft actually deploys on a

49
00:01:33,749 --> 00:01:31,840
platform and it is released from the

50
00:01:36,069 --> 00:01:33,759
platform and then it is under what we

51
00:01:38,310 --> 00:01:36,079
call programmers which puts the

52
00:01:40,230 --> 00:01:38,320
the test unit at the right test

53
00:01:41,670 --> 00:01:40,240
conditions it gets to be like kind of

54
00:01:43,749 --> 00:01:41,680
like white right that's right we wanted

55
00:01:44,950 --> 00:01:43,759
her under as flight like conditions as

56
00:01:46,710 --> 00:01:44,960
we can get it

57
00:01:48,950 --> 00:01:46,720
um and then we'll start the actual

58
00:01:51,429 --> 00:01:48,960
mission sequence and so uh you'll first

59
00:01:53,510 --> 00:01:51,439
see the four bay cover uh parachutes

60
00:01:55,990 --> 00:01:53,520
deploy um and then you'll actually see

61
00:01:57,429 --> 00:01:56,000
the four big cover itself jettison

62
00:02:00,310 --> 00:01:57,439
and then after that point is when the

63
00:02:02,230 --> 00:02:00,320

main parachutes will start to their

64
00:02:03,830 --> 00:02:02,240
sequence you'll actually see two drogues

65
00:02:05,109 --> 00:02:03,840
come out first which will slow the

66
00:02:06,789 --> 00:02:05,119
vehicle down

67
00:02:08,949 --> 00:02:06,799
uh and then it's followed by the three

68
00:02:11,190 --> 00:02:08,959
pilots and the three mains which the

69
00:02:13,430 --> 00:02:11,200
vehicle then lands under okay it takes a

70
00:02:15,110 --> 00:02:13,440
lot to get orion safely down i guess it

71
00:02:17,430 --> 00:02:15,120
does it does and everything has to work

72
00:02:19,110 --> 00:02:17,440
just right it's all timed just right

73
00:02:20,790 --> 00:02:19,120
down to the split second when things

74
00:02:22,869 --> 00:02:20,800
need to fire to make sure that we don't

75
00:02:24,150 --> 00:02:22,879
have any contact among pieces of

76
00:02:25,750 --> 00:02:24,160
hardware

77
00:02:27,589 --> 00:02:25,760
so there's a lot of detail that goes

78
00:02:29,350 --> 00:02:27,599
into making sure the sequence works just

79
00:02:31,030 --> 00:02:29,360
right and i guess let me make sure i can

80
00:02:33,430 --> 00:02:31,040
get the numbers right here so i think

81
00:02:35,830 --> 00:02:33,440
ryan will be coming back from

82
00:02:37,589 --> 00:02:35,840
a very high orbit 3600 miles which is

83
00:02:39,910 --> 00:02:37,599
farther about 15 times farther than the

84
00:02:42,869 --> 00:02:39,920
space station orbits and coming in at a

85
00:02:44,869 --> 00:02:42,879
speed of about 20 000 miles per hour it

86
00:02:46,550 --> 00:02:44,879
needs to slow down to 20 miles per hour

87
00:02:47,509 --> 00:02:46,560
so the earth's atmosphere helps us with

88
00:02:49,350 --> 00:02:47,519

that but then it's all up to the

89
00:02:50,949 --> 00:02:49,360
parachutes that's exactly right that's

90
00:02:52,390 --> 00:02:50,959
exactly right that's the job of these

91
00:02:54,229 --> 00:02:52,400
shoots and of course we want it to work

92
00:02:56,150 --> 00:02:54,239
because eventually we'll have people

93
00:02:57,990 --> 00:02:56,160
inside orion and they'll want to splash

94
00:02:59,750 --> 00:02:58,000
down at a little slower than 20 thousand

95
00:03:01,910 --> 00:02:59,760
miles per hour that's right for the

96
00:03:03,589 --> 00:03:01,920
flight uh we'll be splashing down on the

97
00:03:05,910 --> 00:03:03,599
water here for this test we'll be in the

98
00:03:07,509 --> 00:03:05,920
desert and yuma arizona but for the

99
00:03:09,270 --> 00:03:07,519
flight we'll be touching down in water

100
00:03:11,270 --> 00:03:09,280
and we've been to yuma a number of times

101
00:03:13,830 --> 00:03:11,280
and done done a few of these tests right

102
00:03:16,149 --> 00:03:13,840
we have this is the 14th test in our

103
00:03:18,070 --> 00:03:16,159
test sequence the test team has become

104
00:03:20,869 --> 00:03:18,080
just experts at getting this down it

105
00:03:21,910 --> 00:03:20,879
takes a lot to pull a test like this off

106
00:03:24,550 --> 00:03:21,920
because there are a lot of people

107
00:03:26,470 --> 00:03:24,560
involved not just the nasa team but

108
00:03:27,670 --> 00:03:26,480
the air force and and all the other

109
00:03:29,670 --> 00:03:27,680
folks that are out there making it

110
00:03:31,670 --> 00:03:29,680
happen so it's a complicated test have

111
00:03:32,869 --> 00:03:31,680
they gone pretty good so far

112
00:03:35,509 --> 00:03:32,879
they have really gone great we've

113
00:03:37,990 --> 00:03:35,519

learned a lot that's why we test is to

114
00:03:39,430 --> 00:03:38,000
learn things and so in every test you

115
00:03:41,110 --> 00:03:39,440
know little things will go wrong and the

116
00:03:42,229 --> 00:03:41,120
test team is able to bring that data

117
00:03:44,309 --> 00:03:42,239
back

118
00:03:45,430 --> 00:03:44,319
and fix it and tweak the hardware and so

119
00:03:47,509 --> 00:03:45,440
a lot of what we learned has been

120
00:03:50,309 --> 00:03:47,519
incorporated into the eft-1 flight

121
00:03:52,869 --> 00:03:50,319
hardware that is already installed uh in

122
00:03:54,710 --> 00:03:52,879
the onc down in in florida

123
00:03:57,589 --> 00:03:54,720
so we have actually bought down a lot of

124
00:03:59,350 --> 00:03:57,599
risk by flying uh these test flights and

125
00:04:01,110 --> 00:03:59,360
increase the reliability of the overall

126
00:04:03,270 --> 00:04:01,120
system hopefully we feel pretty

127
00:04:05,429 --> 00:04:03,280
confident then that they'll work well on

128
00:04:07,110 --> 00:04:05,439
this flight test that's eft one

129
00:04:08,470 --> 00:04:07,120
exploration flight test one and again

130
00:04:11,670 --> 00:04:08,480
that's in december

131
00:04:13,830 --> 00:04:11,680
that's right this test will also have

132
00:04:15,990 --> 00:04:13,840
some of the ground crew the the helos

133
00:04:17,590 --> 00:04:16,000
from the navy and some of the folks uh

134
00:04:19,189 --> 00:04:17,600
the chase aircraft will be out as well

135
00:04:21,110 --> 00:04:19,199
they'll be using this test as sort of a

136
00:04:22,950 --> 00:04:21,120
dry run for the eft-1 recovery

137
00:04:24,950 --> 00:04:22,960
operations as well so that's sort of a

138
00:04:26,790 --> 00:04:24,960

secondary objective at the same time

139
00:04:28,070 --> 00:04:26,800
okay well i hope it all goes well thanks