



1
00:00:32,389 --> 00:00:21,340
[Music]

2
00:00:44,590 --> 00:00:38,389
foreign

3
00:00:44,600 --> 00:01:05,149
[Music]

4
00:01:08,750 --> 00:01:06,710
good morning and welcome to Mission

5
00:01:10,070 --> 00:01:08,760
Control Houston I'm NASA Shanique

6
00:01:13,609 --> 00:01:10,080
Wolverine and we're bringing you live

7
00:01:14,870 --> 00:01:13,619
coverage today of the 254th spacewalk in

8
00:01:16,730 --> 00:01:14,880
support of the International Space

9
00:01:18,350 --> 00:01:16,740
Station assembly maintenance and

10
00:01:21,590 --> 00:01:18,360
upgrades

11
00:01:32,990 --> 00:01:21,600
they're currently looking live as Nest

12
00:01:36,530 --> 00:01:34,429
go ahead

13
00:01:38,030 --> 00:01:36,540

hey Duke we think we've recovered our KU

14

00:01:39,770 --> 00:01:38,040

forward link if you would mind giving us

15

00:01:48,590 --> 00:01:39,780

a com check on Space to grounds three

16

00:01:52,190 --> 00:01:50,810

station com check on Space to ground

17

00:01:56,149 --> 00:01:52,200

three

18

00:01:56,159 --> 00:02:02,450

same switch into four

19

00:02:05,749 --> 00:02:04,490

Houston Station Comcheck on Space to

20

00:02:07,550 --> 00:02:05,759

ground four

21

00:02:09,589 --> 00:02:07,560

I have you loud and clear on four how

22

00:02:31,130 --> 00:02:09,599

many

23

00:02:35,809 --> 00:02:32,809

you're looking live inside the quest

24

00:02:38,390 --> 00:02:35,819

airlock where astronaut Nicole Mann is

25

00:02:40,729 --> 00:02:38,400

helping to suit up NASA astronauts Josh

26

00:02:43,729 --> 00:02:40,739

cassida and Frank Rubio who will be

27

00:02:46,009 --> 00:02:43,739

conducting today's spacewalk

28

00:02:48,229 --> 00:02:46,019

that you are looking to head outside of

29

00:02:50,449 --> 00:02:48,239

the hatch later today to assemble and

30

00:02:52,610 --> 00:02:50,459

install brackets and struts for a

31

00:02:55,490 --> 00:02:52,620

modification kit for upcoming solar

32

00:02:58,070 --> 00:02:55,500

array upgrades the new ISS roll out

33

00:03:22,550 --> 00:02:58,080

solar arrays or iroses will increase the

34

00:03:27,530 --> 00:03:25,430

and that's astronaut Josh cassida suited

35

00:03:30,050 --> 00:03:27,540

up in the suit with the red stripes will

36

00:03:31,490 --> 00:03:30,060

be ev1 or extra vehicular crew member

37

00:03:33,649 --> 00:03:31,500

one today

38

00:03:36,530 --> 00:03:33,659

he is on the left of your screen a

39

00:03:38,750 --> 00:03:36,540

little out of focus and then you'll see

40

00:03:42,050 --> 00:03:38,760

Frank Rubio in the unmarked suit today

41

00:03:43,550 --> 00:03:42,060

they as they prep currently for their

42

00:03:45,229 --> 00:03:43,560

spacewalk

43

00:03:47,570 --> 00:03:45,239

the crew is currently running about 30

44

00:03:50,809 --> 00:03:47,580

minutes behind schedule which could mean

45

00:03:54,710 --> 00:03:50,819

a later start time than the scheduled 7

46

00:04:14,830 --> 00:03:54,720

05 a.m central time to exit the hatch

47

00:04:14,840 --> 00:04:36,590

station Houston on One Stop exercise

48

00:04:40,490 --> 00:04:38,990

the doors suited up in going through

49

00:04:43,610 --> 00:04:40,500

procedures before they head out of the

50

00:04:47,990 --> 00:04:46,249

they're currently in a process called

51

00:04:51,189 --> 00:04:48,000

pre-breathing

52

00:04:54,950 --> 00:04:51,199

and currently the crew is going through

53

00:04:57,830 --> 00:04:54,960

some exercises which consist of two

54

00:04:59,090 --> 00:04:57,840

parts to purge nitrogen from their

55

00:05:02,749 --> 00:04:59,100

bodies

56

00:05:05,390 --> 00:05:02,759

the first step is in which the crew is

57

00:05:06,469 --> 00:05:05,400

breeding a 100 oxygen while in their

58

00:05:08,689 --> 00:05:06,479

suits

59

00:05:10,670 --> 00:05:08,699

and then the second part of the

60

00:05:12,290 --> 00:05:10,680

pre-breathe portion is crew members

61

00:05:24,409 --> 00:05:12,300

being their suits and they are currently

62

00:05:29,870 --> 00:05:27,529

you'll hear Capcom Megan Levins talking

63

00:05:31,790 --> 00:05:29,880

to the crew telling them when to

64

00:05:34,010 --> 00:05:31,800

complete exercise and when to stop

65

00:05:36,409 --> 00:05:34,020

exercising again this is part of the

66

00:05:39,469 --> 00:05:36,419

pre-breathe process which the crew

67

00:05:41,330 --> 00:05:39,479

started about 15 minutes ago

68

00:05:43,010 --> 00:05:41,340

and again this is the activity before

69

00:06:40,390 --> 00:05:43,020

space walks where the crew purges

70

00:06:44,629 --> 00:06:43,129

we're currently in a brief Handover

71

00:06:46,550 --> 00:06:44,639

between satellites you're getting a live

72

00:06:53,809 --> 00:06:46,560

view right now inside the International

73

00:07:00,350 --> 00:06:56,689

the orbit one team currently being led

74

00:07:02,510 --> 00:07:00,360

by Vincent lecourt flight director will

75

00:07:04,670 --> 00:07:02,520

be handing over to Anthony ivaria this

76

00:07:07,070 --> 00:07:04,680

morning

77

00:07:18,650 --> 00:07:07,080

and Capcom Megan Levins will be heading

78

00:07:22,309 --> 00:07:21,350

heading over to ground IV Xena cardamon

79

00:07:24,350 --> 00:07:22,319

this morning

80

00:09:14,050 --> 00:07:24,360

you currently see this shift hand over

81

00:10:14,290 --> 00:09:17,030

station Houston one for airlock stop

82

00:10:14,300 --> 00:10:28,190

station Houston on one start exercise

83

00:10:33,230 --> 00:10:30,410

yeah

84

00:10:42,590 --> 00:10:33,240

station Houston on one for Duke with KU

85

00:10:48,710 --> 00:10:46,850

copy thumbs up and correction yeah

86

00:10:53,329 --> 00:10:48,720

and correction on my part that's steps

87

00:11:24,290 --> 00:10:57,050

the steps six through eight

88

00:11:28,670 --> 00:11:26,389

if you're just joining us you're looking

89

00:11:30,829 --> 00:11:28,680

live inside the quest airlock where two

90

00:11:33,590 --> 00:11:30,839

astronauts are being suited up to head

91

00:11:35,329 --> 00:11:33,600

outside the hatch later this morning

92

00:11:37,550 --> 00:11:35,339

we'll bring you live coverage today at

93

00:11:39,650 --> 00:11:37,560

the 254th spacewalk in the support of

94

00:11:42,590 --> 00:11:39,660

the International Space Station assembly

95

00:11:45,290 --> 00:11:42,600

maintenance and upgrades NASA astronauts

96

00:11:46,670 --> 00:11:45,300

Josh Casada and Frank Rubio will conduct

97

00:11:49,069 --> 00:11:46,680

the spacewalk

98

00:11:51,650 --> 00:11:49,079

to install and assemble and install

99

00:11:54,170 --> 00:11:51,660

brackets and struts of a modification

100

00:11:57,829 --> 00:11:54,180

kit for upcoming solar array upgrades

101
00:12:00,050 --> 00:11:57,839
the new ISS rollout solar rays or eye

102
00:12:03,470 --> 00:12:00,060
roses will increase the Space Station's

103
00:12:08,329 --> 00:12:06,889
the crew currently is in a stage called

104
00:12:10,370 --> 00:12:08,339
pre-breathe

105
00:12:12,710 --> 00:12:10,380
they are in the second portion of

106
00:12:18,230 --> 00:12:12,720
pre-breathe where they are doing in suit

107
00:12:20,389 --> 00:12:18,240
light exercise you'll hear the Capcom

108
00:12:23,449 --> 00:12:20,399
Megan Levins

109
00:12:26,509 --> 00:12:23,459
call up to the crew to start and stop

110
00:12:44,930 --> 00:12:26,519
the exercise again this is to purge

111
00:12:50,509 --> 00:12:48,110
as the crew continues to do preparations

112
00:12:53,590 --> 00:12:50,519
you see Nicole Mann that's astronaut

113
00:12:56,750 --> 00:12:53,600

Nicole Mann suit up lead

114

00:12:58,310 --> 00:12:56,760
in her backer Jack's astronaut

115

00:13:01,790 --> 00:12:58,320
koichiwakata

116

00:14:06,769 --> 00:13:01,800
helping to set the duo up for

117

00:14:11,569 --> 00:14:09,530
has to do continues their preparations

118

00:14:14,030 --> 00:14:11,579
of pre-breathe

119

00:14:16,009 --> 00:14:14,040
we can go into an animation to explain a

120

00:14:21,570 --> 00:14:16,019
little further what the crew will be

121

00:14:21,580 --> 00:14:29,710
[Music]

122

00:14:40,670 --> 00:14:33,650
U.S spacewalk 81 will be conducted by

123

00:14:44,090 --> 00:14:40,680
ev1 Josh Casada and ev2 Frank Rubio

124

00:14:46,730 --> 00:14:44,100
ev1 exits the airlock and gets handed

125

00:14:48,230 --> 00:14:46,740
one of the bags in preparation for the

126
00:14:50,030 --> 00:14:48,240
Eva

127
00:14:52,250 --> 00:14:50,040
and the second bag

128
00:14:55,449 --> 00:14:52,260
strut bag gets handed out and put on

129
00:14:58,310 --> 00:14:55,459
ev1's body restraint tether

130
00:15:02,269 --> 00:14:58,320
TV2 egresses the air lock and that

131
00:15:05,810 --> 00:15:02,279
allows ev1 to start translation up the

132
00:15:06,760 --> 00:15:05,820
seat of spur over to face one of the ISS

133
00:15:09,590 --> 00:15:06,770
Truss

134
00:15:12,110 --> 00:15:09,600
[Music]

135
00:15:15,110 --> 00:15:12,120
Josh translates along and stops at a

136
00:15:18,530 --> 00:15:15,120
handrail to hook up ev2's safety tether

137
00:15:20,290 --> 00:15:18,540
and his safety tether and continues his

138
00:15:21,829 --> 00:15:20,300

translation path

139

00:15:24,350 --> 00:15:21,839

foreign

140

00:15:26,810 --> 00:15:24,360

as he makes his way down the Truss

141

00:15:28,910 --> 00:15:26,820

he translates along and gets out to the

142

00:15:31,540 --> 00:15:28,920

end of the S6 Truss

143

00:15:34,910 --> 00:15:31,550

and tethers the strut bag

144

00:15:37,970 --> 00:15:34,920

[Music]

145

00:15:40,850 --> 00:15:37,980

meanwhile Frank Rubio closes the thermal

146

00:15:42,710 --> 00:15:40,860

hatch and makes his way up the sea to

147

00:15:44,389 --> 00:15:42,720

Spur phase one to follow the same

148

00:15:48,710 --> 00:15:44,399

translation path that Josh just

149

00:15:54,009 --> 00:15:50,689

he makes his way out

150

00:15:57,889 --> 00:15:54,019

to the S4 truss and stows the cable bag

151

00:16:00,949 --> 00:15:57,899

and retrieves a pair of cables for the

152

00:16:04,189 --> 00:16:00,959

3A beta gimbal assembly this is in

153

00:16:05,689 --> 00:16:04,199

preparation for the ISS rollout solar

154

00:16:08,210 --> 00:16:05,699

array that will be installed in a future

155

00:16:12,050 --> 00:16:08,220

Eva

156

00:16:14,930 --> 00:16:12,060

he hooks them up on the mounting bracket

157

00:16:16,189 --> 00:16:14,940

routes one on the right side and tethers

158

00:16:19,980 --> 00:16:16,199

It Off

159

00:16:22,430 --> 00:16:19,990

and then routes the one on the left side

160

00:16:24,829 --> 00:16:22,440

[Music]

161

00:16:28,050 --> 00:16:24,839

prank translates out with that cable bag

162

00:16:32,090 --> 00:16:28,060

and temporarily stows it on the S6 dress

163

00:16:34,910 --> 00:16:32,100

[Music]

164

00:16:40,550 --> 00:16:34,920

meanwhile Josh climbs up onto the one

165

00:16:42,829 --> 00:16:40,560

Bravo BGA and drives the H fixture bolts

166

00:16:45,050 --> 00:16:42,839

this is in preparation for installing

167

00:16:47,090 --> 00:16:45,060

the mod kit assembly

168

00:16:49,670 --> 00:16:47,100

when Josh is finished at the beta gimbal

169

00:16:51,949 --> 00:16:49,680

assembly he leaves and joins Frank on

170

00:16:53,509 --> 00:16:51,959

the truss and starts assembling the

171

00:16:55,910 --> 00:16:53,519

upper triangle

172

00:16:59,030 --> 00:16:55,920

they take the pieces out of the strut

173

00:17:02,870 --> 00:16:59,040

bag and bolt them together into a

174

00:17:08,150 --> 00:17:05,090

[Music]

175

00:17:10,730 --> 00:17:08,160

s are put together Josh will Ingress the

176
00:17:13,069 --> 00:17:10,740
articulating portable foot restraint in

177
00:17:16,689 --> 00:17:13,079
preparation for attaching the upper

178
00:17:20,890 --> 00:17:16,699
triangle to the beta gimbal assembly

179
00:17:24,800 --> 00:17:20,900
crank hands the triangle up to Josh

180
00:17:30,470 --> 00:17:24,810
installs it with his pistol grip tool

181
00:17:35,330 --> 00:17:32,630
once this is in place

182
00:17:37,610 --> 00:17:35,340
Josh will egress the foot restraint and

183
00:17:41,350 --> 00:17:37,620
help Frank retrieve several of the other

184
00:17:44,450 --> 00:17:41,360
struts as part of the assembly

185
00:17:47,690 --> 00:17:44,460
Frank will get into position and hand

186
00:17:51,000 --> 00:17:47,700
one end of the lower strut up to Josh

187
00:17:53,750 --> 00:17:51,010
and get into position to drive his Bolt

188
00:17:56,150 --> 00:17:53,760

[Music]

189

00:17:59,510 --> 00:17:56,160

working together the two crew members

190

00:18:03,650 --> 00:17:59,520

will install the lower strut and bolt it

191

00:18:09,110 --> 00:18:06,230

Frank will apply the final torque on the

192

00:18:10,390 --> 00:18:09,120

bolt and get into position for the mid

193

00:18:13,130 --> 00:18:10,400

strut

194

00:18:15,169 --> 00:18:13,140

again working together the two crew

195

00:18:17,770 --> 00:18:15,179

members will install the mid strut and

196

00:18:21,650 --> 00:18:17,780

drive the bolts to put it in place

197

00:18:23,690 --> 00:18:21,660

[Music]

198

00:18:26,390 --> 00:18:23,700

once this is complete the two crew

199

00:18:28,930 --> 00:18:26,400

members retrieve the struts for the

200

00:18:31,370 --> 00:18:28,940

right side of the mod kit

201
00:18:33,710 --> 00:18:31,380
they will repeat the process by

202
00:18:35,510 --> 00:18:33,720
installing the lower strut first and

203
00:18:37,010 --> 00:18:35,520
driving the bolts to torque it into

204
00:18:40,690 --> 00:18:37,020
place

205
00:18:43,789 --> 00:18:40,700
[Music]

206
00:18:46,909 --> 00:18:43,799
the two crew members will follow that up

207
00:18:48,710 --> 00:18:46,919
with the right side mid strut working

208
00:18:53,270 --> 00:18:48,720
together to get it into place and

209
00:18:59,090 --> 00:18:55,730
meanwhile Josh will egress the foot

210
00:19:01,610 --> 00:18:59,100
restraint and retrieve the ISS rollout

211
00:19:04,850 --> 00:19:01,620
solar arrays that will get put in place

212
00:19:07,669 --> 00:19:04,860
in preparation for deployment of

213
00:19:08,580 --> 00:19:07,679

the ISS rollout solar rate when that

214

00:19:09,950 --> 00:19:08,590

arrives

215

00:19:12,110 --> 00:19:09,960

[Music]

216

00:19:14,150 --> 00:19:12,120

this is very similar to what Frank did

217

00:19:16,010 --> 00:19:14,160

earlier in the Eva where he'll take one

218

00:19:18,850 --> 00:19:16,020

of the two cables and Route it over to

219

00:19:22,310 --> 00:19:18,860

the right side and tether it in place

220

00:19:25,780 --> 00:19:22,320

and then he'll do the same to deploy the

221

00:19:31,130 --> 00:19:28,690

[Music]

222

00:19:33,409 --> 00:19:31,140

once this is done the crew members will

223

00:19:36,049 --> 00:19:33,419

start collecting their gear and stowing

224

00:19:38,090 --> 00:19:36,059

it in the empty bags to bring back to

225

00:19:40,669 --> 00:19:38,100

the airlock

226

00:19:42,890 --> 00:19:40,679

prank collects these bags and puts them

227

00:19:45,430 --> 00:19:42,900

on his body restraint tether

228

00:19:48,529 --> 00:19:45,440

[Music]

229

00:19:50,510 --> 00:19:48,539

he makes his way back to the airlock and

230

00:19:53,029 --> 00:19:50,520

stows them inside

231

00:19:55,010 --> 00:19:53,039

Josh retrieves the articulating portable

232

00:19:57,230 --> 00:19:55,020

foot restraint puts it on his body

233

00:20:01,370 --> 00:19:57,240

restraint tether and takes it back to

234

00:20:03,049 --> 00:20:01,380

the Crusades and tools translation Aid

235

00:20:05,029 --> 00:20:03,059

stows it

236

00:20:07,850 --> 00:20:05,039

and then makes his way back to the

237

00:20:10,190 --> 00:20:07,860

airlock to complete the Eva Frank

238

00:20:11,330 --> 00:20:10,200

ingresses the airlock first followed by

239

00:20:14,029 --> 00:20:11,340

Josh

240

00:20:15,900 --> 00:20:14,039

crew will close the thermal cover

241

00:20:51,770 --> 00:20:15,910

and then close the hatch on the inside

242

00:20:51,780 --> 00:20:55,270

foreign

243

00:21:05,090 --> 00:20:58,130

station Utah one for Duke we anticipate

244

00:21:05,100 --> 00:21:52,370

the 12 15 for Medics thank you

245

00:22:01,669 --> 00:21:54,470

you're looking live inside

246

00:23:57,890 --> 00:22:01,679

online eb2 francs TCB is now in five

247

00:24:02,630 --> 00:23:59,990

we're currently in a brief Handover

248

00:24:04,190 --> 00:24:02,640

period between satellites

249

00:24:05,390 --> 00:24:04,200

you're currently looking inside the

250

00:24:07,010 --> 00:24:05,400

International Space Station flight

251
00:24:08,450 --> 00:24:07,020
control room

252
00:24:11,029 --> 00:24:08,460
and there we go we should have those

253
00:24:13,370 --> 00:24:11,039
views back inside the quest airlock for

254
00:24:16,250 --> 00:24:13,380
you shortly

255
00:24:24,350 --> 00:24:16,260
station Houston on one

256
00:24:30,409 --> 00:24:26,930
if you're just joining Us The Duo of

257
00:24:33,649 --> 00:24:30,419
Josh cassida and NASA's Frank Rubio will

258
00:24:38,390 --> 00:24:35,750
later today to assemble install brackets

259
00:24:40,850 --> 00:24:38,400
and struts of a modification kit for

260
00:24:42,890 --> 00:24:40,860
upcoming solar array upgrades

261
00:24:44,690 --> 00:24:42,900
that you are suited up and going through

262
00:24:46,669 --> 00:24:44,700
procedures before they head out the

263
00:24:49,669 --> 00:24:46,679

hatch later this morning

264

00:24:52,370 --> 00:24:49,679

also in the hatch the airlock assisting

265

00:24:54,890 --> 00:24:52,380

its NASA astronaut Nicole Mann injects

266

00:24:57,890 --> 00:24:54,900

the astronaut koichiwakata man serving

267

00:25:02,049 --> 00:24:59,930

during today's space walk Casino Rubio

268

00:25:05,390 --> 00:25:02,059

will focus on the installation of the 1B

269

00:25:07,310 --> 00:25:05,400

modification kit building and installing

270

00:25:11,990 --> 00:25:07,320

the upper triangle left and middle

271

00:25:16,610 --> 00:25:12,000

struts and running the irosa cables

272

00:25:18,529 --> 00:25:16,620

this will enable the next two Evas for

273

00:25:41,029 --> 00:25:18,539

the U.S

274

00:25:45,110 --> 00:25:43,070

a modification kit is the support

275

00:25:48,590 --> 00:25:45,120

structures needed for the future irosis

276

00:26:07,190 --> 00:25:48,600

or the ISS rollout solar arrays and

277

00:26:12,289 --> 00:26:09,590

and periodically you'll hear the Capcom

278

00:26:14,149 --> 00:26:12,299

that's Megan Levins this morning

279

00:26:16,909 --> 00:26:14,159

call up to the crew

280

00:26:19,490 --> 00:26:16,919

she'll say either to stop or to start

281

00:26:21,830 --> 00:26:19,500

exercise again this is a part of the

282

00:26:24,710 --> 00:26:21,840

pre-breathe which the crew began just

283

00:26:26,990 --> 00:26:24,720

over 30 minutes ago

284

00:26:29,269 --> 00:26:27,000

this activity

285

00:26:32,450 --> 00:26:29,279

happens before spacewalks where the crew

286

00:26:34,610 --> 00:26:32,460

purchased nitrogen from their bodies

287

00:26:36,710 --> 00:26:34,620

crew is currently working to complete

288

00:26:39,110 --> 00:26:36,720

their pre-breathing exercise which

289

00:26:43,970 --> 00:26:39,120

they're currently in the

290

00:26:46,430 --> 00:26:43,980

the suit light exercise or the aisle

291

00:26:48,830 --> 00:26:46,440

this is the second of two portions of

292

00:26:51,310 --> 00:26:48,840

pre-breathing

293

00:26:54,049 --> 00:26:51,320

currently in your view Jessica

294

00:26:57,830 --> 00:26:54,059

over on the left side of your screen he

295

00:26:59,810 --> 00:26:57,840

will be the ev1 or extra vehicular crew

296

00:27:02,990 --> 00:26:59,820

member one today

297

00:27:06,409 --> 00:27:03,000

he's in this suit with the red stripes

298

00:27:09,409 --> 00:27:06,419

Frank Rubio will be ev2 today he will be

299

00:27:12,169 --> 00:27:09,419

in the unmarked suit this will be the

300

00:27:14,630 --> 00:27:12,179

first Space Walk for both as this is

301
00:27:32,210 --> 00:27:14,640
their first mission to the International

302
00:27:37,010 --> 00:27:35,330
again the view you see here of Casita

303
00:27:38,870 --> 00:27:37,020
and Rubio and the quest airlock shows

304
00:27:41,750 --> 00:27:38,880
them completing their in suit a light

305
00:27:43,490 --> 00:27:41,760
exercise protocol these movements help

306
00:27:45,950 --> 00:27:43,500
acclimate the body to the lower pressure

307
00:27:48,470 --> 00:27:45,960
of the suit and help astronauts Purge

308
00:27:50,990 --> 00:27:48,480
the excess nitrogen from their blood

309
00:27:53,510 --> 00:27:51,000
solely to avoid getting the bins or

310
00:27:55,310 --> 00:27:53,520
decompression sickness at nominal

311
00:27:58,610 --> 00:27:55,320
pressure the suit is pressurized to

312
00:28:02,090 --> 00:27:58,620
about 4.3 pounds per square inch or PSI

313
00:28:06,890 --> 00:28:02,100

for a little context the PS PSI here on

314

00:28:08,750 --> 00:28:06,900

Earth is about 14.7 so that 4.3 PSI in

315

00:28:11,510 --> 00:28:08,760

the suit is like what you would

316

00:28:22,789 --> 00:28:11,520

experience at an elevation of roughly 30

317

00:28:26,750 --> 00:28:25,730

again you'll see NASA astronaut Nicole

318

00:28:28,090 --> 00:28:26,760

Mann

319

00:28:31,430 --> 00:28:28,100

and Jackson

320

00:29:13,810 --> 00:28:31,440

wakata man is the suit up lead being

321

00:29:13,820 --> 00:30:14,049

station Houston on One Stop exercise

322

00:30:14,059 --> 00:31:06,649

station Houston on one start exercise

323

00:33:47,470 --> 00:31:08,090

foreign

324

00:33:51,049 --> 00:33:49,909

you're looking at the equipment airlock

325

00:33:52,730 --> 00:33:51,059

section where the crew is running

326
00:33:55,009 --> 00:33:52,740
through some final procedures before

327
00:33:56,990 --> 00:33:55,019
venturing out into the vacuum of space

328
00:33:59,750 --> 00:33:57,000
this morning where they will complete

329
00:34:02,330 --> 00:33:59,760
the 254th

330
00:34:06,049 --> 00:34:02,340
extra vehicular activity or space walk

331
00:34:07,549 --> 00:34:06,059
today in assembly and maintenance and

332
00:34:10,129 --> 00:34:07,559
upgrades for the International Space

333
00:34:12,530 --> 00:34:10,139
Station today the duo will head out and

334
00:34:15,290 --> 00:34:12,540
they will be building

335
00:34:17,450 --> 00:34:15,300
and assemble assembling and installing

336
00:34:21,230 --> 00:34:17,460
brackets and stretch as a modification

337
00:34:23,389 --> 00:34:21,240
kit for upcoming solar array upgrades

338
00:34:25,369 --> 00:34:23,399

the new ISS rollout solar arrays or

339

00:34:30,530 --> 00:34:25,379

erosis will increase the Space Station's

340

00:34:30,540 --> 00:35:13,089

foreign

341

00:36:17,690 --> 00:35:15,950

station Houston start the final exercise

342

00:39:09,710 --> 00:37:36,349

foreign

343

00:39:13,190 --> 00:39:11,150

he said

344

00:39:20,990 --> 00:39:13,200

uh just checking we saw that because are

345

00:39:23,569 --> 00:39:22,430

and Duke with you on one we were

346

00:39:25,010 --> 00:39:23,579

actually just about to call you let you

347

00:39:26,470 --> 00:39:25,020

know you can power up Pekka per step

348

00:39:37,970 --> 00:39:26,480

eight of the pre-reads procedure

349

00:39:41,210 --> 00:39:39,650

we're gonna do this we're powering off

350

00:39:43,730 --> 00:39:41,220

right now for some troubleshooting we'll

351

00:39:46,130 --> 00:39:43,740

power it back on uh at a later time

352

00:39:48,170 --> 00:39:46,140

we'll give you words on that later but

353

00:40:17,950 --> 00:39:48,180

with the end of the exercise you'll also

354

00:40:24,349 --> 00:40:21,230

okay Houston for ev1 we have medoc

355

00:40:28,690 --> 00:40:24,359

serial number zero zero five and for ev2

356

00:41:37,310 --> 00:40:30,890

copy all those are good numbers or go to

357

00:44:22,870 --> 00:42:38,690

foreign

358

00:44:29,030 --> 00:44:25,430

preparations and pre-breed procedures

359

00:44:33,050 --> 00:44:31,130

the duo will be assembling and

360

00:44:34,670 --> 00:44:33,060

installing records and struts for a

361

00:44:36,650 --> 00:44:34,680

modification kit

362

00:44:39,109 --> 00:44:36,660

to

363

00:44:41,750 --> 00:44:39,119

for upcoming solar array upgrades the

364

00:44:43,309 --> 00:44:41,760

new ISS rollout solar rays or iroses

365

00:44:47,270 --> 00:44:43,319

will increase the Space Station's total

366

00:44:51,290 --> 00:44:48,950

The Duo

367

00:44:54,290 --> 00:44:51,300

was about 30 minutes behind schedule

368

00:44:57,230 --> 00:44:54,300

which could mean a later start time than

369

00:44:58,370 --> 00:44:57,240

the scheduled 705 am Central Time 805

370

00:45:02,450 --> 00:44:58,380

A.M

371

00:45:06,890 --> 00:45:04,730

this will be this be the first spacewalk

372

00:45:08,930 --> 00:45:06,900

for casta's career and the first for

373

00:45:10,550 --> 00:45:08,940

Rubio on their first mission to the

374

00:45:12,170 --> 00:45:10,560

International Space Station

375

00:45:14,990 --> 00:45:12,180

this is the first spacewalk for

376

00:45:17,089 --> 00:45:15,000

exposition 68 and the ninth spacewalk of

377

00:45:19,250 --> 00:45:17,099

2022.

