



1  
00:00:01,380 --> 00:00:04,300  
foreign

2  
00:00:04,310 --> 00:00:35,750  
[Music]

3  
00:00:35,760 --> 00:00:39,570  
thank you

4  
00:01:13,609 --> 00:00:51,430  
[Music]

5  
00:01:13,619 --> 00:01:17,340  
foreign

6  
00:01:55,450 --> 00:01:23,710  
[Music]

7  
00:02:00,109 --> 00:01:57,590  
good morning and welcome to Mission

8  
00:02:01,789 --> 00:02:00,119  
Control Houston I'm shake refraine and

9  
00:02:04,310 --> 00:02:01,799  
we are live inside the International

10  
00:02:05,749 --> 00:02:04,320  
Space Station flight control room where

11  
00:02:09,050 --> 00:02:05,759  
we will be bringing you live coverage

12  
00:02:10,390 --> 00:02:09,060  
today of the 60 265th spacewalk in

13  
00:02:22,550 --> 00:02:10,400

support of International Space Station

14

00:02:27,770 --> 00:02:25,970

we're currently in a Los or a small

15

00:02:29,630 --> 00:02:27,780

brief period between our satellites

16

00:02:31,190 --> 00:02:29,640

we'll have imagery back inside the

17

00:02:33,530 --> 00:02:31,200

International Space Station for you

18

00:02:36,110 --> 00:02:33,540

today we'll be seeing two Nest

19

00:02:38,930 --> 00:02:36,120

astronauts Woody hoberg and Steve Bowen

20

00:02:40,970 --> 00:02:38,940

who exit the station's Quest airlock to

21

00:02:42,770 --> 00:02:40,980

install an upgraded irosa or

22

00:02:45,229 --> 00:02:42,780

International Space Station roll out

23

00:02:46,610 --> 00:02:45,239

solar array on the 1B power Channel

24

00:02:48,350 --> 00:02:46,620

today

25

00:02:51,650 --> 00:02:48,360

and that is on the starboard Trust of

26  
00:02:53,990 --> 00:02:51,660  
the station the new ISS solar array or

27  
00:02:55,670 --> 00:02:54,000  
irosa will increase the Space Station's

28  
00:02:59,630 --> 00:02:55,680  
total available power

29  
00:03:02,150 --> 00:02:59,640  
Houston airlock on one for Step 11 we

30  
00:03:07,130 --> 00:03:02,160  
have the recorded GMT 11

31  
00:03:07,140 --> 00:03:14,630  
copy 11 30.

32  
00:03:20,630 --> 00:03:17,750  
today's baseball will see the sixth

33  
00:03:23,149 --> 00:03:20,640  
irosa mounted to the existing station

34  
00:03:25,009 --> 00:03:23,159  
solar rays the fifth array installed

35  
00:03:26,390 --> 00:03:25,019  
just last week on June 9th by the same

36  
00:03:28,970 --> 00:03:26,400  
Duo

37  
00:03:31,670 --> 00:03:28,980  
the new solar rays are 60 feet long by

38  
00:03:33,470 --> 00:03:31,680

20 feet wide and will shade a little

39

00:03:37,309 --> 00:03:33,480

more than half of the original arrays

40

00:03:39,470 --> 00:03:37,319

which are 112 feet by 39 feet wide

41

00:03:41,990 --> 00:03:39,480

each new irosa will produce more than 20

42

00:03:44,930 --> 00:03:42,000

kilowatts of electricity and once all

43

00:03:46,729 --> 00:03:44,940

are installed we'll enable a 30 increase

44

00:04:05,509 --> 00:03:46,739

in power production over the station's

45

00:04:10,309 --> 00:04:07,970

prior to the start of today's coverage

46

00:04:26,170 --> 00:04:10,319

we did hear that the crew is running

47

00:04:30,170 --> 00:04:28,490

and now you're looking live into the

48

00:04:32,090 --> 00:04:30,180

equipment part of the quest airlock with

49

00:04:33,950 --> 00:04:32,100

the International Space Station where

50

00:04:37,249 --> 00:04:33,960

you see NASA astronaut

51  
00:04:39,469 --> 00:04:37,259  
Frank Rubio and UAE or the United Arab

52  
00:04:44,950 --> 00:04:39,479  
Emirates astronaut Sultan anayati

53  
00:04:49,430 --> 00:04:47,930  
you see NASA astronaut Woody hoberg he

54  
00:04:51,409 --> 00:04:49,440  
suited up in the suit with the red

55  
00:04:53,330 --> 00:04:51,419  
stripes

56  
00:04:56,749 --> 00:04:53,340  
and there he is on the left of your

57  
00:05:00,710 --> 00:04:58,490  
and Steve Bowen

58  
00:05:02,330 --> 00:05:00,720  
he's on the right or the lower portion

59  
00:05:03,890 --> 00:05:02,340  
of your screen and he is in this

60  
00:05:06,230 --> 00:05:03,900  
unmarked suit

61  
00:05:08,990 --> 00:05:06,240  
and again they are preparing right now

62  
00:05:11,210 --> 00:05:09,000  
for their exit

63  
00:05:24,249 --> 00:05:11,220

of that Quest airlock a little later

64

00:05:24,259 --> 00:05:31,969  
numbers we've got 20 and 22.

65

00:05:31,979 --> 00:05:57,730  
we copy good numbers

66

00:06:02,570 --> 00:05:59,990  
this spacewalk will be the second

67

00:06:05,210 --> 00:06:02,580  
spacewalk of hoberg's career completing

68

00:06:06,950 --> 00:06:05,220  
his first just a week ago and this will

69

00:06:10,249 --> 00:06:06,960  
be the 10th for Bowen this will tie

70

00:06:13,010 --> 00:06:10,259  
Bowen with Mike Lopez Alegria Bob benkin

71

00:06:15,950 --> 00:06:13,020  
Peggy Whitson and Chris Cassidy for most

72

00:06:18,890 --> 00:06:15,960  
spacewalks by a U.S astronaut

73

00:06:20,930 --> 00:06:18,900  
Bowen has accumulated 60 hours and 22

74

00:06:25,189 --> 00:06:20,940  
minutes of space walking time in his

75

00:06:31,670 --> 00:06:27,170  
this is

76

00:06:35,570 --> 00:06:31,680  
for Expedition 69 and the eighth

77

00:06:43,010 --> 00:06:38,110  
10 airlock step 21

78

00:07:16,570 --> 00:06:43,020  
is 11 34 1 1 3 4.

79

00:07:21,110 --> 00:07:19,790  
and again you're looking live inside the

80

00:07:23,809 --> 00:07:21,120  
equipment lock portion of the quest

81

00:07:27,589 --> 00:07:25,909  
the duo are suited up and going through

82

00:07:29,689 --> 00:07:27,599  
some final procedures before they head

83

00:07:31,909 --> 00:07:29,699  
out the hatch later this morning

84

00:07:33,650 --> 00:07:31,919  
also in the airlock assisting is NASA

85

00:07:43,309 --> 00:07:33,660  
astronaut Frank Rubio

86

00:07:47,150 --> 00:07:45,290  
during today's spacewalk Coburg and

87

00:07:50,570 --> 00:07:47,160  
Bowen will focus on the installation of

88

00:07:52,370 --> 00:07:50,580

the irosa on the 6th the S6 truss for

89

00:07:54,529 --> 00:07:52,380

the 1B power Channel

90

00:07:55,909 --> 00:07:54,539

whose array has some degraded power

91

00:07:58,070 --> 00:07:55,919

strings

92

00:08:57,530 --> 00:07:58,080

this will complete the third pair of

93

00:09:05,329 --> 00:09:00,889

in Houston airlock goodly check on both

94

00:09:05,339 --> 00:09:38,530

Houston copies goodly checked

95

00:09:43,970 --> 00:09:41,750

the space walking Duo arrived to the

96

00:09:49,070 --> 00:09:43,980

station a part of the crew 6 mission

97

00:09:51,769 --> 00:09:49,080

NASA SpaceX crew 6 mission on

98

00:09:53,930 --> 00:09:51,779

and they arrived to the station after a

99

00:09:57,110 --> 00:09:53,940

launch from the

100

00:09:59,570 --> 00:09:57,120

from Kennedy Space flight center

101  
00:10:02,810 --> 00:09:59,580  
Space Center in Florida they Lodge from

102  
00:10:04,910 --> 00:10:02,820  
complex 39a and they arrived to the

103  
00:10:08,690 --> 00:10:04,920  
orbiting Laboratory

104  
00:10:13,329 --> 00:10:11,449  
on they launched on March 2nd and

105  
00:10:18,110 --> 00:10:13,339  
arrived to the station two days later

106  
00:10:22,250 --> 00:10:18,120  
and along with those duo will also be on

107  
00:10:24,769 --> 00:10:22,260  
station is Expedition 69 also includes

108  
00:10:30,290 --> 00:10:24,779  
astronaut Frank Rubio

109  
00:10:37,310 --> 00:10:33,410  
Ross Cosmos cosmonaut

110  
00:10:38,449 --> 00:10:37,320  
Dimitri patellin UAE or United Arab

111  
00:10:41,210 --> 00:10:38,459  
Emirates

112  
00:10:43,070 --> 00:10:41,220  
astronaut sultan ariadi

113  
00:10:45,170 --> 00:10:43,080

you see your space walking Duo there in

114

00:10:46,610 --> 00:10:45,180

the center that's Woody hoberg and to

115

00:10:48,769 --> 00:10:46,620

the right is going to be Stephen Bowen

116

00:10:52,310 --> 00:10:48,779

and beside him it's going to be Dimitri

117

00:10:54,590 --> 00:10:52,320

patelin of Ross Cosmos and to the right

118

00:10:56,030 --> 00:10:54,600

of him it's going to be the commander of

119

00:11:22,970 --> 00:10:56,040

the station currently is that Sergey

120

00:11:27,610 --> 00:11:25,130

you currently see that's astronaut Frank

121

00:11:30,949 --> 00:11:27,620

Rubio and Silton

122

00:11:33,949 --> 00:11:30,959

arayati of the United Arabian merch

123

00:11:38,030 --> 00:11:33,959

currently working on a safer the safer

124

00:11:41,030 --> 00:11:38,040

is that portion of the spacesuit that is

125

00:11:43,910 --> 00:11:41,040

going to be just in case in the

126  
00:11:45,410 --> 00:11:43,920  
unlikely that the crew member is

127  
00:11:46,610 --> 00:11:45,420  
separated from the International Space

128  
00:11:48,410 --> 00:11:46,620  
Station

129  
00:11:50,690 --> 00:11:48,420  
that safer is going to give them just

130  
00:12:06,769 --> 00:11:50,700  
enough propulsion to get back to the

131  
00:12:13,130 --> 00:12:09,769  
and again we did say the duo is ahead of

132  
00:12:15,949 --> 00:12:13,140  
their normal schedule we currently see

133  
00:12:20,210 --> 00:12:15,959  
um the suit up leads helping out Stephen

134  
00:12:26,090 --> 00:12:22,490  
that safer word that simplified aid for

135  
00:12:28,550 --> 00:12:26,100  
Eva rescue again that's essentially that

136  
00:12:30,530 --> 00:12:28,560  
jet pack that astronauts wear when they

137  
00:12:32,630 --> 00:12:30,540  
perform space walks

138  
00:12:34,850 --> 00:12:32,640

and again this is just a precautionary

139

00:12:36,530 --> 00:12:34,860

measure and the unlikely event that an

140

00:12:38,030 --> 00:12:36,540

astronaut were to become untethered from

141

00:12:39,769 --> 00:12:38,040

the space station

142

00:12:41,509 --> 00:12:39,779

that saver would allow the crew member

143

00:12:43,430 --> 00:12:41,519

to safely Propel themselves back to

144

00:12:45,829 --> 00:12:43,440

station

145

00:12:47,569 --> 00:12:45,839

again once the safers are successfully

146

00:12:49,310 --> 00:12:47,579

installed on the astronauts they will be

147

00:12:51,170 --> 00:12:49,320

moved through the equipment lot portion

148

00:12:53,930 --> 00:12:51,180

of the airlock you see on the top of

149

00:12:56,629 --> 00:12:53,940

your screen and they will go into that

150

00:12:58,490 --> 00:12:56,639

next session the crew lock portion of

151

00:13:00,410 --> 00:12:58,500

that Quest airlock

152

00:13:02,629 --> 00:13:00,420

the hatch will then be closed behind

153

00:13:04,970 --> 00:13:02,639

them and final preparations will begin

154

00:13:06,889 --> 00:13:04,980

to depressurize the crew lock all the

155

00:13:08,990 --> 00:13:06,899

way down to vacuum

156

00:13:10,370 --> 00:13:09,000

they'll then complete suit checks and

157

00:13:12,170 --> 00:13:10,380

communication checks with the flight

158

00:14:08,230 --> 00:13:12,180

control team here in Houston before

159

00:14:14,210 --> 00:14:11,750

again now you see Sultana and Frank

160

00:14:17,690 --> 00:14:14,220

Rubio working together to install the

161

00:14:19,190 --> 00:14:17,700

safer on Woody hoberg suit again you can

162

00:14:21,710 --> 00:14:19,200

tell the difference between the two

163

00:14:23,930 --> 00:14:21,720

space Walkers by their stripes Woody

164

00:14:26,389 --> 00:14:23,940

hoberg has the suit with the red stripe

165

00:14:29,810 --> 00:14:26,399

or the ev1 extra vehicular crew member

166

00:14:32,090 --> 00:14:29,820

one and then you see Stephen Bowen to

167

00:14:33,829 --> 00:14:32,100

the left and he has a suit with no

168

00:14:37,250 --> 00:14:33,839

stripes

169

00:14:46,810 --> 00:14:37,260

and he is designated ev2 or extra

170

00:14:51,530 --> 00:14:49,310

the spacesuits you see the duo wearing

171

00:14:53,930 --> 00:14:51,540

now are emu's or extra vehicular

172

00:14:56,050 --> 00:14:53,940

Mobility units which are essentially a

173

00:14:58,790 --> 00:14:56,060

mini life support system providing

174

00:15:00,410 --> 00:14:58,800

Environmental Protection mobility and

175

00:16:19,509 --> 00:15:00,420

Communications for the crew members

176

00:16:23,210 --> 00:16:21,710

if you're just joining us we're bringing

177

00:16:26,509 --> 00:16:23,220

you live coverage today of the eighth

178

00:16:27,710 --> 00:16:26,519

spacewalk of 2023 and the 265th

179

00:16:29,990 --> 00:16:27,720

spacewalk in support of International

180

00:16:37,449 --> 00:16:30,000

Space Station assembly maintenance and

181

00:16:42,290 --> 00:16:40,310

so far this morning NASA astronauts

182

00:16:44,090 --> 00:16:42,300

Woody hoberg and Stephen Bowen have

183

00:16:46,790 --> 00:16:44,100

completed pre-breathe and they are

184

00:16:48,829 --> 00:16:46,800

currently getting their safers installed

185

00:16:51,530 --> 00:16:48,839

when safers are successfully installed

186

00:17:46,789 --> 00:16:51,540

we'll see those two go into the crew up

187

00:17:55,730 --> 00:17:51,549

and there we go we currently see

188

00:17:58,010 --> 00:17:55,740

and Frank Rubio hoping Woody hoberg into

189

00:19:34,330 --> 00:17:58,020

the crew love portion of that Quest

190

00:20:00,529 --> 00:19:36,950

and now we see them again to put the

191

00:20:06,289 --> 00:20:03,289

again the safer or the simplified aid

192

00:20:07,909 --> 00:20:06,299

for Eva rescue is essentially a jet pack

193

00:20:10,430 --> 00:20:07,919

that the astronauts wear when they

194

00:20:12,470 --> 00:20:10,440

perform spacewalks the safer is worn as

195

00:20:14,289 --> 00:20:12,480

a precautionary measure in the unlikely

196

00:20:17,090 --> 00:20:14,299

event that an astronaut were to become

197

00:20:19,909 --> 00:20:17,100

untethered from the space station they

198

00:20:22,370 --> 00:20:19,919

can use the safer and it would allow

199

00:20:27,070 --> 00:20:22,380

them to safely Propel themselves back to

200

00:20:32,150 --> 00:20:29,690

again once the safers are successfully

201  
00:20:33,890 --> 00:20:32,160  
installed you'll see both of the crew

202  
00:20:37,190 --> 00:20:33,900  
members moved into that Crew Love

203  
00:20:40,549 --> 00:20:37,200  
portion of the quest airlock

204  
00:20:41,570 --> 00:20:40,559  
and then the hatch will be closed behind

205  
00:20:43,490 --> 00:20:41,580  
them

206  
00:20:45,710 --> 00:20:43,500  
the final preparations will begin to

207  
00:20:47,150 --> 00:20:45,720  
depressurize the crew lock all the way

208  
00:20:49,310 --> 00:20:47,160  
down to vacuum

209  
00:20:50,630 --> 00:20:49,320  
they'll then complete suit checks and

210  
00:20:52,669 --> 00:20:50,640  
communication checks with the flight

211  
00:23:10,430 --> 00:20:52,679  
control team here in Houston before

212  
00:23:14,750 --> 00:23:12,649  
again if you're just joining us we are

213  
00:23:16,789 --> 00:23:14,760

bringing you live coverage today of the

214

00:23:19,669 --> 00:23:16,799

eighth spacewalk out of the ISS this

215

00:23:21,289 --> 00:23:19,679

year ended 265th spacewalk in support of

216

00:23:23,450 --> 00:23:21,299

International Space Station assembly

217

00:23:25,789 --> 00:23:23,460

maintenance and upgrades

218

00:23:27,710 --> 00:23:25,799

so far NASA astronaut Woody hoberg and

219

00:23:30,649 --> 00:23:27,720

Stephen Bowen have completed pre-breathe

220

00:23:32,630 --> 00:23:30,659

they've had their safers installed we

221

00:23:34,430 --> 00:23:32,640

have Woody already in the crew lock

222

00:23:37,310 --> 00:23:34,440

portion and we see them finishing up

223

00:23:39,230 --> 00:23:37,320

here installation for the safer on

224

00:23:43,250 --> 00:23:39,240

Stephen Bowen

225

00:23:46,070 --> 00:23:43,260

once Stephen has his safer successfully

226

00:23:49,130 --> 00:23:46,080

installed we'll see the duo Frank Rubio

227

00:23:52,070 --> 00:23:49,140

NASA astronaut and UAE astronaut Sultan

228

00:23:56,750 --> 00:23:52,080

adiadi moved Stephen Bowen over into the

229

00:23:59,149 --> 00:23:56,760

crew love portion of the quest airlock

230

00:24:00,770 --> 00:23:59,159

once both spacewalkers are over in the

231

00:24:02,990 --> 00:24:00,780

crew lock portion we'll see that hatch

232

00:25:53,230 --> 00:24:03,000

between them closed and we'll begin

233

00:25:58,130 --> 00:25:55,909

and now with his safer successfully

234

00:26:00,710 --> 00:25:58,140

installed we see Stephen bowling being

235

00:27:03,730 --> 00:26:00,720

led into that crew luck portion of the

236

00:27:10,130 --> 00:27:07,970

again once both crew members are

237

00:27:12,350 --> 00:27:10,140

in a good configuration inside the crew

238

00:27:14,630 --> 00:27:12,360

lock portion we'll see Sultan arayati

239

00:27:16,970 --> 00:27:14,640

UAE astronaut and that's astronaut Frank

240

00:27:19,610 --> 00:27:16,980

Rubio move back and we'll see them close

241

00:27:21,710 --> 00:27:19,620

that hatch from there we'll be looking

242

00:30:06,310 --> 00:27:21,720

at the depressurization process

243

00:30:10,490 --> 00:30:08,570

If You're just showing us we're bringing

244

00:30:13,070 --> 00:30:10,500

you live coverage today of the eighth

245

00:30:15,710 --> 00:30:13,080

spacewalk of the ISS out of the ISS this

246

00:30:17,269 --> 00:30:15,720

year and the 265th spacewalk in support

247

00:30:19,909 --> 00:30:17,279

of International Space Station assembly

248

00:30:21,889 --> 00:30:19,919

maintenance and upgrades so far NASA

249

00:30:23,870 --> 00:30:21,899

astronauts Woody hoberg and Stephen

250

00:30:26,210 --> 00:30:23,880

Boone have completed pre-brief they had

251  
00:30:28,190 --> 00:30:26,220  
their safers installed and they are

252  
00:30:34,430 --> 00:30:28,200  
inside the crew lock portion of that

253  
00:30:39,590 --> 00:30:36,470  
today's space walk will be Woody Hobart

254  
00:30:42,649 --> 00:30:39,600  
2nd and Stephen Bowen's 10th spacewalk

255  
00:30:44,690 --> 00:30:42,659  
Holberg it's ev1 or extra vehicle crew

256  
00:30:46,190 --> 00:30:44,700  
member one he's wearing the suit with

257  
00:30:48,950 --> 00:30:46,200  
the red stripes

258  
00:30:52,010 --> 00:30:48,960  
you'll see his helmet cam once he exits

259  
00:30:55,310 --> 00:30:52,020  
the hatch today he will be helmet cam

260  
00:31:00,710 --> 00:30:58,190  
Boeing is designated as eb2 or extra

261  
00:31:02,690 --> 00:31:00,720  
vehicular crew member number two and he

262  
00:31:07,669 --> 00:31:02,700  
has this suit with no stripes and he

263  
00:31:13,669 --> 00:31:10,549

and right now you see

264

00:31:16,310 --> 00:31:13,679

Frank Rubio who is looking

265

00:31:19,130 --> 00:31:16,320

like he is closing the hatch right now

266

00:32:03,610 --> 00:31:19,140

between the crew lock and the equipment

267

00:32:09,049 --> 00:32:06,169

all right again you're seeing the hatch

268

00:32:10,730 --> 00:32:09,059

closure this is isolating Hobart and

269

00:32:13,010 --> 00:32:10,740

Boeing in the crew lock section of the

270

00:32:14,710 --> 00:32:13,020

quest your locks once the crew gets the

271

00:32:16,730 --> 00:32:14,720

go from the team in Houston

272

00:32:19,130 --> 00:32:16,740

depressurization of the crew lock will

273

00:32:24,110 --> 00:32:20,990

depressurization will take the crew lock

274

00:32:25,669 --> 00:32:24,120

from its current 14.7 PSI all the way

275

00:32:28,070 --> 00:32:25,679

down to vacuum

276

00:32:30,110 --> 00:32:28,080

final suit checks and com checks will

277

00:32:33,230 --> 00:32:30,120

occur and then the crew will be giving

278

00:32:35,330 --> 00:32:33,240

the go to place their suits on internal

279

00:32:40,310 --> 00:32:35,340

battery power which will Mark the

280

00:32:49,010 --> 00:32:43,730

and Houston airlock that's step 76 and

281

00:32:54,289 --> 00:32:51,470

yeah copy that Sultan good morning and

282

00:32:59,149 --> 00:32:54,299

uh Houston's working on 78 79 and 80.

283

00:32:59,159 --> 00:33:39,769

AG morning regarding 78 through 80.

284

00:33:45,710 --> 00:33:43,669

and station Houston you are now hot Mike

285

00:33:52,389 --> 00:33:45,720

step 80 is complete so we're still

286

00:33:52,399 --> 00:34:08,750

maybe two copies

287

00:34:13,849 --> 00:34:11,210

and you just heard a call from United

288

00:34:16,369 --> 00:34:13,859

Arab your merits astronauts lieutenant

289

00:34:18,649 --> 00:34:16,379

audiadi and the response from Nick Cade

290

00:34:20,589 --> 00:34:18,659

uh NASA astronaut Nick Hague who's

291

00:34:22,490 --> 00:34:20,599

Capcom or the capsule Communicator

292

00:34:24,589 --> 00:34:22,500

communicating all the way through just

293

00:34:26,629 --> 00:34:24,599

pressurization this morning at which

294

00:34:28,970 --> 00:34:26,639

point the ground IV Canadian space

295

00:34:30,889 --> 00:34:28,980

agency astronaut Jenny Gibbons will take

296

00:34:32,930 --> 00:34:30,899

over Communications walking the crew

297

00:34:34,669 --> 00:34:32,940

through today's spacewalk

298

00:34:37,430 --> 00:34:34,679

Gibbons was selected by the Canadian

299

00:34:40,730 --> 00:34:37,440

space agency as one of the two members

300

00:34:43,430 --> 00:34:40,740

of the 2017 TSA group alongside Joshua

301  
00:34:50,089 --> 00:34:47,750  
and in the room you'll hear you'll see

302  
00:34:52,790 --> 00:34:50,099  
Brandon Lloyd flight director who will

303  
00:34:55,490 --> 00:34:52,800  
be leading the charge today

304  
00:34:58,250 --> 00:34:55,500  
and we have lead spacewalk officer Megan

305  
00:35:00,530 --> 00:34:58,260  
shutika and Miranda Nelson also helping

306  
00:35:04,070 --> 00:35:00,540  
out with today's Eva you won't hear them

307  
00:35:10,590 --> 00:35:04,080  
but they'll be working behind the scenes

308  
00:35:10,600 --> 00:35:16,430  
[Music]

309  
00:35:16,440 --> 00:35:21,370  
before you are go

310  
00:35:29,150 --> 00:35:25,910  
yeah go for a step 31 and instead three

311  
00:35:46,510 --> 00:35:29,160  
four we'll go for the coupon

312  
00:35:54,250 --> 00:35:49,550  
for you just checking the difference

313  
00:35:54,260 --> 00:36:01,550

enable daily is on the enable LED is on

314

00:36:07,790 --> 00:36:03,770

Okay so we've got the goal to perform

315

00:36:14,810 --> 00:36:07,800

the uh depressed cue card and uh we'll

316

00:36:18,470 --> 00:36:17,089

and you just heard Sultan arayati

317

00:36:21,069 --> 00:36:18,480

confirmed that they had to go for

318

00:36:26,050 --> 00:36:24,890

positive on the UIA switch depressed

319

00:36:31,910 --> 00:36:26,060

pumped

320

00:36:31,920 --> 00:36:39,950

for 10 seconds for completion of startup

321

00:36:44,690 --> 00:36:42,470

and every 10 seconds

322

00:36:48,109 --> 00:36:44,700

I'll take the deepest pump manualization

323

00:36:55,430 --> 00:36:48,119

valve to open expect another Zone

324

00:36:59,930 --> 00:36:57,349

what do you during this time monitor

325

00:37:04,010 --> 00:36:59,940

shoot pressure gauge is always less than

326

00:37:04,020 --> 00:37:07,810

coffee coffee

327

00:37:12,829 --> 00:37:10,490

at this time depressurization will occur

328

00:37:15,589 --> 00:37:12,839

in a two-stage fashion the crew lock

329

00:37:18,170 --> 00:37:15,599

will be taken down to about 5.5 pounds

330

00:37:19,870 --> 00:37:18,180

per square inch of pressure and which

331

00:37:22,069 --> 00:37:19,880

points they'll pause and

332

00:37:24,770 --> 00:37:22,079

depressurization to do a system check

333

00:37:26,470 --> 00:37:24,780

then depressurization will resume to get

334

00:37:29,270 --> 00:37:26,480

the crew lock all the way down to vacuum

335

00:37:30,770 --> 00:37:29,280

once it gets down to vacuum Woody hoberg

336

00:37:32,329 --> 00:37:30,780

and Steven Bowen will conduct suit

337

00:37:34,490 --> 00:37:32,339

checks and communication checks with

338

00:37:36,589 --> 00:37:34,500

Mission Control Houston before they put

339

00:37:39,470 --> 00:37:36,599

their suits on internal battery power

340

00:37:57,890 --> 00:37:39,480

again that will Mark the official start

341

00:38:03,290 --> 00:38:00,290

and again we're in a brief Handover

342

00:38:04,490 --> 00:38:03,300

period between satellites

343

00:38:09,950 --> 00:38:04,500

but we're back inside the International

344

00:38:14,150 --> 00:38:11,930

where the orbit 2 team is ready to

345

00:38:15,650 --> 00:38:14,160

support today's spacewalk under the

346

00:38:16,970 --> 00:38:15,660

direction of flight director Brandon

347

00:38:19,609 --> 00:38:16,980

Lloyd

348

00:38:21,410 --> 00:38:19,619

to his right at the Capcom Capcom

349

00:38:25,430 --> 00:38:21,420

console

350

00:38:27,349 --> 00:38:25,440

is ground IV Ginny Gibbons who serves as

351  
00:38:28,609 --> 00:38:27,359  
spacewalk Communicator who will talk

352  
00:38:30,410 --> 00:38:28,619  
directly with the crew during the

353  
00:38:33,170 --> 00:38:30,420  
spacewalk helping them to choreograph

354  
00:38:35,030 --> 00:38:33,180  
timelines and procedures and to her

355  
00:38:37,370 --> 00:38:35,040  
right is Capcom or capsule Communicator

356  
00:38:39,410 --> 00:38:37,380  
Nas astronaut Nick Hague

357  
00:38:41,270 --> 00:38:39,420  
and again you'll hear him communicating

358  
00:38:44,030 --> 00:38:41,280  
with the crew up until the point of

359  
00:38:46,310 --> 00:38:44,040  
depressurization this morning at which

360  
00:38:52,070 --> 00:38:46,320  
point the ground IV will take over

361  
00:38:52,080 --> 00:38:58,370  
[Music]

362  
00:39:15,710 --> 00:39:01,730  
now Steve when coolock at six PSI

363  
00:39:15,720 --> 00:40:25,970

birthday

364

00:40:25,980 --> 00:41:15,829

foreign

365

00:41:15,839 --> 00:41:20,770

thank you

366

00:41:27,530 --> 00:41:24,050

and the crew Earl up just got just past

367

00:41:31,550 --> 00:41:27,540

just under 9 PSI again we are looking

368

00:41:37,069 --> 00:41:31,560

for a pause at around 5.5 PSI for some

369

00:41:37,079 --> 00:42:39,840

foreign

370

00:42:39,850 --> 00:42:46,490

[Applause]

371

00:42:46,500 --> 00:42:54,430

foreign

372

00:43:01,730 --> 00:42:58,730

again following this depressurization

373

00:43:04,069 --> 00:43:01,740

we'll see the crew do calm

374

00:43:09,109 --> 00:43:04,079

and system checks with the ground here

375

00:43:12,829 --> 00:43:10,970

then they'll switch over to internal

376

00:43:14,990 --> 00:43:12,839

battery power

377

00:43:19,010 --> 00:43:15,000

starting the official start of today's

378

00:43:23,270 --> 00:43:21,530

a U.S spacewalk start and end time is

379

00:43:25,010 --> 00:43:23,280

measured for the time the crew places

380

00:43:27,170 --> 00:43:25,020

their spacesuit on internal battery

381

00:43:29,510 --> 00:43:27,180

power all the way to up until the

382

00:43:31,250 --> 00:43:29,520

repressurization occurs and they're back

383

00:43:32,809 --> 00:43:31,260

inside the crew lock following

384

00:43:34,790 --> 00:43:32,819

completion of their space walking task

385

00:43:36,530 --> 00:43:34,800

for the day

386

00:43:39,410 --> 00:43:36,540

again we're just about five minutes

387

00:43:42,710 --> 00:43:39,420

until we hit that five pounds per square

388

00:43:45,170 --> 00:43:42,720

inch of pressure once 5 PSI is reached

389

00:43:47,089 --> 00:43:45,180

depressurization will be paused so that

390

00:43:49,430 --> 00:43:47,099

system checks can take place

391

00:43:55,730 --> 00:43:49,440

they'll then resume depressurization to

392

00:44:00,109 --> 00:43:58,430

again we're coming up on six pounds per

393

00:44:01,010 --> 00:44:00,119

square inch

394

00:44:02,930 --> 00:44:01,020

foreign

395

00:45:13,089 --> 00:44:02,940

and we're looking for that pause around

396

00:45:19,370 --> 00:45:16,370

Rubio and that's astronaut Frank Rubio

397

00:45:21,290 --> 00:45:19,380

and UAE astronaut Sultan arayati still

398

00:45:23,569 --> 00:45:21,300

inside the equipment section continuing

399

00:45:25,550 --> 00:45:23,579

to monitor depressurization on the quest

400

00:45:27,410 --> 00:45:25,560

airlock where NASA astronauts Woody

401  
00:45:29,930 --> 00:45:27,420  
hoberg and Stephen Boeing are suited up

402  
00:45:31,730 --> 00:45:29,940  
in undergoing preparations to venture

403  
00:45:34,849 --> 00:45:31,740  
outside of the Space Station's hatch for

404  
00:45:38,510 --> 00:45:36,890  
after about five PSI is reached and

405  
00:46:39,170 --> 00:45:38,520  
system checks are performed depressed

406  
00:46:39,180 --> 00:47:18,050  
foreign

407  
00:47:30,849 --> 00:47:21,890  
okay Steve uh respond manualization ball

408  
00:47:38,210 --> 00:47:34,849  
on the DCM should display status until

409  
00:47:40,730 --> 00:47:38,220  
leak check question mark display and

410  
00:47:43,250 --> 00:47:40,740  
then switch display yes hold for two

411  
00:47:53,710 --> 00:47:43,260  
seconds and follow the a displayed

412  
00:47:58,730 --> 00:47:56,809  
and the crew lock is now down to 5 PSI

413  
00:48:00,170 --> 00:47:58,740

and we are holding there again we're

414

00:48:01,730 --> 00:48:00,180

going to be looking for some leak checks

415

00:48:15,290 --> 00:48:01,740

and other system checks before we

416

00:48:20,569 --> 00:48:17,750

capability I'm just verifying that

417

00:48:22,790 --> 00:48:20,579

incorporate my last regarding the leak

418

00:48:24,650 --> 00:48:22,800

check very firm Sultan I'm 20 seconds

419

00:48:27,829 --> 00:48:24,660

remaining in the league check

420

00:48:48,490 --> 00:48:27,839

I am as well 32.

