



1
00:01:08,820 --> 00:01:07,530
Atlantis Houston good morning time to

2
00:01:11,460 --> 00:01:08,830
wake up and do the right stuff today

3
00:01:18,810 --> 00:01:11,470
with that docking module we'll have you

4
00:01:20,280 --> 00:01:18,820
back at 14 09 anh the gioi usin thank

5
00:01:22,440 --> 00:01:20,290
you very much for that inspirational

6
00:01:24,870 --> 00:01:22,450
music we're ready to answer the call and

7
00:02:14,770 --> 00:01:24,880
now you timed it perfectly we were just

8
00:02:14,780 --> 00:03:59,280
and we're going into mode copy

9
00:06:11,730 --> 00:06:05,170
you

10
00:06:11,740 --> 00:07:48,930
Tammy Lee's

11
00:08:01,000 --> 00:07:59,290
den- attitude maintenance is required we

12
00:10:59,870 --> 00:08:01,010
can go whip in process of pressing

13
00:10:59,880 --> 00:13:53,040

houston we have capture that's very bad

14

00:14:04,720 --> 00:14:00,750

dory are just by looking at where we are

15

00:14:07,060 --> 00:14:04,730

following at the DM installation it says

16

00:14:08,620 --> 00:14:07,070

formal SBS check out step forward record

17

00:14:11,829 --> 00:14:08,630

roll one and sent for five minutes

18

00:14:15,579 --> 00:14:11,839

that's all complete and then it says to

19

00:14:17,800 --> 00:14:15,589

power off Oh SBS there's actually a

20

00:14:19,990 --> 00:14:17,810

stick all out later on in the flight

21

00:14:22,300 --> 00:14:20,000

plan if I want to do is to make sure

22

00:14:31,120 --> 00:14:22,310

that they in fact wanted powered off now

23

00:14:33,310 --> 00:14:31,130

and not wait till later yes we have and

24

00:14:37,810 --> 00:14:33,320

we like to get to switch box prior to

25

00:14:40,079 --> 00:14:37,820

the cabin repress okay we will hold on

26

00:14:42,519 --> 00:14:40,089

the repress and start working off the

27

00:14:54,920 --> 00:14:42,529

switch box do you want to wait till were

28

00:15:03,980 --> 00:14:57,110

game before we lose you where you're

29

00:15:05,300 --> 00:15:03,990

also ready for our ms on grandpa'll ok

30

00:15:07,250 --> 00:15:05,310

and do we have a go on all those

31

00:15:13,670 --> 00:15:07,260

activities during the El Oso do you want

32

00:15:21,829 --> 00:15:13,680

to wait on the other side you can press

33

00:15:24,250 --> 00:15:21,839

on ok he then let us the story do I said

34

00:15:30,650 --> 00:15:24,260

would go to a grapple before we get the

35

00:15:42,160 --> 00:15:30,660

switch box switch box first and then and

36

00:15:55,070 --> 00:15:49,780

dan LAN is for the amp station glad

37

00:16:16,540 --> 00:15:55,080

handle a 7 l heaters / DC you power

38

00:16:26,510 --> 00:16:24,380

unless your goal for cab and repress we

39

00:16:29,210 --> 00:16:26,520

got the story and of course the unravels

40

00:17:32,710 --> 00:16:29,220

complete do we have a go to proceed the

41

00:17:39,580 --> 00:17:36,050

lantus or a minute tour taters NOS will

42

00:18:54,150 --> 00:17:39,590

get you twenty two hours in 17 minutes

43

00:18:58,390 --> 00:18:56,470

Atlantis if you're not using camera

44

00:19:04,480 --> 00:18:58,400

Delta we're approaching a thermal limit

45

00:19:07,450 --> 00:19:04,490

we'd like to power it down you know okay

46

00:19:12,850 --> 00:19:07,460

back he'll turn it off in gym we thought

47

00:19:16,090 --> 00:19:12,860

we'd give you an AP story that I'm

48

00:19:18,490 --> 00:19:16,100

reading right here that federal