378

00:45:22,130 --> 00:45:19,260

Josh Casada arrived to the station as

379

00:45:25,010 --> 00:45:22,140

part of crew 5 in October and Frank

380

00:45:35,930 --> 00:45:25,020

Rubio arrived on a soyuz rocket back on

381

00:45:43,130 --> 00:45:39,170

Castle as a part of NASA's SpaceX crew

382

00:45:48,050 --> 00:45:45,170

following their launch to the

383

00:45:49,910 --> 00:45:48,060

International Space Station on the fifth

384

00:45:51,550 --> 00:45:49,920

commercial crew rotation Mission aboard

385

00:45:53,870 --> 00:45:51,560

the international

386

00:45:56,630 --> 00:45:53,880

Space Station

387

00:45:59,210 --> 00:45:56,640

the crew astronauts lifted off at 501 PM

388

00:46:01,670 --> 00:45:59,220

Eastern Time on October 5th from launch

389

00:46:04,970 --> 00:46:01,680

complex 39a at NASA's Kennedy Space

390

00:46:10,130 --> 00:46:07,910

the SpaceX Falcon 9 rocket propelled the

391

00:46:12,589 --> 00:46:10,140

crew endurance spacecraft with nas

392

00:46:14,690 --> 00:46:12,599

astronauts Nicole Mann and Josh cassida

393

00:46:18,170 --> 00:46:14,700

along with koichiwakata of the Japan

394

00:46:20,690 --> 00:46:18,180

Aerospace Exploration Agency and on

395

00:46:22,670 --> 00:46:20,700

akika of frost Cosmos into orbit to

396

00:47:29,630 --> 00:46:22,680

begin a six-month science Mission aboard

397

00:47:29,640 --> 00:47:53,109

foreign

398

00:47:59,270 --> 00:47:56,390

thing happening today the tanking for

399

00:48:02,210 --> 00:47:59,280

NASA space launch system rocket with the

400

00:48:05,450 --> 00:48:02,220

Orion spacecraft at Launchpad 39b at

401
00:48:08,750 --> 00:48:05,460
NASA's Kennedy Space Center in Florida

402
00:48:11,930 --> 00:48:08,760
Nest TV will be showing an airing that

403
00:48:15,170 --> 00:48:11,940
coverage today starting at 3 30 P.M

404
00:48:16,550 --> 00:48:15,180
Eastern Time NASA's Artemis 1 mission is

405
00:48:18,589 --> 00:48:16,560
the first integrated test of the

406
00:48:22,190 --> 00:48:18,599
agency's deep space exploration systems

407
00:48:24,890 --> 00:48:22,200
the Orion spacecraft SLS rocket and

408
00:48:26,510 --> 00:48:24,900
supporting ground systems launch of the

409
00:48:35,390 --> 00:48:26,520
uncrewed flight test is targeted for

410
00:48:41,030 --> 00:48:37,670
and you're currently seeing a live view

411
00:48:46,069 --> 00:48:41,040
with beautiful weather at the cape where

412
00:48:48,890 --> 00:48:46,079
SLS is sitting on pad 39a 39b

413
00:49:46,010 --> 00:48:48,900

and NASA's Kennedy Space Center in

414

00:49:46,020 --> 00:49:55,250

thank you

415

00:49:59,450 --> 00:49:56,870

I'm currently seeing views inside the

416

00:50:01,910 --> 00:49:59,460

quest airlock where suit up lead NASA

417

00:50:04,790 --> 00:50:01,920

astronaut Nicole Mann and Jax astronaut

418

00:50:07,849 --> 00:50:04,800

koichiwakata are helping

419

00:50:10,849 --> 00:50:07,859

the duo of Josh cassida and Frank Rubio

420

00:50:13,309 --> 00:50:10,859

get prepared to venture outside into the

421

00:50:15,410 --> 00:50:13,319

vacuum of space today the crew is now

422

00:50:19,370 --> 00:50:15,420

getting their safers installed the safer

423

00:50:21,170 --> 00:50:19,380

or the simplified aid for Eva rescue is

424

00:50:22,750 --> 00:50:21,180

essentially a jet pack that the

425

00:50:25,730 --> 00:50:22,760

astronauts wear when they perform

426

00:50:27,950 --> 00:50:25,740

spacewalks safer is worn as a

427

00:50:30,230 --> 00:50:27,960

precautionary measure and the unlikely

428

00:50:32,569 --> 00:50:30,240

event that an astronaut were to become

429

00:50:34,430 --> 00:50:32,579

untethered from the space station the

430

00:50:36,589 --> 00:50:34,440

safer would allow the crew member to

431

00:50:38,270 --> 00:50:36,599

safely Propel themselves back to the

432

00:50:39,890 --> 00:50:38,280

space station

433

00:50:41,990 --> 00:50:39,900

once the Surfers are successfully

434

00:50:43,910 --> 00:50:42,000

installed on the astronauts they will be

435

00:50:46,010 --> 00:50:43,920

moved through the equipment lock portion

436

00:50:49,670 --> 00:50:46,020

of the airlock you see on the

437

00:50:55,190 --> 00:50:53,450

now into the crew lock section

438

00:50:56,750 --> 00:50:55,200

the hatch will then be closed behind

439

00:50:59,329 --> 00:50:56,760

them and the final preparations will

440

00:51:01,490 --> 00:50:59,339

begin to depressurize the crew lock all

441

00:51:03,230 --> 00:51:01,500

the way down to vacuum they'll then

442

00:51:05,030 --> 00:51:03,240

complete suit checks and communication

443

00:51:07,609 --> 00:51:05,040

checks with the flight control team here

444

00:52:08,990 --> 00:51:07,619

in Houston before venturing outside the

445

00:52:09,000 --> 00:52:30,490

foreign

446

00:52:36,170 --> 00:52:33,890

Houston Station in Step 11 time was 12

447

00:52:38,990 --> 00:52:36,180

18. we have started a timer for the two

448

00:52:39,000 --> 00:53:47,990

copy 12 18 before both thanks

449

00:53:48,000 --> 00:54:37,430

thank you

450

00:54:37,440 --> 00:54:52,030

foreign

451
00:54:58,250 --> 00:54:55,130
station the Maddox canisters that we

452
00:54:59,990 --> 00:54:58,260
removed are serial number two zero and

453
00:55:03,410 --> 00:55:00,000
serial number two two there's tent

454
00:55:09,589 --> 00:55:03,420
stowed on the deck in Step 21

455
00:55:26,569 --> 00:55:12,589
and we copy old numbers Duke Sphinx and

456
00:55:26,579 --> 00:55:36,230
and copy and concur

457
00:57:27,829 --> 00:56:42,109
foreign

458
00:57:32,030 --> 00:57:30,349
Houston Station manual leak check is

459
00:57:35,030 --> 00:57:32,040
complete we're moving on to a safer

460
00:57:35,040 --> 00:57:58,870
wait copy

461
00:58:02,930 --> 00:58:00,890
if you're just joining us you're looking

462
00:58:04,670 --> 00:58:02,940
live inside the quest airlock of the

463
00:58:07,670 --> 00:58:04,680

International Space Station where NASA

464

00:58:09,410 --> 00:58:07,680

astronaut Josh cassida is suited up in

465

00:58:12,349 --> 00:58:09,420

this suit with the red stripes he will

466

00:58:14,750 --> 00:58:12,359

be eb1 today

467

00:58:18,849 --> 00:58:14,760

he's on the left of your screen

468

00:58:22,309 --> 00:58:18,859

and Frank Rubio ev2 the suit with

469

00:58:25,370 --> 00:58:22,319

unmarked the unmarked suit

470

00:58:27,790 --> 00:58:25,380

will be ev2 today

471

00:58:30,349 --> 00:58:27,800

is being helped by Jack's astronaut

472

00:58:34,309 --> 00:58:30,359

koichiwakata to the top of your screen

473

00:58:36,890 --> 00:58:34,319

and Nicole man who just went out a few

474

00:58:38,150 --> 00:58:36,900

the duo will head out of the hatch of

475

00:58:40,309 --> 00:58:38,160

the International Space Station later

476
00:58:42,950 --> 00:58:40,319
this morning where they will be

477
00:58:43,970 --> 00:58:42,960
conducting the 254th spacewalk in

478
00:58:45,530 --> 00:58:43,980
support of the International Space

479
00:58:47,930 --> 00:58:45,540
Station assembly maintenance and

480
00:58:50,450 --> 00:58:47,940
upgrades

481
00:58:52,789 --> 00:58:50,460
they do are suited up now and they have

482
00:58:55,670 --> 00:58:52,799
just completed their pre-breathed

483
00:58:58,849 --> 00:58:55,680
procedures for this morning they are now

484
00:59:02,750 --> 00:58:58,859
about to Don their safers or put on

485
00:59:04,370 --> 00:59:02,760
their safers for the day

486
00:59:08,329 --> 00:59:04,380
again

487
00:59:13,309 --> 00:59:10,910
the safer or the simple at aid for Eva

488
00:59:14,870 --> 00:59:13,319

rescue is essentially a jet pack that

489

00:59:18,710 --> 00:59:14,880

the astronauts wear when they perform

490

00:59:20,990 --> 00:59:18,720

spacewalks safer is all worn is worn as

491

00:59:22,970 --> 00:59:21,000

a precautionary measure in the unlikely

492

00:59:24,829 --> 00:59:22,980

event that the an astronaut were to

493

00:59:27,170 --> 00:59:24,839

become untethered from the space station

494

00:59:30,230 --> 00:59:27,180

the safer would allow the crew members

495

00:59:32,270 --> 00:59:30,240

to safely Propel themselves back to the

496

00:59:34,010 --> 00:59:32,280

International Space Station

497

00:59:36,289 --> 00:59:34,020

once the safers are successfully

498

00:59:37,730 --> 00:59:36,299

installed on the astronauts they will be

499

00:59:39,349 --> 00:59:37,740

moved through the equipment lock portion

500

00:59:41,630 --> 00:59:39,359

of the airlock you see on your top of

501
00:59:44,690 --> 00:59:41,640
your screen now into the crew lock

502
00:59:46,670 --> 00:59:44,700
section the hatch will then be closed

503
00:59:49,549 --> 00:59:46,680
behind them and the final preparations

504
00:59:52,270 --> 00:59:49,559
will begin to depressurize the crew

505
00:59:54,770 --> 00:59:52,280
lock area all the way down to vacuum

506
00:59:56,270 --> 00:59:54,780
they'll then complete suit checks and

507
00:59:57,829 --> 00:59:56,280
communication checks with the flight

508
01:00:17,589 --> 00:59:57,839
control team here in Houston before

509
01:00:22,849 --> 01:00:20,750
you'll now see Nicole Mann and

510
01:00:28,970 --> 01:00:22,859
koichiukata working together to install

511
01:00:34,130 --> 01:00:31,910
the spaces you see the duo wearing now

512
01:00:36,650 --> 01:00:34,140
our emu's or extra vehicular Mobility

513
01:00:38,569 --> 01:00:36,660

units are essentially a mini life

514

01:00:40,490 --> 01:00:38,579

support system providing Environmental

515

01:00:42,170 --> 01:00:40,500

Protection mobility and Communications

516

01:03:04,690 --> 01:00:42,180

for the crew members to turn their

517

01:04:28,670 --> 01:03:08,750

if you guys can turn on the heka for ev1

518

01:05:56,289 --> 01:05:06,470

foreign

519

01:05:59,690 --> 01:05:58,069

airlock of the International Space

520

01:06:01,910 --> 01:05:59,700

Station where NASA astronaut Josh

521

01:06:04,250 --> 01:06:01,920

cassida

522

01:06:06,890 --> 01:06:04,260

is currently being

523

01:06:09,589 --> 01:06:06,900

helped by NASA astronauts Nicole Mann

524

01:06:14,390 --> 01:06:09,599

and koichiwakata to Don his safer that

525

01:06:20,569 --> 01:06:17,809

across from him you see Frank Rubio

526

01:06:23,270 --> 01:06:20,579

in the unmarked suit

527

01:06:26,930 --> 01:06:23,280

he'll be ev2 today while Josh Casada

528

01:06:31,730 --> 01:06:26,940

will be ev1 extra crew extra vehicular

529

01:06:34,609 --> 01:06:31,740

crew member one for today's Eva

530

01:06:36,049 --> 01:06:34,619

the 254th spacewalk in the support of

531

01:06:39,849 --> 01:06:36,059

the International Space Station assembly

532

01:06:44,930 --> 01:06:42,410

and Franco Rubio will be conducting

533

01:06:46,970 --> 01:06:44,940

today's space walk they will be looking

534

01:06:49,370 --> 01:06:46,980

to assemble install brackets and struts

535

01:06:52,490 --> 01:06:49,380

of a modification kit for upcoming solar

536

01:06:55,730 --> 01:06:52,500

array upgrades that's the new ISS

537

01:06:57,710 --> 01:06:55,740

rollout solar rays or irosis that will

538

01:07:04,390 --> 01:06:57,720

help increase the Space Station's total

539

01:07:10,250 --> 01:07:06,770

the CVA sets the stage for the

540

01:07:12,650 --> 01:07:10,260

installation of an irosa on the S6 truss

541

01:08:15,529 --> 01:07:12,660

that will be launched next year on a

542

01:09:31,970 --> 01:08:40,910

foreign

543

01:09:31,980 --> 01:10:09,530

thank you

544

01:14:28,870 --> 01:11:52,189

foreign

545

01:14:35,510 --> 01:14:31,130

if you're just joining us you're looking

546

01:14:38,450 --> 01:14:37,070

you're looking live inside the quest

547

01:14:41,330 --> 01:14:38,460

airlock the International Space Station

548

01:14:44,149 --> 01:14:41,340

where NASA astronaut Josh Casta suited

549

01:14:46,330 --> 01:14:44,159

up in the suit with the red stripes is

550

01:14:49,610 --> 01:14:46,340

donning his safer

551
01:14:52,090 --> 01:14:49,620
and Frank Rubio in the unmarked suit are

552
01:14:54,530 --> 01:14:52,100
in preparations for today's spacewalk

553
01:14:56,990 --> 01:14:54,540
that's going to be live coverage today

554
01:14:58,970 --> 01:14:57,000
of the 254th spacewalk in support of the

555
01:15:01,850 --> 01:14:58,980
International Space Station assembly

556
01:15:03,470 --> 01:15:01,860
maintenance and upgrades

557
01:15:05,990 --> 01:15:03,480
the crew has

558
01:15:08,750 --> 01:15:06,000
successfully

559
01:15:11,630 --> 01:15:08,760
are proceeding nominally with free

560
01:15:14,270 --> 01:15:11,640
breathing procedures including dawning

561
01:15:16,610 --> 01:15:14,280
of the safer as mentioned the team is

562
01:15:18,950 --> 01:15:16,620
slightly behind the timeline they're

563
01:15:22,370 --> 01:15:18,960

running about 30 minutes behind

564

01:15:25,189 --> 01:15:22,380

giving us a later start time

565

01:15:28,550 --> 01:15:25,199

essentially a later start time than the

566

01:15:31,669 --> 01:15:28,560

705 Central time or the 805

567

01:15:33,590 --> 01:15:31,679

eastern time of exiting the hatch this

568

01:15:35,090 --> 01:15:33,600

morning

569

01:15:38,209 --> 01:15:35,100

we're looking for the crew luck

570

01:15:57,770 --> 01:15:38,219

depressed to start around 6 55 Central

571

01:16:02,030 --> 01:15:59,870

again you're getting a view of astronaut

572

01:16:05,090 --> 01:16:02,040

Nicole man the suit up lead this morning

573

01:16:08,510 --> 01:16:05,100

backed by Jack's astronaut koichiwakata

574

01:16:10,669 --> 01:16:08,520

helping out the duo of Josh cassida and

575

01:16:13,850 --> 01:16:10,679

Frank Rubio today as they do final

576

01:16:18,709 --> 01:16:13,860

preparations for today's before the

577

01:16:24,169 --> 01:16:21,850

again the duo is

578

01:16:26,209 --> 01:16:24,179

helping currently

579

01:16:30,709 --> 01:16:26,219

Josh cassida

580

01:16:34,130 --> 01:16:30,719

Don his safer again that safer is

581

01:16:36,950 --> 01:16:34,140

a safer as a acronym for simplified aid

582

01:16:39,229 --> 01:16:36,960

for Eva rescue and is essentially a jet

583

01:16:41,510 --> 01:16:39,239

pack that the astronauts wear when they

584

01:16:43,910 --> 01:16:41,520

perform spacewalks the safer is worn as

585

01:16:45,709 --> 01:16:43,920

a precautionary measure in the unlikely

586

01:16:47,750 --> 01:16:45,719

event that an astronaut were to become

587

01:16:49,790 --> 01:16:47,760

untethered from the space station

588

01:16:51,770 --> 01:16:49,800

the safer would allow the crew member to

589

01:16:53,390 --> 01:16:51,780

safely Propel themselves back to the

590

01:16:55,910 --> 01:16:53,400

space station

591

01:16:58,729 --> 01:16:55,920

again once the safers are successfully

592

01:17:02,410 --> 01:16:58,739

installed on both astronauts they will

593

01:17:05,930 --> 01:17:02,420

be moved into the

594

01:17:07,729 --> 01:17:05,940

crew lock section then the hatch will

595

01:17:10,250 --> 01:17:07,739

then be closed behind them and the final

596

01:17:12,410 --> 01:17:10,260

preparations will begin to depressurize

597

01:17:14,870 --> 01:17:12,420

the crew lock all the way down to vacuum

598

01:17:16,250 --> 01:17:14,880

they'll then complete suit checks and

599

01:17:18,229 --> 01:17:16,260

communication checks with the flight

600

01:17:24,350 --> 01:17:18,239

control team here in Houston before

601
01:17:30,290 --> 01:17:27,470
and you currently see Nicole man

602
01:17:32,570 --> 01:17:30,300
um one uh could you guys please turn off

603
01:17:34,850 --> 01:17:32,580
the hiccup please and make sure that the

604
01:17:38,689 --> 01:17:34,860
light goes off of

605
01:21:27,350 --> 01:17:38,699
and we did get the Telemetry so thanks

606
01:21:32,330 --> 01:21:29,330
if you're just joining us you're looking

607
01:21:33,830 --> 01:21:32,340
live inside the quest airlock and you

608
01:21:36,370 --> 01:21:33,840
currently see koichi caught it working

609
01:21:38,450 --> 01:21:36,380
with Frank Rubio and the unmarked suit

610
01:21:40,149 --> 01:21:38,460
as they

611
01:21:43,310 --> 01:21:40,159
try to

612
01:21:46,130 --> 01:21:43,320
power cycle his heka or his helmet

613
01:21:47,209 --> 01:21:46,140

camera he will be him camera number 20

614

01:21:49,130 --> 01:21:47,219

today

615

01:21:52,550 --> 01:21:49,140

and you see Nicole man in the back with

616

01:21:55,729 --> 01:21:52,560

the red shirt on as she helps Josh Casta

617

01:22:04,010 --> 01:21:55,739

in the suit with the red stripes or ev1

618

01:22:10,189 --> 01:22:07,970

Nicole man is currently moving

619

01:22:12,350 --> 01:22:10,199

Josh cast the inside the crew lock

620

01:22:16,130 --> 01:22:12,360

section

621

01:22:18,530 --> 01:22:16,140

we have this well Frank Rubio still has

622

01:22:20,510 --> 01:22:18,540

to go through his safer install he's

623

01:22:22,729 --> 01:22:20,520

currently still attached to the suit

624

01:22:25,850 --> 01:22:22,739

donning

625

01:22:27,290 --> 01:22:25,860

stand

626

01:22:29,870 --> 01:22:27,300

he will need to work through the same

627

01:22:33,169 --> 01:22:29,880

procedures that Josh Casa just went

628

01:22:35,450 --> 01:22:33,179

through as the duo of Nicole Mann and

629

01:22:38,350 --> 01:22:35,460

koichiwukata attached the safer to his

630

01:22:43,370 --> 01:22:41,570

we will get you some steps shortly

631

01:22:46,310 --> 01:22:43,380

standby

632

01:24:02,689 --> 01:22:46,320

you may not be able to get it on uh

633

01:24:09,590 --> 01:24:05,530

you just heard a call from

634

01:24:12,950 --> 01:24:09,600

akihoshide acting Capcom this morning up

635

01:24:15,709 --> 01:24:12,960

to the station talking to kuichiwakata

636

01:24:18,830 --> 01:24:15,719

as they work on the hecka or the helmet

637

01:24:20,689 --> 01:24:18,840

cam on Frank Rubio's suit

638

01:24:23,229 --> 01:24:20,699

trying to power cycle to get that to

639

01:24:26,209 --> 01:24:23,239

turn on properly

640

01:24:28,610 --> 01:24:26,219

standing by for the hecka installation

641

01:24:30,709 --> 01:24:28,620

on Frank's helmet

642

01:24:32,450 --> 01:24:30,719

that we proceed with the safer

643

01:24:49,130 --> 01:24:32,460

installation while we wait for the

644

01:24:55,910 --> 01:24:52,010

and koichi thanks for reporting if you

645

01:24:58,850 --> 01:24:55,920

guys can remove the ls and then work

646

01:25:01,729 --> 01:24:58,860

those four latches to put the helmet

647

01:25:04,970 --> 01:25:01,739

light on the helmet uh you guys are

648

01:25:10,669 --> 01:25:07,729

and uh you guys can do the safer dining

649

01:25:18,950 --> 01:25:10,679

as well but uh if you guys uh need steps

650

01:25:24,590 --> 01:25:21,709

okay Aki with copy it's in work and also

651

01:25:27,189 --> 01:25:24,600

uh for your essay when I put Josh in the

652

01:25:29,870 --> 01:25:27,199

crew lock uh he asked me to turn on his

653

01:25:32,090 --> 01:25:29,880

helmet lights and they would not come on

654

01:25:33,709 --> 01:25:32,100

so I went and I rechecked all

655

01:25:35,870 --> 01:25:33,719

connections and where we've been push

656

01:25:38,510 --> 01:25:35,880

them together and then his helmet lights

657

01:25:40,189 --> 01:25:38,520

did come on I didn't notice there was

658

01:25:43,310 --> 01:25:40,199

nothing disconnected I didn't notice

659

01:25:44,750 --> 01:25:43,320

anything that was abnormal so his

660

01:25:46,610 --> 01:25:44,760

homework lights are on now but I wanted

661

01:25:50,810 --> 01:25:46,620

you to be aware in case he has a problem

662

01:28:05,510 --> 01:25:53,870

okay to copy your last report thank you

663

01:28:10,490 --> 01:28:07,010

if you're just joining us you're looking

664

01:28:12,950 --> 01:28:10,500

inside the quest airlock as the duo of

665

01:28:19,330 --> 01:28:12,960

Nicole Mann that's astronaut and jazza

666

01:28:26,090 --> 01:28:23,209

reinstall the hecka or the

667

01:28:29,510 --> 01:28:26,100

camera system attached to the helmet of

668

01:28:32,930 --> 01:28:29,520

Frank Rubio today's

669

01:28:35,930 --> 01:28:32,940

vehicular 2 crew member that will be

670

01:28:37,310 --> 01:28:35,940

going outside the station with ev1 Josh

671

01:28:41,510 --> 01:28:37,320

cassida

672

01:28:43,850 --> 01:28:41,520

to conduct the 254th spacewalk

673

01:28:47,870 --> 01:28:43,860

for the international space stations

674

01:28:49,550 --> 01:28:47,880

assembly maintenance and upgrades today

675

01:28:52,669 --> 01:28:49,560

the crew is currently about 30 minutes

676
01:28:55,669 --> 01:28:52,679
behind their scheduled timeline of going

677
01:29:01,090 --> 01:28:55,679
outside of the hatchet 705 am

678
01:29:03,169 --> 01:29:01,100
Central Time 805 a.m Eastern Time

679
01:29:06,830 --> 01:29:03,179
left side

680
01:29:08,629 --> 01:29:06,840
Alpha plug is in the way it seems to

681
01:29:10,129 --> 01:29:08,639
make it difficult can I disconnect that

682
01:29:20,510 --> 01:29:10,139
plug or no

683
01:29:37,490 --> 01:29:24,530
first let's turn off off the Reba and

684
01:29:41,930 --> 01:29:39,470
you just heard a call from that's

685
01:29:44,629 --> 01:29:41,940
astronaut Nicole Mann and the response

686
01:29:47,930 --> 01:29:44,639
from Jackson astronaut

687
01:29:49,490 --> 01:29:47,940
Aki hoshide Capcom communicating all the

688
01:29:51,590 --> 01:29:49,500

way through depressurization this

689

01:29:53,390 --> 01:29:51,600

morning at which point the ground ivy

690

01:29:56,270 --> 01:29:53,400

Xena cardamom will take over

691

01:29:59,149 --> 01:29:56,280

Communications and walking the crew to

692

01:30:02,270 --> 01:29:59,159

through today's spacewalk cardmen was

693

01:30:31,330 --> 01:30:02,280

selected as an astronaut in 2017 and

694

01:30:36,169 --> 01:30:34,310

again they're attaching the Lights and

695

01:30:38,510 --> 01:30:36,179

Camera you'll hear them call out to

696

01:30:40,550 --> 01:30:38,520

about a heca that's the HD camera

697

01:30:42,470 --> 01:30:40,560

attached that will give us views of the

698

01:30:44,870 --> 01:30:42,480

spacewalk today from the astronauts

699

01:30:47,510 --> 01:30:44,880

point of view

700

01:30:49,669 --> 01:30:47,520

once that is attached we then will go

701
01:30:52,370 --> 01:30:49,679
through the procedures to attach the

702
01:30:54,050 --> 01:30:52,380
safer or the simplified aid for Eva

703
01:30:57,229 --> 01:30:54,060
rescue

704
01:30:58,250 --> 01:30:57,239
shoe Frank Rubio as well and we will

705
01:30:59,930 --> 01:30:58,260
then

706
01:31:01,790 --> 01:30:59,940
move him from the equipment lock portion

707
01:31:05,209 --> 01:31:01,800
of the airlock you see

708
01:31:10,250 --> 01:31:05,219
to the crew lock session where we just

709
01:31:15,470 --> 01:31:13,790
after Frank Rubio is put into the crew

710
01:31:17,510 --> 01:31:15,480
lock section the hatch will then be

711
01:31:19,850 --> 01:31:17,520
closed behind them and the final

712
01:31:22,490 --> 01:31:19,860
preparations will begin to depressurize

713
01:31:24,770 --> 01:31:22,500

the crew lock all the way down to vacuum

714

01:31:26,149 --> 01:31:24,780

they'll then complete suit checks and

715

01:31:28,189 --> 01:31:26,159

communication checks with the flight

716

01:31:55,370 --> 01:31:28,199

control team here in Houston before

717

01:31:59,090 --> 01:31:57,410

we're in a short satellite Handover

718

01:32:00,169 --> 01:31:59,100

period and we'll gain Communications

719

01:32:18,770 --> 01:32:00,179

with the International Space Station

720

01:32:25,189 --> 01:32:21,770

okay the helmet lights are back on the E

721

01:32:52,790 --> 01:32:25,199

hits are installed TMG is back P2 Alpha

722

01:32:58,129 --> 01:32:55,910

Duke thanks a lot for the report uh once

723

01:33:02,149 --> 01:32:58,139

you guys are happy uh go ahead and turn

724

01:33:05,090 --> 01:33:02,159

on oh and the Reba and let's uh check

725

01:33:09,470 --> 01:33:05,100

the lights and also just turn on the

726

01:33:09,480 --> 01:33:19,870

and Erica

727

01:33:19,880 --> 01:33:39,830

copy thumbs up

728

01:33:44,770 --> 01:33:43,610

and you hearing calls from akihoshida to

729

01:33:47,570 --> 01:33:44,780

the crew

730

01:33:50,689 --> 01:33:47,580

discussing the Reba that Reba is the

731

01:33:52,729 --> 01:33:50,699

rechargeable Eva battery assembly and

732

01:33:55,669 --> 01:33:52,739

the crew now has the lights back on the

733

01:33:59,330 --> 01:33:55,679

suit and we'll go on to put the safer on

734

01:34:03,709 --> 01:33:59,340

the back of Frank Rubio's spacesuit

735

01:34:08,870 --> 01:34:06,169

currently with Frank Rubio in view is

736

01:34:11,270 --> 01:34:08,880

the Emu or the extra regular Mobility

737

01:34:12,649 --> 01:34:11,280

unit and they are essentially a mini

738

01:34:14,750 --> 01:34:12,659

life support system providing

739

01:34:16,310 --> 01:34:14,760

Environmental Protection mobility and

740

01:34:37,390 --> 01:34:16,320

Communications for the crew members

741

01:34:43,669 --> 01:34:41,629

and we checked hecolite LED went on and

742

01:34:48,350 --> 01:34:43,679

so my lights are good then did you want

743

01:34:48,360 --> 01:34:53,390

hey friend please

744

01:35:00,530 --> 01:34:54,890

okay uh

745

01:35:04,270 --> 01:35:02,930

and Coach you can turn those uh the

746

01:35:08,209 --> 01:35:04,280

cameras

747

01:35:14,390 --> 01:35:08,219

emu TV and the hacker invites are all

748

01:35:14,400 --> 01:39:04,250

okay thank you

749

01:39:08,390 --> 01:39:06,169

if you're just joining us you're looking

750

01:39:10,790 --> 01:39:08,400

inside the quest airlock we're NASA

751
01:39:13,850 --> 01:39:10,800
astronaut Nicole Mann suit up lead and

752
01:39:18,229 --> 01:39:13,860
koichiwakata are helping Frank Rubio

753
01:39:24,110 --> 01:39:20,930
Dawn is safer they're preparing to put

754
01:39:27,590 --> 01:39:24,120
his safer on his back he's following

755
01:39:29,990 --> 01:39:27,600
behind ev1 which is Josh cassida Josh

756
01:39:32,870 --> 01:39:30,000
Kessler has currently donned his safer

757
01:39:36,169 --> 01:39:32,880
and is inside the crew lock section

758
01:39:38,870 --> 01:39:36,179
and we are waiting for the safer to be

759
01:39:41,270 --> 01:39:38,880
put onto Franco Rubio so he can join

760
01:39:44,629 --> 01:39:41,280
Josh Cassidy in the crew lock section

761
01:39:47,930 --> 01:39:44,639
after the safer is safely installed

762
01:39:50,450 --> 01:39:47,940
the crew will both though Frank Rubio

763
01:39:52,189 --> 01:39:50,460

and Josh uh Cassidy will be inside the

764

01:39:54,530 --> 01:39:52,199

crew section and the hatch will be

765

01:39:56,510 --> 01:39:54,540

closed behind them and then the final

766

01:39:58,910 --> 01:39:56,520

preparations will begin to depressurize

767

01:40:01,250 --> 01:39:58,920

the crew lock all the way down to vacuum

768

01:40:02,990 --> 01:40:01,260

they'll then complete suit checks and

769

01:40:04,970 --> 01:40:03,000

communication checks with the flight

770

01:41:24,470 --> 01:40:04,980

control team here in Houston before

771

01:41:24,480 --> 01:41:49,149

foreign

772

01:41:54,530 --> 01:41:52,310

just a suggestion uh if you want Frank

773

01:41:56,090 --> 01:41:54,540

to grab onto a handrail that might

774

01:44:40,790 --> 01:41:56,100

stabilize him and then it might be

775

01:44:44,750 --> 01:44:43,129

if you're just joining us we're bringing

776

01:44:47,629 --> 01:44:44,760

you live coverage today of the ninth

777

01:44:49,010 --> 01:44:47,639

spacewalk of 2022 and the 254th

778

01:44:50,450 --> 01:44:49,020

spacewalk in support of the

779

01:44:53,689 --> 01:44:50,460

International Space Station assembly

780

01:44:56,270 --> 01:44:53,699

maintenance and upgrades so far NASA

781

01:44:58,010 --> 01:44:56,280

astronaut Josh cassida and Frank Rubio

782

01:45:01,310 --> 01:44:58,020

have completed a pre-breathe and are

783

01:45:04,669 --> 01:45:01,320

heading towards the crew lock Casita now

784

01:45:06,890 --> 01:45:04,679

in the crew lock and Rubio finishing

785

01:45:09,070 --> 01:45:06,900

safer donning and will be headed to the

786

01:45:11,870 --> 01:45:09,080

crew lock shortly

787

01:45:15,109 --> 01:45:11,880

again the today's space walk marks to

788

01:45:16,910 --> 01:45:15,119

255th 254th in support of International

789

01:45:19,609 --> 01:45:16,920

Space Station assembly maintenance and

790

01:45:22,189 --> 01:45:19,619

upgrades this will be Josh cassadas and

791

01:45:26,330 --> 01:45:22,199

Frank Rubio's first spacewalk

792

01:45:28,250 --> 01:45:26,340

Canada as ev1 or extra vehicular crew

793

01:45:37,250 --> 01:45:28,260

member one will wear the suit with the

794

01:45:43,430 --> 01:45:40,669

Rubio as ev2 will wear the suit

795

01:45:47,750 --> 01:45:43,440

that is unmarked with helmet cam number

796

01:45:53,030 --> 01:45:50,030

again you're currently seeing Nicole

797

01:45:56,930 --> 01:45:53,040

Mann that's astronaut and Jack's

798

01:46:13,790 --> 01:45:56,940

astronaut koichiwakata

799

01:46:17,689 --> 01:46:16,129

again the safer is a simplified aid for

800

01:46:19,490 --> 01:46:17,699

Eva rescue

801
01:46:20,870 --> 01:46:19,500
essentially a jet pack that the

802
01:46:22,550 --> 01:46:20,880
astronauts wear when they perform

803
01:46:24,530 --> 01:46:22,560
spacewalks

804
01:46:28,070 --> 01:46:24,540
a safer is worn as a precautionary

805
01:46:30,830 --> 01:46:28,080
measure but has never been used and it's

806
01:46:32,750 --> 01:46:30,840
you just worn in the unlikely event that

807
01:46:34,370 --> 01:46:32,760
an astronaut were to become untethered

808
01:46:36,050 --> 01:46:34,380
from the space station

809
01:46:38,689 --> 01:46:36,060
the safer would allow the crew members

810
01:48:05,570 --> 01:46:38,699
to safely Propel themselves back to the

811
01:48:09,410 --> 01:48:07,189
currently in a brief Handover between

812
01:50:34,370 --> 01:48:09,420
satellites we'll have views inside the

813
01:50:40,310 --> 01:50:36,250

and now what we use back we see

814

01:50:43,430 --> 01:50:40,320

koichiwakata move Frank Rubio into the

815

01:50:45,709 --> 01:50:43,440

crew lock section

816

01:50:48,530 --> 01:50:45,719

of the airlock

817

01:50:49,910 --> 01:50:48,540

again after both are inside the crew

818

01:50:51,890 --> 01:50:49,920

locks section

819

01:50:55,370 --> 01:50:51,900

we're going to close the hatch they're

820

01:50:58,310 --> 01:50:55,380

going to close the hatch behind them

821

01:51:00,830 --> 01:50:58,320

and begin the final preparations

822

01:51:03,410 --> 01:51:00,840

to depressurize the crew lock all the

823

01:51:05,030 --> 01:51:03,420

way down to vacuum they'll then complete

824

01:51:06,590 --> 01:51:05,040

suit checks and communication checks

825

01:51:08,510 --> 01:51:06,600

with the flight controllers here in

826
01:59:04,729 --> 01:51:08,520
Mission Control Houston before venturing

827
01:59:09,290 --> 01:59:07,089
out here

828
01:59:10,669 --> 01:59:09,300
if you're just joining us we're bringing

829
01:59:13,430 --> 01:59:10,679
you live coverage today of the ninth

830
01:59:14,810 --> 01:59:13,440
spacewalk of 2022 and the 254th

831
01:59:17,209 --> 01:59:14,820
spacewalk in support of International

832
01:59:18,290 --> 01:59:17,219
Space Station assembly maintenance and

833
01:59:21,530 --> 01:59:18,300
upgrades

834
01:59:23,990 --> 01:59:21,540
so foreign Josh cassida and Frank Rubio

835
01:59:25,970 --> 01:59:24,000
have completed pre-breathe and have

836
01:59:28,370 --> 01:59:25,980
headed to the crew lock

837
01:59:30,410 --> 01:59:28,380
they're now in the crew up the spacewalk

838
01:59:31,790 --> 01:59:30,420

today again marks the 254th in support

839

01:59:33,770 --> 01:59:31,800
of International Space Station assembly

840

01:59:36,169 --> 01:59:33,780
maintenance and upgrades this will be

841

01:59:37,550 --> 01:59:36,179
Josh cassida and Frank rubia's first

842

01:59:40,669 --> 01:59:37,560
spacewalk

843

01:59:42,830 --> 01:59:40,679
Casita is eb1 or extra vehicular crew

844

01:59:45,410 --> 01:59:42,840
member one and is wearing the suit with

845

01:59:47,950 --> 01:59:45,420
the red stripes and he will have on a

846

01:59:50,930 --> 01:59:47,960
helmet cam number 22.

847

01:59:54,530 --> 01:59:50,940
Rubio as ev2

848

01:59:59,209 --> 01:59:56,810
that is unmarked and will have helmet

849

02:00:01,729 --> 01:59:59,219
cam number 20.

850

02:00:04,310 --> 02:00:01,739
the duo are suited up and have been put

851

02:00:08,209 --> 02:00:04,320

in the crew lock session crew lock

852

02:00:14,709 --> 02:00:11,629

you see the duo being assisted by NASA

853

02:00:21,290 --> 02:00:14,719

astronaut Nicole Mann and jaxa Astronaut

854

02:00:25,370 --> 02:00:24,229

massify Engineers Josh Kessler and Frank

855

02:00:27,709 --> 02:00:25,380

Rubio

856

02:00:29,689 --> 02:00:27,719

we'll focus on assembly installing a

857

02:00:31,490 --> 02:00:29,699

modification kit required for upcoming

858

02:00:33,709 --> 02:00:31,500

solar array upgrades

859

02:00:35,570 --> 02:00:33,719

the pair will install brackets and

860

02:00:37,790 --> 02:00:35,580

struts to support the future

861

02:00:40,550 --> 02:00:37,800

installation of an ISS rollout solar

862

02:00:43,729 --> 02:00:40,560

array or irosa

863

02:00:45,589 --> 02:00:43,739

the Rays will ultimately augment six

864

02:00:47,570 --> 02:00:45,599

of the station's eight power channels

865

02:00:50,990 --> 02:00:47,580

increasing the station's total available

866

02:01:26,149 --> 02:00:51,000

power from 160 kilowatts up to 215

867

02:01:31,310 --> 02:01:28,430

I am currently seeing Nicole Manning

868

02:01:34,970 --> 02:01:31,320

koichiwakata closing the hatch

869

02:01:37,250 --> 02:01:34,980

to the crew lock section of the airlock

870

02:01:41,390 --> 02:01:37,260

where now the final preparations for

871

02:01:48,890 --> 02:01:45,109

at this time we're going to start

872

02:01:50,810 --> 02:01:48,900

final procedures which include

873

02:01:53,169 --> 02:01:50,820

student communication checks as well as

874

02:01:58,070 --> 02:01:53,179

depressurization

875

02:02:01,490 --> 02:01:58,080

down to vacuum

876

02:02:03,350 --> 02:02:01,500

and it will occur in a two-stage fashion

877

02:02:06,290 --> 02:02:03,360

the crew lock will be taken down to five

878

02:02:07,729 --> 02:02:06,300

pounds per square inch of pressure

879

02:02:10,490 --> 02:02:07,739

at which point they'll pause

880

02:02:12,830 --> 02:02:10,500

pressurization to do a system check that

881

02:02:14,330 --> 02:02:12,840

then the depressurization will resume to

882

02:02:18,290 --> 02:02:14,340

get the crew lock all the way down to

883

02:02:20,930 --> 02:02:18,300

vacuum once it gets down to vacuum

884

02:02:23,510 --> 02:02:20,940

Josh Kesta and Frank Rubio will conduct

885

02:02:25,430 --> 02:02:23,520

shoot checks and communication checks

886

02:02:27,470 --> 02:02:25,440

with Mission Control Houston before they

887

02:02:29,689 --> 02:02:27,480

put their suits on the internal battery

888

02:03:16,970 --> 02:02:29,699

power which will Mark the official start

889

02:03:16,980 --> 02:03:21,609

are complete

890

02:03:42,050 --> 02:03:33,649

encourage you could

891

02:03:54,129 --> 02:03:46,250

Kenya we are in the step 77 and uh steps

892

02:03:54,139 --> 02:04:04,689

and copy your last thanks

893

02:04:09,229 --> 02:04:06,770

back in the International Space Station

894

02:04:11,330 --> 02:04:09,239

flight control room the orbit 2 team is

895

02:04:13,189 --> 02:04:11,340

ready to support today's spacewalk under

896

02:04:16,330 --> 02:04:13,199

the direction of flight director Anthony

897

02:04:21,709 --> 02:04:19,430

to his right at the Capcom console is

898

02:04:23,510 --> 02:04:21,719

the ground IV NASA astronaut Xena

899

02:04:25,970 --> 02:04:23,520

Cardman who serves as spacewalk

900

02:04:28,129 --> 02:04:25,980

Communicator who will talk directly with

901
02:04:29,750 --> 02:04:28,139
the crew during the spacewalk helping

902
02:04:31,970 --> 02:04:29,760
the mcoreograph timelines and

903
02:04:35,810 --> 02:04:31,980
procedures

904
02:04:35,820 --> 02:04:44,510
you guys are hot Mike

905
02:04:48,890 --> 02:04:46,550
okay copy thank you

906
02:04:50,510 --> 02:04:48,900
copy that Aki we are currently hot Mike

907
02:04:53,510 --> 02:04:50,520
thanks

908
02:05:02,089 --> 02:04:53,520
yes we actually just went into hot Mike

909
02:05:08,030 --> 02:05:04,550
in Houston airlock I understand you will

910
02:05:34,149 --> 02:05:08,040
take care of Step 78-80

911
02:05:39,950 --> 02:05:37,490
Eric Houston uh we are complete through

912
02:05:44,930 --> 02:05:39,960
step 80. you can pick back up in step

913
02:05:44,940 --> 02:06:00,169

will you copy that thank you

914

02:06:06,370 --> 02:06:03,109

check that the switch we press pump

915

02:06:10,790 --> 02:06:06,380

power is off on the UIA

916

02:06:18,229 --> 02:06:14,229

LED his way

917

02:06:21,850 --> 02:06:18,239

please verify that the depressed enable

918

02:06:21,860 --> 02:06:28,729

enable LED is on oh and

919

02:06:44,270 --> 02:06:30,709

you say we're standing back to your goal

920

02:06:44,280 --> 02:06:51,189

foreign

921

02:06:51,199 --> 02:07:02,870

we are go in step 84.

922

02:07:09,770 --> 02:07:05,390

happy we are executing the crew lock

923

02:07:15,169 --> 02:07:11,709

TV2 switch

924

02:07:18,350 --> 02:07:15,179

depressed power on wait 10 seconds for a

925

02:07:27,729 --> 02:07:18,360

complete startup okay depressed pumps is

926
02:07:33,589 --> 02:07:30,290
easy two

927
02:07:35,990 --> 02:07:33,599
six the depressed pump man ISO valve to

928
02:07:40,669 --> 02:07:36,000
open and you expect an alert tone

929
02:07:56,089 --> 02:07:40,679
monitor your suit P gauge less than 5.5

930
02:08:00,530 --> 02:07:57,770
flight controllers here in Houston all

931
02:08:02,450 --> 02:08:00,540
of all a go for depressurization to

932
02:08:04,729 --> 02:08:02,460
begin in the quicker a lot

933
02:08:08,810 --> 02:08:04,739
that deep reset to begin just

934
02:08:14,089 --> 02:08:10,550
Professor dropping

935
02:08:46,370 --> 02:08:14,709
s

936
02:08:46,380 --> 02:09:19,609
foreign

937
02:09:25,310 --> 02:09:21,770
crew love dupress has started during the

938
02:09:26,510 --> 02:09:25,320

final steps of emu pre-brief

939

02:09:30,169 --> 02:09:26,520

that

940

02:09:32,770 --> 02:09:30,179

the crew is currently inside the quest

941

02:09:35,450 --> 02:09:32,780

airlock where they've started the Deep

942

02:09:38,390 --> 02:09:35,460

depressurization process again this will

943

02:09:40,189 --> 02:09:38,400

happen in two stages first they'll take

944

02:09:42,050 --> 02:09:40,199

the crew lock down to five pounds per

945

02:09:45,109 --> 02:09:42,060

square inch of pressure at which point

946

02:09:46,910 --> 02:09:45,119

depressurization will be paused to do a

947

02:09:48,770 --> 02:09:46,920

systems check following this

948

02:09:51,290 --> 02:09:48,780

depressurization will resume and

949

02:09:53,510 --> 02:09:51,300

continue all the way down to vacuum once

950

02:09:55,550 --> 02:09:53,520

vacuum is reached the two space Walkers

951
02:09:57,410 --> 02:09:55,560
will continue will complete suit and

952
02:09:59,290 --> 02:09:57,420
comp checks before placing their

953
02:10:01,669 --> 02:09:59,300
spacesuit on internal battery power

954
02:10:04,689 --> 02:10:01,679
officially marking the start of today's

955
02:10:07,490 --> 02:10:04,699
spacewalk again we expect

956
02:10:13,070 --> 02:10:07,500
depressurization to take about 30

957
02:10:13,080 --> 02:10:17,270
foreign

958
02:10:17,280 --> 02:10:30,930
online

959
02:11:36,530 --> 02:10:42,080
[Music]

960
02:11:36,540 --> 02:12:16,880
foreign

961
02:13:29,750 --> 02:12:24,090
[Music]

962
02:14:59,050 --> 02:14:05,870
foreign

963
02:15:03,770 --> 02:15:01,609

if you're just joining us you're seeing

964

02:15:08,089 --> 02:15:03,780

live coverage inside the

965

02:15:09,229 --> 02:15:08,099

Quest airlock as we begin the 254th

966

02:15:10,430 --> 02:15:09,239

spacewalk in support of the

967

02:15:12,770 --> 02:15:10,440

International Space Station assembly

968

02:15:15,589 --> 02:15:12,780

maintenance and upgrades NASA astronaut

969

02:15:18,169 --> 02:15:15,599

Josh Casada and Frank Rubidoux will be

970

02:15:19,669 --> 02:15:18,179

conducting today's spacewalk to assemble

971

02:15:21,830 --> 02:15:19,679

install brackets and struts and a

972

02:15:23,569 --> 02:15:21,840

modification kit for upcoming solar

973

02:15:26,330 --> 02:15:23,579

array upgrades

974

02:15:28,250 --> 02:15:26,340

the new ISS rollout solar arrays or

975

02:15:41,990 --> 02:15:28,260

iroses will increase the Space Station's

976
02:15:42,000 --> 02:15:45,370
yeah

977
02:15:50,870 --> 02:15:48,350
cassida as ev1 or extra vehicular crew

978
02:15:52,430 --> 02:15:50,880
member one will is wearing these suits

979
02:15:56,089 --> 02:15:52,440
with the red stripes and helmet cam

980
02:15:57,770 --> 02:15:56,099
number 22. Ruby OS ev2

981
02:16:00,589 --> 02:15:57,780
is wearing this

982
02:16:02,510 --> 02:16:00,599
the unmarked suit in helmet cam number

983
02:16:05,270 --> 02:16:02,520
20.

984
02:16:07,430 --> 02:16:05,280
the duo are suited up and are inside the

985
02:16:08,689 --> 02:16:07,440
crew lock section of the airlock where

986
02:16:32,629 --> 02:16:08,699
they're currently undergoing

987
02:16:37,849 --> 02:16:34,310
can you take a heads up on the crew

988
02:16:41,330 --> 02:16:37,859

locks at five psia you're going to then

989

02:16:44,929 --> 02:16:41,340

close the uh depressed pump man isobab

990

02:16:47,750 --> 02:16:44,939

you got about 15 millimeters to go

991

02:16:54,830 --> 02:16:47,760

okay you need to do coffee and I see a

992

02:17:15,770 --> 02:16:56,750

I think mine needs a little low

993

02:17:21,110 --> 02:17:18,530

and that was the crew in the Coleman

994

02:17:22,610 --> 02:17:21,120

interacting as it is because getting

995

02:17:27,589 --> 02:17:22,620

down to

996

02:17:31,330 --> 02:17:27,599

5 PSI again once the crew lock goes down

997

02:17:34,009 --> 02:17:31,340

to 5 PSI or pounds per square inch

998

02:17:37,070 --> 02:17:34,019

they'll pause depressurization to do a

999

02:17:40,910 --> 02:17:37,080

system jig the depressurization will

1000

02:17:42,950 --> 02:17:40,920

resume to get the crew luck

1001

02:17:44,810 --> 02:17:42,960

all the way down to a vacuum once it

1002

02:17:47,389 --> 02:17:44,820

gets down to vacuum Josh cassida and

1003

02:17:48,589 --> 02:17:47,399

Frank Rubio will conduct suit checks and

1004

02:17:50,570 --> 02:17:48,599

communication checks with Mission

1005

02:17:52,849 --> 02:17:50,580

Control Houston before they put their

1006

02:17:54,589 --> 02:17:52,859

suits on internal battery power which

1007

02:17:56,509 --> 02:17:54,599

will Mark the official start of today's

1008

02:18:17,169 --> 02:17:56,519

space walk

1009

02:18:22,549 --> 02:18:19,790

expect alert tone

1010

02:18:24,230 --> 02:18:22,559

defense front-man ISO valve is closed

1011

02:18:31,490 --> 02:18:24,240

and I have airlock pressure at five

1012

02:18:35,629 --> 02:18:34,310

okay for both ev1 and ev2 this is your

1013

02:18:39,410 --> 02:18:35,639

leak check

1014

02:18:43,429 --> 02:18:39,420
under DCM switch display status until

1015

02:18:44,870 --> 02:18:43,439
leak check question mark is displayed

1016

02:18:57,410 --> 02:18:44,880
copies and we'll give you two copies and

1017

02:18:57,420 --> 02:19:06,770
easy ones that leak check question mark

1018

02:19:12,290 --> 02:19:08,690
I'm saying free with you

1019

02:19:13,910 --> 02:19:12,300
easy one and two switch display yes hold

1020

02:19:18,049 --> 02:19:13,920
for two seconds and then follow

1021

02:19:20,929 --> 02:19:18,059
instructions on your DCM work

1022

02:19:23,870 --> 02:19:20,939
should be doing work counter countdown

1023

02:19:26,389 --> 02:19:23,880
started and by 3v1 so now I've

1024

02:19:28,730 --> 02:19:26,399
I'm now displaying O2 position IV I

1025

02:19:31,070 --> 02:19:28,740
think I need to go back and get to it

1026

02:19:43,070 --> 02:19:31,080

four times out there we go big check

1027

02:20:04,250 --> 02:19:44,750

and leak check is in progress for easy

1028

02:20:04,260 --> 02:20:17,150

which are complete for ev2

1029

02:20:17,160 --> 02:20:22,310

removing O2 actuator to Eva for ev2

1030

02:20:22,320 --> 02:20:35,030

happy

1031

02:21:20,050 --> 02:20:38,330

checking three three V1 that's O2 to Eva

1032

02:21:24,590 --> 02:21:22,370

man still inside the equipment section

1033

02:21:26,210 --> 02:21:24,600

continuing to monitor depressurization

1034

02:21:28,670 --> 02:21:26,220

on the quest airlock where NASA

1035

02:21:30,590 --> 02:21:28,680

astronaut Josh Casada and Frank Rubio

1036

02:21:32,750 --> 02:21:30,600

are suited up in undergoing preparations

1037

02:21:53,450 --> 02:21:32,760

to eventually venture outside the Space

1038

02:21:53,460 --> 02:21:57,429

happy easy too

1039

02:22:04,429 --> 02:22:01,309

Eva position for ev1

1040

02:22:09,050 --> 02:22:04,439

okay copy we have O2 actuary Eva for ev1

1041

02:22:13,690 --> 02:22:09,060

and 2. ev2 depressed pump man ISO valve

1042

02:22:13,700 --> 02:22:18,650

[Applause]

1043

02:22:25,250 --> 02:22:22,010

okay I am opening the emergency m-pes

1044

02:22:26,510 --> 02:22:25,260

monitor your suit key gauge less than

1045

02:22:42,410 --> 02:22:26,520

5.5

1046

02:22:46,550 --> 02:22:45,290

and just a heads up our next step is at

1047

02:23:19,969 --> 02:22:46,560

two

1048

02:26:56,469 --> 02:24:34,370

foreign

1049

02:27:03,469 --> 02:26:58,849

is closed

1050

02:27:09,969 --> 02:27:03,479

BB2 on the UIA switch depress pump power

1051
02:27:15,830 --> 02:27:13,370
okay Xena I will hand it over to you for

1052
02:27:18,230 --> 02:27:15,840
the initial tether configuration and

1053
02:27:19,429 --> 02:27:18,240
Frank and Josh godspeed and kick butt

1054
02:27:20,809 --> 02:27:19,439
out there

1055
02:27:23,990 --> 02:27:20,819
thanks Steve

1056
02:27:32,830 --> 02:27:24,000
thank you duke thanks Duke ev1n2 with

1057
02:27:37,490 --> 02:27:35,210
on my left

1058
02:27:38,929 --> 02:27:37,500
evening extender I've got a single waste

1059
02:27:40,550 --> 02:27:38,939
header

1060
02:27:42,290 --> 02:27:40,560
I have a few range thrown at the gate is

1061
02:27:44,150 --> 02:27:42,300
closed the sliders blocked block on

1062
02:27:46,490 --> 02:27:44,160
black

1063
02:27:50,150 --> 02:27:46,500

that goes up to my mini workstation

1064

02:27:52,070 --> 02:27:50,160

my right d-ring extender

1065

02:27:54,770 --> 02:27:52,080

from the

1066

02:27:56,929 --> 02:27:54,780

SE each other back I've got a thread

1067

02:27:58,010 --> 02:27:56,939

hook let me close the spider lock black

1068

02:28:01,070 --> 02:27:58,020

on black

1069

02:28:03,950 --> 02:28:01,080

that goes to a red reel it is unlocked

1070

02:28:07,190 --> 02:28:03,960

from that red reel is that a yellow hook

1071

02:28:09,530 --> 02:28:07,200

going to a green reel

1072

02:28:12,410 --> 02:28:09,540

that yellow Hook is a close fire lock

1073

02:28:17,090 --> 02:28:12,420

black on black that green reel

1074

02:28:21,349 --> 02:28:19,550

um the green reel

1075

02:28:23,150 --> 02:28:21,359

there's a green hook going back to the

1076

02:28:28,070 --> 02:28:23,160

red reel

1077

02:28:33,730 --> 02:28:29,990

also on that right d-ring extender for

1078

02:28:40,370 --> 02:28:36,290

that anchor is gate closed the starter

1079

02:28:44,210 --> 02:28:40,380

lock black on black that leads to

1080

02:28:50,690 --> 02:28:48,530

his anchor for his safety feather

1081

02:28:53,030 --> 02:28:50,700

his gate closed slider lock black on

1082

02:28:56,990 --> 02:28:53,040

black for both my waist filler and his

1083

02:29:01,490 --> 02:28:58,670

and then I can give you one more that'll

1084

02:29:03,530 --> 02:29:01,500

help Frank out of the d-ring extender of

1085

02:29:05,809 --> 02:29:03,540

the airlock

1086

02:29:15,469 --> 02:29:05,819

I've got his waste header he closed the

1087

02:29:18,830 --> 02:29:17,150

give you my anchor hook which I confirm

1088

02:29:21,650 --> 02:29:18,840

is getting closer clocks back on blocks

1089

02:29:24,349 --> 02:29:21,660

my green reel is unlocked

1090

02:29:27,530 --> 02:29:24,359

my green Hook is on my red reel

1091

02:29:27,540 --> 02:29:33,110

box my red reel is unlocked

1092

02:29:40,910 --> 02:29:35,510

by yellow hook into my green reel which

1093

02:29:45,530 --> 02:29:43,010

and then my

1094

02:29:48,110 --> 02:29:45,540

head Hook is on my right

1095

02:29:48,950 --> 02:29:48,120

hearing extender okay close hook lock on

1096

02:29:52,130 --> 02:29:48,960

black

1097

02:29:54,469 --> 02:29:52,140

also on my lighting extender is my right

1098

02:29:58,610 --> 02:29:54,479

wave Center and only way feather and

1099

02:30:01,730 --> 02:29:58,620

that gate is closed hook lock on block

1100

02:30:11,630 --> 02:30:01,740

that goes out to the

1101
02:30:15,950 --> 02:30:13,610
okay if you want and two that's a good

1102
02:30:18,710 --> 02:30:15,960
config I've got a quick hand over here

1103
02:30:25,870 --> 02:30:18,720
when the crew lock DP DT is zero expect

1104
02:30:25,880 --> 02:30:52,969
copy pleasure

1105
02:30:58,550 --> 02:30:55,849
and you just heard the spacewalkers ev1

1106
02:31:01,429 --> 02:30:58,560
Josh cassida and ev2 Frank Rubio talking

1107
02:31:03,950 --> 02:31:01,439
to ground IV Xena Cardman as they gave

1108
02:31:05,570 --> 02:31:03,960
the tether configurations

1109
02:31:16,610 --> 02:31:05,580
um before they

1110
02:31:20,210 --> 02:31:18,410
we're gonna listen out for that switch

1111
02:31:22,849 --> 02:31:20,220
to power

1112
02:31:26,929 --> 02:31:22,859
and two internal battery power

1113
02:31:30,889 --> 02:31:28,730

of today's space swap

1114

02:31:32,270 --> 02:31:30,899

a us spacewalk start and end time is

1115

02:31:34,309 --> 02:31:32,280

measured from the time the crew places

1116

02:31:36,190 --> 02:31:34,319

their spacesuit on internal battery

1117

02:31:38,570 --> 02:31:36,200

power all the way up until the time

1118

02:31:40,309 --> 02:31:38,580

repressurization occurs and they're back

1119

02:31:42,050 --> 02:31:40,319

inside the crew lock following

1120

02:33:25,610 --> 02:31:42,060

completion of their space walking test

1121

02:35:13,550 --> 02:33:28,370

foreign

1122

02:35:17,570 --> 02:35:15,830

again we're listening out for that

1123

02:35:19,670 --> 02:35:17,580

switched internal battery power that

1124

02:35:39,290 --> 02:35:19,680

callout will start the official time of

1125

02:35:43,010 --> 02:35:40,969

I thought we're gonna do it

1126

02:35:44,389 --> 02:35:43,020

yep

1127

02:35:46,550 --> 02:35:44,399

um after

1128

02:35:49,910 --> 02:35:46,560

probably right here

1129

02:35:52,670 --> 02:35:49,920

uh Evie has will be open after uh the

1130

02:35:55,570 --> 02:35:52,680

pdk zero and we gotta go

1131

02:35:58,969 --> 02:35:55,580

and then after that we'll do uh

1132

02:36:01,910 --> 02:35:58,979

yep uh Duke will close the empire

1133

02:36:04,070 --> 02:36:01,920

go to bat we'll disconnect from the FCU

1134

02:36:06,950 --> 02:36:04,080

Le and then um

1135

02:36:09,290 --> 02:36:06,960

I'll do a couple things out here

1136

02:36:11,690 --> 02:36:09,300

and then we'll have to check our

1137

02:36:14,510 --> 02:36:11,700

cooling basically after that okay so

1138

02:36:26,389 --> 02:36:14,520

next step we get to go is open the hatch

1139

02:36:26,399 --> 02:36:35,290

longer Handover than I expected

1140

02:36:40,910 --> 02:36:38,929

I'm seeing this at 0.5 where are you at

1141

02:36:45,950 --> 02:36:40,920

screen went blank and I'm not going to

1142

02:36:50,570 --> 02:36:48,590

there's apparently he's not blank yo it

1143

02:36:52,969 --> 02:36:50,580

was yep I just have

1144

02:36:55,610 --> 02:36:52,979

gotta sit down so let's see the air

1145

02:36:57,889 --> 02:36:55,620

pressure okay I'll show your airlock at

1146

02:37:01,490 --> 02:36:57,899

35 millimeters and you need to get down

1147

02:37:02,990 --> 02:37:01,500

to 26 and it is moving slow yep

1148

02:37:03,650 --> 02:37:03,000

you can't do anything until they say

1149

02:37:06,650 --> 02:37:03,660

anything

1150

02:37:11,450 --> 02:37:09,050

can you see how long this loss is

1151

02:37:12,469 --> 02:37:11,460

I see we have good comms um Houston out

1152

02:37:14,150 --> 02:37:12,479

of here

1153

02:37:15,349 --> 02:37:14,160

we've got you loud and clear and yeah

1154

02:37:19,550 --> 02:37:15,359

that's right we're still showing a

1155

02:37:19,560 --> 02:37:46,490

copy that thanks you know

1156

02:37:49,190 --> 02:37:47,929

for your awareness we're estimating

1157

02:37:51,969 --> 02:37:49,200

about four more minutes on this

1158

02:37:51,979 --> 02:37:57,410

thank you for the heads up

1159

02:38:01,969 --> 02:37:59,750

and uh Venus just one request uh when we

1160

02:38:03,230 --> 02:38:01,979

have Moses you come back because you

1161

02:38:05,389 --> 02:38:03,240

just checked in with us just to give us

1162

02:38:07,610 --> 02:38:05,399

a better essay

1163

02:38:09,050 --> 02:38:07,620

absolutely yeah my apologies that last

1164

02:38:11,870 --> 02:38:09,060

one was just a quick Handover so I've

1165

02:38:11,880 --> 02:38:21,170

don't worry

1166

02:38:25,790 --> 02:38:23,270

that was the crew to Nicole Mann and

1167

02:38:28,429 --> 02:38:25,800

Cena cardaman confirming that they do

1168

02:38:30,590 --> 02:38:28,439

have a little bit more left of depressed

1169

02:38:33,230 --> 02:38:30,600

to go looking for the crew to get down

1170

02:38:37,790 --> 02:38:33,240

uh the crew lock pressure to get down

1171

02:38:40,070 --> 02:38:37,800

below 0.5 PSI they still have a little

1172

02:38:43,030 --> 02:38:40,080

bit ways to go and they're about four

1173

02:38:44,750 --> 02:38:43,040

minutes away from that reaching that

1174

02:38:50,090 --> 02:38:44,760

PSI

1175

02:38:53,150 --> 02:38:50,100

they will have about five minutes

1176
02:38:57,230 --> 02:38:53,160
post-depress and they will power their

1177
02:39:00,530 --> 02:38:57,240
battery onto internal power

1178
02:40:45,050 --> 02:39:02,090
start the official start of today's

1179
02:41:29,230 --> 02:41:07,190
ah

1180
02:41:38,150 --> 02:41:32,809
ev1n2 we are below 0.5 PSI you are go to

1181
02:41:43,849 --> 02:41:41,510
and excuse me V1 copy that we are go to

1182
02:41:46,490 --> 02:41:43,859
open the hatch and uh just because you

1183
02:41:51,950 --> 02:41:48,290
copy broken and this will be a night

1184
02:41:51,960 --> 02:42:17,690
thank you

1185
02:42:22,250 --> 02:42:19,849
and just heard confirmation from Xena

1186
02:42:27,050 --> 02:42:22,260
cardamon to the crew that they are below

1187
02:42:29,150 --> 02:42:27,060
the 0.5 PSI and are go for hedge opening

1188
02:42:32,210 --> 02:42:29,160

again we are looking for that call for

1189

02:42:35,710 --> 02:42:32,220
to turn on internal battery power

1190

02:43:01,050 --> 02:42:35,720
and then the crew will head out to open

1191

02:43:01,060 --> 02:43:16,969
[Applause]

1192

02:43:34,790 --> 02:43:18,220
foreign

1193

02:43:34,800 --> 02:43:38,270
here

1194

02:44:03,650 --> 02:43:39,870
that's um

1195

02:44:09,530 --> 02:44:06,290
and Xena the hatch is open and in the

1196

02:44:22,670 --> 02:44:11,450
copy hatch open

1197

02:44:29,570 --> 02:44:26,030
emergency access closed

1198

02:44:31,969 --> 02:44:29,580
copy Duke eb1 N2 on your DCM switch

1199

02:44:35,990 --> 02:44:31,979
power to bat stagger your switch throws

1200

02:44:45,290 --> 02:44:38,450
and work for ev1

1201
02:44:45,300 --> 02:44:50,990
and an O2 read new rule sop rate

1202
02:44:51,000 --> 02:45:02,570
if that's expected

1203
02:45:08,870 --> 02:45:05,809
E1 is in that

1204
02:45:13,389 --> 02:45:08,880
probably if you wanted that

1205
02:45:18,650 --> 02:45:16,550
copy ev1 and 2.