421

00:48:48,500 --> 00:48:53,589

getting O2 actuator to Eva

422

00:49:00,470 --> 00:48:56,750

two good lead checks getting

423

00:49:02,990 --> 00:49:00,480

go to actuator to Media

424

00:49:05,690 --> 00:49:03,000

okay guys that is good the good leak

425

00:49:08,210 --> 00:49:05,700

check on both and both you have the auto

426  
00:49:11,150 --> 00:49:08,220  
switcher to Eva now Steve you're gonna

427  
00:49:14,210 --> 00:49:11,160  
go and make the Deep respawn man ISO

428  
00:49:17,410 --> 00:49:14,220  
valve open again and expect another one

429  
00:49:19,730 --> 00:49:17,420  
YouTube has O2 position Eva

430  
00:49:23,089 --> 00:49:19,740  
and I have

431  
00:49:29,089 --> 00:49:26,030  
three ones in Eva as well okay

432  
00:49:31,069 --> 00:49:29,099  
three yeah first formulation panel to

433  
00:49:36,650 --> 00:49:31,079  
open

434  
00:49:41,630 --> 00:49:39,650  
and we just heard we have two nominal

435  
00:49:47,510 --> 00:49:41,640  
leak checks and we are continuing with

436  
00:49:47,520 --> 00:49:50,690  
emergency

437  
00:49:50,700 --> 00:49:59,990  
is always less than 5.5

438  
00:50:00,000 --> 00:52:15,010

foreign

439

00:52:20,030 --> 00:52:17,630

and that curl up portion is now down to

440

00:52:21,950 --> 00:52:20,040

about 2.9 PSI

441

00:54:05,450 --> 00:52:21,960

and we're looking for it to get down to

442

00:54:10,250 --> 00:54:07,790

all right Steve we are at uh two PSI

443

00:54:12,670 --> 00:54:10,260

take the depressed man either valve to

444

00:54:17,750 --> 00:54:14,690

it's closed

445

00:54:23,870 --> 00:54:17,760

and on the UIA switch you press pump

446

00:54:31,490 --> 00:54:27,710

okay so I'm gonna hand you to the uh

447

00:54:32,809 --> 00:54:31,500

your lovely ground IV uh Jenny and you

448

00:54:35,630 --> 00:54:32,819

will report the initial tether

449

00:54:38,990 --> 00:54:35,640

configuration to her for egress

450

00:54:41,870 --> 00:54:39,000

and uh with that I'm gonna say all the

451  
00:54:43,730 --> 00:54:41,880  
best for this Eva I'm sure he's gonna

452  
00:54:45,650 --> 00:54:43,740  
crush it just like last time

453  
00:54:48,829 --> 00:54:45,660  
uh wish you all the best would be here

454  
00:54:50,930 --> 00:54:48,839  
for support and make us proud

455  
00:54:52,370 --> 00:54:50,940  
thank you so much little time you guys

456  
00:54:53,569 --> 00:54:52,380  
did a great job with students and we

457  
00:54:57,829 --> 00:54:53,579  
look forward to seeing you in a few

458  
00:54:57,839 --> 00:55:03,109  
Eddie good morning

459  
00:55:09,349 --> 00:55:05,089  
Houston is with you ready for your

460  
00:55:12,530 --> 00:55:10,790  
all right Jenny

461  
00:55:13,490 --> 00:55:12,540  
I'm looking at the airlock d-ring

462  
00:55:16,870 --> 00:55:13,500  
extender

463  
00:55:21,049 --> 00:55:19,670

less weight tether

464

00:55:24,170 --> 00:55:21,059

yes

465

00:55:26,270 --> 00:55:24,180

it's closed locked block on block and

466

00:55:28,130 --> 00:55:26,280

the small hook of that waste feather is

467

00:55:29,450 --> 00:55:28,140

on his left knee range center get closed

468

00:55:30,950 --> 00:55:29,460

locks black on black

469

00:55:33,589 --> 00:55:30,960

Steve's right

470

00:55:35,390 --> 00:55:33,599

extender

471

00:55:36,470 --> 00:55:35,400

we have his Red Hook

472

00:55:38,390 --> 00:55:36,480

all

473

00:55:40,670 --> 00:55:38,400

day close lock block on black going to

474

00:55:42,950 --> 00:55:40,680

his unlocked red reel

475

00:55:45,530 --> 00:55:42,960

the anchor hook of the red reel he

476

00:55:47,990 --> 00:55:45,540

closed lock block on block to my

477

00:55:49,609 --> 00:55:48,000

left waist cutter also get close lock

478

00:55:51,890 --> 00:55:49,619

lock on block

479

00:55:53,630 --> 00:55:51,900

a small hook of my waist tether is on my

480

00:55:56,210 --> 00:55:53,640

left d-ring get closed block lock on

481

00:55:58,609 --> 00:55:56,220

blocks also on my left d-ring is my red

482

00:56:00,349 --> 00:55:58,619

reel a closed lock lock on block and

483

00:56:09,430 --> 00:56:00,359

that red reel is unlocked with the

484

00:56:17,270 --> 00:56:14,290

all right we copy that is a good config

485

00:56:20,750 --> 00:56:17,280

thanks Joey

486

00:56:22,849 --> 00:56:20,760

when the crew lock dpdt is approximately

487

00:56:26,150 --> 00:56:22,859

zero expect an alert tone we have a

488

00:56:26,160 --> 00:57:41,410

foreign

489

00:57:45,530 --> 00:57:44,210

if you're just joining us you're seeing

490

00:57:48,370 --> 00:57:45,540

live coverage inside the International

491

00:57:51,770 --> 00:57:48,380

Space Station and we're covering the

492

00:57:53,270 --> 00:57:51,780

265th spacewalk

493

00:57:56,150 --> 00:57:53,280

for the International Space Station

494

00:57:59,270 --> 00:57:56,160

assembly maintenance and upgrades

495

00:58:01,790 --> 00:57:59,280

we have Nas astronauts Stephen Boeing

496

00:58:05,089 --> 00:58:01,800

and Woody hoberg going outside the hatch

497

00:58:08,150 --> 00:58:05,099

today to install

498

00:58:11,809 --> 00:58:08,160

an iroso or an ISS rollout solar array

499

00:58:16,670 --> 00:58:14,210

the crew so far today has gone

500

00:58:19,010 --> 00:58:16,680

and got in their suits they did

501  
00:58:21,349 --> 00:58:19,020  
pre-breathe they had safers and salt

502  
00:58:23,569 --> 00:58:21,359  
they moved into the crew lock portion of

503  
00:58:26,089 --> 00:58:23,579  
the quest airlock and they have just

504  
00:58:27,290 --> 00:58:26,099  
finished depressurization we'll be

505  
00:58:29,510 --> 00:58:27,300  
waiting

506  
00:58:31,910 --> 00:58:29,520  
for the crew to go onto that internal

507  
00:58:34,069 --> 00:58:31,920  
battery power and from there they'll be

508  
00:59:57,970 --> 00:58:34,079  
going we'll be starting the official

509  
01:00:03,230 --> 01:00:00,849  
our Duo are currently ahead of schedule

510  
01:00:05,930 --> 01:00:03,240  
we had an estimated start time for

511  
01:00:09,230 --> 01:00:05,940  
today's Eva to be around 7 55 a.m

512  
01:00:11,569 --> 01:00:09,240  
central time however again the duo are

513  
01:00:15,530 --> 01:00:11,579

ahead of the timeline

514

01:00:18,170 --> 01:00:15,540

so once we hear the official go for

515

01:00:19,849 --> 01:00:18,180

internal battery power that'll be the

516

01:01:41,390 --> 01:00:19,859

call out for the official start of

517

01:03:18,770 --> 01:01:43,609

ah

518

01:05:15,849 --> 01:04:54,410

foreign

519

01:05:19,490 --> 01:05:17,990

if you're just joining us we are

520

01:05:21,829 --> 01:05:19,500

bringing you live coverage today you're

521

01:05:24,049 --> 01:05:21,839

seeing a live view on inside the

522

01:05:25,970 --> 01:05:24,059

International Space Station we have a

523

01:05:28,789 --> 01:05:25,980

space walking Duo of NASA astronaut

524

01:05:29,990 --> 01:05:28,799

Stephen Boeing and Woody hoberg who will

525

01:05:32,770 --> 01:05:30,000

be venturing outside of the

526

01:05:35,329 --> 01:05:32,780

International Space Station today in the

527

01:05:38,390 --> 01:05:35,339

265th spacewalk for the International

528

01:05:40,430 --> 01:05:38,400

Space Station upgrades maintenance and

529

01:05:42,470 --> 01:05:40,440

assembly

530

01:05:44,569 --> 01:05:42,480

so far Nas astronauts Woody hoberg and

531

01:05:46,250 --> 01:05:44,579

Stephen Bowen have completed pre-breathe

532

01:05:47,990 --> 01:05:46,260

they've had their safers install and

533

01:05:50,150 --> 01:05:48,000

they are inside the crew luck portion of

534

01:05:52,549 --> 01:05:50,160

the quest airlock where they have

535

01:05:55,250 --> 01:05:52,559

finished or just about finished their

536

01:05:58,490 --> 01:05:55,260

depressurization once they get down to

537

01:06:01,190 --> 01:05:58,500

complete vacuum the duo will turn over

538

01:06:04,670 --> 01:06:01,200

to internal battery powers for their

539

01:06:06,770 --> 01:06:04,680

emu's or those uh Mobility units that

540

01:06:08,390 --> 01:06:06,780

they're wearing protecting them as they

541

01:06:26,589 --> 01:06:08,400

go outside of the International Space

542

01:06:32,569 --> 01:06:29,690

again once down to complete vacuum the

543

01:06:34,370 --> 01:06:32,579

duo will do another system check doing

544

01:06:35,870 --> 01:06:34,380

leak checks and communication checks for

545

01:06:38,210 --> 01:06:35,880

the mission control Houston

546

01:06:40,370 --> 01:06:38,220

and that'll happen before they put their

547

01:06:42,289 --> 01:06:40,380

suits on internal battery power again

548

01:07:22,910 --> 01:06:42,299

this will Mark the official start of

549

01:07:27,950 --> 01:07:25,670

I think you just had a view of

550

01:07:29,930 --> 01:07:27,960

and that's astronaut Frank Rubio and

551  
01:07:31,730 --> 01:07:29,940  
Sultan anayadi of the United Arab

552  
01:07:34,010 --> 01:07:31,740  
Emirates

553  
01:07:36,170 --> 01:07:34,020  
inside the equipment section of the

554  
01:07:38,029 --> 01:07:36,180  
airlock

555  
01:07:40,370 --> 01:07:38,039  
where they are continuing to monitor

556  
01:07:44,029 --> 01:07:40,380  
depress they saw a camera out as they

557  
01:07:45,890 --> 01:07:44,039  
take pictures for the crew here on the

558  
01:08:32,630 --> 01:07:45,900  
ground that helps out with all the

559  
01:08:38,510 --> 01:08:35,390  
again we're in a brief

560  
01:08:40,430 --> 01:08:38,520  
pure in between the satellites

561  
01:08:46,729 --> 01:08:40,440  
we'll have coverage at back of the

562  
01:08:50,030 --> 01:08:48,829  
and you're seeing the quiz earlock from

563  
01:08:52,550 --> 01:08:50,040

the outside

564

01:08:54,769 --> 01:08:52,560

here shortly we will see our space

565

01:08:56,090 --> 01:08:54,779

walking Duo exit the International Space

566

01:11:00,070 --> 01:08:56,100

Station

567

01:11:04,430 --> 01:11:02,930

again you're getting a view outside of

568

01:11:06,110 --> 01:11:04,440

the International Space Station of the

569

01:11:09,290 --> 01:11:06,120

quest airlock where our Dew will be

570

01:11:13,790 --> 01:11:10,790

the International Space Station it's

571

01:11:16,490 --> 01:11:13,800

flying 258 statute miles

572

01:11:30,350 --> 01:11:16,500

and they are flying above Italy

573

01:11:33,590 --> 01:11:32,630

right Woody and Steve it looks like we

574

01:11:37,010 --> 01:11:33,600

are

575

01:11:42,250 --> 01:11:37,020

below 0.5 PSI we will get you to verify

576

01:11:42,260 --> 01:11:46,130

zero decimal four

577

01:11:46,140 --> 01:12:08,689

puppy Woody open and Stow the EV hatch

578

01:12:08,699 --> 01:12:29,810

ah

579

01:12:34,370 --> 01:12:31,970

Jenny just for your awareness I got the

580

01:12:37,189 --> 01:12:34,380

super high nuisance alarm EV hatch open

581

01:13:02,270 --> 01:12:38,950

foreign

582

01:13:15,490 --> 01:13:03,590

sultan

583

01:13:29,209 --> 01:13:17,810

as well

584

01:13:35,030 --> 01:13:31,490

and Houston from the Outlook the

585

01:13:37,310 --> 01:13:35,040

emergency Empire is in closed position

586

01:13:39,410 --> 01:13:37,320

hey thank you Sultan and just to confirm

587

01:13:41,450 --> 01:13:39,420

no action on those messages like you say

588

01:13:43,790 --> 01:13:41,460

those are nuisance alarms for both Woody

589

01:13:47,870 --> 01:13:43,800

and for Steve we are going to move into

590

01:13:50,450 --> 01:13:47,880

post depress so on your DCM switch power

591

01:13:53,750 --> 01:13:50,460

to bat bagger your switch throws and

592

01:13:53,760 --> 01:14:01,610

because ub1 switching

593

01:14:20,270 --> 01:14:03,290

to switch to the battery

594

01:14:25,850 --> 01:14:22,310

you can choose the bat

595

01:14:30,709 --> 01:14:25,860

that be ev1 and ev2 in bat display Pro

596

01:14:30,719 --> 01:14:34,669

hit display

597

01:14:42,770 --> 01:14:38,990

on the UIA switch power eb1 and 2 both

598

01:14:50,870 --> 01:14:46,070

all right power ev1

599

01:14:54,530 --> 01:14:50,880

it's off our ev2 is off

600

01:14:57,830 --> 01:14:54,540

copy Steve checks power ev1 and two LEDs

601  
01:15:02,090 --> 01:15:00,410  
all four LEDs on power Ed one and two

602  
01:15:05,270 --> 01:15:02,100  
are off

603  
01:15:07,790 --> 01:15:05,280  
on your dcms disconnect your scu's

604  
01:15:09,890 --> 01:15:07,800  
install your DCM covers and Stow the

605  
01:15:56,270 --> 01:15:09,900  
scus in their pouches

606  
01:16:01,370 --> 01:15:58,850  
check depressed pump manual isolation

607  
01:16:04,250 --> 01:16:01,380  
valve closed

608  
01:16:06,830 --> 01:16:04,260  
ah you first thought man was just about

609  
01:16:16,370 --> 01:16:06,840  
enclosed

610  
01:16:16,380 --> 01:16:20,209  
TV1 maximum

611  
01:16:20,219 --> 01:16:25,430  
switch water on

612  
01:16:33,189 --> 01:16:30,169  
do you want water on 82 water on

613  
01:16:37,850 --> 01:16:33,199

check DCM blank bite off

614

01:16:39,770 --> 01:16:37,860  
and at 7 42 a.m Central Time the 265th

615

01:16:48,910 --> 01:16:39,780  
spacewalk in support of station assembly

616

01:16:54,649 --> 01:16:51,890  
hoberg and Bowen are now on internal

617

01:16:54,659 --> 01:17:00,470  
for ev2 reports

618

01:17:06,410 --> 01:17:02,870  
one four decimal four

619

01:17:11,870 --> 01:17:09,649  
copy both 4 decimal four set your visors

620

01:17:14,770 --> 01:17:11,880  
as required we have 21 minutes until

621

01:17:27,729 --> 01:17:14,780  
eclipse

622

01:17:33,830 --> 01:17:31,910  
all right copy both with that uh Woody

623

01:17:36,110 --> 01:17:33,840  
you can open a thermal cover

624

01:17:37,970 --> 01:17:36,120  
you can Stow the hook on the stiffener

625

01:17:45,830 --> 01:17:37,980  
tether Point cinch the strap and Report

626  
01:17:50,450 --> 01:17:48,110  
Steve for you you can retrieve crew lock

627  
01:17:53,330 --> 01:17:50,460  
bag M you will be keeping this bag on

628  
01:17:53,340 --> 01:17:57,410  
all right cool lock bag is

629  
01:17:57,420 --> 01:18:04,970  
tomorrow your key rep

630  
01:18:09,709 --> 01:18:07,250  
and hoberg will now work to open that

631  
01:18:11,330 --> 01:18:09,719  
thermal cover and make their way outside

632  
01:18:15,110 --> 01:18:11,340  
of the space station hatch to begin

633  
01:18:15,120 --> 01:18:23,630  
visible

634  
01:18:29,510 --> 01:18:26,270  
the airlock and inspect both load

635  
01:18:29,520 --> 01:18:51,950  
good work

636  
01:18:51,960 --> 01:18:58,990  
foreign

637  
01:19:05,030 --> 01:19:03,050  
Ivy Ginny Gibbons to the crew telling

638  
01:19:06,890 --> 01:19:05,040

the crew they do have to go to open the

639

01:19:14,890 --> 01:19:06,900

thermal covers and exit the quest

640

01:19:21,290 --> 01:19:18,830

I'm ready to perform this other slot

641

01:19:24,890 --> 01:19:21,300

happy Woody your go you will need your

642

01:19:29,570 --> 01:19:24,900

yellow hook on the green reel which is

643

01:19:35,510 --> 01:19:32,689

Penny that's complete yellow hook great

644

01:19:37,370 --> 01:19:35,520

clothes locked to my previous screen

645

01:19:40,130 --> 01:19:37,380

reel

646

01:19:46,669 --> 01:19:40,140

picking up the greenhouse

647

01:19:54,649 --> 01:19:50,410

Woody and Steve for your awareness

648

01:19:56,630 --> 01:19:54,659

we have a period of Ratty calm coming up

649

01:19:59,030 --> 01:19:56,640

we might lose you for about a minute

650

01:20:02,750 --> 01:19:59,040

we're going to treat this like a short

651  
01:20:12,590 --> 01:20:02,760  
Handover so I'm still Prime IV Woody

652  
01:20:12,600 --> 01:20:16,669  
thank you

653  
01:20:16,679 --> 01:20:22,790  
let's see

654  
01:20:22,800 --> 01:20:28,130  
you

655  
01:20:33,649 --> 01:20:30,590  
come here

656  
01:20:37,490 --> 01:20:36,050  
there it goes thank you it's not wrapped

657  
01:20:40,490 --> 01:20:37,500  
around anything

658  
01:20:43,850 --> 01:20:40,500  
Jenny as I said I have a good workout to

659  
01:20:48,950 --> 01:20:46,669  
yellow Hook is down gate closed locked

660  
01:20:50,450 --> 01:20:48,960  
black on black to my green reel

661  
01:20:52,189 --> 01:20:50,460  
and

662  
01:20:53,390 --> 01:20:52,199  
the green Hook is also attached to my

663  
01:20:56,030 --> 01:20:53,400

red reel

664

01:20:58,250 --> 01:20:56,040

it closed box black on black and Hot

665

01:21:02,030 --> 01:20:58,260

Wheels on locks

666

01:21:07,070 --> 01:21:03,830

anchor hook

667

01:21:09,530 --> 01:21:07,080

all correction excuse yellow hook

668

01:21:11,030 --> 01:21:09,540

it closed locks block on blocks just use

669

01:21:13,189 --> 01:21:11,040

green reel

670

01:21:21,110 --> 01:21:13,199

I'm picking up Steve's

671

01:21:21,120 --> 01:21:52,550

foreign

672

01:21:57,890 --> 01:21:55,910

we agree Woody that is a good config you

673

01:21:59,630 --> 01:21:57,900

can give Steve a go to release his waste

674

01:22:03,290 --> 01:21:59,640

tether we'll have you position on the

675

01:22:08,750 --> 01:22:05,510

if you ever go to release your waste

676

01:22:10,790 --> 01:22:08,760

cutter and egress I'm on the outside

677

01:22:14,330 --> 01:22:10,800

all right you're on the outside

678

01:22:16,669 --> 01:22:14,340

good for the release of egressor copy

679

01:22:23,270 --> 01:22:16,679

Houston copies once you're out you can

680

01:22:28,010 --> 01:22:24,950

and you just heard it grown I'd be

681

01:22:30,470 --> 01:22:28,020

confirming that Woody hoberg ev1 has

682

01:22:32,630 --> 01:22:30,480

exited the hatch this morning and we are

683

01:22:34,070 --> 01:22:32,640

waiting for Stephen Bowen to join him on

684

01:22:35,450 --> 01:22:34,080

the outside of the International Space

685

01:22:45,669 --> 01:22:35,460

Station

686

01:23:08,270 --> 01:22:47,870

I'm almost out

687

01:23:08,280 --> 01:23:21,530

20 seconds to a short Handover

688

01:23:26,270 --> 01:23:23,930

when we are in a brief Handover period

689

01:23:27,890 --> 01:23:26,280

between satellites we'll have views of

690

01:23:31,370 --> 01:23:27,900

the duo outside the International Space

691

01:23:31,380 --> 01:23:57,770

thank you

692

01:23:57,780 --> 01:24:06,709

foreign

693

01:24:06,719 --> 01:24:10,310

Houston's back with you

694

01:24:14,149 --> 01:24:11,990

welcome back Jenny

695

01:24:15,890 --> 01:24:14,159

gonna be kicking off buddy Jackson in uh

696

01:24:17,810 --> 01:24:15,900

just a moment here

697

01:24:20,570 --> 01:24:17,820

copy before doing that let's close the

698

01:24:20,580 --> 01:24:24,830

I got it

699

01:24:50,689 --> 01:24:26,510

thank you Steve

700

01:24:56,510 --> 01:24:52,370

nice

701  
01:25:00,649 --> 01:24:57,709  
thank you

702  
01:25:04,450 --> 01:25:00,659  
want it tightened up a little or I think

703  
01:25:10,130 --> 01:25:07,970  
perfect I see uh one two three tabs up

704  
01:25:12,890 --> 01:25:10,140  
too many workstation one brt

705  
01:25:15,709 --> 01:25:12,900  
I'm looking at

706  
01:25:19,850 --> 01:25:15,719  
your safer handles I see

707  
01:25:23,570 --> 01:25:19,860  
one and currently no views of the duo

708  
01:25:25,610 --> 01:25:23,580  
but both are outside the airlock at this

709  
01:25:28,510 --> 01:25:25,620  
point and we hear them going through

710  
01:25:30,890 --> 01:25:28,520  
some buddy checks

711  
01:25:32,750 --> 01:25:30,900  
they're making sure their cameras are

712  
01:25:34,370 --> 01:25:32,760  
good their safer handles are down and

713  
01:25:35,630 --> 01:25:34,380

tethers and tools are in a good

714

01:25:44,030 --> 01:25:35,640  
configuration

715

01:25:50,610 --> 01:25:45,530  
all right

716

01:25:50,620 --> 01:25:55,970  
[Music]

717

01:26:02,090 --> 01:25:58,850  
I see

718

01:26:06,050 --> 01:26:02,100  
you're a heck of life but not your wvx

719

01:26:12,050 --> 01:26:08,450  
let's see if I can see the wvs right is

720

01:26:15,590 --> 01:26:12,060  
on to get this year it's done okay up

721

01:26:15,600 --> 01:26:18,649  
things

722

01:26:18,659 --> 01:26:25,270  
uh as you stated as you look good

723

01:26:31,810 --> 01:26:27,110  
all right

724

01:26:34,729 --> 01:26:31,820  
go up the trip I have this right yes

725

01:26:37,850 --> 01:26:34,739  
Jenny I think we're ready

726

01:26:42,169 --> 01:26:37,860

I copy good buddy checks dry Hops and

727

01:26:44,990 --> 01:26:42,179

good gloves we are headed into a eight

728

01:26:49,010 --> 01:26:45,000

minute data loss we will have voiced the

729

01:26:51,169 --> 01:26:49,020

whole past I'm still Prime IV

730

01:26:53,330 --> 01:26:51,179

you can begin your translation to the

731

01:27:01,030 --> 01:26:53,340

work site Steve you are leading let me

732

01:27:01,040 --> 01:27:27,430

on my left hand side

733

01:27:35,750 --> 01:27:29,209

attractions coming out of your right

734

01:27:41,629 --> 01:27:37,970

and you heard ground IV Jenny Gibbons

735

01:27:44,270 --> 01:27:41,639

give the crew that eight minute warning

736

01:27:46,790 --> 01:27:44,280

we won't have any views of the duo for

737

01:27:49,070 --> 01:27:46,800

about eight minutes but we will hear

738

01:27:50,390 --> 01:27:49,080

them and they'll hear Ginny from inside

739

01:27:54,169 --> 01:27:50,400

the International Space Station flight

740

01:27:56,570 --> 01:27:54,179

control room we get hurt Jenny give uh

741

01:27:58,610 --> 01:27:56,580

Stephen Bowen the okay to head over to

742

01:27:59,870 --> 01:27:58,620

his work site

743

01:28:02,090 --> 01:27:59,880

um

744

01:28:03,770 --> 01:28:02,100

that worksite will be the Flight Support

745

01:28:07,310 --> 01:28:03,780

equipment

746

01:28:11,330 --> 01:28:07,320

or the FSE work site that is where the

747

01:28:13,550 --> 01:28:11,340

pallet is that currently holds the Arosa

748

01:28:16,970 --> 01:28:13,560

Bowen is heading there to release some C

749

01:28:18,229 --> 01:28:16,980

bolts as Woody prepares to get on the

750

01:28:22,430 --> 01:28:18,239

Kenda arm

751

01:28:23,830 --> 01:28:22,440

that ssrms or that remote robotic uh

752

01:28:26,750 --> 01:28:23,840

manipulator system

753

01:28:30,350 --> 01:28:26,760

will be used today

754

01:28:34,189 --> 01:28:30,360

to fly Woody around as he carries that

755

01:28:45,530 --> 01:28:34,199

irosa to their work spot at that 1B

756

01:28:50,750 --> 01:28:47,930

again flight director Brandon Lloyd

757

01:28:52,610 --> 01:28:50,760

leading the room today to his right is

758

01:28:54,350 --> 01:28:52,620

going to be that ground IV that I was

759

01:28:57,530 --> 01:28:54,360

talking about that's Canadian space

760

01:28:59,750 --> 01:28:57,540

agency astronaut Jenny Gibbons into her

761

01:29:02,450 --> 01:28:59,760

right as Nick Hague again we heard Nick

762

01:29:04,310 --> 01:29:02,460

earlier as the Capcom

763

01:29:07,370 --> 01:29:04,320

for the Geo through

764

01:29:09,050 --> 01:29:07,380

T press and now we'll hear Jenny for the

765

01:30:03,370 --> 01:29:09,060

rest of the procedures and walkthrough

766

01:30:08,510 --> 01:30:06,649

again in a Los or a loss of signal

767

01:30:11,149 --> 01:30:08,520

currently

768

01:30:13,669 --> 01:30:11,159

however we will have a portion of

769

01:30:16,070 --> 01:30:13,679

today's spacewalk that will be conducted

770

01:30:18,110 --> 01:30:16,080

during an eclipse which is necessary for

771

01:30:21,470 --> 01:30:18,120

the cable mating position

772

01:30:23,270 --> 01:30:21,480

portion of today's space walk again this

773

01:30:26,570 --> 01:30:23,280

is the only way to essentially stop the

774

01:30:28,070 --> 01:30:26,580

rage from Gathering Power from the Sun

775

01:30:29,870 --> 01:30:28,080

to keep our crease safe we are

776

01:30:33,530 --> 01:30:29,880

conducting the cable mating once again

777

01:30:35,750 --> 01:30:33,540

in that Eclipse time frame

778

01:30:38,990 --> 01:30:35,760

right now we do have the duo that should

779

01:30:41,270 --> 01:30:39,000

be Woody hoberg ev1 extra vehicle crew

780

01:30:43,729 --> 01:30:41,280

number one and Stephen Bowen

781

01:30:45,850 --> 01:30:43,739

ev2 extra vehicular crew member number

782

01:30:48,470 --> 01:30:45,860

two they are outside of the station

783

01:30:50,570 --> 01:30:48,480

Woody hoberg is setting up that Canada

784

01:30:52,610 --> 01:30:50,580

arm 2 while

785

01:30:55,070 --> 01:30:52,620

we have Stephen Bowen in Translation

786

01:30:57,709 --> 01:30:55,080

over to that FSE or that Flight Support

787

01:31:01,310 --> 01:30:57,719

equipment that pallet that currently

788

01:31:08,270 --> 01:31:01,320

holds the irosa or that ISS rollout

789

01:31:12,590 --> 01:31:10,729

after Woody hoberg gets

790

01:31:13,850 --> 01:31:12,600

in the articulated portable foot

791

01:31:16,550 --> 01:31:13,860

restraint

792

01:31:19,810 --> 01:31:16,560

that is attached to that Canada arm tube

793

01:31:24,290 --> 01:31:19,820

he will head over to the FSC as well

794

01:31:26,209 --> 01:31:24,300

where the duo will then release the

795

01:31:27,649 --> 01:31:26,219

irosa from where it's currently being

796

01:31:30,370 --> 01:31:27,659

held

797

01:31:34,189 --> 01:31:30,380

they will then use the Canada arm 2

798

01:31:36,410 --> 01:31:34,199

using a leapfrog maneuver where the

799

01:31:39,410 --> 01:31:36,420

Duo's

800

01:31:42,649 --> 01:31:39,420

each take it and release the irosa until

801  
01:32:05,290 --> 01:31:42,659  
they get into their workstation at the

802  
01:32:10,430 --> 01:32:08,149  
again after that irosa is released from

803  
01:32:11,770 --> 01:32:10,440  
that Flight Support equipment pad we'll

804  
01:32:15,410 --> 01:32:11,780  
see them

805  
01:32:21,770 --> 01:32:19,129  
irosa from the FSC over to their new

806  
01:32:23,870 --> 01:32:21,780  
work site that worksite will be at the

807  
01:32:25,790 --> 01:32:23,880  
1B power Channel and that is the

808  
01:32:27,590 --> 01:32:25,800  
opposite it's still on the start but

809  
01:32:30,470 --> 01:32:27,600  
trust but it is the opposite side of

810  
01:33:59,229 --> 01:32:30,480  
where last week speaks spacewalk took

811  
01:34:03,410 --> 01:34:01,370  
if you're just joining us you're seeing

812  
01:34:05,030 --> 01:34:03,420  
a live view inside the ins

813  
01:34:07,610 --> 01:34:05,040

International Space Station flight

814

01:34:09,229 --> 01:34:07,620

control room in Mission Control Houston

815

01:34:11,870 --> 01:34:09,239

where today we're bringing you live

816

01:34:12,890 --> 01:34:11,880

coverage of the 265th spacewalk in

817

01:34:14,870 --> 01:34:12,900

support of the International Space

818

01:34:19,149 --> 01:34:14,880

Station assembly maintenance and

819

01:34:23,629 --> 01:34:21,709

thus far we had NASA astronauts Woody

820

01:34:25,850 --> 01:34:23,639

hoberg and Stephen Bowen exit the

821

01:34:27,890 --> 01:34:25,860

International Space Station

822

01:34:31,010 --> 01:34:27,900

officially starting today's spacewalk at

823

01:34:33,350 --> 01:34:31,020

7 42 a.m Central Time

824

01:34:35,570 --> 01:34:33,360

the duo are currently outside of the

825

01:34:38,870 --> 01:34:35,580

International Space Station and they are

826

01:34:41,450 --> 01:34:38,880

heading to their first work site that is

827

01:34:45,470 --> 01:34:41,460

the FSE or the Flight Support equipment

828

01:35:21,649 --> 01:34:45,480

pad again the FSC is that area where the

829

01:35:26,149 --> 01:35:24,169

today's space walk will see the sixth

830

01:35:28,729 --> 01:35:26,159

irosa mounted to the existing station

831

01:35:30,830 --> 01:35:28,739

solar rays the fifth array installed

832

01:35:34,550 --> 01:35:30,840

just last week on June 9th by the same

833

01:35:37,970 --> 01:35:34,560

Duo the new arrays are 60 feet by 20

834

01:35:39,649 --> 01:35:37,980

feet wide 60 feet long by 20 feet wide

835

01:35:42,169 --> 01:35:39,659

and will shade a little more than half

836

01:35:45,649 --> 01:35:42,179

of the original arrays which are 112

837

01:35:48,110 --> 01:35:45,659

feet long by 39 feet wide each new irosa

838

01:35:50,570 --> 01:35:48,120

will produce more than 20 kilowatts of

839

01:35:53,270 --> 01:35:50,580

electricity and once all are installed

840

01:35:55,310 --> 01:35:53,280

will enable a 30 increase in power

841

01:36:06,790 --> 01:35:55,320

production over the station's current

842

01:36:11,750 --> 01:36:09,050

this is the sixth spacewalk for

843

01:36:14,090 --> 01:36:11,760

Expedition 69 and the eighth spacewalk

844

01:36:38,750 --> 01:36:14,100

of 2023 out of the International Space

845

01:36:42,830 --> 01:36:41,149

we should be getting views here shortly

846

01:36:50,330 --> 01:36:42,840

for you of the duo outside the

847

01:36:50,340 --> 01:36:54,770

until we set up the values

848

01:37:00,410 --> 01:36:56,810

Woody can you ensure your tools and

849

01:37:04,370 --> 01:37:02,390

ly thought as well clear Jam screen

850

01:37:10,729 --> 01:37:04,380

rails unlocked and Steve's tether is

851  
01:37:19,970 --> 01:37:11,890  
all right

852  
01:37:26,450 --> 01:37:22,490  
puppy Steve

853  
01:37:31,729 --> 01:37:26,460  
next you'll be breaking torque on C12 at

854  
01:37:31,739 --> 01:37:41,030  
again

855  
01:37:45,890 --> 01:37:43,070  
then yes you're looking for the 5 8 12

856  
01:37:51,110 --> 01:37:47,450  
all right it's installed with a good

857  
01:37:54,229 --> 01:37:52,490  
you could protest

858  
01:37:58,370 --> 01:37:54,239  
you can translate to stanchion Alpha

859  
01:38:02,750 --> 01:38:00,229  
there's 12 breaking forward go upstairs

860  
01:38:04,729 --> 01:38:02,760  
and Alpha good words

861  
01:38:05,990 --> 01:38:04,739  
all the we're ready for the motion so

862  
01:38:08,510 --> 01:38:06,000  
it's going to be stationed forwards

863  
01:38:09,530 --> 01:38:08,520

followed by station later go far on your

864

01:38:22,090 --> 01:38:09,540

go

865

01:38:27,410 --> 01:38:24,189

and you're hearing

866

01:38:28,729 --> 01:38:27,420

UAE astronauts inside of the

867

01:38:31,370 --> 01:38:28,739

International Space Station who will be

868

01:38:35,030 --> 01:38:31,380

controlling that Canada arm 2 that will

869

01:38:37,189 --> 01:38:35,040

be used to move around ev1 Woody hober

870

01:38:38,570 --> 01:38:37,199

Ness astronaut

871

01:38:41,930 --> 01:38:38,580

um as he

872

01:38:44,990 --> 01:38:41,940

goes towards the FSC

873

01:38:47,510 --> 01:38:45,000

once released we heard Stephen Bowen is

874

01:38:51,669 --> 01:38:47,520

going to be working on releasing those C

875

01:38:54,950 --> 01:38:51,679

bolts at the FEC that will release

876

01:39:03,729 --> 01:38:54,960

the irosa

877

01:39:09,590 --> 01:39:06,290

again Woody hoberg is going to be on the

878

01:39:11,810 --> 01:39:09,600

end of that SS RMS or that robotic

879

01:39:15,590 --> 01:39:11,820

manipulator system known as the Canon

880

01:39:18,890 --> 01:39:15,600

arm2 which we use for today's spacewalk

881

01:39:21,110 --> 01:39:18,900

he will be attaching the apfr or that

882

01:39:22,129 --> 01:39:21,120

articulating portable foot restraint to

883

01:39:24,950 --> 01:39:22,139

the

884

01:39:28,189 --> 01:39:24,960

robotic system this will allow him to

885

01:39:31,850 --> 01:39:28,199

get on the end and fly technically

886

01:39:37,310 --> 01:39:34,010

and we have our first views of the

887

01:39:40,189 --> 01:39:37,320

outside again we see Woody hoberg in the

888

01:39:42,890 --> 01:39:40,199

suit with the red stripes he is inside

889

01:39:44,709 --> 01:39:42,900

that apfr or that articulating portable

890

01:39:59,630 --> 01:39:44,719

foot restraint

891

01:40:04,070 --> 01:40:01,149

[Applause]

892

01:40:06,229 --> 01:40:04,080

behind what do you do see Stephen Bowen

893

01:40:09,709 --> 01:40:06,239

the suit with no Stripes he has that

894

01:40:10,669 --> 01:40:09,719

pistol grip tool in hand or that's space

895

01:40:12,709 --> 01:40:10,679

drill

896

01:40:19,930 --> 01:40:12,719

and he'll be using that today to create

897

01:40:26,709 --> 01:40:22,550

journalcast of uh four and a half

898

01:40:31,010 --> 01:40:28,669

Bravo free

899

01:40:31,850 --> 01:40:31,020

counterclock was two less than half a

900

01:40:33,530 --> 01:40:31,860

turn

901  
01:40:37,370 --> 01:40:33,540  
C12

902  
01:40:43,189 --> 01:40:40,189  
and that's complete

903  
01:40:48,770 --> 01:40:43,199  
copy Steve Stow your PGT and translate

904  
01:40:48,780 --> 01:41:02,510  
all right traveling sea level

905  
01:41:06,470 --> 01:41:04,189  
Woody I'll take a glove inspection and

906  
01:41:12,550 --> 01:41:06,480  
hop check from you

907  
01:41:17,990 --> 01:41:16,070  
uh Jim dry hop

908  
01:41:30,910 --> 01:41:18,000  
no change to the glove

909  
01:41:30,920 --> 01:41:44,209  
here we go coffee go and start emotions

910  
01:41:44,219 --> 01:41:49,629  
motion copy good motion

911  
01:41:55,310 --> 01:41:52,250  
and again you're hearing from UAE

912  
01:41:57,050 --> 01:41:55,320  
astronaut till 10 who's inside of the

913  
01:41:59,870 --> 01:41:57,060

International Space Station he is

914

01:42:05,870 --> 01:41:59,880

controlling the Canada arm 2 today with

915

01:42:10,189 --> 01:42:08,510

we currently see Stephen Bowen NASA

916

01:42:12,470 --> 01:42:10,199

astronaut working to release the

917

01:42:19,970 --> 01:42:12,480

remaining bolts holding the irosa on the

918

01:42:22,850 --> 01:42:21,590

correction Steve

919

01:42:27,830 --> 01:42:22,860

[Music]

920

01:42:27,840 --> 01:42:32,510

battle three character three sorry

921

01:42:39,290 --> 01:42:34,850

about G7 Insurance a firm you'll be

922

01:44:04,270 --> 01:43:14,870

all right

923

01:44:11,870 --> 01:44:08,030

27 turns on C11

924

01:44:13,250 --> 01:44:11,880

copy 27 turns C11 you can retrieve the

925

01:44:15,050 --> 01:44:13,260

square scoop with the long duration

926

01:44:16,689 --> 01:44:15,060

tie-down feather from the crew lock bag

927

01:44:19,010 --> 01:44:16,699

and sew it on your mini workstation

928

01:44:21,350 --> 01:44:19,020

after that we'll have you back extension

929

01:44:21,360 --> 01:45:05,830

foreign

930

01:45:09,109 --> 01:45:08,030

yeah it's just kind of getting down in

931

01:45:11,149 --> 01:45:09,119

there

932

01:45:13,310 --> 01:45:11,159

you're looking good oh okay it's much

933

01:45:16,070 --> 01:45:13,320

better now thank you oh I see what

934

01:45:16,080 --> 01:45:19,790

all right

935

01:45:24,709 --> 01:45:22,070

and we did have good confirmation that

936

01:45:27,050 --> 01:45:24,719

the bolt was released and

937

01:45:45,350 --> 01:45:27,060

Stephen Bowen is now going for that crew

938

01:45:50,330 --> 01:45:47,450

technology your next motion is going to

939

01:45:52,430 --> 01:45:50,340

be a this year to accomplish I was a

940

01:45:55,490 --> 01:45:52,440

native physician we're expecting one

941

01:45:57,169 --> 01:45:55,500

meter for the end okay Sultan I'm ready

942

01:45:59,149 --> 01:45:57,179

for that

943

01:46:14,930 --> 01:45:59,159

okay send by until we set up the values

944

01:46:18,109 --> 01:46:16,669

Steve looks like you're gonna beat me

945

01:46:19,970 --> 01:46:18,119

there that looks good

946

01:46:21,890 --> 01:46:19,980

I could probably reset once I'm in there

947

01:46:28,490 --> 01:46:21,900

as well but I think it's probably faster

948

01:46:34,070 --> 01:46:31,550

we're just gonna go and hold the for now

949

01:46:34,850 --> 01:46:34,080

until uh we get uh confirmation from the

950

01:46:46,570 --> 01:46:34,860

ground

951  
01:46:50,990 --> 01:46:49,669  
and for Steve and Woody um Sultan's

952  
01:46:53,209 --> 01:46:51,000  
right we're just going to wait on that

953  
01:46:55,850 --> 01:46:53,219  
next remove uh maneuver so that we can

954  
01:46:58,250 --> 01:46:55,860  
ensure Steve can translate back to the

955  
01:47:01,609 --> 01:46:58,260  
C11 bolt following the Ops he does after

956  
01:47:01,619 --> 01:47:05,840  
foreign

957  
01:47:05,850 --> 01:47:10,910  
[Music]

958  
01:47:18,709 --> 01:47:13,729  
you are releasing C12 your settings are

959  
01:47:23,870 --> 01:47:21,520  
level three

960  
01:47:26,689 --> 01:47:23,880  
[Music]

961  
01:47:28,669 --> 01:47:26,699  
I have a 54 turns Chris

962  
01:47:31,609 --> 01:47:28,679  
hey firm those are good settings and

963  
01:47:39,890 --> 01:47:31,619

you'll be fully releasing C12 the boat

964

01:47:39,900 --> 01:47:57,189

good words

965

01:48:04,010 --> 01:48:01,550

and with that c11c bolt released same

966

01:48:36,350 --> 01:48:04,020

bone has headed over to the c12c bolt

967

01:48:36,360 --> 01:48:40,970

but 54 turns

968

01:48:51,790 --> 01:48:43,010

and looks like it's sprung out I will

969

01:48:51,800 --> 01:49:04,970

it's happy 54 turns

970

01:49:08,990 --> 01:49:06,950

a lot of Wiggle in there I can't tell if

971

01:49:10,189 --> 01:49:09,000

it's sprung earlier

972

01:49:13,650 --> 01:49:10,199

I think I might give it a couple more

973

01:49:39,709 --> 01:49:15,590

[Music]

974

01:49:47,689 --> 01:49:42,169

looks pretty far out I just

975

01:49:51,530 --> 01:49:49,910

yeah we're talking that Steve it seems

976  
01:49:55,609 --> 01:49:51,540  
like you'll have a hard time depressing

977  
01:49:59,390 --> 01:49:57,350  
just because it's in a tight spot oh

978  
01:50:04,910 --> 01:49:59,400  
there it is okay

979  
01:50:04,920 --> 01:50:14,149  
we're just sprung out

980  
01:50:18,660 --> 01:50:16,189  
all right so I think I'm complete here I

981  
01:50:24,350 --> 01:50:18,670  
can install the scoop

982  
01:50:28,129 --> 01:50:26,270  
all right sorry about that Steve we can

983  
01:50:29,810 --> 01:50:28,139  
confirm that that is a good bolt so you

984  
01:50:34,609 --> 01:50:29,820  
can Stow your PCT and then we'll have

985  
01:50:34,619 --> 01:50:38,390  
okay

986  
01:50:43,970 --> 01:50:40,609  
did you installed

987  
01:50:54,590 --> 01:50:46,070  
45

988  
01:50:54,600 --> 01:50:59,689

and that was a good release on C12

989

01:51:05,750 --> 01:51:03,470

. okay good pull text there's a lot

990

01:51:07,910 --> 01:51:05,760

riding through Marinette from the PGT

991

01:51:09,590 --> 01:51:07,920

demon bone is now going to Stow the

992

01:51:14,390 --> 01:51:09,600

prescription and install the scoop on

993

01:51:16,910 --> 01:51:14,400

the root Bean micro Square near the C12

994

01:51:19,669 --> 01:51:16,920

Bolt

995

01:51:19,679 --> 01:51:23,689

the scoop of long version title

996

01:51:28,970 --> 01:51:26,510

and I'm gonna head over to

997

01:51:30,530 --> 01:51:28,980

hello copy

998

01:51:32,209 --> 01:51:30,540

once you're there I'll take a glove

999

01:51:36,229 --> 01:51:32,219

inspection and hop check and we'll

1000

01:51:36,239 --> 01:52:05,510

all right

1001  
01:52:05,520 --> 01:52:37,530  
foreign

1002  
01:52:37,540 --> 01:52:43,250  
[Music]

1003  
01:52:43,260 --> 01:52:52,609  
and Houston is ready you can proceed

1004  
01:52:52,619 --> 01:53:00,729  
Direction

1005  
01:53:06,890 --> 01:53:03,770  
we've watched your bag again

1006  
01:53:10,810 --> 01:53:06,900  
good motion sultan

1007  
01:53:17,750 --> 01:53:14,689  
again you can see Woody hoberg is on the

1008  
01:53:19,370 --> 01:53:17,760  
Move he's working with Sultana Yadi UAE

1009  
01:53:21,229 --> 01:53:19,380  
escha inside the International Space

1010  
01:53:24,910 --> 01:53:21,239  
Station

1011  
01:53:27,530 --> 01:53:24,920  
he's moving towards that FSE

1012  
01:53:31,790 --> 01:53:27,540  
where Stephen Bowen has now released

1013  
01:53:35,689 --> 01:53:31,800

those C bolts that will allow them to

1014

01:53:45,010 --> 01:53:35,699

move and relocate the irosa to the 1B

1015

01:53:45,020 --> 01:53:49,420

I'm laughing out

1016

01:53:53,330 --> 01:53:50,750

[Applause]

1017

01:53:57,530 --> 01:53:53,340

I told you that was uh exactly uh one

1018

01:54:04,910 --> 01:53:57,540

meter uh our buddy that's perfect could

1019

01:54:12,050 --> 01:54:07,550

can you call me 20 centimeters body down

1020

01:54:20,450 --> 01:54:15,350

precautions good motion tend to go

1021

01:54:26,270 --> 01:54:23,090

finally that is 20 centimeters body down

1022

01:54:32,470 --> 01:54:26,280

okay GCA complete

1023

01:54:42,590 --> 01:54:36,229

Woody will go for tethering

1024

01:54:48,709 --> 01:54:44,510

honey I've got some checks to redo and

1025

01:55:01,870 --> 01:54:48,719

you'd like copy standby one woody

1026  
01:55:07,550 --> 01:55:05,030  
Steve yeah their safety tether is around

1027  
01:55:11,689 --> 01:55:07,560  
your left leg

1028  
01:55:15,350 --> 01:55:13,669  
if you roll toward me I can probably fix

1029  
01:55:18,410 --> 01:55:15,360  
it if you'd like all right I can do that

1030  
01:55:19,910 --> 01:55:18,420  
yep that's a good direction

1031  
01:55:22,250 --> 01:55:19,920  
that's really nice

1032  
01:55:27,950 --> 01:55:22,260  
I know

1033  
01:55:31,669 --> 01:55:30,169  
okay it's looking good thank you

1034  
01:55:36,290 --> 01:55:31,679  
absolutely

1035  
01:55:43,490 --> 01:55:39,229  
all right we have uh Steve you've

1036  
01:55:48,350 --> 01:55:46,609  
skip on me I've got to get these gloves

1037  
01:55:50,330 --> 01:55:48,360  
and Good Hat check

1038  
01:55:53,510 --> 01:55:50,340

and

1039

01:55:55,729 --> 01:55:53,520

become ready we're set up for sea level

1040

01:55:57,229 --> 01:55:55,739

copy dry hopping good gloves and we

1041

01:56:02,030 --> 01:55:57,239

concur that's your next step you can

1042

01:56:05,750 --> 01:56:03,470

oh

1043

01:56:08,030 --> 01:56:05,760

at this point caution and warnings for

1044

01:56:10,310 --> 01:56:08,040

both of you prior to releasing our Rosa

1045

01:56:12,649 --> 01:56:10,320

ensure the FSC is not moving

1046

01:56:15,109 --> 01:56:12,659

Steve remains still during our Rosa

1047

01:56:17,450 --> 01:56:15,119

release don't put your fingers and we're

1048

01:56:20,030 --> 01:56:17,460

seeing a helmet cam view from helmet cam

1049

01:56:31,430 --> 01:56:20,040

number 20 that's being worn by Stephen

1050

01:56:37,189 --> 01:56:33,830

Woody we have 16 minutes until

1051  
01:56:40,910 --> 01:56:37,199  
insulation ensure your cooling visor and

1052  
01:56:45,830 --> 01:56:43,430  
advisor down PCB four glove heaters on

1053  
01:56:48,470 --> 01:56:45,840  
and my heels are secure in the boot

1054  
01:56:49,189 --> 01:56:48,480  
plate ingrate tools inside there's all

1055  
01:56:53,149 --> 01:56:49,199  
clear

1056  
01:56:57,290 --> 01:56:55,310  
Outlets are down

1057  
01:57:01,189 --> 01:56:57,300  
let's do a buddy check of each other's

1058  
01:57:06,609 --> 01:57:03,830  
have a great view into Steve's helmet

1059  
01:57:11,270 --> 01:57:06,619  
and I see no signs of water

1060  
01:57:16,310 --> 01:57:13,490  
there you go Steve yeah I don't see any

1061  
01:57:21,229 --> 01:57:16,320  
signs of water okay all right at the end

1062  
01:57:24,169 --> 01:57:22,850  
hey copy those are good checks for

1063  
01:57:26,270 --> 01:57:24,179

everybody so what do you maintain

1064

01:57:28,250 --> 01:57:26,280

control of irosa well Steve releases

1065

01:57:37,550 --> 01:57:28,260

this final bolt and gives Steve the go

1066

01:57:43,669 --> 01:57:41,689

Bravo 3 counter three release C11 fully

1067

01:57:46,390 --> 01:57:43,679

this will be an additional 24 to 26

1068

01:57:53,950 --> 01:57:48,890

all right

1069

01:58:01,129 --> 01:57:57,830

check as the duo moved on we hear Steven

1070

01:58:04,850 --> 01:58:01,139

Bowen is going to be releasing the final

1071

01:58:07,010 --> 01:58:04,860

portion of that C11 bolt again once this

1072

01:58:09,169 --> 01:58:07,020

is released Woody hillberg and Steve

1073

01:58:12,830 --> 01:58:09,179

bull will be releasing a lower in the

1074

01:58:18,970 --> 01:58:12,840

irosa preparing it to relocate it to the

1075

01:58:24,470 --> 01:58:22,669

that was 27 turns nice

1076  
01:58:27,350 --> 01:58:24,480  
exactly

1077  
01:58:33,709 --> 01:58:27,360  
here they're not accounts

1078  
01:58:38,510 --> 01:58:35,950  
I saw the movement there

1079  
01:58:40,729 --> 01:58:38,520  
yeah it definitely feels I'm trying to

1080  
01:58:42,950 --> 01:58:40,739  
keep on the pins this time

1081  
01:58:45,890 --> 01:58:42,960  
I can tell it's released all right let

1082  
01:58:48,169 --> 01:58:45,900  
me get a scoop in there sounds good good

1083  
01:58:55,490 --> 01:58:48,179  
weights

1084  
01:58:55,500 --> 01:59:01,790  
hurt

1085  
01:59:01,800 --> 01:59:24,440  
foreign

1086  
01:59:24,450 --> 02:00:03,770  
[Music]

