



1  
00:00:57,430 --> 00:00:55,110  
hello i'm pierce sellers an astra

2  
00:00:59,910 --> 00:00:57,440  
astronaut and i went to cranbrook school

3  
00:01:01,510 --> 00:00:59,920  
in cranbrook in the united kingdom

4  
00:01:03,270 --> 00:01:01,520  
i can't tell you that i definitely knew

5  
00:01:05,990 --> 00:01:03,280  
back in high school that i'd be a

6  
00:01:07,910 --> 00:01:06,000  
national someday but i can tell you that

7  
00:01:09,910 --> 00:01:07,920  
it would not have been possible without

8  
00:01:11,270 --> 00:01:09,920  
solid skills in science

9  
00:01:13,670 --> 00:01:11,280  
technology

10  
00:01:14,710 --> 00:01:13,680  
engineering and math

11  
00:01:17,429 --> 00:01:14,720  
so

12  
00:01:19,590 --> 00:01:17,439  
if you're a student take it from me

13  
00:01:20,550 --> 00:01:19,600

education is the ticket to an incredible

14

00:01:22,149 --> 00:01:20,560

future

15

00:01:23,910 --> 00:01:22,159

what you learned today

16

00:02:05,350 --> 00:01:23,920

can help you reach for the stars

17

00:02:05,360 --> 00:02:20,949

is

18

00:02:20,959 --> 00:02:46,790

ecstasy

19

00:02:50,550 --> 00:02:49,030

good morning atlantis

20

00:02:55,430 --> 00:02:50,560

and a special good morning to you

21

00:02:59,030 --> 00:02:57,589

this is mission control houston

22

00:03:00,949 --> 00:02:59,040

now switching to a live view in the

23

00:03:03,190 --> 00:03:00,959

international space station this is a

24

00:03:05,030 --> 00:03:03,200

view over the shoulder

25

00:03:06,869 --> 00:03:05,040

into the quest airlock where the space

26

00:03:08,550 --> 00:03:06,879

walkers are

27

00:03:10,790 --> 00:03:08,560

as you can see uh making some

28

00:03:12,550 --> 00:03:10,800

preparations for their eva

29

00:03:15,030 --> 00:03:12,560

the space station and space shuttle

30

00:03:16,390 --> 00:03:15,040

crews were woken up at 12 50 a.m central

31

00:03:20,229 --> 00:03:16,400

time

32

00:03:22,229 --> 00:03:20,239

the song traveling light performed by jj

33

00:03:22,949 --> 00:03:22,239

kale that song was performed by pierce

34

00:03:44,390 --> 00:03:22,959

that

35

00:03:44,400 --> 00:03:50,470

okay

36

00:04:09,110 --> 00:03:52,630

and we copy hash closure and we copy

37

00:04:12,710 --> 00:04:11,429

by the clock looks like the space walk

38

00:04:15,589 --> 00:04:12,720

could begin

39

00:04:19,749 --> 00:04:15,599

roughly about a half hour earlier than

40

00:04:25,270 --> 00:04:23,909

which was 5 45 this morning central time

41

00:04:26,710 --> 00:04:25,280

the crew could

42

00:04:30,310 --> 00:04:26,720

get out the hatch

43

00:04:38,390 --> 00:04:35,430

airlock pressure down to 9 psi the

44

00:04:41,350 --> 00:04:38,400

they'll stop the depressurization at 5

45

00:04:43,830 --> 00:04:41,360

the usual stopping point

46

00:04:51,189 --> 00:04:43,840

to verify the suit

47

00:04:57,270 --> 00:04:54,390

the station's robotic arm is now being

48

00:04:59,189 --> 00:04:57,280

repositioned with the integrated cargo

49

00:05:02,950 --> 00:04:59,199

carrier the uh

50

00:05:05,749 --> 00:05:02,960

basically the uh giant tool box that uh

51  
00:05:08,950 --> 00:05:05,759  
michael good and garrett riesman will be

52  
00:05:10,710 --> 00:05:08,960  
working off of today they'll be

53  
00:05:13,430 --> 00:05:10,720  
installing two new batteries that are

54  
00:05:16,230 --> 00:05:13,440  
still remaining on this uh carrier

55  
00:05:19,029 --> 00:05:16,240  
onto the station and uh returning three

56  
00:05:20,870 --> 00:05:19,039  
batteries back to this carrier it is

57  
00:05:22,070 --> 00:05:20,880  
planned to be put back in atlantis

58  
00:05:22,830 --> 00:05:22,080  
payload bay

59  
00:05:37,830 --> 00:05:22,840  