1206
02:45:29,090 --> 02:45:18,660
switch your display to Pro to verify a

1207
02:45:29,100 --> 02:45:34,190
no touring for easy one

1208
02:45:51,170 --> 02:45:36,290
two I have an end status get this at

1209
02:45:57,490 --> 02:45:53,929
and just to clarify Josh was that no

1210
02:46:04,370 --> 02:45:57,500
display what was your last

1211
02:46:04,380 --> 02:46:08,870
Josh we're working on that just one sec

1212
02:46:22,429 --> 02:46:11,330
okay I've got another message right now

1213
02:46:28,070 --> 02:46:24,770

Josh do you have a blank display or are

1214

02:46:33,170 --> 02:46:30,650

blank display but I just had a

1215

02:46:35,150 --> 02:46:33,180

horrible tone that I could not see of

1216

02:46:49,730 --> 02:46:35,160

course because the screen was blank but

1217

02:46:53,750 --> 02:46:52,070

okay Josh we're going to run a procedure

1218

02:46:55,370 --> 02:46:53,760

for your display loss during power

1219

02:46:57,590 --> 02:46:55,380

transfer

1220

02:46:59,510 --> 02:46:57,600

I'm going to give you a heads up here

1221

02:47:01,790 --> 02:46:59,520

you're going to be running

1222

02:47:04,190 --> 02:47:01,800

open but do not perform

1223

02:47:07,849 --> 02:47:04,200

your cuff checklist warm restart for

1224

02:47:09,830 --> 02:47:07,859

calm failure that's page 28 steps four

1225

02:47:15,130 --> 02:47:09,840

decimal three to the end

1226

02:47:25,790 --> 02:47:18,290

page 28 I'm going there now do not

1227

02:47:30,830 --> 02:47:28,309

I understand it's going to be step 4.3

1228

02:47:33,050 --> 02:47:30,840

through the end that's correct in warm

1229

02:47:34,969 --> 02:47:33,060

restart for com failure I will lead you

1230

02:47:36,830 --> 02:47:34,979

through steps starting at 4 decimal

1231

02:47:38,450 --> 02:47:36,840

three to the end of the page to reset

1232

02:47:40,969 --> 02:47:38,460

the DCM display

1233

02:47:42,530 --> 02:47:40,979

if you unexpectedly lose calm or

1234

02:47:48,530 --> 02:47:42,540

encounter any issues you can use the

1235

02:47:48,540 --> 02:48:05,590

if you run copies

1236

02:48:11,410 --> 02:48:07,849

Frank I can talk you through this real

1237

02:48:16,969 --> 02:48:14,270

thank you

1238

02:48:18,469 --> 02:48:16,979

all right we're not doing it yet until

1239

02:48:21,469 --> 02:48:18,479

where are we good to go

1240

02:48:24,349 --> 02:48:21,479

the power's already in fact for me

1241

02:48:26,750 --> 02:48:24,359

same for me I'll take uh probably just

1242

02:48:32,090 --> 02:48:26,760

me to off

1243

02:48:37,010 --> 02:48:34,190

and then I'll go fan off

1244

02:48:41,150 --> 02:48:37,020

go back to FCU I'll wait for seven

1245

02:48:43,429 --> 02:48:41,160

seconds and then I'll go back to that

1246

02:48:46,490 --> 02:48:43,439

when it's complete then I'll go fan back

1247

02:48:49,790 --> 02:48:46,500

on I see the same stuff

1248

02:48:53,690 --> 02:48:49,800

yeah that's correct so Frank on the UIA

1249

02:48:57,349 --> 02:48:53,700

switched power for ev1 off and to check

1250

02:48:59,570 --> 02:48:57,359

that the power ev1 LED is off

1251

02:49:04,670 --> 02:48:59,580

the affected emu will be without a fan

1252

02:49:09,349 --> 02:49:06,290

okay copy that

1253

02:49:15,290 --> 02:49:09,359

for ev2 power ev1

1254

02:49:20,210 --> 02:49:18,710

okay in this procedure the fan and power

1255

02:49:22,130 --> 02:49:20,220

will be taken off for seven seconds

1256

02:49:25,010 --> 02:49:22,140

while the fan is off you will be without

1257

02:49:27,290 --> 02:49:25,020

Cooling and CO2 removal overheating and

1258

02:49:29,090 --> 02:49:27,300

the loss of visibility from fogging are

1259

02:49:30,889 --> 02:49:29,100

possible there will be no calm until you

1260

02:49:32,630 --> 02:49:30,899

take the power back to bat

1261

02:49:34,370 --> 02:49:32,640

the fan operation is delayed or not

1262

02:49:37,010 --> 02:49:34,380

restored the power is not restored after

1263

02:49:39,410 --> 02:49:37,020

switching back to bat open and lock the

1264

02:49:41,630 --> 02:49:39,420

helmet purge valve to restore vent flow

1265

02:49:44,389 --> 02:49:41,640

take a moment to confirm power and fan

1266

02:49:46,910 --> 02:49:44,399

switch access the specific actions will

1267

02:49:50,030 --> 02:49:46,920

be to switch the fan off switch power to

1268

02:49:53,090 --> 02:49:50,040

SCU wait seven seconds switch power back

1269

02:49:54,950 --> 02:49:53,100

to bat then switch fan back to on

1270

02:49:59,690 --> 02:49:54,960

when you're complete with these actions

1271

02:50:03,710 --> 02:50:01,790

copy M Street will be switches all back

1272

02:50:04,670 --> 02:50:03,720

towards me the order is going to be fan

1273

02:50:07,370 --> 02:50:04,680

off

1274

02:50:10,250 --> 02:50:07,380

then power to FCU

1275

02:50:14,210 --> 02:50:12,410

and power back to bat

1276

02:50:17,090 --> 02:50:14,220

fan back to on

1277

02:50:20,150 --> 02:50:17,100

if we have trouble or I'm fogging up I

1278

02:50:23,150 --> 02:50:20,160

will open my helmet for itself

1279

02:50:25,969 --> 02:50:23,160

that's exactly correct okay on your DCM

1280

02:50:27,889 --> 02:50:25,979

switch fan off expect fan switch off

1281

02:50:29,090 --> 02:50:27,899

tones in 7

1282

02:50:34,670 --> 02:50:29,100

instead of switch your display back to

1283

02:50:38,150 --> 02:50:36,110

all right fans coming off and then I'm

1284

02:50:39,710 --> 02:50:38,160

going to go to Pro and then

1285

02:50:40,670 --> 02:50:39,720

you want me to wait for your call on

1286

02:50:44,630 --> 02:50:40,680

battery

1287

02:50:48,170 --> 02:50:46,490

in seven seconds you can continue by

1288

02:50:52,849 --> 02:50:48,180

switching your power to SEO to power

1289

02:51:01,849 --> 02:50:55,190

sorry my understanding was fan off power

1290

02:51:06,530 --> 02:51:04,370

okay so I don't need your go for power

1291

02:51:08,809 --> 02:51:06,540

to see you understanding the fan is

1292

02:51:11,450 --> 02:51:08,819

coming off and power's going to FCU

1293

02:51:34,670 --> 02:51:11,460

you've got it exactly right get that in

1294

02:51:39,590 --> 02:51:37,070

and you just heard ground IVs in a

1295

02:51:42,530 --> 02:51:39,600

carton working with Josh cassida and

1296

02:51:45,530 --> 02:51:42,540

Frank Rubio to get their displays on

1297

02:51:47,630 --> 02:51:45,540

their Hut or their chest put

1298

02:51:51,770 --> 02:51:47,640

um their control panel

1299

02:51:55,010 --> 02:51:51,780

to come back they had a loss of display

1300

02:51:59,450 --> 02:51:55,020

when they switched to internal power and

1301
02:52:00,469 --> 02:51:59,460
again Eva is 7 hours and 18 seconds in

1302
02:52:05,150 --> 02:52:00,479
okay

1303
02:52:16,730 --> 02:52:05,160
Empower fat and fan is on I've got a

1304
02:52:21,710 --> 02:52:19,490
course Josh we hear you and we can jump

1305
02:52:24,110 --> 02:52:21,720
back into the depress Q card that's

1306
02:52:26,690 --> 02:52:24,120
great news

1307
02:52:29,030 --> 02:52:26,700
okay wonderful thanks for the help so

1308
02:52:32,990 --> 02:52:29,040
you've got both functional displays now

1309
02:52:36,469 --> 02:52:33,000
on the UIA switch power for ev1 and 2

1310
02:52:38,389 --> 02:52:36,479
off and check that the power LEDs all

1311
02:52:39,950 --> 02:52:38,399
four of them are off

1312
02:52:43,370 --> 02:52:39,960
okay

1313
02:52:43,380 --> 02:52:50,630

happy Saturday

1314

02:52:55,910 --> 02:52:52,610

okay I've got a good stream okay

1315

02:53:02,269 --> 02:52:58,730

powerful easy one is off

1316

02:53:07,490 --> 02:53:02,279

everything is off power ev2 coming off

1317

02:53:16,490 --> 02:53:11,030

copy on the DCM disconnect your Su from

1318

02:53:16,500 --> 02:53:41,010

foreign

1319

02:53:41,020 --> 02:53:49,150

[Applause]

1320

02:53:49,160 --> 02:53:54,530

and you heard come

1321

02:53:54,540 --> 02:54:05,090

on

1322

02:54:09,769 --> 02:54:07,309

okay can you let us know how much is it

1323

02:54:16,969 --> 02:54:09,779

a small amount couple droplets or more

1324

02:54:22,010 --> 02:54:19,550

free floating and then I've got

1325

02:54:25,010 --> 02:54:22,020

um maybe 40 percent

1326

02:54:27,950 --> 02:54:25,020

30 and 40 of the bottom left connector

1327

02:54:34,429 --> 02:54:27,960

that's enough

1328

02:54:44,809 --> 02:54:36,469

and uh ev2 had pretty much the same

1329

02:54:44,819 --> 02:54:55,070

okay hang on we're checking guys

1330

02:54:55,080 --> 02:55:04,790

something

1331

02:55:09,230 --> 02:55:07,070

okay we feel comfortable especially if

1332

02:55:11,450 --> 02:55:09,240

it's not increasing you guys can see the

1333

02:55:17,630 --> 02:55:11,460

Su in his pouch and finish installing

1334

02:55:17,640 --> 02:55:21,230

age working on the cover

1335

02:55:26,929 --> 02:55:23,929

and uh ev2 actually is disconnected in

1336

02:55:30,230 --> 02:55:26,939

the pouch Plantation covers on same

1337

02:55:39,130 --> 02:55:32,510

okay on the crew lock check the

1338

02:55:45,050 --> 02:55:43,190

mad Isle valve is closed

1339

02:55:52,010 --> 02:55:45,060

take your temperature control valve to

1340

02:56:14,330 --> 02:55:55,490

work for anyone any more TV too

1341

02:56:14,340 --> 02:56:19,370

switch water on

1342

02:56:19,380 --> 02:56:24,410

Earth

1343

02:56:30,230 --> 02:56:28,070

and ev2 water is on

1344

02:56:33,910 --> 02:56:30,240

check that your DCM is blank and bite

1345

02:56:33,920 --> 02:56:41,570

or even one off

1346

02:56:46,370 --> 02:56:43,730

okay take your temperature control valve

1347

02:56:54,969 --> 02:56:46,380

as desired let us know your setting and

1348

02:57:01,610 --> 02:56:58,750

and I'm uh four and a half

1349

02:57:06,410 --> 02:57:01,620

future changes

1350

02:57:13,670 --> 02:57:09,530

okay copy three and a half and four

1351
02:57:16,849 --> 02:57:15,769
actually that was four decimal five for

1352
02:57:21,590 --> 02:57:16,859
easy one

1353
02:57:28,190 --> 02:57:21,600
for the uh TVC or TV settings

1354
02:57:28,200 --> 02:57:34,490
and 82 4.2

1355
02:57:38,929 --> 02:57:37,070
okay copy those are good pressures set

1356
02:57:43,130 --> 02:57:38,939
your visors as required you are now

1357
02:57:43,140 --> 02:57:57,710
I agree I see it thank you

1358
02:58:02,630 --> 02:58:01,250
guys are set for easy one

1359
02:58:06,590 --> 02:58:02,640
all right you know I'm gonna wait till I

1360
02:58:13,670 --> 02:58:09,769
okay copy Frank Josh you can open the

1361
02:58:19,130 --> 02:58:15,410
and understand attaching it to the

1362
02:58:21,230 --> 02:58:19,140
stores e-ring is that right

1363
02:58:23,210 --> 02:58:21,240

that's correct yeah the hook will go to

1364

02:58:25,010 --> 02:58:23,220

the stowage tether point and cinch the

1365

02:58:29,800 --> 02:58:25,020

strap snug until you see six lines

1366

02:58:29,810 --> 02:58:50,630

[Applause]

1367

02:58:56,330 --> 02:58:54,410

and at 8 14 a.m Central Time the 254th

1368

02:59:00,710 --> 02:58:56,340

spacewalk in support of station assembly

1369

02:59:03,110 --> 02:59:00,720

maintenance and upgrades has begun

1370

02:59:04,610 --> 02:59:03,120

Cassidy and Rubio now will work to open

1371

02:59:07,429 --> 02:59:04,620

a thermal cover and make their way

1372

02:59:16,429 --> 02:59:07,439

outside the space station hatch to begin

1373

02:59:22,429 --> 02:59:18,349

thermal cover now open and they are

1374

02:59:22,439 --> 02:59:25,849

going vertical

1375

02:59:31,969 --> 02:59:29,630

yeah if I can help

1376

02:59:40,670 --> 02:59:31,979

yeah I made it

1377

03:00:05,929 --> 02:59:44,630

the crew now 15 minutes into today's Eva

1378

03:00:12,410 --> 03:00:10,250

the crew had to rectify some displays as

1379

03:00:15,349 --> 03:00:12,420

they switched from internal power switch

1380

03:00:16,550 --> 03:00:15,359

to internal Powers the display module is

1381

03:00:19,670 --> 03:00:16,560

the control panel for the mini

1382

03:00:23,210 --> 03:00:19,680

spacecraft in which they are inhabiting

1383

03:00:25,190 --> 03:00:23,220

during this space walk today the Emu the

1384

03:00:29,090 --> 03:00:25,200

switches control engages

1385

03:00:32,210 --> 03:00:29,100

are on an electronic display on

1386

03:00:34,969 --> 03:00:32,220

the Emu and astronauts can operate the

1387

03:00:40,309 --> 03:00:34,979

primary life support subsystem from that

1388

03:00:47,150 --> 03:00:43,130

and the crew was given the go to exit

1389

03:00:52,429 --> 03:00:49,849

them we're going to five

1390

03:00:54,290 --> 03:00:52,439

five cable guy coming your way

1391

03:00:58,370 --> 03:00:54,300

and Josh for you we'll have you turn on

1392

03:01:03,590 --> 03:01:00,590

okay I've got the bag out if you don't

1393

03:01:07,610 --> 03:01:03,600

mind I'm gonna put that on the 554 and

1394

03:01:13,429 --> 03:01:11,210

and we see ev1 that's Josh cassida was

1395

03:01:15,889 --> 03:01:13,439

the first to exit and he will now

1396

03:01:18,769 --> 03:01:15,899

receive some materials

1397

03:01:20,990 --> 03:01:18,779

the struts and bags that will be used in

1398

03:01:22,730 --> 03:01:21,000

their spacewalk today

1399

03:01:24,410 --> 03:01:22,740

I'm driving it it's closer to your hand

1400

03:01:28,969 --> 03:01:24,420

right yeah I got it thank you you're

1401
03:01:31,790 --> 03:01:28,979
coming to it uh it is Tethered the big

1402
03:01:34,370 --> 03:01:31,800
let's take off

1403
03:01:36,110 --> 03:01:34,380
is connected so the one

1404
03:01:41,150 --> 03:01:36,120
you want to release just the one that

1405
03:01:45,769 --> 03:01:43,910
and you know

1406
03:01:52,250 --> 03:01:45,779
Becca is inwards

1407
03:01:52,260 --> 03:02:07,309
I heard that a different way

1408
03:02:26,210 --> 03:02:11,330
s

1409
03:02:29,470 --> 03:02:26,220
it on your brt with the tape toward your

1410
03:02:29,480 --> 03:02:47,150
[Applause]

1411
03:02:47,160 --> 03:03:13,330
foreign

1412
03:03:13,340 --> 03:03:18,469
[Music]

1413
03:03:32,510 --> 03:03:19,969

should be starting to see the handrail

1414

03:03:37,849 --> 03:03:35,090

and unfortunately with the anchor on the

1415

03:03:37,859 --> 03:03:42,290

glass as

1416

03:03:42,300 --> 03:03:46,730

I need to go right now

1417

03:03:50,269 --> 03:03:48,650

I think I can get two hooks on there

1418

03:03:51,380 --> 03:03:50,279

it's just a challenge if you agree I'm

1419

03:03:53,750 --> 03:03:51,390

gonna do that

1420

03:03:55,370 --> 03:03:53,760

[Applause]

1421

03:03:56,510 --> 03:03:55,380

and it brings that towards me Frank

1422

03:04:01,980 --> 03:03:56,520

please

1423

03:04:01,990 --> 03:04:10,910

[Applause]

1424

03:04:10,920 --> 03:04:15,769

get one hook on

1425

03:04:24,410 --> 03:04:19,309

it I have good control of each other

1426

03:04:27,410 --> 03:04:26,150

you're going to tell him if you were

1427

03:04:28,490 --> 03:04:27,420

just continued

1428

03:04:43,490 --> 03:04:28,500

troll

1429

03:04:50,389 --> 03:04:47,150

you know we've got a brt rep on the tape

1430

03:04:52,490 --> 03:04:50,399

and we've got the brt on there's dolls

1431

03:04:54,290 --> 03:04:52,500

are closed and pedals are out

1432

03:05:00,830 --> 03:04:54,300

and I'm gonna try to get this thing

1433

03:05:04,730 --> 03:05:02,690

all right Josh that sounds like a great

1434

03:05:07,969 --> 03:05:04,740

plan and once you're in a good config

1435

03:05:09,349 --> 03:05:07,979

ev2 can egress the airlock and Frank you

1436

03:05:25,309 --> 03:05:09,359

can then turn on your heka after you

1437

03:05:25,319 --> 03:05:35,929

thanks for

1438

03:05:35,939 --> 03:05:50,090

okay

1439

03:05:50,100 --> 03:06:06,230

yes

1440

03:06:06,240 --> 03:06:10,670

he's a monster

1441

03:06:10,680 --> 03:06:42,349

foreign

1442

03:06:42,359 --> 03:06:52,610

it's coming out

1443

03:06:52,620 --> 03:07:00,950

go ahead and get off

1444

03:07:00,960 --> 03:07:04,969

a review

1445

03:07:22,370 --> 03:07:06,650

that brings a big smile to my face

1446

03:08:10,010 --> 03:07:27,250

I've been on my HEPA is in work

1447

03:08:10,020 --> 03:08:18,620

foreign

1448

03:08:18,630 --> 03:08:33,110

[Applause]

1449

03:08:36,710 --> 03:08:34,910

take a button here

1450

03:08:39,650 --> 03:08:36,720

can help you um

1451

03:08:42,170 --> 03:08:39,660

so what I did watch a careful set that

1452

03:08:44,690 --> 03:08:42,180

looks loose yeah I feel like I'm pushing

1453

03:08:47,330 --> 03:08:44,700

on it and it's not giving me resistance

1454

03:08:52,190 --> 03:08:47,340

yeah so it looks uh

1455

03:08:57,530 --> 03:08:53,030

um

1456

03:09:03,230 --> 03:08:59,870

checking we don't have your wvs yet

1457

03:09:03,240 --> 03:09:18,110

to turn on uh the Emu TV

1458

03:09:18,120 --> 03:09:33,190

foreign

1459

03:09:37,309 --> 03:09:34,969

pushes the button and we'll just leave

1460

03:09:40,429 --> 03:09:39,769

I guess are you able to push yeah I

1461

03:09:41,570 --> 03:09:40,439

could

1462

03:09:48,769 --> 03:09:41,580

um

1463

03:09:53,150 --> 03:09:50,750

that's right the entire assembly on top

1464

03:09:54,830 --> 03:09:53,160

of the helmet uh just there's some free

1465

03:09:56,570 --> 03:09:54,840

play there

1466

03:09:57,410 --> 03:09:56,580

and

1467

03:09:58,910 --> 03:09:57,420

um

1468

03:10:01,429 --> 03:09:58,920

and he goes to push the button the

1469

03:10:03,710 --> 03:10:01,439

assembly moves ever so slightly the play

1470

03:10:07,190 --> 03:10:03,720

is a total of

1471

03:10:07,200 --> 03:10:11,090

maybe two inches aft

1472

03:10:18,610 --> 03:10:14,269

and uh none uh seen as a major on his

1473

03:10:18,620 --> 03:10:26,630

okay we copy stand by one

1474

03:10:32,210 --> 03:10:29,030

okay Josh we'll have you turn it on here

1475

03:10:40,670 --> 03:10:32,220

hold on to Frank's Urka just to provide

1476

03:10:40,680 --> 03:11:02,570

Maybe

1477

03:11:10,190 --> 03:11:04,910

Let's uh let's see what

1478

03:11:10,200 --> 03:11:15,590

what's up that's right

1479

03:11:19,309 --> 03:11:18,110

so let's get a body check Netflix

1480

03:11:30,889 --> 03:11:19,319

you want to go ahead and put them in

1481

03:11:33,469 --> 03:11:32,269

I'm gonna try not to get in your way

1482

03:11:37,370 --> 03:11:33,479

here but I'm gonna do a little plane

1483

03:11:42,110 --> 03:11:39,170

and hey guys back with you after a quick

1484

03:11:44,150 --> 03:11:43,250

okay

1485

03:11:45,590 --> 03:11:44,160

so

1486

03:11:47,570 --> 03:11:45,600

um

1487

03:11:49,370 --> 03:11:47,580

understand we're pressing on and uh

1488

03:11:51,230 --> 03:11:49,380

Frank's just going to minimize his uh

1489

03:11:55,849 --> 03:11:51,240

interaction with his purpose do you

1490

03:11:55,859 --> 03:11:59,450

we like that plan

1491

03:11:59,460 --> 03:12:02,090

okay

1492

03:12:07,429 --> 03:12:03,530

let me know when you've got good videos

1493

03:12:09,590 --> 03:12:07,439

from from my emu and then uh

1494

03:12:12,230 --> 03:12:09,600

he's getting his uh people back on his

1495

03:12:14,809 --> 03:12:12,240

brt right now

1496

03:12:22,790 --> 03:12:14,819

okay copy and confirming both of you

1497

03:12:44,870 --> 03:12:24,650

okay we got two green lights just for

1498

03:12:49,429 --> 03:12:47,150

Frank well you work there um just a

1499

03:12:51,290 --> 03:12:49,439

heads up I have everything cinched down

1500

03:12:53,990 --> 03:12:51,300

that I can on the brt

1501

03:12:55,610 --> 03:12:54,000

this is a decent amount of mass so if

1502

03:12:57,230 --> 03:12:55,620

you see me going up to Petersburg it's

1503

03:12:59,030 --> 03:12:57,240

uh it's in a weird orientation please

1504

03:13:00,960 --> 03:12:59,040

let me know

1505

03:13:02,389 --> 03:13:00,970

I don't know if you can pull the

1506

03:13:03,650 --> 03:13:02,399

[Music]

1507

03:13:04,910 --> 03:13:03,660

the top

1508

03:13:06,769 --> 03:13:04,920

of your head

1509

03:13:13,670 --> 03:13:06,779

uh closest to your shoulder just to kind

1510

03:13:13,680 --> 03:13:20,269

see this let's man

1511

03:13:23,750 --> 03:13:22,130

you know if you just keep going in that

1512

03:13:30,660 --> 03:13:23,760

direction yeah the airlock just makes it

1513

03:13:36,410 --> 03:13:32,950

[Applause]

1514

03:13:40,730 --> 03:13:38,690

okay

1515

03:13:41,929 --> 03:13:40,740

that's the best they can do for sensor

1516

03:13:43,730 --> 03:13:41,939

not done and I think that's going to

1517

03:13:45,590 --> 03:13:43,740

work out okay I'll keep an eye on it if

1518

03:13:47,630 --> 03:13:45,600

you're ready uh for your body checks

1519

03:13:50,570 --> 03:13:47,640

Nina we'll get on those

1520

03:13:52,130 --> 03:13:50,580

nice work guys yes we are ready and

1521

03:13:54,410 --> 03:13:52,140

Frank if you can take an extra close

1522

03:14:03,650 --> 03:13:54,420

look at Josh's left safer handle we may

1523

03:14:03,660 --> 03:14:08,809

if your left safer handle is up

1524

03:14:12,530 --> 03:14:10,610

unless you picked out for four stars but

1525

03:14:16,490 --> 03:14:12,540

it's a little bit uh fast you're on the

1526

03:14:21,889 --> 03:14:16,500

each team on it push down

1527

03:14:21,899 --> 03:14:26,929

let's blame that on EV3 here

1528

03:14:29,929 --> 03:14:28,250

do you want me to start you want to

1529

03:14:31,190 --> 03:14:29,939

start all right

1530

03:14:36,010 --> 03:14:31,200

we have two green lights are you looking

1531

03:14:42,349 --> 03:14:39,410

if you're able to uh absolutely we'll

1532

03:14:45,710 --> 03:14:42,359

take wvs as well and Josh you can also

1533

03:14:49,210 --> 03:14:45,720

help Frank with that if needed

1534

03:14:54,230 --> 03:14:52,550

and we can also have Josh turn Frank's

1535

03:14:56,090 --> 03:14:54,240

light on as well just to provide some

1536

03:14:57,230 --> 03:14:56,100

resistance not bump it any further and

1537

03:14:59,250 --> 03:14:57,240

then we'll just leave it on for the

1538

03:15:04,190 --> 03:14:59,260

duration

1539

03:15:11,590 --> 03:15:06,469

I am not getting a dream like that here

1540

03:15:14,630 --> 03:15:11,600

for uh it was on so it wasn't sure

1541

03:15:16,250 --> 03:15:14,640

okay is it a weird angle for me let me

1542

03:15:19,910 --> 03:15:16,260

get oh yours is already on

1543

03:15:21,290 --> 03:15:19,920

right and your light got two lights on

1544

03:15:23,809 --> 03:15:21,300

right now

1545

03:15:25,309 --> 03:15:23,819

Could you um shoot up so that it's

1546

03:15:27,670 --> 03:15:25,319

pointing forward

1547

03:15:29,929 --> 03:15:27,680

I just like got it

1548

03:15:33,590 --> 03:15:29,939

awesome thank you nope I haven't done it

1549

03:15:49,849 --> 03:15:35,030

now what's up

1550

03:15:53,809 --> 03:15:51,410

okay

1551

03:15:57,170 --> 03:15:53,819

I got two green lights for Frank I've

1552

03:16:04,090 --> 03:16:00,469

if you rotate to your left

1553

03:16:07,550 --> 03:16:04,100

three tabs up and I've got two super

1554

03:16:09,590 --> 03:16:07,560

handles down for Frank

1555

03:16:11,570 --> 03:16:09,600

okay copy and if you can get eyes on his

1556

03:16:13,670 --> 03:16:11,580

tethers and tools in a good config as

1557

03:16:17,349 --> 03:16:13,680

well and then we'll take a buddy check

1558

03:16:21,530 --> 03:16:19,610

all right so you'll probably swing your

1559

03:16:24,530 --> 03:16:21,540

back back a little bit um and I assume

1560

03:16:25,130 --> 03:16:24,540

you've got a red on I can't I do you rep

1561

03:16:26,990 --> 03:16:25,140

um

1562

03:16:30,650 --> 03:16:27,000

and your tethers

1563

03:16:40,269 --> 03:16:30,660

look clear because one is coming to me

1564

03:16:45,110 --> 03:16:42,769

tap your camera forward please just a

1565

03:16:47,090 --> 03:16:45,120

little bit trap my camera for you

1566

03:16:50,090 --> 03:16:47,100

until it's blocking the top on the right

1567

03:16:52,610 --> 03:16:50,100

oh this camera yep

1568

03:16:53,540 --> 03:16:52,620

thank you let's see one two three thumbs

1569

03:16:55,030 --> 03:16:53,550

up

1570

03:16:58,490 --> 03:16:55,040

[Music]

1571

03:17:01,070 --> 03:16:58,500

is concerns

1572

03:17:05,420 --> 03:17:01,080

okay copy can we get both of your safer

1573

03:17:05,430 --> 03:17:13,630

[Music]

1574

03:17:18,230 --> 03:17:15,889

copy that's a good config for both of

1575

03:17:20,990 --> 03:17:18,240

you we'll take a baseline hap check as

1576

03:17:27,950 --> 03:17:24,830

dry for easy one driver

1577

03:17:29,929 --> 03:17:27,960

copy dry hops all right ev1 you can

1578

03:17:32,630 --> 03:17:29,939

translate starboard to the Anchor hook

1579

03:17:34,370 --> 03:17:32,640

location that's at the S1 S3 interface

1580

03:17:37,010 --> 03:17:34,380

just Nader of the starboard seated cart

1581

03:17:39,170 --> 03:17:37,020

Frank meanwhile you can tend the hatch

1582

03:17:41,090 --> 03:17:39,180

thermal cover closed as able and

1583

03:17:44,889 --> 03:17:41,100

reminder you've got that wire tie if you

1584

03:17:48,769 --> 03:17:47,570

I'm gonna wait till I can unhook to

1585

03:17:51,050 --> 03:17:48,779

fully close it but I'll close it

1586

03:17:53,389 --> 03:17:51,060

partially

1587

03:17:55,370 --> 03:17:53,399

yeah copy Frank and just a quick

1588

03:17:57,170 --> 03:17:55,380

reminder as you're translating don't

1589

03:18:01,969 --> 03:17:57,180

touch the radiator flex hoses or test

1590

03:18:06,190 --> 03:18:03,469

you know

1591

03:18:06,200 --> 03:18:28,250

thank you see you soon

1592

03:18:28,260 --> 03:19:25,309

laughs

1593

03:19:28,910 --> 03:19:27,349

if you're just joining us you're

1594

03:19:31,309 --> 03:19:28,920

watching live coverage today of the

1595

03:19:32,690 --> 03:19:31,319

244th spacewalk in support of the

1596

03:19:36,469 --> 03:19:32,700

International Space Station assembly

1597

03:19:41,750 --> 03:19:38,950

all right

1598

03:19:44,450 --> 03:19:41,760

NASA astronauts Josh cassida and Frank

1599

03:19:48,190 --> 03:19:44,460

Rubio have exited the hatch this morning

1600

03:19:50,990 --> 03:19:48,200

at 8 14 a.m Central Time and our now

1601
03:19:52,070 --> 03:19:51,000
translating to their work sites where

1602
03:19:53,750 --> 03:19:52,080
they will

1603
03:19:56,690 --> 03:19:53,760
have two separate tests beginning

1604
03:20:00,950 --> 03:19:56,700
worksite preparation and then

1605
03:20:04,550 --> 03:20:00,960
ev1 Josh Casada will begin the 1bh

1606
03:20:08,990 --> 03:20:04,560
fixture removal while Frank Rubio ev2

1607
03:20:11,929 --> 03:20:09,000
will begin the 3A irisa cable routing

1608
03:20:15,590 --> 03:20:11,939
the duo will come together to come back

1609
03:20:19,190 --> 03:20:15,600
together later to build

1610
03:20:23,510 --> 03:20:19,200
and install the upper triangle build for

1611
03:20:28,730 --> 03:20:23,520
The Mask masked canister at the 1B power

1612
03:21:29,980 --> 03:20:30,769
copy and Josh we've got your heck of you

1613
03:21:29,990 --> 03:21:34,790

[Applause]

1614

03:21:38,630 --> 03:21:36,590

oh so I can see you from here it looks

1615

03:22:47,570 --> 03:21:38,640

like the bag is uh you're parallel to

1616

03:22:47,580 --> 03:23:18,309

foreign

1617

03:23:24,769 --> 03:23:20,690

and we're currently getting helmet

1618

03:23:28,729 --> 03:23:24,779

camera views from ev1 or Josh cassida

1619

03:23:33,229 --> 03:23:30,889

he's currently translating to his work

1620

03:23:36,170 --> 03:23:33,239

site where he will initially begin

1621

03:23:55,610 --> 03:23:36,180

worksite preparations and then jump into

1622

03:24:02,570 --> 03:23:58,910

if I can see you again looks good tag is

1623

03:24:06,710 --> 03:24:02,580

uh I think eighty percent parallel

1624

03:24:11,570 --> 03:24:08,750

looking good guys Frank we've got your

1625

03:24:11,580 --> 03:24:31,150

okay

1626

03:24:36,229 --> 03:24:34,370

you'll hear the acronym apfr today which

1627

03:24:38,210 --> 03:24:36,239

stands for articulating portable foot

1628

03:24:39,889 --> 03:24:38,220

restraint and it is what the crew

1629

03:24:44,870 --> 03:24:39,899

members will use to restrain their feet

1630

03:24:44,880 --> 03:24:58,729

uh

1631

03:25:03,889 --> 03:25:01,309

another acronym you'll hear throughout

1632

03:25:09,550 --> 03:25:03,899

the day is brt which stands for body

1633

03:25:16,309 --> 03:25:13,190

outstanding for your ev1 anchor hook

1634

03:25:18,170 --> 03:25:16,319

you're looking for S3 handrail 3011

1635

03:25:19,729 --> 03:25:18,180

that's Nader of the starboard seated

1636

03:25:23,090 --> 03:25:19,739

cart should be kind of a vertical

1637

03:25:46,910 --> 03:25:27,229

I've got it now and I'm gonna put my

1638

03:25:51,530 --> 03:25:49,429

all right ev1 anchor

1639

03:25:54,889 --> 03:25:51,540

is down on three zero one one big closed

1640

03:26:01,849 --> 03:25:57,769

copy that's great you can take Frank's

1641

03:26:02,990 --> 03:26:01,859

ev2 anchor hook to S1 handrail 3217 that

1642

03:26:06,170 --> 03:26:03,000

should be just to the right of three

1643

03:26:06,180 --> 03:27:02,410

I see it in work

1644

03:27:08,210 --> 03:27:05,210

E2 and for hooks are found on three two

1645

03:27:12,229 --> 03:27:08,220

one seven eight closed starter lock

1646

03:27:20,090 --> 03:27:15,290

copy Josh you'll be giving Frank a go to

1647

03:27:25,969 --> 03:27:23,389

you have a go to release your Wasteland

1648

03:27:29,030 --> 03:27:25,979

I think I heard three two one seven and

1649

03:27:44,650 --> 03:27:29,040

go to release my race Setter and work

1650

03:27:55,250 --> 03:27:47,210

cover closed

1651
03:27:59,570 --> 03:27:56,690
close all right Frank you can translate

1652
03:28:01,429 --> 03:27:59,580
up to the three Alpha mask canister

1653
03:28:17,150 --> 03:28:01,439
meanwhile Josh you're translating to the

1654
03:28:22,370 --> 03:28:20,390
I understand later

1655
03:28:27,710 --> 03:28:22,380
[Applause]

1656
03:28:27,720 --> 03:28:31,750
you know I'm on the uh Petersburg

1657
03:28:31,760 --> 03:28:35,570
copy Frank

1658
03:28:40,490 --> 03:28:38,570
and yeah for Josh you're going on the

1659
03:28:50,170 --> 03:28:40,500
non-radiator side to the Nader handrail

1660
03:28:55,550 --> 03:28:53,330
now with the thermal cut the thermal

1661
03:28:57,710 --> 03:28:55,560
cover to the hatch closed

1662
03:29:00,110 --> 03:28:57,720
Frank Rubio is now translating to his

1663
03:29:02,330 --> 03:29:00,120

work site and again

1664

03:29:05,450 --> 03:29:02,340

Frank Rubio is headed to the 3A Mass

1665

03:29:09,530 --> 03:29:05,460

Canada canister to

1666

03:29:17,750 --> 03:29:10,820

and it

1667

03:29:17,760 --> 03:29:32,389

awesome looking good

1668

03:29:32,399 --> 03:29:50,890

all right

1669

03:29:50,900 --> 03:30:08,630

[Applause]

1670

03:30:13,070 --> 03:30:11,090

I'm currently in a brief Hanover between

1671

03:30:15,229 --> 03:30:13,080

satellites will help views for you

1672

03:30:17,990 --> 03:30:15,239

shortly

1673

03:30:20,210 --> 03:30:18,000

again Casta is translating to the 1B

1674

03:30:22,610 --> 03:30:20,220

Mass canister and Rubio's translating to

1675

03:30:25,250 --> 03:30:22,620

the 3A Mass canister where they'll start

1676
03:30:27,410 --> 03:30:25,260
work site preparations and then be then

1677
03:30:31,729 --> 03:30:27,420
begin their first task for the day

1678
03:30:35,269 --> 03:30:31,739
forecast the 1B H fixture removal and

1679
03:30:44,210 --> 03:30:35,279
for Rubio that is routing of the 3A

1680
03:30:47,990 --> 03:30:46,190
we'll have ratty s band here for a

1681
03:30:49,370 --> 03:30:48,000
couple of minutes but still with you and

1682
03:30:50,929 --> 03:30:49,380
for both of you before you cross the

1683
03:30:53,990 --> 03:30:50,939
sarge just check that your gauntlets are

1684
03:31:06,309 --> 03:30:56,870
awesome 23v1

1685
03:31:11,630 --> 03:31:08,870
after completion of their first test the

1686
03:31:13,670 --> 03:31:11,640
duo we will come together and begin work

1687
03:31:16,370 --> 03:31:13,680
at the 1B Mass canister together

1688
03:31:44,929 --> 03:31:16,380

installing a modification kit or support

1689

03:31:49,429 --> 03:31:47,389

nice work at S4 you can continue

1690

03:31:51,710 --> 03:31:49,439

outboard on the non-radiator side

1691

03:31:54,309 --> 03:31:51,720

following that Nader handrail path

1692

03:31:57,769 --> 03:31:54,319

you're looking for two two one nine

1693

03:32:00,650 --> 03:31:57,779

at S4 you can continue outboard on the

1694

03:32:08,630 --> 03:32:00,660

non-radiator side following that Nader

1695

03:32:08,640 --> 03:32:14,090

3

1696

03:32:14,100 --> 03:32:50,710

2

1697

03:32:54,830 --> 03:32:53,389

almost are both down

1698

03:32:56,929 --> 03:32:54,840

copy Frank

1699

03:32:59,570 --> 03:32:56,939

at S4 you'll be translating to the

1700

03:33:15,170 --> 03:32:59,580

Zenith side the non-keel three Alpha

1701
03:33:20,389 --> 03:33:18,469
understand I'm going two one two five a

1702
03:33:25,729 --> 03:33:20,399
little bit more server

1703
03:33:25,739 --> 03:33:30,530
that sounds like a good plan Josh

1704
03:33:34,969 --> 03:33:33,290
and yeah at the outboard end of S5

1705
03:33:43,910 --> 03:33:34,979
you'll be crossing the A-frame over to

1706
03:33:49,269 --> 03:33:46,610
currently seeing images of the ISS rule

1707
03:33:51,950 --> 03:33:49,279
out solar reaugmentation plan again

1708
03:33:55,190 --> 03:33:51,960
currently we have Josh cassida heading

1709
03:33:59,330 --> 03:33:55,200
to the 1B Mass canister where they'll

1710
03:34:02,269 --> 03:33:59,340
have the 1B power Channel and a future

1711
03:34:04,670 --> 03:34:02,279
upgrade with a solar array and we have

1712
03:34:06,830 --> 03:34:04,680
Franco Rubio heading to the 3A Mass

1713
03:34:11,570 --> 03:34:06,840

canister where he will be routing the

1714

03:34:11,580 --> 03:34:20,090

solar array

1715

03:34:24,469 --> 03:34:22,190

he's routing the cabling where they

1716

03:34:25,490 --> 03:34:24,479

already have a modification place in

1717

03:34:27,830 --> 03:34:25,500

place

1718

03:34:30,469 --> 03:34:27,840

again we're looking for some future iros

1719

03:34:30,479 --> 03:34:39,790

21-19

1720

03:34:47,330 --> 03:34:43,070

that's great you can Stow the cable bag

1721

03:34:49,370 --> 03:34:47,340

on those S5 handrails 2119 and 2103 with

1722

03:34:53,090 --> 03:34:49,380

the bag parallel to the long axis of the

1723

03:36:40,070 --> 03:35:19,010

y

1724

03:36:40,080 --> 03:36:48,729

foreign

1725

03:36:52,670 --> 03:36:50,630

hook

1726

03:37:54,530 --> 03:36:52,680

that was me

1727

03:37:59,150 --> 03:37:56,690

both of you looking good and just a

1728

03:38:01,729 --> 03:37:59,160

reminder not to translate on the bcdu

1729

03:38:04,969 --> 03:38:01,739

mli that's near your green hook location

1730

03:38:13,690 --> 03:38:07,130

thank you

1731

03:38:18,830 --> 03:38:15,889

can you talk to me about some handrails

1732

03:38:23,990 --> 03:38:21,170

yeah absolutely the strut bag is going

1733

03:38:25,849 --> 03:38:24,000

on the outboard non-radiator corner

1734

03:38:29,269 --> 03:38:25,859

and use the integral straps on the bag

1735

03:38:36,790 --> 03:38:29,279

to handrails two zero five seven two

1736

03:38:41,750 --> 03:38:39,070

foreign

1737

03:38:45,050 --> 03:38:41,760

one will be kind of in the middle of the

1738

03:38:49,690 --> 03:38:45,060

iea or in the middle of the outer edge

1739

03:38:49,700 --> 03:38:52,910

thank you

1740

03:39:45,110 --> 03:38:57,950

I'm uh local down on 2012 right now

1741

03:39:49,849 --> 03:39:47,870

and then I have both sets of tables

1742

03:39:53,570 --> 03:39:49,859

right three Alpha

1743

03:39:57,410 --> 03:39:53,580

left three Alpha on each other on the uh

1744

03:40:01,250 --> 03:39:59,750

okay perfect now that you're Reddit and

1745

03:40:02,990 --> 03:40:01,260

translating out to the three Alpha

1746

03:40:05,110 --> 03:40:03,000

mounting bracket just a reminder no

1747

03:40:09,710 --> 03:40:05,120

sudden movements on the mass canister

1748

03:40:09,720 --> 03:40:44,809

probably

1749

03:40:49,010 --> 03:40:46,670

all right

1750

03:40:50,570 --> 03:40:49,020

I've got an integral down on two zero

1751

03:40:54,170 --> 03:40:50,580

one one

1752

03:40:55,910 --> 03:40:54,180

I'm removing my VRT

1753

03:40:59,690 --> 03:40:55,920

understand the handrail is going to go

1754

03:41:02,030 --> 03:40:59,700

in and the tape is going to go out

1755

03:41:04,130 --> 03:41:02,040

that's correct Josh yep that handrail

1756

03:41:04,800 --> 03:41:04,140

toward the radiator and taped toward the

1757

03:41:54,710 --> 03:41:04,810

mass canister

1758

03:41:54,720 --> 03:42:15,590

foreign

1759

03:42:21,070 --> 03:42:18,710

and you know the square scoop is on the

1760

03:42:24,110 --> 03:42:21,080

bracket because of the way that the

1761

03:42:26,150 --> 03:42:24,120

receiver is mounted I can't quite point

1762

03:42:27,950 --> 03:42:26,160

the handle of the square screws

1763

03:42:30,229 --> 03:42:27,960

completely away from the last canister

1764

03:42:34,630 --> 03:42:30,239

it's kind of counted at a 45 degree

1765

03:42:39,290 --> 03:42:37,790

okay Frank we see that let's just uh

1766

03:43:19,429 --> 03:42:39,300

we'll confirm if that's a good

1767

03:43:19,439 --> 03:43:25,870

amazing

1768

03:43:30,710 --> 03:43:28,429

Frank we're happy with that scoop config

1769

03:43:34,849 --> 03:43:30,720

you can go ahead and remove your rets

1770

03:43:34,859 --> 03:44:02,050

coffee thank you

1771

03:44:07,130 --> 03:44:05,090

you're currently seeing a dual box

1772

03:44:08,990 --> 03:44:07,140

where both

1773

03:44:12,469 --> 03:44:09,000

Josh cast it up

1774

03:44:15,290 --> 03:44:12,479

ev1 in the suit with the red stripes on

1775

03:44:17,330 --> 03:44:15,300

your left and Frank Rubio in the

1776

03:44:20,929 --> 03:44:17,340

unmarked suit on your right

1777

03:44:23,510 --> 03:44:20,939

both are at their workstations

1778

03:44:25,969 --> 03:44:23,520

where Frank Rubio on the right will be

1779

03:44:28,190 --> 03:44:25,979

routing the 3A cables

1780

03:44:31,429 --> 03:44:28,200

for the irosa

1781

03:44:34,130 --> 03:44:31,439

upgrades here's your irosa upgrades and

1782

03:44:37,309 --> 03:44:34,140

on your left Josh cassida has the strut

1783

03:44:38,450 --> 03:44:37,319

bag but we'll begin to remove the 1bh

1784

03:44:41,690 --> 03:44:38,460

fixture

1785

03:44:44,110 --> 03:44:41,700

again this will be necessary for the

1786

03:44:50,030 --> 03:44:44,120

power upgrades in the solar arrays

1787

03:44:57,710 --> 03:44:53,450

for both of you one hour pet both of

1788

03:45:03,889 --> 03:45:00,349

Tina thank you

1789

03:45:10,010 --> 03:45:06,530

handrail for the right

1790

03:45:11,450 --> 03:45:10,020

or struts on the upper extension and

1791

03:45:14,590 --> 03:45:11,460

I've got my uh

1792

03:45:19,250 --> 03:45:14,600

MR2 and I'll put that on the

1793

03:45:19,260 --> 03:45:29,510

copy Frank

1794

03:45:29,520 --> 03:45:33,710

almost caught me there I do have the uh

1795

03:45:33,720 --> 03:45:42,110

I need the other set of cables

1796

03:45:42,120 --> 03:46:04,849

we copy Frank good catch

1797

03:46:04,859 --> 03:46:18,469

oh yeah

1798

03:46:18,479 --> 03:46:24,410

come here

1799

03:46:24,420 --> 03:46:32,590

foreign

1800

03:46:32,600 --> 03:46:50,630

three places

1801
03:46:53,690 --> 03:46:52,429
freakedown over there cable guy it's

1802
03:47:01,910 --> 03:46:53,700
nice to see you

1803
03:47:06,110 --> 03:47:04,849
yes this will be three twists on the

1804
03:47:10,849 --> 03:47:06,120
handrail stanchion closest to the

1805
03:47:17,030 --> 03:47:12,650
and also a reminder there's an indicator

1806
03:47:22,010 --> 03:47:19,309
affirmative and I see the

1807
03:47:23,570 --> 03:47:22,020
right cables with the red candy stripes

1808
03:47:26,510 --> 03:47:23,580
now

1809
03:47:29,570 --> 03:47:26,520
uh wires hard at the at the black mark

1810
03:47:35,990 --> 03:47:29,580
to the lower

1811
03:47:47,450 --> 03:47:37,250
copy Frank

1812
03:47:54,790 --> 03:47:50,450
we're currently seeing that HD view of

1813
03:47:57,290 --> 03:47:54,800

from Frank Rubio as he's currently

1814

03:48:39,210 --> 03:47:57,300

routing the cables for the 3A Mass

1815

03:48:44,750 --> 03:48:42,110

[Applause]

