



1
00:01:12,609 --> 00:01:05,399
good morning dog crew too and Cujo

2
00:01:18,100 --> 00:01:12,619
Madeline says good morning so if X

3
00:01:20,289 --> 00:01:18,110
you've got a future in show business in

4
00:01:23,050 --> 00:01:20,299
this live television picture you can see

5
00:01:26,110 --> 00:01:23,060
the lid closing to the solar extreme

6
00:01:29,950 --> 00:01:26,120
hitchhiker experiment that will keep

7
00:01:32,110 --> 00:01:29,960
that particular telescope free of any

8
00:01:33,700 --> 00:01:32,120
thruster jet thruster contamination

9
00:01:36,190 --> 00:01:33,710
during the course of the rendezvous

10
00:01:50,530 --> 00:01:36,200
maneuvers which will be ongoing over the

11
00:01:50,540 --> 00:01:57,060
endeavour Houston we see a good burn

12
00:02:05,050 --> 00:02:02,680
Roger flight dynamics officer reports

13
00:02:08,490 --> 00:02:05,060

that the rendezvous burn was right on

14

00:02:11,890 --> 00:02:08,500

the money placing endeavour on a

15

00:02:14,110 --> 00:02:11,900

increased trajectory and the proper

16

00:02:16,720 --> 00:02:14,120

course to intercept the Spartan science

17

00:02:19,540 --> 00:02:16,730

satellite countdown clocks now ticking

18

00:02:22,210 --> 00:02:19,550

backward toward the next burn which will

19

00:02:26,290 --> 00:02:22,220

occur a little over two hours from now

20

00:02:29,470 --> 00:02:26,300

that will be a ncc burn a corrective

21

00:02:31,990 --> 00:02:29,480

combination burn that will improve the

22

00:02:35,440 --> 00:02:32,000

orbiters trajectory heading toward the

23

00:02:38,020 --> 00:02:35,450

spartan satellite using a state vector

24

00:02:40,150 --> 00:02:38,030

updated by star tracker passes and

25

00:02:41,740 --> 00:02:40,160

onboard navigational updates that the

26

00:08:49,280 --> 00:02:41,750

crew will be receiving over the next

27

00:08:55,189 --> 00:08:52,009

endeavour Houston for Cujo we copied

28

00:08:58,579 --> 00:08:55,199

your last about the low rate on spartan

29

00:09:02,379 --> 00:08:58,589

when you came in during the during the

30

00:09:05,530 --> 00:09:02,389

fly around and that from our initial

31

00:09:08,110 --> 00:09:05,540

assessment is consistent that and the

32

00:09:12,199 --> 00:09:08,120

incorrect attitude of spartan is

33

00:09:15,519 --> 00:09:12,209

consistent with the spartans vehicle

34

00:09:18,889 --> 00:09:15,529

going into a minimum reserve power mode

35

00:09:21,650 --> 00:09:18,899

sort of a shutdown and after we've

36

00:09:23,930 --> 00:09:21,660

birthed spartan we're going to get you

37

00:09:28,340 --> 00:09:23,940

during the post recovery config to give

38

00:09:33,499 --> 00:09:28,350

us statuses and possibly assess what

39

00:09:35,480 --> 00:09:33,509

might have happened they play Senet

40

00:09:37,370 --> 00:09:35,490

we're in the middle of birthing right

41

00:11:38,040 --> 00:09:37,380

this very instant and we'll talk to you

42

00:11:42,780 --> 00:11:40,530

so it took a little longer than had been

43

00:11:44,730 --> 00:11:42,790

expected but the Spartan science

44

00:11:54,840 --> 00:11:44,740

satellite was successfully retrieved by

45

00:11:56,790 --> 00:11:54,850

endeavours astronauts and and now has

46

00:11:59,550 --> 00:11:56,800

been placed in its birthing platform in

47

00:12:01,230 --> 00:11:59,560

the cargo bay for the trip back home the

48

00:12:03,120 --> 00:12:01,240

timeline for the rest of the day's

49

00:12:05,600 --> 00:12:03,130

activities for the astronauts will have

50

00:12:07,740 --> 00:12:05,610

some minor revisions to it the major

51