1087  
02:00:03,780 --> 02:00:19,189  
together

1088  
02:00:23,089 --> 02:00:21,169

okay I'm at the pastor Charlie with a

1089

02:00:26,089 --> 02:00:23,099

good view

1090

02:00:27,830 --> 02:00:26,099

copy with that Woody if you've not

1091

02:00:29,810 --> 02:00:27,840

already done so you can slide our Rosa

1092

02:00:36,470 --> 02:00:29,820

away from you to release it from the FSC

1093

02:00:41,930 --> 02:00:38,930

Steve you can work with Sultan and Frank

1094

02:00:45,589 --> 02:00:41,940

to maneuver irosa clear of that grapple

1095

02:00:49,310 --> 02:00:46,629

okay

1096

02:00:51,470 --> 02:00:49,320

I'm ready for you to take that Rosa to

1097

02:00:58,870 --> 02:00:51,480

the back off position I will give you

1098

02:01:04,729 --> 02:01:02,689

removal position and for you guys it's

1099

02:01:07,550 --> 02:01:04,739

going to be a buddy down for Woody

1100

02:01:09,050 --> 02:01:07,560

expecting uh four and a half meters

1101  
02:01:15,109 --> 02:01:09,060  
ready

1102  
02:01:15,119 --> 02:01:22,250  
third person copy good motion

1103  
02:01:22,260 --> 02:01:35,089  
copy and continuing

1104  
02:01:49,970 --> 02:01:38,629  
you're close to the power continue

1105  
02:02:06,070 --> 02:01:54,109  
the corner of colorful Tower advised

1106  
02:02:13,490 --> 02:02:09,649  
and we currently have a great view where

1107  
02:02:16,430 --> 02:02:13,500  
that's astronaut Woody hoberg has a hold

1108  
02:02:19,010 --> 02:02:16,440  
of the irosa it has been successfully

1109  
02:02:27,410 --> 02:02:19,020  
removed from that FSE that Flight

1110  
02:02:31,790 --> 02:02:29,689  
Houston copies that we are clear of the

1111  
02:02:33,830 --> 02:02:31,800  
grapple Tower including the pin this is

1112  
02:02:36,350 --> 02:02:33,840  
now a GC to a published position I'm

1113  
02:02:40,609 --> 02:02:36,360

resuming come with Steve Steve your next

1114

02:02:46,850 --> 02:02:43,189

that spark and flop to the two inch

1115

02:02:49,370 --> 02:02:46,860

fixed 5 8 correct a firm will Stow the 5

1116

02:02:53,410 --> 02:02:49,380

8 12 inch on the socket caddy and put

1117

02:02:53,420 --> 02:03:26,530

all right that didn't work

1118

02:03:31,129 --> 02:03:28,609

and again if you're just joining us

1119

02:03:36,050 --> 02:03:31,139

we're doing live coverage of the 265th

1120

02:03:36,060 --> 02:03:39,770

the spacewalk is

1121

02:03:45,530 --> 02:03:42,229

primary goals is to

1122

02:03:48,950 --> 02:03:45,540

install the irosa we currently see

1123

02:03:51,169 --> 02:03:48,960

that's astronaut Woody hoberg holding

1124

02:03:53,390 --> 02:03:51,179

the irosa in hand

1125

02:04:19,550 --> 02:03:53,400

as he's attached to the end of the Canon

1126

02:04:19,560 --> 02:04:56,209

full test 12 inches of socket caddy

1127

02:05:02,270 --> 02:04:59,149

good pull the bridge to the side to the

1128

02:05:21,550 --> 02:05:04,669

you could pull test on inch on your pgg

1129

02:05:27,550 --> 02:05:24,350

well we have NASA not woody hoberg

1130

02:05:33,109 --> 02:05:27,560

holding the irosa Stephen Bowe and NASA

1131

02:05:35,270 --> 02:05:33,119

is currently working to do a socket swap

1132

02:05:36,169 --> 02:05:35,280

he's still working at that FSC or that

1133

02:05:40,129 --> 02:05:36,179

flight

1134

02:05:44,390 --> 02:05:42,229

another successful socket swap he's

1135

02:05:46,790 --> 02:05:44,400

going to stowed that pistol grip tool or

1136

02:05:48,649 --> 02:05:46,800

that space drill

1137

02:05:51,649 --> 02:05:48,659

he's gonna put it away in his crew lock

1138

02:05:57,430 --> 02:05:54,649

and then the duo are gonna start trying

1139

02:06:00,950 --> 02:05:57,440

to relocate that irosa

1140

02:06:03,229 --> 02:06:00,960

copy we will have you clean up crew lock

1141

02:06:05,990 --> 02:06:03,239

bag T that means throwing the socket

1142

02:06:08,089 --> 02:06:06,000

caddy and all external rets

1143

02:06:09,530 --> 02:06:08,099

throwing them internally and then you

1144

02:06:13,070 --> 02:06:09,540

can button it up with the door the doors

1145

02:06:13,080 --> 02:06:24,169

all right nothing worked

1146

02:06:29,030 --> 02:06:26,510

and with the uh we're ready for the IRS

1147

02:06:30,530 --> 02:06:29,040

uh your journalcast okay hold on I'm

1148

02:06:33,830 --> 02:06:30,540

ready to yell

1149

02:06:35,270 --> 02:06:33,840

okay remember to uh your arrowser right

1150

02:06:42,649 --> 02:06:35,280

and three

1151

02:06:42,659 --> 02:07:33,530

promotion copy good motion

1152

02:07:39,910 --> 02:07:35,330

okay

1153

02:07:43,129 --> 02:07:39,920

I have only a adjustable on the outside

1154

02:08:21,790 --> 02:07:43,139

of two lower back teeth

1155

02:08:21,800 --> 02:08:28,149

[Music]

1156

02:08:32,209 --> 02:08:30,470

you'll be translating to the Port City

1157

02:08:36,709 --> 02:08:32,219

cart will have you retrieve your green

1158

02:09:03,350 --> 02:08:39,649

understand my green hook first good

1159

02:09:03,360 --> 02:09:54,060

foreign

1160

02:09:54,070 --> 02:10:03,410

[Applause]

1161

02:10:08,990 --> 02:10:06,530

Woody or excuse me Steve Woody's tether

1162

02:10:16,510 --> 02:10:09,000

is on the

1163

02:10:22,669 --> 02:10:19,790

hello thank you

1164

02:10:26,089 --> 02:10:22,679

and for both of you we are approximately

1165

02:10:28,729 --> 02:10:26,099

one hour into this Eva

1166

02:10:30,830 --> 02:10:28,739

total Eva times looking like seven hours

1167

02:10:33,290 --> 02:10:30,840

and 30 minutes with the limiting

1168

02:10:41,570 --> 02:10:33,300

consumable being Woody's battery you are

1169

02:10:46,729 --> 02:10:44,209

appreciate the update

1170

02:10:48,169 --> 02:10:46,739

today we are ready for the metal work

1171

02:10:51,109 --> 02:10:48,179

today handle of intermediate position

1172

02:10:53,810 --> 02:10:51,119

and just a reminder uh this motion will

1173

02:10:57,129 --> 02:10:53,820

take you body and Then followed by body

1174

02:11:07,970 --> 02:11:00,410

and starting motion

1175

02:11:14,330 --> 02:11:09,850

third motion

1176

02:11:18,890 --> 02:11:16,669

Steve we see you at Woody's green hook

1177

02:11:22,189 --> 02:11:18,900

we recommend that you Stow this on your

1178

02:11:29,890 --> 02:11:26,649

showing on my right wasting

1179

02:11:32,530 --> 02:11:29,900

we have Steve and Woody

1180

02:11:35,390 --> 02:11:32,540

we currently see NASA astronaut Steve

1181

02:11:37,729 --> 02:11:35,400

Bowen and Woody hoberg have released the

1182

02:11:40,129 --> 02:11:37,739

irosa out of the FSC or that Flight

1183

02:11:41,810 --> 02:11:40,139

Support equipment and Woody hillberg is

1184

02:11:47,089 --> 02:11:41,820

currently in movement toward that

1185

02:11:48,950 --> 02:11:47,099

starboard trust S6 where he will meet up

1186

02:11:51,649 --> 02:11:48,960

with Stephen Bowen where they will

1187

02:11:59,810 --> 02:11:51,659

install that irosa for that 1B power

1188

02:12:06,830 --> 02:12:04,850

all right I have 43 hooks my right waist

1189

02:12:11,750 --> 02:12:06,840

tether

1190

02:12:15,709 --> 02:12:14,330

I'm watching us at 10. currently seeing

1191

02:12:18,530 --> 02:12:15,719

a hill make him through from Stephen

1192

02:12:20,810 --> 02:12:18,540

Bowen who'd be in who is also starting

1193

02:12:25,370 --> 02:12:20,820

his translation over to that S6 or

1194

02:12:25,380 --> 02:12:33,290

copy confirmed the Reel is unlocked

1195

02:12:38,570 --> 02:12:36,530

and what is real is unlocked

1196

02:12:46,189 --> 02:12:38,580

actually my view is unlocked what is

1197

02:12:46,199 --> 02:12:49,669

pending hold on

1198

02:12:49,679 --> 02:12:53,209

talking about viewing

1199

02:12:53,219 --> 02:12:58,609

that's what I'm seeing

1200

02:13:04,790 --> 02:13:01,490

all right so

1201

02:13:06,709 --> 02:13:04,800

just run down he's up

1202

02:13:10,850 --> 02:13:06,719

all right ready

1203

02:13:12,530 --> 02:13:10,860

copy you'll be translating outboard uh

1204

02:13:15,770 --> 02:13:12,540

we need to check that your gauntlets are

1205

02:13:19,430 --> 02:13:17,750

all right God what's wrong cool stars

1206

02:13:21,830 --> 02:13:19,440

are down

1207

02:13:24,350 --> 02:13:21,840

Kentucky ensure tethers don't cross and

1208

02:13:26,810 --> 02:13:24,360

you're headed to S5 to drop Woody's

1209

02:13:29,689 --> 02:13:26,820

green hook I'll have a handrail for you

1210

02:13:29,699 --> 02:13:50,330

all right let me get on my way out there

1211

02:13:50,340 --> 02:15:02,280

foreign

1212

02:15:02,290 --> 02:15:05,470

[Music]

1213

02:15:05,480 --> 02:15:11,629

copy Steve

1214

02:15:17,089 --> 02:15:13,970

and with you we are ready and just a

1215

02:15:18,609 --> 02:15:17,099

reminder to roll I was uh left copy

1216

02:15:22,669 --> 02:15:18,619

Roblox you go

1217

02:15:29,689 --> 02:15:22,679

see then starting motion and three two

1218

02:15:29,699 --> 02:15:51,189

motion

1219

02:15:55,569 --> 02:15:53,689

currently seeing live views outside the

1220

02:16:00,850 --> 02:15:55,579

International Space Station during the

1221

02:16:08,149 --> 02:16:04,370

Woody Hobart and Stephen Bowen have the

1222

02:16:14,030 --> 02:16:11,330

in Translation to the S6 or starboard

1223

02:16:19,729 --> 02:16:14,040

trust six location for that 1B power

1224

02:16:19,739 --> 02:16:29,510

foreign

1225

02:16:29,520 --> 02:16:33,169

too

1226

02:16:38,270 --> 02:16:35,629

he's locked in with that articulating

1227

02:16:41,450 --> 02:16:38,280

portable foot restraint

1228

02:16:43,849 --> 02:16:41,460

and when you see Stephen Bowen

1229

02:16:45,410 --> 02:16:43,859

translating or moving towards that same

1230

02:16:50,030 --> 02:16:45,420

area

1231

02:16:52,610 --> 02:16:50,040

again that worksite will be the 6s Truss

1232

02:16:54,709 --> 02:16:52,620

that's that starboard six Truss

1233

02:17:07,370 --> 02:16:54,719

where they'll be working to install that

1234

02:17:07,380 --> 02:17:15,310

thank you

1235

02:17:15,320 --> 02:17:33,830

20 seconds to a short Handover

1236

02:18:14,410 --> 02:17:37,129

I I have Woody

1237

02:18:18,889 --> 02:18:16,370

you are ready for the hand of

1238

02:18:21,650 --> 02:18:18,899

intermediate to join our cash and we're

1239

02:18:26,509 --> 02:18:21,660

expecting four minutes copy Photon I'm

1240

02:18:32,750 --> 02:18:29,030

Houston's back with you be this

1241

02:18:47,169 --> 02:18:34,490

I want you this much man it's gonna make

1242

02:18:53,389 --> 02:18:49,310

is that correct

1243

02:18:56,810 --> 02:18:53,399

a firm and we have you that you have

1244

02:18:58,490 --> 02:18:56,820

Woody's green hook down on two one four

1245

02:19:01,669 --> 02:18:58,500

zero I just need to check that his green

1246

02:19:04,610 --> 02:19:03,709

and the green reel was unlocked that is

1247

02:19:07,750 --> 02:19:04,620

correct

1248

02:19:12,469 --> 02:19:07,760

okay then A-frame

1249

02:19:18,730 --> 02:19:14,570

hi Kevin my green hook ready to install

1250

02:19:23,389 --> 02:19:21,169

just over an hour and five minutes in

1251

02:19:25,969 --> 02:19:23,399

today's space walk

1252

02:19:27,830 --> 02:19:25,979

that's astronauts Woody hoberg and

1253

02:19:30,230 --> 02:19:27,840

Stephen Bowen

1254

02:19:32,929 --> 02:19:30,240

are currently heading to their next work

1255

02:19:35,389 --> 02:19:32,939

site after releasing the irosa from the

1256

02:19:42,049 --> 02:19:35,399

FSE or that flight soft support

1257

02:19:47,929 --> 02:19:44,750

copy all right and I will continue my

1258

02:19:50,349 --> 02:19:47,939

translation Stephen Bowen is translating

1259

02:19:53,650 --> 02:19:50,359

and we have Woody hoberg who'll be

1260

02:19:56,210 --> 02:19:53,660

waiting to hand off that irosa over to

1261

02:19:58,490 --> 02:19:56,220

Stephen Boeing

1262

02:20:00,889 --> 02:19:58,500

the duo will be doing a leapfrog

1263

02:20:03,950 --> 02:20:00,899

maneuver passing the irosa off until

1264

02:20:07,070 --> 02:20:03,960

they get to that starboard six truss

1265

02:20:10,070 --> 02:20:07,080

area for that 1B power upgrade

1266

02:20:12,110 --> 02:20:10,080

again this is happening because the

1267

02:20:18,290 --> 02:20:12,120

robotic arm does not reach all the way

1268

02:20:18,300 --> 02:20:22,969

zero zero eight I remember that handle

1269

02:20:28,910 --> 02:20:26,270

a frame you'll likely be uh poor men

1270

02:20:30,230 --> 02:20:28,920

fairleading your tether around it to

1271

02:20:36,230 --> 02:20:30,240

keep your tether stowed around the

1272

02:20:36,240 --> 02:20:41,510

all of your overheads

1273

02:20:46,130 --> 02:20:44,090

the new silver array

1274

02:20:47,630 --> 02:20:46,140

which was delivered to the space station

1275

02:20:51,349 --> 02:20:47,640

on the commercial resupply service

1276

02:20:53,330 --> 02:20:51,359

Mission or CRS 28 on June 5th

1277

02:20:56,510 --> 02:20:53,340

will ultimately increase the station's

1278

02:20:59,389 --> 02:20:56,520

available Power by 30 percent

1279

02:21:00,650 --> 02:20:59,399

this will be the six thyroids or third

1280

02:21:24,590 --> 02:21:00,660

pair

1281

02:21:30,889 --> 02:21:27,830

all right now I head across

1282

02:21:36,410 --> 02:21:30,899

you have half the cable back

1283

02:21:36,420 --> 02:21:40,969

hey from Steve

1284

02:21:44,389 --> 02:21:42,349

all right

1285

02:21:53,090 --> 02:21:44,399

I'm at the riffs

1286

02:21:53,100 --> 02:21:57,050

foxtrot

1287

02:22:10,510 --> 02:22:00,650

and looks like eight

1288

02:22:15,710 --> 02:22:12,889

Steve when you're ready you can Ingress

1289

02:22:17,389 --> 02:22:15,720

the apr and I have some checks for you

1290

02:22:20,150 --> 02:22:17,399

thank you

1291

02:22:28,550 --> 02:22:20,160

all right let's get uh

1292

02:22:32,929 --> 02:22:30,469

and will be our next motion is going to

1293

02:22:40,309 --> 02:22:32,939

be diversa and the back of Journal cash

1294

02:22:40,319 --> 02:22:57,349

ah

1295

02:23:30,710 --> 02:23:08,680

a

1296

02:23:34,370 --> 02:23:30,720

reminder this is going to be you uh

1297

02:23:39,650 --> 02:23:34,380

bloody right motion turn characters on

1298

02:23:42,710 --> 02:23:39,660

ready demotion in three two one

1299

02:23:42,720 --> 02:23:49,910

motion

1300

02:23:49,920 --> 02:23:55,450

foreign

1301  
02:23:59,690 --> 02:23:58,010  
in motion at the end of the Canada arm

1302  
02:24:01,670 --> 02:23:59,700  
2.

1303  
02:24:03,349 --> 02:24:01,680  
he's been flown

1304  
02:24:08,270 --> 02:24:03,359  
from the inside of an inertial space

1305  
02:24:09,830 --> 02:24:08,280  
station by UAE astronaut Satan Anaya

1306  
02:24:13,969 --> 02:24:09,840  
and again

1307  
02:24:15,830 --> 02:24:13,979  
Woody hoberg is being brought over to

1308  
02:24:18,530 --> 02:24:15,840  
meet where

1309  
02:24:21,170 --> 02:24:18,540  
Stephen Boeing is currently stationed

1310  
02:24:47,230 --> 02:24:21,180  
he's gonna hand off

1311  
02:24:52,250 --> 02:24:50,450  
dude can you see I wrestler I can good

1312  
02:24:55,070 --> 02:24:52,260  
experience

1313  
02:24:57,710 --> 02:24:55,080

I'll just take it my foot in

1314

02:24:59,270 --> 02:24:57,720

there's some difficulty let me know if

1315

02:25:01,969 --> 02:24:59,280

we need to pause

1316

02:25:12,110 --> 02:25:01,979

all right hold up are you guys looking

1317

02:25:12,120 --> 02:25:15,889

and we are in position hold

1318

02:25:15,899 --> 02:25:22,910

yourself

1319

02:25:28,010 --> 02:25:25,130

copy Steve take your time for everyone's

1320

02:25:30,170 --> 02:25:28,020

awareness uh we just need our checks

1321

02:25:32,630 --> 02:25:30,180

once you're in the apfr Steve so we will

1322

02:25:43,270 --> 02:25:32,640

hold on the final manual maneuver for

1323

02:25:48,349 --> 02:25:45,650

right foot I'm not sure if it fits the

1324

02:25:59,330 --> 02:25:51,070

choreographer

1325

02:26:08,750 --> 02:26:02,389

sure looks like

1326

02:26:15,730 --> 02:26:10,309

let's try this again see what I'm doing

1327

02:26:20,150 --> 02:26:18,230

and we're currently getting a helmet cam

1328

02:26:21,950 --> 02:26:20,160

view from Woody hoberg

1329

02:26:26,030 --> 02:26:21,960

ev1

1330

02:26:28,370 --> 02:26:26,040

again we see him with the Arosa in hand

1331

02:26:30,650 --> 02:26:28,380

he is preparing to pass that off to

1332

02:26:37,010 --> 02:26:30,660

Stephen Bowen

1333

02:26:39,610 --> 02:26:37,020

he is going into his Arctic articulating

1334

02:26:43,070 --> 02:26:39,620

portable foot restraint

1335

02:26:44,929 --> 02:26:43,080

and we have switch views

1336

02:26:46,429 --> 02:26:44,939

and now have the helmet cam of Stephen

1337

02:26:49,309 --> 02:26:46,439

Bowen

1338

02:26:52,130 --> 02:26:49,319

looking out as he sees Woody hoberg

1339

02:26:55,010 --> 02:26:52,140

holding the irosa

1340

02:27:05,150 --> 02:26:55,020

again we tell that that Twitty Hobart by

1341

02:27:10,130 --> 02:27:07,670

our checks are to ensure your cooling

1342

02:27:16,849 --> 02:27:10,140

visor and glove heaters are set we have

1343

02:27:22,190 --> 02:27:20,510

or cool advisor and collectors are set

1344

02:27:27,650 --> 02:27:22,200

good hats

1345

02:27:33,170 --> 02:27:30,469

some smudge on there

1346

02:27:35,870 --> 02:27:33,180

copy let's ensure your gauntlets are

1347

02:27:41,210 --> 02:27:39,349

on YouTube

1348

02:27:53,690 --> 02:27:41,220

tools and tethers are clear and your

1349

02:27:58,790 --> 02:27:55,969

looks good thank you roll that in a

1350

02:28:02,450 --> 02:27:58,800

little bit nope

1351

02:28:02,460 --> 02:28:08,330

and finally put it away

1352

02:28:13,190 --> 02:28:10,070

finally Steve ensure your heels are

1353

02:28:13,200 --> 02:28:18,590

my fields are secure in the apfr

1354

02:28:21,730 --> 02:28:20,210

it definitely feels different without a

1355

02:28:24,950 --> 02:28:21,740

BSI

1356

02:28:25,849 --> 02:28:24,960

all right good to know we copy all

1357

02:28:28,670 --> 02:28:25,859

um

1358

02:28:31,190 --> 02:28:28,680

when you are ready you both can give

1359

02:28:33,770 --> 02:28:31,200

Sultan and Frank a go to the published

1360

02:28:36,170 --> 02:28:33,780

handoff position your first step will be

1361

02:28:38,809 --> 02:28:36,180

to perform a red swap so Steve you'll be

1362

02:28:42,849 --> 02:28:38,819

attaching a rat to the irosa root beam

1363

02:28:42,859 --> 02:28:46,849

for GPS

1364

02:28:51,349 --> 02:28:49,309

and we are ready guys for the GCC that

1365

02:28:54,889 --> 02:28:51,359

published I was a hand-up position we're

1366

02:28:57,290 --> 02:28:54,899

expecting 75 centimeters body and from

1367

02:29:01,070 --> 02:28:57,300

Woody's perspective so telling that

1368

02:29:08,570 --> 02:29:02,990

without emotion and three

1369

02:29:13,010 --> 02:29:10,790

good question that's a good motivate

1370

02:29:22,090 --> 02:29:13,020

motions

1371

02:29:27,050 --> 02:29:24,650

again you're seeing a helmet Camp view

1372

02:29:31,250 --> 02:29:27,060

from that's astronaut Stephen Bowen we

1373

02:29:34,730 --> 02:29:31,260

see those iroses getting closer to him

1374

02:29:36,410 --> 02:29:34,740

again once given the go

1375

02:29:38,690 --> 02:29:36,420

we're gonna see

1376  
02:29:52,010 --> 02:29:38,700  
that's astronaut Woody hoberg hand off

1377  
02:30:02,110 --> 02:29:55,070  
continue

1378  
02:30:02,120 --> 02:30:06,770  
to stop motion

1379  
02:30:09,590 --> 02:30:08,690  
all right let me stabilize this out

1380  
02:30:13,070 --> 02:30:09,600  
ready

1381  
02:30:14,809 --> 02:30:13,080  
you got it Steve uh okay do you have the

1382  
02:30:16,550 --> 02:30:14,819  
irosa

1383  
02:30:19,130 --> 02:30:16,560  
let me know when you want me to

1384  
02:30:21,170 --> 02:30:19,140  
disconnect my rack all I read the text I

1385  
02:30:25,610 --> 02:30:21,180  
can see it it looks good ready for you

1386  
02:30:31,870 --> 02:30:27,410  
Cuban what you can record that you see a

1387  
02:30:39,469 --> 02:30:36,230  
in hand and Woody hoberg is going to be

1388  
02:30:41,389 --> 02:30:39,479

detaching his retractable

1389

02:30:42,710 --> 02:30:41,399

he's going to be retracting his

1390

02:30:45,710 --> 02:30:42,720

equipment tether

1391

02:30:48,349 --> 02:30:45,720

from that irosa and Houston copies all

1392

02:30:54,050 --> 02:30:48,359

copy a good red swap we concur next is

1393

02:31:00,110 --> 02:30:56,450

and we now have a view from Woody

1394

02:31:02,330 --> 02:31:00,120

hoberg's helmet cam that hecka

1395

02:31:04,429 --> 02:31:02,340

high definition cam where he is now

1396

02:31:06,590 --> 02:31:04,439

looking over with

1397

02:31:08,870 --> 02:31:06,600

looking over at Nasa astronaut Stephen

1398

02:31:12,170 --> 02:31:08,880

Bowen as he now has the Arosa in hand

1399

02:31:15,110 --> 02:31:12,180

and I see Woody with a camera in hand

1400

02:31:32,030 --> 02:31:15,120

ready to take a couple photos

1401  
02:31:36,170 --> 02:31:33,889  
and when you're ready Woody I'm ready

1402  
02:31:38,929 --> 02:31:36,180  
for God right so this is going to be

1403  
02:31:41,870 --> 02:31:38,939  
bloody out just reverse uh the motion

1404  
02:31:42,770 --> 02:31:41,880  
that we did 60 centimeters that sounds

1405  
02:31:47,090 --> 02:31:42,780  
great

1406  
02:31:47,100 --> 02:32:04,010  
motion good motion

1407  
02:32:04,020 --> 02:32:07,730  
around hang out

1408  
02:32:12,349 --> 02:32:10,250  
the next uh is going to be the egress

1409  
02:32:30,530 --> 02:32:12,359  
back of Jordan AllCast we're expecting

1410  
02:32:30,540 --> 02:33:11,630  
thank you

1411  
02:33:19,490 --> 02:33:14,929  
and with you already when you are ready

1412  
02:33:19,500 --> 02:33:37,210  
Command Center

1413  
02:33:41,690 --> 02:33:40,190

now one hour and 19 minutes into today's

1414

02:33:45,590 --> 02:33:41,700

space walk

1415

02:33:49,010 --> 02:33:45,600

we have a few Milestones to recap

1416

02:33:51,170 --> 02:33:49,020

the duo exited the hatch with the

1417

02:33:54,469 --> 02:33:51,180

official start time of today's Eva at 7

1418

02:33:58,010 --> 02:33:54,479

42 a.m Central Time Duo then went over

1419

02:34:00,830 --> 02:33:58,020

translated by the canadarm 2 Woody

1420

02:34:04,610 --> 02:34:00,840

hoberg meant Stephen Bowen over at the

1421

02:34:07,490 --> 02:34:04,620

FSE where they released the irosa from

1422

02:34:11,809 --> 02:34:07,500

the pallet that held it the duo then

1423

02:34:17,150 --> 02:34:14,450

furthest point where the Canada arm

1424

02:34:19,550 --> 02:34:17,160

could reach

1425

02:34:23,270 --> 02:34:19,560

wood Woody hoberg has just handed off

1426  
02:34:25,790 --> 02:34:23,280  
the irosa to Stephen Bowen this will

1427  
02:34:29,750 --> 02:34:25,800  
continue a leapfrog maneuver where the

1428  
02:34:34,130 --> 02:34:29,760  
duo hands off the Arosa to each other

1429  
02:35:00,110 --> 02:34:34,140  
moving it down the S6 the S6

1430  
02:35:00,120 --> 02:35:07,610  
uh

1431  
02:35:07,620 --> 02:35:47,809  
foreign

1432  
02:36:14,110 --> 02:35:54,650  
motion

1433  
02:36:19,910 --> 02:36:16,849  
and again you're seeing helmet cam views

1434  
02:36:22,790 --> 02:36:19,920  
from Woody hoberg again attached to the

1435  
02:36:25,309 --> 02:36:22,800  
end effector of the Canada arm 2 where

1436  
02:36:27,230 --> 02:36:25,319  
he has situated himself

1437  
02:36:28,429 --> 02:36:27,240  
on an articulating portable foot

1438  
02:36:31,250 --> 02:36:28,439

restraint

1439

02:36:32,750 --> 02:36:31,260

he is being moved by Sultan anayati

1440

02:36:40,370 --> 02:36:32,760

who's inside the International Space

1441

02:36:45,410 --> 02:36:42,230

fan bricks on

1442

02:36:48,889 --> 02:36:45,420

your go for API fibers happy girl thanks

1443

02:36:51,469 --> 02:36:48,899

so far Houston copies

1444

02:36:54,950 --> 02:36:51,479

just moved into position and given the

1445

02:36:56,990 --> 02:36:54,960

go Woody Hobart will egress that APR FR

1446

02:37:00,050 --> 02:36:57,000

that uh articulating portable foot

1447

02:37:00,060 --> 02:37:07,090

it's clear

1448

02:37:12,050 --> 02:37:10,190

Woody we need you to Stow the apfr

1449

02:37:14,150 --> 02:37:12,060

Ingress Aid to the boot plate and then

1450

02:37:17,210 --> 02:37:14,160

GCA if you need to to perform your

1451  
02:37:22,630 --> 02:37:20,210  
yeah copy that jams

1452  
02:37:25,429 --> 02:37:22,640  
hit the uh

1453  
02:37:34,210 --> 02:37:25,439  
invested in just a moment

1454  
02:37:34,220 --> 02:38:07,990  
shorthand over

1455  
02:38:13,490 --> 02:38:10,429  
and if you're just joining us we had a

1456  
02:38:18,710 --> 02:38:13,500  
brief Handover between satellites but

1457  
02:38:25,550 --> 02:38:21,950  
for ISS upgrades maintenance and

1458  
02:38:29,870 --> 02:38:27,710  
in the middle of your screen you see ev1

1459  
02:38:41,590 --> 02:38:29,880  
designated with red stripes that's

1460  
02:38:46,969 --> 02:38:44,230  
he just egressed the articulating

1461  
02:38:50,330 --> 02:38:46,979  
portable foot restraint that's on the

1462  
02:38:52,490 --> 02:38:50,340  
end of the Canon arm too

1463  
02:38:56,450 --> 02:38:52,500

he'll be meeting up with Nessa Stephen

1464

02:38:58,790 --> 02:38:56,460

Bowen Who currently has the irosa

1465

02:39:00,230 --> 02:38:58,800

again the duo will be passing off the

1466

02:39:02,090 --> 02:39:00,240

irosa

1467

02:39:05,929 --> 02:39:02,100

from each other

1468

02:39:08,510 --> 02:39:05,939

to the other until they reach the S6 or

1469

02:39:34,910 --> 02:39:08,520

starboard 6 truss where they'll be

1470

02:39:34,920 --> 02:40:11,889

together

1471

02:40:17,270 --> 02:40:15,050

call we break that

1472

02:40:18,830 --> 02:40:17,280

yep I've got my Greenhouse down gate

1473

02:40:20,450 --> 02:40:18,840

clothes locked unlocked

1474

02:40:22,250 --> 02:40:20,460

construction vehicles block background

1475

02:40:25,010 --> 02:40:22,260

black to my red reel

1476

02:40:30,230 --> 02:40:25,020

picking up my yellow hook

1477

02:40:37,190 --> 02:40:33,050

great clothes Locker block to Green rail

1478

02:40:42,349 --> 02:40:39,590

that completes a good Southern path good

1479

02:40:47,030 --> 02:40:44,809

fake breakfast

1480

02:40:48,469 --> 02:40:47,040

we need that Ingress Aid stowed to the

1481

02:40:53,750 --> 02:40:48,479

boot plate and then you'll be putting

1482

02:40:53,760 --> 02:41:24,830

yep

1483

02:41:24,840 --> 02:41:38,870

foreign

1484

02:41:38,880 --> 02:41:41,990

correct

1485

02:41:42,000 --> 02:41:46,370

hey firm

1486

02:41:46,380 --> 02:41:56,690

meet your house

1487

02:41:56,700 --> 02:42:01,610

Greenhouse down Green rails unlocked

1488

02:42:01,620 --> 02:42:05,630

coffee it can take

1489

02:42:16,730 --> 02:42:08,270

what do you can give Franken Sultan a go

1490

02:42:21,050 --> 02:42:19,190

all right Frank Sultan you guys would go

1491

02:42:31,670 --> 02:42:21,060

search us back off thanks for all your

1492

02:42:36,530 --> 02:42:34,130

Woody you'll translate to Steve's boot

1493

02:42:38,270 --> 02:42:36,540

plate use caution next to the radiator

1494

02:42:43,870 --> 02:42:38,280

it will be on your right once you're at

1495

02:42:51,889 --> 02:42:46,070

on it

1496

02:42:56,690 --> 02:42:54,530

after reconfiguring some tethers Woody

1497

02:42:58,010 --> 02:42:56,700

hoberg is now attached back to the

1498

02:43:01,550 --> 02:42:58,020

International Space Station We Begin

1499

02:43:04,429 --> 02:43:01,560

translating to Stephen Bowen

1500

02:43:06,530 --> 02:43:04,439

he gave the AOK for sultan adiyadi who's

1501  
02:43:08,690 --> 02:43:06,540  
controlling the Canon arm to from inside

1502  
02:43:10,230 --> 02:43:08,700  
the International Space Station to do a

1503  
02:43:14,630 --> 02:43:10,240  
back off maneuver

1504  
02:43:24,590 --> 02:43:16,309  
by Rosa

1505  
02:43:24,600 --> 02:43:39,050  
thank you

1506  
02:43:43,790 --> 02:43:41,030  
all right Steve

1507  
02:43:46,370 --> 02:43:43,800  
I'm ready I've got the yard pedal or

1508  
02:43:49,610 --> 02:43:46,380  
this is going to be a yaw to your left

1509  
02:43:52,490 --> 02:43:49,620  
right and I'll give you a countdown I'll

1510  
02:43:54,849 --> 02:43:52,500  
do depressing the yaw don't say I can

1511  
02:43:58,250 --> 02:43:54,859  
get our rest started

1512  
02:43:58,870 --> 02:43:58,260  
I'm ready you're ready three

1513  
02:44:06,950 --> 02:43:58,880

two

1514

02:44:16,070 --> 02:44:09,349

you on Steve feels nice and smooth

1515

02:44:22,010 --> 02:44:18,170

currently with a helmet cam view from

1516

02:44:23,510 --> 02:44:22,020

Woody hoberg we see Stephen bowling in

1517

02:44:25,010 --> 02:44:23,520

that articulating portable foot

1518

02:44:27,770 --> 02:44:25,020

restraint

1519

02:44:30,710 --> 02:44:27,780

where he's been manually turned by Woody

1520

02:44:36,349 --> 02:44:32,410

very nice

1521

02:44:40,550 --> 02:44:36,359

again with the arrows in hand

1522

02:44:42,950 --> 02:44:40,560

the duo will do a leapfrog maneuver once

1523

02:44:45,469 --> 02:44:42,960

Stephen Bowen is in place

1524

02:44:49,130 --> 02:44:45,479

Woody will translate to the right

1525

02:44:51,889 --> 02:44:49,140

location and take control of the irosa

1526

02:44:55,730 --> 02:44:51,899

and the duo will do this a few times as

1527

02:45:00,290 --> 02:44:55,740

the irosa and the crew head towards the

1528

02:45:02,630 --> 02:45:00,300

starboard six or S6 trust where they'll

1529

02:45:06,110 --> 02:45:02,640

be installing the irosa for the 1B power

1530

02:45:06,120 --> 02:45:21,349

you getting close

1531

02:45:27,110 --> 02:45:23,150

should be pretty close

1532

02:45:29,210 --> 02:45:27,120

yeah speed that's a yaw of three uh she

1533

02:45:31,429 --> 02:45:29,220

to me that looks good compared to a yard

1534

02:45:33,469 --> 02:45:31,439

too I'll take it it looks good looks

1535

02:45:34,370 --> 02:45:33,479

like you'll have room over there yeah

1536

02:45:38,510 --> 02:45:34,380

okay

1537

02:45:43,429 --> 02:45:38,520

great your back locked in thank you yep

1538

02:45:50,450 --> 02:45:46,969

we copy we are at a yaw of three

1539

02:45:52,849 --> 02:45:50,460

what do we need to to ensure that

1540

02:45:59,330 --> 02:45:52,859

Steve

1541

02:46:01,849 --> 02:45:59,340

for his eventual apfr egress and we also

1542

02:46:04,670 --> 02:46:01,859

need you to poor men's fairlead your

1543

02:46:08,150 --> 02:46:04,680

tether such that it's under the apfr so

1544

02:46:13,309 --> 02:46:10,790

hey yep Steve Tyler

1545

02:46:16,370 --> 02:46:13,319

is looking great it's headed uh directly

1546

02:46:17,210 --> 02:46:16,380

stationed perfectly and my tether will

1547

02:46:19,849 --> 02:46:17,220

be

1548

02:46:21,230 --> 02:46:19,859

meanest of that

1549

02:46:25,190 --> 02:46:21,240

and

1550

02:46:27,950 --> 02:46:25,200

they're LED under the apfr

1551

02:46:30,170 --> 02:46:27,960

happy like Jenny said

1552

02:46:34,370 --> 02:46:30,180

great job both of you Woody translate

1553

02:46:38,630 --> 02:46:34,380

outboard we want you at the

1554

02:46:40,790 --> 02:46:38,640

uh at handrail 2060

1555

02:46:43,429 --> 02:46:40,800

and you will be placing a rich man's

1556

02:46:46,610 --> 02:46:43,439

fair lead on the mod kit right lower

1557

02:46:52,809 --> 02:46:46,620

strut handrail or on F6 we just need it

1558

02:46:59,630 --> 02:46:57,590

okay2060 for the fair lead four on

1559

02:47:01,969 --> 02:46:59,640

the market

1560

02:47:04,490 --> 02:47:01,979

yes sir and this is a rich man's fair

1561

02:47:04,500 --> 02:47:32,650

okay

1562

02:47:32,660 --> 02:47:36,950

2060 is acceptable

1563

02:47:40,849 --> 02:47:38,870

acceptable

1564

02:47:42,889 --> 02:47:40,859

for both of your awareness you are still

1565

02:47:45,710 --> 02:47:42,899

doing great on the timeline we're about

1566

02:47:48,110 --> 02:47:45,720

20 minutes away from a eclipse that is

1567

02:47:51,590 --> 02:47:48,120

not our working eclipse so we are not

1568

02:47:51,600 --> 02:48:33,530

coffee thanks pams

1569

02:48:37,670 --> 02:48:35,690

all right fairies down on two zero six

1570

02:48:40,670 --> 02:48:37,680

zero

1571

02:48:43,010 --> 02:48:40,680

a fairly 2060

1572

02:48:45,469 --> 02:48:43,020

you'll next want to verify your apsr

1573

02:48:45,479 --> 02:48:51,170

I see a clocking six

1574

02:48:55,010 --> 02:48:52,730

Buffy

1575

02:48:58,849 --> 02:48:55,020

I believe we want foxtrot

1576

02:48:58,859 --> 02:49:06,950

okay moving to Fox

1577

02:49:06,960 --> 02:49:10,190

roll a fox that

1578

02:49:17,570 --> 02:49:12,950

lady jaw is cute

1579

02:49:17,580 --> 02:49:25,370

happy thanks Jimmy

1580

02:49:25,380 --> 02:49:29,270

thank you Steve

1581

02:49:34,309 --> 02:49:30,590

I don't know if you need more room with

1582

02:49:34,319 --> 02:49:37,190

to these kids

1583

02:49:42,429 --> 02:49:39,770

after translating to the Ford Edge of

1584

02:49:45,710 --> 02:49:42,439

the S6 truss

1585

02:49:48,290 --> 02:49:45,720

Woody hoberg is now ingressing a

1586

02:49:51,710 --> 02:49:48,300

different apr well he will then take

1587

02:49:55,670 --> 02:49:51,720

control of the irosa from Stephen Bowen

1588

02:50:03,610 --> 02:49:58,670

prior to taking control of thyrosa they

1589

02:50:10,190 --> 02:50:07,250

again that Hep is that helmet absorption

1590

02:50:13,929 --> 02:50:10,200

pad and gauntlets are those coverings on

1591

02:50:17,150 --> 02:50:13,939

their arms their suits where it covers

1592

02:50:19,429 --> 02:50:17,160

their arm plate and where their hands

1593

02:50:22,070 --> 02:50:19,439

attached

1594

02:50:26,990 --> 02:50:22,080

your cooling visor and glove feeders set

1595

02:50:31,250 --> 02:50:27,710

20

1596

02:50:33,410 --> 02:50:31,260

4 visors down glove heaters on

1597

02:50:35,690 --> 02:50:33,420

and gauntlets are down

1598

02:50:39,469 --> 02:50:35,700

copy ensure tools and tethers are clear

1599

02:50:45,469 --> 02:50:41,570

those and Cutters are clear

1600

02:50:46,610 --> 02:50:45,479

everything back down to the fairleaders

1601  
02:50:51,050 --> 02:50:46,620  
clear

1602  
02:50:52,969 --> 02:50:51,060  
copy and sure heels secure in the atfr

1603  
02:50:56,450 --> 02:50:52,979  
okay secure

1604  
02:50:58,670 --> 02:50:56,460  
all right we see you have a rut on the

1605  
02:51:00,590 --> 02:50:58,680  
scoop in your right hand we also need

1606  
02:51:02,510 --> 02:51:00,600  
one on the long duration tie down

1607  
02:51:16,920 --> 02:51:02,520  
feather

1608  
02:51:16,930 --> 02:51:32,170  
[Music]