1816

03:48:46,729 --> 03:48:44,760

copy Josh you can translate Nader over

1817

03:48:49,610 --> 03:48:46,739

the A-frame and continue inboard to the

1818

03:49:04,309 --> 03:48:49,620

CD card you'll follow S5 handrail 2125

1819

03:49:09,950 --> 03:49:06,950

Josh Casada just got the AOK to

1820

03:49:13,070 --> 03:49:09,960

translate further to his work site where

1821

03:49:15,170 --> 03:49:13,080

he'll be removing the 1bh fixture

1822

03:49:18,110 --> 03:49:15,180

he had some work site preparation to do

1823

03:49:20,750 --> 03:49:18,120

as he stowed away the strut bag

1824

03:49:34,730 --> 03:49:20,760

because he wouldn't be needing it just

1825

03:49:34,740 --> 03:49:46,610

[Laughter]

1826
03:50:43,470 --> 03:50:21,950
foreign

1827
03:50:43,480 --> 03:50:47,929
[Applause]

1828
03:50:47,939 --> 03:51:22,370
okay

1829
03:51:28,130 --> 03:51:24,349
all right Frank I'm crossing the storage

1830
03:52:10,309 --> 03:51:28,140
again and Xena my gauntlets are down

1831
03:52:10,319 --> 03:52:25,480
foreign

1832
03:52:25,490 --> 03:52:51,710
[Applause]

1833
03:52:51,720 --> 03:53:19,389
foreign

1834
03:53:26,750 --> 03:53:23,330
live helmet cam views as Duo translate

1835
03:53:30,650 --> 03:53:26,760
and finish works like task

1836
03:53:33,650 --> 03:53:30,660
College of the extra cable on the

1837
03:53:46,130 --> 03:53:33,660
math counterfeit line rail he wants

1838
03:53:46,140 --> 03:54:05,150

yeah Ephraim freetress on that

1839

03:54:05,160 --> 03:54:15,170

all right

1840

03:54:20,990 --> 03:54:18,410

you know that uh with one here on the

1841

03:54:23,389 --> 03:54:21,000

starboard SuperCard

1842

03:54:27,290 --> 03:54:23,399

and

1843

03:54:29,450 --> 03:54:27,300

got a good full test of the apfr into

1844

03:54:32,809 --> 03:54:29,460

the with extender

1845

03:54:54,060 --> 03:54:32,819

so I'm gonna go ahead and rep to the

1846

03:54:54,070 --> 03:55:07,150

[Applause]

1847

03:55:12,830 --> 03:55:10,370

Carolina orbital night time

1848

03:55:16,189 --> 03:55:12,840

the International Space Station and the

1849

03:55:24,050 --> 03:55:16,199

crew about 257 statute miles above the

1850

03:55:29,809 --> 03:55:26,750

I'm given the orientation Xena I think

1851
03:55:29,819 --> 03:55:48,290
stand by on that

1852
03:56:17,090 --> 03:55:50,689
okay I'm ready for the apsr I'm going to

1853
03:56:21,650 --> 03:56:19,189
[Applause]

1854
03:56:25,070 --> 03:56:21,660
I've been on the left Cable Bundle is

1855
03:56:27,849 --> 03:56:25,080
wired tied to the left lower strut upper

1856
03:56:31,809 --> 03:56:27,859
Stanton of the upper hand rail with uh

1857
03:56:31,819 --> 03:57:17,229
copy Frank that's perfect

1858
03:57:24,130 --> 03:57:20,389
currently seeing heck of views or tested

1859
03:57:26,450 --> 03:57:24,140
HD camera we use from Josh cassida's

1860
03:57:30,469 --> 03:57:26,460
helmet cam

1861
03:57:34,910 --> 03:57:30,479
he has translated over to

1862
03:57:39,530 --> 03:57:34,920
grab his AP FR or articulating

1863
03:57:55,490 --> 03:57:39,540

portable foot restraint and his

1864

03:58:01,630 --> 03:57:58,910

all right I'm bfr and width Extender on

1865

03:58:04,969 --> 03:58:01,640

my VRT

1866

03:58:07,969 --> 03:58:04,979

okay perfect Josh you can head back out

1867

03:58:53,990 --> 03:58:07,979

to S6 with 38 and reminder prior to

1868

03:58:54,000 --> 03:59:11,689

uh

1869

03:59:11,699 --> 03:59:16,309

those gauntlets are in space

1870

03:59:20,689 --> 03:59:18,530

all right you can continue outboard on

1871

03:59:22,790 --> 03:59:20,699

the non-radiator side following that

1872

03:59:24,110 --> 03:59:22,800

same handrail path two two one nine two

1873

03:59:26,510 --> 03:59:24,120

two two two

1874

03:59:45,170 --> 03:59:26,520

and at the outboard end of S5 cross the

1875

03:59:51,410 --> 03:59:47,689

and ground IV xenocarbin just gave Josh

1876

03:59:52,670 --> 03:59:51,420

cassida the okay to head back after a

1877

03:59:54,170 --> 03:59:52,680

gauntlet check you'll hear that

1878

03:59:56,510 --> 03:59:54,180

periodically

1879

03:59:57,830 --> 03:59:56,520

um what's called a gauntlet glove and

1880

04:00:01,309 --> 03:59:57,840

hap check

1881

04:00:03,650 --> 04:00:01,319

for you good man yeah it's um

1882

04:00:05,150 --> 04:00:03,660

the only downside is the wires out at

1883

04:00:07,729 --> 04:00:05,160

the very end that would that hang with

1884

04:00:08,870 --> 04:00:07,739

the cables yeah depends on both sides

1885

04:00:10,969 --> 04:00:08,880

it's been in the wrong spot so I'm

1886

04:00:12,889 --> 04:00:10,979

having to just remove it and reset it

1887

04:00:14,689 --> 04:00:12,899

just because it doesn't reach

1888

04:00:27,889 --> 04:00:14,699

otherwise it's uh

1889

04:00:27,899 --> 04:00:35,510

sounds great

1890

04:00:35,520 --> 04:01:08,750

the future changes every 45 minutes yeah

1891

04:01:08,760 --> 04:01:12,050

moon is pretty though

1892

04:01:16,910 --> 04:01:14,990

should go there

1893

04:01:19,370 --> 04:01:16,920

great idea

1894

04:01:25,550 --> 04:01:19,380

lead agency not really mean here well

1895

04:01:25,560 --> 04:01:32,090

can I come

1896

04:01:32,100 --> 04:02:12,050

forward

1897

04:02:17,630 --> 04:02:14,809

one hour and 17 minutes in today's Eva

1898

04:02:19,729 --> 04:02:17,640

we have Josh cassida's helmet camera on

1899

04:02:21,050 --> 04:02:19,739

the left and Frank Rubio's helmet camera

1900

04:02:24,170 --> 04:02:21,060

on the right

1901
04:02:27,830 --> 04:02:24,180
for every wheel continues to work at the

1902
04:02:31,429 --> 04:02:27,840
3A Mass canister as he's routing the

1903
04:02:37,070 --> 04:02:34,070
and on the left we see Josh cassida

1904
04:02:40,910 --> 04:02:37,080
translating back to his work site with

1905
04:02:44,870 --> 04:02:40,920
his AP FR articulating portable foot

1906
04:02:49,130 --> 04:02:44,880
restraint and worksite interface fixture

1907
04:02:52,490 --> 04:02:49,140
extender in tow where he will set up

1908
04:02:55,130 --> 04:02:52,500
along the iea or the integrated

1909
04:02:56,150 --> 04:02:55,140
Electronics assembly face just a

1910
04:02:59,030 --> 04:02:56,160
reminder that's where you'll be working

1911
04:03:02,689 --> 04:02:59,040
on your next Eva and he will be ready to

1912
04:03:17,809 --> 04:03:02,699
then remove the 1bh fixture which is

1913
04:03:26,269 --> 04:03:18,770

all right

1914

04:03:26,279 --> 04:03:32,980

foreign

1915

04:03:32,990 --> 04:03:55,910

[Music]

1916

04:04:21,349 --> 04:03:58,790

chapters that's good and just make sure

1917

04:04:27,650 --> 04:04:24,889

green hook down at 2008.

1918

04:04:33,590 --> 04:04:27,660

copy Josh greenhook at 2008. that's a

1919

04:04:39,170 --> 04:04:35,330

now heading

1920

04:04:44,809 --> 04:04:41,809

you know so the upper surface was clear

1921

04:04:52,729 --> 04:04:44,819

of mli and the right side also looks

1922

04:04:56,330 --> 04:04:54,110

hey Frank and while you're there we'll

1923

04:05:01,070 --> 04:04:56,340

also have you go ahead and uh just do a

1924

04:05:05,210 --> 04:05:03,590

and Josh for you at the one Bravo iea

1925

04:05:08,750 --> 04:05:05,220

you'll be crossing over to the radiator

1926

04:05:11,030 --> 04:05:08,760

side following handrail 2032 fairleading

1927

04:05:15,650 --> 04:05:11,040

on the inboard radiator Corner two zero

1928

04:05:15,660 --> 04:05:23,389

okay I'm at three four right now

1929

04:05:39,410 --> 04:05:26,210

is that nice do you want that pan

1930

04:05:39,420 --> 04:05:44,210

all right

1931

04:05:48,830 --> 04:05:46,250

and Frank if you just get on the

1932

04:05:51,170 --> 04:05:48,840

mounting bracket and give us a good view

1933

04:06:11,750 --> 04:05:51,180

of both the mid strut mlis with your

1934

04:06:11,760 --> 04:06:17,510

Frank that's looking really good

1935

04:06:35,590 --> 04:06:18,530

foreign

1936

04:06:41,150 --> 04:06:38,150

yeah that looks great

1937

04:06:59,990 --> 04:06:41,160

we can have you uh clean up there and

1938

04:07:00,000 --> 04:07:09,110

foreign

1939

04:07:13,610 --> 04:07:11,990

absolutely yep once you're outboard on

1940

04:07:18,110 --> 04:07:13,620

the Zenith radiator side you're looking

1941

04:07:23,330 --> 04:07:18,120

for whiff 38. this will be six golf five

1942

04:07:31,309 --> 04:07:25,670

give me the clock in again

1943

04:07:31,319 --> 04:08:59,630

awesome thanks

1944

04:09:04,790 --> 04:09:01,969

if you're just joining us we're in one

1945

04:09:07,370 --> 04:09:04,800

hour and 24 minutes in today's space

1946

04:09:08,510 --> 04:09:07,380

walk the 254th spacewalk in the support

1947

04:09:11,150 --> 04:09:08,520

of the International Space Station

1948

04:09:14,150 --> 04:09:11,160

assembly maintenance and upgrades

1949

04:09:17,750 --> 04:09:14,160

NASA astronauts Josh cassida and Frank

1950

04:09:20,090 --> 04:09:17,760

Rubio have exited the hatch they

1951

04:09:22,309 --> 04:09:20,100

officially went on battery power at 8 14

1952

04:09:24,229 --> 04:09:22,319

A.M

1953

04:09:27,830 --> 04:09:24,239

Central Time

1954

04:09:29,570 --> 04:09:27,840

and everything in the contingency

1955

04:09:31,309 --> 04:09:29,580

basement still looks good do you want me

1956

04:09:36,830 --> 04:09:31,319

to inventory every piece of equipment in

1957

04:09:36,840 --> 04:09:41,990

checking Frank

1958

04:09:45,590 --> 04:09:43,610

because I thought we did an inventory at

1959

04:09:49,010 --> 04:09:45,600

the end yeah we're good with that Frank

1960

04:09:51,170 --> 04:09:49,020

with that you can close the cable back

1961

04:09:55,849 --> 04:09:51,180

stow it on your brt and head outboard to

1962

04:09:55,859 --> 04:10:06,650

no coffee thanks

1963

04:10:13,910 --> 04:10:10,490

that was Cena Carmen the ground IV NASA

1964

04:10:16,849 --> 04:10:13,920

astronaut selected in 2017. talking to a

1965

04:10:19,610 --> 04:10:16,859

NASA astronaut Frank Rubio he has

1966

04:10:21,590 --> 04:10:19,620

completed his first test which was the

1967

04:10:25,030 --> 04:10:21,600

3A mask canister

1968

04:10:28,130 --> 04:10:25,040

people routing for the irosa

1969

04:10:33,050 --> 04:10:28,140

modification kit and for future upgrades

1970

04:10:36,290 --> 04:10:34,429

he will

1971

04:10:39,170 --> 04:10:36,300

complete storage of his cable bag

1972

04:10:42,170 --> 04:10:39,180

putting it on his brt or body restraint

1973

04:10:45,830 --> 04:10:42,180

tether and head towards this starboard

1974

04:10:49,189 --> 04:10:45,840

six truss which is where the 1B Mass

1975

04:10:53,150 --> 04:10:49,199

canister is and where he along with Josh

1976

04:10:58,550 --> 04:10:55,790

primary test which will be the build out

1977

04:10:59,929 --> 04:10:58,560

of the modification kit for the 1B power

1978

04:11:02,090 --> 04:10:59,939

Channel

1979

04:11:04,070 --> 04:11:02,100

to just double checked that your helmet

1980

04:11:06,590 --> 04:11:04,080

lights are working again you're

1981

04:11:09,469 --> 04:11:06,600

currently seeing the ISS roll out solar

1982

04:11:12,170 --> 04:11:09,479

rate augmentation plan

1983

04:11:13,610 --> 04:11:12,180

cable routing was just finished at 3A

1984

04:11:15,410 --> 04:11:13,620

they will be building today's

1985

04:11:17,330 --> 04:11:15,420

modification kit

1986

04:11:21,650 --> 04:11:17,340

brackets and struts

1987

04:11:23,210 --> 04:11:21,660

on the 1B power Channel or masked

1988

04:11:26,929 --> 04:11:23,220

canister

1989

04:11:42,769 --> 04:11:26,939

for a future upgrade for an ISS rollout

1990

04:11:42,779 --> 04:12:16,070

foreign

1991

04:12:24,950 --> 04:12:18,349

just confirm we're looking for single

1992

04:12:29,570 --> 04:12:27,769

that's correct single line clocking of

1993

04:12:39,370 --> 04:12:29,580

six and let us know when you're ready

1994

04:12:45,889 --> 04:12:43,490

sure yeah can I take that

1995

04:12:47,870 --> 04:12:45,899

the gulf five

1996

04:12:49,790 --> 04:12:47,880

and we're also looking for black on

1997

04:12:52,670 --> 04:12:49,800

black and good pulled twist test on the

1998

04:12:58,189 --> 04:12:55,070

I would do that black on black good pull

1999

04:13:03,469 --> 04:12:58,199

twist test and Golf five just remind me

2000

04:13:20,389 --> 04:13:05,689

that will be

2001
04:13:20,399 --> 04:13:42,920
foreign

2002
04:13:42,930 --> 04:13:47,689
[Music]

2003
04:13:51,830 --> 04:13:49,550
you'll be heading outboard on the Zenith

2004
04:13:55,790 --> 04:13:51,840
non-radiator Corner following S6

2005
04:13:55,800 --> 04:14:07,070
coffee

2006
04:14:12,170 --> 04:14:09,290
and a same

2007
04:14:18,769 --> 04:14:12,180
reminder for you as before to not

2008
04:14:22,550 --> 04:14:21,290
I see uh 2007 verified that's where I

2009
04:14:25,370 --> 04:14:22,560
dropped my green hook

2010
04:14:29,750 --> 04:14:25,380
correct 2007 that'll be just inboard of

2011
04:14:34,250 --> 04:14:32,389
okay coffee and right now

2012
04:14:38,269 --> 04:14:34,260
uh Josh's

2013
04:14:42,290 --> 04:14:38,279

safety Rio is one of his reels is

2014

04:14:42,300 --> 04:14:44,990

uh

2015

04:14:49,550 --> 04:14:46,370

right next to where I'm gonna draw mine

2016

04:14:51,469 --> 04:14:49,560

so I want Israel above or below

2017

04:15:02,450 --> 04:14:51,479

where I draw my Greenhouse

2018

04:15:06,290 --> 04:15:04,070

um either one Frank just let us know

2019

04:15:07,309 --> 04:15:06,300

where what config you wind up in and

2020

04:15:09,290 --> 04:15:07,319

we're

2021

04:15:13,790 --> 04:15:09,300

expecting Josh's to be further outboard

2022

04:15:19,010 --> 04:15:16,309

it is it's on 2008

2023

04:15:21,110 --> 04:15:19,020

for some reason the Rio is

2024

04:15:25,969 --> 04:15:21,120

back towards

2025

04:15:25,979 --> 04:15:30,110

okay copy Frank

2026

04:15:30,120 --> 04:15:38,269

I'll just keep his neighbor

2027

04:15:43,490 --> 04:15:41,389

we copy Frank Tina can I break in on

2028

04:15:48,410 --> 04:15:43,500

settings okay

2029

04:15:51,290 --> 04:15:49,849

don't be over yours

2030

04:15:53,450 --> 04:15:51,300

sounds good

2031

04:15:55,610 --> 04:15:53,460

okay

2032

04:15:57,110 --> 04:15:55,620

you know I understand we want to call oh

2033

04:16:07,550 --> 04:15:57,120

I'm sorry the extension we want to

2034

04:16:07,560 --> 04:16:15,769

um

2035

04:16:15,779 --> 04:16:18,469

oh

2036

04:16:18,479 --> 04:16:21,530

copy golf

2037

04:16:26,750 --> 04:16:23,450

okay and the extension

2038

04:16:33,050 --> 04:16:29,450

six and then

2039

04:16:35,150 --> 04:16:33,060

on the uh apfr

2040

04:16:39,769 --> 04:16:35,160

you have a second

2041

04:16:39,779 --> 04:16:43,849

okay

2042

04:16:52,070 --> 04:16:47,870

I see a single line on the with x

2043

04:16:53,689 --> 04:16:52,080

that's where the 12 is going to go

2044

04:17:00,490 --> 04:16:53,699

it's already there actually we were

2045

04:17:05,510 --> 04:17:03,349

I've got a 12 at the front

2046

04:17:07,130 --> 04:17:05,520

I've got a 12 with a single and there's

2047

04:17:09,830 --> 04:17:07,140

a single line at the far end of the with

2048

04:17:11,090 --> 04:17:09,840

X can you confirm that's the clocking we

2049

04:17:13,670 --> 04:17:11,100

wanted even though we thought it was

2050

04:17:15,349 --> 04:17:13,680

going to be a different concerned yeah

2051
04:17:17,570 --> 04:17:15,359
that should be the clocking we were also

2052
04:17:19,130 --> 04:17:17,580
expecting something different but if it

2053
04:17:20,809 --> 04:17:19,140
is in a clocking of 12 that is the

2054
04:17:22,010 --> 04:17:20,819
correct config and single line is

2055
04:17:23,750 --> 04:17:22,020
correct

2056
04:17:27,050 --> 04:17:23,760
okay

2057
04:17:30,590 --> 04:17:27,060
all right 12 lines up with uh the single

2058
04:17:34,309 --> 04:17:30,600
line uh I've got my hecka back on and

2059
04:17:36,889 --> 04:17:34,319
I'm ready for the next settings

2060
04:17:40,550 --> 04:17:36,899
copy remainder of the apsr settings will

2061
04:17:46,130 --> 04:17:40,560
be Tango Tango Fox 12 and check the

2062
04:17:54,950 --> 04:17:50,750
hey Tango Tango steps box 12.

2063
04:18:12,830 --> 04:17:54,960

a firm Tango Tango Fox 12.

2064

04:18:17,990 --> 04:18:15,110

you know my green hawk is on the inboard

2065

04:18:21,349 --> 04:18:18,000

Stanton of 2007.

2066

04:18:26,750 --> 04:18:24,110

copy Frank that's a good config you can

2067

04:18:28,429 --> 04:18:26,760

continue outboard and at the S6 iea

2068

04:18:36,849 --> 04:18:28,439

you'll be stowing the cable bag on the

2069

04:18:36,859 --> 04:18:41,110

go ahead Josh

2070

04:18:46,189 --> 04:18:42,830

on both

2071

04:18:49,250 --> 04:18:46,199

with extender and apfr I'm grabbing my

2072

04:18:51,410 --> 04:18:49,260

uh VRT rep record

2073

04:18:55,010 --> 04:18:51,420

and just confirm the pitch knob can be

2074

04:19:14,450 --> 04:18:57,290

not done yet but I will absolutely give

2075

04:19:18,889 --> 04:19:17,389

you know uh I'm out here at the

2076

04:19:22,550 --> 04:19:18,899

headboard

2077

04:19:27,410 --> 04:19:22,560

uh forward corner of Essex and I see

2078

04:19:29,510 --> 04:19:27,420

handrails 2032 and 2009.

2079

04:19:31,490 --> 04:19:29,520

perfect that is exactly where you want

2080

04:19:33,469 --> 04:19:31,500

to Stow the cable bag and a reminder to

2081

04:19:35,450 --> 04:19:33,479

Route the bag tethers under Josh's

2082

04:19:37,490 --> 04:19:35,460

safety tether you'll want the bag

2083

04:19:38,750 --> 04:19:37,500

parallel to the short axis of the iea

2084

04:19:42,110 --> 04:19:38,760

and the handrail pointed toward the

2085

04:19:48,530 --> 04:19:46,070

okay copy and uh Josh's uh safety Wheels

2086

04:19:50,450 --> 04:19:48,540

mostly on the uh

2087

04:20:03,670 --> 04:19:50,460

and the other part of effort so it

2088

04:20:15,250 --> 04:20:07,189

IES just a heads up this uh pitch is

2089

04:20:15,260 --> 04:20:27,889

copy Josh

2090

04:20:31,969 --> 04:20:29,809

and Josh after you've tried using both

2091

04:20:33,710 --> 04:20:31,979

hands we also do as a reminder have that

2092

04:20:37,729 --> 04:20:33,720

Crow Foot tool if necessary we know this

2093

04:20:40,429 --> 04:20:39,110

sorry if you broke up there in the

2094

04:20:41,510 --> 04:20:40,439

middle uh two hands and what was the

2095

04:20:43,490 --> 04:20:41,520

other thing

2096

04:21:01,660 --> 04:20:43,500

we do if you need it have the Crowfoot

2097

04:21:01,670 --> 04:21:15,650

[Applause]

2098

04:21:53,809 --> 04:21:18,300

hello

2099

04:21:53,819 --> 04:22:18,900

foreign

2100

04:22:21,590 --> 04:22:20,150

[Applause]

2101

04:22:26,990 --> 04:22:21,600

I mean

2102

04:22:30,590 --> 04:22:28,729

yeah copy Josh

2103

04:22:38,269 --> 04:22:30,600

um I think that means it's not fully

2104

04:22:38,279 --> 04:22:45,769

are there defense

2105

04:22:49,490 --> 04:22:47,269

as you can probably see there in the

2106

04:22:50,450 --> 04:22:49,500

hecka we're lined up right on Tango

2107

04:22:55,550 --> 04:22:50,460

Tango

2108

04:23:00,889 --> 04:22:58,010

copy Josh and we actually don't have

2109

04:23:04,010 --> 04:23:00,899

your heka right now we've got some ratty

2110

04:23:06,469 --> 04:23:04,020

wvs view so we're relying on your words

2111

04:23:12,710 --> 04:23:10,490

okay no joy on being able to press

2112

04:23:25,010 --> 04:23:12,720

I mean I can keep press it like I don't

2113

04:23:31,450 --> 04:23:27,950

and that is as far as the clockwise lock

2114

04:23:31,460 --> 04:23:37,670

copy Josh does it feel stable to you

2115

04:23:42,349 --> 04:23:41,090

I catch yeah because he was so hard

2116

04:23:43,670 --> 04:23:42,359

so hard Tango

2117

04:23:45,410 --> 04:23:43,680

um I can try to

2118

04:23:46,969 --> 04:23:45,420

put some effort into it to see if it'll

2119

04:23:50,030 --> 04:23:46,979

uh move and Pitch if you're good with

2120

04:23:50,040 --> 04:23:53,330

yeah we're good with that Josh

2121

04:23:53,340 --> 04:23:58,969

all right here goes

2122

04:23:58,979 --> 04:24:10,490

I can't get her to budge

2123

04:24:18,170 --> 04:24:12,769

okay Josh we're happy with that config

2124

04:24:18,180 --> 04:24:22,729

okay

2125

04:24:27,469 --> 04:24:24,410

thank you

2126

04:24:34,370 --> 04:24:27,479

I heard Fox

2127

04:24:39,469 --> 04:24:37,070

yeah it'll be Fox 12 for the rest of the

2128

04:24:44,570 --> 04:24:41,510

okay because that's where I put it and

2129

04:24:51,410 --> 04:24:46,729

all right we'll take a glove half and

2130

04:24:56,750 --> 04:24:53,870

all right so looking at the gloves here

2131

04:25:01,969 --> 04:24:56,760

on my right glove

2132

04:25:07,130 --> 04:25:04,670

my left glove

2133

04:25:09,889 --> 04:25:07,140

no change gauntlets are covered and half

2134

04:25:09,899 --> 04:25:32,210

there's only about one woman

2135

04:25:36,050 --> 04:25:33,769

and Josh when you have a free moment

2136

04:25:41,330 --> 04:25:36,060

we'll have you try recycling the hecka

2137

04:25:41,340 --> 04:25:50,330

Chris

2138

04:25:50,340 --> 04:26:11,510

yeah she is off

2139

04:26:22,849 --> 04:26:15,050

okay it's on I see a green light

2140

04:26:22,859 --> 04:26:26,080

of

2141

04:26:29,450 --> 04:26:27,830

[Music]

2142

04:26:30,889 --> 04:26:29,460

really in the same condition there are

2143

04:26:32,870 --> 04:26:30,899

some like black markings on it I'm

2144

04:26:34,370 --> 04:26:32,880

guessing I just touched something that

2145

04:26:37,610 --> 04:26:34,380

it doesn't look like grease or anything

2146

04:26:39,710 --> 04:26:37,620

maybe Sharpie uh from the other lines

2147

04:26:44,269 --> 04:26:39,720

and then left glove

2148

04:26:51,189 --> 04:26:47,210

copy that's a good config and we'll also

2149

04:26:51,199 --> 04:26:56,809

happens right

2150

04:27:00,590 --> 04:26:58,309

you know I understand I'm going to the

2151
04:27:02,389 --> 04:27:00,600
TVA bag is that correct

2152
04:27:05,030 --> 04:27:02,399
that's exactly right Josh you're heading

2153
04:27:06,769 --> 04:27:05,040
to the strut bag to grab the PBA bag and

2154
04:27:08,330 --> 04:27:06,779
tuck it behind your mini workstation a

2155
04:27:10,250 --> 04:27:08,340
reminder when you get to the mask

2156
04:27:13,849 --> 04:27:10,260
canister no sudden movements avoid

2157
04:27:13,859 --> 04:27:21,649
okay and I'm going via the apfr

2158
04:27:24,710 --> 04:27:23,510
yeah the cable bag is down on that

2159
04:27:26,269 --> 04:27:24,720
corner heading out towards the

2160
04:27:38,430 --> 04:27:26,279
Yellowstone Bank

2161
04:27:38,440 --> 04:27:41,929
[Applause]

2162
04:27:46,090 --> 04:27:44,090
Josh I'll let you go first

2163
04:27:49,250 --> 04:27:46,100

are you already there

2164

04:27:51,649 --> 04:27:49,260

yeah you're right here so why don't we

2165

04:27:54,349 --> 04:27:51,659

uh can I give you a hand yeah

2166

04:28:04,729 --> 04:27:54,359

I'm here to grab the uh

2167

04:28:04,739 --> 04:28:26,630

I see it over here on this side

2168

04:28:30,530 --> 04:28:29,269

I can do it under this uh both of these

2169

04:28:37,040 --> 04:28:30,540

eyes if you want

2170

04:28:37,050 --> 04:28:49,929

[Applause]

2171

04:28:57,670 --> 04:28:51,790

okay

2172

04:29:03,830 --> 04:28:59,290

utation

2173

04:29:08,269 --> 04:29:06,110

sorry dude I can just get it I didn't

2174

04:29:11,510 --> 04:29:08,279

realize it was on this close to me I got

2175

04:29:14,950 --> 04:29:11,520

it okay thank you so much

2176
04:29:29,630 --> 04:29:17,750
I am ready to it right now okay I'm

2177
04:29:33,710 --> 04:29:32,090
you are free from this head

2178
04:29:35,630 --> 04:29:33,720
thank you

2179
04:29:39,229 --> 04:29:35,640
ah

2180
04:29:41,349 --> 04:29:39,239
sorry why are fires are undone

2181
04:29:46,429 --> 04:29:41,359
wire tiger

2182
04:29:46,439 --> 04:29:50,570
I hear you

2183
04:29:50,580 --> 04:30:08,630
all right

2184
04:30:08,640 --> 04:30:28,620
oh wow

2185
04:30:28,630 --> 04:30:44,809
[Applause]

2186
04:31:24,790 --> 04:31:20,510
foreign

2187
04:31:30,950 --> 04:31:29,149
hour and 46 minutes into today's Eva or

2188
04:31:32,269 --> 04:31:30,960

spacewalk

2189

04:31:36,170 --> 04:31:32,279

where

2190

04:31:38,330 --> 04:31:36,180

Josh cassida ev1 and Frank Rubio ev2

2191

04:31:41,929 --> 04:31:38,340

are outside the station

2192

04:31:46,729 --> 04:31:43,729

to install

2193

04:31:55,170 --> 04:31:46,739

the 1B modification kit for future irosa

2194

04:31:58,250 --> 04:31:56,689

[Music]

2195

04:32:00,050 --> 04:31:58,260

they clear those cables that are just

2196

04:32:33,250 --> 04:32:00,060

here over your right shoulder I think so

2197

04:32:38,630 --> 04:32:36,710

Frank Rubio ev2

2198

04:32:42,769 --> 04:32:38,640

resonated on the right of your screen

2199

04:32:48,889 --> 04:32:44,929

has completed his first task of the day

2200

04:32:50,870 --> 04:32:48,899

which was the 3A irosa cable routing

2201
04:32:52,610 --> 04:32:50,880
and he's now met back up with Josh

2202
04:32:56,689 --> 04:32:52,620
cassida

2203
04:32:59,889 --> 04:32:56,699
as they head to the 1B Mass canister

2204
04:33:03,889 --> 04:32:59,899
Casita will remove the

2205
04:33:07,070 --> 04:33:03,899
1bh fixture which will be needed for the

2206
04:33:08,990 --> 04:33:07,080
duo to install the modification kit

2207
04:33:11,029 --> 04:33:09,000
again these

2208
04:33:14,929 --> 04:33:11,039
this modification kit

2209
04:33:17,929 --> 04:33:14,939
sets up future power upgrades by the

2210
04:33:31,320 --> 04:33:17,939
addition of an irosa or an ISS rollout

2211
04:33:37,510 --> 04:33:33,529
[Applause]

2212
04:33:39,890 --> 04:33:37,520
Fox open and I am ready for your words

2213
04:33:42,709 --> 04:33:39,900

okay nice work Frank you'll be

2214

04:33:44,810 --> 04:33:42,719

retrieving the silver PGT and staging it

2215

04:33:46,789 --> 04:33:44,820

on a nearby handrail for the upper

2216

04:33:52,350 --> 04:33:46,799

triangle assembly we recommend handrail

2217

04:33:58,131 --> 04:33:54,470

[Music]

2218

04:33:58,141 --> 04:34:03,690

three zero one two copy

2219

04:34:03,700 --> 04:34:09,470

[Applause]

2220

04:34:14,330 --> 04:34:11,750

you just heard ground IV NASA astronaut

2221

04:34:17,810 --> 04:34:14,340

and Cena Cardman to Frank Rubio about

2222

04:34:22,189 --> 04:34:17,820

stowage of the PGT and PGT is the pistol

2223

04:34:25,730 --> 04:34:22,199

grip tool and that will be used today to

2224

04:34:31,369 --> 04:34:25,740

assemble and install that upper triangle

2225

04:34:53,330 --> 04:34:31,379

or that triangle shaped modification kit

2226

04:34:53,340 --> 04:35:27,949

yes

2227

04:35:27,959 --> 04:35:36,849

foreign

2228

04:35:43,310 --> 04:35:39,949

that TBA bag on the Zenith stanchion of

2229

04:35:43,320 --> 04:35:46,490

okay thanks

2230

04:35:52,310 --> 04:35:48,590

the a-back is really hard to keep out of

2231

04:35:57,529 --> 04:35:54,590

yeah I see it got a little mind of its

2232

04:36:31,789 --> 04:35:59,449

I keep trying to tuck it under my chin

2233

04:36:37,730 --> 04:36:35,330

these units on the Zenith extension

2234

04:36:39,650 --> 04:36:37,740

perfect nice work

2235

04:36:41,150 --> 04:36:39,660

okay now that you've got that stowed you

2236

04:36:44,029 --> 04:36:41,160

can attach your mini workstation

2237

04:36:45,949 --> 04:36:44,039

adjustable from the h fixture to the

2238

04:36:48,051 --> 04:36:45,959

middle stanchion of the BGA handrail

2239

04:36:58,670 --> 04:36:48,061

leave some slack to avoid side loading

2240

04:37:03,109 --> 04:37:00,949

uh do you know I have the brackets on

2241

04:37:05,029 --> 04:37:03,119

our right side and I believe the upper

2242

04:37:06,709 --> 04:37:05,039

right

2243

04:37:09,230 --> 04:37:06,719

perfect yeah you're looking for the

2244

04:37:14,051 --> 04:37:09,240

upper right straps three and four that's

2245

04:37:18,470 --> 04:37:16,551

and for the mounting bracket you can

2246

04:37:22,310 --> 04:37:18,480

also keep it tethered to the bag and

2247

04:37:22,320 --> 04:38:15,230

copy thank you

2248

04:38:15,240 --> 04:38:20,289

okay I've got one end with adjustable on

2249

04:38:20,299 --> 04:38:28,070

metal expansion

2250

04:38:28,080 --> 04:38:33,189

perfect Josh

2251

04:38:33,199 --> 04:39:16,010

UA here in just a second

2252

04:39:16,020 --> 04:39:29,209

foreign

2253

04:39:33,769 --> 04:39:31,849

okay nice work all right so just

2254

04:39:37,430 --> 04:39:33,779

confirming you've got a adjustable from

2255

04:39:40,788 --> 04:39:37,440

the h fixture to the middle stanchion

2256

04:39:43,970 --> 04:39:40,798

that's exactly right and then the uh

2257

04:39:46,490 --> 04:39:43,980

teaching is to the Zenith future perfect

2258

04:39:49,190 --> 04:39:46,500

all right and leave slack in that

2259

04:39:50,208 --> 04:39:49,200

adjustable to avoid side loading got a

2260

04:39:52,010 --> 04:39:50,218

couple of notes here about those

2261

04:39:53,330 --> 04:39:52,020

Fairchild Fasteners you're about to work

2262

04:39:57,530 --> 04:39:53,340

with

2263

04:39:59,630 --> 04:39:57,540

um they uh can release of course

2264

04:40:02,448 --> 04:39:59,640

um the Springs May protrude when you

2265

04:40:04,490 --> 04:40:02,458

release them creating a sharp edge and

2266

04:40:06,110 --> 04:40:04,500

we'll be using Bravo 7 here which may

2267

04:40:07,850 --> 04:40:06,120

cause bolt failure so we'll be keeping

2268

04:40:09,410 --> 04:40:07,860

an eye out for that we'll have you

2269

04:40:12,050 --> 04:40:09,420

prepare your small trash bag for

2270

04:40:13,788 --> 04:40:12,060

possible failure pod release from Bolt

2271

04:40:17,890 --> 04:40:13,798

failure and let me know when you're

2272

04:40:23,810 --> 04:40:20,270

okay I'm getting fed up but I'll take

2273

04:40:25,670 --> 04:40:23,820

those settings now and copy that uh

2274

04:40:26,810 --> 04:40:25,680

broke up there a little bit but I

2275

04:40:28,730 --> 04:40:26,820

remember what we talked about with the

2276

04:40:31,190 --> 04:40:28,740

bolts and repair possible to fail but

2277

04:40:32,930 --> 04:40:31,200

there's Bravo 7. absolutely yeah you

2278

04:40:34,850 --> 04:40:32,940

guys are well studied you've got all the

2279

04:40:36,948 --> 04:40:34,860

words on the Fairchild Fasteners also a

2280

04:40:39,050 --> 04:40:36,958

reminder that H fixture can release from

2281

04:40:41,708 --> 04:40:39,060

the mounting plate with stored energy

2282

04:40:50,390 --> 04:40:41,718

your PGT settings will be Bravo 7

2283

04:40:55,910 --> 04:40:53,570

and understand order doesn't matter

2284

04:41:01,788 --> 04:40:55,920

that's exactly right you'll be doing

2285

04:41:05,448 --> 04:41:03,410

all right then I have that right upper

2286

04:41:07,368 --> 04:41:05,458

strut hand started to the bracket I'm

2287

04:41:10,750 --> 04:41:07,378

ready for the first uh PGT settings on

2288

04:41:13,550 --> 04:41:10,760

the silver TGT without

2289

04:41:18,190 --> 04:41:13,560

awesome nice work Frank PGT will be

2290

04:41:18,200 --> 04:41:27,590

coffee Bravo three clockwise Theory

2291

04:41:32,330 --> 04:41:29,708

yeah those are good settings

2292

04:41:37,090 --> 04:41:32,340

that's correct approximately four turns

2293

04:41:43,610 --> 04:41:40,490

currently seeing dual boxes the helmet

2294

04:41:46,610 --> 04:41:43,620

cams of ev1 Josh cassida on your left

2295

04:41:49,910 --> 04:41:46,620

and Frank Rubio on your right both have

2296

04:41:52,310 --> 04:41:49,920

a pistol grip tool in hand preparing to

2297

04:41:54,110 --> 04:41:52,320

do work

2298

04:41:57,650 --> 04:41:54,120

currently cassida is going to be

2299

04:42:01,788 --> 04:41:57,660

removing four bolts to remove the 1bh

2300

04:42:05,990 --> 04:42:01,798

fixture needed for the mounting bracket

2301
04:42:11,030 --> 04:42:08,330
and currently on the right we see Frank

2302
04:42:15,070 --> 04:42:11,040
Rubio who has the strut bag in hand

2303
04:42:17,750 --> 04:42:15,080
where he is continuing to build out

2304
04:42:19,490 --> 04:42:17,760
or put together assemble some of those

2305
04:42:21,708 --> 04:42:19,500
struts

2306
04:42:34,310 --> 04:42:21,718
before they can install it to the 1B

2307
04:42:34,320 --> 04:42:40,390
Xena 4 uh pkt

2308
04:42:47,090 --> 04:42:44,990
okay Josh yeah with you

2309
04:42:49,430 --> 04:42:47,100
so uh the first half of the test worked

2310
04:42:53,448 --> 04:42:49,440
I got a cal pass

2311
04:42:55,430 --> 04:42:53,458
the motor and uh it would just quickly

2312
04:42:57,590 --> 04:42:55,440
and show something just for a split

2313
04:42:59,270 --> 04:42:57,600

second and then go back to Cal pass

2314

04:43:02,090 --> 04:42:59,280

oh without hitting the trigger I'm

2315

04:43:05,030 --> 04:43:02,100

staring at LED tests the LEDs are

2316

04:43:07,368 --> 04:43:06,590

I'm gonna cycle the power and try it

2317

04:43:12,770 --> 04:43:07,378

again

2318

04:43:12,780 --> 04:43:17,690

Roger

2319

04:43:17,700 --> 04:43:24,288

and Josh that's actually a good config

2320

04:43:28,190 --> 04:43:26,750

without pulling the trigger probably oh

2321

04:43:32,150 --> 04:43:28,200

there's the battery voltage got it thank

2322

04:43:32,160 --> 04:43:41,628

perfect nice work Josh

2323

04:43:46,070 --> 04:43:43,690

okay Bravo seven

2324

04:43:48,110 --> 04:43:46,080

counterclockwise one

2325

04:43:50,090 --> 04:43:48,120

that's a good setting you're going

2326

04:43:53,628 --> 04:43:50,100

exactly one turn on all four of those

2327

04:43:53,638 --> 04:44:34,490

exactly one turn

2328

04:44:34,500 --> 04:45:16,788

all right

2329

04:45:16,798 --> 04:45:22,930

thank you

2330

04:45:31,490 --> 04:45:28,128

on Mike 17. uh Lena two

2331

04:45:33,770 --> 04:45:31,500

I'm doing well past the engage line and

2332

04:45:37,070 --> 04:45:33,780

trying to hand so they won't answer us

2333

04:45:39,230 --> 04:45:37,080

so um I'm gonna try to use the PGT can I

2334

04:45:41,868 --> 04:45:39,240

get those settings for the first terms

2335

04:45:50,868 --> 04:45:41,878

yeah absolutely it'll be Bravo One

2336

04:45:55,610 --> 04:45:53,448

and for m17 you'll be going six and a

2337

04:46:14,890 --> 04:45:55,620

half to nine turns to torque looking for

2338

04:46:20,690 --> 04:46:17,628

just checking you've got one turn on all

2339

04:46:25,128 --> 04:46:23,090

I'll make it I got one turn on the

2340

04:47:04,610 --> 04:46:25,138

bottom right

2341

04:47:04,620 --> 04:47:17,440

um

2342

04:47:17,450 --> 04:47:25,610

[Applause]

2343

04:47:31,128 --> 04:47:27,590

you know I have a

2344

04:47:33,230 --> 04:47:31,138

exactly nine turns green lights it looks

2345

04:47:36,170 --> 04:47:33,240

like uh

2346

04:47:40,490 --> 04:47:36,180

12 decimal zero

2347

04:47:43,788 --> 04:47:42,350

all right I'll get our correction that

2348

04:47:45,948 --> 04:47:43,798

would be a program talk the actual

2349

04:47:48,590 --> 04:47:45,958

torque is 11 decimal nine

2350

04:47:52,250 --> 04:47:48,600

perfect 11 decimal nine copy and nine

2351

04:47:56,050 --> 04:47:52,260

turns on m17 and just to confirm

2352

04:48:01,788 --> 04:47:58,788

all the way around

2353

04:48:03,948 --> 04:48:01,798

okay copy Frank you can release your ret

2354

04:48:06,530 --> 04:48:03,958

from the right upper stretch and I'll

2355

04:48:17,690 --> 04:48:06,540

have PGT settings for you next you guys

2356

04:48:17,700 --> 04:48:42,550

okay I am releasing the rut from the

2357

04:48:46,910 --> 04:48:45,050

hey guys sorry shorthand over there

2358

04:48:50,868 --> 04:48:46,920

Frank I think I heard you say you're

2359

04:48:56,030 --> 04:48:52,850

affirmative

2360

04:49:01,250 --> 04:48:56,040

okay perfect PGT settings for you next

2361

04:49:01,260 --> 04:49:23,868

level three clockwise two copy

2362

04:49:23,878 --> 04:50:06,310

foreign

2363

04:50:10,010 --> 04:50:08,570

if you're just joining us we're bringing

2364

04:50:12,948 --> 04:50:10,020

you live coverage today of the ninth

2365

04:50:14,270 --> 04:50:12,958

spacewalk of 2022 and the 254th

2366

04:50:16,850 --> 04:50:14,280

spacewalk in support of International

2367

04:50:25,010 --> 04:50:16,860

Space Station assembly maintenance and

2368

04:50:28,128 --> 04:50:26,868

yeah a firm once you get that alignment

2369

04:50:30,410 --> 04:50:28,138

tab in the groove on the mounting

2370

04:50:35,390 --> 04:50:30,420

bracket approximately four turns on mic

2371

04:50:45,288 --> 04:50:39,708

okay Xena I got one turn on all four

2372

04:50:47,750 --> 04:50:45,298

uh didn't see it uh they start uh

2373

04:50:49,910 --> 04:50:47,760

uh very slowly and then they give way so

2374

04:50:51,530 --> 04:50:49,920

it would kind of jump to the first half

2375

04:50:54,410 --> 04:50:51,540

of the turn

2376

04:50:56,090 --> 04:50:54,420

nice okay excellent work Josh that's

2377

04:50:58,250 --> 04:50:56,100

great info

2378

04:51:01,730 --> 04:50:58,260

and we'll have new PGT settings for you

2379

04:51:06,890 --> 04:51:04,010

I am ready

2380

04:51:12,770 --> 04:51:06,900

all right this will be Alpha six counter

2381

04:51:17,090 --> 04:51:14,750

then I have four turns on my 15 and my

2382

04:51:21,910 --> 04:51:17,100

16.