49

00:19:22,630 --> 00:19:18,500

employees are reporting to work today as

50

00:19:24,250 --> 00:19:22,640

usual and what we expect that as much as

51
00:19:27,100 --> 00:19:24,260
forty percent of the federal workforce

52
00:19:38,980 --> 00:19:27,110
will be sent home sometime later in the

53
00:19:41,350 --> 00:19:38,990
day due to our budget situation okay

54
00:19:46,990 --> 00:19:41,360
appreciate that and I think you give us

55
00:19:58,590 --> 00:19:47,000
an LS cough we go over to extend it LLS

56
00:20:02,830 --> 00:20:00,910
you can we have the docking module

57
00:20:09,490 --> 00:20:02,840
camera downlink could take it whenever

58
00:20:14,290 --> 00:20:09,500
you want to hello Chris we have a good

59
00:20:17,049 --> 00:20:14,300
image up in the docking module it's like

60
00:20:24,400 --> 00:20:17,059
a fun place to enjoy yourself in zero

61
00:20:25,930 --> 00:20:24,410
gravity yeah I don't think another empty

62
00:20:47,149 --> 00:20:25,940
for long days but it's a nice bit of

63
00:21:31,390 --> 00:20:49,709

Chris your lighting looks good and your

64

00:21:35,450 --> 00:21:33,680

Atlanta's astronauts to finish the first

65

00:21:37,610 --> 00:21:35,460

step in a major goal of the space

66

00:21:40,250 --> 00:21:37,620

program assembling a space station in

67

00:21:41,510 --> 00:21:40,260

orbit the crew is joining us live we

68

00:21:42,980 --> 00:21:41,520

thought they'd be on the shuttle flight

69

00:21:44,480 --> 00:21:42,990

deck but in fact they're doing live

70

00:21:46,789 --> 00:21:44,490

television from place has never been

71

00:21:48,440 --> 00:21:46,799

done before the russian-built docking

72

00:21:50,990 --> 00:21:48,450

tunnel as Atlantis speeds over the

73

00:21:52,850 --> 00:21:51,000

Mediterranean Sea trailing the mere by

74

00:21:55,789 --> 00:21:52,860

about nine hundred miles and closing at

75

00:21:58,070 --> 00:21:55,799

a rate of 119 miles each orbit commander

76

00:21:59,750 --> 00:21:58,080

Ken Cameron does it worry you that the

77

00:22:02,120 --> 00:21:59,760

u.s. government is prepared to shut down

78

00:22:04,010 --> 00:22:02,130

in an hour or two and NASA will probably

79

00:22:09,409 --> 00:22:04,020

have only a bare-bones staff in a few

80

00:22:11,570 --> 00:22:09,419

hours to support your mission we have a

81

00:22:13,130 --> 00:22:11,580

very dedicated team in NASA supporting

82

00:22:15,020 --> 00:22:13,140

this mission both within the government

83

00:22:16,850 --> 00:22:15,030

and also with the many contractors that

84

00:22:18,200 --> 00:22:16,860

support the space shuttle we realize

85

00:22:20,930 --> 00:22:18,210

that there's a lot going on in the

86

00:22:22,730 --> 00:22:20,940

financial world and in the hands of

87

00:22:24,200 --> 00:22:22,740

government but the NASA family will look

88

00:22:25,970 --> 00:22:24,210

out after each other and we know that

89

00:22:28,370 --> 00:22:25,980

Mission Control the many folks and abs

90

00:22:30,049 --> 00:22:28,380

are taking care of it for pilot Jim Hall

91

00:22:35,840 --> 00:22:30,059

so what's been the the biggest surprise

92

00:22:37,490 --> 00:22:35,850

of this flight for you so far yeah at

93

00:22:39,140 --> 00:22:37,500

the pier to my first I was found in a

94

00:22:40,580 --> 00:22:39,150

slightly higher ups to it I can see a

95

00:22:43,130 --> 00:22:40,590

lot more of the earth every time I look