1609  
02:51:37,370 --> 02:51:34,610  
confirmation from NASA astronaut Woody

1610  
02:52:02,570 --> 02:51:37,380  
hillberg he has now taken control over

1611  
02:52:02,580 --> 02:52:19,330  
it doesn't work

1612  
02:52:26,870 --> 02:52:22,969  
Stephen will now reposition himself he

1613  
02:52:28,910 --> 02:52:26,880

will egress his APR FR Thief meaning he

1614

02:52:32,030 --> 02:52:28,920

will get out of it he will then

1615

02:52:33,410 --> 02:52:32,040

translate over to Woody and perform the

1616

02:52:35,929 --> 02:52:33,420

same task that Woody did to him

1617

02:52:38,809 --> 02:52:35,939

previously and they will hand off the

1618

02:52:42,710 --> 02:52:38,819

irosa one more time before they reach

1619

02:53:16,370 --> 02:52:42,720

the Essex truss or the work site where

1620

02:53:16,380 --> 02:53:29,330

laughs

1621

02:53:33,710 --> 02:53:31,010

all right just make sure my Cutters are

1622

02:53:36,769 --> 02:53:33,720

clearing your face each other looks

1623

02:53:40,490 --> 02:53:36,779

great on the right side Steve thank you

1624

02:53:50,630 --> 02:53:42,710

all right make your freeze very good

1625

02:53:54,170 --> 02:53:52,610

one second to get these Stone here what

1626  
02:54:25,849 --> 02:53:54,180  
are you gonna be on my way

1627  
02:54:31,070 --> 02:54:27,530  
and Jenny I actually have them to her

1628  
02:54:36,889 --> 02:54:31,080  
hand well I have to handrail number two

1629  
02:54:36,899 --> 02:54:45,290  
copy Steve

1630  
02:54:45,300 --> 02:54:50,809  
and I'm releasing my reps

1631  
02:54:50,819 --> 02:55:01,130  
foreign

1632  
02:55:12,349 --> 02:55:02,929  
good words

1633  
02:55:16,849 --> 02:55:15,110  
y was that what was that uh I wasn't

1634  
02:55:18,290 --> 02:55:16,859  
sure if you were going down to follow

1635  
02:55:20,690 --> 02:55:18,300  
your safety center or just coming direct

1636  
02:55:22,550 --> 02:55:20,700  
well coming direct okay copy Houston

1637  
02:55:24,650 --> 02:55:22,560  
concurr

1638  
02:55:27,050 --> 02:55:24,660

uh Steve's headed out to you directly

1639

02:55:29,450 --> 02:55:27,060

Woody and then he will come back in

1640

02:55:37,389 --> 02:55:29,460

board and go around the other side of S6

1641

02:55:40,550 --> 02:55:38,929

radiator

1642

02:55:42,170 --> 02:55:40,560

but then you're handling it all the way

1643

02:55:44,570 --> 02:55:42,180

around I see that

1644

02:55:46,370 --> 02:55:44,580

we're in front of my body I hope so did

1645

02:55:48,290 --> 02:55:46,380

I put my Center behind me your safety

1646

02:55:49,130 --> 02:55:48,300

tether is in front of you on the left

1647

02:55:50,990 --> 02:55:49,140

side

1648

02:55:53,690 --> 02:55:51,000

it is in front of me

1649

02:55:56,210 --> 02:55:53,700

it's in front of my body

1650

02:55:57,889 --> 02:55:56,220

that's what it was yep it's just hard to

1651  
02:56:01,670 --> 02:55:57,899  
see with the uh

1652  
02:56:06,590 --> 02:56:01,680  
CRT yeah I see that there it goes nice

1653  
02:56:06,600 --> 02:56:16,630  
2060 let me get stable okay

1654  
02:56:21,349 --> 02:56:19,790  
and you have a view on your screen in

1655  
02:56:24,110 --> 02:56:21,359  
the middle you see the candid arm too

1656  
02:56:27,170 --> 02:56:24,120  
below that you see the two astronauts

1657  
02:56:30,170 --> 02:56:27,180  
ev1 designated by the red stripe is nice

1658  
02:56:32,990 --> 02:56:30,180  
astronaut Woody hoberg and right below

1659  
02:56:36,469 --> 02:56:33,000  
him or above on your screen is going to

1660  
02:56:40,429 --> 02:56:36,479  
be Steven Bowen NASA astronaut

1661  
02:56:42,550 --> 02:56:40,439  
he is at Woody's apr or articulating

1662  
02:56:46,190 --> 02:56:42,560  
portable foot restraint

1663  
02:56:47,990 --> 02:56:46,200

he's gonna turn Woody to the right and

1664

02:57:04,490 --> 02:56:48,000

he's going to line up that arusa and

1665

02:57:10,490 --> 02:57:07,150

you're currently at two

1666

02:57:11,990 --> 02:57:10,500

I'm going to stick that correct

1667

02:57:15,530 --> 02:57:12,000

good words

1668

02:57:20,030 --> 02:57:17,809

Paul is on your right

1669

02:57:23,570 --> 02:57:20,040

got those on your left

1670

02:57:26,389 --> 02:57:23,580

verifying that okay all right and I'm

1671

02:57:30,530 --> 02:57:26,399

ready three you're going right wanna

1672

02:57:34,730 --> 02:57:30,540

start three two one start

1673

02:57:39,230 --> 02:57:36,410

and we're currently seeing a helmet cam

1674

02:57:41,030 --> 02:57:39,240

view from Stephen Bowen and he is

1675

02:57:44,330 --> 02:57:41,040

turning that portable

1676  
02:57:45,950 --> 02:57:44,340  
foot restraint with Woody hoberg

1677  
02:57:47,750 --> 02:57:45,960  
attached

1678  
02:57:50,090 --> 02:57:47,760  
I Rose in hand

1679  
02:58:05,030 --> 02:57:50,100  
turning to the right direction will be

1680  
02:58:08,870 --> 02:58:06,410  
how does that look

1681  
02:58:10,550 --> 02:58:08,880  
let's see looking

1682  
02:58:12,590 --> 02:58:10,560  
did we

1683  
02:58:14,690 --> 02:58:12,600  
so I'm pretty far from the mounting

1684  
02:58:17,330 --> 02:58:14,700  
bracket right now all right it looks

1685  
02:58:24,610 --> 02:58:17,340  
like the right angle in yaw I think we

1686  
02:58:30,889 --> 02:58:28,070  
but that sounds great I am starting that

1687  
02:58:34,490 --> 02:58:30,899  
motion and I'm ready there it goes great

1688  
02:58:35,990 --> 02:58:34,500

oh hold on okay get more stable for that

1689

02:58:37,910 --> 02:58:36,000

beautiful

1690

02:58:40,309 --> 02:58:37,920

tell me when you think you're there

1691

02:58:42,530 --> 02:58:40,319

we're in the zone now oh it looks like

1692

02:58:46,490 --> 02:58:42,540

it's locked in foxtrot but I don't even

1693

02:58:52,130 --> 02:58:50,090

you feel well I still feel

1694

02:58:53,570 --> 02:58:52,140

a little bit far from the mounting

1695

02:58:55,370 --> 02:58:53,580

bracket you want to go to golf I wonder

1696

02:58:57,349 --> 02:58:55,380

if we should go to golf

1697

02:58:59,990 --> 02:58:57,359

can you do that can we try that

1698

02:59:01,969 --> 02:59:00,000

is that all right

1699

02:59:04,969 --> 02:59:01,979

and Houston's following where okay was

1700

02:59:04,979 --> 02:59:15,710

okay go to golf

1701

02:59:21,650 --> 02:59:18,830

all right there it goes nice

1702

02:59:24,469 --> 02:59:21,660

and keep coming almost to golf you're

1703

02:59:26,090 --> 02:59:24,479

right between foxtrot and gold

1704

02:59:28,670 --> 02:59:26,100

great

1705

02:59:30,290 --> 02:59:28,680

still right in between hold on okay I

1706

02:59:32,389 --> 02:59:30,300

gotcha

1707

02:59:40,370 --> 02:59:32,399

yeah you still gotta go right a little

1708

02:59:47,590 --> 02:59:42,650

okay let's try going to golf again okay

1709

02:59:54,110 --> 02:59:50,030

let me give a call

1710

02:59:57,530 --> 02:59:54,120

are we there no not yet okay

1711

03:00:05,150 --> 03:00:00,710

there you go that's cool gotcha about

1712

03:00:10,370 --> 03:00:07,429

I think that's gonna be better yeah okay

1713

03:00:12,410 --> 03:00:10,380

let's deal with that all right I'm gonna

1714

03:00:14,570 --> 03:00:12,420

head over great I've still got a real

1715

03:00:16,670 --> 03:00:14,580

Fair looking great well if you're gonna

1716

03:00:19,429 --> 03:00:16,680

be clear of everything here all right

1717

03:00:22,849 --> 03:00:19,439

it'll take a few minutes

1718

03:00:28,130 --> 03:00:24,650

all right Houston followed all of that

1719

03:00:31,309 --> 03:00:28,140

and copy our final config uh big picture

1720

03:00:36,290 --> 03:00:31,319

call for All crew we are two minutes

1721

03:00:38,450 --> 03:00:36,300

from a 14 minute Los we are go to push

1722

03:00:43,730 --> 03:00:38,460

with the nominal procedure

1723

03:00:56,090 --> 03:00:43,740

Frank we are in Block six

1724

03:01:15,290 --> 03:01:00,710

station copies lock six Feb 27 for Steve

1725

03:01:19,210 --> 03:01:17,150

okay Frank I'm going to start working my

1726

03:01:25,030 --> 03:01:19,220

way over

1727

03:01:30,530 --> 03:01:27,769

and you just heard Grand Ivy here in

1728

03:01:32,809 --> 03:01:30,540

Mission Control Houston pass on the

1729

03:01:34,790 --> 03:01:32,819

control of IV position over to Frank

1730

03:01:37,070 --> 03:01:34,800

Rubio inside the inertial space station

1731

03:01:41,389 --> 03:01:37,080

and she did that because we have an Los

1732

03:01:44,510 --> 03:01:41,399

about a six minute Los 8 Minute loss

1733

03:01:51,160 --> 03:01:44,520

coming up here and again that is a loss

1734

03:01:51,170 --> 03:01:54,490

[Music]

1735

03:01:59,030 --> 03:01:57,230

avoid contacting Legacy blanket boxes

1736

03:02:06,070 --> 03:01:59,040

and protruding Canyons

1737

03:02:12,050 --> 03:02:10,070

any questions on that little questions

1738

03:02:13,130 --> 03:02:12,060

okay so you are translating through

1739

03:02:15,070 --> 03:02:13,140

position on the left side of the

1740

03:02:17,530 --> 03:02:15,080

mountain bracket

1741

03:02:21,710 --> 03:02:17,540

I agree

1742

03:02:26,630 --> 03:02:21,720

after positioning Woody Hobart

1743

03:02:29,870 --> 03:02:26,640

to the mounting bracket with the irosa

1744

03:02:32,389 --> 03:02:29,880

Stephen Bowen is now in Translation to

1745

03:02:34,370 --> 03:02:32,399

head over to The Far Side of the

1746

03:02:36,830 --> 03:02:34,380

Mountain bragging himself

1747

03:02:39,830 --> 03:02:36,840

and they'll prepare for the irosa

1748

03:02:39,840 --> 03:02:49,610

Ed

1749

03:02:55,250 --> 03:02:53,510

and this begins that Los period

1750

03:02:56,870 --> 03:02:55,260

and you're seeing a live view inside the

1751  
03:03:26,809 --> 03:02:56,880  
international flight station

1752  
03:03:31,630 --> 03:03:29,510  
again we have about an eight minute Los

1753  
03:03:34,309 --> 03:03:31,640  
and that's going to be for

1754  
03:03:36,769 --> 03:03:34,319  
audio and visual

1755  
03:03:38,750 --> 03:03:36,779  
Happening Here

1756  
03:03:41,150 --> 03:03:38,760  
the flight control team here in Mission

1757  
03:03:48,010 --> 03:03:41,160  
Control Houston taking the time now to

1758  
03:03:55,490 --> 03:03:52,670  
but don't worry again that ground IV

1759  
03:03:57,349 --> 03:03:55,500  
Ginny Gibbons passed over control to the

1760  
03:04:01,070 --> 03:03:57,359  
International Space Station where Ivy

1761  
03:04:05,750 --> 03:04:01,080  
Frank Rubio is walking the duo through

1762  
03:04:11,090 --> 03:04:08,929  
we had last visuals of Frank excuse me

1763  
03:04:13,610 --> 03:04:11,100

we had last visual of NASA astronaut

1764

03:04:16,070 --> 03:04:13,620

Stephen Bowen translating over to that

1765

03:04:17,750 --> 03:04:16,080

left side of the mounting bracket again

1766

03:04:21,530 --> 03:04:17,760

once he is there

1767

03:04:24,469 --> 03:04:21,540

he will be close to Woody hoberg who has

1768

03:04:28,610 --> 03:04:24,479

the irosa in hand and they'll be at that

1769

03:04:46,809 --> 03:04:28,620

work site where they will install the

1770

03:04:52,309 --> 03:04:49,790

currently on your screen you had a view

1771

03:04:54,889 --> 03:04:52,319

of the International Space Station and

1772

03:04:58,309 --> 03:04:54,899

you see that far left of the screen is

1773

03:05:01,849 --> 03:04:58,319

where we're installing today the duo on

1774

03:05:04,969 --> 03:05:01,859

June 9th just last week installed that I

1775

03:05:08,809 --> 03:05:04,979

rose on the 1A power Channel and we will

1776

03:05:10,910 --> 03:05:08,819

be installing the irosa today on the 1B

1777

03:05:20,990 --> 03:05:10,920

power Channel just the opposite side of

1778

03:05:26,030 --> 03:05:23,330

today's spacewalk is being conducted by

1779

03:05:28,490 --> 03:05:26,040

Expedition 69 space Walkers flight

1780

03:05:32,269 --> 03:05:28,500

engineers and that's the astronauts

1781

03:05:36,170 --> 03:05:32,279

Woody hoberg and Stephen Bowen today

1782

03:05:37,790 --> 03:05:36,180

Stephen Bowen is ev2 while Woody hoberg

1783

03:05:40,190 --> 03:05:37,800

is ev1

1784

03:05:43,370 --> 03:05:40,200

the duo switch rolled from last week

1785

03:05:45,950 --> 03:05:43,380

where Stephen Bowen was ev1 and Woody

1786

03:05:50,150 --> 03:05:45,960

Holberg was ev2

1787

03:05:52,790 --> 03:05:50,160

today is Woody Hopper's second

1788

03:06:17,590 --> 03:05:52,800

spacewalk well it is the 10th for

1789

03:06:25,250 --> 03:06:21,950

with this spacewalk Bowen ties

1790

03:06:29,090 --> 03:06:25,260

most space walks by U.S astronaut with

1791

03:06:33,410 --> 03:06:29,100

Michael Lopez Alegria Bob benkin

1792

03:06:36,590 --> 03:06:33,420

Peggy Whitson and Chris Cassidy

1793

03:06:38,929 --> 03:06:36,600

Bowen has accumulated 60 hours and 22

1794

03:06:42,830 --> 03:06:38,939

minutes of space walking time in his

1795

03:06:45,349 --> 03:06:42,840

previous nine Evas or spacewalks

1796

03:06:47,269 --> 03:06:45,359

Woody where hoberg has a previous six

1797

03:06:52,429 --> 03:06:47,279

hours and three minutes of space walking

1798

03:06:58,790 --> 03:06:56,150

again you have live coverage today

1799

03:07:00,830 --> 03:06:58,800

of the 265th spacewalk in support of

1800

03:07:03,710 --> 03:07:00,840

space station assembly maintenance and

1801  
03:07:07,130 --> 03:07:03,720  
upgrades this is the eighth spacewalk

1802  
03:07:44,150 --> 03:07:07,140  
from the space station in 2023 and the

1803  
03:07:47,929 --> 03:07:46,010  
again you're back inside the National

1804  
03:07:48,889 --> 03:07:47,939  
Space Station flight control room where

1805  
03:07:54,410 --> 03:07:48,899  
about

1806  
03:07:58,309 --> 03:07:54,420  
eight minute loss where we have no audio

1807  
03:07:59,389 --> 03:07:58,319  
or visuals of the spacewalk again you

1808  
03:08:01,550 --> 03:07:59,399  
see

1809  
03:08:04,190 --> 03:08:01,560  
the flight controllers here taking that

1810  
03:08:07,250 --> 03:08:04,200  
time to

1811  
03:13:27,530 --> 03:08:07,260  
get a break I'm going to use mushrooms

1812  
03:13:30,469 --> 03:13:29,150  
if you're just joining us you're looking

1813  
03:13:32,809 --> 03:13:30,479

live inside the International Space

1814

03:13:35,389 --> 03:13:32,819

Station flight control room here at

1815

03:13:37,849 --> 03:13:35,399

Mission Control Houston

1816

03:13:41,870 --> 03:13:37,859

currently you're getting live coverage

1817

03:13:44,510 --> 03:13:41,880

brought to you for the 265th

1818

03:13:47,450 --> 03:13:44,520

spacewalk in support of ISS

1819

03:13:50,870 --> 03:13:47,460

maintenance upgrades and assembly

1820

03:13:53,210 --> 03:13:50,880

we have two space Walkers outside the

1821

03:13:56,030 --> 03:13:53,220

space station currently we have NASA

1822

03:13:58,790 --> 03:13:56,040

astronauts Woody hoberg and Stephen

1823

03:14:04,790 --> 03:14:01,550

who have exited the International Space

1824

03:14:06,110 --> 03:14:04,800

Station this morning at 7 42 a.m Central

1825

03:14:08,510 --> 03:14:06,120

Time

1826  
03:14:10,730 --> 03:14:08,520  
who have now successfully released the

1827  
03:14:13,010 --> 03:14:10,740  
average from the FSC or the Flight

1828  
03:14:16,910 --> 03:14:13,020  
Support equipment and they have now

1829  
03:14:19,910 --> 03:14:16,920  
translated it over to its work site the

1830  
03:14:22,130 --> 03:14:19,920  
starboard six trust or the S6

1831  
03:14:24,889 --> 03:14:22,140  
transsexual here

1832  
03:14:29,030 --> 03:14:24,899  
again we left the duo a few minutes ago

1833  
03:14:30,950 --> 03:14:29,040  
in a with an Los or a loss of signal we

1834  
03:14:33,650 --> 03:14:30,960  
have no audio or visual currently at the

1835  
03:14:35,389 --> 03:14:33,660  
spacewalk but the duo are being helped

1836  
03:14:38,929 --> 03:14:35,399  
by those on board the International

1837  
03:14:41,750 --> 03:14:38,939  
Space Station we have IV Frank Rubio

1838  
03:14:45,290 --> 03:14:41,760

Nassau Frank Rubio is currently taking

1839

03:14:47,210 --> 03:14:45,300

over the role from the ground as the IV

1840

03:14:50,870 --> 03:14:47,220

helping the duo through the procedures

1841

03:14:52,550 --> 03:14:50,880

as we are in the loss of signal we

1842

03:15:04,450 --> 03:14:52,560

should have that signal back here in

1843

03:15:04,460 --> 03:15:35,929

what's up

1844

03:15:35,939 --> 03:15:43,690

foreign

1845

03:15:48,349 --> 03:15:46,610

good hang on

1846

03:15:51,110 --> 03:15:48,359

we're really close right now Steve let's

1847

03:15:52,910 --> 03:15:51,120

not move it too far though

1848

03:15:58,969 --> 03:15:52,920

I'm trying to

1849

03:16:06,349 --> 03:16:02,650

meaning it's engaged let's watch it yeah

1850

03:16:08,750 --> 03:16:06,359

and we have audio back okay that's good

1851  
03:16:24,490 --> 03:16:08,760  
news hang on how's yours mine's not in

1852  
03:16:31,030 --> 03:16:27,760  
but it's not

1853  
03:16:31,040 --> 03:16:42,769  
we're in the right spot

1854  
03:16:47,809 --> 03:16:45,950  
there it is got it yep nice all right

1855  
03:16:56,570 --> 03:16:47,819  
soft cops for two pins

1856  
03:17:00,769 --> 03:16:58,190  
should we verify that the two soft

1857  
03:17:02,570 --> 03:17:00,779  
captures which aren't very soft are

1858  
03:17:04,670 --> 03:17:02,580  
properly engaged and then what he will

1859  
03:17:06,769 --> 03:17:04,680  
be working on removing the left hand

1860  
03:17:10,770 --> 03:17:06,779  
Scoop from the routine

1861  
03:17:14,769 --> 03:17:13,010  
[Music]

1862  
03:17:18,230 --> 03:17:14,779  
okay

1863  
03:17:20,389 --> 03:17:18,240

you'll actually be performing a glove

1864

03:17:22,010 --> 03:17:20,399

half and Goblin check uh Steve you're

1865

03:17:23,630 --> 03:17:22,020

going to be retrieving the rent most

1866

03:17:26,750 --> 03:17:23,640

adjustable feather from the cool off bag

1867

03:17:42,190 --> 03:17:26,760

mic and this is uh for the scoop uh

1868

03:17:47,150 --> 03:17:45,170

we are currently in Block seven what do

1869

03:17:49,070 --> 03:17:47,160

you just completed step five with a good

1870

03:17:52,190 --> 03:17:49,080

glove and hat glove half and dollar

1871

03:17:54,650 --> 03:17:52,200

check and uh Steve is working on

1872

03:18:00,050 --> 03:17:54,660

retrieving the rent from Step seven we

1873

03:18:06,710 --> 03:18:02,760

copy all I see blocks

1874

03:18:10,370 --> 03:18:08,389

it

1875

03:18:22,690 --> 03:18:10,380

put something about my right leg I think

1876

03:18:22,700 --> 03:18:29,450

and your three seats thank you

1877

03:18:34,550 --> 03:18:32,150

I copy your location in the procedure

1878

03:18:44,150 --> 03:18:34,560

great job Frank I'm ready for you to

1879

03:18:49,690 --> 03:18:47,630

in Step seven what do you uh Jenny

1880

03:18:54,349 --> 03:18:49,700

you're fine thanks so much

1881

03:18:57,590 --> 03:18:54,359

great job Frank I'm Prime IV

1882

03:19:01,429 --> 03:18:57,600

I copy Steve that you are retrieving the

1883

03:19:06,769 --> 03:19:01,439

adjustable with the rets

1884

03:19:06,779 --> 03:19:16,370

yeah I'm looking for that one here

1885

03:19:22,010 --> 03:19:20,030

and Woody can you confirm that the left

1886

03:19:23,330 --> 03:19:22,020

hand scoop has been removed from the

1887

03:19:26,150 --> 03:19:23,340

root beam so it's on your mini

1888

03:19:33,050 --> 03:19:28,910

confirm jams I have two scoops connected

1889

03:19:37,969 --> 03:19:34,969

so give me one second I'll get to that

1890

03:19:39,469 --> 03:19:37,979

adjustable thank you Steve

1891

03:19:44,450 --> 03:19:39,479

especially not the one in the bag it's

1892

03:19:49,429 --> 03:19:48,290

and Jenny I have throttle to counter to

1893

03:19:53,870 --> 03:19:49,439

set

1894

03:19:53,880 --> 03:20:13,250

go for R6

1895

03:20:13,260 --> 03:20:27,590

that one

1896

03:20:35,690 --> 03:20:30,110

yes it'll be another adjustable in there

1897

03:20:42,590 --> 03:20:38,809

if you see the uh cop Keepers it's the

1898

03:20:44,870 --> 03:20:42,600

one the other one what graphic yeah okay

1899

03:20:47,210 --> 03:20:44,880

here's the uh

1900

03:20:49,490 --> 03:20:47,220

here's the other adjustable great Two

1901  
03:20:50,870 --> 03:20:49,500  
Scoops for you after that adjustable and

1902  
03:20:55,790 --> 03:20:50,880  
here I'll change you one second give me

1903  
03:20:55,800 --> 03:21:01,969  
uh

1904  
03:21:01,979 --> 03:21:08,110  
okay to view

1905  
03:21:14,269 --> 03:21:11,570  
ers got it

1906  
03:21:19,010 --> 03:21:14,279  
and I'll think of oops there's two

1907  
03:21:22,490 --> 03:21:20,150  
just let me know when you want me to

1908  
03:21:23,809 --> 03:21:22,500  
release my rep okay one second take your

1909  
03:21:31,150 --> 03:21:23,819  
time

1910  
03:21:31,160 --> 03:21:35,990  
[Music]

1911  
03:21:40,130 --> 03:21:38,690  
I'm gonna release your rest okay see you

1912  
03:21:51,650 --> 03:21:40,140  
ready

1913  
03:21:53,269 --> 03:21:51,660

I see it thanks dude all right let me

1914

03:21:59,269 --> 03:21:53,279

show this

1915

03:22:04,849 --> 03:22:01,670

cap keeper and uh

1916

03:22:06,469 --> 03:22:04,859

AMF yep and if the ends up here I'm

1917

03:22:14,769 --> 03:22:06,479

going to remove the four

1918

03:22:14,779 --> 03:22:23,630

a firm you can remove the Caps Woody

1919

03:22:27,860 --> 03:22:25,550

and I don't have anywhere

1920

03:22:35,090 --> 03:22:27,870

we copy

1921

03:22:35,100 --> 03:22:39,050

sure I'm back in the future things

1922

03:22:39,060 --> 03:22:55,550

copy

1923

03:23:04,429 --> 03:22:57,769

all right I need to be able to hold this

1924

03:23:09,590 --> 03:23:06,230

okay cops are going back to the bag

1925

03:23:12,769 --> 03:23:09,600

Steve can just leave them on the outside

1926

03:23:15,950 --> 03:23:12,779

I am ready for you to

1927

03:23:19,070 --> 03:23:15,960

Engage The R6 both I'm holding it closed

1928

03:23:21,530 --> 03:23:19,080

don't do that Steve we do want you in

1929

03:23:23,690 --> 03:23:21,540

position to keep iroza folded up well

1930

03:23:25,250 --> 03:23:23,700

Woody does that R6 bolts but I'll also

1931

03:23:36,550 --> 03:23:25,260

take a glove inspection half check and

1932

03:23:41,870 --> 03:23:38,750

that's fine with us

1933

03:23:44,630 --> 03:23:41,880

Woody he'll be releasing R6 the boat

1934

03:23:47,389 --> 03:23:44,640

Will Spring out we're looking for a

1935

03:23:50,330 --> 03:23:47,399

white line visible and you can expect 18

1936

03:23:51,410 --> 03:23:50,340

to 20 turns

1937

03:23:54,110 --> 03:23:51,420

foreign

1938

03:24:26,269 --> 03:23:54,120

s

1939

03:24:28,729 --> 03:24:26,279

it over and relocated it to the S6 part

1940

03:24:35,330 --> 03:24:28,739

of the truss we currently have the duo

1941

03:24:35,340 --> 03:24:56,769

turns the board

1942

03:24:56,779 --> 03:25:00,889

Woody Holberg is currently

1943

03:25:06,950 --> 03:25:04,550

releasing a final hinge restraint

1944

03:25:09,950 --> 03:25:06,960

with the pistol grip tool or that space

1945

03:25:14,229 --> 03:25:09,960

shuttle and then egress the apr using

1946

03:25:14,239 --> 03:25:19,610

got things

1947

03:25:22,610 --> 03:25:20,929

exams

1948

03:25:25,610 --> 03:25:22,620

um

1949

03:25:29,450 --> 03:25:25,620

yeah all right sounds good it's a good

1950

03:25:30,670 --> 03:25:29,460

place to do the uh wondering

1951

03:25:33,050 --> 03:25:30,680

yeah

1952

03:25:35,150 --> 03:25:33,060

stability is so nice in the apr I'm

1953

03:25:37,849 --> 03:25:35,160

thinking about uncapping these mqqls

1954

03:25:42,950 --> 03:25:37,859

they're right beside me

1955

03:25:42,960 --> 03:25:46,130

checking

1956

03:25:46,140 --> 03:25:53,349

would a year ago

1957

03:25:56,950 --> 03:25:55,910

well you're doing that I can give you

1958

03:26:02,510 --> 03:25:56,960

your pet

1959

03:26:05,809 --> 03:26:02,520

we are two hours and 10 minutes into a

1960

03:26:08,030 --> 03:26:05,819

seven hour 30 minute Eva limiting

1961

03:26:22,550 --> 03:26:08,040

consumable Woody's medox and your 45

1962

03:26:22,560 --> 03:26:28,010

two caps down two to go

1963

03:26:28,020 --> 03:26:41,510

thank you for the updates

1964

03:26:46,910 --> 03:26:44,809

nice to be stable that's pretty cool

1965

03:26:48,469 --> 03:26:46,920

okay cops removed

1966

03:26:49,910 --> 03:26:48,479

we'll make sure that you stay clear for

1967

03:26:53,510 --> 03:26:49,920

unfold

1968

03:26:55,790 --> 03:26:53,520

all right let me addressing Steve

1969

03:26:58,630 --> 03:26:55,800

puppy all and for both of your awareness

1970

03:27:02,150 --> 03:26:58,640

we have our video back

1971

03:27:05,510 --> 03:27:02,160

and we now have visuals back

1972

03:27:08,570 --> 03:27:05,520

of the duo outside the space station

1973

03:27:11,750 --> 03:27:08,580

today is low profile

1974

03:27:13,010 --> 03:27:11,760

and fairlead under the apfr we'll have

1975

03:27:17,090 --> 03:27:13,020

you on the right side of the mounting

1976

03:27:17,100 --> 03:27:25,370

okay concur with all Party Fair LED

1977

03:27:25,380 --> 03:27:28,729

and

1978

03:27:41,349 --> 03:27:31,910

Ingress Aid is low profile

1979

03:27:46,969 --> 03:27:44,030

we had no visuals we did have the duo

1980

03:27:50,809 --> 03:27:46,979

begin the install of the iroso onto the

1981

03:27:59,469 --> 03:27:50,819

mounting bracket for the 1B powers

1982

03:28:05,510 --> 03:28:02,750

earlier the duo did confirm to soft

1983

03:28:05,520 --> 03:28:08,870

for the irosa

1984

03:28:13,429 --> 03:28:11,690

right now we'll see them move around or

1985

03:28:15,229 --> 03:28:13,439

reposition themselves to the right side

1986

03:28:18,050 --> 03:28:15,239

of the mounting bracket for the

1987

03:28:19,490 --> 03:28:18,060

unfolding to begin for the irosa morning

1988

03:28:20,990 --> 03:28:19,500

since

1989

03:28:23,090 --> 03:28:21,000

of rotating

1990

03:28:25,190 --> 03:28:23,100

I wrote with that Steve you can slowly

1991

03:28:27,110 --> 03:28:25,200

put thyrosa to the unfolded position and

1992

03:28:33,410 --> 03:28:27,120

Woody engage the right side alignment

1993

03:28:33,420 --> 03:28:43,969

see it

1994

03:28:43,979 --> 03:28:49,610

I'm good

1995

03:28:55,969 --> 03:28:52,550

keeping everything out looking pretty

1996

03:28:58,250 --> 03:28:55,979

mounting plate is clear

1997

03:29:00,050 --> 03:28:58,260

what's up all those caps are still in

1998

03:29:03,110 --> 03:29:00,060

there I see them they're staying on the

1999

03:29:04,849 --> 03:29:03,120

uh they stop unfold

2000

03:29:06,889 --> 03:29:04,859

let me just make sure these stay out of

2001

03:29:20,330 --> 03:29:06,899

the way there we go

2002

03:29:20,340 --> 03:29:24,769

sounds good song capture that's it

2003

03:29:30,590 --> 03:29:27,349

copy you see the self-capture feature

2004

03:29:33,710 --> 03:29:30,600

engaged well done both of you

2005

03:29:35,809 --> 03:29:33,720

next step is to drive R7 and R8 the

2006

03:29:37,910 --> 03:29:35,819

hinge bolts that that's for you Woody

2007

03:29:46,010 --> 03:29:37,920

for Steve I'll take a glove inspection

2008

03:29:50,030 --> 03:29:49,010

coffee R7 R8 just out of curiosity how

2009

03:29:52,849 --> 03:29:50,040

much time do we have left in this

2010

03:29:57,349 --> 03:29:55,490

you have 15 minutes left in this Eclipse

2011

03:29:59,150 --> 03:29:57,359

which is not enough time for our cables

2012

03:30:04,130 --> 03:29:59,160

so we'll be working other steps and our

2013

03:30:10,030 --> 03:30:06,710

okay

2014

03:30:20,330 --> 03:30:10,040

all right like this before

2015

03:30:24,229 --> 03:30:22,790

and Steve I understand the AMS knob is

2016

03:30:26,210 --> 03:30:24,239

already with Woody on his mini

2017

03:30:27,590 --> 03:30:26,220

workstation all I have for you in this

2018

03:30:29,450 --> 03:30:27,600

time is to show

2019

03:30:31,070 --> 03:30:29,460

the scoops and long duration tie-down

2020

03:30:34,070 --> 03:30:31,080

tether in the bag if you've not done so

2021

03:30:39,710 --> 03:30:36,050

I am working on those things right now

2022

03:30:39,720 --> 03:30:50,650

um

2023

03:31:00,769 --> 03:30:54,590

well when he gives it back to me

2024

03:31:00,779 --> 03:31:05,690

dual working in orbital night time

2025

03:31:15,590 --> 03:31:08,469

copy your settings are alpha one

2026  
03:31:20,750 --> 03:31:17,570  
that's true

2027  
03:31:33,229 --> 03:31:20,760  
good words you'll be driving these bolts

2028  
03:31:33,239 --> 03:32:17,809  
coffee thank you

2029  
03:32:27,290 --> 03:32:21,349  
Alpha One clockwise two is set

2030  
03:32:32,210 --> 03:32:29,809  
copy R7

2031  
03:32:34,370 --> 03:32:32,220  
and we have helmet cam viewed from Woody

2032  
03:32:37,849 --> 03:32:34,380  
hoberg ev1

2033  
03:32:39,769 --> 03:32:37,859  
who is releasing hinge bolts on the

2034  
03:32:41,809 --> 03:32:39,779  
irosa

2035  
03:32:44,570 --> 03:32:41,819  
again once these hinge bolts are

2036  
03:32:49,610 --> 03:32:47,090  
Steve bowling will be able to

2037  
03:32:52,070 --> 03:32:49,620  
help Woody hillberg

2038  
03:32:55,309 --> 03:32:52,080

unfold the irosa

2039

03:32:58,790 --> 03:32:55,319

and then we'll be looking for

2040

03:33:02,330 --> 03:32:58,800

the next eclipse time period

2041

03:33:05,210 --> 03:33:02,340

for the duo to start cable mating

2042

03:33:08,570 --> 03:33:05,220

and then the full deployment work for

2043

03:33:08,580 --> 03:33:15,349

17 and a half turns

2044

03:33:22,309 --> 03:33:18,229

three foot pounds on our side

2045

03:33:30,130 --> 03:33:22,319

our seven driven 17.5 turns to torque

2046

03:33:30,140 --> 03:33:47,469

you can move to R8 same settings

2047

03:34:47,809 --> 03:33:51,590

Alpha One clockwise to effect

2048

03:34:51,650 --> 03:34:50,150

since I counted 17 turns I have a good

2049

03:34:53,809 --> 03:34:51,660

green light two decimals four foot

2050

03:34:56,090 --> 03:34:53,819

counts

2051

03:34:57,950 --> 03:34:56,100

four foot pounds 17 turns green light

2052

03:35:00,290 --> 03:34:57,960

that is a good bolt Woody you can store

2053

03:35:03,229 --> 03:35:00,300

your PGT and then work with the AMS knob

2054

03:35:07,130 --> 03:35:03,239

to loosen those bolts one turn each and

2055

03:35:07,140 --> 03:35:20,090

yeah GTP Stone worker name that's not

2056

03:35:24,769 --> 03:35:22,610

our seven reset I've had a quarter turn

2057

03:35:29,330 --> 03:35:24,779

off quarter turn on

2058

03:35:34,550 --> 03:35:33,349

came on already copy the same on R8 you

2059

03:35:47,150 --> 03:35:34,560

can give

2060

03:35:47,160 --> 03:35:51,110

there it is

2061

03:35:51,120 --> 03:36:02,450

changes

2062

03:36:09,349 --> 03:36:05,330

all right Steve you have the app keeper

2063

03:36:11,030 --> 03:36:09,359

or AMS knob thank you thank you

2064

03:36:13,910 --> 03:36:11,040

I have some big picture words for both

2065

03:36:19,010 --> 03:36:16,250

ready

2066

03:36:21,889 --> 03:36:19,020

okay our timing has been great so far we

2067

03:36:24,530 --> 03:36:21,899

are headed into insulation so we will

2068

03:36:26,210 --> 03:36:24,540

push with uh driving the M bolts and do

2069

03:36:28,729 --> 03:36:26,220

as much as we can prior to the cable

2070

03:36:30,830 --> 03:36:28,739

mates that will involve a bit of a

2071

03:36:32,450 --> 03:36:30,840

replan we'll give you information on

2072

03:36:34,010 --> 03:36:32,460

some cleanup steps that we're going to

2073

03:36:35,570 --> 03:36:34,020

get ahead on those aren't quite ready

2074

03:36:36,590 --> 03:36:35,580

yet but when they are I will get words

2075

03:36:40,010 --> 03:36:36,600

to you

2076

03:36:42,170 --> 03:36:40,020

so next steps for Steve are to get ready

2077

03:36:45,110 --> 03:36:42,180

for those emblems you can divide those

2078

03:36:52,070 --> 03:36:45,120

up however you want but the socket for

2079

03:36:58,670 --> 03:36:54,070

probably

2080

03:37:03,769 --> 03:37:01,070

um hey Jenny I'm right in front of J1

2081

03:37:09,530 --> 03:37:03,779

through j4 is a good time to get those

2082

03:37:15,710 --> 03:37:13,370

so Woody I'm just pausing on that

2083

03:37:17,510 --> 03:37:15,720

because they might interfere with the

2084

03:37:21,290 --> 03:37:17,520

emeralds

2085

03:37:23,630 --> 03:37:21,300

we're talking it okay gotcha

2086

03:37:31,990 --> 03:37:23,640

okay just a reminder we did those first

2087

03:37:36,170 --> 03:37:34,670

we understand Woody but we're gonna keep

2088

03:37:37,610 --> 03:37:36,180

things simple we're going to hold off of

2089

03:37:38,750 --> 03:37:37,620

those until we're done the end Bows

2090

03:37:41,809 --> 03:37:38,760

because we have so much time before

2091

03:37:44,330 --> 03:37:41,819

working eclipse foreign

2092

03:37:46,309 --> 03:37:44,340

thanks

2093

03:37:47,389 --> 03:37:46,319

all right we'll get I'll get my side you

2094

03:37:48,830 --> 03:37:47,399

get your first time to get this bag

2095

03:37:52,130 --> 03:37:48,840

closed then we'll start that sounds

2096

03:38:05,349 --> 03:37:59,990

all right

2097

03:38:11,389 --> 03:38:07,250

Bravo five

2098

03:38:13,429 --> 03:38:11,399

clockwise too and how many times

2099

03:38:16,490 --> 03:38:13,439

those are good settings and we're

2100

03:38:22,490 --> 03:38:16,500

driving to torque expect 11 to 14 turns

2101

03:38:22,500 --> 03:38:27,590

okay

2102

03:38:31,490 --> 03:38:30,229

31 I've got a full turn of the Head

2103

03:38:35,090 --> 03:38:31,500

Start

2104

03:39:07,130 --> 03:38:35,100

copy M31 one turn of hand start

2105

03:39:10,309 --> 03:39:08,630

foreign

2106

03:39:11,750 --> 03:39:10,319

If You're just showing us you're seeing

2107

03:39:15,170 --> 03:39:11,760

live views outside of the International

2108

03:39:17,510 --> 03:39:15,180

Space Station as Nas astronauts Woody

2109

03:39:23,330 --> 03:39:17,520

hoberg and Stephen Bowen are installing

2110

03:39:33,050 --> 03:39:28,190

happy M31 11 turns 21.9 foot pounds and

2111

03:39:40,250 --> 03:39:34,910

can you confirm the black line flesh

2112

03:39:50,330 --> 03:39:43,010

currently have a helmet cam view you can

2113

03:39:50,340 --> 03:39:53,769

[Music]

2114

03:40:00,110 --> 03:39:56,990

astronaut Stephen Bowen he's using that

2115

03:40:03,110 --> 03:40:00,120

pistol grip tool or that PGT to release

2116

03:40:06,110 --> 03:40:03,120

hinge bolts on the iro so they just

2117

03:40:10,790 --> 03:40:08,090

he is working on the left side while

2118

03:40:16,030 --> 03:40:10,800

Woody hogler released his boat on the

2119

03:40:21,950 --> 03:40:19,550

again you can tell who is who by the

2120

03:40:25,729 --> 03:40:21,960

stripe designation on the suits red

2121

03:40:29,510 --> 03:40:25,739

stripe is the ev1 worn today by Woody

2122

03:40:29,520 --> 03:40:58,370

you're dope

2123

03:41:04,550 --> 03:41:01,070

all right I got 11.