2383

04:51:25,490 --> 04:51:21,920

okay copy four turns on M15 and also M16

2384

04:51:27,650 --> 04:51:25,500

you'll be going to torque on M16 so now

2385

04:51:29,750 --> 04:51:27,660

we're expecting about 20 turns looking

2386

04:51:32,390 --> 04:51:29,760

for black line flush torque and green

2387

04:51:32,400 --> 04:51:39,050

okay I'm starting

2388

04:51:44,208 --> 04:51:40,970

that'll be still Bravo three o'clockwise

2389

04:51:47,990 --> 04:51:46,128

okay 503

2390

04:51:51,110 --> 04:51:48,000

clockwise to

2391

04:51:56,690 --> 04:51:51,120

rque on Mike 16.

2392

04:51:56,700 --> 04:52:01,788

one turn on the upper right

2393

04:52:01,798 --> 04:52:33,230

copy Josh

2394

04:52:38,750 --> 04:52:36,770

I did on my 16 I got 17 and a half turn

2395

04:52:42,170 --> 04:52:38,760

green light

2396

04:52:44,160 --> 04:52:42,180

18 decimal four torque

2397

04:52:45,350 --> 04:52:44,170

okay 18 decimal four

2398

04:52:47,868 --> 04:52:45,360

[Music]

2399

04:52:49,788 --> 04:52:47,878

on the torque and yep and that's the

2400

04:52:54,170 --> 04:52:49,798

same for programming actual

2401
04:52:55,670 --> 04:52:54,180
copy and 17 and a half turns on Mike 16.

2402
04:52:57,170 --> 04:52:55,680
did you get a green light we were

2403
04:53:01,368 --> 04:52:57,180
expecting two and a half additional

2404
04:53:06,770 --> 04:53:03,708
yeah and that might have been um

2405
04:53:08,330 --> 04:53:06,780
when I hand started it

2406
04:53:13,070 --> 04:53:08,340
um I probably put it full turn in there

2407
04:53:13,080 --> 04:53:16,010
yes

2408
04:53:16,020 --> 04:53:27,230
uh completely all the way around

2409
04:53:32,270 --> 04:53:29,270
okay Frank that's a good config on mic

2410
04:53:34,250 --> 04:53:32,280
16. next you'll be driving Mike 15 to

2411
04:54:05,330 --> 04:53:34,260
torque approximately 20 turns black line

2412
04:54:13,010 --> 04:54:07,550
two hours and nine minutes into today's

2413
04:54:15,708 --> 04:54:13,020

Eva currently we have ev1 Josh cassida

2414

04:54:17,570 --> 04:54:15,718

working on the H fixture removal at the

2415

04:54:20,448 --> 04:54:17,580

1B Mass canister

2416

04:54:24,170 --> 04:54:20,458

and we have Frank Rubio has finished his

2417

04:54:27,470 --> 04:54:24,180

first task which was the 3A irosa cable

2418

04:54:33,530 --> 04:54:30,350

uh 18 times green light 18 decimal four

2419

04:54:36,288 --> 04:54:33,540

torque and black line is

2420

04:54:40,070 --> 04:54:36,298

March all the way around

2421

04:54:44,208 --> 04:54:40,080

copy 18 decimal 4 torque 18 turns green

2422

04:54:50,470 --> 04:54:44,218

light and black line flush on Mike 15.

2423

04:54:55,910 --> 04:54:53,868

I recommend we don't do a full 11 if we

2424

04:55:00,310 --> 04:54:55,920

don't need it I can feel that it pops

2425

04:55:00,320 --> 04:55:21,650

copy Josh checking

2426

04:55:25,610 --> 04:55:23,628

okay Josh we're happy with that if the

2427

04:55:30,948 --> 04:55:25,620

bolts are popped out definitely no need

2428

04:55:30,958 --> 04:55:35,090

one louder

2429

04:55:35,100 --> 04:55:58,128

sorry about that movie later

2430

04:55:58,138 --> 04:56:05,448

I think I'm ready for the next step

2431

04:56:10,490 --> 04:56:07,850

okay Frank you can release your rep from

2432

04:56:11,990 --> 04:56:10,500

the left upper strut and next you'll be

2433

04:56:13,610 --> 04:56:12,000

torquing the right upper strut to the

2434

04:56:16,550 --> 04:56:13,620

mounting bracket I'll have PGT settings

2435

04:56:34,788 --> 04:56:19,670

okay left upper struts that is removed

2436

04:56:42,890 --> 04:56:39,650

okay I am at my 13 and 14.

2437

04:56:48,590 --> 04:56:42,900

okay perfect your PGT will be Bravo 3

2438

04:56:48,600 --> 04:56:54,250

50

2439

04:56:59,990 --> 04:56:56,868

all right you'll be going to torque on

2440

04:57:30,590 --> 04:57:00,000

M13 and M14 approximately 20 turns black

2441

04:57:36,830 --> 04:57:32,810

okay Xenon I've got four there popped

2442

04:57:50,350 --> 04:57:39,770

copy that sounds like a good plan and

2443

04:57:58,190 --> 04:57:54,948

on my uh 13. I have

2444

04:58:00,230 --> 04:57:58,200

18 turns green lights 18 decimal four

2445

04:58:02,810 --> 04:58:00,240

torque and black line is flush all

2446

04:58:10,510 --> 04:58:05,510

okay copy 18 decimal four for the torque

2447

04:58:10,520 --> 04:58:34,010

uh starting Mike 14.

2448

04:58:40,010 --> 04:58:35,510

Peter do you want me to try it without

2449

04:58:47,570 --> 04:58:41,868

yeah you can try it by pulling on the

2450

04:58:47,580 --> 04:58:54,230

well we need too much

2451

04:59:02,330 --> 04:58:56,690

that is not unexpected sounds like a

2452

04:59:09,470 --> 04:59:06,650

you know on March 14th uh 17 times green

2453

04:59:11,390 --> 04:59:09,480

lights 18 000 for uh crashing 18

2454

04:59:14,150 --> 04:59:11,400

decimals two on the third

2455

04:59:16,670 --> 04:59:14,160

okay copy 18 decimal two torque on our

2456

04:59:19,250 --> 04:59:16,680

Block 17 turns green light and is that

2457

04:59:21,530 --> 04:59:19,260

black one flush

2458

04:59:44,628 --> 04:59:21,540

yeah it's all around

2459

04:59:48,530 --> 04:59:46,550

okay Frank we're happy with those bolts

2460

04:59:50,090 --> 04:59:48,540

you can install the pit pin from the

2461

04:59:53,448 --> 04:59:50,100

upper left strut to the grounding block

2462

04:59:53,458 --> 05:00:08,448

happy endorse

2463

05:00:15,050 --> 05:00:12,110

and I've done been throwing tags with uh

2464

05:00:17,270 --> 05:00:15,060

washer above the defense

2465

05:00:19,430 --> 05:00:17,280

perfect Frank install the left upper

2466

05:00:30,530 --> 05:00:19,440

strut mli on the center pad covering the

2467

05:00:30,540 --> 05:00:35,030

beautiful guys

2468

05:00:35,040 --> 05:00:50,270

okay copy that's a good config

2469

05:03:28,190 --> 05:00:53,570

okay then for Next Step week

2470

05:03:32,270 --> 05:03:29,628

you know I'm going to keep working on

2471

05:03:34,850 --> 05:03:32,280

these wedges

2472

05:03:36,190 --> 05:03:34,860

you can see it nice

2473

05:03:39,530 --> 05:03:36,200

yeah

2474

05:03:40,970 --> 05:03:39,540

good view of it in your hecka Josh

2475

05:03:43,190 --> 05:03:40,980

um reminder that you've also got the

2476

05:03:44,990 --> 05:03:43,200

pliers if you need a little bit of extra

2477

05:03:48,730 --> 05:03:45,000

leverage to get the wedges in place but

2478

05:03:54,948 --> 05:03:50,990

there's just not a lot of clearance here

2479

05:03:54,958 --> 05:03:58,910

a firm we have

2480

05:04:04,010 --> 05:04:01,670

oh you push the Flyers

2481

05:04:06,470 --> 05:04:04,020

in place of the wedges or use the pliers

2482

05:04:29,448 --> 05:04:06,480

to push the wedges

2483

05:04:29,458 --> 05:05:03,288

that's what we'll have to do

2484

05:05:07,730 --> 05:05:05,208

hey Josh we're seeing that those wedges

2485

05:05:10,730 --> 05:05:07,740

are in place so skip the pliers for now

2486

05:05:12,650 --> 05:05:10,740

you can go ahead and try tugging to see

2487

05:05:17,990 --> 05:05:12,660

if the H fixture will come off and if

2488

05:05:18,000 --> 05:05:20,948

okay

2489

05:05:27,708 --> 05:05:25,368

I can give it a little bit of oops right

2490

05:05:30,770 --> 05:05:27,718

just don't overdo it and don't don't do

2491

05:05:35,750 --> 05:05:33,350

that's correct yeah and uh if you're

2492

05:05:38,208 --> 05:05:35,760

using the combo wrench then yeah don't

2493

05:05:40,250 --> 05:05:38,218

don't pull too hard and wait a couple of

2494

05:05:45,410 --> 05:05:40,260

wait a while in between removal attempts

2495

05:05:48,650 --> 05:05:47,510

I'll start without the combo wrench

2496

05:06:16,310 --> 05:05:48,660

right

2497

05:06:22,570 --> 05:06:19,610

we currently have helmet cam views as

2498

05:06:26,448 --> 05:06:22,580

Josh Castle the ev1

2499

05:06:34,310 --> 05:06:26,458

tries to free and remove the H fixture

2500

05:06:38,650 --> 05:06:37,010

okay so you saw me pulling pretty good

2501
05:06:42,650 --> 05:06:38,660
there

2502
05:06:45,170 --> 05:06:42,660
she is not coming off

2503
05:06:46,610 --> 05:06:45,180
happy to pull harder but I don't know I

2504
05:06:48,890 --> 05:06:46,620
don't know if the combo wrist is gonna

2505
05:06:51,230 --> 05:06:48,900
pull harder than I think it is a little

2506
05:06:53,030 --> 05:06:51,240
harder than I am yeah copy Josh let's go

2507
05:06:56,868 --> 05:06:53,040
ahead and try the combo wrench just for

2508
05:07:06,110 --> 05:06:56,878
some additional uh mechanical advantage

2509
05:07:06,120 --> 05:07:24,910
the center pad is that right that Target

2510
05:07:29,690 --> 05:07:27,470
has used its pistol grip tool to

2511
05:07:32,690 --> 05:07:29,700
untighten and remove all four bolts and

2512
05:07:35,270 --> 05:07:32,700
now he will use the combo wrench to pry

2513
05:07:45,410 --> 05:07:35,280

the eggs fixture away from the GSE pad

2514

05:07:49,730 --> 05:07:46,970

you know you can't get the question

2515

05:07:51,890 --> 05:07:49,740

about the combo Rift

2516

05:07:53,990 --> 05:07:51,900

yeah we do

2517

05:07:55,250 --> 05:07:54,000

um you're gonna put it into the H

2518

05:07:58,070 --> 05:07:55,260

fixture

2519

05:08:04,550 --> 05:07:58,080

with the handle pointing away from the

2520

05:08:04,560 --> 05:08:08,990

exactly

2521

05:08:13,788 --> 05:08:11,150

yeah that looks good and then you'll be

2522

05:08:15,350 --> 05:08:13,798

prying away from the mask canister away

2523

05:08:17,030 --> 05:08:15,360

from the tether point

2524

05:08:18,770 --> 05:08:17,040

right

2525

05:08:40,128 --> 05:08:18,780

it actually doesn't

2526

05:08:44,810 --> 05:08:41,570

confirm that we're all happy with these

2527

05:08:49,190 --> 05:08:47,208

yeah Josh if they're all popped out then

2528

05:08:51,110 --> 05:08:49,200

we are happy with those bolts we are now

2529

05:08:52,610 --> 05:08:51,120

second guessing what we uh thought about

2530

05:08:55,610 --> 05:08:52,620

the

2531

05:08:57,170 --> 05:08:55,620

uh wedges being fully in so sorry about

2532

05:08:58,730 --> 05:08:57,180

that maybe you do need to grab the

2533

05:09:01,250 --> 05:08:58,740

pliers and we'll try pushing them in a

2534

05:09:06,470 --> 05:09:03,770

okay you confirm that this is what you

2535

05:09:08,390 --> 05:09:06,480

expect for a popped out bolt

2536

05:09:27,590 --> 05:09:08,400

happy to put more turns on these if you

2537

05:09:34,190 --> 05:09:30,410

yeah about uh

2538

05:10:40,250 --> 05:09:36,230

okay copy yeah that's a good config on

2539

05:10:40,260 --> 05:10:46,970

uh

2540

05:10:46,980 --> 05:11:04,910

all right

2541

05:11:09,230 --> 05:11:07,310

after the combo wrench failed to release

2542

05:11:12,050 --> 05:11:09,240

the H fixture

2543

05:11:14,868 --> 05:11:12,060

we're now moved on to the set of pliers

2544

05:11:17,510 --> 05:11:14,878

which will be used to push in the wedges

2545

05:11:20,030 --> 05:11:17,520

further underneath the H fixture to

2546

05:12:02,330 --> 05:11:20,040

release it from that GSE pad again

2547

05:12:02,340 --> 05:12:20,448

ah

2548

05:12:20,458 --> 05:13:17,750

all right

2549

05:13:21,410 --> 05:13:19,150

foreign

2550

05:13:23,448 --> 05:13:21,420

you've got a good moment we can have you

2551

05:13:25,850 --> 05:13:23,458

go ahead and move the silver PGT from

2552

05:13:31,250 --> 05:13:25,860

the strut bag to the with X handrail and

2553

05:13:31,260 --> 05:13:34,490

okay

2554

05:13:38,448 --> 05:13:36,470

from here to the

2555

05:13:40,550 --> 05:13:38,458

600.

2556

05:13:46,010 --> 05:13:40,560

perfect yep and use that rep for the

2557

05:13:51,948 --> 05:13:48,410

okay copy um I actually have it on the

2558

05:13:57,590 --> 05:13:54,770

yeah bring the rep from the bag with the

2559

05:13:59,270 --> 05:13:57,600

PGT as well as the adjustable

2560

05:14:47,830 --> 05:13:59,280

and then use the red to the with X

2561

05:14:47,840 --> 05:14:52,250

that looks great Josh

2562

05:14:56,810 --> 05:14:55,070

already use your tool backwards below is

2563

05:14:58,208 --> 05:14:56,820

going to get in there

2564

05:15:01,070 --> 05:14:58,218

thank you

2565

05:15:04,550 --> 05:15:01,080

we'd love to see it okay a lot of us

2566

05:15:10,910 --> 05:15:07,730

let's put some stuff away

2567

05:15:14,448 --> 05:15:10,920

and that was a successful removal of the

2568

05:15:17,510 --> 05:15:14,458

H fixture on the 1B Mass canister

2569

05:15:20,030 --> 05:15:17,520

by Josh cassida he's now returning it

2570

05:15:23,270 --> 05:15:20,040

along with some tools back into his Oru

2571

05:15:27,650 --> 05:15:23,280

or his tool bag

2572

05:15:30,830 --> 05:15:27,660

from here he will join ev2

2573

05:15:33,110 --> 05:15:30,840

which is shrink Rubio

2574

05:15:35,930 --> 05:15:33,120

to help Finish the build out for the

2575

05:16:26,690 --> 05:15:35,940

upper triangle for the modification kit

2576

05:16:39,890 --> 05:16:28,730

and hey Josh before you Stow that H

2577

05:16:44,390 --> 05:16:41,810

we do also want an inspection of the

2578

05:16:46,310 --> 05:16:44,400

bolt on the H fixture if you can press

2579

05:16:48,230 --> 05:16:46,320

the bolts through the H fixture to

2580

05:16:52,010 --> 05:16:48,240

reveal the threads inspect for galling

2581

05:17:02,628 --> 05:16:53,270

all right

2582

05:17:06,410 --> 05:17:04,550

Nina what did you want holding the PCT

2583

05:17:09,830 --> 05:17:06,420

to the uh

2584

05:17:13,610 --> 05:17:09,840

okay use the rep that was on the bag

2585

05:17:16,970 --> 05:17:15,590

okay but you want the adjustable to stay

2586

05:17:24,170 --> 05:17:16,980

with us all right

2587

05:17:29,990 --> 05:17:26,208

all right so I was able to put all four

2588

05:17:31,250 --> 05:17:30,000

through uh no calling uh a little bit of

2589

05:17:34,310 --> 05:17:31,260

the uh

2590

05:17:35,750 --> 05:17:34,320

gray material that we kind of expected I

2591

05:17:37,550 --> 05:17:35,760

think you're gonna see that when I go

2592

05:17:40,628 --> 05:17:37,560

over to the plate just a couple specks

2593

05:17:46,368 --> 05:17:43,368

copy Josh and yeah we'll also take an

2594

05:17:48,530 --> 05:17:46,378

infection of the GSE pad for fod making

2595

05:17:50,510 --> 05:17:48,540

sure the insets are recessed relative to

2596

05:17:53,330 --> 05:17:50,520

the GSE pad and that the threads are

2597

05:18:12,450 --> 05:17:53,340

clear and undamaged

2598

05:18:19,310 --> 05:18:14,030

[Music]

2599

05:18:21,830 --> 05:18:19,320

he just is over on the horrific Center

2600

05:18:24,470 --> 05:18:21,840

nice work Frank thank you and we'll have

2601
05:18:26,810 --> 05:18:24,480
you uh head back over and get ready with

2602
05:18:29,510 --> 05:18:26,820
the upper triangle once Josh is in the

2603
05:18:29,520 --> 05:19:02,350
okay

2604
05:19:02,360 --> 05:19:11,150
[Applause]

2605
05:19:15,050 --> 05:19:12,830
all right Frank just give me a minute to

2606
05:19:17,160 --> 05:19:15,060
get cleaned up here and then uh and she

2607
05:19:23,330 --> 05:19:17,170
takes a couple photos

2608
05:19:44,390 --> 05:19:31,410
[Applause]

2609
05:19:48,050 --> 05:19:46,550
all right I'm ready to the adjustable

2610
05:19:51,230 --> 05:19:48,060
that's got the H fixture on it I'm

2611
05:19:55,128 --> 05:19:51,240
removing the trickster adjustable

2612
05:20:01,430 --> 05:19:57,650
each other point as the

2613
05:20:01,440 --> 05:20:06,110

nice that sounds like a good plan Josh

2614

05:20:06,120 --> 05:20:24,910

no I'm taking my rip back

2615

05:20:31,128 --> 05:20:27,110

if you're just joining us we're two

2616

05:20:32,510 --> 05:20:31,138

hours and 35 minutes into 254th

2617

05:20:33,948 --> 05:20:32,520

spacewalk in support of the

2618

05:20:45,948 --> 05:20:33,958

International Space Station assembly

2619

05:20:50,690 --> 05:20:49,070

eav1 Josh Casada has removed the 1bh

2620

05:20:53,448 --> 05:20:50,700

fixture

2621

05:20:55,310 --> 05:20:53,458

so you want to make sure the folds are

2622

05:20:56,390 --> 05:20:55,320

not I'm sorry the receptacles are not

2623

05:20:58,368 --> 05:20:56,400

flush

2624

05:21:00,470 --> 05:20:58,378

the face of the pad is that correct yeah

2625

05:21:02,750 --> 05:21:00,480

we want them recessed relative to the

2626

05:21:09,948 --> 05:21:05,448

awesome four for four on that

2627

05:21:13,850 --> 05:21:09,958

um I've got sweet so evidence of galling

2628

05:21:18,110 --> 05:21:13,860

and I'll take a couple photos but

2629

05:21:22,128 --> 05:21:20,030

that's great news yeah we'll definitely

2630

05:21:23,810 --> 05:21:22,138

take those photos and then any of the

2631

05:21:28,190 --> 05:21:23,820

mli that you moved out of the way just

2632

05:21:28,200 --> 05:21:37,910

that's good

2633

05:21:41,990 --> 05:21:39,830

funny I had moved

2634

05:21:48,650 --> 05:21:42,000

um there's a better View

2635

05:21:48,660 --> 05:22:12,948

that looks great Josh

2636

05:22:17,208 --> 05:22:15,530

I'm guessing your photo it's been more

2637

05:22:20,330 --> 05:22:17,218

fun than mine

2638

05:22:24,170 --> 05:22:21,970

uh you know

2639

05:22:26,448 --> 05:22:24,180

I haven't had a chance to take too many

2640

05:22:27,830 --> 05:22:26,458

I took a few but just enjoying the view

2641

05:22:30,230 --> 05:22:27,840

too

2642

05:22:32,628 --> 05:22:30,240

which let me know how I can help I'm

2643

05:22:36,530 --> 05:22:32,638

just gonna snap a couple photos here

2644

05:22:39,708 --> 05:22:38,330

you were like completely covered by the

2645

05:22:57,050 --> 05:22:39,718

mass canister so I just haven't had a

2646

05:23:02,810 --> 05:23:00,830

and hey Josh one go back on that mli

2647

05:23:05,810 --> 05:23:02,820

um there's kind of a

2648

05:23:07,550 --> 05:23:05,820

thinner piece that goes between the

2649

05:23:14,270 --> 05:23:07,560

larger mli blankets that actually needs

2650

05:23:21,830 --> 05:23:17,170

that's the way I found it correct

2651

05:23:25,550 --> 05:23:24,110

I'll get on it all right

2652

05:23:41,090 --> 05:23:25,560

we're gonna take the photos first so

2653

05:23:45,350 --> 05:23:43,250

I'm sorry I'm looking right into the Sun

2654

05:23:48,190 --> 05:23:45,360

so I tell those kind of pictures I'm

2655

05:23:57,890 --> 05:23:50,390

no problem we've got a great view in

2656

05:23:57,900 --> 05:24:10,250

that is a beautiful rabbit Frank

2657

05:24:10,260 --> 05:24:13,970

that's awesome

2658

05:24:13,980 --> 05:24:38,930

should do all of your farm animals

2659

05:24:42,350 --> 05:24:41,208

again if you're currently just joining

2660

05:24:44,390 --> 05:24:42,360

us you're

2661

05:24:47,868 --> 05:24:44,400

we are two hours and 40 minutes into

2662

05:24:47,878 --> 05:24:54,110

okay

2663

05:25:08,390 --> 05:24:55,040

that should be pretty quick

2664

05:25:13,970 --> 05:25:11,810

play international Josh cassida and

2665

05:25:17,330 --> 05:25:13,980

Frank Rubio have ventured outside of the

2666

05:25:19,910 --> 05:25:17,340

Hedge today to perform to assemble and

2667

05:25:21,470 --> 05:25:19,920

install a modification kit for future

2668

05:25:27,490 --> 05:25:21,480

irosa

2669

05:25:33,350 --> 05:25:30,770

both Josh and Frank have finished their

2670

05:25:35,628 --> 05:25:33,360

first test today

2671

05:25:39,410 --> 05:25:35,638

Josh finished the removal of the H

2672

05:25:39,420 --> 05:25:44,030

Frank I haven't seen him today

2673

05:25:44,040 --> 05:25:50,390

run into each other it's my time

2674

05:25:53,448 --> 05:25:51,948

all right uh if you're happy with that

2675

05:25:58,910 --> 05:25:53,458

I'm going to uh

2676
05:26:04,128 --> 05:26:01,970
that sounds perfect and Josh you can go

2677
05:26:10,250 --> 05:26:04,138
ahead and also pass the TBA bag off to

2678
05:26:10,260 --> 05:26:32,090
happily

2679
05:26:36,708 --> 05:26:34,970
all right I'm ready for the TBA bag I

2680
05:26:38,330 --> 05:26:36,718
think I'm going to not tuck it behind my

2681
05:26:40,368 --> 05:26:38,340
mini workstation if everyone's okay with

2682
05:26:43,550 --> 05:26:40,378
that it just goes right in my face the

2683
05:26:43,560 --> 05:26:49,190
oh yeah we see that

2684
05:26:58,870 --> 05:26:52,070
hey Josh I'll see through the apfr to

2685
05:26:58,880 --> 05:27:02,030
[Applause]

2686
05:27:06,650 --> 05:27:04,788
after completion of the removal of the

2687
05:27:08,628 --> 05:27:06,660
age fixture

2688
05:27:11,150 --> 05:27:08,638

Josh Castle is now heading back to the

2689

05:27:14,930 --> 05:27:11,160

1B Mass canister to

2690

05:27:18,050 --> 05:27:14,940

to Franco Rubio where he will

2691

05:27:22,850 --> 05:27:18,060

hand off the build out of the upper

2692

05:27:27,770 --> 05:27:24,708

while in the

2693

05:27:30,890 --> 05:27:27,780

articulating portable foot restraint

2694

05:27:32,810 --> 05:27:30,900

Josh cassida and Frank Rubio will

2695

05:27:35,270 --> 05:27:32,820

install

2696

05:27:55,930 --> 05:27:35,280

the upper triangle and the lower struts

2697

05:28:58,670 --> 05:28:29,690

all right

2698

05:28:58,680 --> 05:29:02,700

okay Frank

2699

05:29:02,710 --> 05:29:12,110

[Applause]

2700

05:29:12,120 --> 05:29:25,788

sounded your way just like in mode one I

2701

05:29:33,730 --> 05:29:28,850

thought okay and I see uh

2702

05:29:38,690 --> 05:29:36,590

if you want to release your or do you

2703

05:29:40,190 --> 05:29:38,700

want me to release

2704

05:29:41,208 --> 05:29:40,200

yeah I'll get my red back if you don't

2705

05:29:43,250 --> 05:29:41,218

mind

2706

05:29:44,810 --> 05:29:43,260

uh I got it and then just let me know

2707

05:29:48,708 --> 05:29:44,820

when you're ready

2708

05:29:59,150 --> 05:29:50,690

your rent is disconnected coming back at

2709

05:30:04,070 --> 05:30:01,190

all right Tina understand after all that

2710

05:30:06,110 --> 05:30:04,080

I'm hopping in the apfr is that correct

2711

05:30:08,868 --> 05:30:06,120

yeah that's correct Frank contempts to

2712

05:30:10,490 --> 05:30:08,878

that TBA bag you can hop in the apfr and

2713

05:30:14,450 --> 05:30:10,500

we'll take a glove hap and Gauntlet

2714

05:30:19,730 --> 05:30:17,030

[Applause]

2715

05:30:41,288 --> 05:30:19,740

and if I do that after the apfr

2716

05:30:46,070 --> 05:30:44,030

you know I have no changes on my right

2717

05:30:49,730 --> 05:30:46,080

or my left gloves

2718

05:30:55,070 --> 05:30:49,740

almost above ground so I have

2719

05:30:55,080 --> 05:30:59,628

feels wobbly

2720

05:31:04,190 --> 05:31:03,110

I see black on black I see black on

2721

05:31:06,948 --> 05:31:04,200

black

2722

05:31:09,830 --> 05:31:06,958

a couple good pull twister

2723

05:31:16,550 --> 05:31:09,840

pop it in

2724

05:31:20,570 --> 05:31:18,470

for me the Ingress

2725

05:31:22,250 --> 05:31:20,580

Josh we're ready here go to Ingress and

2726

05:31:47,288 --> 05:31:22,260

that's expected we've seen similar

2727

05:31:53,030 --> 05:31:49,850

currently seeing great views of both

2728

05:31:57,650 --> 05:31:54,830

on the right hand side you see Josh

2729

05:31:59,750 --> 05:31:57,660

cassida ev1 in the suit with the red

2730

05:32:02,390 --> 05:31:59,760

stripes and on the left of your screen

2731

05:32:06,288 --> 05:32:02,400

with the triangle build out we see

2732

05:32:10,090 --> 05:32:06,298

Franco Rubio in the unmarked two

2733

05:32:13,310 --> 05:32:10,100

Josh cassida is preparing to Ingress the

2734

05:32:14,930 --> 05:32:13,320

apfr or the articulating portable foot

2735

05:32:18,470 --> 05:32:14,940

restraint

2736

05:32:20,208 --> 05:32:18,480

he and will then use the pistol grip

2737

05:32:23,690 --> 05:32:20,218

tool to

2738

05:32:26,750 --> 05:32:23,700

install that upper triangle to the 1B

2739

05:33:49,330 --> 05:33:22,610

all right

2740

05:33:54,350 --> 05:33:51,890

put them bring your left foot just

2741

05:33:55,150 --> 05:33:54,360

before we left well then give you one

2742

05:33:58,128 --> 05:33:55,160

second

2743

05:34:00,510 --> 05:33:58,138

thank you though

2744

05:34:05,868 --> 05:34:00,520

I see not into the

2745

05:34:11,860 --> 05:34:07,250

oh yeah I don't have a great view of

2746

05:34:11,870 --> 05:34:17,930

[Applause]

2747

05:34:17,940 --> 05:34:22,850

it feels like the orientation changed

2748

05:34:22,860 --> 05:34:40,490

just wobbly

2749

05:34:40,500 --> 05:35:42,230

orientation

2750

05:35:42,240 --> 05:36:15,530

all right

2751
05:36:15,540 --> 05:36:56,090
uh

2752
05:36:56,100 --> 05:37:59,448
foreign

2753
05:38:04,070 --> 05:38:01,190
okay thanks

2754
05:38:06,170 --> 05:38:04,080
got two in

2755
05:38:07,850 --> 05:38:06,180
all right good job and can you visually

2756
05:38:09,770 --> 05:38:07,860
see it as well

2757
05:38:11,030 --> 05:38:09,780
I could definitely see that your toes

2758
05:38:17,110 --> 05:38:11,040
are in I cannot see the back of your

2759
05:38:23,810 --> 05:38:20,750
right now it doesn't look like it

2760
05:38:33,110 --> 05:38:27,530
nice job

2761
05:38:38,030 --> 05:38:33,120
you're ready we can pass off that uh

2762
05:38:41,570 --> 05:38:40,010
I am ready

2763
05:38:43,610 --> 05:38:41,580

um I think I might have gotten a notch a

2764

05:38:45,110 --> 05:38:43,620

roll in there or it's just really wobbly

2765

05:38:46,310 --> 05:38:45,120

but either way I think I can still get

2766

05:38:50,810 --> 05:38:46,320

it installed

2767

05:38:58,850 --> 05:38:52,850

are you passing it to me yeah

2768

05:39:03,590 --> 05:39:02,090

suffer let me know when you have the uh

2769

05:39:06,530 --> 05:39:03,600

don't take it too far because I'll have

2770

05:39:06,540 --> 05:39:10,670

uh are we doing a red thought

2771

05:39:19,250 --> 05:39:13,788

um do you think you've got it um it's

2772

05:39:21,830 --> 05:39:20,690

yeah it looks like you might be able to

2773

05:39:23,868 --> 05:39:21,840

research

2774

05:39:25,670 --> 05:39:23,878

let's see how large

2775

05:39:28,070 --> 05:39:25,680

you know I don't remember reps off as

2776

05:39:30,530 --> 05:39:28,080

part of this is that the plan

2777

05:39:32,448 --> 05:39:30,540

negative on the red swap for this

2778

05:39:33,890 --> 05:39:32,458

are you on me if you're farther

2779

05:39:36,410 --> 05:39:33,900

Frank

2780

05:39:39,070 --> 05:39:36,420

I'm not but I have uh control whenever

2781

05:39:41,810 --> 05:39:39,080

you can release it I cannot control

2782

05:39:43,010 --> 05:39:41,820

so you're not on the apfi right now I

2783

05:39:45,128 --> 05:39:43,020

don't know I don't know about the bag

2784

05:39:48,890 --> 05:39:45,138

okay so it's uh

2785

05:39:52,010 --> 05:39:48,900

yeah right there

2786

05:39:52,930 --> 05:39:52,020

I can

2787

05:39:59,628 --> 05:39:52,940

um

2788

05:40:04,490 --> 05:40:02,570

uh yeah it is wobbly but it looks stable

2789

05:40:09,650 --> 05:40:04,500

everything all the connections that I

2790

05:40:28,670 --> 05:40:12,590

and I'm in too close

2791

05:40:35,750 --> 05:40:31,070

all right Xenon I understand I lead with

2792

05:40:37,550 --> 05:40:35,760

the left side and roll on the right

2793

05:40:49,730 --> 05:40:37,560

that's correct you'll engage the left

2794

05:40:54,110 --> 05:40:51,890

all right I got an arrow up I've got to

2795

05:40:58,368 --> 05:40:54,120

engage on the left

2796

05:40:58,378 --> 05:41:05,150

even on the right

2797

05:41:08,448 --> 05:41:06,590

that should be pretty straightforward is

2798

05:41:10,850 --> 05:41:08,458

that right you know

2799

05:41:13,430 --> 05:41:10,860

that should be pretty straightforward if

2800

05:41:15,350 --> 05:41:13,440

you get the left engaged then you can

2801
05:41:21,650 --> 05:41:15,360
try kind of wiggling the right side up

2802
05:41:21,660 --> 05:41:24,910
okay

2803
05:41:24,920 --> 05:41:43,550
oh I see because you're seeing

2804
05:41:48,650 --> 05:41:45,410
you got it

2805
05:41:51,650 --> 05:41:48,660
nice work that's great okay we'll have

2806
05:42:03,050 --> 05:41:51,660
PGT settings for you but first let's get

2807
05:42:03,060 --> 05:42:09,650
okay gloves

2808
05:42:13,730 --> 05:42:12,050
no changes to

2809
05:42:15,170 --> 05:42:13,740
to we've got a little orange on my left

2810
05:42:18,470 --> 05:42:15,180
middle finger

2811
05:42:21,590 --> 05:42:18,480
and my left index finger

2812
05:42:26,708 --> 05:42:23,448
half is still dry and gauntlets are

2813
05:42:33,830 --> 05:42:30,590

okay copy that Josh and when you're

2814

05:42:40,090 --> 05:42:33,840

ready PGT will be Alpha two clockwise

2815

05:42:40,100 --> 05:42:52,448

Alpha two o'clock

2816

05:42:57,170 --> 05:42:55,310

after increasing the apfr or that

2817

05:42:59,930 --> 05:42:57,180

articulating portable foot restraint

2818

05:43:03,550 --> 05:42:59,940

Josh cassida has received the upper

2819

05:43:05,750 --> 05:43:03,560

triangle from Frank Rubio he has now

2820

05:43:09,110 --> 05:43:05,760

installed the center pad on the mass

2821

05:43:12,230 --> 05:43:09,120

canister and he's now getting the PGT or

2822

05:43:15,770 --> 05:43:12,240

that pistol grip tool configuration to

2823

05:43:19,250 --> 05:43:15,780

tighten the bolts and into place

2824

05:43:20,448 --> 05:43:19,260

for that upper triangle

2825

05:43:24,410 --> 05:43:20,458

and Josh you can

2826

05:43:26,868 --> 05:43:24,420

you can start M5 through m85

2827

05:43:29,208 --> 05:43:26,878

perfect you'll be going about two turns

2828

05:43:34,910 --> 05:43:29,218

on each of those so I got a prize

2829

05:43:41,510 --> 05:43:37,610

m

2830

05:43:47,390 --> 05:43:41,520

total of two and a half now

2831

05:43:47,400 --> 05:43:52,128

um

2832

05:43:56,270 --> 05:43:54,470

all right

2833

05:43:59,270 --> 05:43:56,280

hey Josh you broke up a little bit there

2834

05:44:09,550 --> 05:43:59,280

we copied two turns on M5 and I didn't

2835

05:44:09,560 --> 05:45:02,390

[Applause]

2836

05:45:06,590 --> 05:45:03,890

foreign

2837

05:45:08,990 --> 05:45:06,600

for you you'll be getting the left mid

2838

05:45:22,190 --> 05:45:09,000

strut from straps nine and ten ready to

2839

05:45:25,610 --> 05:45:24,530

and uh which end do I need to get them

2840

05:45:27,470 --> 05:45:25,620

first

2841

05:45:29,690 --> 05:45:27,480

you'll be passing off the clevis end

2842

05:45:32,270 --> 05:45:29,700

toward Josh and Josh I see you've got

2843

05:45:37,910 --> 05:45:32,280

the PGT out we haven't copied any of the

2844

05:45:42,590 --> 05:45:40,250

so we have two and a half on M5 we've

2845

05:45:44,330 --> 05:45:42,600

got one on each of the others

2846

05:45:45,170 --> 05:45:44,340

so now I'm gonna get it to a total of

2847

05:45:55,080 --> 05:45:45,180

two

2848

05:45:59,150 --> 05:45:57,530

[Applause]

2849

05:46:01,670 --> 05:45:59,160

two and I'm eight

2850

05:46:06,530 --> 05:46:01,680

or a total or two copy total of two on

2851

05:46:20,570 --> 05:46:09,470

six

2852

05:46:25,850 --> 05:46:23,330

copy total of two on M7 next you can

2853

05:46:34,430 --> 05:46:25,860

drive those four bolts to torque five to

2854

05:46:34,440 --> 05:46:40,730

going into tour time Alpha two

2855

05:46:40,740 --> 05:46:43,730

foreign

2856

05:46:43,740 --> 05:46:48,530

good settings

2857

05:46:48,540 --> 05:46:54,350

turns on M5

2858

05:47:19,310 --> 05:46:56,390

I'm sure why but if you keep this

2859

05:47:19,320 --> 05:47:25,128

quick Handover coming up guys

2860

05:47:25,138 --> 05:47:51,590

coffee thanks coffee thank you

2861

05:47:55,730 --> 05:47:53,628

we're currently in a brief Handover

2862

05:48:07,850 --> 05:47:55,740

between satellites

2863

05:48:07,860 --> 05:48:15,948

zero decimal two on M5

2864

05:48:20,330 --> 05:48:17,930

eight decimal two okay that sounds

2865

05:48:26,868 --> 05:48:24,470

awesome all right certain turns on M8

2866

05:48:38,208 --> 05:48:26,878

and stand by one can we double check the

2867

05:48:45,770 --> 05:48:41,810

my apologies left off the six

2868

05:48:56,090 --> 05:48:49,368

how do you want me to back off M5

2869

05:49:05,208 --> 05:48:57,470

if you want I'll continue with them

2870

05:49:10,310 --> 05:49:07,368

okay Josh actually we do want you to

2871

05:49:13,128 --> 05:49:10,320

back off of M5 and then we'll reset with

2872

05:49:18,170 --> 05:49:15,890

copy that so

2873

05:49:26,990 --> 05:49:18,180

are you okay with uh what am I backing

2874

05:49:27,000 --> 05:49:33,110

let's try Alpha seven counterclockwise

2875

05:49:53,930 --> 05:49:34,750

Alpha seven

2876

05:49:53,940 --> 05:49:57,650

okay it's backed off

2877

05:49:57,660 --> 05:50:02,510

three quarters of a turret

2878

05:50:02,520 --> 05:50:07,250

now I have Alpha two

2879

05:50:16,128 --> 05:50:09,830

clockwise too perfect good setting going

2880

05:50:21,530 --> 05:50:18,530

all right

2881

05:50:24,110 --> 05:50:21,540

recorded a turn now back and actual Turk

2882

05:50:27,830 --> 05:50:24,120

is three decimal nine

2883

05:50:33,048 --> 05:50:29,570

got a good green light there now going

2884

05:50:49,850 --> 05:50:33,058

to I mean Alpha two clockwise too

2885

05:50:54,770 --> 05:50:52,910

we're in a quarter turns and actual

2886

05:50:57,048 --> 05:50:54,780

torque of three decimal six good green

2887

05:51:02,990 --> 05:50:59,690

okay copy two and a quarter turns green

2888

05:51:03,000 --> 05:51:17,448

it comes M6

2889

05:51:21,708 --> 05:51:19,430

four and a half turns

2890

05:51:22,910 --> 05:51:21,718

great green light and three decimal

2891

05:51:37,628 --> 05:51:22,920

seven

2892

05:51:48,470 --> 05:51:41,090

starting turns

2893

05:51:54,190 --> 05:51:51,110

four and a quarter turns and three

2894

05:51:56,750 --> 05:51:54,200

decimal six good green light

2895

05:52:00,170 --> 05:51:56,760

probably two and a quarter three decimal

2896

05:52:00,180 --> 05:52:23,560

four and a quarter

2897

05:52:26,750 --> 05:52:25,128

[Applause]

2898

05:52:31,510 --> 05:52:26,760

foreign

2899

05:53:09,830 --> 05:52:33,830

Josh we're just verifying that all of

2900

05:53:09,840 --> 05:53:17,590

foreign

2901

05:53:23,270 --> 05:53:20,030

Josh can you just verify if you remember

2902

05:53:25,310 --> 05:53:23,280

how many turns you got on M5 at Alpha 6

2903

05:53:26,750 --> 05:53:25,320

we were tracking two and a quarter and

2904

05:53:32,330 --> 05:53:26,760

then you backed off three quarters and

2905

05:53:38,448 --> 05:53:35,628

so I we started with two and a half and

2906

05:53:43,010 --> 05:53:38,458

then I believe it was

2907

05:53:43,020 --> 05:54:09,788

I think it was four and a half

2908

05:54:13,910 --> 05:54:12,410

all right Josh we are happy with those

2909

05:54:15,890 --> 05:54:13,920

bolts with that you can release the

2910

05:54:18,410 --> 05:54:15,900

mounting bracket wreck and check that

2911

05:54:21,890 --> 05:54:18,420

the mli and grounding fit pins remain in

2912

05:54:27,770 --> 05:54:24,650

probably

2913

05:54:30,590 --> 05:54:27,780

Brett is down on the left

2914

05:54:39,480 --> 05:54:30,600

down lower left corner

2915

05:54:39,490 --> 05:54:44,590

[Applause]