on

60  
00:05:39,670 --> 00:05:37,840  
taco we need a separate

61  
00:05:43,510 --> 00:05:39,680  
engage pressure we'll take care of step

62  
00:05:46,870 --> 00:05:43,520  
13 and tony all inhibitor in place

63  
00:05:46,880 --> 00:05:58,469

hey swaney and uh i got this well

64

00:06:03,510 --> 00:06:00,870

hey good morning i got one tool config

65

00:06:14,550 --> 00:06:03,520

change for you

66

00:06:18,830 --> 00:06:16,070

all right i'm just gonna try to get my

67

00:06:24,150 --> 00:06:18,840

feather out of yours here real quick

68

00:06:28,230 --> 00:06:25,590

okay uh

69

00:06:30,469 --> 00:06:28,240

before we go outward of the sarge

70

00:06:32,790 --> 00:06:30,479

i need to read verify your gauntlets are

71

00:06:35,350 --> 00:06:32,800

in place

72

00:06:36,790 --> 00:06:35,360

and my gloves and uh my gauntlets are in

73

00:06:41,590 --> 00:06:36,800

place

74

00:06:45,350 --> 00:06:41,600

okay and i got a lot more reading i can

75

00:06:49,270 --> 00:06:47,350

midway through a dark pass around the

76

00:06:52,710 --> 00:06:49,280

earth the shuttle and international

77

00:06:53,749 --> 00:06:52,720

space station complex is 220 miles

78

00:07:13,830 --> 00:06:53,759

above

79

00:07:18,309 --> 00:07:15,430

between the back of the battery and the

80

00:07:42,790 --> 00:07:18,319

paddles because it comes in okay okay

81

00:07:42,800 --> 00:08:20,629

counterclockwise

82

00:08:20,639 --> 00:08:27,990

down here

83

00:08:34,870 --> 00:08:29,909

you're looking uh basically through the

84

00:08:38,469 --> 00:08:34,880

eyes of mission specialist michael good

85

00:08:40,310 --> 00:08:38,479

as he heads back to the p6 trust to

86

00:08:42,469 --> 00:08:40,320

assist with the installation of the new

87

00:08:44,710 --> 00:08:42,479

battery this is the fifth of six

88

00:08:48,150 --> 00:08:44,720

batteries the first of two to be can to

89

00:08:59,190 --> 00:08:48,160

be uh swapped out today and installed on

90

00:08:59,200 --> 00:09:12,949

okay

91

00:09:17,430 --> 00:09:14,790

three hours one minute into the

92

00:09:19,670 --> 00:09:17,440

spacewalk the task of removing and

93

00:09:34,870 --> 00:09:19,680

replacing six batteries on the p6

94

00:09:40,310 --> 00:09:36,790

brought online uh later on in the

95

00:09:40,320 --> 00:09:43,590

condition

96

00:09:43,600 --> 00:09:57,430

um

97

00:09:57,440 --> 00:10:16,949

okay

98

00:10:16,959 --> 00:10:34,150

order is

99

00:10:34,160 --> 00:10:54,389

okay

100

00:11:12,389 --> 00:10:56,310

all right

101  
00:12:11,670 --> 00:11:39,350  
uh

102  
00:12:11,680 --> 00:13:21,910  
go go

103  
00:13:21,920 --> 00:13:47,110  
sure

104  
00:13:47,120 --> 00:14:11,269  
you uh

105  
00:14:55,590 --> 00:14:12,949  
ready

106  
00:15:33,990 --> 00:15:09,269  
okay

107  
00:15:34,000 --> 00:15:43,590  
yeah we would like all four edwards

108  
00:15:43,600 --> 00:16:19,749  
then

109  
00:16:58,310 --> 00:16:28,550  
okay

110  
00:17:01,990 --> 00:17:00,470  
you can see uh my good there with the

111  
00:17:08,870 --> 00:17:02,000  
power and data grapple fixture that's

112  
00:17:13,029 --> 00:17:11,350  
as we mentioned that pdgf was retrieved

113  
00:17:15,029 --> 00:17:13,039

from atlantis payload bay it will go

114

00:17:16,549 --> 00:17:15,039

back inside the station

115

00:17:20,150 --> 00:17:16,559

through the quest airlock at the

116

00:17:23,909 --> 00:17:21,669

and then that will be the focus of a

117

00:17:26,390 --> 00:17:23,919

spacewalk that doug wheelock and tracy

118

00:17:27,909 --> 00:17:26,400

caldwell dyson will be conducting on

119

00:17:29,669 --> 00:17:27,919

july 8th

120

00:17:31,430 --> 00:17:29,679

they're going to be installing that pdgf

121