2124

03:41:10,250 --> 03:41:07,490

and I did not get a good green light yet

2125

03:41:13,130 --> 03:41:10,260

I am flush

2126  
03:41:17,870 --> 03:41:13,140  
copy that was 11 turns a green light and

2127  
03:41:17,880 --> 03:41:33,710  
0.2.6

2128  
03:41:33,720 --> 03:41:39,760  
we're checking on that bolt station M37

2129  
03:41:39,770 --> 03:42:01,210  
[Applause]

2130  
03:42:07,070 --> 03:42:03,349  
and Steve we're going to have you go

2131  
03:42:08,990 --> 03:42:07,080  
back to M32 again we're just looking for

2132  
03:42:13,250 --> 03:42:09,000  
um an additional quarter turn on that

2133  
03:42:18,110 --> 03:42:15,590  
okay okay good luck

2134  
03:42:26,889 --> 03:42:20,929  
[Music]

2135  
03:42:26,899 --> 03:42:32,510  
one term

2136  
03:42:32,520 --> 03:42:43,790  
copy Steve we're checking on it

2137  
03:42:48,229 --> 03:42:45,290  
all right Steve good bolt you can move

2138  
03:42:57,769 --> 03:42:50,269

all right let me get myself around to a

2139

03:43:11,150 --> 03:43:01,370

ing on our M37 I had 11 turns good green

2140

03:43:21,950 --> 03:43:14,330

and M35 11 turns dick green light 21

2141

03:43:21,960 --> 03:43:25,849

both of those

2142

03:43:25,859 --> 03:43:29,750

crap yep

2143

03:43:38,229 --> 03:43:32,690

he had a head start and I got 11.4 terms

2144

03:43:46,690 --> 03:43:40,969

33 bucks to go for me

2145

03:43:59,150 --> 03:43:49,130

on 34.

2146

03:44:08,030 --> 03:44:02,150

cams M36 had one hand start 11 turns

2147

03:44:13,670 --> 03:44:09,070

foreign

2148

03:44:17,150 --> 03:44:15,229

thank you

2149

03:44:23,809 --> 03:44:17,160

Saturn M38

2150

03:44:23,819 --> 03:44:46,010

tell people

2151  
03:44:52,790 --> 03:44:49,670  
all right hey James got a report on M38

2152  
03:44:57,050 --> 03:44:55,070  
I'm 10 turns down

2153  
03:44:59,330 --> 03:44:57,060  
because it was not hand started

2154  
03:45:01,010 --> 03:44:59,340  
unfortunately I don't think the threads

2155  
03:45:04,190 --> 03:45:01,020  
engaged for approximately the first

2156  
03:45:09,190 --> 03:45:04,200  
eight turns I think I'm about two turns

2157  
03:45:09,200 --> 03:45:15,229  
copy what are you talking about

2158  
03:45:18,650 --> 03:45:17,030  
all right

2159  
03:45:23,150 --> 03:45:18,660  
33

2160  
03:45:28,190 --> 03:45:23,160  
11 or 12 30 by Nikon 1.86 on the thing

2161  
03:45:33,349 --> 03:45:31,010  
that is a good Bolt

2162  
03:45:35,690 --> 03:45:33,359  
and for Woody uh we appreciate the

2163  
03:45:37,190 --> 03:45:35,700

report let's keep driving that bolt and

2164

03:45:41,469 --> 03:45:37,200

we'll do the math on the ground so just

2165

03:46:03,530 --> 03:45:44,750

starting from what I'm guessing is two

2166

03:46:11,870 --> 03:46:05,690

okay Jeff I have seven and a half turns

2167

03:46:17,389 --> 03:46:15,410

and black line flush on all mine bolts

2168

03:46:19,969 --> 03:46:17,399

copy we're checking on that final bolt

2169

03:46:19,979 --> 03:47:01,330

thank you

2170

03:47:05,990 --> 03:47:03,349

all right Woody we're going to go back

2171

03:47:10,550 --> 03:47:06,000

and have you do that bolt again for some

2172

03:47:10,560 --> 03:47:22,429

you got it

2173

03:47:22,439 --> 03:47:38,389

five clockwise two set M38

2174

03:47:52,309 --> 03:47:41,389

the green light no turns 21 decibel nine

2175

03:47:56,950 --> 03:47:54,050

what do you thought is a good vote thank

2176  
03:48:01,670 --> 03:47:59,570  
thank you James

2177  
03:48:02,370 --> 03:48:01,680  
I'll have more words for both of you in

2178  
03:48:24,229 --> 03:48:02,380  
a minute

2179  
03:48:28,250 --> 03:48:25,969  
and I can probably hit these four

2180  
03:48:31,729 --> 03:48:28,260  
connectors

2181  
03:48:33,590 --> 03:48:31,739  
all of those are involved in uh all of

2182  
03:48:34,969 --> 03:48:33,600  
those items are involved in the plan

2183  
03:48:46,990 --> 03:48:34,979  
that we're putting together I'll have it

2184  
03:48:53,330 --> 03:48:49,990  
sounds great to us

2185  
03:48:55,010 --> 03:48:53,340  
entering into an orbital daytime

2186  
03:48:59,330 --> 03:48:55,020  
the International Space Station is

2187  
03:49:01,910 --> 03:48:59,340  
flying 268 excuse me 246 statute miles

2188  
03:49:06,410 --> 03:49:01,920

above the South Pacific Ocean

2189

03:49:13,490 --> 03:49:09,469

and we just saw Woody hoberg and Steve

2190

03:49:15,889 --> 03:49:13,500

Bowen complete some bolts uh releasing

2191

03:49:18,590 --> 03:49:15,899

some bolts on the hinge joint of the

2192

03:49:21,290 --> 03:49:18,600

irosa that they just installed

2193

03:49:24,290 --> 03:49:21,300

carrying this through the next set of

2194

03:49:35,929 --> 03:49:24,300

procedures is my colleague Rebecca Wicks

2195

03:49:35,939 --> 03:49:57,530

are

2196

03:49:57,540 --> 03:50:29,510

you

2197

03:50:33,710 --> 03:50:31,729

excuse me all right Woody and Steve

2198

03:50:35,450 --> 03:50:33,720

thanks for your patience we have words

2199

03:50:37,550 --> 03:50:35,460

for you now

2200

03:50:40,010 --> 03:50:37,560

um we are going to do a modified get

2201

03:50:42,530 --> 03:50:40,020

ahead on our worksite cleanup

2202

03:50:44,269 --> 03:50:42,540

Steve you will be meeting the nzgl

2203

03:50:46,370 --> 03:50:44,279

connectors you can get in position for

2204

03:50:49,210 --> 03:50:46,380

that and Woody you will be translating

2205

03:50:52,849 --> 03:50:49,220

inboard to the apfr in with

2206

03:50:56,090 --> 03:50:52,859

1515 that is the apfr that we used for

2207

03:50:58,130 --> 03:50:56,100

the first handoff of irosa I will also

2208

03:51:22,330 --> 03:50:58,140

need words on your pull test if you did

2209

03:51:26,750 --> 03:51:24,590

that way

2210

03:51:29,150 --> 03:51:26,760

okay you want me to take a look at it

2211

03:51:31,610 --> 03:51:29,160

let me see let's do a quick work get it

2212

03:51:33,229 --> 03:51:31,620

around me right now I think yes you sure

2213

03:51:42,349 --> 03:51:33,239

do

2214

03:51:47,570 --> 03:51:45,469

there you go thank you it's behind me

2215

03:51:49,130 --> 03:51:47,580

right here no now it's in uh

2216

03:51:51,349 --> 03:51:49,140

I put it in front of you oh perfect

2217

03:51:53,630 --> 03:51:51,359

thank you so now it's sorry right sorry

2218

03:52:00,670 --> 03:51:53,640

Crossing towards your left okay and then

2219

03:52:05,570 --> 03:52:03,290

caution for both of you Steve before you

2220

03:52:07,429 --> 03:52:05,580

start meeting these nzgls just avoid

2221

03:52:13,910 --> 03:52:07,439

contact with the cables and connectors

2222

03:52:13,920 --> 03:52:37,330

all right

2223

03:52:44,269 --> 03:52:41,330

we are bringing you live coverage of U.S

2224

03:52:45,950 --> 03:52:44,279

Eva 88 this is the eighth space walk out

2225

03:52:49,429 --> 03:52:45,960

of the International Space Station this

2226  
03:52:53,750 --> 03:52:49,439  
year we started this morning at 8 42 a.m

2227  
03:52:55,849 --> 03:52:53,760  
Eastern Time 7 42 a.m Central Time the

2228  
03:52:56,929 --> 03:52:55,859  
team has been very efficient in their

2229  
03:52:59,269 --> 03:52:56,939  
tasks

2230  
03:53:02,210 --> 03:52:59,279  
first the

2231  
03:53:04,490 --> 03:53:02,220  
NASA astronauts Woody hoberg and Steve

2232  
03:53:07,550 --> 03:53:04,500  
Bowen exited the International Space

2233  
03:53:09,170 --> 03:53:07,560  
Station they released the irosa or the

2234  
03:53:11,510 --> 03:53:09,180  
International Space Station rollout

2235  
03:53:14,870 --> 03:53:11,520  
solar array from its Flight Support

2236  
03:53:20,870 --> 03:53:14,880  
equipment area they relocated it to the

2237  
03:53:26,210 --> 03:53:24,349  
to get there they utilized the robotic

2238  
03:53:29,330 --> 03:53:26,220

arm

2239

03:53:31,370 --> 03:53:29,340

excuse me emirati space agency astronaut

2240

03:53:33,410 --> 03:53:31,380

Sultan al-nayadi inside the

2241

03:53:35,210 --> 03:53:33,420

International Space Station maneuvered

2242

03:53:38,330 --> 03:53:35,220

that robotic arm

2243

03:53:43,429 --> 03:53:38,340

s astronaut Woody hoberg flew on that

2244

03:53:48,830 --> 03:53:46,370

when they arrived close to the work site

2245

03:53:50,870 --> 03:53:48,840

the astronauts then used a leapfrog

2246

03:53:53,030 --> 03:53:50,880

maneuver to pass the irosa between

2247

03:53:54,769 --> 03:53:53,040

themselves in order to reach that

2248

03:53:57,130 --> 03:53:54,779

workstation because the robotic arm

2249

03:54:00,110 --> 03:53:57,140

didn't quite reach

2250

03:54:02,929 --> 03:54:00,120

from there they installed the irosa and

2251

03:54:06,050 --> 03:54:02,939

released hinge bolts

2252

03:54:08,510 --> 03:54:06,060

puppy next up in their timeline was

2253

03:54:13,429 --> 03:54:08,520

going to be to mate the cables however

2254

03:54:16,309 --> 03:54:13,439

they have to do that in an eclipse

2255

03:54:18,229 --> 03:54:16,319

we have about 50 minutes until that

2256

03:54:20,210 --> 03:54:18,239

Eclipse starts so the flight control

2257

03:54:23,570 --> 03:54:20,220

team here in Mission Control Houston

2258

03:54:25,729 --> 03:54:23,580

made the decision to proceed with a work

2259

03:54:54,290 --> 03:54:25,739

ahead task which is what the astronauts

2260

03:54:54,300 --> 03:55:04,910

coffee P2 made it to J2

2261

03:55:04,920 --> 03:55:10,130

good Chuck Circle

2262

03:55:16,490 --> 03:55:13,910

Woody you will be stowing this apr on

2263

03:55:22,790 --> 03:55:16,500

your brt and then translating to the

2264

03:55:22,800 --> 03:55:27,110

pick up the safety offers

2265

03:55:34,429 --> 03:55:29,630

a firm I have instructions on your green

2266

03:55:41,990 --> 03:55:35,870

okay

2267

03:55:42,000 --> 03:55:47,450

any other instructions

2268

03:55:51,830 --> 03:55:49,550

you'll be picking it up then installing

2269

03:55:53,510 --> 03:55:51,840

the apfr and the port Ceda cart I'll

2270

03:55:55,490 --> 03:55:53,520

give you the width and the settings when

2271

03:55:57,229 --> 03:55:55,500

you're closer to it and then you'll be

2272

03:56:01,070 --> 03:55:57,239

translating back outboard dropping your

2273

03:56:01,080 --> 03:56:05,090

okay thanks Jeff

2274

03:56:09,290 --> 03:56:07,429

thank you

2275

03:56:13,429 --> 03:56:09,300

as part of

2276

03:56:15,469 --> 03:56:13,439

are going to be retrieving their

2277

03:56:17,750 --> 03:56:15,479

articulating portable foot restraints

2278

03:56:25,610 --> 03:56:17,760

and stowing those with the body

2279

03:56:30,530 --> 03:56:27,889

hi

2280

03:56:33,830 --> 03:56:30,540

connections

2281

03:56:35,990 --> 03:56:33,840

copy P1 made it to J1 I track that that

2282

03:56:37,849 --> 03:56:36,000

is your last Enzo GL connector correct

2283

03:56:39,590 --> 03:56:37,859

Steve

2284

03:56:41,269 --> 03:56:39,600

I agree

2285

03:56:45,349 --> 03:56:41,279

all right and you want to pick up the

2286

03:56:46,790 --> 03:56:45,359

scoop with the uh calf other than an M1

2287

03:56:49,250 --> 03:56:46,800

handbag

2288

03:56:52,189 --> 03:56:49,260

we need to leave the scoop there for

2289

03:56:54,950 --> 03:56:52,199

Woody to use later

2290

03:56:58,429 --> 03:56:54,960

oh good for it

2291

03:57:01,550 --> 03:56:58,439

too far ahead I guess but next step for

2292

03:57:01,560 --> 03:57:08,870

okay say again

2293

03:57:08,880 --> 03:57:14,170

yeah disregard

2294

03:57:18,530 --> 03:57:15,710

but

2295

03:57:21,050 --> 03:57:18,540

let's leave it we're 30 seconds from a

2296

03:57:22,490 --> 03:57:21,060

short Handover Steve go get the mutt end

2297

03:57:26,150 --> 03:57:22,500

effectors you'll be stowing them in the

2298

03:57:31,189 --> 03:57:29,750

what end defectors took cable bags

2299

03:58:15,170 --> 03:57:31,199

all right always pretty clear and I'll

2300

03:58:15,180 --> 03:58:19,429

foreign

2301  
03:58:24,710 --> 03:58:22,550  
we have an expected loss of signal on

2302  
03:58:26,809 --> 03:58:24,720  
our video views as the International

2303  
03:58:28,849 --> 03:58:26,819  
Space Station flies around the earth

2304  
03:58:31,910 --> 03:58:28,859  
those data links transfer between

2305  
03:58:38,090 --> 03:58:34,670  
during this Handover you can see live

2306  
03:58:40,130 --> 03:58:38,100  
views of the Mission Control Center in

2307  
03:58:42,110 --> 03:58:40,140  
Houston

2308  
03:58:44,689 --> 03:58:42,120  
Brandon Lloyd is our flight director

2309  
03:58:47,830 --> 03:58:44,699  
today he's part of the 2021 class of

2310  
03:58:54,110 --> 03:58:51,170  
to his right in the black shirt is Jenny

2311  
03:59:02,510 --> 03:58:54,120  
City Givens she is a Canadian space

2312  
03:59:06,110 --> 03:59:03,530  
foreign

2313  
03:59:08,570 --> 03:59:06,120

she is the main voice you are hearing

2314

03:59:15,969 --> 03:59:08,580

speaking with the crew she is the ground

2315

03:59:22,070 --> 03:59:20,510

Ivy stands for intra vehicular

2316

03:59:23,809 --> 03:59:22,080

she is the person that is talking to

2317

03:59:34,389 --> 03:59:23,819

them while they are outside the space

2318

03:59:40,670 --> 03:59:37,429

the crew is performing some cleanup

2319

03:59:43,969 --> 03:59:40,680

tasks as they are ahead of schedule we

2320

03:59:46,189 --> 03:59:43,979

are waiting on that Eclipse to start so

2321

03:59:49,849 --> 03:59:46,199

that they can safely mate those cables

2322

03:59:49,859 --> 03:59:58,790

copy Woody

2323

04:00:03,530 --> 04:00:01,309

Woody you will be

2324

04:00:06,769 --> 04:00:03,540

stowing that apfr

2325

04:00:11,030 --> 04:00:06,779

in the port Cedar cart with three that's

2326

04:00:11,040 --> 04:00:16,510

we're three again started thanks

2327

04:00:16,520 --> 04:00:20,809

Ceta is a cart

2328

04:00:33,349 --> 04:00:22,969

Sita stands for crew and Equipment

2329

04:01:09,530 --> 04:00:36,650

he is going to be storing his portable

2330

04:01:09,540 --> 04:01:25,550

thank you

2331

04:01:25,560 --> 04:01:35,889

foreign

2332

04:01:50,269 --> 04:01:39,410

this is a live helmet camera view from

2333

04:02:12,650 --> 04:01:53,150

he is translating back to the irosa

2334

04:02:19,010 --> 04:02:15,469

correction he is going to the Zenith

2335

04:02:21,889 --> 04:02:19,020

starboard side for that seat of cart in

2336

04:02:42,740 --> 04:02:21,899

order to install his portable foot

2337

04:02:49,070 --> 04:02:44,510

[Music]

2338

04:02:53,450 --> 04:02:49,080

this is a view of that S6 starboard work

2339

04:02:57,710 --> 04:02:53,460

site where the irosa solar array is

2340

04:02:57,720 --> 04:03:19,929

puppy Thief

2341

04:03:24,110 --> 04:03:22,490

now that you have stowed those end

2342

04:03:26,330 --> 04:03:24,120

effectors in the cable bag we'll have

2343

04:03:29,090 --> 04:03:26,340

you translate back out to the mod kit

2344

04:03:30,889 --> 04:03:29,100

and more steps for you shortly Woody I

2345

04:03:37,429 --> 04:03:30,899

have more big picture words for you as

2346

04:03:37,439 --> 04:03:41,809

trying to get eyes on with three

2347

04:03:41,819 --> 04:03:46,389

and

2348

04:03:54,530 --> 04:03:51,229

is it on swing arm 3 camps do you know

2349

04:03:54,540 --> 04:03:57,229

okay

2350

04:04:01,010 --> 04:03:58,910

um all right guys I'm ready for apfr

2351

04:04:05,030 --> 04:04:01,020

clocking and big picture works

2352

04:04:10,370 --> 04:04:08,330

and uh when you install this apfr we'll

2353

04:04:13,010 --> 04:04:10,380

take your checks and we'll also have you

2354

04:04:14,630 --> 04:04:13,020

uh adjust the mli on the Ingress Aid

2355

04:04:16,550 --> 04:04:14,640

best effort we know that these are tough

2356

04:04:20,469 --> 04:04:16,560

but try and get the metal covered up as

2357

04:04:27,710 --> 04:04:25,309

mli stands for multi-layer insulation

2358

04:04:29,330 --> 04:04:27,720

thank you

2359

04:04:32,269 --> 04:04:29,340

everybody just let me know when you get

2360

04:04:33,950 --> 04:04:32,279

back out here underneath uh

2361

04:04:35,929 --> 04:04:33,960

need to remove

2362

04:05:09,550 --> 04:04:35,939

the other side again okay no problem

2363

04:05:26,450 --> 04:05:13,070

we are currently two hours and 51

2364

04:05:31,370 --> 04:05:29,150

all right copy all now big picture Woody

2365

04:05:33,650 --> 04:05:31,380

we're still tracking like 40 minutes

2366

04:05:35,990 --> 04:05:33,660

until your guys's working Eclipse time

2367

04:05:39,229 --> 04:05:36,000

so that means that we do have time for

2368

04:05:41,510 --> 04:05:39,239

you to get onto the SSE and get that

2369

04:05:43,550 --> 04:05:41,520

beam stowed

2370

04:05:46,130 --> 04:05:43,560

so at this time we'll have you translate

2371

04:05:52,010 --> 04:05:46,140

onto the FSE you do not need to place

2372

04:05:57,469 --> 04:05:54,650

the FSC is the Flight Support equipment

2373

04:05:59,210 --> 04:05:57,479

that was that initial work site the

2374

04:06:00,950 --> 04:05:59,220

initial work site where they retrieved

2375

04:06:05,809 --> 04:06:00,960

the irosa at the beginning of today's

2376

04:06:11,269 --> 04:06:08,870

okay Alpha thanks

2377

04:06:17,469 --> 04:06:11,279

NASA astronauts Steve Bowen and Woody

2378

04:06:21,830 --> 04:06:21,110

continue to be ahead of the timeline the

2379

04:06:24,769 --> 04:06:21,840

air

2380

04:06:27,290 --> 04:06:24,779

solar array installation steps are

2381

04:06:29,389 --> 04:06:27,300

complete the team is waiting on the

2382

04:06:32,809 --> 04:06:29,399

beginning of a working Eclipse to begin

2383

04:06:35,510 --> 04:06:32,819

the power connector mates

2384

04:06:39,349 --> 04:06:35,520

while they wait the astronauts are

2385

04:06:42,050 --> 04:06:39,359

getting ahead on some cleanup steps

2386

04:06:43,729 --> 04:06:42,060

these suits continue to perform well we

2387

04:06:55,849 --> 04:06:43,739

expect no suit constraints on today's

2388

04:07:00,530 --> 04:06:58,250

all right Steve we see you back at the

2389

04:07:03,410 --> 04:07:00,540

mounting bracket for you we don't have

2390

04:07:06,889 --> 04:07:03,420

much to do while Woody does these FSE

2391

04:07:09,410 --> 04:07:06,899

theme Ops but we would like you to check

2392

04:07:11,570 --> 04:07:09,420

and replace the mli which is on the

2393

04:07:13,010 --> 04:07:11,580

mounting bracket I have three locations

2394

04:07:17,510 --> 04:07:13,020

for you to do that when you're ready to

2395

04:07:24,769 --> 04:07:20,269

we want you to check the right lower

2396

04:07:32,050 --> 04:07:24,779

strut left lower strut and right mid

2397

04:07:37,070 --> 04:07:34,670

NASA astronaut Woody hoberg has

2398

04:07:39,830 --> 04:07:37,080

successfully completed a work ahead step

2399

04:07:42,889 --> 04:07:39,840

of stowing his

2400

04:07:46,309 --> 04:07:42,899

portable foot restraint unit onto a cart

2401  
04:07:48,769 --> 04:07:46,319  
he is now headed to the Flight Support

2402  
04:08:01,070 --> 04:07:48,779  
equipment area where he will be stowing

2403  
04:08:10,370 --> 04:08:03,530  
better

2404  
04:08:10,380 --> 04:08:31,670  
copy Steve

2405  
04:08:35,450 --> 04:08:33,710  
that one's better I'm throwing the

2406  
04:08:39,170 --> 04:08:35,460  
fourth now

2407  
04:08:44,689 --> 04:08:41,689  
copy Steve

2408  
04:08:44,699 --> 04:08:47,570  
do you have video

2409  
04:08:52,969 --> 04:08:50,990  
we do have video a friend

2410  
04:08:55,250 --> 04:08:52,979  
that should look a lot better than it

2411  
04:08:58,189 --> 04:08:55,260  
did it does thank you is there something

2412  
04:09:03,950 --> 04:08:58,199  
lower on the lower strut or just

2413  
04:09:03,960 --> 04:09:17,889

checking

2414

04:09:22,269 --> 04:09:20,990

this is a view of NASA astronaut Woody

2415

04:09:26,630 --> 04:09:22,279

hoberg

2416

04:09:32,450 --> 04:09:26,640

he is ev1 today and that is designated

2417

04:09:32,460 --> 04:09:37,330

s

2418

04:09:42,410 --> 04:09:40,490

at Alpha

2419

04:09:44,510 --> 04:09:42,420

copy Woody you are going to have to

2420

04:09:47,809 --> 04:09:44,520

relocate the adjustable equipment tether

2421

04:09:49,849 --> 04:09:47,819

from the lower stanchion of the FSC

2422

04:09:52,849 --> 04:09:49,859

handrail to the top

2423

04:09:54,830 --> 04:09:52,859

expansion of the FSC handrail and we'll

2424

04:10:03,550 --> 04:09:54,840

also need two socket swap before we

2425

04:10:08,929 --> 04:10:06,110

when the astronauts are conducting

2426

04:10:10,969 --> 04:10:08,939

spacewalks they have two tethers me a

2427

04:10:14,090 --> 04:10:10,979

reminder for you when you're on the FSE

2428

04:10:16,610 --> 04:10:14,100

no sudden movements quick grabs or

2429

04:10:18,830 --> 04:10:16,620

sudden stops and we'll wait till FS

2430

04:10:22,189 --> 04:10:18,840

emotion dampens out before imparting any

2431

04:10:22,199 --> 04:11:18,250

copy

2432

04:11:24,590 --> 04:11:20,570

back on that one the tickets are better

2433

04:11:24,600 --> 04:11:35,830

you see Steve

2434

04:11:40,929 --> 04:11:38,350

a lot better

2435

04:11:43,429 --> 04:11:40,939

[Music]

2436

04:11:46,010 --> 04:11:43,439

copy Steve we're checking and I copy the

2437

04:11:50,889 --> 04:11:46,020

good pull test for woody woody you can

2438

04:11:50,899 --> 04:11:55,689

three three one two three

2439

04:11:55,699 --> 04:12:16,010

a little bit more

2440

04:12:19,790 --> 04:12:17,809

I think I might have to loosen the

2441

04:12:25,250 --> 04:12:19,800

adjustable on the other side

2442

04:12:28,849 --> 04:12:27,050

we copy Woody

2443

04:12:32,750 --> 04:12:28,859

we might have to head over there to do

2444

04:12:36,110 --> 04:12:34,429

and I think so

2445

04:12:39,889 --> 04:12:36,120

all right we copy

2446

04:12:42,830 --> 04:12:39,899

Steve next for you is to check the mli

2447

04:12:44,630 --> 04:12:42,840

on the left lower strut to the mounting

2448

04:12:48,889 --> 04:12:44,640

bracket the other ones look good great

2449

04:12:48,899 --> 04:13:27,250

foreign

2450

04:13:34,130 --> 04:13:31,429

I have an updated pet for both of you we

2451

04:13:36,469 --> 04:13:34,140  
are three hours into this Eva our

2452

04:13:38,870 --> 04:13:36,479  
limiting consumable is Woody's battery

2453

04:13:41,990 --> 04:13:38,880  
and we're tracking towards 7 hours and

2454

04:13:43,729 --> 04:13:42,000  
30 minutes in total we are way ahead of

2455

04:13:47,809 --> 04:13:43,739  
the timeline as you guys are doing

2456

04:13:49,969 --> 04:13:47,819  
cleanup get aheads we have still just

2457

04:13:52,729 --> 04:13:49,979  
over 30 minutes

2458

04:13:57,229 --> 04:13:52,739  
to our working Eclipse so lots of time

2459

04:14:00,910 --> 04:13:58,969  
thanks so much for the update cams we

2460

04:14:07,729 --> 04:14:00,920  
appreciate it

2461

04:14:12,950 --> 04:14:10,370  
Jenny City Gibbons from Mission Control

2462

04:14:15,469 --> 04:14:12,960  
Houston the spacewalk communicator today

2463

04:14:17,870 --> 04:14:15,479

for the crew just gave an update on our

2464

04:14:20,330 --> 04:14:17,880

timeline we have just reached three

2465

04:14:21,229 --> 04:14:20,340

hours in the spacewalk and we are

2466

04:14:23,210 --> 04:14:21,239

running

2467

04:14:24,889 --> 04:14:23,220

um well ahead of schedule the crew is

2468

04:14:27,410 --> 04:14:24,899

currently working on some get ahead

2469

04:14:29,750 --> 04:14:27,420

tasks

2470

04:14:33,110 --> 04:14:29,760

right now we are waiting in about 30

2471

04:14:35,990 --> 04:14:33,120

minutes for an eclipse to start

2472

04:14:41,090 --> 04:14:36,000

okay I got two maybe three turns of hand

2473

04:14:44,809 --> 04:14:43,070

turns

2474

04:14:47,870 --> 04:14:44,819

turn three you can translate to

2475

04:14:49,969 --> 04:14:47,880

stanchion Bravo we'll be relocating that

2476

04:14:51,590 --> 04:14:49,979

adjustable equipment tether from the

2477

04:14:55,250 --> 04:14:51,600

lower to the upper stanchion like you

2478

04:14:59,809 --> 04:14:56,929

we already completed that actually James

2479

04:15:01,370 --> 04:14:59,819

I had to go do that in order to give

2480

04:15:03,530 --> 04:15:01,380

myself enough Slack

2481

04:15:08,210 --> 04:15:03,540

okay copy great work

2482

04:15:11,990 --> 04:15:10,729

and Woody did you hand start C5 as well

2483

04:15:13,550 --> 04:15:12,000

while you're over there

2484

04:15:23,210 --> 04:15:13,560

pop

2485

04:15:29,210 --> 04:15:25,550

firm we need to hand start both bolts

2486

04:15:29,220 --> 04:15:43,330

okay head in the back

2487

04:15:49,130 --> 04:15:46,729

NASA astronaut Steve Bowen is at the

2488

04:15:52,729 --> 04:15:49,140

work site

2489

04:15:56,230 --> 04:15:52,739

he is closing up some mli or multi-layer

2490

04:15:56,240 --> 04:16:01,429

[Music]

2491

04:16:27,550 --> 04:16:03,830

corner

2492

04:16:32,689 --> 04:16:30,170

with Steve Bowen complete on his get

2493

04:16:35,510 --> 04:16:32,699

ahead task

2494

04:16:44,170 --> 04:16:35,520

NASA astronaut Woody hoberg is still

2495

04:16:52,429 --> 04:16:47,450

Bravo 7.

2496

04:16:57,170 --> 04:16:55,250

copy and you can say C5 right Jim a firm

2497

04:16:59,450 --> 04:16:57,180

you can start at C5 the bolt that you

2498

04:17:02,630 --> 04:16:59,460

just hand started but I want to tell you

2499

04:17:04,969 --> 04:17:02,640

this is important that the bolts must be

2500

04:17:07,010 --> 04:17:04,979

stopped on turn count and since you hand

2501  
04:17:11,570 --> 04:17:07,020  
started this two to three turns we want

2502  
04:17:22,189 --> 04:17:13,010  
okay

2503  
04:17:27,110 --> 04:17:23,870  
you ready for me to start those turns

2504  
04:17:27,120 --> 04:17:35,570  
next year I'm starting friends

2505  
04:17:42,590 --> 04:17:39,170  
and Steve for you we have no other get

2506  
04:17:44,030 --> 04:17:42,600  
ahead so you will be just getting in a

2507  
04:17:46,309 --> 04:17:44,040  
good position to get the best views

2508  
04:17:48,410 --> 04:17:46,319  
possible for the next 20-ish minutes

2509  
04:17:51,410 --> 04:17:48,420  
while we get in position for the working

2510  
04:17:56,830 --> 04:17:54,290  
sounds good to me

2511  
04:17:59,870 --> 04:17:56,840  
maybe you're first

2512  
04:18:01,370 --> 04:17:59,880  
well NASA astronaut Steve Bowen hangs

2513  
04:18:04,130 --> 04:18:01,380

out at the work site while we are

2514

04:18:06,590 --> 04:18:04,140

waiting on that Eclipse to start NASA

2515

04:18:11,990 --> 04:18:06,600

astronaut Woody hoberg

2516

04:18:18,830 --> 04:18:14,929

Flight Support equipment area

2517

04:18:22,189 --> 04:18:18,840

copy 17 turns on C5

2518

04:18:30,670 --> 04:18:22,199

he is utilizing a PGT or pistol grip

2519

04:18:34,729 --> 04:18:33,290

that sounds good to us you can Stow your

2520

04:18:37,610 --> 04:18:34,739

PTT and retrieve the adjustable

2521

04:18:42,410 --> 04:18:39,410

you work

2522

04:18:44,809 --> 04:18:42,420

the pistol grip tool is essentially a

2523

04:19:00,110 --> 04:18:44,819

space drill it is used to apply torque

2524

04:19:00,120 --> 04:19:05,030

okay Johnny heading back to C3

2525

04:19:05,040 --> 04:19:39,530

okay

2526

04:19:50,330 --> 04:19:42,650

Woody your settings here for driving C3

2527

04:19:54,950 --> 04:19:51,590

seven

2528

04:19:58,969 --> 04:19:54,960

clockwise 2 is set

2529

04:20:04,670 --> 04:20:02,809

let's do 18 turns one eight

2530

04:20:05,689 --> 04:20:04,680

Woody

2531

04:20:08,689 --> 04:20:05,699

okay

2532

04:20:32,030 --> 04:20:08,699

on eight turns

2533

04:20:39,710 --> 04:20:33,590

all right just because I'm hanging out

2534

04:20:46,849 --> 04:20:42,950

Steve Woody is almost finished up at the

2535

04:20:54,769 --> 04:20:50,870

and you should be passing you should be

2536

04:21:04,010 --> 04:20:54,779

passing just over the Northwestern edge

2537

04:21:12,110 --> 04:21:07,610

your chance 18 fans on C3

2538

04:21:14,150 --> 04:21:12,120

copy 18 turns on C3 that's a good bolt

2539

04:21:15,650 --> 04:21:14,160

you can retrieve your adjustable

2540

04:21:17,450 --> 04:21:15,660

equipment tether stowed on your mini

2541

04:21:21,349 --> 04:21:17,460

workstation and then we'll have you pick

2542

04:21:25,790 --> 04:21:23,090

check out the adjustable going to get

2543

04:21:31,969 --> 04:21:28,990

Woody has successfully

2544

04:21:34,729 --> 04:21:31,979

installed that Beam on the Flight

2545

04:21:40,250 --> 04:21:34,739

Support equipment area and he is now

2546

04:21:44,210 --> 04:21:41,530

foreign

2547

04:21:46,010 --> 04:21:44,220

your preference here you can Stow those

2548

04:21:48,530 --> 04:21:46,020

adjustables that you just picked up on

2549

04:21:50,510 --> 04:21:48,540

the outside of crew lock bag tea and

2550

04:21:51,769 --> 04:21:50,520

then we will have that on your brt you

2551  
04:21:56,929 --> 04:21:51,779  
can keep them on your mini workstation

2552  
04:22:00,229 --> 04:21:59,389  
yeah

2553  
04:22:03,170 --> 04:22:00,239  
um

2554  
04:22:05,630 --> 04:22:03,180  
he also has some adjustable equipment

2555  
04:22:07,969 --> 04:22:05,640  
tethers or straps that he is also going

2556  
04:22:08,990 --> 04:22:07,979  
to attach to the tool bag he is picking

2557  
04:22:12,050 --> 04:22:09,000  
up

2558  
04:22:41,330 --> 04:22:12,060  
keep one and drop one

2559  
04:22:45,530 --> 04:22:43,550  
you can see a view of that tool bag

2560  
04:22:47,090 --> 04:22:45,540  
right now with NASA astronaut Woody

2561  
04:22:49,550 --> 04:22:47,100  
hoberg he just attached one of those

2562  
04:22:51,530 --> 04:22:49,560  
equipment tethers to it

2563  
04:22:53,450 --> 04:22:51,540

and Woody additional words for you we

2564

04:23:00,830 --> 04:22:53,460

would like that wire tie which is on the

2565

04:23:16,330 --> 04:23:03,410

pick up the wire Tire

2566

04:23:16,340 --> 04:23:22,969

this is yet another get ahead task

2567

04:23:30,170 --> 04:23:27,950

we are a little over 20 minutes from our

2568

04:23:35,630 --> 04:23:30,180

Eclipse where we can start mating the

2569

04:23:39,889 --> 04:23:37,910

these solar arrays cannot be powered off

2570

04:23:41,870 --> 04:23:39,899

so that's why we have to plug them in

2571

04:23:44,150 --> 04:23:41,880

during

2572

04:23:45,950 --> 04:23:44,160

an eclipse

2573

04:23:47,389 --> 04:23:45,960

so that there is no power running

2574

04:23:49,130 --> 04:23:47,399

through the solar array when the

2575

04:23:52,250 --> 04:23:49,140

astronauts go to actually connect those

2576

04:23:52,260 --> 04:24:35,809

[Applause]

2577

04:24:35,819 --> 04:24:50,590

foreign

2578

04:24:56,929 --> 04:24:54,530

that was your last action on the FSE you

2579

04:25:06,550 --> 04:24:56,939

can Stow crew lock bag tea on the fourth

2580

04:25:14,330 --> 04:25:09,410

NASA astronaut Woody hoberg is now going

2581

04:25:17,090 --> 04:25:14,340

to move that tool bag over to the cart

2582

04:25:26,030 --> 04:25:17,100

and then he will make his way back to

2583

04:25:52,790 --> 04:25:28,130

we still have 20 minutes to our working

2584

04:25:56,510 --> 04:25:54,830

all right Jenny confirm you said Port

2585

04:25:59,630 --> 04:25:56,520

see the cart

2586

04:25:59,640 --> 04:26:06,070

okay thank you

2587

04:26:11,210 --> 04:26:08,630

he is heading to the cart on the port

2588

04:26:23,990 --> 04:26:11,220

side Ceta stands for the crew and

2589

04:26:30,290 --> 04:26:26,990

that orbital night time is less than 20

2590

04:26:31,849 --> 04:26:30,300

minutes away it occurs when the earth is

2591

04:26:34,309 --> 04:26:31,859

shadowing the International Space

2592

04:26:41,090 --> 04:26:36,830

the International Space Station orbits

2593

04:27:27,110 --> 04:26:44,389

every 90 minutes 45 of those are in

2594

04:27:32,990 --> 04:27:30,769

this is live helmet camera footage from

2595

04:27:35,809 --> 04:27:33,000

NASA astronaut Woody hoberg this is his

2596

04:27:46,969 --> 04:27:35,819

second spacewalk today he is installing

2597

04:27:52,910 --> 04:27:49,250

on June 9th he worked with NASA

2598

04:27:57,110 --> 04:27:52,920

astronaut Steve Bowen to install another

2599

04:28:08,349 --> 04:27:57,120

solo array at the 1A power Channel

2600

04:28:14,809 --> 04:28:12,410

exited the airlock this morning they

2601  
04:28:17,030 --> 04:28:14,819  
switched to battery power prior to that

2602  
04:28:21,050 --> 04:28:17,040  
with our official spacewalk start time

2603  
04:28:31,969 --> 04:28:21,060  
of 8 42 a.m Eastern Time 7 42 a.m

2604  
04:28:37,490 --> 04:28:33,670  
socket swap

2605  
04:28:39,769 --> 04:28:37,500  
such that we have the six inch that's

2606  
04:28:41,090 --> 04:28:39,779  
currently on your mini workstation on

2607  
04:28:44,330 --> 04:28:41,100  
your PGT

2608  
04:28:48,229 --> 04:28:44,340  
and the remaining socket the two inch

2609  
04:28:53,630 --> 04:28:50,929  
copy that and work

2610  
04:28:55,670 --> 04:28:53,640  
NASA astronaut Woody hoberg is going to

2611  
04:28:57,950 --> 04:28:55,680  
be doing a socket swap he needs a

2612  
04:29:01,490 --> 04:28:57,960  
different size socket for these upcoming

2613  
04:29:04,490 --> 04:29:01,500

tasks on the solar array

2614

04:29:10,849 --> 04:29:04,500

PGT is that pistol grip tool or that

2615

04:29:10,859 --> 04:30:10,610

all right

2616

04:30:22,870 --> 04:30:13,969

bucket sloth with a good pull test James

2617

04:30:34,790 --> 04:30:26,170

the space station is currently flying

2618

04:30:34,800 --> 04:30:42,830

would you verify your gauntlets are down

2619

04:30:49,969 --> 04:30:46,389

copy you are translating back out to S6

2620

04:30:52,670 --> 04:30:49,979

on the way drop your green hook on S5

2621

04:30:54,950 --> 04:30:52,680

handrail 2140 that's the same place

2622

04:30:57,170 --> 04:30:54,960

where you picked it up

2623

04:31:03,530 --> 04:30:57,180

The Gauntlet is that covering of

2624

04:31:06,950 --> 04:31:05,330

words

2625

04:31:09,889 --> 04:31:06,960

itself

2626

04:31:13,429 --> 04:31:09,899

about 15 minutes until our working

2627

04:31:13,439 --> 04:31:18,710

great

2628

04:31:24,410 --> 04:31:20,990

back time of year were days longer than

2629

04:31:34,570 --> 04:31:26,090

that

2630

04:31:34,580 --> 04:31:39,110

Woody hoberg is now heading back

2631

04:31:45,229 --> 04:31:42,050

is now heading back to the workstation

2632

04:31:50,870 --> 04:31:45,239

for the solar array so in the other

2633

04:31:56,030 --> 04:31:52,389

don't worry about it

2634

04:32:03,710 --> 04:31:56,040

you you're in great shape we got plenty

2635

04:32:03,720 --> 04:32:13,670

you know why not yeah well you're here

2636

04:32:17,510 --> 04:32:15,830

yeah if it wasn't clear don't actually

2637

04:32:20,630 --> 04:32:17,520

do that we want you going

2638

04:32:20,640 --> 04:32:34,849

I'm already headed that way we see it

2639

04:32:40,189 --> 04:32:36,410

you don't need to see the heartbreaks

2640

04:32:40,199 --> 04:32:51,070

okay great

2641

04:32:55,849 --> 04:32:53,689

NASA astronaut Woody hoberg is

2642

04:32:57,410 --> 04:32:55,859

translating the sides

2643

04:33:01,490 --> 04:32:57,420

of the International Space Station

2644

04:33:03,950 --> 04:33:01,500

heading back to the workstation where

2645

04:33:07,369 --> 04:33:03,960

the International Space Station rollout

2646

04:33:10,970 --> 04:33:07,379

solar array is awaiting for its cables

2647

04:33:12,949 --> 04:33:10,980

to be mated during our upcoming solar

2648

04:33:34,429 --> 04:33:12,959

eclipse

2649

04:33:40,910 --> 04:33:38,990

okay and Kim's just confirming 2140 I'm

2650

04:33:43,970 --> 04:33:40,920

expecting that outboard of the sarge

2651  
04:33:47,330 --> 04:33:43,980  
which I just crossed almost down

2652  
04:33:52,209 --> 04:33:47,340  
a firm it should be on S5 and it's on

2653  
04:33:59,209 --> 04:33:55,189  
the mirror you're seeing on his right

2654  
04:34:02,510 --> 04:33:59,219  
arm is used for him to be able to look

2655  
04:34:05,631 --> 04:34:02,520  
at the controls on his spacesuit

2656  
04:34:08,090 --> 04:34:05,641  
because he's in the helmet he can't look

2657  
04:34:10,910 --> 04:34:08,100  
down physically so the astronauts

2658  
04:34:17,090 --> 04:34:10,920  
utilize these mirrors in order to see on

2659  
04:34:21,310 --> 04:34:19,730  
because of that mirror those controls

2660  
04:34:24,051 --> 04:34:21,320  
are

2661  
04:34:33,470 --> 04:34:24,061  
backwards on the spacesuit if you were

2662  
04:34:33,480 --> 04:34:37,150  
all right I'm here

2663  
04:34:43,789 --> 04:34:40,369

2117 on with five

2664

04:34:46,609 --> 04:34:43,799

two one two eight

2665

04:34:49,609 --> 04:34:46,619

he is confirming his

2666

04:34:51,410 --> 04:34:49,619

you've just passed the first A-frame the

2667

04:34:52,429 --> 04:34:51,420

handrails on the second day frame frame

2668

04:34:55,131 --> 04:34:52,439

okay

2669

04:34:59,689 --> 04:34:55,141

he is confirming his location to flight

2670

04:35:05,750 --> 04:35:03,410

team members here in Mission Control

2671

04:35:08,150 --> 04:35:05,760

they know the location of all these

2672

04:35:09,410 --> 04:35:08,160

different grab bars for the astronauts

2673

04:35:15,910 --> 04:35:09,420

to use to get around the International

2674

04:35:20,929 --> 04:35:19,010

oh it is okay it is right by week 11.