2916

05:54:44,600 --> 05:55:04,580

oh my God

2917

05:55:04,590 --> 05:55:17,990

[Applause]

2918

05:55:18,000 --> 05:55:50,570

foreign

2919

05:55:50,580 --> 05:56:07,250

that's correct

2920

05:56:11,208 --> 05:56:09,470

and Josh you can also rotate the upper

2921

05:56:32,048 --> 05:56:11,218

triangle down or neutral for a later

2922

05:56:32,058 --> 05:56:37,368

move the full test

2923

05:56:37,378 --> 05:58:07,910

copy

2924

05:58:13,788 --> 05:58:11,090

a full test on the two inch

2925

05:58:16,548 --> 05:58:13,798

okay copy good pull test on the two inch

2926
05:58:20,250 --> 05:58:16,558
and confirm you've got the 7 16 in your

2927
05:58:20,260 --> 05:58:26,330
[Applause]

2928
05:58:26,340 --> 05:58:45,250
copy

2929
05:58:45,260 --> 05:58:49,070
in the trash bag

2930
05:58:55,368 --> 05:58:53,208
s awesome nice work okay now you can

2931
05:58:59,150 --> 05:58:55,378
egress the apfr we'll be adjusting the

2932
05:58:59,160 --> 05:59:08,520
happens

2933
05:59:29,270 --> 05:59:17,000
[Applause]

2934
05:59:34,490 --> 05:59:32,208
okay go Vina

2935
05:59:36,410 --> 05:59:34,500
foreign

2936
05:59:54,948 --> 05:59:36,420
Josh are you ready for the with X

2937
06:00:00,170 --> 05:59:57,048
if you're just joining us we're three

2938
06:00:02,990 --> 06:00:00,180

hours and 15 minutes into today's space

2939

06:00:04,610 --> 06:00:03,000

walk the 254th spacewalk in support of

2940

06:00:20,110 --> 06:00:04,620

the International Space Station assembly

2941

06:00:29,350 --> 06:00:25,010

Josh Cassidy ev1 wearing the suit with

2942

06:00:32,990 --> 06:00:29,360

the red stripes and Frank Rubio ev2

2943

06:00:35,270 --> 06:00:33,000

wearing an unmarked suit ventured

2944

06:00:36,650 --> 06:00:35,280

outside of the hatchet 8 14 a.m Central

2945

06:00:38,628 --> 06:00:36,660

Time

2946

06:00:41,570 --> 06:00:38,638

and have since completed

2947

06:00:45,048 --> 06:00:41,580

their work preparation for their site

2948

06:00:48,230 --> 06:00:45,058

work and they've also completed

2949

06:00:50,810 --> 06:00:48,240

the H fixture removal at the 1B Mass

2950

06:00:54,948 --> 06:00:50,820

canister as well as Frank Rubio

2951
06:00:57,230 --> 06:00:54,958
completing the 3A iorosa cable routing

2952
06:01:01,490 --> 06:00:57,240
and the build out of the upper triangle

2953
06:01:05,030 --> 06:01:01,500
Josh Castle has now installed

2954
06:01:08,510 --> 06:01:05,040
with four boats has installed the

2955
06:01:11,208 --> 06:01:08,520
upper triangle to the 1B Mass canister

2956
06:01:13,670 --> 06:01:11,218
he has egressed the apfr the

2957
06:01:17,390 --> 06:01:13,680
articulating portable foot restraint and

2958
06:01:29,030 --> 06:01:17,400
now is extending that working

2959
06:01:36,170 --> 06:01:31,610
he is now extending that worksite

2960
06:01:44,090 --> 06:01:39,590
after the extension is modified

2961
06:01:46,490 --> 06:01:44,100
he will Ingress the API FR again

2962
06:01:49,430 --> 06:01:46,500
and restrict and receive the left mid

2963
06:01:52,730 --> 06:01:49,440

strut from Frank Rubio for its

2964

06:02:16,310 --> 06:01:52,740

installation to the upper triangle

2965

06:02:16,320 --> 06:02:20,448

roll next

2966

06:02:26,750 --> 06:02:24,170

okay roll will be papa papa

2967

06:02:35,390 --> 06:02:26,760

or sorry pitches papa papa and roll will

2968

06:02:35,400 --> 06:03:14,930

Papa on the apsr

2969

06:03:14,940 --> 06:03:46,548

oh

2970

06:03:51,830 --> 06:03:49,430

same deal can't get the pitch knob to

2971

06:03:54,350 --> 06:03:51,840

really move but it is

2972

06:04:02,270 --> 06:03:54,360

I can't get it to

2973

06:04:02,280 --> 06:04:05,990

I understand role of hotel

2974

06:04:24,410 --> 06:04:08,208

copy on the pitch and a firm roll of

2975

06:04:29,090 --> 06:04:27,048

okay back

2976
06:04:30,530 --> 06:04:29,100
you want me to Ingress the epfr is that

2977
06:04:33,590 --> 06:04:30,540
right

2978
06:04:35,868 --> 06:04:33,600
a firm you can increase the apfr talk

2979
06:04:37,548 --> 06:04:35,878
that Ingress Aid and then Frank you'll

2980
06:05:23,810 --> 06:04:37,558
get ready to pass off the mid strut

2981
06:05:23,820 --> 06:05:28,530
foreign

2982
06:05:28,540 --> 06:06:05,448
[Applause]

2983
06:07:12,948 --> 06:06:37,310
foreign

2984
06:07:12,958 --> 06:07:16,490
a little further on board

2985
06:07:52,788 --> 06:07:19,490
keep going drop it down yep

2986
06:07:52,798 --> 06:08:07,310
foreign

2987
06:08:16,910 --> 06:08:09,350
okay if you're ready with that rep then

2988
06:08:27,770 --> 06:08:18,530

and Josh you'll want to ret to the

2989

06:08:32,208 --> 06:08:30,170

I think

2990

06:08:36,170 --> 06:08:32,218

thank you Kathy you need to pass me the

2991

06:08:50,090 --> 06:08:36,180

side pads is that is that right Dina

2992

06:08:53,448 --> 06:08:51,770

because then once it's installed you'll

2993

06:08:55,010 --> 06:08:53,458

release my rent

2994

06:08:55,788 --> 06:08:55,020

uh yep

2995

06:08:58,010 --> 06:08:55,798

um

2996

06:09:01,128 --> 06:08:58,020

yeah I uh previously she said the Corpus

2997

06:09:05,208 --> 06:09:03,110

yeah sorry about that actually I think

2998

06:09:07,070 --> 06:09:05,218

that's the clevis on the left lower I

2999

06:09:09,230 --> 06:09:07,080

must have jumped ahead you'll want to

3000

06:09:11,270 --> 06:09:09,240

pass off the left mid strut and then

3001

06:09:15,350 --> 06:09:11,280

Josh will ret to the stanchion nearest

3002

06:09:15,360 --> 06:09:20,628

and then for the left and lower

3003

06:09:25,670 --> 06:09:22,368

yeah Rhett to the stanchion nearest the

3004

06:09:30,530 --> 06:09:27,770

all right

3005

06:09:41,930 --> 06:09:30,540

I'm ready to it okay if you can release

3006

06:10:05,330 --> 06:09:51,470

all right

3007

06:10:10,970 --> 06:10:07,788

yeah control okay here it comes thank

3008

06:10:15,530 --> 06:10:13,788

nice work guys Josh you can sew that mid

3009

06:10:17,690 --> 06:10:15,540

strut on your brt

3010

06:10:36,230 --> 06:10:17,700

and then Frank will pass off the left

3011

06:10:36,240 --> 06:10:50,628

ah

3012

06:10:50,638 --> 06:10:55,548

I guess

3013

06:10:55,558 --> 06:11:49,788

and then I'm reading mirrors the Clevis

3014

06:11:49,798 --> 06:12:03,310

wire size just making it hard

3015

06:12:13,850 --> 06:12:05,820

thank you

3016

06:12:18,350 --> 06:12:15,590

Nina would I be able to reach it if I

3017

06:12:21,170 --> 06:12:18,360

went to the other expansion the water

3018

06:12:24,288 --> 06:12:21,180

that's on here is keeping me from being

3019

06:12:26,810 --> 06:12:24,298

able to get this rep closed

3020

06:12:28,970 --> 06:12:26,820

checking

3021

06:12:30,170 --> 06:12:28,980

and yes a

3022

06:12:33,410 --> 06:12:30,180

CE

3023

06:12:37,128 --> 06:12:33,420

great I got it close Okay so I'm I'm

3024

06:12:40,330 --> 06:12:37,138

ready and you can release

3025

06:12:42,708 --> 06:12:40,340

you're red if that's what's next

3026

06:12:52,448 --> 06:12:42,718

is that what's next that is indeed

3027

06:12:58,128 --> 06:12:55,910

is released

3028

06:13:00,350 --> 06:12:58,138

I have the stroke

3029

06:13:02,090 --> 06:13:00,360

all right nice work Frank you'll

3030

06:13:03,470 --> 06:13:02,100

translate to the left sub spherical

3031

06:13:04,670 --> 06:13:03,480

bearing on the left side of the mass

3032

06:13:06,350 --> 06:13:04,680

canister

3033

06:13:10,430 --> 06:13:06,360

and then Josh you'll be assisting Frank

3034

06:13:10,440 --> 06:14:01,430

okay well

3035

06:14:01,440 --> 06:14:06,010

okay I'm at the uh last bubble

3036

06:14:10,970 --> 06:14:08,628

beautiful if you could give us a report

3037

06:14:13,190 --> 06:14:10,980

of the spherical bearing alignment

3038

06:14:14,810 --> 06:14:13,200

and then also a reminder keep your

3039

06:14:23,890 --> 06:14:14,820

fingers clear of that pinch Point once

3040

06:14:28,670 --> 06:14:26,330

yeah the uh spherical bearing looks

3041

06:14:33,530 --> 06:14:28,680

perfectly centered on the bus

3042

06:14:36,410 --> 06:14:33,540

uh no no abnormalities noted but

3043

06:14:38,990 --> 06:14:36,420

okay copy that's great you can go ahead

3044

06:14:41,390 --> 06:14:39,000

and get the silver PGT ready and staged

3045

06:15:06,470 --> 06:14:41,400

for you I'll have PGT settings

3046

06:15:11,030 --> 06:15:08,570

if you're just joining us we're three

3047

06:15:14,810 --> 06:15:11,040

hours and 30 minutes into today's space

3048

06:15:16,430 --> 06:15:14,820

walk the 254th spacewalk in assembly

3049

06:15:19,788 --> 06:15:16,440

maintenance and upgrades for the

3050

06:15:24,170 --> 06:15:22,548

and that's a flight surgeon's

3051

06:15:26,690 --> 06:15:24,180

Josh

3052

06:15:30,128 --> 06:15:26,700

cassida and Frank Rubio

3053

06:15:36,170 --> 06:15:30,138

are currently at the 1B Mass canister

3054

06:15:38,810 --> 06:15:36,180

installing the lower left strut

3055

06:15:41,810 --> 06:15:38,820

after they've fixed

3056

06:15:45,128 --> 06:15:41,820

the upper triangle to the 1B Mass

3057

06:15:57,890 --> 06:15:47,750

Franco Rubio will use the pistol grip

3058

06:15:57,900 --> 06:16:03,730

foreign

3059

06:16:03,740 --> 06:16:56,868

to your right please

3060

06:17:03,170 --> 06:16:58,970

okay it's engaged

3061

06:17:06,170 --> 06:17:03,180

Josh if you can rotate clockwise

3062

06:17:16,010 --> 06:17:08,868

I've read a heart heart stop there oh is

3063

06:17:21,410 --> 06:17:18,890

Xena easy ones now at five on the

3064

06:17:21,420 --> 06:17:27,150

TV thanks Josh

3065

06:17:31,970 --> 06:17:29,868

[Music]

3066

06:17:35,750 --> 06:17:31,980

okay nice work that'll be Alpha One

3067

06:17:35,760 --> 06:18:18,708

Alpha One clock

3068

06:18:18,718 --> 06:18:22,030

perfect

3069

06:18:27,650 --> 06:18:25,910

give me a second my uh my fingers to uh

3070

06:18:29,390 --> 06:18:27,660

keeps turning it off and I'm trying to

3071

06:18:31,190 --> 06:18:29,400

turn it off so just stayed in the cow

3072

06:18:33,230 --> 06:18:31,200

again

3073

06:18:45,590 --> 06:18:33,240

those personal trainers experience

3074

06:18:48,048 --> 06:18:47,270

okay I'll take those settings again

3075

06:18:58,910 --> 06:18:48,058

please

3076

06:19:02,750 --> 06:19:00,830

Josh we'll also have some pgg settings

3077

06:19:08,990 --> 06:19:02,760

for you whenever you're ready this will

3078

06:19:11,868 --> 06:19:10,250

okay

3079

06:19:13,670 --> 06:19:11,878

um gravity copy I'm not going to set him

3080

06:19:14,990 --> 06:19:13,680

right now though if you don't mind yeah

3081

06:19:19,128 --> 06:19:15,000

no problem I'll just let you know

3082

06:19:22,850 --> 06:19:20,810

how many times

3083

06:19:25,368 --> 06:19:22,860

this will be approximately four turns on

3084

06:19:29,090 --> 06:19:25,378

M21 and let us know if you got any hand

3085

06:19:34,730 --> 06:19:32,690

uh yep I think I got about a half turn

3086

06:19:44,570 --> 06:19:34,740

okay copy so expecting about three and a

3087

06:19:48,770 --> 06:19:46,010

I think that you want me to align this

3088

06:19:51,948 --> 06:19:48,780

with the uh with the upper triangle

3089

06:19:54,410 --> 06:19:51,958

or just hold it in position four

3090

06:19:56,690 --> 06:19:54,420

hold it in position for now once Frank

3091

06:19:58,368 --> 06:19:56,700

gets that bolt started then you can

3092

06:20:00,830 --> 06:19:58,378

align the lower strut with the mounting

3093

06:20:05,030 --> 06:20:00,840

bracket and check the pit pin lanyard is

3094

06:20:09,048 --> 06:20:06,830

[Music]

3095

06:20:10,610 --> 06:20:09,058

Gabby three and a half turns okay so

3096

06:20:13,310 --> 06:20:10,620

Josh you can go ahead and align that

3097

06:20:15,650 --> 06:20:13,320

mounting bracket strut

3098

06:20:20,810 --> 06:20:15,660

and Frank for you your next PGT settings

3099

06:21:32,150 --> 06:20:22,620

507 clockwise

3100

06:21:32,160 --> 06:21:35,690

um

3101

06:21:42,350 --> 06:21:40,070

okay M22 is started getting started

3102

06:21:52,670 --> 06:21:42,360

copy do you have an estimate how many

3103

06:21:52,680 --> 06:21:57,590

it's probably uh one and a half

3104

06:22:07,490 --> 06:22:01,150

one and a half turn on M22

3105

06:22:13,850 --> 06:22:10,868

Frank you can go ahead and continue with

3106

06:22:16,490 --> 06:22:13,860

M22 driving it to torque now with that

3107

06:22:17,750 --> 06:22:16,500

Bravo 7 setting 10 and a half to 11

3108

06:22:21,948 --> 06:22:17,760

turns

3109

06:22:21,958 --> 06:22:26,710

M21

3110

06:22:31,730 --> 06:22:28,208

[Applause]

3111

06:22:33,948 --> 06:22:31,740

good correction and then Josh for you

3112

06:22:36,410 --> 06:22:33,958

on M22

3113

06:22:39,770 --> 06:22:36,420

you will be using your PGT at Bravo One

3114

06:22:45,590 --> 06:22:43,670

Bravo One clockwise two

3115

06:22:49,970 --> 06:22:45,600

I understand that do you need me to wait

3116

06:22:49,980 --> 06:23:03,288

checking

3117

06:23:07,548 --> 06:23:05,030

you know um

3118

06:23:11,448 --> 06:23:07,558

particularly without turning it's got a

3119

06:23:11,458 --> 06:23:21,530

checking Frank

3120

06:23:25,368 --> 06:23:23,690

you may need to realign the collar on

3121

06:23:26,628 --> 06:23:25,378

the PGT and just make sure all of the

3122

06:23:35,090 --> 06:23:26,638

settings are fully in the correct

3123

06:23:38,810 --> 06:23:37,250

I'm still stand by on terms for M22

3124

06:23:41,208 --> 06:23:38,820

correct

3125

06:23:45,948 --> 06:23:41,218

and Josh will have you stand by on M22

3126

06:23:49,610 --> 06:23:47,448

okay

3127

06:23:51,948 --> 06:23:49,620

thank you

3128

06:23:54,110 --> 06:23:51,958

I think the clockwise too was not fully

3129

06:23:55,250 --> 06:23:54,120

in the defense

3130

06:23:58,010 --> 06:23:55,260

copy Frank

3131

06:24:01,128 --> 06:24:00,110

and um I'll say a number of turns again

3132

06:24:21,230 --> 06:24:01,138

please

3133

06:24:25,548 --> 06:24:23,690

okay I got a

3134

06:24:26,448 --> 06:24:25,558

three turns

3135

06:24:29,448 --> 06:24:26,458

um

3136

06:24:32,090 --> 06:24:29,458

yeah afterwards then they got a balls

3137

06:24:36,948 --> 06:24:32,100

work it says low torque I think I just

3138

06:24:41,330 --> 06:24:39,170

yeah a firm Frank if you can uh

3139

06:24:52,070 --> 06:24:41,340

reposition your body and try hitting it

3140

06:24:52,080 --> 06:25:11,090

foreign

3141

06:25:28,250 --> 06:25:12,650

yeah that'll probably be seven

3142

06:25:31,610 --> 06:25:29,868

and Frank if you don't get there all the

3143

06:25:32,750 --> 06:25:31,620

way with the PGT that's fine you'll be

3144

06:25:35,448 --> 06:25:32,760

going the rest of the way with the

3145

06:25:35,458 --> 06:26:00,770

hey coffee

3146

06:26:00,780 --> 06:26:09,490

um

3147

06:26:15,770 --> 06:26:12,048

Frank you were broken on your last call

3148

06:26:21,288 --> 06:26:18,170

oh actually I thought I did but it did

3149

06:26:24,830 --> 06:26:21,298

not it actually gave me green light

3150

06:26:27,110 --> 06:26:24,840

a torque of 25 decimal four

3151
06:26:42,470 --> 06:26:27,120
and

3152
06:26:47,750 --> 06:26:42,480
six additional turns on top of the three

3153
06:26:47,760 --> 06:26:52,430
um no negative that's uh

3154
06:27:01,010 --> 06:26:55,788
that was about six total turns okay

3155
06:27:04,250 --> 06:27:02,810
we'll have you retrieve the torque

3156
06:27:06,590 --> 06:27:04,260
wrench from the left lower strut

3157
06:27:10,128 --> 06:27:06,600
handrail Frank and socket swap the two

3158
06:27:10,138 --> 06:27:15,288
copy that it works

3159
06:27:15,298 --> 06:29:57,350
all right

3160
06:29:57,360 --> 06:30:11,410
foreign

3161
06:30:17,090 --> 06:30:13,670
if you're just joining us we're three

3162
06:30:18,590 --> 06:30:17,100
hours and 45 minutes into the 254th

3163
06:30:19,910 --> 06:30:18,600

spacewalk in support of the

3164

06:30:29,170 --> 06:30:19,920

International Space Station assembly

3165

06:30:34,070 --> 06:30:31,910

NASA astronauts Josh cassida and Frank

3166

06:30:36,048 --> 06:30:34,080

Rubio exit the hatch this morning

3167

06:30:40,730 --> 06:30:36,058

venturing out into the backing of space

3168

06:30:43,368 --> 06:30:40,740

at 8 14 a.m Central Time 9 14 a.m

3169

06:30:46,610 --> 06:30:43,378

Eastern Time

3170

06:30:49,788 --> 06:30:46,620

the duo have been completing tasks this

3171

06:30:54,170 --> 06:30:51,708

completing task this morning to assemble

3172

06:30:55,850 --> 06:30:54,180

install brackets and struts and as a

3173

06:30:59,150 --> 06:30:55,860

part of the modification kit for

3174

06:31:02,270 --> 06:30:59,160

upcoming solar array upgrades the new

3175

06:31:03,830 --> 06:31:02,280

ISS rollout solar arrays or irosis will

3176
06:31:08,208 --> 06:31:03,840
increase the Space Station's total

3177
06:31:08,218 --> 06:31:11,448
complete

3178
06:31:15,948 --> 06:31:14,030
awesome and just confirm good pull test

3179
06:31:18,110 --> 06:31:15,958
and after that you can tend the silver

3180
06:31:21,170 --> 06:31:18,120
PGT back to the withax handrail I think

3181
06:31:21,180 --> 06:31:24,110
okay

3182
06:31:24,120 --> 06:31:32,030
I need to set to 64 pounds

3183
06:31:35,270 --> 06:31:33,830
yeah it'll be 60 foot pounds on the

3184
06:31:37,610 --> 06:31:35,280
torque wrench you're going until the

3185
06:31:39,350 --> 06:31:37,620
wrench breaks over two times and just

3186
06:31:44,570 --> 06:31:39,360
report any additional turns that you put

3187
06:31:50,330 --> 06:31:46,150
we're expecting about four and a half

3188
06:31:55,128 --> 06:31:52,490

yeah all right

3189

06:31:56,570 --> 06:31:55,138

my confidence in my turn down my

3190

06:31:57,770 --> 06:31:56,580

previous one's a little broken just

3191

06:32:00,288 --> 06:31:57,780

because

3192

06:32:10,190 --> 06:32:00,298

it kept popping on me so yeah I totally

3193

06:32:16,490 --> 06:32:14,208

so far today Josh Josh cassida ev1 or

3194

06:32:19,070 --> 06:32:16,500

the astronaut in the suit with the red

3195

06:32:21,890 --> 06:32:19,080

stripes has completed the removal or H

3196

06:32:26,230 --> 06:32:21,900

fixture on the 1B Mass canister

3197

06:32:31,070 --> 06:32:26,240

and Frank Rubio has routed 3A

3198

06:32:36,110 --> 06:32:33,530

Frank Rubio also built out the upper

3199

06:32:38,208 --> 06:32:36,120

triangle where Josh cassida has now

3200

06:32:40,610 --> 06:32:38,218

installed it the duo is currently

3201

06:32:42,470 --> 06:32:40,620

working on the left struts

3202

06:32:44,690 --> 06:32:42,480

working on the installation of the work

3203

06:32:46,310 --> 06:32:44,700

the left struts

3204

06:32:48,048 --> 06:32:46,320

and after the completion of the left

3205

06:32:56,810 --> 06:32:48,058

struts

3206

06:33:11,270 --> 06:32:59,390

will begin on the right side on the

3207

06:33:11,280 --> 06:33:32,810

foreign

3208

06:33:32,820 --> 06:33:37,628

ah

3209

06:33:43,970 --> 06:33:40,850

you know I have uh two parts

3210

06:33:48,170 --> 06:33:43,980

and that felt like about four turns

3211

06:33:48,180 --> 06:33:52,010

looking at the

3212

06:33:58,970 --> 06:33:55,368

spherical bearing and the pad boss

3213

06:34:02,150 --> 06:33:58,980

the drugs contact all the way around we

3214

06:34:04,490 --> 06:34:02,160

go there

3215

06:34:06,470 --> 06:34:04,500

we copy black line and no gap between

3216

06:34:09,700 --> 06:34:06,480

Boston bearing if you can do a wiggle

3217

06:34:12,190 --> 06:34:09,710

test as well looking for no motion

3218

06:34:15,670 --> 06:34:12,200

[Applause]

3219

06:34:20,868 --> 06:34:18,530

that's been super solid

3220

06:34:23,208 --> 06:34:20,878

gotta be good wiggle test

3221

06:34:25,970 --> 06:34:23,218

okay Josh we're ready for you this will

3222

06:34:29,990 --> 06:34:25,980

be five to seven turns on M22 looking

3223

06:34:44,030 --> 06:34:32,990

for seven turns I've got Bravo

3224

06:35:19,910 --> 06:34:49,010

so easy ones TV c is now set to four

3225

06:35:23,410 --> 06:35:22,310

okay seven and a half turns good green

3226

06:35:25,910 --> 06:35:23,420

light

3227

06:35:28,548 --> 06:35:25,920

11.9 torque

3228

06:35:30,590 --> 06:35:28,558

got to be 11.9 on the torque seven and a

3229

06:35:36,548 --> 06:35:30,600

half turns and green light checking for

3230

06:35:36,558 --> 06:35:42,048

is blush

3231

06:35:53,628 --> 06:35:44,030

copy Josh

3232

06:35:57,590 --> 06:35:55,670

okay those are the numbers on that bolt

3233

06:36:03,190 --> 06:35:57,600

Josh you can Stow your PGT and release

3234

06:36:07,368 --> 06:36:05,690

Frank for you you can check that the mli

3235

06:36:10,368 --> 06:36:07,378

is fully covering the lower strut pad

3236

06:36:12,410 --> 06:36:10,378

and retrieve the silver PGT and do a

3237

06:36:17,390 --> 06:36:12,420

socket swap back to the PGT from the

3238

06:36:17,400 --> 06:36:23,030

good work on the mlr

3239

06:36:23,040 --> 06:36:31,910

[Applause]

3240

06:37:59,150 --> 06:37:43,548

ah

3241

06:38:03,048 --> 06:38:01,128

Josh free once you've got your PGT

3242

06:38:04,548 --> 06:38:03,058

stowed you can release the rep from the

3243

06:38:09,470 --> 06:38:04,558

lower strip and install the grounding

3244

06:38:13,850 --> 06:38:10,910

if those two things are done I'm

3245

06:38:42,110 --> 06:38:13,860

installing the ground into

3246

06:38:47,150 --> 06:38:45,288

okay is installed

3247

06:39:23,030 --> 06:38:47,160

that'll be nice work you can install the

3248

06:39:26,270 --> 06:39:24,650

and Frank once you've got that socket

3249

06:39:27,830 --> 06:39:26,280

swap we're looking for a good pull test

3250

06:39:30,110 --> 06:39:27,840

and then you'll be moving the torque

3251
06:39:31,670 --> 06:39:30,120
wrench attaching it to the silver PGT

3252
06:39:35,810 --> 06:39:31,680
and keeping the red with the torque

3253
06:39:35,820 --> 06:39:41,150
Square

3254
06:39:41,160 --> 06:39:44,990
attach it to the silver PGT

3255
06:39:45,000 --> 06:39:57,410
okay

3256
06:40:01,610 --> 06:39:59,330
now in three hours and 55 minutes into

3257
06:40:05,150 --> 06:40:01,620
today's space walk recapping some of the

3258
06:40:07,730 --> 06:40:05,160
Milestones of today at 8 14 a.m Central

3259
06:40:09,708 --> 06:40:07,740
Time cassidan Rubio turned their suits

3260
06:40:11,930 --> 06:40:09,718
on to battery power marking the official

3261
06:40:16,970 --> 06:40:11,940
start of today's space walk

3262
06:40:21,410 --> 06:40:19,310
happy Josh that's a good config

3263
06:40:23,570 --> 06:40:21,420

next retrieve the left mid strip from

3264

06:40:27,128 --> 06:40:23,580

your brt and release the Locking pip pin

3265

06:40:27,138 --> 06:40:31,490

all right

3266

06:40:35,690 --> 06:40:33,470

and just check that the pit pin washer

3267

06:40:37,310 --> 06:40:35,700

is inside the ball d10 then you can

3268

06:40:38,868 --> 06:40:37,320

extend the mid strap with the side pad

3269

06:40:42,890 --> 06:40:38,878

toward Frank once he gets up to this

3270

06:40:46,368 --> 06:40:44,448

and we're also not going to be able to

3271

06:40:47,330 --> 06:40:46,378

check that washer because we touch it

3272

06:40:54,350 --> 06:40:47,340

away

3273

06:41:10,730 --> 06:40:56,750

I think we already discussed that so

3274

06:41:18,590 --> 06:41:13,850

After exiting the Hedge the duo have

3275

06:41:20,690 --> 06:41:18,600

since completed a 3A irosa cable routing

3276

06:41:23,390 --> 06:41:20,700

age fixture removal

3277

06:41:25,788 --> 06:41:23,400

they've built out the upper triangle for

3278

06:41:28,368 --> 06:41:25,798

the 1B Mass canister

3279

06:41:30,110 --> 06:41:28,378

they've attached the upper triangle to

3280

06:41:32,990 --> 06:41:30,120

the mass canister

3281

06:41:35,448 --> 06:41:33,000

they have installed the they're actively

3282

06:41:39,708 --> 06:41:35,458

installing the left struts and we begin

3283

06:41:43,030 --> 06:41:39,718

working on the right struts shortly

3284

06:41:49,368 --> 06:41:45,650

this is

3285

06:41:52,850 --> 06:41:49,378

the duo installing the 1B modification

3286

06:41:54,530 --> 06:41:52,860

kit or support support structures

3287

06:41:57,170 --> 06:41:54,540

the completion of this kit will ensure

3288

06:42:00,048 --> 06:41:57,180

future solar rate upgrades the new solar

3289

06:42:02,810 --> 06:42:00,058

arrays or irosis which is the ISS

3290

06:42:05,150 --> 06:42:02,820

rollout solar arrays which are set to be

3291

06:42:07,010 --> 06:42:05,160

delivered at us to the space station on

3292

06:42:08,868 --> 06:42:07,020

an upcoming SpaceX commercial resupply

3293

06:42:10,910 --> 06:42:08,878

Mission are a larger version of the

3294

06:42:12,770 --> 06:42:10,920

rollout solar arrays or the Rosa

3295

06:42:14,810 --> 06:42:12,780

Technology and will ultimately increase

3296

06:42:49,810 --> 06:42:14,820

the station's total available power from

3297

06:42:49,820 --> 06:42:57,890

[Music]

3298

06:43:03,048 --> 06:43:01,310

okay copy and just send that PGT over to

3299

06:43:04,730 --> 06:43:03,058

somewhere where future Frank will be

3300

06:43:06,170 --> 06:43:04,740

able to reach it and then we'll have you

3301
06:44:22,690 --> 06:43:06,180
translate up to the left side pad

3302
06:44:27,350 --> 06:44:25,070
another important thing happening today

3303
06:44:29,448 --> 06:44:27,360
the tanking for NASA's space launch

3304
06:44:31,670 --> 06:44:29,458
system rocket with the Orion spacecraft

3305
06:44:34,010 --> 06:44:31,680
at LaunchPad 39b

3306
06:44:36,650 --> 06:44:34,020
here's a view at NASA's Kennedy Space

3307
06:44:38,990 --> 06:44:36,660
Center in Florida

3308
06:44:40,850 --> 06:44:39,000
at 2 30 PM central time we're going to

3309
06:44:43,368 --> 06:44:40,860
split channels out

3310
06:44:44,930 --> 06:44:43,378
enabling kse to begin broadcasting

3311
06:44:47,030 --> 06:44:44,940
fueling coverage

3312
06:44:50,270 --> 06:44:47,040
on the public Channel while we finish

3313
06:44:52,490 --> 06:44:50,280

the Eva coverage on the media channel

3314

06:44:54,230 --> 06:44:52,500

NASA's Artemis One mission is the first

3315

06:44:56,510 --> 06:44:54,240

integrated test of the agency's deep

3316

06:44:59,990 --> 06:44:56,520

space exploration system the Orion

3317

06:45:03,048 --> 06:45:00,000

spacecraft SLS rocket

3318

06:45:05,208 --> 06:45:03,058

and the ground systems launch of the

3319

06:46:08,160 --> 06:45:05,218

uncrewed flight test is targeted for

3320

06:46:12,410 --> 06:46:09,890

[Music]

3321

06:46:14,570 --> 06:46:12,420

the Imports are first and then rotate in

3322

06:46:16,368 --> 06:46:14,580

the outboard side that's exactly correct

3323

06:46:17,930 --> 06:46:16,378

Frank you'll do the right side first and

3324

06:46:36,230 --> 06:46:17,940

then press in on the left side to engage

3325

06:46:40,968 --> 06:46:38,930

let me know if I can help I could

3326
06:46:43,190 --> 06:46:40,978
probably swing it once you get the right

3327
06:46:45,530 --> 06:46:43,200
side in

3328
06:46:57,410 --> 06:46:45,540
I could swing my

3329
06:46:57,420 --> 06:47:03,350
you try that

3330
06:47:03,360 --> 06:47:08,448
great

3331
06:47:12,708 --> 06:47:11,090
nice work guys Frank we'll have you know

3332
06:47:14,810 --> 06:47:12,718
it looks like it's a soft rocks engaged

3333
06:47:16,310 --> 06:47:14,820
perfect I've got PDT settings for you

3334
06:47:21,048 --> 06:47:16,320
when you're ready

3335
06:47:27,708 --> 06:47:23,570
well he's getting set up and I can't

3336
06:47:33,410 --> 06:47:30,468
negative Josh we can give you PGT

3337
06:47:35,510 --> 06:47:33,420
settings but you will be able to hand

3338
06:47:40,070 --> 06:47:35,520

start those once your time comes but we

3339

06:47:40,080 --> 06:48:12,590

no problem thanks

3340

06:48:48,890 --> 06:48:15,140

foreign

3341

06:48:53,570 --> 06:48:51,468

this is only uh

3342

06:48:58,670 --> 06:48:53,580

four turns

3343

06:49:05,628 --> 06:49:00,230

coffee

3344

06:49:09,590 --> 06:49:07,850

cool we know that it's three for easy

3345

06:49:27,530 --> 06:49:09,600

look

3346

06:49:55,548 --> 06:49:30,170

all right there with two turns on M2

3347

06:49:55,558 --> 06:50:09,048

turns on M3 copy two on three

3348

06:50:18,350 --> 06:50:10,730

on one

3349

06:50:23,150 --> 06:50:19,788

two on four

3350

06:50:25,368 --> 06:50:23,160

copy two turns on M4

3351

06:50:28,310 --> 06:50:25,378

Frank there will be no changes to your

3352

06:50:30,170 --> 06:50:28,320

PGT settings you'll be going three to

3353

06:50:32,390 --> 06:50:30,180

eight and a half additional turns to

3354

06:50:34,730 --> 06:50:32,400

torque on M1 through M4

3355

06:50:37,490 --> 06:50:34,740

Josh for you you'll be driving m28 to

3356

06:50:38,990 --> 06:50:37,500

torque six and a half to nine turns you

3357

06:50:44,030 --> 06:50:39,000

can hand start it let me know when

3358

06:50:48,230 --> 06:50:46,670

okay copies that are no changes the

3359

06:50:50,750 --> 06:50:48,240

three-day turns you want me to wait till

3360

06:50:55,610 --> 06:50:50,760

dust get the dates I'm sorry I think

3361

06:50:59,270 --> 06:50:58,250

Joshua about uh half an inch to a

3362

06:51:01,910 --> 06:50:59,280

quarter inch

3363

06:51:04,670 --> 06:51:01,920

from the engagement line yeah I'm not

3364

06:51:13,910 --> 06:51:06,468

a hole Yeah

3365

06:51:13,920 --> 06:51:19,610

right

3366

06:51:19,620 --> 06:51:24,948

here

3367

06:51:30,288 --> 06:51:27,890

I like the moral support

3368

06:51:33,670 --> 06:51:30,298

especially when it pops out we can both

3369

06:51:40,490 --> 06:51:37,070

golly you guys are doing great deal I'm

3370

06:51:44,330 --> 06:51:42,410

he puts a little bit further can you

3371

06:51:46,128 --> 06:51:44,340

push up a little bit

3372

06:51:49,010 --> 06:51:46,138

there you go

3373

06:51:49,910 --> 06:51:49,020

it looks like it's I know I know please

3374

06:51:52,990 --> 06:51:49,920

don't

3375

06:51:56,628 --> 06:51:55,128

baby hit it

3376

06:51:58,548 --> 06:51:56,638

Peter would you let me hit it with the

3377

06:52:00,310 --> 06:51:58,558

pgp just to get

3378

06:52:03,410 --> 06:52:00,320

another half a turn on it yeah

3379

06:52:05,448 --> 06:52:03,420

absolutely you can pop out again you can

3380

06:52:10,750 --> 06:52:05,458

start with the PGT it'll be Bravo One

3381

06:52:16,070 --> 06:52:12,948

Christina I'm gonna let him get a at

3382

06:52:16,080 --> 06:52:28,250

copy Frank

3383

06:52:28,260 --> 06:52:31,670

okay

3384

06:52:31,680 --> 06:52:40,310

another one

3385

06:52:44,390 --> 06:52:42,708

copy and you will be going to torque

3386

06:52:48,890 --> 06:52:44,400

with this once you get it engaged six

3387

06:52:48,900 --> 06:52:53,150

from him

3388

06:52:58,430 --> 06:52:55,128

okay six and a half to nine turns two

3389

06:52:58,440 --> 06:53:01,490

turns

3390

06:53:04,850 --> 06:53:03,890

there's one okay so I've got one turn on

3391

06:53:06,590 --> 06:53:04,860

there

3392

06:53:08,570 --> 06:53:06,600

um Frank are you okay with me going to

3393

06:53:10,070 --> 06:53:08,580

dork or do you want to get yours yeah no

3394

06:53:11,930 --> 06:53:10,080

I think mine are all engaged so I'll

3395

06:53:15,590 --> 06:53:11,940

start

3396

06:53:18,230 --> 06:53:15,600

okay one turn in

3397

06:53:21,288 --> 06:53:18,240

okay copy that all right and here goes

3398

06:53:30,590 --> 06:53:23,030

gosh he'll be going six and a half to

3399

06:53:36,468 --> 06:53:33,948

I do not I don't know M2 I got three

3400

06:53:38,510 --> 06:53:36,478

lights three decimal ones work

3401
06:53:40,730 --> 06:53:38,520
uh four turns

3402
06:53:45,110 --> 06:53:40,740
three decimal one on the torque four

3403
06:53:50,150 --> 06:53:46,788
M3

3404
06:53:50,810 --> 06:53:50,160
e and a quarter turns on m28 Victory and

3405
06:53:55,310 --> 06:53:50,820
right

3406
06:54:00,650 --> 06:53:58,490
that'd be 11.9 on the torque 3.5 and a

3407
06:54:05,030 --> 06:54:00,660
quarter turns and a

3408
06:54:12,350 --> 06:54:05,830
s

3409
06:54:14,390 --> 06:54:12,360
to the

3410
06:54:16,548 --> 06:54:14,400
about the one that it took for me to get

3411
06:54:21,048 --> 06:54:16,558
it started maybe just less than a month

3412
06:54:21,058 --> 06:54:26,448
and the black line is

3413
06:54:31,610 --> 06:54:29,750

you know on bike three I agree my three

3414

06:54:32,990 --> 06:54:31,620

decimal Morton report four and a half

3415

06:54:35,448 --> 06:54:33,000

turns

3416

06:54:37,430 --> 06:54:35,458

copy three decimal one torque four and a

3417

06:54:41,990 --> 06:54:37,440

half turns green light on M3 and Josh

3418

06:54:46,430 --> 06:54:43,610

are you okay with a grounding strap

3419

06:54:48,590 --> 06:54:46,440

quarter Josh you are good on m28 you

3420

06:54:49,968 --> 06:54:48,600

could Stow your PGT and yes

3421

06:55:00,948 --> 06:54:49,978

yes all that pit pin into the grounding

3422

06:55:05,690 --> 06:55:03,468

okay the team has installed PGT is

3423

06:55:07,788 --> 06:55:05,700

smooth

3424

06:55:12,650 --> 06:55:07,798

perfect we'll take a glove hat and

3425

06:55:12,660 --> 06:55:16,788

know Mike one

3426

06:55:21,288 --> 06:55:18,530

wall chart

3427

06:55:22,788 --> 06:55:21,298

S four and a quarter actually copy four

3428

06:55:28,510 --> 06:55:22,798

and a quarter turns three decimal one

3429

06:55:33,110 --> 06:55:31,850

uh no further changes to the gloves

3430

06:55:37,570 --> 06:55:33,120

and

3431

06:55:42,530 --> 06:55:40,670

copy all Josh you can egress the apfr

3432

06:55:50,570 --> 06:55:42,540

and you'll be changing the roles in

3433

06:56:07,170 --> 06:55:53,448

so when you if you're good with it you

3434

06:56:12,410 --> 06:56:09,968

[Applause]

3435

06:56:16,670 --> 06:56:12,420

yes Josh you can release the rep from

3436

06:56:22,730 --> 06:56:18,610

oh okay

3437

06:56:26,628 --> 06:56:24,708

all right Frank if you could yep

3438

06:56:29,208 --> 06:56:26,638

remember back my way

3439

06:56:31,548 --> 06:56:29,218

here for uh Mike four it was a three

3440

06:56:34,010 --> 06:56:31,558

decimal one green light

3441

06:56:36,708 --> 06:56:34,020

and five

3442

06:56:37,910 --> 06:56:36,718

in a submission turns

3443

06:56:39,948 --> 06:56:37,920

out

3444

06:56:55,788 --> 06:56:39,958

three decimal one on the torque five and

3445

06:56:55,798 --> 06:56:59,170

uh

3446

06:57:05,030 --> 06:57:02,270

okay Frank those are four good bolts you

3447

06:57:07,730 --> 06:57:05,040

can Stow your PGT

3448

06:57:08,690 --> 06:57:07,740

and Josh I think is cleaning up the

3449

06:57:10,190 --> 06:57:08,700

Rhett

3450

06:57:11,510 --> 06:57:10,200

Frank you can check that the grounding

3451

06:57:13,490 --> 06:57:11,520

pit pin is still in the grounding block

3452

06:57:17,330 --> 06:57:13,500

and that the mli is fully installed over

3453

06:57:27,110 --> 06:57:20,330

okay give me one second

3454

06:57:27,120 --> 06:57:35,628

all right ready all right let me go

3455

06:57:39,410 --> 06:57:38,208

you know you said the uh mli over the

3456

06:57:41,090 --> 06:57:39,420

fact that correct

3457

06:58:00,730 --> 06:57:41,100

that's right mli over the side pad

3458

06:58:04,070 --> 06:58:01,810

[Music]