00:12:09,389 --> 00:12:07,750
activity for the rest of the day will be

52
00:12:11,460 --> 00:12:09,399
pre deployment checkouts and health

53
00:12:14,130 --> 00:12:11,470
checks of the wake shield facility which

54
00:13:44,610 --> 00:12:14,140
is scheduled to be deployed around 4 45

55
00:13:44,620 --> 00:13:52,720
this is Mission Control Houston

56
00:13:56,680 --> 00:13:54,819
as endeavour has just passed over the

57
00:13:58,629 --> 00:13:56,690
easternmost edge of the South American

58
00:14:01,030 --> 00:13:58,639
continent now out flying over the

59
00:14:07,060 --> 00:14:01,040
Atlantic Ocean at an altitude of about

60
00:14:09,189 --> 00:14:07,070
200 two nautical miles after the second

61
00:14:11,319 --> 00:14:09,199
burn the ohms for burn that's being

62
00:14:14,470 --> 00:14:11,329
conducted later today to circularize

63
00:14:16,060 --> 00:14:14,480

endeavours orbit Mike Bernhardt will

64

00:14:17,980 --> 00:14:16,070

reach out with the shuttles robot arm

65

00:14:21,879 --> 00:14:17,990

and he will use that to grapple the

66

00:14:23,530 --> 00:14:21,889

weight shield facility it will remain in

67

00:14:25,509 --> 00:14:23,540

that configuration overnight in the

68

00:14:27,699 --> 00:14:25,519

payload Bay with the arm attached to it

69

00:14:29,829 --> 00:14:27,709

in anticipation of that deployment

70

00:14:32,410 --> 00:14:29,839

tomorrow wake shield will then spend

71

00:14:35,319 --> 00:14:32,420

about 48 hours trailing the orbiter at a

72

00:14:37,750 --> 00:14:35,329

distance of thirty to forty miles during

73

00:14:40,180 --> 00:14:37,760

that time it will attempt to use a

74

00:14:42,610 --> 00:14:40,190

process called molecular beam epitaxy to

75

00:14:47,560 --> 00:14:42,620

grow very thin films for use in the

76

00:14:49,210 --> 00:14:47,570

semiconductor industry retrieval of the

77

00:14:51,400 --> 00:14:49,220

weight shield facility is set for

78

00:14:53,259 --> 00:14:51,410

Wednesday at ten sixteen am however

79

00:14:56,290 --> 00:14:53,269

about the last five hours of its flight

80

00:14:58,480 --> 00:14:56,300

will be devoted to its use basically as

81

00:15:00,040 --> 00:14:58,490

a target as Ken cockerel and Dave Walker

82

00:15:03,009 --> 00:15:00,050

on the flight deck will conduct a series

83

00:15:05,319 --> 00:15:03,019

of complex maneuvers allowing endeavour

84

00:15:07,360 --> 00:15:05,329

to fire its engines toward the wake

85

00:15:10,389 --> 00:15:07,370

shields facility in an attempt to

86

00:15:13,509 --> 00:15:10,399

increase our knowledge base about the

87

00:15:15,699 --> 00:15:13,519

effects of thruster jet firings on

88

00:15:22,420 --> 00:15:15,709

objects in space this as we enter the

89

00:15:24,309 --> 00:15:22,430

era of the space station all systems on

90

00:15:25,930 --> 00:15:24,319

board are continuing to perform very

91

00:15:30,210 --> 00:15:25,940

well the crew members are in the waning

92

00:15:32,379 --> 00:15:30,220

hours of their day and just over an hour

93

00:15:33,850 --> 00:15:32,389

mission specialist Mike Bernhardt is

94

00:15:35,290 --> 00:15:33,860

supposed to begin an eight hours sleep

95

00:15:37,629 --> 00:15:35,300

period he'll be joined about an hour

96

00:15:39,490 --> 00:15:37,639

later by his crewmates who will have an

97

00:15:41,259 --> 00:15:39,500

abbreviated seven hours sleep shift

98

00:15:45,129 --> 00:15:41,269

before they begin wakes she'll deploy

99

00:15:47,199 --> 00:15:45,139

activities Monday the crews wake-up call

100

00:15:48,579 --> 00:15:47,209

will come tonight at eleven o 9 p.m.