00:17:33,430 --> 00:17:31,440

on the zarya module part of the russian

122

00:17:35,990 --> 00:17:33,440

segment of the station that will become

123

00:17:38,950 --> 00:17:36,000

a new base from which the station's

124

00:17:40,630 --> 00:17:38,960

58-foot robotic arm can operate

125

00:17:42,070 --> 00:17:40,640

it's noteworthy because this will be the

126  
00:17:44,150 --> 00:17:42,080  
first time

127  
00:17:45,590 --> 00:17:44,160  
that catadorm 2 the station's robotic

128  
00:17:53,190 --> 00:17:45,600  
arm will have direct access to the

129  
00:17:53,200 --> 00:18:17,350  
all right

130  
00:18:17,360 --> 00:18:37,830  
okay

131  
00:18:37,840 --> 00:19:14,950  
everybody

132  
00:19:14,960 --> 00:19:47,350  
um

133  
00:20:04,549 --> 00:19:49,190  
and we've never done it before but i

134  
00:20:31,270 --> 00:20:25,510  
uh

135  
00:20:31,280 --> 00:21:00,710  
over here over here

136  
00:21:00,720 --> 00:21:14,789  
all right

137  
00:21:33,750 --> 00:21:26,149  
okay

138  
00:21:37,909 --> 00:21:35,430

so once again today's spacewalk just

139

00:21:41,350 --> 00:21:37,919

wrapped up at 12 13 p.m central time it

140

00:21:44,310 --> 00:21:41,360

began at 5 27 a.m this morning it lasted

141

00:21:46,230 --> 00:21:44,320

six hours and 46 minutes and that wraps

142

00:22:50,230 --> 00:21:46,240

up all the spacewalks for atlantis

143

00:22:50,240 --> 00:22:53,110

go ahead tj

144

00:22:57,350 --> 00:22:54,310

it's funny

145

00:23:28,470 --> 00:22:57,360

all of three four and seven

146

00:23:32,310 --> 00:23:30,470

detach that integrated cargo carrier

147

00:23:35,190 --> 00:23:32,320

that you see there on the right side is

148

00:23:36,789 --> 00:23:35,200

the wedge shaped cargo pallet

149

00:23:38,710 --> 00:23:36,799

the station's robotic arm which you see

150

00:23:40,230 --> 00:23:38,720

there mounted in the middle will be used

151

00:23:41,909 --> 00:23:40,240

to lift that off of the mobile base

152

00:23:44,470 --> 00:23:41,919

system and put it back into atlantis's

153

00:23:46,470 --> 00:23:44,480

payload bay coming up at 2 35 a.m

154

00:23:48,549 --> 00:23:46,480

central time tomorrow morning

155

00:23:50,710 --> 00:23:48,559

that cargo pallets roll in this mission

156

00:23:52,390 --> 00:23:50,720

is now complete on the back side of it

157

00:23:54,470 --> 00:23:52,400

are the six old batteries that the crew

158

00:23:56,390 --> 00:23:54,480

removed from the port truss of the

159

00:23:58,310 --> 00:23:56,400

station

160

00:23:59,990 --> 00:23:58,320

that cargo pallet will weigh about six

161

00:24:01,430 --> 00:24:00,000

thousand pounds as it comes back home

162

00:24:02,789 --> 00:24:01,440

aboard atlantis at the conclusion of

163

00:24:04,630 --> 00:24:02,799

this mission

164

00:25:16,789 --> 00:24:04,640

it weighed about 8 000 pounds coming up

165

00:25:22,230 --> 00:25:18,149

good evening this is mission control

166

00:25:26,710 --> 00:25:23,909

and we have rejoined the team here

167

00:25:28,789 --> 00:25:26,720

inside the special flight control room

168

00:25:29,590 --> 00:25:28,799

the planning team is on shift at this

169

00:25:32,149 --> 00:25:29,600

time

170

00:25:34,230 --> 00:25:32,159

the crew has gone to sleep for the day

171

00:25:36,470 --> 00:25:34,240

uh for the evening uh they'll be

172

00:25:38,630 --> 00:25:36,480

awakened in about seven hours from now

173

00:25:39,430 --> 00:25:38,640

uh during the evening hours this team

174

00:25:43,110 --> 00:25:39,440

will

175

00:25:45,909 --> 00:25:43,120

get things ready for the crew to awaken

176  
00:25:48,470 --> 00:25:45,919  
early in the morning or hours and the

177  
00:25:49,750 --> 00:25:48,480  
crew will be awakened at 12 20 a.m