2675

04:35:22,609 --> 04:35:20,939

got it Ephraim it should be written on

2676  
04:35:44,830 --> 04:35:22,619  
the back side should be near your right

2677  
04:35:50,150 --> 04:35:47,869  
as Woody moves from area to area he

2678  
04:35:52,010 --> 04:35:50,160  
relocates his tethers he has both a

2679  
04:36:03,529 --> 04:35:52,020  
safety tether and also an additional

2680  
04:36:07,310 --> 04:36:06,230  
okay Jeremy green hooks on two one four

2681  
04:36:09,230 --> 04:36:07,320  
zero

2682  
04:36:12,051 --> 04:36:09,240  
he is confirming where he has placed his

2683  
04:36:12,061 --> 04:36:18,289  
you can translate outboard to the market

2684  
04:36:18,299 --> 04:36:27,230  
work

2685  
04:36:27,240 --> 04:36:33,289  
a beautiful view of the earth below

2686  
04:36:46,689 --> 04:36:35,330  
the space station is currently flying

2687  
04:36:51,650 --> 04:36:49,131  
Woody as you continue your translation

2688  
04:36:53,689 --> 04:36:51,660

outboard you're a straight shot for this

2689

04:36:55,970 --> 04:36:53,699

translation but if you can get eyes on

2690

04:36:58,490 --> 04:36:55,980

Steve's tether make sure that it's still

2691

04:37:02,029 --> 04:36:58,500

fair lead around the perimeter of S6

2692

04:37:06,289 --> 04:37:03,890

that's in my field of view and it is

2693

04:37:08,689 --> 04:37:06,299

it's fair leg it looks beautiful so up

2694

04:37:10,310 --> 04:37:08,699

until it gets to me

2695

04:37:11,570 --> 04:37:10,320

I go through the corner here when you

2696

04:37:12,551 --> 04:37:11,580

get this oh you want to get that corner

2697

04:37:14,689 --> 04:37:12,561

again

2698

04:37:17,349 --> 04:37:14,699

because it's uh I think it's covered on

2699

04:37:24,170 --> 04:37:22,369

S6 is the starboard six trust this is

2700

04:37:28,849 --> 04:37:24,180

where we are installing the solar array

2701

04:37:33,670 --> 04:37:30,590

for fair leading

2702

04:37:37,010 --> 04:37:33,680

copy Woody we agree

2703

04:37:39,349 --> 04:37:37,020

apfr is the adjustable portable foot

2704

04:37:44,209 --> 04:37:39,359

restraint

2705

04:37:48,470 --> 04:37:44,219

right for your tether as well if you

2706

04:37:51,830 --> 04:37:50,929

the apfr does it it's simply the same

2707

04:37:55,551 --> 04:37:51,840

thing

2708

04:37:55,561 --> 04:38:06,109

puppy Woody we're fine with that

2709

04:38:11,869 --> 04:38:08,390

and you can see NASA astronaut Steve

2710

04:38:18,709 --> 04:38:11,879

Bowen coming into view on NASA astronaut

2711

04:38:18,719 --> 04:38:23,830

together

2712

04:38:23,840 --> 04:38:37,609

okay coming in to take a look

2713

04:38:45,349 --> 04:38:39,670

going low

2714

04:38:45,359 --> 04:38:49,990

foreign

2715

04:38:54,769 --> 04:38:52,490

there are a couple of cables that the

2716

04:38:57,170 --> 04:38:54,779

crew can work on pre-eclipse they are

2717

04:39:01,250 --> 04:38:57,180

the J cables you will hear call outs for

2718

04:39:11,510 --> 04:39:03,289

and we are about six minutes out from

2719

04:39:11,520 --> 04:39:23,090

but you do it just to keep our uh yeah

2720

04:39:27,051 --> 04:39:25,429

Woody and Steve now that we are both in

2721

04:39:31,250 --> 04:39:27,061

position at the market I have big

2722

04:39:31,260 --> 04:39:35,090

sounds great James

2723

04:39:39,770 --> 04:39:38,330

we are six minutes from our working

2724

04:39:44,990 --> 04:39:39,780

Eclipse time

2725

04:39:47,810 --> 04:39:45,000

and six minutes from a data loss we'll

2726  
04:39:51,350 --> 04:39:47,820  
have voice for all but the last two

2727  
04:39:53,270 --> 04:39:51,360  
minutes of that eight minute data loss

2728  
04:39:55,550 --> 04:39:53,280  
depending where we are in the procedure

2729  
04:39:56,570 --> 04:39:55,560  
we'll treat that potentially like a

2730  
04:39:59,030 --> 04:39:56,580  
Handover

2731  
04:40:00,948 --> 04:39:59,040  
if not I'll be very clear if I'm handing

2732  
04:40:04,850 --> 04:40:00,958  
off to Frank

2733  
04:40:06,948 --> 04:40:04,860  
we will before we go Los for data do our

2734  
04:40:10,610 --> 04:40:06,958  
best to confirm safing from the ground

2735  
04:40:16,330 --> 04:40:10,620  
but if we need to we'll Loop in onboard

2736  
04:40:22,250 --> 04:40:19,390  
great overview

2737  
04:40:25,730 --> 04:40:22,260  
as well

2738  
04:40:29,150 --> 04:40:25,740

all right so with that we can have Woody

2739

04:40:30,110 --> 04:40:29,160

translate to the right blanket box and

2740

04:40:32,270 --> 04:40:30,120

Steve

2741

04:40:35,810 --> 04:40:32,280

you can get in position to the left

2742

04:40:37,910 --> 04:40:35,820

blanket box we will have you demate the

2743

04:40:50,630 --> 04:40:37,920

new cable Wing tab connectors which are

2744

04:40:57,830 --> 04:40:53,090

they are going to be unconnecting these

2745

04:41:02,930 --> 04:40:59,990

words also from Mission Control Houston

2746

04:41:04,910 --> 04:41:02,940

that even with our upcoming expected

2747

04:41:07,788 --> 04:41:04,920

loss of signal the team is still going

2748

04:41:12,708 --> 04:41:07,798

to be working you should see p7 Alpha

2749

04:41:15,770 --> 04:41:12,718

and j7 Alpha and p21 alpha j21 alpha on

2750

04:41:41,330 --> 04:41:15,780

board they have NASA astronaut

2751

04:41:41,340 --> 04:41:47,270

ers

2752

04:41:47,280 --> 04:41:51,230

Steve with the right connectors

2753

04:41:59,448 --> 04:41:55,208

Woody you should have exams I'm donating

2754

04:42:02,150 --> 04:41:59,458

P9 alpha j9 alpha and p23 alpha j23

2755

04:42:02,160 --> 04:42:20,830

that's what I've got

2756

04:42:26,270 --> 04:42:23,930

you can see the lighting begin to change

2757

04:42:29,510 --> 04:42:26,280

as we head into that Eclipse we are

2758

04:42:42,788 --> 04:42:29,520

about three minutes away from that

2759

04:42:47,448 --> 04:42:45,530

this is the eighth spacewalk out of the

2760

04:42:49,550 --> 04:42:47,458

International Space Station this year in

2761

04:42:51,890 --> 04:42:49,560

support of its assembly maintenance and

2762

04:42:53,570 --> 04:42:51,900

upgrades and this is the sixth

2763

04:42:55,910 --> 04:42:53,580

## International Space Station rollout

2764

04:42:59,270 --> 04:42:55,920

solar array to be installed on the

2765

04:43:02,448 --> 04:42:59,280

station on June 9th the team worked to

2766

04:43:05,150 --> 04:43:02,458

win this exact team work to install the

2767

04:43:12,890 --> 04:43:05,160

solo array on the opposite side of the

2768

04:43:18,050 --> 04:43:15,230

the solo array installed on June 9th and

2769

04:43:20,750 --> 04:43:18,060

the one being installed today were

2770

04:43:22,910 --> 04:43:20,760

delivered on the SpaceX cargo resupply

2771

04:43:25,730 --> 04:43:22,920

service mission

2772

04:43:38,868 --> 04:43:25,740

number 28

2773

04:43:38,878 --> 04:43:43,490

all right Tony mike evolution

2774

04:43:43,500 --> 04:43:49,788

done

2775

04:43:49,798 --> 04:43:56,890

copy Steve

2776

04:44:00,650 --> 04:43:59,270

and James I've got a red to that

2777

04:44:07,310 --> 04:44:00,660

Catherine we're going to be demating

2778

04:44:07,320 --> 04:44:10,910

connected

2779

04:44:15,230 --> 04:44:13,550

to make some sliding movement here get

2780

04:44:25,670 --> 04:44:15,240

some clearance on the

2781

04:44:31,368 --> 04:44:28,190

copy we are about a minute from our

2782

04:44:33,288 --> 04:44:31,378

eight minute data loss again we have

2783

04:44:36,708 --> 04:44:33,298

voice in all but the last two minutes

2784

04:44:38,470 --> 04:44:36,718

I'm Prime IV and we have just over a

2785

04:44:40,970 --> 04:44:38,480

minute to our working eclipse start

2786

04:44:42,770 --> 04:44:40,980

warning you must not demate saw

2787

04:44:45,110 --> 04:44:42,780

connectors until Eclipse plus two

2788

04:44:46,910 --> 04:44:45,120

minutes I'll tell you when that is and

2789

04:44:48,590 --> 04:44:46,920

you must maintain a one foot keep out

2790

04:44:50,570 --> 04:44:48,600

Zone from any demated connectors

2791

04:44:52,670 --> 04:44:50,580

starting two minutes prior to and during

2792

04:44:54,110 --> 04:44:52,680

installation we should not be in that

2793

04:44:58,670 --> 04:44:54,120

situation but again I will give you

2794

04:44:58,680 --> 04:45:16,368

coffee jams coffee

2795

04:45:20,570 --> 04:45:18,470

we are waiting for our working Eclipse

2796

04:45:21,708 --> 04:45:20,580

to start in about 30 seconds and then

2797

04:45:26,090 --> 04:45:21,718

safing

2798

04:45:36,470 --> 04:45:28,190

these cables you are seeing on your

2799

04:45:41,030 --> 04:45:38,810

cannot be mated until we are in that

2800

04:45:42,650 --> 04:45:41,040

working Eclipse again this is a safety

2801

04:45:44,868 --> 04:45:42,660

measure

2802

04:45:47,330 --> 04:45:44,878

to give the all the arrays enough time

2803

04:45:51,650 --> 04:45:47,340

to discharge power while the astronauts

2804

04:45:57,410 --> 04:45:53,990

just as we've entered that working

2805

04:45:59,570 --> 04:45:57,420

Eclipse our video data stream is being

2806

04:46:01,970 --> 04:45:59,580

handed over to satellites but we do

2807

04:46:25,448 --> 04:46:01,980

still have audio connection with the

2808

04:46:29,750 --> 04:46:27,650

Brandon Lloyd is the flight director

2809

04:46:31,970 --> 04:46:29,760

here in the room he had the final call

2810

04:46:33,948 --> 04:46:31,980

on all of these work ahead items that

2811

04:46:35,690 --> 04:46:33,958

the astronauts completed today because

2812

04:47:13,150 --> 04:46:35,700

they have been so efficient and working

2813

04:47:20,510 --> 04:47:17,750

today's Eva or Space Walk is one day shy

2814

04:47:22,730 --> 04:47:20,520

of the two-year anniversary of the first

2815

04:47:24,890 --> 04:47:22,740

irosa or International Space Station

2816

04:47:28,010 --> 04:47:24,900

roll out solar array that first

2817

04:47:30,970 --> 04:47:28,020

installation was on June 16th of 2021

2818

04:47:33,948 --> 04:47:30,980

and here we are about two years later

2819

04:48:03,430 --> 04:47:33,958

completing that six

2820

04:48:08,330 --> 04:48:05,628

with this spacewalk we will have

2821

04:48:10,368 --> 04:48:08,340

installed six International Space

2822

04:48:12,288 --> 04:48:10,378

Station rollout solar arrays onto the

2823

04:48:21,550 --> 04:48:12,298

space station we are expecting a 30

2824

04:48:27,110 --> 04:48:24,948

these new solar arrays are rolled out in

2825

04:48:29,390 --> 04:48:27,120

front of the Legacy arrays but the

2826  
04:48:37,850 --> 04:48:29,400  
Legacy arrays will continue to produce

2827  
04:48:42,590 --> 04:48:40,430  
each of the new arrays are about half

2828  
04:48:58,730 --> 04:48:42,600  
the size but thanks to advances in

2829  
04:49:03,050 --> 04:49:01,490  
this new setup with irosa and the Legacy

2830  
04:49:05,030 --> 04:49:03,060  
arrays will increase that power

2831  
04:49:08,390 --> 04:49:05,040  
production capabilities to a combined

2832  
04:49:10,670 --> 04:49:08,400  
total of more than 250 kilowatts

2833  
04:49:12,708 --> 04:49:10,680  
for comparison the average American Home

2834  
04:49:14,810 --> 04:49:12,718  
uses around two kilowatts at any given

2835  
04:49:50,770 --> 04:49:14,820  
time and the space station currently

2836  
04:49:55,730 --> 04:49:53,690  
this is the six International Space

2837  
04:49:58,310 --> 04:49:55,740  
Station roll out solar array to be

2838  
04:50:00,350 --> 04:49:58,320

installed however NASA and Boeing have a

2839

04:50:02,628 --> 04:50:00,360

plan in place for a fourth set of

2840

04:50:04,070 --> 04:50:02,638

rollout arrays to further augment the

2841

04:50:05,750 --> 04:50:04,080

International Space Station's power

2842

04:50:07,970 --> 04:50:05,760

supply

2843

04:50:09,770 --> 04:50:07,980

these arrays which would be the seventh

2844

04:50:12,530 --> 04:50:09,780

and eighth to be installed on the space

2845

04:50:15,830 --> 04:50:12,540

station are targeted to be delivered in

2846

04:50:18,230 --> 04:50:15,840

the 2025 time frame

2847

04:50:21,170 --> 04:50:18,240

so until then the space station will be

2848

04:50:33,708 --> 04:50:21,180

running with these six irosa combined

2849

04:50:38,510 --> 04:50:36,288

a recap of where we are at in the

2850

04:50:40,490 --> 04:50:38,520

spacewalk during this expected loss of

2851  
04:50:44,650 --> 04:50:40,500  
signal as our data is transferred

2852  
04:50:50,810 --> 04:50:47,750  
our spacewalk started this morning at 8

2853  
04:50:52,070 --> 04:50:50,820  
42 a.m Eastern Time 7 42 a.m Central

2854  
04:50:54,530 --> 04:50:52,080  
Time

2855  
04:50:59,590 --> 04:50:54,540  
NASA astronauts Woody hoberg and Steve

2856  
04:51:04,970 --> 04:51:02,930  
they released the solar array from its

2857  
04:51:08,330 --> 04:51:04,980  
Flight Support equipment area and

2858  
04:51:11,448 --> 04:51:08,340  
relocated it to its current work site at

2859  
04:51:17,628 --> 04:51:11,458  
the 1B power supply

2860  
04:51:24,230 --> 04:51:21,110  
on board emirati space agency astronaut

2861  
04:51:26,750 --> 04:51:24,240  
Sultan al-nayadi controlled a robotic

2862  
04:51:30,288 --> 04:51:26,760  
arm that carried NASA astronaut Woody

2863  
04:51:34,010 --> 04:51:30,298

hoberg and the irosa over to the

2864

04:51:38,690 --> 04:51:36,530

the robotic arm was not long enough to

2865

04:51:41,150 --> 04:51:38,700

reach exactly where they needed to be so

2866

04:51:43,788 --> 04:51:41,160

together NASA astronaut Woody hoberg and

2867

04:51:46,670 --> 04:51:43,798

NASA astronaut Steve Bowen conducted a

2868

04:51:48,650 --> 04:51:46,680

leapfrog maneuver passing the solar

2869

04:51:50,990 --> 04:51:48,660

array between themselves to reach its

2870

04:51:53,390 --> 04:51:51,000

final work site

2871

04:51:55,610 --> 04:51:53,400

the team worked very efficiently and was

2872

04:51:58,490 --> 04:51:55,620

ahead of schedule so the flight control

2873

04:52:01,550 --> 04:51:58,500

team here that you are seeing a live

2874

04:52:04,490 --> 04:52:01,560

view of made the decision for the team

2875

04:52:06,770 --> 04:52:04,500

to conduct some work ahead cleanup

2876

04:52:10,550 --> 04:52:06,780

activities that were on their schedule

2877

04:52:13,550 --> 04:52:10,560

to be done after the solar array

2878

04:52:18,530 --> 04:52:15,530

with a couple of those items completed

2879

04:52:21,770 --> 04:52:18,540

then we have entered into our

2880

04:52:24,948 --> 04:52:21,780

orbital night time where the astronauts

2881

04:52:27,050 --> 04:52:24,958

are now able to safely mate the cables

2882

04:53:05,208 --> 04:52:27,060

and connect the solar array to the Space

2883

04:53:10,368 --> 04:53:06,110

thank you

2884

04:53:10,378 --> 04:53:14,690

hi Jenny

2885

04:53:14,700 --> 04:53:18,970

hey Woody we'll take a status from you

2886

04:53:23,330 --> 04:53:21,530

we are standing by awaiting further

2887

04:53:24,850 --> 04:53:23,340

instructions

2888

04:53:27,410 --> 04:53:24,860

all right

2889

04:53:29,270 --> 04:53:27,420

copy no problem we have plenty of time

2890

04:53:31,730 --> 04:53:29,280

left in our working Eclipse we have just

2891

04:53:34,490 --> 04:53:31,740

over 20 minutes that was an unexpected

2892

04:53:36,410 --> 04:53:34,500

voice Los the team's looking into it in

2893

04:53:39,650 --> 04:53:36,420

the meantime I can confirm saving is in

2894

04:53:42,410 --> 04:53:39,660

place so let's get started Woody you can

2895

04:53:46,850 --> 04:53:42,420

either start with

2896

04:53:48,770 --> 04:53:46,860

cap to p23 or the saw cable P9 we need

2897

04:53:51,050 --> 04:53:48,780

one of those disconnected from the panel

2898

04:53:53,270 --> 04:53:51,060

let me know what you choose from and

2899

04:53:58,550 --> 04:53:53,280

likewise for Steve we're looking at p7

2900

04:54:06,350 --> 04:54:01,550

cable t9d made it

2901  
04:54:07,850 --> 04:54:06,360  
copy Woody P9 demated from panel T9

2902  
04:54:12,350 --> 04:54:07,860  
each of the cables have different

2903  
04:54:17,750 --> 04:54:12,360  
numbers connect P9 Alpha to panel P9

2904  
04:54:22,430 --> 04:54:20,448  
copy P9 Alpha

2905  
04:54:24,470 --> 04:54:22,440  
the spacewalk communicator here in

2906  
04:54:27,350 --> 04:54:24,480  
Mission Control Houston is instructing

2907  
04:54:32,390 --> 04:54:27,360  
the astronauts on which cable to attach

2908  
04:54:32,400 --> 04:54:37,970  
Jenny sidey Gibbons is the

2909  
04:54:43,670 --> 04:54:40,990  
she's there in the black shirt she is

2910  
04:54:50,150 --> 04:54:43,680  
she is also a Canadian space agency

2911  
04:54:55,788 --> 04:54:53,810  
together she is working with

2912  
04:54:58,310 --> 04:54:55,798  
Space Walk

2913  
04:55:02,810 --> 04:54:58,320

ER

2914

04:55:05,690 --> 04:55:02,820

spacewalk officers copy Woody mate j9

2915

04:55:13,490 --> 04:55:05,700

Alpha to saw cable P9

2916

04:55:17,990 --> 04:55:15,770

Megan chutika is the lead spacewalk

2917

04:55:20,270 --> 04:55:18,000

officer today and Miranda Nelson is the

2918

04:55:22,550 --> 04:55:20,280

spacewalk task officer

2919

04:55:25,010 --> 04:55:22,560

however it is Jenny who is the one who

2920

04:55:29,750 --> 04:55:25,020

is communicating directly with the crew

2921

04:55:34,190 --> 04:55:32,150

private security Brandon Lloyd is the

2922

04:55:36,050 --> 04:55:34,200

flight director as in the Apollo days

2923

04:55:39,110 --> 04:55:36,060

the flight director has the utmost

2924

04:55:40,910 --> 04:55:39,120

Authority and responsibility for the

2925

04:55:47,208 --> 04:55:40,920

success of the mission and the safety of

2926

04:55:47,218 --> 04:55:50,750

um

2927

04:55:55,788 --> 04:55:52,670

the astronauts are working through

2928

04:55:57,110 --> 04:55:55,798

Meeting those cables during our orbital

2929

04:56:01,368 --> 04:55:57,120

night time

2930

04:56:07,010 --> 04:56:01,378

and Steve I heard a good connection p7

2931

04:56:18,288 --> 04:56:09,410

we should be getting video views back in

2932

04:56:23,090 --> 04:56:20,510

poppy Steve and that's to connect our

2933

04:56:27,440 --> 04:56:23,100

hard stop you can now make p7 alpha to

2934

04:56:32,448 --> 04:56:29,750

[Music]

2935

04:56:34,910 --> 04:56:32,458

I'm Jenny I'm ready to move my cap

2936

04:56:37,610 --> 04:56:34,920

a firm disconnects the wingtap connector

2937

04:56:39,590 --> 04:56:37,620

cap from panel p23

2938

04:56:44,868 --> 04:56:39,600

you will be putting that connector cap

2939

04:56:44,878 --> 04:56:48,470

okay disconnected

2940

04:56:58,310 --> 04:56:51,230

I'm moving into j23 Alpha

2941

04:56:58,320 --> 04:57:12,230

okay

2942

04:57:20,570 --> 04:57:16,250

323 outside no five no Bend pins

2943

04:57:28,368 --> 04:57:25,190

yes the uh top jams has a small rubber

2944

04:57:39,550 --> 04:57:28,378

black rubber insert that kind of came

2945

04:57:39,560 --> 04:57:43,190

you are go

2946

04:57:49,910 --> 04:57:45,350

okay catch the heart stop

2947

04:57:52,868 --> 04:57:49,920

all right G7 j7 to j7 Alpha to the panel

2948

04:57:59,810 --> 04:57:56,990

advance both defense and it's always

2949

04:58:02,510 --> 04:57:59,820

no hard stuff

2950

04:58:05,330 --> 04:58:02,520

coffee p7 Alpha made it to panel p7

2951  
04:58:08,150 --> 04:58:05,340  
Steve you can move on to disconnecting

2952  
04:58:12,410 --> 04:58:08,160  
disconnecting saw cable p21 from panel

2953  
04:58:18,470 --> 04:58:16,190  
saw stands for solar array Wing p23

2954  
04:58:32,390 --> 04:58:18,480  
Alpha to panel t23

2955  
04:58:36,288 --> 04:58:34,430  
all right

2956  
04:58:39,110 --> 04:58:36,298  
21

2957  
04:58:42,610 --> 04:58:39,120  
directly from the panel

2958  
04:58:42,620 --> 04:58:46,368  
give me my band

2959  
04:58:57,350 --> 04:58:49,070  
happy Steve you can meet

2960  
04:59:04,490 --> 04:59:00,470  
and on 223 Alpha no far no vent fans

2961  
04:59:04,500 --> 04:59:10,610  
23.

2962  
04:59:15,410 --> 04:59:13,490  
coffee extract all four

2963  
04:59:18,050 --> 04:59:15,420

swing pads on the panel

2964

04:59:23,030 --> 04:59:20,868

copy I'm tracking that that is your last

2965

04:59:25,368 --> 04:59:23,040

connection Woody all connectors are too

2966

04:59:29,590 --> 04:59:25,378

hard stop you can clean up any remaining

2967

04:59:37,788 --> 04:59:31,970

NASA astronaut Woody hoberg has

2968

04:59:44,690 --> 04:59:39,530

is complete

2969

04:59:53,208 --> 04:59:47,948

copy j21 Alpha made it

2970

04:59:55,550 --> 04:59:53,218

mated to saw cable p21 good checks and

2971

04:59:59,150 --> 04:59:55,560

two connector hardstop Jen can move on

2972

05:00:01,430 --> 04:59:59,160

to connecting p21 Alpha to panel p21

2973

05:00:04,070 --> 05:00:01,440

Jenny Gibbons is following along a very

2974

05:00:11,090 --> 05:00:04,080

detailed set of procedures for all of

2975

05:00:11,100 --> 05:00:17,330

thank you

2976  
05:00:17,340 --> 05:00:37,810  
foreign

2977  
05:00:37,820 --> 05:00:44,750  
director right now

2978  
05:00:51,650 --> 05:00:48,590  
you can translate to the ISS

2979  
05:00:53,448 --> 05:00:51,660  
mod kit and when you're ready we'll take

2980  
05:00:56,510 --> 05:00:53,458  
a web inspection have check and got in a

2981  
05:01:00,590 --> 05:00:58,670  
probably all jim for cleaning up one bit

2982  
05:01:05,390 --> 05:01:00,600  
and then that'll be in work

2983  
05:01:05,400 --> 05:01:12,050  
with those cables successfully mated

2984  
05:01:12,060 --> 05:01:14,810  
we're here

2985  
05:01:20,690 --> 05:01:16,970  
correction we're waiting on one more

2986  
05:01:28,550 --> 05:01:20,700  
cable from NASA astronaut Steve Bowen

2987  
05:01:33,230 --> 05:01:31,490  
all right the difference

2988  
05:01:37,128 --> 05:01:33,240

be my bed

2989

05:01:37,138 --> 05:01:43,190

you go to meet Steve

2990

05:01:48,288 --> 05:01:45,350

Bowen is working on his final cable

2991

05:01:59,020 --> 05:01:48,298

while Woody hoberg is translating it to

2992

05:01:59,030 --> 05:02:19,430

[Applause]

2993

05:02:19,440 --> 05:02:23,948

all right

2994

05:02:31,070 --> 05:02:27,530

B21 Alpha at the peak for the panel

2995

05:02:35,448 --> 05:02:33,170

that's the place

2996

05:02:37,610 --> 05:02:35,458

copy Steve I am tracking that that is

2997

05:02:39,170 --> 05:02:37,620

your last connector and the last

2998

05:02:42,050 --> 05:02:39,180

connector that we need to complete

2999

05:02:44,030 --> 05:02:42,060

during this Eclipse so well done both of

3000

05:02:46,368 --> 05:02:44,040

you we still have 13 minutes of that

3001

05:02:48,170 --> 05:02:46,378

working Eclipse you both did great

3002

05:02:57,650 --> 05:02:48,180

see if you can clean up the remaining

3003

05:03:04,610 --> 05:03:00,110

NASA astronaut Steve Bowen will now tidy

3004

05:03:04,620 --> 05:03:08,628

and in terms of my gloves

3005

05:03:13,550 --> 05:03:11,570

no change and a drive hop

3006

05:03:15,530 --> 05:03:13,560

with you down

3007

05:03:28,310 --> 05:03:15,540

copy Woody good checks and for you both

3008

05:03:36,590 --> 05:03:31,250

and we have our live video views back

3009

05:03:38,390 --> 05:03:36,600

after we translated our data stream to

3010

05:03:40,070 --> 05:03:38,400

in between satellites as the

3011

05:03:40,788 --> 05:03:40,080

International Space Station orbits the

3012

05:03:42,708 --> 05:03:40,798

earth

3013

05:03:46,070 --> 05:03:42,718

NASA astronaut Woody hoberg just

3014

05:03:50,208 --> 05:03:46,080  
conducted a glove helmet and

3015

05:03:54,350 --> 05:03:50,218  
excuse me a glove Gauntlet and hap check

3016

05:03:57,788 --> 05:03:54,360  
is a helmet absorption pad

3017

05:04:00,350 --> 05:03:57,798  
this is in the back of the helmet

3018

05:04:03,708 --> 05:04:00,360  
the crew uses this to determine if

3019

05:04:06,410 --> 05:04:03,718  
there's any excess water in their helmet

3020

05:04:11,650 --> 05:04:06,420  
all things looked good for Woody and he

3021

05:04:15,170 --> 05:04:13,850  
just picked up pretty well is this the

3022

05:04:17,810 --> 05:04:15,180  
bundle here

3023

05:04:34,030 --> 05:04:17,820  
I think I'm complete

3024

05:04:37,910 --> 05:04:36,170  
with that I'll take a glove inspection

3025

05:04:46,128 --> 05:04:37,920  
half check and go on a check from you as

3026

05:04:51,830 --> 05:04:49,310

stand by one Steve we'll have you okay

3027

05:04:59,208 --> 05:04:51,840

Steve we'll have you stay in this

3028

05:05:05,448 --> 05:05:01,670

basically your next step is to get in a

3029

05:05:07,730 --> 05:05:05,458

good position for viewing iroza deploy

3030

05:05:09,350 --> 05:05:07,740

so where wherever you think is best it

3031

05:05:11,750 --> 05:05:09,360

could be where you currently are it

3032

05:05:13,788 --> 05:05:11,760

could be on the last canister handrail

3033

05:05:16,128 --> 05:05:13,798

it could be back on S6 we'll let you

3034

05:05:23,810 --> 05:05:19,850

oh I understand now okay let me look

3035

05:05:25,430 --> 05:05:23,820

uh more than a few short bit there

3036

05:05:28,910 --> 05:05:25,440

um

3037

05:05:31,310 --> 05:05:28,920

okay let me get down to about location I

3038

05:05:36,948 --> 05:05:34,010

copy and we have again lots of time here

3039

05:05:39,470 --> 05:05:36,958

10 more minutes of our working eclipse

3040

05:05:42,110 --> 05:05:39,480

and we need a check in insulation prior

3041

05:05:54,470 --> 05:05:42,120

to deploy so we have at least 10 minutes

3042

05:05:59,868 --> 05:05:57,650

and Steve we might let's send you back

3043

05:06:02,930 --> 05:05:59,878

to the blanket box to check that all the

3044

05:06:05,270 --> 05:06:02,940

connectors are mated to hardstop we are

3045

05:06:09,310 --> 05:06:05,280

unaware of whether we might have bumped

3046

05:06:13,430 --> 05:06:11,990

if you already checked them if you

3047

05:06:20,830 --> 05:06:13,440

already checked them you could just let

3048

05:06:31,730 --> 05:06:23,208

we just didn't have video at the time

3049

05:06:37,670 --> 05:06:34,730

Mission Control team is asking for a

3050

05:06:39,530 --> 05:06:37,680

video visual on those cables great

3051

05:06:41,990 --> 05:06:39,540

config Steve thank you for triple

3052

05:06:43,368 --> 05:06:42,000

checking for us on those tables just to

3053

05:06:45,650 --> 05:06:43,378

make sure that everything looks good

3054

05:06:54,310 --> 05:06:45,660

being that we did not have video views

3055

05:07:00,410 --> 05:06:56,810

this is the helmet cam from NASA

3056

05:07:08,868 --> 05:07:04,190

he is going to get in a good position to

3057

05:07:13,610 --> 05:07:08,878

view the rollout of the solo array

3058

05:07:16,128 --> 05:07:13,620

he is looking at his teammate today NASA

3059

05:07:19,430 --> 05:07:16,138

astronaut Woody hoberg

3060

05:07:24,350 --> 05:07:19,440

Woody hoberg has the red stripe on his

3061

05:07:48,850 --> 05:07:24,360

spacesuit today he is ev1 and Steve is

3062

05:07:56,390 --> 05:07:52,070

once that solar array does start to

3063

05:08:00,948 --> 05:07:56,400

unroll it will take about 12 minutes for

3064

05:08:05,208 --> 05:08:03,350

okay can you do a video how does that

3065

05:08:09,890 --> 05:08:05,218

look

3066

05:08:12,830 --> 05:08:09,900

Steve thank you

3067

05:08:14,810 --> 05:08:12,840

okay I can make myself stable here then

3068

05:08:16,730 --> 05:08:14,820

sounds good to us when you're ready I

3069

05:08:20,830 --> 05:08:16,740

need a glove inspection hap check and

3070

05:08:20,840 --> 05:08:37,090

[Music]