96

00:22:44,510 --> 00:22:43,140

at the window and the Sun angles just

97

00:22:46,280 --> 00:22:44,520

happened to be low so we can run a

98

00:22:47,720 --> 00:22:46,290

perspective a lot of shadows to bring

99

00:22:49,659 --> 00:22:47,730

out a lot of relief of the year they

100

00:22:51,760 --> 00:22:49,669

found over the Andes over the Malay

101
00:22:54,500 --> 00:22:51,770
overreacted it's just a spectacular

102
00:22:57,350 --> 00:22:54,510
experiment it's something I I'm not soon

103
00:22:59,240 --> 00:22:57,360
forget yeah Chris Hadfield is a Canadian

104
00:23:01,430 --> 00:22:59,250
member of the crew Chris how does the

105
00:23:03,409 --> 00:23:01,440
docking this morning go from your

106
00:23:05,030 --> 00:23:03,419
perspective as you put the tunnel where

107
00:23:07,310 --> 00:23:05,040
you're standing or floating right now

108
00:23:08,419 --> 00:23:07,320
onto the shuttles airlock and when

109
00:23:10,340 --> 00:23:08,429
you're done please pass the microphone

110
00:23:11,930 --> 00:23:10,350
over to Commander Cambron for the same

111
00:23:16,659 --> 00:23:11,940
question for him as far as how the

112
00:23:22,159 --> 00:23:19,940
Regina went perfectly I had a chance to

113
00:23:23,600 --> 00:23:22,169

use the Canada arm the robot arm the fed

114

00:23:25,820 --> 00:23:23,610

by Canada that's put on the shuttle

115

00:23:27,560 --> 00:23:25,830

today and it worked exactly like it had

116

00:23:30,200 --> 00:23:27,570

in the best of our training simulators

117

00:23:31,640 --> 00:23:30,210

in Houston and I picked it up out of the

118

00:23:34,340 --> 00:23:31,650

back of the bay and brought it forward

119

00:23:36,140 --> 00:23:34,350

and then positioned it exactly all

120

00:23:38,299 --> 00:23:36,150

wanted it to be using the onboard

121

00:23:41,330 --> 00:23:38,309

systems in the space vision system and

122

00:23:42,680 --> 00:23:41,340

the digital to commodity arm and and

123

00:23:44,600 --> 00:23:42,690

then when we assemble at the mechanism

124

00:23:45,410 --> 00:23:44,610

which was death in Russia just worked

125

00:23:47,200 --> 00:23:45,420

exactly like

126
00:23:49,580 --> 00:23:47,210
everybody said so it was not a perfect

127
00:23:51,650 --> 00:23:49,590
yeah commander I'm from your perspective

128
00:23:55,850 --> 00:23:51,660
you had to sort of drive the shuttle

129
00:23:57,230 --> 00:23:55,860
into this docking tunnel vinya yes that

130
00:23:59,750 --> 00:23:57,240
was what we used to make the actual

131
00:24:01,640 --> 00:23:59,760
energy of contact was the thrusters

132
00:24:03,500 --> 00:24:01,650
firing from the orbiter and this was

133
00:24:06,110 --> 00:24:03,510
something that we had given considerable

134
00:24:07,670 --> 00:24:06,120
thought to about what would be the

135
00:24:10,040 --> 00:24:07,680
required amount of energy how would the

136
00:24:11,660 --> 00:24:10,050
mechanism work how what kind of

137
00:24:14,660 --> 00:24:11,670
tolerance has had to be present within

138
00:24:17,570 --> 00:24:14,670

the contact surfaces and it has been

139

00:24:19,670 --> 00:24:17,580

worked out very thoroughly so in Houston

140

00:24:21,560 --> 00:24:19,680

and in Moscow since it's the first time

141

00:24:23,140 --> 00:24:21,570

they would ever joined Russian and

142

00:24:25,280 --> 00:24:23,150

American hardware in quite this way

143

00:24:27,650 --> 00:24:25,290

