



1  
00:01:08,020 --> 00:00:10,040  
hi I'm Tom Marshburn of the sts-127 crew

2  
00:01:08,030 --> 00:01:19,420  
baby

3  
00:01:19,430 --> 00:01:32,950  
ha

4  
00:01:43,580 --> 00:01:35,570  
good morning endeavor and a special good

5  
00:01:44,960 --> 00:01:43,590  
morning to you today Tim thank you very

6  
00:02:01,420 --> 00:01:44,970  
much i really enjoyed the music this

7  
00:02:08,230 --> 00:02:03,820  
in control Houston today's wakeup music

8  
00:02:10,650 --> 00:02:08,240  
for the sts-127 crew of endeavor was a

9  
00:02:14,440 --> 00:02:10,660  
song called these are days by the band

10  
00:02:17,350 --> 00:02:14,450  
10,000 maniacs singers Natalie Merchant

11  
00:02:20,680 --> 00:02:17,360  
that Thun especially dedicated to tim

12  
00:02:22,570 --> 00:02:20,690  
kopra who is riding on endeavour up to

13  
00:02:24,850 --> 00:02:22,580

the International Space Station his new

14

00:02:27,160 --> 00:02:24,860

home on orbit he'll be staying on board

15

00:02:30,370 --> 00:02:27,170

and Koichi Wakata will be returning with

16

00:02:32,220 --> 00:02:30,380

the rest of the Endeavour crew commander

17

00:02:34,600 --> 00:02:32,230

mark Polanski and pilot Doug Hurley

18

00:02:37,360 --> 00:02:34,610

along with mission specialist Chris

19

00:02:40,300 --> 00:02:37,370

Cassidy Judah path of the Canadian Space

20

00:02:42,910 --> 00:02:40,310

Agency Tom Marshburn Dave Wolf and of

21

00:02:45,580 --> 00:02:42,920

course Copra beginning their first full

22

00:02:47,380 --> 00:02:45,590

day on orbit a day that will focus on

23

00:02:49,540 --> 00:02:47,390

inspections of the thermal protection

24

00:02:52,030 --> 00:02:49,550

system on the outside of the space

25

00:02:53,830 --> 00:02:52,040

shuttle preparations for rendezvous and

26  
00:02:56,040 --> 00:02:53,840  
docking that are coming up tomorrow with

27  
00:02:58,390 --> 00:02:56,050  
the International Space Station and

28  
00:03:02,949 --> 00:02:58,400  
preparation of the spacesuits at the

29  
00:03:05,199 --> 00:03:02,959  
four spacewalkers Cassidy Marshburn wolf

30  
00:03:09,360 --> 00:03:05,209  
and corporal will be using on the five

31  
00:03:09,370 --> 00:03:16,830  
endeavour Houston for the gira and dable

32  
00:03:22,300 --> 00:03:19,600  
and Ethan hey this park and that Dave

33  
00:03:26,500 --> 00:03:22,310  
doing the survey take photos but I could

34  
00:03:29,500 --> 00:03:26,510  
help you with the gear yes he described

35  
00:03:31,210 --> 00:03:29,510  
a compression nut on the gira that was

36  
00:03:32,740 --> 00:03:31,220  
leaking and we were wondering if

37  
00:03:49,250 --> 00:03:32,750  
somebody had a few minutes on the

38  
00:03:55,910 --> 00:03:51,009

daddy if he didn't hear that phone if im

39

00:03:59,000 --> 00:03:55,920

right at it if you could grab a 916

40

00:04:04,300 --> 00:03:59,010

trench and try to tighten that

41

00:04:09,199 --> 00:04:06,619

ok we'll go ahead and put that work and

42

00:04:11,539 --> 00:04:09,209

say how comes out we don't want you to

43

00:04:25,090 --> 00:04:11,549

force it but just a nice snug see if it

44

00:04:28,490 --> 00:04:25,100

moves he's endeavor particular go ahead

45

00:04:32,240 --> 00:04:28,500

yeah box I was able to get about uh oh

46

00:04:34,070 --> 00:04:32,250

I'd say about a quarter to a sort of a

47

00:04:37,010 --> 00:04:34,080

turnout of it without over to working

48

00:04:39,379 --> 00:04:37,020

and getting it stuck oh well we'll walk

49

00:04:43,850 --> 00:04:39,389

it for a while and and really get any

50

00:04:45,980 --> 00:04:43,860

more leakage of it that sounds great the

51  
00:04:49,010 --> 00:04:45,990  
anatomy of the connection there's a

52  
00:04:51,260 --> 00:04:49,020  
compression feral around the hose itself

53  
00:04:54,650 --> 00:04:51,270  
and that night tightens the feral

54  
00:04:56,510 --> 00:04:54,660  
against the fitting and so if that work

55  
00:04:58,900 --> 00:04:56,520  
that's great and then the next step is

56  
00:05:02,089 --> 00:04:58,910  
if you can just verify looking around

57  
00:05:06,770 --> 00:05:02,099  
the tube itself if you see any notice

58  
00:05:08,600 --> 00:05:06,780  
cracks or anything yeah I get a quick

59  
00:05:10,730 --> 00:05:08,610  
inspection put a little bit of a white

60  
00:05:13,969 --> 00:05:10,740  