3071

05:08:37,100 --> 05:08:41,690

is dry

3072

05:08:41,700 --> 05:08:46,930

down

3073

05:08:53,530 --> 05:08:49,490

can see NASA astronaut Steve Bowen

3074

05:09:00,650 --> 05:08:57,050

the cloth is good he is inspecting it

3075

05:09:29,170 --> 05:09:00,660

for any unexpected damage

3076

05:09:33,590 --> 05:09:31,850

Woody and Steve were still waiting for a

3077

05:09:35,990 --> 05:09:33,600

Spartan check down here

3078

05:09:38,090 --> 05:09:36,000

in the meantime one warning for you

3079

05:09:40,430 --> 05:09:38,100

prior to releasing the deployment launch

3080

05:09:42,350 --> 05:09:40,440

restraint bolts stay clear of the

3081

05:09:46,390 --> 05:09:42,360

deploying eyebrows of blankets in your

3082

05:09:46,400 --> 05:10:23,410

Thanksgiving as well

3083

05:10:28,310 --> 05:10:25,788

a little bit ago you heard the call out

3084

05:10:31,070 --> 05:10:28,320

for Spartan that is a console position

3085

05:10:33,288 --> 05:10:31,080

here in Mission Control Houston Spartan

3086

05:10:37,010 --> 05:10:33,298

stands for station power articulation

3087

05:10:39,110 --> 05:10:37,020

thermal and Analysis they manage the

3088

05:10:41,030 --> 05:10:39,120

external cooling system as well as power

3089

05:10:44,330 --> 05:10:41,040

generation and distribution for the

3090

05:10:51,410 --> 05:10:48,170

Spartan will be monitoring the

3091

05:10:56,810 --> 05:10:51,420

power generated by the array once it is

3092

05:10:56,820 --> 05:11:14,708

thank you

3093

05:11:20,628 --> 05:11:17,990

the astronaut

3094

05:11:24,288 --> 05:11:20,638

that's right

3095

05:11:27,050 --> 05:11:24,298

the astronauts have completed their

3096

05:11:33,288 --> 05:11:27,060

tasks that were needed to make the new

3097

05:11:39,708 --> 05:11:35,750

they are waiting until orbital Sunrise

3098

05:11:42,050 --> 05:11:39,718

to actually un start unfurling the solar

3099

05:12:16,310 --> 05:11:42,060

array we are expecting that to happen in

3100

05:12:20,750 --> 05:12:18,708

here is a graphic showing the location

3101

05:12:22,970 --> 05:12:20,760

of where the astronauts are right now

3102

05:12:28,690 --> 05:12:22,980

they are on this irosa International

3103

05:12:33,830 --> 05:12:32,090

on June 9th this same Duo NASA astronaut

3104

05:12:35,628 --> 05:12:33,840

Woody hoberg and Nas astronaut Steve

3105

05:12:38,810 --> 05:12:35,638

Bowen installed and rolled out

3106

05:12:41,570 --> 05:12:38,820

successfully the solar array on the 1A

3107

05:12:43,730 --> 05:12:41,580

power Channel

3108

05:12:45,770 --> 05:12:43,740

Woody and Steve were still waiting for

3109

05:12:48,050 --> 05:12:45,780

another three to four minutes until

3110

05:12:50,150 --> 05:12:48,060

we're in insulation but I have an

3111

05:12:53,990 --> 05:12:50,160

updated pet for you

3112

05:12:56,030 --> 05:12:54,000

we are four hours into a seven hour 30

3113

05:12:58,910 --> 05:12:56,040

minute Eva with the limiting consumable

3114

05:13:02,390 --> 05:12:58,920

being Woody's battery

3115

05:13:05,570 --> 05:13:02,400

following our deploy steps we have about

3116

05:13:08,208 --> 05:13:05,580

15 minutes of cleanup which is faster

3117

05:13:09,890 --> 05:13:08,218

than you were expecting based on your

3118

05:13:12,288 --> 05:13:09,900

study time because of the get aheads we

3119

05:13:21,170 --> 05:13:12,298

did earlier and the team is reassessing

3120

05:13:25,850 --> 05:13:23,208

for your information we are also looking

3121

05:13:28,310 --> 05:13:25,860

into why our sha SS

3122

05:13:31,550 --> 05:13:28,320

Comcast didn't allow us to speak to you

3123

05:13:33,830 --> 05:13:31,560

during that data loss made it into a

3124

05:13:35,270 --> 05:13:33,840

full loss for us for your awareness we

3125

05:13:37,850 --> 05:13:35,280

have another one of those coming up

3126  
05:13:39,110 --> 05:13:37,860  
where we should have shot SS but we're

3127  
05:13:41,330 --> 05:13:39,120  
going to try and address the problem

3128  
05:13:45,530 --> 05:13:41,340  
before then we might be handing over to

3129  
05:13:50,990 --> 05:13:48,170  
Happy Thanksgiving

3130  
05:13:53,708 --> 05:13:51,000  
Mission Control team confirming that

3131  
05:13:56,930 --> 05:13:53,718  
that expected loss of signal of video

3132  
05:14:02,570 --> 05:13:56,940  
extended worry about that potential loss

3133  
05:14:18,708 --> 05:14:05,448  
extended momentarily to unexpected also

3134  
05:14:23,390 --> 05:14:20,930  
our next plan loss of signal coming up

3135  
05:14:25,010 --> 05:14:23,400  
in about an hour the team should have

3136  
05:14:27,770 --> 05:14:25,020  
voiced with the astronauts for the

3137  
05:14:46,670 --> 05:14:27,780  
majority of that loss of signal

3138  
05:14:51,890 --> 05:14:49,610

we are just over four hours into today's

3139

05:14:54,170 --> 05:14:51,900

space walk and the crew has already

3140

05:15:17,288 --> 05:14:54,180

worked ahead on additional tasks that

3141

05:15:23,868 --> 05:15:20,390

NASA astronauts Steve Bowen this is his

3142

05:15:28,368 --> 05:15:25,788

and it is Woody hoberg's second

3143

05:15:30,470 --> 05:15:28,378

spacewalk they launched together as part

3144

05:15:32,628 --> 05:15:30,480

of the NASA crew 6 Mission they arrived

3145

05:15:46,250 --> 05:15:32,638

to the space station on March 3rd of

3146

05:15:50,810 --> 05:15:48,890

for Bowen after today being his 10th

3147

05:15:58,930 --> 05:15:50,820

space walk it will tie him for the most

3148

05:16:07,128 --> 05:16:03,530

he will be then tied with Mike Lopez

3149

05:16:37,010 --> 05:16:07,138

Alegria Bob benken Peggy Whitson and

3150

05:16:37,020 --> 05:16:49,090

foreign

3151  
05:16:53,208 --> 05:16:51,050  
Woody and Steve were headed into

3152  
05:16:59,030 --> 05:16:53,218  
insulation

3153  
05:17:05,990 --> 05:17:01,550  
great and James I'm going to have Alpha

3154  
05:17:12,050 --> 05:17:08,030  
we are heading into that orbital Sunrise

3155  
05:17:18,050 --> 05:17:12,060  
you should be in position for R9 and r10

3156  
05:17:23,208 --> 05:17:19,670  
all right

3157  
05:17:41,350 --> 05:17:23,218  
two

3158  
05:17:47,810 --> 05:17:44,750  
next up they will release the launch

3159  
05:18:38,330 --> 05:17:47,820  
restraint bolts which will allow the

3160  
05:18:44,510 --> 05:18:41,690  
NASA astronaut Woody hoberg working on

3161  
05:19:06,110 --> 05:18:44,520  
those launch restraints launch restraint

3162  
05:19:12,170 --> 05:19:09,890  
and this live view from

3163  
05:19:15,948 --> 05:19:12,180

NASA astronaut Steve Bowen's helmet

3164

05:19:19,610 --> 05:19:15,958

camera he is he has positioned himself

3165

05:19:30,050 --> 05:19:19,620

to have a good view of that solar array

3166

05:19:35,448 --> 05:19:33,288

his next job is to observe these first

3167

05:19:37,310 --> 05:19:35,458

set of magnets that make sure that they

3168

05:19:50,570 --> 05:19:37,320

snap together during that initial

3169

05:19:57,650 --> 05:19:54,948

there are magnets along the rim of the

3170

05:20:21,708 --> 05:19:57,660

solar array that actually aids with

3171

05:20:47,090 --> 05:20:25,490

the team is waiting for a go from from

3172

05:20:50,868 --> 05:20:48,770

all right Woody and Steve we have the

3173

05:20:53,230 --> 05:20:50,878

check that we need so with that we are

3174

05:20:57,830 --> 05:20:53,240

go for deploy Steve you stay in position

3175

05:20:59,930 --> 05:20:57,840

Woody you can release R9 and r10

3176

05:21:02,690 --> 05:20:59,940

the white line will appear when the

3177

05:21:06,948 --> 05:21:02,700

bolts are fully released expect 17 to 20

3178

05:21:06,958 --> 05:21:12,050

okay set

3179

05:21:12,060 --> 05:21:34,430

starting turns on R9 it wins

3180

05:21:40,250 --> 05:21:37,250

NASA astronaut Woody hoberg is utilizing

3181

05:21:43,850 --> 05:21:40,260

his pistol grip tool

3182

05:21:51,288 --> 05:21:43,860

or his spacewalk drill to loosen those

3183

05:21:56,868 --> 05:21:54,350

and people popped out at one sixth turns

3184

05:21:59,570 --> 05:21:56,878

I see the white line visible

3185

05:22:05,090 --> 05:21:59,580

copy white line visible

3186

05:22:05,100 --> 05:22:13,310

7 chance

3187

05:22:43,550 --> 05:22:15,650

this is the final bolt that needs to be

3188

05:22:43,560 --> 05:22:48,590

18 turns on our turn gonna wiggle it

3189

05:22:48,600 --> 05:23:06,650

copy or go

3190

05:23:14,930 --> 05:23:08,628

yeah I'm not not coming out like the

3191

05:23:14,940 --> 05:23:28,490

can I get a few more turn stems

3192

05:23:28,500 --> 05:23:32,330

stand by one woody

3193

05:23:40,970 --> 05:23:35,030

over this way

3194

05:23:46,788 --> 05:23:44,150

and with those restraint bolts released

3195

05:23:50,330 --> 05:23:46,798

you can see the solar array begin to

3196

05:23:56,030 --> 05:23:53,208

it is aided by those magnets that snap

3197

05:24:00,708 --> 05:23:57,830

this is the

3198

05:24:04,430 --> 05:24:00,718

helmet camera view from NASA astronaut

3199

05:24:31,208 --> 05:24:07,430

it will take about 12 minutes for the

3200

05:24:36,230 --> 05:24:34,010

a beautiful view with the earth below

3201

05:25:03,730 --> 05:24:36,240

the International Space Station is

3202

05:25:13,910 --> 05:25:06,288

copy Steve we see that in your hecka as

3203

05:25:18,708 --> 05:25:16,368

NASA astronaut Steve Bowen confirming

3204

05:25:21,288 --> 05:25:18,718

that he sees those magnets have properly

3205

05:25:25,010 --> 05:25:21,298

engaged with another confirmation from

3206

05:25:27,470 --> 05:25:25,020

the flight control team here in Houston

3207

05:25:30,230 --> 05:25:27,480

he is going to remain in that position

3208

05:25:58,430 --> 05:25:30,240

to keep a good visual on the solar array

3209

05:26:05,628 --> 05:26:01,970

about two years from the First on Rosa

3210

05:26:07,610 --> 05:26:05,638

first irosa unrolling is the six irosa

3211

05:26:10,490 --> 05:26:07,620

unrolling

3212

05:26:13,190 --> 05:26:10,500

again that first irosa or International

3213

05:26:24,770 --> 05:26:13,200

Space Station rollout solar array was

3214

05:26:24,780 --> 05:26:28,850

go

3215

05:26:34,670 --> 05:26:31,368

Danny there's some uh White rectangles

3216

05:26:38,030 --> 05:26:34,680

that pop out uh in the center of our

3217

05:26:40,670 --> 05:26:38,040

virus as it's falling out and it looks

3218

05:26:43,610 --> 05:26:40,680

like maybe the fifth one of

3219

05:26:55,850 --> 05:26:43,620

the right hand side one I did not fully

3220

05:26:59,030 --> 05:26:57,350

you should be able to see it in my

3221

05:27:01,310 --> 05:26:59,040

hacker

3222

05:27:02,150 --> 05:27:01,320

cocky Woody we are getting off the

3223

05:27:03,590 --> 05:27:02,160

middle of

3224

05:27:05,690 --> 05:27:03,600

restaurants we are getting eyes on that

3225

05:27:07,610 --> 05:27:05,700

we appreciate the report would you be

3226

05:27:10,250 --> 05:27:07,620

able to get a picture on your camera as

3227

05:27:10,260 --> 05:28:09,170

of course thank you

3228

05:28:12,410 --> 05:28:10,550

thank you

3229

05:28:14,390 --> 05:28:12,420

Woody and Steve were about halfway

3230

05:28:16,430 --> 05:28:14,400

through deploy we'll let you know when

3231

05:28:21,890 --> 05:28:16,440

we can get moving again after deploy is

3232

05:28:28,070 --> 05:28:24,770

after the solar array is deployed the

3233

05:28:49,430 --> 05:28:28,080

team will then proceed to tension it or

3234

05:28:54,288 --> 05:28:51,708

you can see the view here of a size

3235

05:28:56,448 --> 05:28:54,298

comparison between the new solar array

3236

05:28:59,330 --> 05:28:56,458

with the Legacy array

3237

05:29:01,310 --> 05:28:59,340

when unrolled the

3238

05:29:03,948 --> 05:29:01,320

International Space Station roll out

3239

05:29:07,550 --> 05:29:03,958

solar array the new one will be 60 feet

3240

05:29:47,750 --> 05:29:07,560

long by 20 feet wide and the Legacy ones

3241

05:29:54,170 --> 05:29:51,288

to the left is the ssrms or the space

3242

05:30:00,070 --> 05:29:54,180

station remote manipulator system also

3243

05:30:06,230 --> 05:30:03,288

it is a contribution from the Canadian

3244

05:30:10,610 --> 05:30:08,570

it helps move supplies equipment and

3245

05:30:21,410 --> 05:30:10,620

even astronauts during space walks like

3246

05:32:10,570 --> 05:30:25,368

it is over 57 feet long when it is fully

3247

05:32:15,530 --> 05:32:13,010

all right Woody and Steve we have about

3248

05:32:20,090 --> 05:32:15,540

two minutes left of deploy and I have

3249

05:32:20,100 --> 05:32:24,110

all right ready to copy

3250

05:32:29,750 --> 05:32:26,628

Woody you will be completing the

3251  
05:32:31,850 --> 05:32:29,760  
tensioner bolts release and then doing

3252  
05:32:33,350 --> 05:32:31,860  
works like cleanup pretty much as

3253  
05:32:35,810 --> 05:32:33,360  
written in the procedure we'll have you

3254  
05:32:37,910 --> 05:32:35,820  
get crew lock bag M and then you'll be

3255  
05:32:39,770 --> 05:32:37,920  
translating inboard picking up your

3256  
05:32:44,270 --> 05:32:39,780  
green hook along the way and then

3257  
05:32:45,650 --> 05:32:44,280  
working with ssrms to retrieve the apfr

3258  
05:32:53,390 --> 05:32:45,660  
following that we'll have more

3259  
05:32:57,230 --> 05:32:55,788  
Steve for you following deploy you are

3260  
05:32:59,868 --> 05:32:57,240  
going to pick up the cable bag and put

3261  
05:33:01,368 --> 05:32:59,878  
it on your brt you'll translate inboard

3262  
05:33:03,770 --> 05:33:01,378  
picking up your green hook on the way

3263  
05:33:07,310 --> 05:33:03,780

and then we will have you at the seat of

3264

05:33:10,550 --> 05:33:07,320

cart bundling that bag to crew lock bag

3265

05:33:10,560 --> 05:33:15,190

understand

3266

05:33:46,628 --> 05:33:19,970

brt stands for body restraint tether

3267

05:33:53,270 --> 05:33:49,208

the sixth International Space Station

3268

05:33:55,910 --> 05:33:53,280

solar array is completing

3269

05:33:59,330 --> 05:33:55,920

yeah I didn't notice it on the last

3270

05:34:01,430 --> 05:33:59,340

Latvia and there I noticed what looks

3271

05:34:02,448 --> 05:34:01,440

like it looks similar to me to what I

3272

05:34:08,448 --> 05:34:02,458

saw

3273

05:34:12,470 --> 05:34:10,250

kind of a little pop

3274

05:34:17,750 --> 05:34:12,480

magnets on your side weren't terribly

3275

05:34:17,760 --> 05:34:22,010

copy

3276

05:34:30,470 --> 05:34:25,190

foreign and we think that that pop is

3277

05:34:35,990 --> 05:34:32,830

right

3278

05:34:38,090 --> 05:34:36,000

okay with that deploy is complete so

3279

05:34:40,250 --> 05:34:38,100

well done both of you

3280

05:34:43,490 --> 05:34:40,260

um Steve you can translate to retrieve

3281

05:34:44,750 --> 05:34:43,500

the cable bag and Woody sudden stops and

3282

05:34:48,288 --> 05:34:44,760

quick grabs they're still not allowed on

3283

05:34:50,510 --> 05:34:48,298

the mod kit and now you have a 25

3284

05:34:52,190 --> 05:34:50,520

pound Max lateral load on the mod kit

3285

05:34:53,330 --> 05:34:52,200

less than before now that we have

3286

05:34:55,010 --> 05:34:53,340

deployed

3287

05:35:02,590 --> 05:34:55,020

you can get in position for the

3288

05:35:07,670 --> 05:35:05,090

NASA astronaut Woody hoberg will be

3289

05:35:09,910 --> 05:35:07,680

releasing those tensioner bolts that is

3290

05:35:12,948 --> 05:35:09,920

going to pull the solar array tight

3291

05:35:15,050 --> 05:35:12,958

meanwhile NASA astronaut Steve Bowen is

3292

05:35:20,390 --> 05:35:15,060

going to start with some cleanup

3293

05:35:24,350 --> 05:35:22,070

[Music]

3294

05:35:26,510 --> 05:35:24,360

like this on the other side that Steve

3295

05:35:29,390 --> 05:35:26,520

was not looking at have snapped together

3296

05:35:34,070 --> 05:35:31,910

they have see them from here

3297

05:35:36,170 --> 05:35:34,080

all the magnets

3298

05:35:38,030 --> 05:35:36,180

the first five I Can See Clearly the

3299

05:35:40,070 --> 05:35:38,040

rest I watched at the end they'll

3300

05:35:41,628 --> 05:35:40,080

separated the places very good there's

3301

05:35:42,830 --> 05:35:41,638

part of what that uh

3302

05:35:46,430 --> 05:35:42,840

interesting that Woody just got

3303

05:35:51,170 --> 05:35:48,650

all right thank you we'll take that that

3304

05:35:55,730 --> 05:35:51,180

check is good for us uh Steve again

3305

05:36:00,830 --> 05:35:57,948

all right

3306

05:36:04,550 --> 05:36:00,840

and Jenny I have Alpha One counter two

3307

05:36:10,070 --> 05:36:07,190

settings you will be releasing these

3308

05:36:14,650 --> 05:36:10,080

five to six turns a white line will be

3309

05:36:14,660 --> 05:36:19,850

copy starting terms

3310

05:36:27,708 --> 05:36:22,670

NASA astronaut Woody hoberg is turning

3311

05:36:36,288 --> 05:36:30,170

you can see movement on the solar array

3312

05:36:36,298 --> 05:36:40,850

Steve repeat your last

3313

05:36:46,368 --> 05:36:42,650

we're passing several cable clamps that

3314

05:36:53,090 --> 05:36:46,378

are that are undone and I could

3315

05:36:58,610 --> 05:36:55,128

okay Steve we coffee you can close those

3316

05:37:02,330 --> 05:37:00,050

okay

3317

05:37:07,310 --> 05:37:02,340

as NASA astronaut Steve Bowen is

3318

05:37:14,090 --> 05:37:11,750

he saw some open short hand over

3319

05:37:15,830 --> 05:37:14,100

open cable ties

3320

05:37:18,110 --> 05:37:15,840

the mission control team in Houston

3321

05:38:06,350 --> 05:37:18,120

confirmed that he can close them but

3322

05:38:12,650 --> 05:38:08,948

Jamie you're back

3323

05:38:30,170 --> 05:38:14,930

okay I waited for you guys for hours but

3324

05:38:34,788 --> 05:38:32,510

okay Tony I saw the pop on the array at

3325

05:38:38,030 --> 05:38:34,798

three turns that was similar to what I

3326

05:38:39,890 --> 05:38:38,040

saw on R11 I continued to both do your

3327

05:38:43,250 --> 05:38:39,900

minimum five turns and I have a White

3328

05:38:47,330 --> 05:38:45,708

puppy the pup happened after three turns

3329

05:39:01,330 --> 05:38:47,340

but you got a total of five you see the

3330

05:39:06,110 --> 05:39:04,070

all right Woody those are good bolts you

3331

05:39:08,150 --> 05:39:06,120

can verify that all the mli on the mod

3332

05:39:12,770 --> 05:39:08,160

kit is in place no metal should be

3333

05:39:12,780 --> 05:39:22,570

looking

3334

05:39:27,590 --> 05:39:25,310

Mission Control team confirming that

3335

05:39:29,510 --> 05:39:27,600

everything looks good on the rolled

3336

05:39:33,650 --> 05:39:29,520

outsole array that has now been pulled

3337

05:40:03,860 --> 05:39:33,660

tight thanks to tensioner bolts

3338

05:40:03,870 --> 05:40:14,150

[Music]

3339

05:40:19,788 --> 05:40:16,670

copy Steve you have the cable bag on

3340

05:40:21,830 --> 05:40:19,798

your brt you will be releasing it from

3341

05:40:27,470 --> 05:40:21,840

structure and translating inboard

3342

05:40:32,330 --> 05:40:29,690

and NASA astronaut Steve Bowen

3343

05:40:38,390 --> 05:40:32,340

confirming that he has the tool bag on

3344

05:40:43,070 --> 05:40:40,788

here you can see a view of that

3345

05:40:45,288 --> 05:40:43,080

we have one additional step before you

3346

05:40:49,190 --> 05:40:45,298

head to the crew lock bag

3347

05:40:51,110 --> 05:40:49,200

we're interested in why that part of

3348

05:40:53,330 --> 05:40:51,120

the center of irosa that you reported

3349

05:40:55,490 --> 05:40:53,340

didn't deploy nominally and we're

3350

05:40:58,250 --> 05:40:55,500

wondering if you can get us a view on

3351

05:41:00,708 --> 05:40:58,260

the outboard side it would be the back

3352

05:41:02,510 --> 05:41:00,718

from your perspective previously of that

3353

05:41:04,310 --> 05:41:02,520

portion of the array we understand

3354

05:41:08,628 --> 05:41:04,320

that's really challenging because you're

3355

05:41:13,270 --> 05:41:10,970

okay I'll see if I can do it

3356

05:41:19,070 --> 05:41:13,280

um Jenny do you have in my hacker this

3357

05:41:19,080 --> 05:41:30,170

checking

3358

05:41:30,180 --> 05:41:41,270

there's no metal exposed

3359

05:41:46,610 --> 05:41:43,128

all right Woody if no metal is showing

3360

05:41:48,170 --> 05:41:46,620

you can leave it as is thank you

3361

05:41:51,050 --> 05:41:48,180

okay copy that

3362

05:41:53,150 --> 05:41:51,060

I will try to get that to you now

3363

05:41:57,350 --> 05:41:53,160

we appreciate it and if you are able to

3364

05:42:01,430 --> 05:41:57,360

get a view we'd also like a photo please

3365

05:42:06,830 --> 05:42:03,890

try

3366

05:42:10,030 --> 05:42:06,840

NASA astronaut Woody hoberg is

3367

05:42:17,390 --> 05:42:10,040

attempting to get a Visual and a photo

3368

05:42:17,400 --> 05:42:31,010

teams believe may have been abnormal

3369

05:42:34,490 --> 05:42:32,510

because I think what we're dealing with

3370

05:42:35,750 --> 05:42:34,500

is on the back side of the array there's

3371

05:42:37,670 --> 05:42:35,760

some yellow

3372

05:42:40,490 --> 05:42:37,680

foam strips

3373

05:42:43,190 --> 05:42:40,500

but it looks like that

3374

05:42:46,670 --> 05:42:43,200

white rectangle is just caught on the

3375

05:42:48,890 --> 05:42:46,680

edge of one of the yellow foam strips

3376

05:42:52,310 --> 05:42:48,900

all right we see it in your heka thank

3377

05:42:57,590 --> 05:42:54,530

okay I'll get you some photos

3378

05:43:00,050 --> 05:42:57,600

hecca is the helmet cam that is the live

3379

05:43:02,208 --> 05:43:00,060

view you are seeing right now

3380

05:43:03,770 --> 05:43:02,218

we see you pulling out your camera and

3381

05:43:07,550 --> 05:43:03,780

we appreciate it we will take some

3382

05:43:07,560 --> 05:43:22,550

of course no problem

3383

05:43:22,560 --> 05:43:28,690

foreign

3384

05:43:34,490 --> 05:43:31,250

Woody hoberg is taking a photo for

3385

05:43:37,368 --> 05:43:34,500

engineering analysis but this issue is

3386

05:44:08,690 --> 05:43:37,378

not expected to impact the performance

3387

05:44:08,700 --> 05:44:12,770

okay I think I got some good shots

3388

05:44:18,650 --> 05:44:15,890

great thank you Woody we appreciate it

3389

05:44:21,110 --> 05:44:18,660

your next step is to release the Scoop

3390

05:44:23,090 --> 05:44:21,120

from the mounting bracket with the

3391

05:44:24,470 --> 05:44:23,100

adjustable equipment tethers on it and

3392

05:44:27,110 --> 05:44:24,480

you'll be sewing that in the crew lock

3393

05:44:27,120 --> 05:44:31,490

happy

3394

05:44:31,500 --> 05:44:34,970

okay

3395

05:45:32,830 --> 05:44:38,150

singing my translation input

3396

05:45:32,840 --> 05:45:37,910

here you can see that tool bag

3397

05:45:37,920 --> 05:46:14,628

foreign

3398

05:46:14,638 --> 05:46:46,548

and the scoop is a handling Aid

3399

05:46:49,368 --> 05:46:48,060

speed

3400

05:46:51,230 --> 05:46:49,378

[Music]

3401  
05:47:31,208 --> 05:46:51,240  
copy Steve let us know when you're on

3402  
05:47:38,030 --> 05:47:34,548  
we are just over four and a half hours

3403  
05:47:39,250 --> 05:47:38,040  
we are at four hours and 33 minutes into

3404  
05:47:44,570 --> 05:47:39,260  
the

3405  
05:47:47,868 --> 05:47:44,580  
Space Station in support of its assembly

3406  
05:47:49,850 --> 05:47:47,878  
maintenance and upgrades NASA astronaut

3407  
05:47:52,670 --> 05:47:49,860  
Woody hoberg and NASA astronaut Steve

3408  
05:47:56,810 --> 05:47:52,680  
Bowen began the spacewalk this morning

3409  
05:47:59,810 --> 05:47:56,820  
at 8 42 a.m Eastern Time 7 42 a.m

3410  
05:48:02,448 --> 05:47:59,820  
central time after they exited the

3411  
05:48:04,448 --> 05:48:02,458  
airlock they released the solar array

3412  
05:48:07,850 --> 05:48:04,458  
from its Flight Support equipment area

3413  
05:48:13,330 --> 05:48:07,860

they then relocated it to the starboard

3414

05:48:19,070 --> 05:48:16,310

the team transported the solar array

3415

05:48:21,470 --> 05:48:19,080

with the robotic arm called the Canada 2

3416

05:48:26,750 --> 05:48:23,810

Woody hoberg flew on that robotic arm

3417

05:48:29,448 --> 05:48:26,760

with the solar array and then passed it

3418

05:48:34,850 --> 05:48:29,458

off to Steve Bowen in a leapfrog

3419

05:48:40,430 --> 05:48:36,590

during

3420

05:48:42,830 --> 05:48:40,440

efficiently and was well ahead of

3421

05:48:45,288 --> 05:48:42,840

schedule so the flight control team here

3422

05:48:48,230 --> 05:48:45,298

in Houston made the decision for them to

3423

05:48:50,810 --> 05:48:48,240

go ahead and work ahead on some items in

3424

05:48:54,048 --> 05:48:50,820

the timeline while they waited for a

3425

05:48:56,868 --> 05:48:54,058

eclipse an orbital nighttime

3426  
05:48:58,788 --> 05:48:56,878  
that orbital night time was necessary as

3427  
05:49:01,970 --> 05:48:58,798  
a safety measure in order to make sure

3428  
05:49:03,590 --> 05:49:01,980  
there was no power no sun reaching that

3429  
05:49:07,430 --> 05:49:03,600  
solar array when they went to actually

3430  
05:49:13,970 --> 05:49:09,650  
we successfully reached our orbital

3431  
05:49:16,190 --> 05:49:13,980  
night time and the team mated the solar

3432  
05:49:18,350 --> 05:49:16,200  
array with the Space Station's Power

3433  
05:49:24,350 --> 05:49:18,360  
Systems

3434  
05:51:08,510 --> 05:49:29,150  
the

3435  
05:51:11,090 --> 05:51:08,520  
and Equipment translation Aid this is a

3436  
05:51:45,610 --> 05:51:11,100  
cart and it is on the port side of the

3437  
05:51:51,470 --> 05:51:48,650  
Woody once you have the crew off bag on

3438  
05:51:54,288 --> 05:51:51,480

your brt your next step is to translate

3439

05:51:55,910 --> 05:51:54,298

back inboard but this is obviously the

3440

05:51:57,650 --> 05:51:55,920

last time we will be at this work site

3441

05:51:59,150 --> 05:51:57,660

today so we want you to do a sanity

3442

05:52:00,770 --> 05:51:59,160

check and a scan looks like you've been

3443

05:52:02,930 --> 05:52:00,780

looking around anyway make sure we

3444

05:52:05,160 --> 05:52:02,940

haven't forgotten anything

3445

05:52:07,010 --> 05:52:05,170

Jenny

3446

05:52:14,208 --> 05:52:07,020

[Music]

3447

05:52:20,208 --> 05:52:17,030

he is connecting that tool bag to his

3448

05:52:22,190 --> 05:52:20,218

brt or body restraint tether

3449

05:52:24,890 --> 05:52:22,200

the mission control team asked for one

3450

05:52:27,350 --> 05:52:24,900

final visual of this workstation before

3451

05:52:32,208 --> 05:52:27,360

they leave it for the day after a

3452

05:52:32,218 --> 05:52:40,368

all right looking around

3453

05:52:43,788 --> 05:52:42,770

inside connectors are made at Moi looks

3454

05:52:48,470 --> 05:52:43,798

good

3455

05:52:53,868 --> 05:52:50,208

your life back to you with me and I'm

3456

05:52:56,208 --> 05:52:53,878

leaving the apfr at Jenny and width 31.

3457

05:52:58,610 --> 05:52:56,218

hey firm that's right and you should

3458

05:53:00,110 --> 05:52:58,620

have crew lock bag M but otherwise

3459

05:53:06,170 --> 05:53:00,120

correct

3460

05:53:10,430 --> 05:53:08,810

perfect Woody wonderful job you can

3461

05:53:12,350 --> 05:53:10,440

clean up any sort of fairlead you might

3462

05:53:13,970 --> 05:53:12,360

have out there because your next step is

3463

05:53:16,628 --> 05:53:13,980

to translate inboard and pick up your

3464

05:53:16,638 --> 05:53:23,448

I'll do that thanks

3465

05:53:30,048 --> 05:53:26,690

all right I got the cable tag

3466

05:53:30,058 --> 05:53:33,110

s

3467

05:53:37,128 --> 05:53:34,788

copy Steve

3468

05:53:38,990 --> 05:53:37,138

we'll have you hold at the Port Cedar

3469

05:53:43,610 --> 05:53:39,000

cart for now I will take a glove

3470

05:53:43,620 --> 05:53:58,190

all right let me get comfy

3471

05:54:11,890 --> 05:54:00,708

that's a good habit right

3472

05:54:17,810 --> 05:54:14,510

Nash astronaut Steve Bowen just

3473

05:54:20,690 --> 05:54:17,820

conducted a routine glove Gauntlet and

3474

05:54:22,610 --> 05:54:20,700

hap check hap is the helmet absorption

3475

05:54:24,650 --> 05:54:22,620

pad this is a pad that's in the back of

3476

05:54:26,390 --> 05:54:24,660

their helmet they test to see if it's

3477

05:54:29,510 --> 05:54:26,400

squishy or wet or has any water

3478

05:54:31,250 --> 05:54:29,520

everything is good for NASA astronaut

3479

05:54:33,470 --> 05:54:31,260

Steve Bowen

3480

05:54:37,190 --> 05:54:33,480

the crew has been conducting these

3481

05:54:39,350 --> 05:54:37,200

checks throughout the spacewalk

3482

05:54:41,868 --> 05:54:39,360

we are currently at four hours and 40

3483

05:54:50,948 --> 05:54:41,878

minutes into today's space walk and well

3484

05:54:57,708 --> 05:54:54,708

Steve Bowen is waiting at that cart

3485

05:55:01,850 --> 05:54:57,718

location for Woody hoberg to join him

3486

05:55:07,010 --> 05:55:04,490

Woody continue your translation inboard

3487

05:55:08,690 --> 05:55:07,020

once you are on the inboard side of the

3488

05:55:13,548 --> 05:55:08,700

stubborn Cedar cart we'll have you tap

3489

05:55:18,410 --> 05:55:16,250

y'all

3490

05:55:20,330 --> 05:55:18,420

I have big picture words for both of you

3491

05:55:23,030 --> 05:55:20,340

Steve you're stationary what are you

3492

05:55:23,040 --> 05:55:25,850

yeah

3493

05:55:29,628 --> 05:55:27,350

all right I just want to check in with

3494

05:55:32,868 --> 05:55:29,638

you before we go further we are four

3495

05:55:34,490 --> 05:55:32,878

hours and 40 minutes or so into this Eva

3496

05:55:37,010 --> 05:55:34,500

you two have done a phenomenal job

3497

05:55:38,930 --> 05:55:37,020

you've already deployed irosa and our

3498

05:55:40,670 --> 05:55:38,940

next step really would be to sync up and

3499

05:55:42,650 --> 05:55:40,680

then get after some get aheads mainly

3500

05:55:45,948 --> 05:55:42,660

Steve we would be sending you to the Z1

3501

05:55:48,230 --> 05:55:45,958

tool boxes in order to retrieve that

3502

05:55:49,610 --> 05:55:48,240

Canon connector tool how are you guys

3503

05:56:00,590 --> 05:55:49,620

feeling

3504

05:56:09,170 --> 05:56:03,288

I think it's in the door actually so

3505

05:56:09,180 --> 05:56:14,288

we think that's a yes

3506

05:56:20,628 --> 05:56:17,510

I'm doing great as well so happy to keep

3507

05:56:22,070 --> 05:56:20,638

going okay great news we're really glad

3508

05:56:23,810 --> 05:56:22,080

to hear it again YouTube has done a

3509

05:56:26,030 --> 05:56:23,820

wonderful job

3510

05:56:27,530 --> 05:56:26,040

all right so again reminder your next

3511

05:56:29,270 --> 05:56:27,540

step just because I see you're coming up

3512

05:56:31,128 --> 05:56:29,280

to those seat of carts Woody will take a

3513

05:56:32,510 --> 05:56:31,138

double tap on the inboard side of the

3514

05:56:34,548 --> 05:56:32,520

starboard seated cart before you head

3515

05:56:37,070 --> 05:56:34,558

under the empty and then you'll sync up

3516

05:56:39,830 --> 05:56:37,080

with Steve on the port Cedar cart you'll

3517

05:56:41,510 --> 05:56:39,840

need to be further inboard than Steve in

3518

05:56:43,128 --> 05:56:41,520

order to make our tether routing work so

3519

05:56:44,750 --> 05:56:43,138

once you get there just make sure your

3520

05:56:46,250 --> 05:56:44,760

tethers are deconflicted and then you

3521

05:56:50,270 --> 05:56:46,260

will actually pass Steve and continue

3522

05:56:53,570 --> 05:56:51,948

all right got it

3523

05:56:55,010 --> 05:56:53,580

is there any do you want to clean up

3524

05:56:56,868 --> 05:56:55,020

this other thing and get it back to the

3525

05:57:03,048 --> 05:56:56,878

airlock is the staging or

3526

05:57:03,058 --> 05:57:06,250

thank you

3527

05:57:10,310 --> 05:57:08,390

Steve we're going to be cleaning that up

3528

05:57:14,830 --> 05:57:10,320

on our way back we have more details for

3529

05:57:14,840 --> 05:57:19,670

and yet another

3530

05:57:23,150 --> 05:57:21,110

Cedar card

3531

05:57:25,070 --> 05:57:23,160

import size

3532

05:57:27,830 --> 05:57:25,080

copy what do you think you

3533

05:57:31,910 --> 05:57:27,840

and yet another work ahead task for the

3534

05:57:33,890 --> 05:57:31,920

Eva 88 crew members

3535

05:57:38,590 --> 05:57:33,900

Mission Control team asked them if they

3536

05:57:43,128 --> 05:57:40,910

Woody yeah let me take a look at the

3537

05:57:45,770 --> 05:57:43,138

tether situation

3538

05:57:47,208 --> 05:57:45,780

Okay so

3539

05:57:52,310 --> 05:57:47,218

yeah

3540

05:57:59,330 --> 05:57:55,910

Woody you are headed to the ssrms

3541

05:58:03,590 --> 05:57:59,340

cleanup position which is at mile marker

3542

05:58:03,600 --> 05:58:06,708

6870

3543

05:58:11,750 --> 05:58:09,230

good words thank you Tony

3544

05:58:14,270 --> 05:58:11,760

the ssrms stands for the space station

3545

05:58:16,850 --> 05:58:14,280

remote manipulator system that is the

3546

05:58:18,890 --> 05:58:16,860

robotic arm that has been used on

3547

05:58:24,048 --> 05:58:18,900

today's space walk to transport both

3548

05:58:25,970 --> 05:58:24,058

Woody and the irosa to its Workstation

3549

05:58:28,310 --> 05:58:25,980

all right Steve tellers look really good

3550

05:58:29,448 --> 05:58:28,320

thanks to your excellent position there

3551

05:58:31,610 --> 05:58:29,458

all right

3552

05:58:39,170 --> 05:58:31,620

thanks for getting by me

3553

05:58:44,208 --> 05:58:41,150

if you want to see the car break as well

3554

05:58:45,770 --> 05:58:44,218

Jim I'll get it no yeah that's right

3555

05:58:47,510 --> 05:58:45,780

Steve's the last one to leave that seat

3556

05:58:51,170 --> 05:58:47,520

of cart so you can just continue Steve

3557

05:58:57,948 --> 05:58:54,890

okay Steve uh one sec just make sure I'm

3558

05:59:01,010 --> 05:58:57,958

well clear of your tether watch it put

3559

05:59:07,850 --> 05:59:01,020

it away at least a little clear here

3560

05:59:11,270 --> 05:59:09,708

there's obviously a slight cross right

3561

05:59:15,470 --> 05:59:11,280

here where the encourage but that should

3562

05:59:51,350 --> 05:59:15,480

not be a factor yeah with that okay

3563

05:59:51,360 --> 05:59:59,170

foreign

3564

06:00:06,470 --> 06:00:03,110

Woody is in a good position clear of you

3565

06:00:08,868 --> 06:00:06,480

Steve so you can translate to the Anchor

3566

06:00:12,110 --> 06:00:08,878

Hooks and we'll get you to double tap

3567

06:00:29,750 --> 06:00:12,120

the inboard Port pseudocart brake pedals

3568

06:00:35,448 --> 06:00:32,690

all right are you guys ready for a GCA

3569

06:00:38,570 --> 06:00:35,458

they're published

3570

06:00:40,850 --> 06:00:38,580

absolutely we are ready uh for bringing

3571

06:00:46,190 --> 06:00:40,860

beyond for the API for removal position

3572

06:00:49,010 --> 06:00:46,200

and we are expecting station at about 1

3573

06:00:51,890 --> 06:00:49,020

meter 70 centimeters that sounds perfect

3574

06:00:54,830 --> 06:00:51,900

so far go to Station app all right

3575

06:00:58,610 --> 06:00:54,840

starting motion copy and Jenny I double

3576

06:01:03,350 --> 06:01:00,970

yeah

3577

06:01:06,070 --> 06:01:03,360

copy Steve what do you wish you good

3578

06:01:06,080 --> 06:01:22,070

good motion

3579

06:01:26,510 --> 06:01:24,470

about meters to go

3580

06:01:54,288 --> 06:01:26,520

continue

3581

06:01:54,298 --> 06:01:58,610

to go

3582

06:02:01,788 --> 06:02:00,590

okay you can hold position there the

3583

06:02:03,770 --> 06:02:01,798

whole position

3584

06:02:06,230 --> 06:02:03,780

oh that looks great

3585

06:02:08,570 --> 06:02:06,240

CA complete selfie did you see a

3586

06:02:12,770 --> 06:02:08,580

complete breaks are coming on and you

3587

06:02:14,690 --> 06:02:12,780

are go for apfi removal graphical thanks

3588

06:02:17,090 --> 06:02:14,700

Woody you'll be bundling Crew Love Back

3589

06:02:20,570 --> 06:02:17,100

m to the apfr and then stowing that

3590

06:02:20,580 --> 06:03:21,250

thank you Jenny thanks

3591

06:03:27,890 --> 06:03:23,570

Steve and Woody I have those big picture

3592

06:03:27,900 --> 06:03:32,150

very happy

3593

06:03:36,350 --> 06:03:34,010

all right so right now Woody's

3594

06:03:37,788 --> 06:03:36,360

retrieving the apfr from the arm

3595

06:03:38,990 --> 06:03:37,798

Steve you're going to stay at the anchor

3596

06:03:41,390 --> 06:03:39,000

Hooks and what he's going to translate

3597

06:03:44,270 --> 06:03:41,400

back to the airlock establish a good

3598

06:03:45,530 --> 06:03:44,280

load pass to the airlock and Steve I

3599

06:03:46,730 --> 06:03:45,540

will talk you through picking up the

3600

06:03:48,530 --> 06:03:46,740

anchor hooks

3601  
06:03:52,070 --> 06:03:48,540  
you'll head back to the airlock as well

3602  
06:03:55,070 --> 06:03:52,080  
and then establish your anchor hooks on

3603  
06:03:57,470 --> 06:03:55,080  
the forward and aft external d-ring so

3604  
06:03:59,330 --> 06:03:57,480  
we will no longer be in a slingshot

3605  
06:04:01,610 --> 06:03:59,340  
configuration your anchor hooks will be

3606  
06:04:04,190 --> 06:04:01,620  
back at the airlock and then Steve I'll

3607  
06:04:06,650 --> 06:04:04,200  
send you to Z1 for the toolboxes and

3608  
06:04:26,288 --> 06:04:06,660  
Woody you'll be going to esp2 to drop

3609  
06:04:32,150 --> 06:04:29,448  
two different tasks coming up NASA

3610  
06:04:34,850 --> 06:04:32,160  
astronaut Steve Bowen is going to take

3611  
06:04:38,448 --> 06:04:34,860  
charge on another workahead item he'll

3612  
06:04:41,208 --> 06:04:38,458  
be heading to a toolbox to retrieve a

3613  
06:04:42,890 --> 06:04:41,218

connector tool for use on a futures

3614

06:04:45,948 --> 06:04:42,900

spacewalk

3615

06:04:48,590 --> 06:04:45,958

meanwhile NASA astronaut Woody hoberg is

3616

06:06:03,948 --> 06:04:48,600

going to be repositioning a foot

3617

06:06:03,958 --> 06:06:27,948

foreign

3618

06:06:33,288 --> 06:06:30,708

copy you can give Frank and Sultan a go

3619

06:06:37,730 --> 06:06:33,298

to maneuver to the ssrms park position

3620

06:06:51,770 --> 06:06:39,410

okay let me just get on the other side

3621

06:06:51,780 --> 06:06:56,048

thanks on your go for Park

3622

06:07:09,230 --> 06:06:58,970

everybody's already off and we are

3623

06:07:15,288 --> 06:07:12,410

Woody once you're at the airlock you'll

3624

06:07:17,810 --> 06:07:15,298

be stowing the crew lock bag there and

3625

06:07:26,150 --> 06:07:17,820

you can connect a waste tether

3626

06:07:31,548 --> 06:07:29,448

okay uh airlock internal d-ring

3627

06:07:33,110 --> 06:07:31,558

does airlock hearing extender work well

3628

06:07:34,970 --> 06:07:33,120

James hey friends do we want something

3629

06:07:40,390 --> 06:07:34,980

else nope that's fine we just need a

3630

06:07:44,150 --> 06:07:42,650

station there so we can do this pretty

3631

06:07:46,970 --> 06:07:44,160

easily

3632

06:07:49,990 --> 06:07:46,980

uh yeah copy Steve but I'm continuing

3633

06:07:54,170 --> 06:07:50,000

later that's true

3634

06:07:56,030 --> 06:07:54,180

I was in motion not looking good to go

3635

06:07:58,430 --> 06:07:56,040

all right

3636

06:08:00,170 --> 06:07:58,440

Steve I can talk you through picking up

3637

06:08:04,670 --> 06:08:00,180

the anchor hooks when the time is right

3638

06:08:09,048 --> 06:08:04,680

not yet but you can you can start by

3639

06:08:12,170 --> 06:08:09,058

reading to Woody's anchor hook which is

3640

06:08:15,350 --> 06:08:12,180

on the Zenith handrail three two four

3641

06:08:15,360 --> 06:08:22,330

two four seven years

3642

06:08:29,410 --> 06:08:26,208

the robotic arm is in motion it is being

3643

06:08:31,970 --> 06:08:29,420

operated by fellow crew members inside

3644

06:08:36,850 --> 06:08:31,980

emirati Space Agency astronaut cell tan

3645

06:08:41,270 --> 06:08:39,470

meanwhile back at the airlock you just

3646

06:08:43,310 --> 06:08:41,280

saw the

3647

06:08:48,590 --> 06:08:43,320

thermal cover

3648

06:08:53,690 --> 06:08:48,600

being opened and that is inside the

3649

06:09:05,890 --> 06:08:56,270

this is the crew lock portion of the

3650

06:09:15,610 --> 06:09:09,048

this is live views from the helmet

3651

06:09:20,570 --> 06:09:18,530

s locked lock on block to the airlock

3652

06:09:22,610 --> 06:09:20,580

v-ray extender

3653

06:09:25,070 --> 06:09:22,620

and I've double checked that small hook

3654

06:09:29,390 --> 06:09:25,080

also getting close locked lock on block

3655

06:09:35,270 --> 06:09:32,270

copy Woody that's a good load pass to

3656

06:09:40,070 --> 06:09:35,280

the airlock so you can give Steve a go

3657

06:09:43,070 --> 06:09:41,570

if you ever go

3658

06:09:46,990 --> 06:09:43,080

all right

3659

06:10:16,250 --> 06:09:49,430

my red reel

3660

06:10:20,390 --> 06:10:18,708

all right they're closed by the locks

3661

06:10:21,770 --> 06:10:20,400

what do you think for health is to my

3662

06:10:29,150 --> 06:10:21,780

red veal

3663

06:10:34,250 --> 06:10:32,030

copy Steve that is a good config you now

3664

06:10:36,890 --> 06:10:34,260

have a good load pass back to the

3665

06:10:40,250 --> 06:10:36,900

airlock you can retrieve your anchor

3666

06:10:44,448 --> 06:10:40,260

Hook from handrail three two four six

3667

06:10:47,690 --> 06:10:45,470

hello

3668

06:10:55,368 --> 06:10:47,700

three two four specs

3669

06:11:00,530 --> 06:10:57,708

all right enough completes

3670

06:11:07,670 --> 06:11:00,540

copy Steve

3671

06:11:07,680 --> 06:11:12,610

bag and I'm still in the airlock

3672

06:11:28,250 --> 06:11:14,390

the

3673

06:11:42,610 --> 06:11:29,690

Woody when you're ready I'll take a

3674

06:11:42,620 --> 06:11:52,430

my translation back

3675

06:11:52,440 --> 06:11:55,208

oh

3676

06:12:03,890 --> 06:12:00,128

he is performing another routine

3677

06:12:05,390 --> 06:12:03,900

inspection of his gloves the piece of

3678

06:12:07,368 --> 06:12:05,400

fabric that is just above the gloves

3679

06:12:09,770 --> 06:12:07,378

called The Gauntlet and then that helmet

3680

06:12:17,810 --> 06:12:09,780

absorption pad located inside of his

3681

06:12:22,850 --> 06:12:20,208

Woody and Steve were working on our com

3682

06:12:25,730 --> 06:12:22,860

configuration for the next data loss I'm

3683

06:12:35,810 --> 06:12:25,740

going to perform a Comm check on shot SF

3684

06:12:35,820 --> 06:12:42,288

great value for

3685

06:12:43,980 --> 06:12:42,360

um

3686

06:12:53,868 --> 06:12:43,990

[Music]