about another question for you commander

144

00:24:29,870 --> 00:24:27,660

do you have any concerns as you get

145

00:24:31,340 --> 00:24:29,880

ready to take a six hour nap I won't

146

00:24:33,230 --> 00:24:31,350

call it a full night sleep and then get

147

00:24:34,970 --> 00:24:33,240

ready for tomorrow's docking with the

148

00:24:39,980 --> 00:24:34,980

mirror itself everything working pretty

149

00:24:41,870 --> 00:24:39,990

well so we've had a series of busy days

150

00:24:43,550 --> 00:24:41,880

if we can finish up all of our

151
00:24:45,320 --> 00:24:43,560
objectives today we'll probably try and

152
00:24:46,940 --> 00:24:45,330
wind down a little early and then

153
00:24:48,680 --> 00:24:46,950
everyone will be looking for a good

154
00:24:51,110 --> 00:24:48,690
night's sleep because as you said we

155
00:24:53,060 --> 00:24:51,120
have a very busy day tomorrow one more

156
00:24:54,860 --> 00:24:53,070
question for a for Chris Hadfield if I

157
00:24:56,360 --> 00:24:54,870
can Chris you got to experience the

158
00:25:01,670 --> 00:24:56,370
shuttle launch for the first time two

159
00:25:04,640 --> 00:25:01,680
days ago describe it to it it is

160
00:25:05,990 --> 00:25:04,650
spectacular from about five minutes in

161
00:25:07,970 --> 00:25:06,000
when we knew for sure that we were going

162
00:25:10,550 --> 00:25:07,980
to have the weather to go the smile on

163
00:25:11,900 --> 00:25:10,560

my face just got bigger and bigger and I

164

00:25:14,300 --> 00:25:11,910

was just beaming through the whole

165

00:25:16,070 --> 00:25:14,310

launch I mean it is just an amazing ride

166

00:25:18,140 --> 00:25:16,080

I've had a chance to fly a lot of

167

00:25:20,690 --> 00:25:18,150

different airplanes but there's nothing

168

00:25:22,820 --> 00:25:20,700

like the shuttle ride right and if we

169

00:25:25,070 --> 00:25:22,830

got time one dog last quick question for

170

00:25:27,290 --> 00:25:25,080

Jim hotel is what you're doing really

171

00:25:29,360 --> 00:25:27,300

worth it does the world really need a

172

00:25:34,790 --> 00:25:29,370

second space station in orbit right now

173

00:25:37,810 --> 00:25:34,800

a better job I was doing of setting the

174

00:25:40,340 --> 00:25:37,820

groundwork for a series of experimental

175

00:25:42,230 --> 00:25:40,350

laboratories but it's gonna last a long

176
00:25:44,210 --> 00:25:42,240
time the defense that we're going to be

177
00:25:46,570 --> 00:25:44,220
able to bring home that were able to to

178
00:25:48,710 --> 00:25:46,580
continue a scientific research on orbit

179
00:25:50,210 --> 00:25:48,720
it's going to it's going to bring back a

180
00:25:52,240 --> 00:25:50,220
lot of payback to the people on earth

181
00:25:56,060 --> 00:25:52,250
that's what we're trying to achieve

182
00:25:57,980 --> 00:25:56,070
their lives of people on earth all right

183
00:25:58,860 --> 00:25:57,990
commander Cameron and members of the

184
00:26:00,090 --> 00:25:58,870
atlantis cruise

185
00:26:01,830 --> 00:26:00,100
thanks for allowing us to visit your

186
00:26:03,240 --> 00:26:01,840
flight back today good luck with the

187
00:26:05,010 --> 00:26:03,250
docking we'll talk again later when you

188
00:26:07,680 --> 00:26:05,020

wait something after you land next week

189

00:26:16,340 --> 00:26:07,690

no no thanks very much bill andreia

190

00:26:19,049 --> 00:26:16,350