sleeve off of the plastic and tells me

61  
00:05:15,980 --> 00:05:13,979  
anything noticeable so what that does it

62  
00:05:21,820 --> 00:05:15,990  
work we're going to doing the same thing

63  
00:05:29,810 --> 00:05:25,010

perfect i will check back with you in an

64

00:05:33,890 --> 00:05:32,400

capcom greg johnson calling up some

65

00:05:36,629 --> 00:05:33,900

instructions to the crew on

66

00:05:39,180 --> 00:05:36,639

troubleshooting that galley iodine

67

00:05:41,370 --> 00:05:39,190

removal assembly leak a little bit of

68

00:05:44,400 --> 00:05:41,380

water dripping out kind of like a leaky

69

00:05:45,990 --> 00:05:44,410

faucet the crew says with their help

70

00:05:47,999 --> 00:05:46,000

from the ground they believe they have

71

00:05:50,370 --> 00:05:48,009

it fix them they'll continue keeping an

72

00:06:01,100 --> 00:05:50,380

eye on that to make sure it doesn't leak

73

00:06:05,260 --> 00:06:03,440

endeavour Houston we see you Dave on the

74

00:06:07,820 --> 00:06:05,270

flight deck could you check out that

75

00:06:20,230 --> 00:06:07,830

fitting on the gira forest and see if

76

00:06:26,140 --> 00:06:22,839

watching it and I'd say ninety percent

77

00:06:31,089 --> 00:06:26,150

of more of the leakage is down it's very

78

00:06:35,200 --> 00:06:31,099

low right now I when you look closely at

79

00:06:38,140 --> 00:06:35,210

the fitting the exit point of the tubing

80

00:06:40,270 --> 00:06:38,150

from the compression fitting does not

81

00:06:45,309 --> 00:06:40,280

come out straight it's maybe eight

82

00:06:49,300 --> 00:06:45,319

degrees and Roman and I we've been

83

00:06:51,640 --> 00:06:49,310

talking about talking about it with you

84

00:06:53,950 --> 00:06:51,650

maybe not leaving it like that overnight

85

00:06:57,550 --> 00:06:53,960

in particular in case it would come

86

00:06:59,589 --> 00:06:57,560

apart so we need to be thinking about

87

00:07:07,809 --> 00:06:59,599

how we want to we can keep an eye on it

88

00:07:11,439 --> 00:07:07,819



during the day you know we rarely use

89

00:07:16,180 --> 00:07:11,449

the tube if I'm not needed at all the

90

00:07:19,360 --> 00:07:16,190

night config okay we appreciate the

91

00:07:21,790 --> 00:07:19,370

great report and we're glad that we've

92

00:07:24,010 --> 00:07:21,800

knocked it down considerably we're going

93

00:07:27,640 --> 00:07:24,020

to think about it and we'll come up with

94

00:07:29,680 --> 00:07:27,650

a four plan for you copy and if you want

95

00:07:31,240 --> 00:07:29,690

us to take it apart and put it back yet

96

00:07:32,860 --> 00:07:31,250

or whatever you guys brought we're

97

00:08:18,620 --> 00:07:32,870

standing by the work we're safe right

98

00:08:18,630 --> 00:09:05,069

you

99

00:09:10,240 --> 00:09:07,829

view we're seeing now is coming from the

100

00:09:12,250 --> 00:09:10,250

one of the systems on the orbital room

101  
00:09:14,710 --> 00:09:12,260  
sensor system this particular one from

102  
00:09:17,590 --> 00:09:14,720  
the laser dynamic range imager which

103  
00:09:21,790 --> 00:09:17,600  
combines an infrared laser illuminator

104  
00:09:24,639 --> 00:09:21,800  
and an infrared camera recorder to build

105  
00:09:26,980 --> 00:09:24,649  
3d images of the shuttles heat shield

106  
00:09:28,030 --> 00:09:26,990  
that can be compared to images of the

107  
00:09:30,819 --> 00:09:28,040  
heat shield that were taken before the

108  
00:09:38,319 --> 00:09:30,829  
flight so that teams on the ground can

109  
00:09:40,780 --> 00:09:38,329  
search for any differences orbital rim

110  
00:09:42,460 --> 00:09:40,790  
sensor system also includes an

111  
00:09:46,300 --> 00:09:42,470  
intensified television camera which

112  
00:09:48,460 --> 00:09:46,310  
gives the plain black and white TV views

113  
00:09:54,340 --> 00:09:48,470

that we often see from other cameras

114

00:09:56,439 --> 00:09:54,350

inside the shuttles cargo bay and then a

115

00:09:58,600 --> 00:09:56,449

laser camera system which is a scanning

116

00:10:00,850 --> 00:09:58,610

laser rangefinder that can be used as a

117

00:10:05,500 --> 00:10:00,860

3d camera to create 3d computer

118

00:10:08,740 --> 00:10:05,510

generated models of heat shield this

119

00:10:10,509 --> 00:10:08,750