178  
00:25:51,269 --> 00:25:49,760  
central time

179  
00:25:53,269 --> 00:25:51,279  
once they awaken

180  
00:25:56,149 --> 00:25:53,279  
they'll begin with the

181  
00:25:58,390 --> 00:25:56,159  
moving of that integrated cargo carrier

182  
00:26:00,070 --> 00:25:58,400  
back into atlantis payload

183  
00:26:02,950 --> 00:26:00,080  
also on the

184  
00:26:04,950 --> 00:26:02,960  
task line for tomorrow is a pao event a

185  
00:26:05,990 --> 00:26:04,960  
public affairs event with an explorer

186  
00:26:07,590 --> 00:26:06,000  
school

187  
00:26:09,029 --> 00:26:07,600  
in addition to that

188  
00:26:11,590 --> 00:26:09,039

there will be a mission status briefing

189

00:26:13,430 --> 00:26:11,600

but mostly tomorrow is a very

190

00:26:15,029 --> 00:26:13,440

nice off-duty day for the crew of

191

00:26:17,510 --> 00:26:15,039

atlantis as they have been very busy

192

00:26:19,590 --> 00:26:17,520

during the past

193

00:26:21,990 --> 00:26:19,600

past eight days and having three

194

00:26:23,990 --> 00:26:22,000

spacewalks on their timeline they

195

00:26:26,230 --> 00:26:24,000

completed that third and final spacewalk

196

00:26:28,870 --> 00:26:26,240

today that was completed around

197

00:26:29,990 --> 00:26:28,880

lunchtime around noon central time and

198

00:26:33,990 --> 00:26:30,000

that

199

00:26:37,510 --> 00:26:35,590

allowed the atlantis astronauts to

200

00:26:41,029 --> 00:26:37,520

complete the second of two high priority

201  
00:26:44,149 --> 00:26:41,039  
tasks that included installing the final

202  
00:26:45,990 --> 00:26:44,159  
two 375 pound batteries that's uh two of

203  
00:26:49,350 --> 00:26:46,000  
the six batteries that they did install

204  
00:26:51,750 --> 00:26:49,360  
on the international space station

205  
00:26:53,430 --> 00:26:51,760  
that space walk was a six hour and 46

206  
00:26:56,310 --> 00:26:53,440  
minutes spacewalk they also got a number

207  
00:26:58,310 --> 00:26:56,320  
of get ahead tasks done

208  
00:27:00,149 --> 00:26:58,320  
and uh

209  
00:27:02,230 --> 00:27:00,159  
one of those other tasks that they

210  
00:27:03,350 --> 00:27:02,240  
completed today was the installation of

211  
00:27:08,149 --> 00:27:03,360  
the

212  
00:27:13,190 --> 00:27:10,789  
that was accomplished on tuesday but

213  
00:27:30,549 --> 00:27:13,200

they did some finishing out work

214

00:27:33,110 --> 00:27:32,070

during the evening hours this evening

215

00:27:34,630 --> 00:27:33,120

you'll be

216

00:27:36,710 --> 00:27:34,640

seeing those flight day highlights at

217

00:27:39,190 --> 00:27:36,720

the top of every hour but coming up at

218

00:27:41,110 --> 00:27:39,200

the six o'clock hour on that six o'clock

219

00:27:43,350 --> 00:27:41,120

central time we'll get to watch the

220

00:27:47,269 --> 00:27:43,360

solid rocket booster cameras video

221

00:27:49,669 --> 00:27:47,279

replay and then uh coming up at the 7 pm

222

00:27:51,350 --> 00:27:49,679

central time hour we'll get to see a

223

00:27:52,950 --> 00:27:51,360

video file and then again we'll bring

224

00:27:54,630 --> 00:27:52,960

you the flight day highlights but also

225

00:27:56,630 --> 00:27:54,640

during the evening hours we'll have a

226

00:27:59,430 --> 00:27:56,640

flight director update that

227

00:28:00,789 --> 00:27:59,440

comes to you at 11 30 pm central time

228

00:28:02,549 --> 00:28:00,799

and also we'll be doing a flight

229

00:28:05,590 --> 00:28:02,559

controller interview this evening and

230

00:28:06,870 --> 00:28:05,600

that is with our pdrs flight controller

231

00:28:10,230 --> 00:28:06,880

we'll be doing that

232

00:28:11,750 --> 00:28:10,240

probably around 8 30 p.m central time