101
00:15:50,230 --> 00:15:48,589
central time and that's when they'll

102
00:15:52,629 --> 00:15:50,240
wake up to begin flight day five on

103
00:15:54,220 --> 00:15:52,639
orbit for the next several days mission

104
00:15:56,199 --> 00:15:54,230
specialists Mike Earnhardt and jim

105
00:15:59,650 --> 00:15:56,209
newman will slightly alter their sleep

106
00:16:02,710 --> 00:15:59,660
patterns so that one or both of them is

107
00:16:04,329 --> 00:16:02,720
awake at all times for critical commands

108
00:16:06,280 --> 00:16:04,339
for the weight shield facility they will

109
00:16:07,629 --> 00:16:06,290
not be providing 24 hours support

110
00:16:10,090 --> 00:16:07,639
however they will be awake during all

111
00:16:12,579 --> 00:16:10,100
critical commanding periods for that

112
00:16:14,860 --> 00:16:12,589
facility once again we are receiving

113
00:16:16,930 --> 00:16:14,870

live television from the payload Bay

114

00:16:21,009 --> 00:16:16,940

cameras onboard endeavor as endeavour is

115

00:16:22,689 --> 00:16:21,019

sailing some 203 nautical miles over the

116

00:16:24,370 --> 00:16:22,699

surface of the Atlantic Ocean just about

117

00:16:33,330 --> 00:16:24,380

to cross over the southernmost tip of

118

00:16:39,150 --> 00:16:37,380

Newman will be maneuvering the shuttles

119

00:16:40,800 --> 00:16:39,160

robot arm to grapple the weak shield

120

00:16:44,330 --> 00:16:40,810

facility which is mounted on its cross

121

00:16:47,130 --> 00:16:44,340

bay carrier in endeavours payload Bay

122

00:16:49,140 --> 00:16:47,140

the spacecraft and the arm will remain

123

00:16:51,120 --> 00:16:49,150

in that configuration overnight with the

124

00:16:53,760 --> 00:16:51,130

shuttles robot arm securely grappled to

125

00:16:56,040 --> 00:16:53,770

the spacecraft in anticipation of its

126

00:17:03,890 --> 00:16:56,050

deployment at 442 a.m. central time

127

00:17:12,200 --> 00:17:06,320

the message that was just sent up to the

128

00:17:14,120 --> 00:17:12,210

crew members on board just a reminder to

129

00:17:15,410 --> 00:17:14,130

jim newman as he maneuvers that arm that

130

00:17:18,020 --> 00:17:15,420

the solar extreme ultraviolet

131

00:17:19,880 --> 00:17:18,030

hitch-hiker canister which is mounted

132

00:17:21,170 --> 00:17:19,890

directly behind the weight shield

133

00:17:23,960 --> 00:17:21,180

facility as part of the international

134

00:17:26,900 --> 00:17:23,970

extreme ultraviolet hitch-hiker payload

135

00:17:28,160 --> 00:17:26,910

is in the we'll be doing some observing

136

00:17:30,290 --> 00:17:28,170

during the time that the arm is in

137

00:17:32,330 --> 00:17:30,300

motion and just a reminder to him that

138

00:17:33,830 --> 00:17:32,340

if he can keep from crossing the path of

139

00:18:14,250 --> 00:17:33,840

that observation that will help that

140

00:18:20,340 --> 00:18:16,610

here in the flight control room the

141

00:18:28,590 --> 00:18:20,350

officer imitators east and we see a good

142

00:18:30,150 --> 00:18:28,600

grandpa yes story that's what we got the

143

00:18:31,230 --> 00:18:30,160

officer in charge of the shuttles robot

144

00:18:33,060 --> 00:18:31,240

arm here in the flight control room

145

00:18:35,670 --> 00:18:33,070

reporting a good grapple that confirmed