inspection today will take about seven

120

00:10:12,699 --> 00:10:10,519

hours and all if you include the time it

121

00:10:14,710 --> 00:10:12,709

takes to actually get the orbiter boom

122

00:10:18,550 --> 00:10:14,720

sensor system set up and then put it

123

00:10:22,650 --> 00:10:18,560

back into its place along the sill of

124

00:10:30,220 --> 00:10:27,970

about seven hours and requires for the

125

00:10:31,900 --> 00:10:30,230

most part three crewmembers takes three

126  
00:10:33,910 --> 00:10:31,910  
because you need two crew members to

127  
00:10:36,430 --> 00:10:33,920  
control the robotic arms movement and

128  
00:10:38,710 --> 00:10:36,440  
then another crew member to operate the

129  
00:10:45,210 --> 00:10:38,720  
other shuttle cameras that are being

130  
00:10:48,309 --> 00:10:45,220  
used inside the shuttles cabin for

131  
00:10:50,980 --> 00:10:48,319  
situational awareness and clearance

132  
00:10:52,629 --> 00:10:50,990  
views today the three that have drawn

133  
00:10:54,370 --> 00:10:52,639  
that do to your commander mark polanski

134  
00:10:59,829 --> 00:10:54,380  
pilot Doug Hurley and mission

135  
00:11:02,660 --> 00:10:59,839  
specialists Julie pay it again they're

136  
00:11:05,670 --> 00:11:02,670  
starting here with the

137  
00:11:08,249 --> 00:11:05,680  
starboard or right wing of endeavor and

138  
00:11:11,610 --> 00:11:08,259

then we'll move from there to the nose

139

00:11:23,770 --> 00:11:11,620

cap and then after a break for lunch to

140

00:11:29,640 --> 00:11:26,460

as you can see

141

00:11:31,920 --> 00:11:29,650

commander Mark polanski pilot Doug

142

00:11:37,380 --> 00:11:31,930

Hurley and mission specialists Julie

143

00:11:39,930 --> 00:11:37,390

piatt are getting into the orbiter boom

144

00:11:43,020 --> 00:11:39,940

sensor system survey of the shuttles

145

00:11:47,550 --> 00:11:43,030

starboard wing beginning of their survey

146

00:11:51,710 --> 00:11:47,560

for the day and teams on the ground also

147

00:11:56,940 --> 00:11:51,720

report that mission specialist Dave wolf

148

00:12:00,270 --> 00:11:56,950

tim kopra and chris cassidy are well

149

00:12:02,070 --> 00:12:00,280

into their check out of the spacesuits

150

00:15:54,140 --> 00:12:02,080

that endeavor is carrying to the

151  
00:15:58,630 --> 00:15:56,840  
he's an endeavor recorders are off we

152  
00:16:00,890 --> 00:15:58,640  
show ourselves complete with the

153  
00:16:06,710 --> 00:16:00,900  
starboard survey and we're going to set

154  
00:21:42,410 --> 00:16:06,720  
up for the maneuver for the dog cap we

155  
00:21:53,670 --> 00:21:44,580  
downlink from shuttle Endeavour now as

156  
00:21:56,670 --> 00:21:53,680  
its passing 149 miles above Paris it's

157  
00:22:05,340 --> 00:21:56,680  
making a cross over Western Europe at

158  
00:22:07,620 --> 00:22:05,350  
this time its current Pat's going to

159  
00:22:09,240 --> 00:22:07,630  
take it out over Switzerland and then

160  
00:22:10,740 --> 00:22:09,250  
the northern part of Italy here in just

161  
00:22:12,930 --> 00:22:10,750  
a few minutes you see some storms there

162  
00:22:37,550 --> 00:22:12,940  
are some lightning in the clouds over

163  
00:24:51,139 --> 00:22:40,320

that is the city of Zurich Switzerland

164

00:25:01,190 --> 00:24:52,700

they were Houston for Roman and the

165

00:25:02,959 --> 00:25:01,200

flight plan Roman since we got your head

166

00:25:05,149 --> 00:25:02,969

a little bit if you're available we're

167

00:25:06,709 --> 00:25:05,159

ready for the interconnect tanks which

168

00:25:09,889 --> 00:25:06,719

from right to left that's on your flight

169

00:25:12,829 --> 00:25:09,899

plan and about Oh 35 you could start

170

00:25:14,709 --> 00:25:12,839

that now if you're ready that sounds

171

00:25:16,700 --> 00:25:14,719

great thanks i'll put that in work and

172

00:25:22,930 --> 00:25:16,710

julie and doug are going to go straight

173

00:25:27,169 --> 00:25:25,279

this is Mission Control Houston the crew

174

00:25:29,060 --> 00:25:27,179

of endeavor officially finished with the

175

00:25:32,839 --> 00:25:29,070

port wing survey using the orbiter boom

176

00:25:35,599 --> 00:25:32,849

sensor system the next step is for the

177

00:25:38,719 --> 00:25:35,609

crew to go ahead and birth or put that