3459

06:58:06,590 --> 06:58:04,080

on the left

3460

06:58:08,930 --> 06:58:06,600

copy Frank we'll take a glove hap and

3461

06:58:11,150 --> 06:58:08,940

Gauntlet check from you as well and we

3462

06:58:13,310 --> 06:58:11,160

also want you to stay where you are

3463

06:58:16,930 --> 06:58:13,320

we're talking some big picture stuff for

3464

06:58:20,750 --> 06:58:19,610

and also does the locking's I need to go

3465

06:58:27,530 --> 06:58:20,760

in

3466

06:58:32,208 --> 06:58:29,448

and Xena do you still want me to egress

3467

06:58:35,570 --> 06:58:32,218

if you saw and uh rotate over to the

3468

06:58:41,448 --> 06:58:38,150

have you stand by Josh and Frank

3469

07:00:34,070 --> 06:58:41,458

negative on that pit pin

3470

07:00:38,330 --> 07:00:36,230

okay Frank and Josh we've got some big

3471

07:00:40,430 --> 07:00:38,340

picture words for you here

3472

07:00:42,830 --> 07:00:40,440

looking at the Timeline we are a bit

3473

07:00:44,868 --> 07:00:42,840

down on the day about an hour just with

3474

07:00:47,570 --> 07:00:44,878

all the hardware troubleshooting so our

3475

07:00:49,430 --> 07:00:47,580

Ford plan is we're not going to do any

3476

07:00:52,128 --> 07:00:49,440

collar bolts today

3477

07:00:54,410 --> 07:00:52,138

we're going to cover up the left mid

3478

07:00:55,610 --> 07:00:54,420

strut with the mli get those wire ties

3479

07:00:58,310 --> 07:00:55,620

in place

3480

07:01:00,830 --> 07:00:58,320

head over install the right struts

3481

07:01:03,288 --> 07:01:00,840

install but don't tighten the collar

3482

07:01:08,810 --> 07:01:03,298

bolts on the right mid and then we'll be

3483

07:01:08,820 --> 07:01:12,530

okay copy

3484

07:01:17,330 --> 07:01:14,690

is this and so right now you want this

3485

07:01:20,330 --> 07:01:17,340

mli covering

3486

07:01:23,510 --> 07:01:20,340

the left mid structure that's correct

3487

07:01:25,250 --> 07:01:23,520

yeah we'll do the left mid strut mli and

3488

07:01:28,368 --> 07:01:25,260

install the wire Ties on that left mid

3489

07:01:28,378 --> 07:01:35,770

of him

3490

07:01:40,250 --> 07:01:38,690

and Frank we do also want to install all

3491

07:01:46,490 --> 07:01:40,260

the grounding pins on the right side

3492

07:01:46,500 --> 07:01:48,548

um

3493

07:01:55,910 --> 07:01:51,170

on the left side

3494

07:02:01,010 --> 07:01:57,770

okay

3495

07:02:03,530 --> 07:02:01,020

you know is the uh General on the left

3496

07:02:17,628 --> 07:02:03,540

mid threat now considered a good point

3497

07:02:31,250 --> 07:02:26,570

checking

3498

07:02:32,570 --> 07:02:31,260

say all of the pins the grounding fits

3499

07:02:35,090 --> 07:02:32,580

in they're all installed right now

3500

07:02:36,650 --> 07:02:35,100

correct except for the walking the kid

3501

07:02:49,250 --> 07:02:36,660

that friend's gonna get to

3502

07:02:53,330 --> 07:02:51,230

yeah Josh that'll be on the left side

3503

07:02:55,310 --> 07:02:53,340

all of the pit pins should be installed

3504

07:02:58,730 --> 07:02:55,320

and then we are installing the Locking

3505

07:02:58,740 --> 07:03:17,570

okay that's what we're tracking as well

3506

07:03:24,350 --> 07:03:20,990

and on that left mid stretch handrail

3507

07:03:31,548 --> 07:03:27,110

left walking through pentagon

3508

07:03:37,310 --> 07:03:33,410

I left my local I didn't think I could

3509

07:03:40,490 --> 07:03:37,320

reach but I I can reach based off the um

3510

07:03:43,070 --> 07:03:40,500

okay canister long rail that's a good

3511

07:03:45,048 --> 07:03:43,080

good config but you can actually local

3512

07:03:49,968 --> 07:03:45,058

to that left mid strut handrail just

3513

07:03:49,978 --> 07:03:53,090

copy thank you

3514

07:03:57,770 --> 07:03:55,788

and Josh for you you can egress the apr

3515

07:04:01,968 --> 07:03:57,780

you'll be rolling it to reach the right

3516

07:04:06,410 --> 07:04:04,610

if you want to finish the mlr here on

3517

07:04:07,788 --> 07:04:06,420

the left side first or roll the Charlie

3518

07:04:09,650 --> 07:04:07,798

now

3519

07:04:13,250 --> 07:04:09,660

yeah if you can be helpful to Frank in

3520

07:04:13,260 --> 07:04:39,350

let's do that

3521

07:04:43,968 --> 07:04:41,208

there's some words about tracking it

3522

07:04:45,770 --> 07:04:43,978

down on m28 first is that correct

3523

07:04:51,650 --> 07:04:45,780

favorite murder

3524

07:04:55,610 --> 07:04:53,390

I'm currently in a brief Handover

3525

07:05:00,288 --> 07:04:55,620

between satellites but we'll be back

3526
07:05:02,810 --> 07:05:00,298
with views of the Eva just shortly

3527
07:05:04,548 --> 07:05:02,820
NASA flight Engineers Josh cassida and

3528
07:05:05,650 --> 07:05:04,558
Frank Rubio

3529
07:05:07,968 --> 07:05:05,660
have

3530
07:05:09,708 --> 07:05:07,978
completed the installation of the upper

3531
07:05:12,468 --> 07:05:09,718
right

3532
07:05:16,010 --> 07:05:12,478
the upper triangle and the left struts

3533
07:05:22,610 --> 07:05:16,020
for the 1B modification kit

3534
07:05:22,620 --> 07:05:25,968
thank you

3535
07:05:30,530 --> 07:05:28,788
ground IV Zena Cartman just relate to

3536
07:05:32,810 --> 07:05:30,540
the crew the big picture that she was

3537
07:05:33,650 --> 07:05:32,820
hearing from Eva officers here in the

3538
07:05:36,288 --> 07:05:33,660

room

3539

07:05:38,208 --> 07:05:36,298

the duo will not do any collar bolts but

3540

07:05:40,548 --> 07:05:38,218

instead we'll make sure that the mli or

3541

07:05:43,430 --> 07:05:40,558

that multi-layer insulation and wire

3542

07:05:46,128 --> 07:05:43,440

ties are installed on the mid strut on

3543

07:05:48,350 --> 07:05:46,138

the left side and they will finish both

3544

07:05:50,628 --> 07:05:48,360

they will bolt in the right strut as

3545

07:05:52,548 --> 07:05:50,638

well again they will not install any

3546

07:05:55,368 --> 07:05:52,558

collar bolts

3547

07:05:58,490 --> 07:05:55,378

and this is due to

3548

07:06:01,310 --> 07:05:58,500

about one hour being needed for that

3549

07:06:05,090 --> 07:06:01,320

right strut to be installed

3550

07:06:10,250 --> 07:06:05,100

in about an hour and a half needed to

3551

07:06:10,260 --> 07:06:16,610

you think so

3552

07:06:21,770 --> 07:06:18,350

first we'll go in the thin part of the

3553

07:06:24,468 --> 07:06:21,780

uh one will go closer to the caller and

3554

07:06:27,770 --> 07:06:24,478

the other will go closer to the uh like

3555

07:06:31,680 --> 07:06:30,410

hey firm Frank

3556

07:06:36,850 --> 07:06:31,690

that's true

3557

07:06:41,390 --> 07:06:39,110

change your mind let me know here in the

3558

07:06:46,548 --> 07:06:41,400

next 30 seconds

3559

07:06:51,830 --> 07:06:48,468

um

3560

07:06:56,230 --> 07:06:51,840

well if it's easy for you that'd be

3561

07:07:00,830 --> 07:06:59,090

unless you think uh the next iteration

3562

07:07:04,730 --> 07:07:00,840

is going to take too long

3563

07:08:24,110 --> 07:07:04,740

of the speech in the apfr

3564

07:08:24,120 --> 07:08:51,110

ah

3565

07:08:57,650 --> 07:08:54,288

okay three twists here's the clevis I

3566

07:08:59,390 --> 07:08:57,660

saw uh Frank did the same there so I'm

3567

07:09:34,250 --> 07:08:59,400

gonna move out

3568

07:09:34,260 --> 07:09:37,628

a few more loss

3569

07:09:42,830 --> 07:09:40,788

we're with you hey Frank

3570

07:09:45,170 --> 07:09:42,840

if we could actually get a quick glove

3571

07:09:48,288 --> 07:09:45,180

happen Gauntlet check from you ev2 and

3572

07:09:50,208 --> 07:09:48,298

you also have a cable sticking out above

3573

07:10:02,690 --> 07:09:50,218

your right Gauntlet if you can just tuck

3574

07:10:08,030 --> 07:10:04,968

it's kind of up at your elbow actually

3575

07:10:15,830 --> 07:10:09,890

between your right Gauntlet and your

3576

07:10:20,448 --> 07:10:17,330

and then what was the first part you

3577

07:10:24,230 --> 07:10:22,310

we'll take a glove happen Gauntlet check

3578

07:10:26,448 --> 07:10:24,240

we see your gauntlets are still in place

3579

07:10:34,490 --> 07:10:26,458

so Club in half

3580

07:10:39,830 --> 07:10:36,590

okay no changes for my right glove no

3581

07:10:41,868 --> 07:10:39,840

changes for my left glove and dry I have

3582

07:10:51,830 --> 07:10:41,878

maybe two

3583

07:10:51,840 --> 07:10:55,430

Pete am I going back to the bag

3584

07:10:59,990 --> 07:10:57,468

hey firm next steps will be getting the

3585

07:11:29,690 --> 07:11:00,000

right mid strut that straps 12 and 13

3586

07:11:29,700 --> 07:11:33,590

well

3587

07:11:38,930 --> 07:11:36,530

it's uh camera did become a problem I

3588

07:11:42,170 --> 07:11:38,940

said it wouldn't

3589

07:11:48,830 --> 07:11:45,468

camera just uh

3590

07:11:51,830 --> 07:11:48,840

angled oh yeah it's a Minecraft

3591

07:11:55,930 --> 07:11:51,840

detangled earlier too

3592

07:11:59,530 --> 07:11:55,940

unfortunately mine goes through

3593

07:12:02,628 --> 07:11:59,540

somehow slipped past

3594

07:12:07,310 --> 07:12:02,638

my anchor for my waste better

3595

07:12:14,208 --> 07:12:09,468

it's easier for me to go you want them

3596

07:12:14,218 --> 07:12:17,750

um

3597

07:12:23,030 --> 07:12:21,048

I don't think well not yet okay

3598

07:12:25,010 --> 07:12:23,040

um

3599

07:12:45,048 --> 07:12:25,020

no problem I'm here at the back door to

3600

07:13:43,390 --> 07:12:58,128

foreign

3601
07:13:48,590 --> 07:13:45,830
Space Walk recapping some of the

3602
07:13:51,048 --> 07:13:48,600
Milestones of today at 8 14 a.m Central

3603
07:13:52,968 --> 07:13:51,058
Time NASA astronauts Josh cassida and

3604
07:13:55,128 --> 07:13:52,978
Frank Rubio turned their suits on to

3605
07:13:57,410 --> 07:13:55,138
battery power marking the official start

3606
07:14:01,010 --> 07:13:57,420
of today's spacewalk they are currently

3607
07:14:03,110 --> 07:14:01,020
working on this starboard six trusts at

3608
07:14:06,708 --> 07:14:03,120
the 1B power Channel

3609
07:14:10,368 --> 07:14:06,718
so far the duo have completed and

3610
07:14:12,170 --> 07:14:10,378
the 3A irosa cable routing the removal

3611
07:14:15,110 --> 07:14:12,180
of an H fixture

3612
07:14:17,390 --> 07:14:15,120
the build out of the 1B upper triangle

3613
07:14:20,208 --> 07:14:17,400

the 1B upper triangle installation to

3614

07:14:23,510 --> 07:14:20,218

the 1B mask canister they have also

3615

07:14:25,250 --> 07:14:23,520

installed the 1B left struts and the duo

3616

07:14:27,650 --> 07:14:25,260

are currently

3617

07:14:30,590 --> 07:14:27,660

in the process of installing the 1B

3618

07:14:30,600 --> 07:14:36,890

okay perfect

3619

07:14:40,310 --> 07:14:38,810

again this modification kit is the

3620

07:14:44,510 --> 07:14:40,320

support structures needed for the future

3621

07:14:54,360 --> 07:14:44,520

irosa or ISS roll out solar arrays

3622

07:14:54,370 --> 07:15:02,930

[Applause]

3623

07:15:08,090 --> 07:15:05,030

hey Frank can you give me some essay on

3624

07:15:13,190 --> 07:15:10,788

first of all this camera is locked out I

3625

07:15:18,110 --> 07:15:16,368

it's a real problem right now yeah

3626

07:15:19,490 --> 07:15:18,120

I'll just come over and I'll write

3627

07:15:20,510 --> 07:15:19,500

through it and then you can just unclip

3628

07:15:23,208 --> 07:15:20,520

it

3629

07:16:28,490 --> 07:15:23,218

in our way uh

3630

07:16:28,500 --> 07:16:50,420

foreign

3631

07:16:54,350 --> 07:16:51,850

[Applause]

3632

07:16:56,448 --> 07:16:54,360

I've walked this one down just in case I

3633

07:16:58,670 --> 07:16:56,458

need to this is my left

3634

07:17:01,490 --> 07:16:58,680

but right is here

3635

07:17:03,770 --> 07:17:01,500

see how the yep the rat went through it

3636

07:17:10,850 --> 07:17:03,780

I got a hot slip path there being lost

3637

07:17:16,850 --> 07:17:13,490

Josh if it helps you can offload that

3638

07:17:19,368 --> 07:17:16,860

camera put it on a rat to the bag to the

3639

07:17:28,128 --> 07:17:19,378

strut bag and then release the other end

3640

07:17:33,468 --> 07:17:30,230

you might do that

3641

07:17:41,868 --> 07:17:35,270

give me one second here I almost got

3642

07:17:45,530 --> 07:17:43,730

and Frankie can also do that from your

3643

07:17:53,510 --> 07:17:45,540

end if if that's easier than Josh doing

3644

07:17:58,670 --> 07:17:55,910

going through your uh

3645

07:18:04,628 --> 07:17:58,680

waist tether right

3646

07:18:04,638 --> 07:18:13,670

I'm happy

3647

07:18:13,680 --> 07:18:18,590

on your team extender

3648

07:18:18,600 --> 07:18:27,310

okay

3649

07:18:33,770 --> 07:18:29,090

[Applause]

3650

07:18:40,610 --> 07:18:37,610

that's right that's your left if I left

3651
07:18:42,310 --> 07:18:40,620
this anchored well

3652
07:18:51,830 --> 07:18:42,320
yes

3653
07:18:51,840 --> 07:19:04,250
okay

3654
07:19:09,288 --> 07:19:07,090
and I still see your red hawk

3655
07:19:18,468 --> 07:19:09,298
come back

3656
07:19:18,478 --> 07:19:55,190
thing

3657
07:20:01,490 --> 07:19:58,430
I have a camera and it is false

3658
07:20:04,130 --> 07:20:01,500
completely this is

3659
07:20:04,140 --> 07:20:13,670
[Music]

3660
07:20:19,250 --> 07:20:15,770
okay hold on for one second if you would

3661
07:20:21,110 --> 07:20:19,260
no all right right extender we'll put

3662
07:20:23,690 --> 07:20:21,120
this back on there

3663
07:20:26,868 --> 07:20:23,700

um yeah making sure that the waste or

3664

07:20:30,350 --> 07:20:26,878

the safety killer is a good config

3665

07:20:51,948 --> 07:20:31,548

is

3666

07:20:51,958 --> 07:21:34,128

okay

3667

07:21:38,090 --> 07:21:35,868

foreign

3668

07:21:39,708 --> 07:21:38,100

okay their safety color is uh get close

3669

07:21:43,010 --> 07:21:39,718

to o'clock so I come back

3670

07:21:44,570 --> 07:21:43,020

and you mean that way Taylor yes great

3671

07:21:46,490 --> 07:21:44,580

first one right here

3672

07:21:49,548 --> 07:21:46,500

and then this one

3673

07:21:53,090 --> 07:21:49,558

is your anchor uh your Red Hook

3674

07:21:53,100 --> 07:21:55,670

all right

3675

07:22:08,810 --> 07:21:58,670

sorry hold on hold on right

3676

07:22:14,208 --> 07:22:10,208

okay okay

3677

07:22:15,708 --> 07:22:14,218

perfect I'm gonna undo this for now

3678

07:22:21,110 --> 07:22:15,718

because that's what's holding everybody

3679

07:22:21,120 --> 07:22:38,420

now

3680

07:22:38,430 --> 07:22:44,390

[Applause]

3681

07:22:54,490 --> 07:22:46,548

anything just a camera rep going through

3682

07:23:00,830 --> 07:22:57,430

got it

3683

07:23:03,350 --> 07:23:00,840

for sure all right Dina we're gonna get

3684

07:23:04,730 --> 07:23:03,360

the pig and headed over to Charlie and

3685

07:23:06,830 --> 07:23:04,740

can you just make sure that all of the

3686

07:23:11,270 --> 07:23:06,840

small hooks on Josh's d-ring extender

3687

07:23:14,570 --> 07:23:11,590

remember

3688

07:23:17,990 --> 07:23:14,580

[Music]

3689

07:23:24,610 --> 07:23:18,000

any of those waste tether hooks

3690

07:23:34,910 --> 07:23:27,650

and right is

3691

07:23:34,920 --> 07:23:39,708

Red Hook stay close

3692

07:23:39,718 --> 07:23:51,170

perfect thanks guys

3693

07:23:55,010 --> 07:23:53,330

okay

3694

07:23:57,048 --> 07:23:55,020

and then the um

3695

07:24:00,530 --> 07:23:57,058

the camera I'm just gonna put in one of

3696

07:24:02,090 --> 07:24:00,540

the bags you know in a book bag

3697

07:24:43,368 --> 07:24:02,100

sure

3698

07:24:43,378 --> 07:25:01,750

foreign

3699

07:25:06,110 --> 07:25:03,890

Frank if you're good I'm gonna go ahead

3700

07:25:07,010 --> 07:25:06,120

and Ingress hey I'm uh

3701
07:25:09,590 --> 07:25:07,020
of course

3702
07:25:11,990 --> 07:25:09,600
I need some help okay so I might think

3703
07:25:13,548 --> 07:25:12,000
each other

3704
07:25:15,948 --> 07:25:13,558
I'm not confident that it's not going

3705
07:25:18,468 --> 07:25:15,958
around my life can you just verify it is

3706
07:25:20,150 --> 07:25:18,478
not so go ahead and swing your body uh

3707
07:25:22,368 --> 07:25:20,160
station forward

3708
07:25:26,570 --> 07:25:22,378
okay

3709
07:25:32,230 --> 07:25:26,580
where it is just going around your PGT

3710
07:25:36,230 --> 07:25:34,910
do you think so if you'll swing back

3711
07:25:43,070 --> 07:25:36,240
you're left

3712
07:25:43,080 --> 07:25:59,570
there we go thank you

3713
07:25:59,580 --> 07:26:11,708

um

3714

07:26:11,718 --> 07:26:43,788

you give it to me and Griffin here

3715

07:26:47,690 --> 07:26:45,650

okay if you're just joining us we're

3716

07:26:51,110 --> 07:26:47,700

four hours and 42 minutes into today's

3717

07:26:53,868 --> 07:26:51,120

space walk Expedition 68 flight

3718

07:26:56,448 --> 07:26:53,878

Engineers Josh cassida

3719

07:26:59,330 --> 07:26:56,458

in Frank Rubio of NASA began a spacewalk

3720

07:27:01,070 --> 07:26:59,340

at 8 14 a.m central time to assemble a

3721

07:27:03,170 --> 07:27:01,080

mounting bracket on the starboard side

3722

07:27:04,910 --> 07:27:03,180

of the station's truss assembly in

3723

07:27:06,830 --> 07:27:04,920

preparation for the installation of a

3724

07:27:10,208 --> 07:27:06,840

pair of International Space Station roll

3725

07:27:13,010 --> 07:27:10,218

out solar arrays on the space station

3726

07:27:16,190 --> 07:27:13,020

designated extra vehicular crew member 1

3727

07:27:20,330 --> 07:27:16,200

or ev1 is wearing the suit with the red

3728

07:27:22,190 --> 07:27:20,340

stripes Frank Rubio designated ev2 for

3729

07:27:25,010 --> 07:27:22,200

extra vehicular crew member number two

3730

07:27:29,208 --> 07:27:25,020

is in an unmarked suit

3731

07:27:33,048 --> 07:27:29,218

the do have completed the

3732

07:27:51,530 --> 07:27:36,360

I have the admit server ready for you

3733

07:27:55,968 --> 07:27:54,048

okay I've got a rep ready for that uh

3734

07:28:04,310 --> 07:27:55,978

bypass

3735

07:28:07,930 --> 07:28:06,350

I guess if necessary you could telescope

3736

07:28:11,868 --> 07:28:07,940

it out

3737

07:28:14,390 --> 07:28:11,878

I could just collapse it back in

3738

07:28:19,548 --> 07:28:14,400

you're much uh further away I gotta

3739

07:28:23,330 --> 07:28:21,890

oh Zeta was I supposed to put that on

3740

07:28:27,350 --> 07:28:23,340

before the Ingress I think we already

3741

07:28:27,360 --> 07:28:31,190

are you back in the apfr

3742

07:28:38,330 --> 07:28:32,810

yeah

3743

07:28:40,190 --> 07:28:38,340

the right mid strut

3744

07:28:44,030 --> 07:28:40,200

let's see if you can reach and otherwise

3745

07:29:34,610 --> 07:28:47,270

okay do you agree okay

3746

07:29:34,620 --> 07:29:44,120

all right

3747

07:29:44,130 --> 07:30:00,070

[Applause]

3748

07:30:00,080 --> 07:30:04,910

thank you

3749

07:30:04,920 --> 07:30:08,810

did you guys get it passed off

3750

07:30:15,890 --> 07:30:11,090

uh yeah just waiting on right

3751

07:30:20,150 --> 07:30:18,230

I am ready okay

3752

07:30:29,930 --> 07:30:20,160

um if you want I'll release together yes

3753

07:30:29,940 --> 07:30:34,900

foreign

3754

07:31:32,208 --> 07:30:48,310

[Applause]

3755

07:31:32,218 --> 07:32:01,610

uh

3756

07:32:08,930 --> 07:32:04,670

now 4 hours and 47 minutes into today's

3757

07:32:11,510 --> 07:32:08,940

Eva the duo of Josh cassida ev1 and

3758

07:32:14,030 --> 07:32:11,520

Frank Rubio ev2

3759

07:32:18,310 --> 07:32:14,040

have completed several tasks on their

3760

07:32:21,048 --> 07:32:18,320

test Eva test list including the 3A

3761

07:32:22,070 --> 07:32:21,058

irosa cable routing they've removed H

3762

07:32:25,128 --> 07:32:22,080

fixture

3763

07:32:27,890 --> 07:32:25,138

from the 1B Mass canister they've also

3764

07:32:30,708 --> 07:32:27,900

built out the upper triangle for the one

3765

07:32:33,048 --> 07:32:30,718

b and installed it to the 1B Mass

3766

07:32:34,968 --> 07:32:33,058

canister they've also installed the 1B

3767

07:32:37,610 --> 07:32:34,978

left struts and they are currently

3768

07:32:39,650 --> 07:32:37,620

working on the right struts the crew is

3769

07:32:42,410 --> 07:32:39,660

about 50 minutes behind their normal

3770

07:32:43,850 --> 07:32:42,420

timeline due to troubleshooting earlier

3771

07:32:45,830 --> 07:32:43,860

in the morning

3772

07:32:47,868 --> 07:32:45,840

on our

3773

07:32:58,788 --> 07:32:47,878

getting in the right position okay no

3774

07:33:02,990 --> 07:33:01,368

the team is expecting to have time for

3775

07:33:48,170 --> 07:33:03,000

the right struts

3776

07:33:51,830 --> 07:33:50,510

again the Tim is expecting to have time

3777

07:33:54,830 --> 07:33:51,840

for the

3778

07:33:57,110 --> 07:33:54,840

putting the callers and the collar bolts

3779

07:33:58,250 --> 07:33:57,120

and the 1B cable routing to fall off the

3780

07:34:00,048 --> 07:33:58,260

timeline today

3781

07:34:03,230 --> 07:34:00,058

this is due to clean up and Ingress

3782

07:34:05,448 --> 07:34:03,240

requiring one hour and 25 minutes and a

3783

07:34:23,468 --> 07:34:05,458

team will protect the time

3784

07:34:27,650 --> 07:34:26,090

sounds good

3785

07:34:28,730 --> 07:34:27,660

I'll let you know when I've got a red on

3786

07:34:30,948 --> 07:34:28,740

it okay

3787

07:34:32,270 --> 07:34:30,958

um you're gonna notice that

3788

07:34:34,368 --> 07:34:32,280

I

3789

07:34:36,830 --> 07:34:34,378

like just go over either side of my

3790

07:34:38,090 --> 07:34:36,840

waist cutter so that means my

3791

07:34:39,468 --> 07:34:38,100

each other's just going right between

3792

07:34:42,048 --> 07:34:39,478

them

3793

07:34:44,708 --> 07:34:42,058

straight back to the uh

3794

07:34:47,570 --> 07:34:44,718

fairly important

3795

07:34:50,150 --> 07:34:47,580

while you're in these people but oh yeah

3796

07:34:53,090 --> 07:34:50,160

when you come out you'll uh

3797

07:34:55,670 --> 07:34:53,100

Bakery except we'll get it done

3798

07:34:59,628 --> 07:34:57,590

okay I am ready so you can go ahead and

3799

07:35:10,070 --> 07:34:59,638

release your rep okay

3800

07:35:10,080 --> 07:35:18,110

okay I have the strip

3801

07:35:22,190 --> 07:35:19,910

okay nice work once you've got that rep

3802

07:35:25,788 --> 07:35:22,200

released Frank you can translate to the

3803

07:35:25,798 --> 07:36:43,670

thank you

3804

07:37:59,390 --> 07:37:51,310

uh

3805

07:38:03,890 --> 07:38:01,968

probably Frank that sounds great you can

3806

07:38:04,910 --> 07:38:03,900

get the silver PGT from that with X

3807

07:38:06,530 --> 07:38:04,920

handrail

3808

07:38:09,530 --> 07:38:06,540

and you'll be installing the right lower

3809

07:38:11,270 --> 07:38:09,540

strut m19 to that sub-spherical bearing

3810

07:38:33,288 --> 07:38:11,280

just let us know how many hand turns you

3811

07:38:33,298 --> 07:39:00,708

foreign

3812

07:39:00,718 --> 07:40:27,048

all right

3813

07:41:42,100 --> 07:41:27,230

foreign

3814

07:42:00,048 --> 07:41:56,910

[Music]

3815

07:42:06,410 --> 07:42:02,510

you let me know if you need any clock

3816

07:42:06,420 --> 07:42:11,030

should be away from you

3817

07:42:27,770 --> 07:42:13,430

like that yep keep going

3818

07:42:31,250 --> 07:42:29,628

I'll try to hold it right there for you

3819

07:42:43,490 --> 07:42:31,260

it doesn't move

3820

07:42:46,968 --> 07:42:45,530

I'm gonna have to use the pgp I think

3821

07:42:50,510 --> 07:42:46,978

I'm ready for their settings

3822

07:42:54,850 --> 07:42:50,520

okay Frank Alpha One clockwise one and

3823

07:42:54,860 --> 07:42:59,930

one Alpha One Alpha One

3824

07:42:59,940 --> 07:43:56,628

offer one copy

3825

07:44:02,030 --> 07:43:59,510

yeah I'll hold it

3826

07:44:06,830 --> 07:44:02,040

I know and it feels like

3827

07:44:11,590 --> 07:44:09,890

if I hold it away can you push through

3828

07:44:14,628 --> 07:44:11,600

so you can see it

3829

07:44:59,690 --> 07:44:14,638

okay let me hold it you push if that

3830

07:45:03,110 --> 07:45:01,730

am I going to get a better body position

3831

07:45:05,330 --> 07:45:03,120

here

3832

07:45:08,570 --> 07:45:05,340

what's up

3833

07:45:13,730 --> 07:45:08,580

this will help me keep it stable for you

3834

07:45:16,010 --> 07:45:15,288

they come away from the crowd a little

3835

07:45:21,530 --> 07:45:16,020

bit

3836

07:45:21,540 --> 07:46:08,448

whatever you needed away again

3837

07:46:13,430 --> 07:46:10,430

thanks engaged

3838

07:46:16,250 --> 07:46:13,440

I agree then I got a one and a half

3839

07:46:16,260 --> 07:46:21,548

probably one turn on m19

3840

07:46:25,670 --> 07:46:23,628

right between one and one and a half

3841

07:46:27,468 --> 07:46:25,680

okay thanks Frank

3842

07:46:30,048 --> 07:46:27,478

all right we're looking for about four

3843

07:46:32,570 --> 07:46:30,058

turns to start with and then we'll be

3844

07:46:35,390 --> 07:46:32,580

bumping up to Bravo seven Josh you can

3845

07:46:36,948 --> 07:46:35,400

go ahead and start M20 on your end check

3846

07:46:40,448 --> 07:46:36,958

that the pit pin lanyard is free of the

3847

07:46:40,458 --> 07:46:54,350

thank you

3848

07:46:59,150 --> 07:46:56,810

now five hours and two minutes into

3849

07:47:01,910 --> 07:46:59,160

today's space walk recapping some of the

3850

07:47:04,430 --> 07:47:01,920

Milestones of today at 8 14 a.m central

3851
07:47:06,170 --> 07:47:04,440
time that's astronauts Josh cassida and

3852
07:47:08,090 --> 07:47:06,180
Frank Rubio turned their suits onto a

3853
07:47:10,670 --> 07:47:08,100
battery power marking the official start

3854
07:47:13,548 --> 07:47:10,680
of today's space walk they are currently

3855
07:47:15,048 --> 07:47:13,558
working on the installation of the lower

3856
07:47:19,010 --> 07:47:15,058
right struts

3857
07:47:23,750 --> 07:47:19,020
for the modification kit to the 1B power

3858
07:47:28,070 --> 07:47:25,368
modification kit is the support

3859
07:47:56,690 --> 07:47:28,080
structures needed for the future irosa

3860
07:47:56,700 --> 07:48:00,830
there

3861
07:48:06,170 --> 07:48:03,468
copy Frank you know I have four turns

3862
07:48:08,990 --> 07:48:06,180
copy four turns on m19

3863
07:48:12,590 --> 07:48:09,000

and Josh once you've got M20 in place

3864

07:48:15,770 --> 07:48:14,570

we've got one turn on M20 I'm ready for

3865

07:48:18,650 --> 07:48:15,780

PGT

3866

07:48:21,468 --> 07:48:18,660

copy one turn on M20 you'll be Bravo One

3867

07:48:26,390 --> 07:48:21,478

clockwise two looking for one additional

3868

07:48:26,400 --> 07:48:30,410

all right doing just one additional turn

3869

07:48:30,420 --> 07:48:33,850

at least Bravo

3870

07:48:42,410 --> 07:48:40,368

travel one clockwise chew Josh a firm

3871

07:48:44,628 --> 07:48:42,420

Frank for you

3872

07:48:47,270 --> 07:48:44,638

now that he's got one turn on M20 you

3873

07:48:49,250 --> 07:48:47,280

can drive m19 to torque 10 and a half to

3874

07:48:52,310 --> 07:48:49,260

11 additional turns looking for green

3875

07:48:57,170 --> 07:48:53,930

okay and Freddie

3876
07:48:59,810 --> 07:48:57,180
and Bravo 7 on the PGT Bravo 7 clockwise

3877
07:48:59,820 --> 07:49:09,590
507 clockwise

3878
07:49:14,330 --> 07:49:12,170
I go on one turn

3879
07:49:17,208 --> 07:49:14,340
on M20

3880
07:49:20,810 --> 07:49:17,218
one additional turn copy two total turns

3881
07:49:26,330 --> 07:49:20,820
on M20 and stand by one until Frank gets

3882
07:49:32,030 --> 07:49:30,048
I already have two total on M20

3883
07:49:33,708 --> 07:49:32,040
yep we copy concur

3884
07:49:36,350 --> 07:49:33,718
and just stand by until Frank gets his

3885
07:49:49,250 --> 07:49:38,810
okay

3886
07:49:56,270 --> 07:49:51,650
Frank you broke up there we copied seven

3887
07:50:01,730 --> 07:49:59,388
green light 25 decimal forward

3888
07:50:04,910 --> 07:50:01,740

that'd be 25 decimal four seven turns

3889

07:50:07,010 --> 07:50:04,920

green light on M20

3890

07:50:09,770 --> 07:50:07,020

and you can go ahead and retrieve the

3891

07:50:11,388 --> 07:50:09,780

torque wrench do a socket swap from the

3892

07:51:47,350 --> 07:50:11,398

silver PGT to the torque wrench with a

3893

07:51:52,670 --> 07:51:49,910

now in orbital daytime getting great

3894

07:51:55,368 --> 07:51:52,680

views of the earth below Josh cassida

3895

07:51:58,910 --> 07:51:55,378

and Frank Rubio continue to install the

3896

07:52:24,288 --> 07:51:58,920

lower right strut to the mass canister

3897

07:52:24,298 --> 07:52:56,628

foreign

3898

07:53:01,910 --> 07:52:59,570

okay I have three additional turns

3899

07:53:04,968 --> 07:53:01,920

the break over

3900

07:53:10,010 --> 07:53:04,978

twice and black line

3901
07:53:12,230 --> 07:53:10,020
is flush and I see no gap between the

3902
07:53:18,350 --> 07:53:12,240
off and the spherical bearing

3903
07:53:24,048 --> 07:53:20,810
very solid

3904
07:53:26,628 --> 07:53:24,058
copy that's a good config Josh you can

3905
07:53:28,368 --> 07:53:26,638
finish driving M20 to torque five to

3906
07:53:31,190 --> 07:53:28,378
seven additional turns

3907
07:53:35,448 --> 07:53:31,200
and Frank for you you can tend that

3908
07:53:39,110 --> 07:53:37,368
okay they are attended and they are on

3909
07:53:41,030 --> 07:53:39,120
the apfr

3910
07:53:45,708 --> 07:53:41,040
I have seven additional turns here they

3911
07:53:52,670 --> 07:53:47,570
Frank next you can also check the lower

3912
07:53:58,548 --> 07:53:55,990
mli is in a good config

3913
07:54:06,770 --> 07:53:58,558

turns three green lights

3914

07:54:12,888 --> 07:54:09,170

copy Josh and looking for Blackline

3915

07:54:12,898 --> 07:54:26,388

that black light is flush

3916

07:54:30,830 --> 07:54:28,850

did you copy black white stuff hey from

3917

07:54:33,110 --> 07:54:30,840

Josh that's a good bolt-on M20 you can

3918

07:54:39,170 --> 07:54:33,120

Stow your PGT and release the rep from

3919

07:54:39,180 --> 07:54:46,368

okay it worked

3920

07:54:52,010 --> 07:54:50,150

and I'm taking my right back copy Josh

3921

07:54:54,590 --> 07:54:52,020

and big picture for you both we're going

3922

07:55:05,208 --> 07:54:54,600

to be installing the right mid stretch

3923

07:55:09,830 --> 07:55:07,010

container should I move up to the side

3924

07:55:12,110 --> 07:55:09,840

pad install location

3925

07:55:15,530 --> 07:55:12,120

yeah aphram Frank you can translate up

3926
07:55:15,540 --> 07:56:01,250
hello

3927
07:56:01,260 --> 07:56:26,708
foreign

3928
07:56:32,990 --> 07:56:30,708
after the midstro installation

3929
07:56:35,330 --> 07:56:33,000
the duo will clean up and head back to

3930
07:56:41,990 --> 07:56:35,340
the airlock finishing today's Eva after

3931
07:56:42,000 --> 07:56:49,310
dolphin after helmet dolphin

3932
07:56:52,610 --> 07:56:50,990
I think it's in place if you want to

3933
07:56:58,610 --> 07:56:52,620
rotate out

3934
07:57:05,868 --> 07:57:00,700
great work guys copy

3935
07:57:09,708 --> 07:57:07,788
and Josh just want to make sure that you

3936
07:57:11,150 --> 07:57:09,718
have the lower strut rounding pit pin

3937
07:57:19,128 --> 07:57:11,160
into the block on the mounting bracket

3938
07:57:24,110 --> 07:57:22,368

but I can do that as soon as

3939

07:57:35,388 --> 07:57:24,120

we get this one in

3940

07:57:35,398 --> 07:57:46,010

go ahead and hand start M24

3941

07:57:49,490 --> 07:57:47,810

Josh we'll have you hold off until Frank

3942

07:57:50,810 --> 07:57:49,500

gets his end started

3943

07:57:53,270 --> 07:57:50,820

Frank let me know when you're ready for

3944

07:57:55,250 --> 07:57:53,280

PGT I'm gonna work

3945

07:57:57,650 --> 07:57:55,260

I'm ready for a second

3946

07:58:02,388 --> 07:57:57,660

Alpha two clockwise two you'll be going

3947

07:58:48,288 --> 07:58:04,010

. oh yeah you're breaking up say again

3948

07:58:48,298 --> 07:58:52,490

yeah it's four turns on my ten

3949

07:58:58,368 --> 07:58:54,770

copy four turns on mic 10 we're just

3950

07:58:58,378 --> 07:59:03,048

I apologize

3951

07:59:03,058 --> 07:59:07,208

negative four is fine

3952

07:59:10,310 --> 07:59:09,468

uh how many of you want me to do on the

3953

07:59:12,350 --> 07:59:10,320

left

3954

07:59:20,570 --> 07:59:12,360

let's do two turns on the rest nine

3955

07:59:26,090 --> 07:59:23,208

T had been for the right lower is

3956

07:59:29,690 --> 07:59:26,100

installed and the mli is in place

3957

07:59:40,548 --> 07:59:32,750

two turns on Mike 11.

3958

07:59:40,558 --> 07:59:48,530

turns on my 12th copy two on 12.

3959

07:59:54,650 --> 07:59:50,810

two turns on Mike nine copy two turns on

3960

07:59:56,270 --> 07:59:54,660

nine Josh you can start on M24 you will

3961

07:59:58,368 --> 07:59:56,280

be going to torque so if you're ready

3962

08:00:00,468 --> 07:59:58,378

for PGT settings let me know

3963

08:00:02,868 --> 08:00:00,478

Frank for you no change to your PGT

3964

08:00:04,128 --> 08:00:02,878

settings once Josh gets started you'll

3965

08:00:10,968 --> 08:00:04,138

be going three to eight and a half

3966

08:00:18,230 --> 08:00:14,330

all right so all right M24 exam started

3967

08:00:21,830 --> 08:00:18,240

one turn I'm ready for PGT

3968

08:00:25,910 --> 08:00:21,840

Josh PGT Bravo One clockwise two you'll

3969

08:00:30,530 --> 08:00:29,150

for other one clockwise T to Blackline

3970

08:00:31,910 --> 08:00:30,540

plus do you have an estimate on number

3971

08:00:34,128 --> 08:00:31,920

returns

3972

08:00:37,128 --> 08:00:34,138

you'll be going six to eight additional

3973

08:00:37,138 --> 08:00:43,368

very additional

3974

08:00:43,378 --> 08:00:49,788

number one clockwise

3975

08:00:53,208 --> 08:00:51,770

you know on my phone I got three

3976

08:00:55,610 --> 08:00:53,218

additional three and a half additional

3977

08:00:57,948 --> 08:00:55,620

turns green lights three decimal rates

3978

08:00:59,570 --> 08:00:57,958

work got the three decimal light torque

3979

08:01:17,990 --> 08:00:59,580

three and a half turns green light on

3980

08:01:23,888 --> 08:01:21,650

seven and three quarters of M24

3981

08:01:26,750 --> 08:01:23,898

green light

3982

08:01:36,468 --> 08:01:26,760

torque at 11.8

3983

08:01:41,090 --> 08:01:38,150

yeah I'll eventually get that for you

3984

08:01:42,468 --> 08:01:41,100

black line is flush you know thanks

3985

08:01:47,868 --> 08:01:42,478

awesome that's a good

3986

08:01:52,190 --> 08:01:50,330

sorry I'm Mark 11.

3987

08:01:54,530 --> 08:01:52,200

um I have

3988

08:02:00,530 --> 08:01:54,540

between four and a half and five uh

3989

08:02:05,570 --> 08:02:03,350

three decimal seven on the switch

3990

08:02:07,190 --> 08:02:05,580

three decimals seven four and a half to

3991

08:02:18,770 --> 08:02:07,200

five turns green light that's a good

3992

08:02:25,910 --> 08:02:21,288

understand installing a

3993

08:02:29,628 --> 08:02:25,920

founding pin on the mid Right Strips

3994

08:02:29,638 --> 08:02:36,548

a firm

3995

08:02:47,990 --> 08:02:40,850

on Mike 12. I had five and a half

3996

08:02:48,000 --> 08:02:55,128

and hold on one second

3997

08:02:55,138 --> 08:02:59,868

four decimal zero on the terms

3998

08:03:04,070 --> 08:03:01,850

tell me that's a good bold on M12

3999

08:03:07,128 --> 08:03:04,080

correction on the torque

4000

08:03:08,868 --> 08:03:07,138

concur copy say it again

4001

08:03:12,708 --> 08:03:08,878

M12 is good

4002

08:03:12,718 --> 08:03:37,190

um

4003

08:03:55,730 --> 08:03:39,170

grab you Josh you can install the right

4004

08:03:55,740 --> 08:04:04,610

probably

4005

08:04:11,448 --> 08:04:07,430

you know I don't know that we did uh

4006

08:04:11,458 --> 08:04:16,250

we did the mid strut mli

4007

08:04:16,260 --> 08:04:48,128

checking Josh

4008

08:04:53,388 --> 08:04:50,570

now five hours and 20 minutes into

4009

08:04:55,788 --> 08:04:53,398

today's Eva

4010

08:05:04,310 --> 08:04:55,798

the duo is completing the installation

4011

08:05:04,320 --> 08:05:27,708

no problem

4012

08:05:33,350 --> 08:05:30,948

all right Tina that's the right upper

4013

08:05:34,788 --> 08:05:33,360

MRI is in place

4014

08:05:38,868 --> 08:05:34,798

and

4015

08:05:41,208 --> 08:05:38,878

yeah I don't know that we talked about

4016

08:05:43,670 --> 08:05:41,218

the uh left upper

4017

08:05:46,968 --> 08:05:43,680

copy I missed that I apologize but we

4018

08:05:49,548 --> 08:05:46,978

just we just did the mid left

4019

08:05:51,230 --> 08:05:49,558

copy if you have eyes on that would be

4020

08:06:00,070 --> 08:05:51,240

great and we are checking back through

4021

08:06:05,628 --> 08:06:04,010

all right dinner and uh M9 was five

4022

08:06:09,288 --> 08:06:05,638

additional turns

4023

08:06:12,110 --> 08:06:11,090

it was like three decimal frictionless

4024

08:06:14,810 --> 08:06:12,120

work

4025

08:06:19,310 --> 08:06:14,820

that'd be three decimal six five turns

4026
08:06:25,730 --> 08:06:22,190
159

4027
08:06:28,430 --> 08:06:25,740
and frankly 95 sure it is not off

4028
08:06:30,468 --> 08:06:28,440
okay copy Josh Stand by one Frank for

4029
08:06:32,330 --> 08:06:30,478
you you can start your PGT release the

4030
08:06:37,368 --> 08:06:32,340
rep from the mid strut and check the

4031
08:06:37,378 --> 08:06:45,250
copy this

4032
08:06:49,430 --> 08:06:48,350
I'm sorry go ahead when I get the red

4033
08:06:50,930 --> 08:06:49,440
back

4034
08:06:53,090 --> 08:06:50,940
um you know if you'd like I can roll

4035
08:06:55,368 --> 08:06:53,100
back and take care of the left side I

4036
08:07:02,750 --> 08:06:55,378
know we can't translate on the on the

4037
08:07:02,760 --> 08:07:32,150
okay Josh checking

4038
08:07:38,510 --> 08:07:34,490

Josh for now we're gonna have you stick

4039

08:07:41,810 --> 08:07:38,520

with Frank and finish the mid strut work

4040

08:07:46,010 --> 08:07:43,368

probably that we'll work together on the

4041

08:07:51,350 --> 08:07:48,530

there are you know the uh Pippin is in

4042

08:07:53,930 --> 08:07:51,360

on the side pad

4043

08:07:57,288 --> 08:07:53,940

copy pip and Frank

4044

08:07:59,690 --> 08:07:57,298

and you can install the mli over the

4045

08:08:01,190 --> 08:07:59,700

side pad clevis Josh meanwhile check

4046

08:08:17,690 --> 08:08:01,200

that the mounting bracket upper surface

4047

08:08:28,750 --> 08:08:20,750

coming out here got it thank you okay

4048

08:08:33,170 --> 08:08:31,910

do the same thing we did on the left

4049

08:08:34,968 --> 08:08:33,180

let me know

4050

08:08:37,788 --> 08:08:34,978

if you want me to hand you a wire tag I

4051

08:08:41,690 --> 08:08:37,798

could do that too okay thank you

4052

08:08:49,368 --> 08:08:45,730

if you know the walking prep in is

4053

08:08:51,650 --> 08:08:49,378

now in place with good pull tests okay

4054

08:08:52,968 --> 08:08:51,660

copy locking pip pin is in place with a

4055

08:08:54,830 --> 08:08:52,978

good pull test

4056

08:08:55,910 --> 08:08:54,840

and Josh I'm not sure my call went up

4057

08:09:00,048 --> 08:08:55,920

for you to check that the mounting

4058

08:09:00,058 --> 08:09:09,468

I did not hear that one but I will

4059

08:09:13,128 --> 08:09:11,208

Nina if you think I'm going to go back

4060

08:09:19,070 --> 08:09:13,138

to the left side that's probably a great

4061

08:09:19,080 --> 08:09:43,150

stand by one Josh

4062

08:09:48,830 --> 08:09:46,548

okay Josh if you can roll the apfr

4063

08:09:50,750 --> 08:09:48,840

without putting loads into the mod kit

4064

08:09:55,548 --> 08:09:50,760

we'll have you go ahead and roll to the

4065

08:10:00,708 --> 08:09:56,570

um

4066

08:10:07,250 --> 08:10:03,888

understand take care of the

4067

08:10:13,570 --> 08:10:07,260

strut on the right side first

4068

08:10:17,090 --> 08:10:16,250

thanks no problem

4069

08:10:19,850 --> 08:10:17,100

all right

4070

08:10:21,770 --> 08:10:19,860

Indio I think we tack it on M24 Xena

4071

08:10:23,510 --> 08:10:21,780

Kirk if I'm wrong

4072

08:10:30,288 --> 08:10:23,520

it was good

4073

08:10:30,298 --> 08:10:41,030

and

4074

08:10:49,730 --> 08:10:43,730

I can't reach is the velcro are you able

4075

08:10:49,740 --> 08:11:52,730

I don't know

4076
08:11:55,730 --> 08:11:54,410
ain't hardly worry about sticking me in

4077
08:13:01,968 --> 08:11:55,740
the eye with this thing but that's not

4078
08:13:01,978 --> 08:13:18,170
uh

4079
08:13:21,948 --> 08:13:20,330
okay Xena I'm going to roll to the left

4080
08:13:23,330 --> 08:13:21,958
I'm just going to keep my hand on the

4081
08:13:25,670 --> 08:13:23,340
mounting bracket if that's okay but I

4082
08:13:27,650 --> 08:13:25,680
won't put loads into it

4083
08:13:29,090 --> 08:13:27,660
copy we're good with that plan just be

4084
08:13:33,830 --> 08:13:29,100
gentle with the mounting bracket and

4085
08:13:39,288 --> 08:13:36,948
if you know what's nice for me

4086
08:13:41,990 --> 08:13:39,298
there you go uh what's the next step for

4087
08:13:46,610 --> 08:13:44,810
for Frank check that the mli is covering

4088
08:13:50,208 --> 08:13:46,620

the side pad clevis and then we'll take

4089

08:13:55,610 --> 08:13:53,110

okay it is

4090

08:14:03,350 --> 08:13:55,620

I'm just going to wrap this up a little

4091

08:14:03,360 --> 08:14:09,468

okay the mounting bracket is clear

4092

08:14:30,190 --> 08:14:10,730

foreign

4093

08:14:37,250 --> 08:14:35,810

is uh covering the Columbus so in place

4094

08:14:40,910 --> 08:14:37,260

I don't know that I called up but there

4095

08:14:46,968 --> 08:14:44,270

copy all Frank okay if you've got the

4096

08:14:48,590 --> 08:14:46,978

right mid mli fully installed with wire

4097

08:14:52,490 --> 08:14:48,600

ties

4098

08:15:38,288 --> 08:14:52,500

then we can have you translate to

4099

08:15:38,298 --> 08:15:43,670

if you're just joining us

4100

08:15:47,750 --> 08:15:45,830

Expedition 68 flight Engineers Josh

4101
08:15:50,570 --> 08:15:47,760
cassida and Frank Rubio of NASA began a

4102
08:15:52,010 --> 08:15:50,580
spacewalk at 8 14 a.m central time to

4103
08:15:53,628 --> 08:15:52,020
assemble a mounting bracket on the

4104
08:15:55,430 --> 08:15:53,638
starboard side of the station's truss

4105
08:15:56,690 --> 08:15:55,440
assembly in preparation for the

4106
08:15:59,810 --> 08:15:56,700
installation of a pair of International

4107
08:16:01,430 --> 08:15:59,820
Space Station roll out solar arrays on

4108
08:16:05,270 --> 08:16:01,440
the space station

4109
08:16:08,030 --> 08:16:05,280
casa cassida designated extra vehicular

4110
08:16:10,250 --> 08:16:08,040
crew member one ev1 is wearing the suit

4111
08:16:13,490 --> 08:16:10,260
with the red stripes Rubio designated

4112
08:16:15,650 --> 08:16:13,500
extra vehicle crew member 2 or ev2 is in

4113
08:16:18,708 --> 08:16:15,660

an unmarked suit

4114

08:16:20,810 --> 08:16:18,718

the duo has completed multiple tests on

4115

08:16:23,570 --> 08:16:20,820

their list today but due to some early

4116

08:16:26,570 --> 08:16:23,580

on troubleshooting are just about 50

4117

08:16:38,510 --> 08:16:26,580

minutes behind their scheduled

4118

08:16:43,490 --> 08:16:41,448

turns out now that we are all on the

4119

08:16:46,490 --> 08:16:43,500

same page

4120

08:16:48,948 --> 08:16:46,500

if you can

4121

08:16:51,048 --> 08:16:48,958

translate to the with X handrail and

4122

08:16:54,708 --> 08:16:51,058

you'll be retrieving the silver PGT and

4123

08:16:54,718 --> 08:17:00,708

okay and then I'm taking that to Frank

4124

08:17:05,150 --> 08:17:02,930

a firm yep we're just getting into

4125

08:17:06,650 --> 08:17:05,160

cleanup steps from here on out we'll

4126
08:17:13,380 --> 08:17:06,660
also take a glove hap and Gauntlet check

4127
08:17:13,390 --> 08:17:21,708
[Music]

4128
08:17:25,730 --> 08:17:23,570
a firm that's a good plan Frank let's

4129
08:17:28,730 --> 08:17:25,740
have you retrieve the silver PGT and

4130
08:17:34,430 --> 08:17:28,740
torque wrench and you can put that into

4131
08:17:39,530 --> 08:17:37,128
okay while he does that uh quick

4132
08:17:45,650 --> 08:17:39,540
love check

4133
08:17:51,170 --> 08:17:48,468
no Deltas on the left

4134
08:17:54,770 --> 08:17:51,180
that was dry you got what they're still

4135
08:17:58,670 --> 08:17:56,868
we copy all Josh and if you can just

4136
08:18:00,110 --> 08:17:58,680
tell us this

4137
08:18:04,010 --> 08:18:00,120
that we're seeing on the

4138
08:18:04,020 --> 08:18:07,250

he's gone

4139

08:18:07,260 --> 08:19:27,590

sweet that's great news Josh

4140

08:19:32,270 --> 08:19:29,690

and Josh for you if we could have you

4141

08:19:33,830 --> 08:19:32,280

visually inspect the right mid mli we

4142

08:19:39,230 --> 08:19:33,840

weren't sure if we saw a gap in the m

4143

08:19:39,240 --> 08:20:08,030

September

4144

08:20:13,310 --> 08:20:10,788

hey George yeah let me see my safety

4145

08:20:15,708 --> 08:20:13,320

color it got stuck behind me coming

4146

08:20:18,110 --> 08:20:15,718

under the uh

4147

08:20:32,048 --> 08:20:18,120

um the mass canister trick give me one

4148

08:20:39,010 --> 08:20:34,788

Frank we're showing you clear of your

4149

08:20:43,368 --> 08:20:41,750

The Reel is now bouncing in between your

4150

08:20:48,110 --> 08:20:43,378

feet

4151
08:20:54,620 --> 08:20:50,388
awesome thank you

4152
08:20:54,630 --> 08:21:12,430
[Applause]

4153
08:21:17,270 --> 08:21:14,570
currently seeing a live view of Frank

4154
08:21:20,388 --> 08:21:17,280
Rubio as he takes inventory of his tool

4155
08:21:20,398 --> 08:21:49,388
nice yard sale

4156
08:21:53,690 --> 08:21:51,530
Frank big picture while you're over

4157
08:21:56,030 --> 08:21:53,700
there we'll have you eventually be

4158
08:21:59,030 --> 08:21:56,040
inventorying the cable bag and stowing

4159
08:22:01,490 --> 08:21:59,040
it and it can also take a look at the

4160
08:22:08,330 --> 08:22:01,500
strut bag inventory the TBA bag if

4161
08:22:08,340 --> 08:22:13,968
[Music]

4162
08:22:13,978 --> 08:22:18,708
we're ready for you Frank

4163
08:22:27,048 --> 08:22:21,190

okay um

4164

08:22:37,310 --> 08:22:29,628

two small small reps one small small

4165

08:22:37,320 --> 08:22:40,250

copy

4166

08:22:45,888 --> 08:22:43,070

India is like

4167

08:22:52,548 --> 08:22:45,898

hotel is blank

4168

08:22:59,448 --> 08:22:55,788

on 11.