interesting thank you very much okay Jim

191

00:26:21,799 --> 00:26:19,059

first of all you can do antenna cable

192

00:26:26,640 --> 00:26:21,809

repositioning beginning in the z OE

193

00:26:28,500 --> 00:26:26,650

which is in about 12 minutes it'll be

194

00:26:30,960 --> 00:26:28,510

you'll have an extended period to do the

195

00:26:33,419 --> 00:26:30,970

cable repositioning till three plus 35

196

00:26:36,540 --> 00:26:33,429

that's about 20 minutes past say OS on

197

00:26:40,290 --> 00:26:36,550

the west we'll get back to the cryo

198

00:26:44,360 --> 00:26:40,300

config however you want to do it do the

199

00:26:51,740 --> 00:26:44,370

error log resets the GN to sm and GNC

200

00:26:57,780 --> 00:26:54,390

we've talked about the drivers there and

201
00:27:00,540 --> 00:26:57,790
config and a heads up on the Left ohms

202
00:27:04,950 --> 00:27:00,550
helium press a closed if you haven't

203
00:27:07,470 --> 00:27:04,960
gotten it yet and the PMC will be on the

204
00:27:09,480 --> 00:27:07,480
other side of the z OE here coming up

205
00:27:11,460 --> 00:27:09,490
for the timeline but we're going to have

206
00:27:14,820 --> 00:27:11,470
bad calm like yesterday for about 10 or

207
00:27:24,150 --> 00:27:14,830
15 minutes so we'll have to do it as we

208
00:27:25,560 --> 00:27:24,160
lock up cleanly will coordinate ok if

209
00:27:34,610 --> 00:27:25,570
you want to do the cryo config now I'm

210
00:27:47,810 --> 00:27:40,650
then ok on a 15 cry oh oh 2 h 2 tank 5

211
00:28:02,390 --> 00:27:51,080
ok we take another tank last out of

212
00:28:12,300 --> 00:28:08,570
right there on r1 cryo o2 and h2 tank 1

213
00:28:59,730 --> 00:28:12,310

eaters a and B all four switches off

214

00:29:04,990 --> 00:29:03,190

we should appreciate all support start

215

00:29:07,659 --> 00:29:05,000

today it's been a very exciting day and

216

00:29:10,090 --> 00:29:07,669

I think we've really made some big

217

00:29:11,770 --> 00:29:10,100

strides towards the ultimate goal we

218

00:29:13,899 --> 00:29:11,780

were real happy we're a little bit tired

219

00:29:17,020 --> 00:29:13,909

right now it so I really appreciate the

220

00:29:21,909 --> 00:29:17,030

chance to settle back we'll probably try

221

00:29:25,149 --> 00:29:21,919

and turn it a little early tonight very

222

00:29:27,549 --> 00:29:25,159

good and we'll give you a little word on

223

00:29:29,350 --> 00:29:27,559

the flight plan by the way we did get a

224

00:29:31,750 --> 00:29:29,360

notice here and let's just say that

225

00:29:54,640 --> 00:29:31,760

there are a lot of good parking spots

226

00:29:59,029 --> 00:29:56,960

David took me a couple of minutes for

227

00:30:02,840 --> 00:29:59,039

that last comment to think if I didn't

228

00:30:06,560 --> 00:30:02,850

realize what what had happened I'm sorry

229

00:30:08,000 --> 00:30:06,570

to hear that that in fact that people

230

00:30:10,760 --> 00:30:08,010

are coming to work because that hurts a

231

00:30:12,860 --> 00:30:10,770

lot of folks I mean is we are sure

232

00:30:15,490 --> 00:30:12,870

pleased and grateful that so many people

233

00:30:18,860 --> 00:30:15,500

take care of us as we make it fit CNN

234

00:30:21,110 --> 00:30:18,870

and will rest assured that everybody

235

00:30:24,470 --> 00:30:21,120

necessary to safely conduct your mission

236

00:30:26,150 --> 00:30:24,480

is here and conducting the rest of our