3687

06:12:53,878 --> 06:13:03,470

okay and we do have an echo

3688

06:13:03,480 --> 06:13:11,930

coffee

3689

06:13:17,150 --> 06:13:14,330

and NASA astronaut Steve Bowen is

3690

06:13:40,850 --> 06:13:17,160

confirmed to do that work ahead item of

3691

06:13:46,610 --> 06:13:43,670

this is live video views from NASA

3692

06:13:53,570 --> 06:13:46,620

astronaut Steve Bowen's helmet camera as

3693

06:14:10,030 --> 06:14:02,770

s

3694

06:14:10,040 --> 06:14:16,910

to build your experience

3695

06:14:16,920 --> 06:14:24,590

okay

3696

06:14:35,510 --> 06:14:26,930

and

3697

06:14:45,710 --> 06:14:38,990

we are in an expected loss of signal

3698

06:14:59,350 --> 06:14:49,730

[Music]

3699

06:14:59,360 --> 06:15:15,128

you can please reduce it

3700

06:15:29,690 --> 06:15:18,070

oh

3701  
06:15:29,700 --> 06:15:37,430  
experience

3702  
06:15:52,490 --> 06:15:39,810  
reels are unlocked

3703  
06:15:52,500 --> 06:15:59,448  
definitely disability

3704  
06:15:59,458 --> 06:16:20,890  
foreign

3705  
06:16:28,970 --> 06:16:24,288  
Steve Bowen released that tether and he

3706  
06:16:30,830 --> 06:16:28,980  
is now going inside of the airlock

3707  
06:16:40,250 --> 06:16:30,840  
and Jenny confirm I'm headed out the

3708  
06:16:40,260 --> 06:16:43,610  
ont

3709  
06:16:43,620 --> 06:16:49,190  
property

3710  
06:16:49,200 --> 06:17:00,770  
that's others look clear I'm heading out

3711  
06:17:05,990 --> 06:17:03,890  
we are in an expected loss of signal for

3712  
06:17:23,810 --> 06:17:06,000  
our video views but the team does still

3713  
06:17:23,820 --> 06:17:54,830

hello

3714

06:17:59,208 --> 06:17:57,288

this is Live use of Mission Control

3715

06:18:02,390 --> 06:17:59,218

Houston

3716

06:18:05,570 --> 06:18:02,400

where the team is awaiting updates on

3717

06:18:24,530 --> 06:18:05,580

NASA astronaut Steve Bowens workahead

3718

06:18:24,540 --> 06:18:27,830

ah

3719

06:18:27,840 --> 06:18:33,350

I don't have them on the interlock right

3720

06:19:15,368 --> 06:18:35,950

it might be your key right

3721

06:19:15,378 --> 06:19:29,150

this thing inside

3722

06:19:29,160 --> 06:19:37,430

[Music]

3723

06:19:37,440 --> 06:20:29,948

foreign

3724

06:20:34,250 --> 06:20:33,170

aut Steve Bowen is making his way to the

3725

06:20:37,070 --> 06:20:34,260

toolbox

3726  
06:20:49,850 --> 06:20:37,080  
with navigational help from Mission

3727  
06:20:57,540 --> 06:20:52,070  
oh that's

3728  
06:20:57,550 --> 06:21:44,260  
[Applause]

3729  
06:21:44,270 --> 06:21:57,128  
[Music]

3730  
06:22:04,510 --> 06:22:01,310  
and with our expected

3731  
06:22:07,610 --> 06:22:04,520  
loss of signal

3732  
06:22:10,670 --> 06:22:07,620  
clocking six locking collar black on

3733  
06:22:19,970 --> 06:22:13,190  
small blocks can't be depressed current

3734  
06:22:26,390 --> 06:22:22,490  
NASA astronaut Woody hoberg is

3735  
06:22:30,230 --> 06:22:26,400  
installing that foot restraint system in

3736  
06:22:46,430 --> 06:22:30,240  
a new area and is calling out

3737  
06:22:46,440 --> 06:22:53,930  
here

3738  
06:22:53,940 --> 06:23:26,150

um

3739

06:23:26,160 --> 06:23:29,090

I understand

3740

06:23:35,690 --> 06:23:32,810

Fox is not for translation

3741

06:23:38,150 --> 06:23:35,700

and are about the

3742

06:23:57,590 --> 06:23:38,160

pfr

3743

06:24:02,208 --> 06:23:59,810

confirmation from Mission Control team

3744

06:24:06,350 --> 06:24:02,218

that NASA astronaut Woody hoberg is good

3745

06:24:08,510 --> 06:24:06,360

to remain in the airlock with the

3746

06:24:10,490 --> 06:24:08,520

thermal covered closed while NASA

3747

06:24:13,670 --> 06:24:10,500

astronaut Steve Bowen completes this

3748

06:24:18,650 --> 06:24:13,680

final work ahead task of retrieving that

3749

06:24:31,310 --> 06:24:20,690

through the top

3750

06:24:31,320 --> 06:24:36,830

and Jenny confirm your kids

3751  
06:24:36,840 --> 06:24:41,770  
foreign

3752  
06:24:41,780 --> 06:24:55,750  
[Music]

3753  
06:24:55,760 --> 06:25:18,970  
[Applause]

3754  
06:25:25,730 --> 06:25:22,010  
we are now an unexpected loss of signal

3755  
06:25:28,970 --> 06:25:25,740  
for both video and audio feeds we'll

3756  
06:25:32,510 --> 06:25:28,980  
take this time to recap where we are in

3757  
06:25:58,368 --> 06:25:32,520  
today's space walk Eva 88 with NASA

3758  
06:26:03,170 --> 06:26:01,128  
today's space walking team is NASA

3759  
06:26:05,930 --> 06:26:03,180  
astronaut Woody hoberg and NASA

3760  
06:26:09,110 --> 06:26:05,940  
astronaut Steve Bowen for hoberg this is

3761  
06:26:22,250 --> 06:26:09,120  
his second spacewalk and for Bowen this

3762  
06:26:28,128 --> 06:26:26,030  
he is now tied for the most space walks

3763  
06:26:30,350 --> 06:26:28,138

this is uh Steve Bowen he's now tied for

3764

06:26:34,970 --> 06:26:30,360

the most space walks by a U.S astronaut

3765

06:26:38,150 --> 06:26:34,980

he is now tied with Mike Lopez

3766

06:26:39,650 --> 06:26:38,160

Alegria Bob benkin Peggy Whitson and

3767

06:26:42,410 --> 06:26:39,660

Chris Cassidy

3768

06:26:46,670 --> 06:26:42,420

this Duo here also installed another

3769

06:26:49,150 --> 06:26:46,680

irosa on June 9th

3770

06:26:51,530 --> 06:26:49,160

today's space walk is the

3771

06:26:53,750 --> 06:26:51,540

265th spacewalk aboard the International

3772

06:26:56,208 --> 06:26:53,760

Space Station in support of its assembly

3773

06:26:59,030 --> 06:26:56,218

maintenance and upgrades it's the eighth

3774

06:27:03,670 --> 06:26:59,040

space station spacewalk in 2023 and the

3775

06:27:07,190 --> 06:27:03,680

sixth for the Expedition 69 crew members

3776  
06:27:08,390 --> 06:27:07,200  
we are just over five hours in our space

3777  
06:27:18,610 --> 06:27:08,400  
walk

3778  
06:27:24,590 --> 06:27:21,830  
we began this morning at 8 42 a.m

3779  
06:27:28,430 --> 06:27:24,600  
Eastern Time 7 42 a.m central time that

3780  
06:27:31,610 --> 06:27:28,440  
marked the moment where astronauts

3781  
06:27:36,948 --> 06:27:31,620  
Woody hoberg and Steve Bowen switched on

3782  
06:27:42,708 --> 06:27:39,830  
this is the sixth solar array to be

3783  
06:27:44,930 --> 06:27:42,718  
successfully installed the new solar

3784  
06:27:52,970 --> 06:27:44,940  
array to be successfully installed

3785  
06:27:58,250 --> 06:27:55,070  
timeline of events today after the

3786  
06:28:00,530 --> 06:27:58,260  
astronauts exited the airlock they

3787  
06:28:03,708 --> 06:28:00,540  
proceeded to the Flight Support

3788  
06:28:06,708 --> 06:28:03,718

equipment area this was the area where

3789

06:28:08,930 --> 06:28:06,718

the solar arrays were delivered to they

3790

06:28:11,150 --> 06:28:08,940

arrived to the space station on the

3791

06:28:17,390 --> 06:28:11,160

SpaceX commercial resupply service

3792

06:28:22,250 --> 06:28:20,208

they re today the astronauts released

3793

06:28:25,128 --> 06:28:22,260

the solo Ray from that Flight Support

3794

06:28:27,170 --> 06:28:25,138

equipment area and then NASA astronaut

3795

06:28:46,390 --> 06:28:27,180

Woody hoberg took

3796

06:28:58,250 --> 06:28:48,170

he

3797

06:29:00,770 --> 06:28:58,260

International Space Station was emirati

3798

06:29:03,110 --> 06:29:00,780

space agency astronaut Sultan al-niatti

3799

06:29:05,810 --> 06:29:03,120

he actually controlled the robotic arm

3800

06:29:10,310 --> 06:29:05,820

and moved NASA astronaut Woody hoberg

3801

06:29:11,990 --> 06:29:10,320

with the solar array close to its

3802

06:29:14,750 --> 06:29:12,000

workstation

3803

06:29:21,230 --> 06:29:14,760

at the 1B power supply on the starboard

3804

06:29:26,990 --> 06:29:24,470

NASA astronaut Steve Bowen met him there

3805

06:29:28,788 --> 06:29:27,000

and they used a leapfrog maneuver of

3806

06:29:34,150 --> 06:29:28,798

passing the solar wave between each

3807

06:29:34,160 --> 06:29:39,530

from there the team released hinge bolts

3808

06:29:39,540 --> 06:29:49,128

and installed it on the mounting bracket

3809

06:29:54,530 --> 06:29:52,548

the team made excellent time and it was

3810

06:29:56,208 --> 06:29:54,540

decided by the flight control team here

3811

06:29:58,670 --> 06:29:56,218

in Houston for them to go ahead and

3812

06:30:02,750 --> 06:29:58,680

proceed with some work ahead tasks that

3813

06:30:07,970 --> 06:30:04,788

they did this while they were waiting

3814

06:30:09,410 --> 06:30:07,980

for a orbital night time in order to

3815

06:30:11,448 --> 06:30:09,420

make sure that there was no power

3816

06:30:14,990 --> 06:30:11,458

flowing to the solar array when they

3817

06:30:23,208 --> 06:30:16,910

oh welcome back Jenny

3818

06:30:28,190 --> 06:30:25,850

we only need one of those two connectors

3819

06:30:30,048 --> 06:30:28,200

cable connector tools Canon connector

3820

06:30:33,830 --> 06:30:30,058

tools excuse me and there is no

3821

06:30:33,840 --> 06:30:38,150

because

3822

06:30:45,350 --> 06:30:42,288

I took relief that's been written to my

3823

06:30:55,570 --> 06:30:45,360

workspace environment

3824

06:31:00,288 --> 06:30:58,310

the team successfully connected the new

3825

06:31:02,208 --> 06:31:00,298

solar array to the space station and

3826  
06:31:04,310 --> 06:31:02,218  
then successfully deployed it with the

3827  
06:31:08,090 --> 06:31:04,320  
mission control team happy with the

3828  
06:31:13,070 --> 06:31:11,090  
after cleaning up their work site

3829  
06:31:14,090 --> 06:31:13,080  
there was then time for yet an

3830  
06:31:21,890 --> 06:31:14,100  
additional

3831  
06:31:21,900 --> 06:31:27,470  
sure

3832  
06:31:32,810 --> 06:31:30,110  
NASA astronaut Steve Bowen is currently

3833  
06:31:37,910 --> 06:31:32,820  
completing that task it was to retrieve

3834  
06:31:44,230 --> 06:31:40,310  
meanwhile NASA astronaut Woody hoberg is

3835  
06:31:49,368 --> 06:31:44,240  
waiting in the airlock

3836  
06:32:06,110 --> 06:31:51,708  
correction he's not inside he is beside

3837  
06:32:17,470 --> 06:32:09,048  
Steve can you verify you closed at least

3838  
06:32:23,948 --> 06:32:19,788

that's great thank you Steve you can

3839

06:32:30,410 --> 06:32:27,350

and with confirming that that toolbox is

3840

06:32:33,048 --> 06:32:30,420

secure Nas astronaut Steve Bowen is on

3841

06:32:56,690 --> 06:32:33,058

his way back to the airlock to meet NASA

3842

06:32:56,700 --> 06:33:25,990

foreign

3843

06:33:39,830 --> 06:33:28,850

it is dark out right now because we are

3844

06:33:44,448 --> 06:33:42,288

the International Space Station orbits

3845

06:33:47,628 --> 06:33:44,458

the earth every 90 minutes providing the

3846

06:33:50,330 --> 06:33:47,638

crew with 45 minutes of daytime and 45

3847

06:33:54,350 --> 06:33:50,340

minutes of night time together they see

3848

06:34:44,770 --> 06:33:54,360

about 16 sunsets and sunrises each day

3849

06:34:50,150 --> 06:34:47,690

retrieving this tool is the final task

3850

06:34:52,730 --> 06:34:50,160

on today's space walk one's NASA

3851

06:34:55,490 --> 06:34:52,740

astronaut Steve Bowen

3852

06:34:59,030 --> 06:34:55,500

returns back to the airlock

3853

06:35:19,610 --> 06:34:59,040

the team will Ingress back into the

3854

06:35:19,620 --> 06:35:36,548

foreign

3855

06:35:43,670 --> 06:35:39,590

you can Ingress the airlock

3856

06:36:11,750 --> 06:35:47,270

to the airlock internal d-rings for

3857

06:36:22,310 --> 06:36:13,548

and Steve I've already got that double

3858

06:36:22,320 --> 06:36:34,250

finger breaks out of the gear extender

3859

06:36:40,788 --> 06:36:37,910

all right NASA astronaut Steve Bowen is

3860

06:36:43,368 --> 06:36:40,798

back inside the airlock he is tethering

3861

06:36:46,010 --> 06:36:43,378

himself to it

3862

06:36:47,868 --> 06:36:46,020

NASA astronaut Woody hoberg is following

3863

06:36:50,750 --> 06:36:47,878

shortly

3864

06:36:53,150 --> 06:36:50,760

he will also close the hatch thermal

3865

06:36:55,250 --> 06:36:53,160

cover behind him

3866

06:36:57,110 --> 06:36:55,260

we're going to be using that as our

3867

06:36:59,390 --> 06:36:57,120

primary load pass to clean up our

3868

06:37:00,650 --> 06:36:59,400

tethers outside this is different than

3869

06:37:04,670 --> 06:37:00,660

the way the procedure was written

3870

06:37:08,750 --> 06:37:06,128

Steve

3871

06:37:10,670 --> 06:37:08,760

once you have you have confirmed that

3872

06:37:15,288 --> 06:37:10,680

you have a good load pass to the airlock

3873

06:37:21,230 --> 06:37:17,570

hey Johnny ready to copy

3874

06:37:24,650 --> 06:37:21,240

Woody you can attach the anchor hook on

3875

06:37:30,288 --> 06:37:24,660

the forward d-ring and attach it to your

3876

06:37:35,390 --> 06:37:33,110

okay for Steve you're safe right

3877

06:37:38,030 --> 06:37:35,400

I am safe all right picking up your

3878

06:38:05,350 --> 06:37:38,040

anchor hook

3879

06:38:12,590 --> 06:38:08,810

okay Jenny I'm framing the airlock

3880

06:38:13,670 --> 06:38:12,600

each other back inside on my right wave

3881

06:38:15,548 --> 06:38:13,680

Center

3882

06:38:18,110 --> 06:38:15,558

I have

3883

06:38:27,170 --> 06:38:18,120

Steve's anchor hook

3884

06:38:32,030 --> 06:38:29,690

all right Woody that is a good load pass

3885

06:38:34,430 --> 06:38:32,040

to Steve and to the airlocks so you can

3886

06:38:36,708 --> 06:38:34,440

take your anchor hook which is on the

3887

06:38:42,048 --> 06:38:36,718

AFT external d-ring and sew it on your

3888

06:38:42,058 --> 06:38:50,690

it works

3889

06:38:58,310 --> 06:38:54,170  
and Junior that is complete

3890

06:39:01,128 --> 06:38:58,320  
coffee Woody ingressby airlock

3891

06:39:03,350 --> 06:39:01,138  
NASA astronaut Woody hoberg successfully

3892

06:39:15,430 --> 06:39:03,360  
reorganized his tethers and he is now

3893

06:39:24,170 --> 06:39:19,190  
after that hatch thermal cover is in

3894

06:39:27,170 --> 06:39:24,180  
place and the hard shell hatch has been

3895

06:39:44,350 --> 06:39:27,180  
secured our repressurization process

3896

06:39:49,610 --> 06:39:47,270  
on the other side of the crew lock is

3897

06:39:52,430 --> 06:39:49,620  
the equipment lock all of this is

3898

06:39:55,990 --> 06:39:52,440  
Together part of the airlock but on the

3899

06:39:59,390 --> 06:39:56,000  
other side our NASA astronaut

3900

06:40:01,310 --> 06:39:59,400  
NASA astronaut Frank Rubio

3901

06:40:05,510 --> 06:40:01,320

to wait for

3902

06:40:18,310 --> 06:40:07,750

okay

3903

06:40:23,570 --> 06:40:21,650

complete for Woody complete the food the

3904

06:40:26,510 --> 06:40:23,580

crew has now

3905

06:40:29,208 --> 06:40:26,520

Woody attach the hook to the magnetic

3906

06:40:31,070 --> 06:40:29,218

plate d-ring cinch this the crew has now

3907

06:40:32,868 --> 06:40:31,080

turned off their helmet cameras this is

3908

06:41:14,448 --> 06:40:32,878

part of the normal procedure during the

3909

06:41:22,610 --> 06:41:18,350

okay that is struggle it start with

3910

06:41:28,250 --> 06:41:24,708

copy Woody check the thermal cover

3911

06:41:31,548 --> 06:41:28,260

magnet is engaged

3912

06:41:36,170 --> 06:41:34,010

all right you can both remove your scu's

3913

06:41:39,830 --> 06:41:36,180

from their stowage pouches remove your

3914

06:41:42,830 --> 06:41:39,840

DCM covers and velcro to your DCM and

3915

06:41:45,650 --> 06:41:42,840

connect your scu's

3916

06:41:47,810 --> 06:41:45,660

okay

3917

06:41:49,490 --> 06:41:47,820

Steve I might be a little more room for

3918

06:42:11,570 --> 06:41:49,500

the hatch eventually that's all right

3919

06:42:11,580 --> 06:42:20,270

all right after you installed ev2

3920

06:42:20,280 --> 06:42:36,610

copy Steve

3921

06:42:36,620 --> 06:42:41,150

thank you

3922

06:42:46,250 --> 06:42:44,030

all right look at myself down and that

3923

06:42:52,070 --> 06:42:46,260

might help a little bit

3924

06:42:57,110 --> 06:42:54,048

all right Jenny if you want FCU

3925

06:42:57,120 --> 06:43:04,368

maybe I see that's awesome thank you

3926

06:43:14,868 --> 06:43:06,650

switch water off

3927

06:43:19,430 --> 06:43:17,030

the astronauts are turning the water off

3928

06:43:22,368 --> 06:43:19,440

on their spacesuit the hatch thermal

3929

06:43:25,010 --> 06:43:22,378

cover is in place copy we have a two

3930

06:43:28,548 --> 06:43:25,020

minute timer set caution do not close

3931

06:43:29,448 --> 06:43:28,558

the hatch until emu water is off for two

3932

06:43:31,490 --> 06:43:29,458

minutes

3933

06:43:34,548 --> 06:43:31,500

I want to take this opportunity to say

3934

06:43:36,948 --> 06:43:34,558

congratulations to the entire on orbit

3935

06:43:39,170 --> 06:43:36,958

and ground team you performed

3936

06:43:41,448 --> 06:43:39,180

phenomenally today at the end of this

3937

06:43:44,750 --> 06:43:41,458

series we have two deployed eye Rosas

3938

06:43:48,590 --> 06:43:44,760

some newly certified I would say onboard

3939

06:43:51,410 --> 06:43:48,600

IVs Woody congratulations on your second

3940

06:43:54,110 --> 06:43:51,420

spacewalk and Steve congratulations on

3941

06:43:56,390 --> 06:43:54,120

your 10th with this spacewalk you have

3942

06:43:58,250 --> 06:43:56,400

tied the American space walking record

3943

06:44:02,890 --> 06:43:58,260

and we are very happy to be a part of

3944

06:44:07,490 --> 06:44:05,330

Jenny thanks so much that was an amazing

3945

06:44:11,150 --> 06:44:07,500

experience it's

3946

06:44:14,930 --> 06:44:11,160

amazing to be out here for Steve's uh

3947

06:44:17,030 --> 06:44:14,940

record tying spacewalk and the kudos to

3948

06:44:20,090 --> 06:44:17,040

Frank Sultan and the whole ground team

3949

06:44:22,368 --> 06:44:20,100

for all their hard work preparation that

3950

06:44:36,910 --> 06:44:22,378

went into this you guys were doing an

3951

06:44:42,830 --> 06:44:39,830

some kind words between NASA astronaut

3952

06:44:44,690 --> 06:44:42,840

Woody hoberg and Jenny City Gibbons who

3953

06:44:48,048 --> 06:44:44,700

was the spacewalk communicator with the

3954

06:44:55,800 --> 06:44:50,270

okay that gives me time Houston Station

3955

06:45:11,448 --> 06:45:06,820

[Music]

3956

06:45:13,730 --> 06:45:11,458

okay

3957

06:45:16,490 --> 06:45:13,740

I'd like to move King to Bravo Two King

3958

06:45:19,628 --> 06:45:16,500

to B2 Spartan to move congrats on the

3959

06:45:28,010 --> 06:45:22,490

getting a well played down here thank

3960

06:45:33,470 --> 06:45:30,170

all right our two minute timer is

3961

06:45:36,230 --> 06:45:33,480

complete not a moment too soon verify

3962

06:45:39,350 --> 06:45:36,240

that the handle is in a position per the

3963

06:45:41,810 --> 06:45:39,360

hatch decal verify the outer hatch is

3964

06:45:44,030 --> 06:45:41,820

clear of hardware and close and lock the

3965

06:45:50,208 --> 06:45:46,430

as the hatch is closing

3966

06:45:52,788 --> 06:45:50,218

you heard a tradition

3967

06:45:55,010 --> 06:45:52,798

between the flight control team here in

3968

06:45:57,650 --> 06:45:55,020

Houston and the astronauts on board the

3969

06:46:00,410 --> 06:45:57,660

International Space Station

3970

06:46:10,850 --> 06:46:00,420

there is an ongoing game of chess that

3971

06:46:37,510 --> 06:46:13,610

every day they each make a move on that

3972

06:46:44,930 --> 06:46:40,670

TV hatch close and locked

3973

06:46:48,170 --> 06:46:44,940

copy hatch closed and locked on the UIA

3974

06:46:50,090 --> 06:46:48,180

oxygen although the hatch is closed and

3975

06:46:52,310 --> 06:46:50,100

locked the spacewalk timer will continue

3976

06:46:54,590 --> 06:46:52,320  
to run until that repressurization

3977

06:47:01,250 --> 06:46:54,600  
begins

3978

06:47:10,128 --> 06:47:05,468  
everyone is on 82 is um

3979

06:47:17,330 --> 06:47:10,138  
18.6 volts and zero f on one 18.6 Volt

3980

06:47:17,340 --> 06:47:22,150  
those are all done

3981

06:47:29,390 --> 06:47:26,270  
copy all Steve on your dcms switch power

3982

06:47:31,368 --> 06:47:29,400  
to SCU expect a warning once the crew

3983

06:47:33,110 --> 06:47:31,378  
lock is completely repressurized the

3984

06:47:34,610 --> 06:47:33,120  
astronauts on the other side of the

3985

06:47:37,368 --> 06:47:34,620  
quest airlock will bring our space

3986

06:47:39,530 --> 06:47:37,378  
walkers from the crew lock portion into

3987

06:47:43,010 --> 06:47:39,540  
the equipment lock they will help them

3988

06:47:49,250 --> 06:47:43,020

doff their suits and their safers will

3989

06:47:55,190 --> 06:47:51,468

copy all with that I will hand you back

3990

06:47:58,128 --> 06:47:55,200

to your very capable suit IVs

3991

06:48:00,708 --> 06:47:58,138

the safer is the simplified aid for Eva

3992

06:48:02,570 --> 06:48:00,718

rescue we can discuss that further once

3993

06:48:05,930 --> 06:48:02,580

we get to that point in the Doffing

3994

06:48:10,910 --> 06:48:08,150

all right uh we copies anything so much

3995

06:48:13,368 --> 06:48:10,920

for uh today's work and uh Woody Steve

3996

06:48:15,948 --> 06:48:13,378

welcome back let's bring you in

3997

06:48:19,368 --> 06:48:15,958

so uh both of you on the DCM let's

3998

06:48:35,930 --> 06:48:19,378

switch O2 actuator to press and verify

3999

06:48:35,940 --> 06:48:49,788

uh

4000

06:48:49,798 --> 06:48:56,330

pictures impressed

4001  
06:49:01,788 --> 06:48:59,448  
Beauty one to impress

4002  
06:49:05,390 --> 06:49:01,798  
let's hope you both of you are on press

4003  
06:49:08,810 --> 06:49:05,400  
and then Cody uh check EV hatch and

4004  
06:49:11,030 --> 06:49:08,820  
heads closed TV high temp address close

4005  
06:49:13,968 --> 06:49:11,040  
all right next I'm going to actuate the

4006  
06:49:16,730 --> 06:49:13,978  
IV hatch Equalization valve and uh you

4007  
06:49:24,320 --> 06:49:16,740  
just tell me uh how comfortable is the

4008  
06:49:24,330 --> 06:49:38,208  
[Music]

4009  
06:49:43,310 --> 06:49:40,750  
going

4010  
06:50:15,110 --> 06:49:43,320  
for you I'm good with it

4011  
06:50:18,890 --> 06:50:17,690  
our official end time for today's space

4012  
06:50:24,110 --> 06:50:18,900  
walk

4013  
06:50:27,048 --> 06:50:24,120

is 2 17 p.m Eastern Time 1 17 p.m

4014

06:50:34,710 --> 06:50:27,058

central time for a total duration of 5

4015

06:50:34,720 --> 06:50:42,288

[Music]

4016

06:51:05,868 --> 06:50:44,570

you are hearing the noise of the

4017

06:51:26,930 --> 06:51:08,270

okay we're gonna hold here for a few

4018

06:51:31,850 --> 06:51:28,868

thank you

4019

06:51:35,830 --> 06:51:31,860

the crew lock portion of the airlock is

4020

06:51:40,250 --> 06:51:35,840

currently at about five point

4021

06:51:48,730 --> 06:51:40,260

one PSI and it we are going to hold here

4022

06:51:54,830 --> 06:51:52,548

the crew will now perform leak checks to

4023

06:52:01,968 --> 06:51:54,840

make sure that that portion of the

4024

06:52:08,150 --> 06:52:05,090

you are seeing emirati space agency

4025

06:52:11,030 --> 06:52:08,160

astronaut Sultan al-nayadi on the

4026  
06:52:13,128 --> 06:52:11,040  
equipment lock portion of the airlock on

4027  
06:52:42,170 --> 06:52:13,138  
the other side of that hatch are our

4028  
06:52:42,180 --> 06:53:21,288  
all right

4029  
06:54:34,250 --> 06:53:56,750  
ah

4030  
06:54:41,208 --> 06:54:37,730  
okay Woody and Steve that check switch

4031  
06:54:45,170 --> 06:54:41,218  
love theaters are both off

4032  
06:54:49,010 --> 06:54:47,270  
and check if you have any contaminations

4033  
06:54:52,670 --> 06:54:49,020  
on those gloves and report to Houston

4034  
06:55:10,788 --> 06:54:56,990  
be negative contamination so on the DCM

4035  
06:55:15,230 --> 06:55:12,230  
thank you

4036  
06:55:18,830 --> 06:55:15,240  
NIV 481

4037  
06:55:21,468 --> 06:55:18,840  
I'll be 81 and 2 Auto Express 2 ID will

4038  
06:55:32,240 --> 06:55:21,478

start to continue where your repress

4039

06:56:17,090 --> 06:55:49,980

[Applause]

4040

06:56:17,100 --> 06:56:31,210

thank you

4041

06:56:37,810 --> 06:56:36,230

[Applause]

4042

06:56:42,730 --> 06:56:37,820

foreign

4043

06:56:47,690 --> 06:56:45,770

checks were successful you are hearing

4044

06:56:51,788 --> 06:56:47,700

the sound of that repressurization

4045

06:56:51,798 --> 06:56:56,990

we are approaching 10 psi

4046

06:57:01,128 --> 06:56:59,628

the goal is to reach about equal with

4047

06:57:05,030 --> 06:57:01,138

the equipment lock and the rest of the

4048

06:57:07,270 --> 06:57:05,040

space station which is at around 14.7

4049

06:57:18,030 --> 06:57:07,280

PSI

4050

06:57:18,040 --> 06:57:21,850

[Applause]

4051  
06:57:21,860 --> 06:57:28,190  
thank you

4052  
06:57:28,200 --> 06:57:36,288  
[Applause]

4053  
06:57:51,990 --> 06:57:39,250  
foreign

4054  
06:57:52,000 --> 06:58:25,548  
[Music]

4055  
06:58:25,558 --> 06:58:31,390  
thank you

4056  
06:58:37,610 --> 06:58:32,948  
the

4057  
06:58:41,708 --> 06:58:37,620  
International Space Station's assembly

4058  
06:58:44,750 --> 06:58:41,718  
maintenance and upgrades is complete

4059  
06:58:46,368 --> 06:58:44,760  
this was the eighth spacewalk out of the

4060  
06:58:52,090 --> 06:58:46,378  
International Space Station this year

4061  
06:58:56,390 --> 06:58:54,590  
cumulatively all space walks in support

4062  
06:58:58,330 --> 06:58:56,400  
of the International Space Station have

4063  
06:59:01,850 --> 06:58:58,340

now totaled

4064

06:59:05,270 --> 06:59:01,860

1683 hours and 27 minutes that's

4065

06:59:09,288 --> 06:59:05,280

equivalent to about 70 days 3 hours and

4066

06:59:11,868 --> 06:59:09,298

27 minutes of straight space walking

4067

06:59:15,590 --> 06:59:11,878

today's space walk was the second of

4068

06:59:17,510 --> 06:59:15,600

NASA astronauts Woody hoberg's career

4069

06:59:20,330 --> 06:59:17,520

he is now

4070

06:59:21,948 --> 06:59:20,340

accumulated 11 hours and 38 minutes of

4071

06:59:24,948 --> 06:59:21,958

space walking

4072

06:59:26,930 --> 06:59:24,958

it was the 10th spacewalk of NASA

4073

06:59:29,750 --> 06:59:26,940

astronaut Steve Bowen's career

4074

06:59:34,868 --> 06:59:29,760

he has now accumulated a total of 65

4075

06:59:40,548 --> 06:59:38,270

this has put him as the third all-time

4076  
06:59:45,730 --> 06:59:40,558  
aggregate

4077  
06:59:45,740 --> 06:59:49,490  
today's space walk

4078  
06:59:55,250 --> 06:59:52,310  
it involves would be set to offer

4079  
06:59:57,110 --> 06:59:55,260  
to uh confirming the audio configuration

4080  
06:59:58,910 --> 06:59:57,120  
here

4081  
07:00:02,708 --> 06:59:58,920  
copy Sultan I'll let you know when you

4082  
07:00:20,530 --> 07:00:05,930  
the repressurization process is complete

4083  
07:00:25,730 --> 07:00:23,690  
NASA astronaut Steve Bowen is entering

4084  
07:00:28,788 --> 07:00:25,740  
first into that equipment lock area

4085  
07:00:30,708 --> 07:00:28,798  
being greeted by his fellow Expedition

4086  
07:00:32,750 --> 07:00:30,718  
69 crewmates

4087  
07:00:35,570 --> 07:00:32,760  
on the right you see NASA astronaut

4088  
07:00:40,910 --> 07:00:35,580

Frank Rubio and at the bottom is emirati

4089

07:01:14,468 --> 07:00:40,920

space agency astronaut sultan al-nayadi

4090

07:01:21,250 --> 07:01:17,208

Rubio and al-nayadi

4091

07:01:26,930 --> 07:01:24,830

will assist our space Walkers back into

4092

07:01:30,110 --> 07:01:26,940

this equipment lock and then they will

4093

07:01:32,628 --> 07:01:30,120

help them start to take off their emu's

4094

07:01:34,490 --> 07:01:32,638

emu stands for extra vehicular activity

4095

07:01:36,468 --> 07:01:34,500

Mobility unit

4096

07:01:38,750 --> 07:01:36,478

these spacesuits have served as

4097

07:01:40,788 --> 07:01:38,760

essentially a personal spacecraft for

4098

07:01:47,930 --> 07:01:40,798

the spacewalkers while they were outside

4099

07:01:53,270 --> 07:01:50,208

they have just

4100

07:01:55,548 --> 07:01:53,280

taken off the safer unit from NASA

4101  
07:01:58,250 --> 07:01:55,558  
astronaut Steve Bowen

4102  
07:02:01,548 --> 07:01:58,260  
Houston just want to let you know we

4103  
07:02:05,690 --> 07:02:01,558  
have reconfigured comms EV Crews no

4104  
07:02:10,368 --> 07:02:08,570  
safer stands for simplified aid for Eva

4105  
07:02:13,430 --> 07:02:10,378  
rescue this is not their life support

4106  
07:02:15,410 --> 07:02:13,440  
unit that is a different backpack on the

4107  
07:02:18,048 --> 07:02:15,420  
spacesuit

4108  
07:02:20,090 --> 07:02:18,058  
safer is essentially a life jacket for

4109  
07:02:22,490 --> 07:02:20,100  
space walks

4110  
07:02:24,650 --> 07:02:22,500  
it has small thrusters that the

4111  
07:02:26,510 --> 07:02:24,660  
astronaut could use in the unlikely

4112  
07:02:51,170 --> 07:02:26,520  
event that they become untethered from

4113  
07:02:56,628 --> 07:02:53,930

and this is a live view from the mission

4114

07:02:58,730 --> 07:02:56,638

control team here in Houston after a

4115

07:03:01,128 --> 07:02:58,740

very successful space walk that ended

4116

07:03:27,230 --> 07:03:01,138

ahead of schedule and with numerous

4117

07:03:33,110 --> 07:03:30,170

NASA astronaut Steve Bowen is safely

4118

07:03:36,530 --> 07:03:33,120

secured to the side of the equipment

4119

07:03:38,750 --> 07:03:36,540

lock he is waiting on now his crewmate

4120

07:03:49,430 --> 07:03:38,760

NASA astronaut Woody hoberg to be

4121

07:03:53,750 --> 07:03:51,770

he is being pulled now into the

4122

07:04:04,430 --> 07:03:53,760

equipment lock

4123

07:04:04,440 --> 07:04:14,208

they are in the quest airlock

4124

07:04:18,048 --> 07:04:16,430

the other airlock on board the

4125

07:04:33,128 --> 07:04:18,058

International Space Station is called

4126  
07:05:18,368 --> 07:04:36,530  
that safer unit is being removed from

4127  
07:05:23,570 --> 07:05:20,990  
NASA astronaut Frank Rubio making sure

4128  
07:09:00,310 --> 07:05:23,580  
that Woody hoberg is secure on that

4129  
07:09:06,530 --> 07:09:04,128  
NASA astronaut Frank Rubio and emirati

4130  
07:09:08,570 --> 07:09:06,540  
space agency astronaut Sultan al-nayadi

4131  
07:09:22,310 --> 07:09:08,580  
are now assisting with removing the

4132  
07:09:27,770 --> 07:09:24,890  
after they remove the gloves they will

4133  
07:09:29,868 --> 07:09:27,780  
move on to removing helmets once those

4134  
07:11:50,590 --> 07:09:29,878  
helmets are off we will wrap our

4135  
07:11:56,868 --> 07:11:54,410  
and with helmets off and our crew safely

4136  
07:11:59,270 --> 07:11:56,878  
back inside we will wrap up our coverage

4137  
07:12:01,430 --> 07:11:59,280  
for today we have some Milestones to go

4138  
07:12:04,730 --> 07:12:01,440

over with you

4139

07:12:08,030 --> 07:12:04,740

this was the United States Eva 88 our

4140

07:12:11,628 --> 07:12:08,040

start time this morning was 8 42 a.m

4141

07:12:16,190 --> 07:12:11,638

Eastern Time 7 42 a.m Central Time with

4142

07:12:19,610 --> 07:12:16,200

an end time of 2 17 p.m Eastern Time 1

4143

07:12:25,448 --> 07:12:19,620

17 p.m central time for a total space

4144

07:12:30,468 --> 07:12:28,128

NASA astronauts Woody hoberg and Steve

4145

07:12:33,048 --> 07:12:30,478

Bowen successfully installed these six

4146

07:12:35,330 --> 07:12:33,058

International Space Station rollout

4147

07:12:38,810 --> 07:12:35,340

solar array to augment power generation

4148

07:12:46,610 --> 07:12:38,820

for the 1B power channel on the

4149

07:12:52,548 --> 07:12:50,448

today's installation of the six irosa is

4150

07:12:54,770 --> 07:12:52,558

only one day shy of the two-year

4151  
07:12:56,868 --> 07:12:54,780  
anniversary of the first irosa

4152  
07:12:59,890 --> 07:12:56,878  
installation that happened on June 16th

4153  
07:13:02,690 --> 07:12:59,900  
at 2021.

4154  
07:13:05,510 --> 07:13:02,700  
our next spacewalk is going to be a

4155  
07:13:12,708 --> 07:13:05,520  
Russian Eva number 59 that is going to

4156  
07:13:17,570 --> 07:13:16,070  
Rose Cosmos cosmonauts Sergey procopiev

4157  
07:13:20,990 --> 07:13:17,580  
and Dimitri patelan will be

4158  
07:13:24,230 --> 07:13:21,000  
participating in that spacewalk

4159  
07:13:27,590 --> 07:13:24,240  
you can tune in next week at 9 45 a.m

4160  
07:13:29,810 --> 07:13:27,600  
Eastern Time 8 45 a.m central time that

4161  
07:13:32,510 --> 07:13:29,820  
is when our coverage will start the

4162  
07:13:37,788 --> 07:13:32,520  
spacewalk will begin at 10 20 a.m

4163  
07:13:44,270 --> 07:13:40,190

with that thank you for joining us this