4169

08:23:04,310 --> 08:22:59,458

uh ring 11 we have we have a silver PGT

4170

08:23:18,350 --> 08:23:04,320

the camera and the torque wrench

4171

08:23:18,360 --> 08:23:36,250

uh wait one here

4172

08:23:41,990 --> 08:23:38,750

also in that bundle I have four small

4173

08:23:42,000 --> 08:23:48,770

and one adjustable

4174

08:23:56,030 --> 08:23:52,250

okay then on Echo

4175

08:23:56,040 --> 08:24:05,030

and that completes everything internally

4176
08:24:09,530 --> 08:24:07,190
and can I get out for one second yeah go

4177
08:24:14,750 --> 08:24:12,048
you see in my

4178
08:24:27,650 --> 08:24:14,760
I'm looking at that right mid for you

4179
08:24:38,330 --> 08:24:29,628
and I don't see any gaps from this

4180
08:24:42,708 --> 08:24:40,310
we copied Josh

4181
08:24:47,448 --> 08:24:42,718
we're looking especially for the inboard

4182
08:24:50,208 --> 08:24:49,310
I might have a better view of that from

4183
08:24:52,610 --> 08:24:50,218
here

4184
08:24:56,150 --> 08:24:52,620
okay give me one second

4185
08:25:10,670 --> 08:24:56,160
you want me to get back in the apfr

4186
08:26:09,830 --> 08:25:13,010
I've got cooling set again at uh four

4187
08:26:13,430 --> 08:26:11,628
yeah Josh let's have you go ahead and

4188
08:26:15,650 --> 08:26:13,440

climb up on the AP far you don't need to

4189

08:26:19,070 --> 08:26:15,660

Ingress and you'll be taking a look at

4190

08:26:23,448 --> 08:26:19,080

the inside of the right mid strut so the

4191

08:26:28,548 --> 08:26:26,090

okay and if it is exposed get in the ffr

4192

08:26:33,170 --> 08:26:28,558

and uh

4193

08:26:37,430 --> 08:26:35,030

probably have to translate around in

4194

08:26:48,410 --> 08:26:37,440

order to access it but let's see what we

4195

08:26:55,548 --> 08:26:52,310

5 hours and 42 minutes into today's Eva

4196

08:26:58,548 --> 08:26:55,558

or spacewalk the do are currently in

4197

08:27:01,430 --> 08:26:58,558

cleanup procedures

4198

08:27:03,708 --> 08:27:01,440

Frank Rubio is doing an inventory check

4199

08:27:07,010 --> 08:27:03,718

on the tool bag while Josh cassida is

4200

08:27:10,010 --> 08:27:07,020

checking the mli or that multi-layered

4201
08:28:07,730 --> 08:27:10,020
insulation around the mid strut that was

4202
08:28:13,490 --> 08:28:11,090
hey Josh we are seeing a gap in the

4203
08:28:15,770 --> 08:28:13,500
right mid strut Moi instead of having

4204
08:28:18,110 --> 08:28:15,780
you translate all the way down and

4205
08:28:20,388 --> 08:28:18,120
around out to where Frank was accessing

4206
08:28:23,448 --> 08:28:20,398
it we'll give you a go to translate on

4207
08:28:30,288 --> 08:28:23,458
the mod kit very slowly gently and go

4208
08:29:31,910 --> 08:28:31,410
okay

4209
08:29:36,048 --> 08:29:34,070
what happens

4210
08:29:41,690 --> 08:29:36,058
and thanks for you we'll have you start

4211
08:29:46,570 --> 08:29:44,270
copy that

4212
08:29:49,548 --> 08:29:46,580
and not sure if you've started

4213
08:29:54,468 --> 08:29:49,558

but we do need an inventory of the TBA

4214

08:29:58,010 --> 08:29:56,150

do you want me to just do that it's

4215

08:30:01,190 --> 08:29:58,020

right here

4216

08:30:01,200 --> 08:30:13,010

okay

4217

08:30:13,020 --> 08:30:20,270

Frank yeah were you able to do a uh

4218

08:30:28,910 --> 08:30:22,430

I got my answer thanks

4219

08:30:33,770 --> 08:30:32,330

I see two on the left also

4220

08:30:43,070 --> 08:30:33,780

we did

4221

08:30:43,080 --> 08:30:56,990

all right so Vena on the PBA bag

4222

08:31:00,888 --> 08:30:58,968

which I was going to call a large small

4223

08:31:02,330 --> 08:31:00,898

adjustable but that's actually on the

4224

08:31:04,670 --> 08:31:02,340

strut bag so it looks like that was the

4225

08:31:09,350 --> 08:31:04,680

one thing external on the strut bag was

4226
08:31:09,360 --> 08:31:13,070
copy Frank

4227
08:31:13,080 --> 08:31:17,570
is that going to the TBA bag

4228
08:31:17,580 --> 08:31:22,730
it is on the handrail bag

4229
08:31:22,740 --> 08:31:27,048
got it copy Frank

4230
08:31:30,590 --> 08:31:28,670
you know you happy with the right mid

4231
08:31:31,850 --> 08:31:30,600
now did I cut I think I think the hole

4232
08:31:37,850 --> 08:31:31,860
is here

4233
08:31:45,190 --> 08:31:40,010
checking Josh if you're able to see with

4234
08:31:53,030 --> 08:31:47,388
but definitely looking a lot better in

4235
08:31:53,040 --> 08:31:59,570
all right Tina on the uh

4236
08:31:59,580 --> 08:32:02,690
CDA bag

4237
08:32:07,070 --> 08:32:05,388
starting off with a wrench

4238
08:32:08,208 --> 08:32:07,080

that is tape that looks like a one inch

4239

08:32:10,548 --> 08:32:08,218

wrench

4240

08:32:13,368 --> 08:32:10,558

that is on a

4241

08:32:13,378 --> 08:32:20,030

that adjustable comes back to

4242

08:32:24,350 --> 08:32:22,730

on the other end of that adjustable

4243

08:32:30,110 --> 08:32:24,360

is

4244

08:32:33,708 --> 08:32:32,628

and there's another adjustable going

4245

08:32:35,090 --> 08:32:33,718

back

4246

08:32:36,708 --> 08:32:35,100

to

4247

08:32:38,628 --> 08:32:36,718

the

4248

08:32:41,090 --> 08:32:38,638

H fixture

4249

08:32:42,708 --> 08:32:41,100

add copy and pause there Frank Josh

4250

08:32:45,350 --> 08:32:42,718

you're good with that right mid strut

4251
08:32:48,468 --> 08:32:45,360
you can go ahead and head back towards

4252
08:32:52,128 --> 08:32:49,968
happy that

4253
08:33:00,410 --> 08:32:52,138
uh towards the strut bag or back to the

4254
08:33:00,420 --> 08:33:04,010
um adjustable

4255
08:33:09,830 --> 08:33:06,110
okay on the other side is adjustable

4256
08:33:14,388 --> 08:33:09,840
with uh each and having half a wrench

4257
08:33:22,070 --> 08:33:18,170
with a ratchet wrench from the other end

4258
08:33:28,250 --> 08:33:23,570
and it looks like that completes

4259
08:33:28,260 --> 08:33:36,708
coffee Frank that's a good inventory

4260
08:33:41,810 --> 08:33:39,070
Josh for you

4261
08:33:44,150 --> 08:33:41,820
have you grabbed the strut bag put it on

4262
08:34:00,770 --> 08:33:44,160
the apfr and then bring all of those

4263
08:34:03,888 --> 08:34:02,690

okay Frank we'll have you move on to the

4264

08:34:06,468 --> 08:34:03,898

cable bag

4265

08:34:08,628 --> 08:34:06,478

Josh you'll pick up where Frank left off

4266

08:34:10,730 --> 08:34:08,638

putting the TBA bag back in the strut

4267

08:34:21,288 --> 08:34:10,740

bag holding that all up and putting it

4268

08:34:27,650 --> 08:34:23,208

onto

4269

08:34:43,910 --> 08:34:29,750

for our

4270

08:34:48,888 --> 08:34:46,010

Josh you came in pretty broken there but

4271

08:34:51,288 --> 08:34:48,898

if you're able to just fold the strut

4272

08:34:53,330 --> 08:34:51,298

bag over the TBA bag and get that nice

4273

08:34:56,388 --> 08:34:53,340

and bundled to put on the apfr we're

4274

08:35:00,468 --> 08:34:58,490

okay that was Frank talking me through

4275

08:35:02,448 --> 08:35:00,478

folding up the bag but you're saying

4276
08:35:05,330 --> 08:35:02,458
just one more fold with the TVA bag in

4277
08:35:10,030 --> 08:35:05,340
the middle then put it on the apsr

4278
08:35:23,510 --> 08:35:12,708
you were suggesting

4279
08:35:23,520 --> 08:35:28,030
I'm heading over to the cable bag

4280
08:35:28,040 --> 08:36:10,310
copy Frank

4281
08:36:10,320 --> 08:36:19,910
ah

4282
08:36:19,920 --> 08:36:43,930
sure

4283
08:36:49,430 --> 08:36:46,910
all right you know I mean on top

4284
08:36:51,288 --> 08:36:49,440
area of the cable bag I have the two

4285
08:36:59,930 --> 08:36:51,298
wire bundles

4286
08:36:59,940 --> 08:37:02,868
copy Frank

4287
08:37:06,948 --> 08:37:05,448
each of them have an adjustable

4288
08:37:14,690 --> 08:37:06,958

which are then connected to a third

4289

08:37:20,750 --> 08:37:18,410

there's uh nothing in the middle section

4290

08:37:24,410 --> 08:37:20,760

foreign

4291

08:37:24,420 --> 08:37:34,070

all right and then on the uh

4292

08:37:34,080 --> 08:37:40,850

jumper and a cat keeper

4293

08:37:47,628 --> 08:37:43,430

throws on the adjustable

4294

08:37:52,310 --> 08:37:49,788

there's our empty small small and sorry

4295

08:37:58,548 --> 08:37:52,320

that that's a small small rat

4296

08:37:58,558 --> 08:38:01,430

copy

4297

08:38:01,440 --> 08:38:07,670

Square scooping on an adjustable

4298

08:38:13,490 --> 08:38:10,610

here's the adjustable used to keep the

4299

08:38:18,590 --> 08:38:13,500

basement closed

4300

08:38:24,888 --> 08:38:21,548

okay it's over on the uh forward

4301
08:38:27,830 --> 08:38:24,898
outboard Edge

4302
08:38:39,468 --> 08:38:27,840
oh I see it

4303
08:38:57,468 --> 08:38:41,330
Have You released

4304
08:38:57,478 --> 08:39:03,770
all right so I've been here continuing

4305
08:39:09,110 --> 08:39:05,810
go ahead Frank

4306
08:39:18,888 --> 08:39:09,120
I've got a Eva connector insulating free

4307
08:39:23,090 --> 08:39:21,410
I've got a connector cleaning cleaner

4308
08:39:27,110 --> 08:39:23,100
tool kit

4309
08:39:29,570 --> 08:39:27,120
and a hammer both in an adjustable

4310
08:39:39,590 --> 08:39:29,580
and that adjustable is on a small small

4311
08:39:39,600 --> 08:39:43,610
copy all Frank

4312
08:39:52,430 --> 08:39:46,190
we have a soccer caddy with a waffle

4313
08:39:52,440 --> 08:39:58,310

and that is also under adjustable

4314

08:39:58,320 --> 08:40:02,270

um

4315

08:40:05,750 --> 08:40:04,190

and it looks like on the other end of

4316

08:40:08,570 --> 08:40:05,760

that adjustable

4317

08:40:10,310 --> 08:40:08,580

the um

4318

08:40:15,110 --> 08:40:10,320

and stand by Frank we've got a quick

4319

08:40:22,310 --> 08:40:18,170

I think I'll take this opportunity uh

4320

08:40:22,320 --> 08:40:34,368

this bag is that

4321

08:40:37,850 --> 08:40:36,410

if you're just joining us we're in a

4322

08:40:39,410 --> 08:40:37,860

brief Handover between satellites but

4323

08:40:42,048 --> 08:40:39,420

we'll bring you live coverage today of

4324

08:40:43,850 --> 08:40:42,058

the ninth spacewalk of 2022 and the

4325

08:40:45,410 --> 08:40:43,860

254th spacewalk in support of

4326
08:40:48,410 --> 08:40:45,420
International Space Station assembly

4327
08:40:50,510 --> 08:40:48,420
maintenance and upgrades so far NASA

4328
08:40:53,208 --> 08:40:50,520
astronauts Joshua cassida and Frank

4329
08:40:55,250 --> 08:40:53,218
Rubio have completed a list of tests for

4330
08:40:59,388 --> 08:40:55,260
their spacewalk today

4331
08:41:02,208 --> 08:40:59,398
that includes the 3A irosa cable routing

4332
08:41:06,590 --> 08:41:02,218
the removal of the H fixture on the 1B

4333
08:41:08,570 --> 08:41:06,600
Mass canister the upper triangle build

4334
08:41:10,968 --> 08:41:08,580
and installation to the mass Canada

4335
08:41:14,150 --> 08:41:10,978
canister at the 1B power Channel

4336
08:41:17,690 --> 08:41:14,160
and the left struts and right struts

4337
08:41:21,350 --> 08:41:17,700
being installed on two

4338
08:41:23,750 --> 08:41:21,360

the 1B Mass canister

4339

08:41:27,830 --> 08:41:23,760

due to the crew running about 50 minutes

4340

08:41:30,110 --> 08:41:27,840

behind the timeline the crew will not be

4341

08:41:31,190 --> 08:41:30,120

doing the collar boats or the 1B cable

4342

08:41:33,770 --> 08:41:31,200

routing

4343

08:41:37,968 --> 08:41:33,780

today they are currently in cleanup

4344

08:41:40,368 --> 08:41:37,978

which includes the

4345

08:41:43,128 --> 08:41:40,378

inventory of their

4346

08:41:50,270 --> 08:41:43,138

cable bags strut bag as well as their

4347

08:41:54,288 --> 08:41:51,708

hey guys back with you after that

4348

08:41:56,868 --> 08:41:54,298

Handover Frank I copied the template and

4349

08:42:02,208 --> 08:41:56,878

adjustable Handover Frank I copied the

4350

08:42:06,468 --> 08:42:04,910

okay copy that and then on the other end

4351
08:42:08,448 --> 08:42:06,478
of that adjustable

4352
08:42:10,010 --> 08:42:08,458
the uh

4353
08:42:11,990 --> 08:42:10,020
spocket that we want to use for the

4354
08:42:27,110 --> 08:42:12,000
section on the softball

4355
08:42:27,120 --> 08:42:32,208
is that two long duration Frank

4356
08:42:36,410 --> 08:42:33,968
um

4357
08:42:44,090 --> 08:42:36,420
disregard we got before

4358
08:42:47,690 --> 08:42:46,430
and I think that's everything uh there

4359
08:42:49,190 --> 08:42:47,700
was a lot in here so let me know if I'm

4360
08:42:57,650 --> 08:42:49,200
in this area

4361
08:43:01,250 --> 08:42:59,330
Frank I think you're ahead of me on

4362
08:43:05,230 --> 08:43:01,260
cleanup Creator to go fast and I'm still

4363
08:43:09,830 --> 08:43:07,610

a monster

4364

08:43:12,230 --> 08:43:09,840

yeah I think especially with just the

4365

08:43:13,850 --> 08:43:12,240

loose stuff

4366

08:43:15,948 --> 08:43:13,860

I almost wonder if it's worth putting

4367

08:43:19,430 --> 08:43:15,958

that loose up in here because this is

4368

08:43:19,440 --> 08:43:23,150

you want me to bring it over and do that

4369

08:43:23,160 --> 08:43:26,388

um I don't know if they're gonna

4370

08:43:32,030 --> 08:43:28,850

do another inventory

4371

08:43:38,690 --> 08:43:33,888

I think we can just call it as we do it

4372

08:43:38,700 --> 08:43:51,410

true

4373

08:44:43,788 --> 08:43:54,048

yeah the stuff

4374

08:44:48,948 --> 08:44:46,368

I'm making some progress okay I'll keep

4375

08:44:50,330 --> 08:44:48,958

you posted really nice work and yeah I

4376

08:44:53,270 --> 08:44:50,340

think Frank we can go ahead and have you

4377

08:45:03,350 --> 08:44:53,280

help Josh forehead will be a lot easier

4378

08:45:06,830 --> 08:45:04,910

I think it's a lot better suited for

4379

08:45:09,468 --> 08:45:06,840

putting some of those things in there

4380

08:45:13,910 --> 08:45:09,478

if we can uh and I have some empty Reds

4381

08:45:13,920 --> 08:45:43,430

foreign

4382

08:45:43,440 --> 08:46:09,910

uh

4383

08:46:19,010 --> 08:46:13,730

now six hours and one minute

4384

08:46:23,810 --> 08:46:20,750

great

4385

08:46:25,548 --> 08:46:23,820

another important thing happening today

4386

08:46:28,250 --> 08:46:25,558

you currently see a dual screen box

4387

08:46:30,708 --> 08:46:28,260

inside the white flight control room

4388

08:46:32,810 --> 08:46:30,718

where which is the Artemis control room

4389

08:46:35,090 --> 08:46:32,820

here at the Johnson Space Center we have

4390

08:46:36,888 --> 08:46:35,100

the pre-launch flight control team on

4391

08:46:41,930 --> 08:46:36,898

Console being led by flight director

4392

08:46:46,730 --> 08:46:44,930

in just about 15 minutes from now the

4393

08:46:49,788 --> 08:46:46,740

tanking for NASA space launch system

4394

08:46:52,548 --> 08:46:49,798

rocket with the Orion spacecraft at

4395

08:46:56,930 --> 08:46:52,558

Launchpad 39b at NASA's Kennedy Space

4396

08:46:59,750 --> 08:46:58,490

currently seeing live views of the

4397

08:47:01,310 --> 08:46:59,760

launch pad

4398

08:47:04,310 --> 08:47:01,320

in just about 15 minutes we're going to

4399

08:47:07,968 --> 08:47:04,320

split channels out at 2 30 p.m Central

4400

08:47:09,110 --> 08:47:07,978

Time 3 30 p.m Eastern Time to enable KSC

4401
08:47:11,628 --> 08:47:09,120
to begin

4402
08:47:13,310 --> 08:47:11,638
broadcasting fueling coverage on the

4403
08:47:15,770 --> 08:47:13,320
public Channel while we stay and finish

4404
08:47:17,750 --> 08:47:15,780
the Eva on the media channel

4405
08:47:19,430 --> 08:47:17,760
again NASA's Artemis 1 mission is the

4406
08:47:22,968 --> 08:47:19,440
first integrated test of the agency's

4407
08:47:25,968 --> 08:47:22,978
deep space exploration systems

4408
08:47:28,368 --> 08:47:25,978
the Orion spacecraft SLS rocket and the

4409
08:47:30,048 --> 08:47:28,378
supporting ground systems launch of the

4410
08:47:51,288 --> 08:47:30,058
uncrewed flight test is targeted for

4411
08:47:51,298 --> 08:47:58,430
you know yep

4412
08:48:02,690 --> 08:48:00,110
there's probably also be a mess on top

4413
08:48:04,250 --> 08:48:02,700

of your cable bag limit

4414

08:48:10,250 --> 08:48:04,260

um we can try it let's just see how

4415

08:48:21,350 --> 08:48:12,170

I've got something I can wrap with right

4416

08:48:26,448 --> 08:48:23,510

and we could go around

4417

08:48:33,288 --> 08:48:28,730

a couple times with this guy or at least

4418

08:48:33,298 --> 08:48:44,590

and I got a point over there

4419

08:48:44,600 --> 08:48:55,190

as well

4420

08:48:55,200 --> 08:49:06,730

want to go under okay

4421

08:49:24,888 --> 08:49:09,410

how about this one

4422

08:49:28,910 --> 08:49:27,650

wait there you've done that pressure if

4423

08:49:32,708 --> 08:49:28,920

you can give me one over here I can put

4424

08:49:36,230 --> 08:49:32,718

it to this whatever album

4425

08:49:38,330 --> 08:49:36,240

so I just pull it

4426

08:49:40,010 --> 08:49:38,340

industry attachment

4427

08:49:52,670 --> 08:49:40,020

this is the one you put on earlier to

4428

08:50:00,110 --> 08:49:55,010

you're looking for another strap that

4429

08:50:03,650 --> 08:50:01,788

this is one that says that but we need

4430

08:50:22,610 --> 08:50:03,660

it

4431

08:50:28,430 --> 08:50:25,788

that one's on

4432

08:50:30,110 --> 08:50:28,440

oh there's there's two

4433

08:50:35,510 --> 08:50:30,120

that's so I think you only released one

4434

08:50:41,208 --> 08:50:38,448

maybe it wrote just that one

4435

08:50:44,330 --> 08:50:41,218

yeah so we got uh

4436

08:50:46,670 --> 08:50:44,340

we could use one of them yep yep come on

4437

08:50:48,590 --> 08:50:46,680

I'll take it out for 2057. oh good

4438

08:50:52,310 --> 08:50:48,600

submit it along you can tag down here

4439

08:50:54,110 --> 08:50:52,320

okay on the corner of 2013.

4440

08:50:56,388 --> 08:50:54,120

then I can give it to you it'll come

4441

08:50:59,090 --> 08:50:56,398

right here

4442

08:51:03,110 --> 08:50:59,100

right there yep easy does that work yep

4443

08:51:07,190 --> 08:51:05,750

and if you think you can put this more

4444

08:51:08,570 --> 08:51:07,200

conveniently on the cable bag maybe

4445

08:51:10,010 --> 08:51:08,580

let's see if there yeah we're gonna try

4446

08:51:12,288 --> 08:51:10,020

it

4447

08:51:14,208 --> 08:51:12,298

yeah we all copy big picture for you

4448

08:51:17,270 --> 08:51:14,218

both we've got about an hour left on the

4449

08:51:18,530 --> 08:51:17,280

day our plan is to put that strut bag on

4450

08:51:21,170 --> 08:51:18,540

the apfr

4451

08:51:23,750 --> 08:51:21,180

or the cable bag I think will take your

4452

08:51:25,730 --> 08:51:23,760

judgment on when it is small enough and

4453

08:51:34,610 --> 08:51:25,740

whichever place you want to Stow it for

4454

08:51:34,620 --> 08:51:36,788

um

4455

08:51:41,808 --> 08:51:39,530

the easiest uh

4456

08:51:43,610 --> 08:51:41,818

way to do it

4457

08:51:44,628 --> 08:51:43,620

yeah we definitely trust your judgment

4458

08:51:52,368 --> 08:51:44,638

there

4459

08:51:57,650 --> 08:51:54,230

we gotta make sure we've got a good spot

4460

08:51:57,660 --> 08:52:07,610

white tape there

4461

08:52:12,730 --> 08:52:09,968

I think we did it

4462

08:52:15,230 --> 08:52:12,740

process

4463

08:52:19,308 --> 08:52:15,240

that's all the metal so yeah

4464

08:52:22,850 --> 08:52:19,318

all right so we are in good shape

4465

08:52:29,690 --> 08:52:25,548

um can I ask you a favor

4466

08:52:33,350 --> 08:52:31,128

so I'll put it wherever you want to

4467

08:52:35,330 --> 08:52:33,360

spawn my fall or stand for on the

4468

08:52:37,430 --> 08:52:35,340

handrail yeah okay let's make sure we're

4469

08:52:40,250 --> 08:52:37,440

good I'm not crossing any tethers here

4470

08:52:44,570 --> 08:52:40,260

like you can let it go yeah you're gonna

4471

08:53:10,070 --> 08:52:47,270

go for it once you once you uh allow me

4472

08:53:30,230 --> 08:53:13,788

my brother's still good and it's on top

4473

08:53:30,240 --> 08:53:39,708

thanks

4474

08:54:57,170 --> 08:54:08,808

foreign

4475

08:54:57,180 --> 08:55:02,930

yeah Josh we're good with that

4476
08:55:11,030 --> 08:55:06,170
okay so you need anything in terms of

4477
08:55:11,040 --> 08:55:22,910
fun Josh

4478
08:55:22,920 --> 08:55:41,090
all right

4479
08:55:46,690 --> 08:55:43,128
if you're just joining us you're seeing

4480
08:55:50,330 --> 08:55:46,700
live coverage right now of the

4481
08:55:52,490 --> 08:55:50,340
254th Eva or spacewalk

4482
08:55:59,330 --> 08:55:52,500
for ISS assembly maintenance and

4483
08:56:02,690 --> 08:56:01,430
down at the Kennedy Space Center the

4484
08:56:05,868 --> 08:56:02,700
launch director Charlie Blackwell

4485
08:56:12,410 --> 08:56:05,878
Thompson just gave a go for cryo loading

4486
08:56:17,930 --> 08:56:14,930
they will Take Over Control at the

4487
08:56:21,650 --> 08:56:17,940
bottom of the Hour 2 30 PM Central Time

4488
08:56:24,468 --> 08:56:21,660

3 30 PM eastern time of the public

4489

08:56:49,270 --> 08:56:24,478

Channel and the EPA will continue

4490

08:56:54,770 --> 08:56:52,788

is at a position of one

4491

08:57:01,090 --> 08:56:54,780

the Ingress Aid is folded down to the

4492

08:57:09,230 --> 08:57:03,590

Josh we're happy you can translate in

4493

08:57:12,530 --> 08:57:10,910

I'll do that I think you've probably

4494

08:57:13,730 --> 08:57:12,540

heard of Falcon uh we'll get Frank

4495

08:57:16,010 --> 08:57:13,740

headed in

4496

08:57:18,288 --> 08:57:16,020

before I go

4497

08:57:19,548 --> 08:57:18,298

yeah we copy and concur Frankel head in

4498

08:57:21,468 --> 08:57:19,558

first going all the way back to the

4499

08:57:23,628 --> 08:57:21,478

airlock and Josh you can go ahead and

4500

08:57:29,750 --> 08:57:23,638

follow him remembering that you'll be

4501
08:57:35,808 --> 08:57:33,230
awesome thank you for the reminder

4502
08:57:38,570 --> 08:57:35,818
so I'm ready to the whip extender

4503
08:57:41,750 --> 08:57:38,580
and I've got a brt on the with extender

4504
08:57:43,250 --> 08:57:41,760
the Jaws are out

4505
08:57:45,650 --> 08:57:43,260
okay if you have to close the panel

4506
08:57:45,660 --> 08:57:51,048
copy

4507
08:57:56,208 --> 08:57:53,270
now six hours and 13 minutes into

4508
08:57:58,548 --> 08:57:56,218
today's Eva Expedition 68 flight

4509
08:58:00,590 --> 08:57:58,558
Engineers Josh Cassidy and Frank Rubio

4510
08:58:03,888 --> 08:58:00,600
of NASA

4511
08:58:05,750 --> 08:58:03,898
have just completed their cleanup task

4512
08:58:07,610 --> 08:58:05,760
are currently completing their cleanup

4513
08:58:09,650 --> 08:58:07,620

tasks and will be translating back to

4514

08:58:11,868 --> 08:58:09,660

the airlock to finish out today's

4515

08:58:17,510 --> 08:58:11,878

spacewalk

4516

08:58:19,010 --> 08:58:17,520

morning at 8 14 a.m central time to

4517

08:58:20,510 --> 08:58:19,020

assemble a mounting bracket on the

4518

08:58:22,490 --> 08:58:20,520

starboard side of the station's trust

4519

08:58:24,948 --> 08:58:22,500

assembly in preparation for the

4520

08:58:26,868 --> 08:58:24,958

installation of a pair of inter

4521

08:58:40,788 --> 08:58:26,878

International Space Station rollout

4522

08:58:40,798 --> 08:58:45,110

secure

4523

08:58:51,170 --> 08:58:48,308

one side of the stroke

4524

08:59:33,788 --> 08:58:51,180

so it's great stay right over here to

4525

08:59:38,570 --> 08:59:36,590

Carolina orbital night time

4526
08:59:41,030 --> 08:59:38,580
the inertial space station and our space

4527
08:59:44,808 --> 08:59:41,040
Walkers are applying 258 statute miles

4528
08:59:48,590 --> 08:59:46,430
and again we're looking for those

4529
08:59:51,048 --> 08:59:48,600
spacewalkers Josh cassida and Frank

4530
09:00:10,610 --> 08:59:51,058
Rubio to start translating back to the

4531
09:00:10,620 --> 09:00:13,730
again I

4532
09:00:13,740 --> 09:00:17,990
or ahead of at least to uh

4533
09:00:18,000 --> 09:00:22,730
forward Edge

4534
09:00:26,690 --> 09:00:24,830
okay Josh coming in a little bit broken

4535
09:00:28,548 --> 09:00:26,700
there I've got you going toward the

4536
09:00:30,110 --> 09:00:28,558
forward Edge reminder you'll be cleaning

4537
09:00:35,628 --> 09:00:30,120
up your fairlead and then also the green

4538
09:00:35,638 --> 09:01:12,288

you both

4539

09:01:12,298 --> 09:01:37,808

okay

4540

09:01:44,990 --> 09:01:40,490

do you see the um

4541

09:01:48,170 --> 09:01:45,000

one uh integral that's holding it down

4542

09:01:50,750 --> 09:01:48,180

uh the strut bag no no cable bag

4543

09:01:56,208 --> 09:01:54,170

uh if you could release

4544

09:01:57,350 --> 09:01:56,218

that would be great I'm happy to uh do

4545

09:01:59,570 --> 09:01:57,360

you mind if I

4546

09:02:01,190 --> 09:01:59,580

punch this uh

4547

09:02:12,770 --> 09:02:01,200

I'm gonna check it out one more time and

4548

09:02:12,780 --> 09:02:16,750

all right

4549

09:02:22,308 --> 09:02:19,910

can't even see your hats is gonna be fun

4550

09:02:23,930 --> 09:02:22,318

oh you think they're

4551

09:02:28,548 --> 09:02:23,940

I think we'll be okay because that stuff

4552

09:02:32,750 --> 09:02:30,948

you agree yeah okay I have not released

4553

09:02:34,190 --> 09:02:32,760

your integral yet but I will if you're

4554

09:02:38,510 --> 09:02:34,200

ready for it

4555

09:03:00,888 --> 09:02:41,090

my way

4556

09:03:08,570 --> 09:03:03,650

is free from structure you're ready to

4557

09:03:13,190 --> 09:03:10,308

when you got it in a good configured

4558

09:03:27,650 --> 09:03:13,200

translation let me know I do okay

4559

09:03:32,930 --> 09:03:31,070

all right here we go yeah all right

4560

09:03:45,230 --> 09:03:32,940

let's do this

4561

09:03:45,240 --> 09:03:51,468

I wasn't very far

4562

09:04:58,430 --> 09:03:53,448

so what

4563

09:05:03,650 --> 09:04:59,990

all right green Hook is removed from

4564

09:05:06,048 --> 09:05:03,660

2008 and connected back to Red grill

4565

09:05:25,788 --> 09:05:06,058

copy Josh and Frank you'll also be

4566

09:05:32,808 --> 09:05:28,308

and Josh just confirming your fair lead

4567

09:05:39,230 --> 09:05:37,788

uh fairlead is unfair LED and uh my

4568

09:05:55,150 --> 09:05:39,240

uh

4569

09:06:01,610 --> 09:05:58,010

I think I'm happy to hold your reels

4570

09:06:01,620 --> 09:06:17,708

all right I got it thank you no problem

4571

09:06:22,310 --> 09:06:20,750

all right you're in there

4572

09:06:25,428 --> 09:06:22,320

[Applause]

4573

09:06:29,088 --> 09:06:25,438

all right Frank's got his Green Oaks and

4574

09:06:29,098 --> 09:06:50,810

we copy

4575

09:06:56,990 --> 09:06:54,310

I got my feather right in your way dude

4576

09:06:58,670 --> 09:06:57,000

in fact what I'll do is I'll just

4577

09:07:00,950 --> 09:06:58,680

thought I'll hang out give you some

4578

09:07:07,548 --> 09:07:00,960

space to get around all that okay that

4579

09:07:41,568 --> 09:07:09,888

see that last part again I'm heading

4580

09:07:41,578 --> 09:08:06,950

because

4581

09:08:14,568 --> 09:08:10,670

I do not want to follow Frank I'm at uh

4582

09:08:24,290 --> 09:08:18,228

yeah so I'm at 2003 and I'm headed uh

4583

09:08:24,300 --> 09:09:19,010

thank you

4584

09:09:19,020 --> 09:09:34,790

foreign

4585

09:09:34,800 --> 09:10:06,772

that's awesome

4586

09:10:16,010 --> 09:10:08,228

okay

4587

09:10:53,388 --> 09:10:20,150

I'm sorry I'm uh web search

4588

09:10:59,868 --> 09:10:55,790

if you're just joining us we're in live

4589

09:11:01,748 --> 09:10:59,878

coverage of the 254th spacewalk

4590

09:11:11,208 --> 09:11:01,758

for the International Space Station

4591

09:11:34,030 --> 09:11:13,670

have you sew the apfr on the seat of

4592

09:11:41,748 --> 09:11:38,748

astronauts Josh cassida and Frank Rubio

4593

09:11:45,048 --> 09:11:41,758

are currently in Translation to the

4594

09:11:48,530 --> 09:11:45,058

ceter cart where they will be installing

4595

09:11:52,068 --> 09:11:48,540

the apfr or the articulating portable

4596

09:11:57,350 --> 09:11:52,078

foot restraint as well as the

4597

09:12:01,190 --> 09:11:59,088

after the crew finished What's called

4598

09:12:03,228 --> 09:12:01,200

the slingshot cleanup they will head

4599

09:12:05,630 --> 09:12:03,238

back to the airlock

4600

09:12:10,368 --> 09:12:05,640

where we will conclude

4601
09:12:19,272 --> 09:12:12,750
foreign

4602
09:12:25,970 --> 09:12:23,150
Space Walk began at 8 14 a.m central

4603
09:12:27,290 --> 09:12:25,980
time to assemble a mounting bracket on

4604
09:12:29,030 --> 09:12:27,300
the starboard side of the station's

4605
09:12:30,950 --> 09:12:29,040
truss assembly in preparation for the

4606
09:12:33,588 --> 09:12:30,960
installation of a pair of International

4607
09:12:41,928 --> 09:12:33,598
Space Station roll out solar arrays on

4608
09:12:41,938 --> 09:12:45,410
it's okay

4609
09:12:45,420 --> 09:13:02,030
[Applause]

4610
09:13:04,908 --> 09:13:04,130
take your time Frank I still gotta get

4611
09:13:09,772 --> 09:13:04,918
this

4612
09:13:12,708 --> 09:13:11,388
it's like I'm not getting closer live

4613
09:13:13,908 --> 09:13:12,718

here

4614

09:13:29,240 --> 09:13:13,918

yeah

4615

09:13:34,248 --> 09:13:31,068

[Applause]

4616

09:13:36,470 --> 09:13:34,258

okay Josh for you we'll have that with x

4617

09:13:38,810 --> 09:13:36,480

in with one

4618

09:13:40,908 --> 09:13:38,820

clocking of 11.

4619

09:13:43,612 --> 09:13:40,918

and then for the apfr we'll configure it

4620

09:13:53,150 --> 09:13:43,622

low profile that'll be six

4621

09:13:56,568 --> 09:13:54,290

thank you

4622

09:13:58,728 --> 09:13:56,578

and then clock into 11

4623

09:14:01,728 --> 09:13:58,738

um extender

4624

09:14:19,130 --> 09:14:01,738

a firm good copy and a pitch of alpha

4625

09:14:31,068 --> 09:14:20,990

yeah I just wanted to keep going here I

4626

09:14:31,078 --> 09:15:20,088

about the future

4627

09:15:20,098 --> 09:15:39,368

all right

4628

09:15:43,010 --> 09:15:41,868

six hours and 30 minutes into today's

4629

09:15:46,670 --> 09:15:43,020

space walk

4630

09:15:52,310 --> 09:15:49,548

the crew as they Translate

4631

09:15:54,588 --> 09:15:52,320

ev1 Josh cassida is currently

4632

09:15:57,112 --> 09:15:54,598

configuring the articulating portable

4633

09:16:00,228 --> 09:15:57,122

foot restraint to a low profile

4634

09:16:02,630 --> 09:16:00,238

near the seat of cart

4635

09:16:04,970 --> 09:16:02,640

once complete he will translate to the

4636

09:16:07,548 --> 09:16:04,980

Anchor Hooks and once given the go by

4637

09:16:11,450 --> 09:16:07,558

Franco Rubio ev2

4638

09:16:16,790 --> 09:16:13,908

he will then release

4639

09:16:33,830 --> 09:16:16,800

Frank Rubio's anchor hook and he will

4640

09:16:39,470 --> 09:16:36,408

and currently on your screen we see ev2

4641

09:16:48,470 --> 09:16:39,480

Frank Rubio already translating to the

4642

09:16:53,208 --> 09:16:50,330

once given the okay

4643

09:16:59,708 --> 09:16:53,218

Josh Castle will release the anchor hook

4644

09:17:12,530 --> 09:17:02,568

to open the thermal cover

4645

09:17:16,728 --> 09:17:14,748

hey firm Frank you can open the hatch

4646

09:17:18,530 --> 09:17:16,738

thermal cover and go ahead and attach

4647

09:17:25,130 --> 09:17:18,540

your waste tether to the airlock hearing

4648

09:17:28,790 --> 09:17:27,112

and that was ground ivy at Nasa

4649

09:17:32,272 --> 09:17:28,800

astronaut and Cena Cartman giving the

4650

09:17:33,950 --> 09:17:32,282

okay for Frank Rubio to Ingress the

4651
09:17:36,588 --> 09:17:33,960
airlock

4652
09:17:39,772 --> 09:17:36,598
on black with Twista

4653
09:17:40,908 --> 09:17:39,782
all right Josh my right way feather

4654
09:17:42,772 --> 09:17:40,918
is

4655
09:17:44,950 --> 09:17:42,782
probably dealing on the interlock

4656
09:17:47,990 --> 09:17:44,960
Hearing Center okay

4657
09:17:49,490 --> 09:17:48,000
and my small Hook is on my right view in

4658
09:17:53,990 --> 09:17:49,500
the center gate close to Glass black and

4659
09:18:02,690 --> 09:17:56,208
thank you Houston copies as well and

4660
09:18:10,248 --> 09:18:06,228
and we got Alpha on the pitch

4661
09:18:10,258 --> 09:18:13,790
and fox

4662
09:18:46,970 --> 09:18:15,350
that's right

4663
09:18:46,980 --> 09:19:24,160

foreign

4664

09:19:27,950 --> 09:19:25,790

[Music]

4665

09:19:29,990 --> 09:19:27,960

kind of a weird angle but it's over the

4666

09:19:36,650 --> 09:19:30,000

boot plate if that's what you want to

4667

09:19:40,426 --> 09:19:38,150

oh Josh

4668

09:19:43,190 --> 09:19:40,436

papa papa box six sounds like good

4669

09:19:45,470 --> 09:19:43,200

settings with a clocking of six the goal

4670

09:19:49,130 --> 09:19:45,480

is just to have that apfr just be really

4671

09:19:54,350 --> 09:19:51,350

I'm sorry you said clocking of six uh

4672

09:19:56,510 --> 09:19:54,360

the crossing of the apfr still as we

4673

09:20:05,690 --> 09:19:56,520

found it which I think was

4674

09:20:41,450 --> 09:20:07,850

the second third

4675

09:20:46,130 --> 09:20:43,490

okay Josh we'll have you go ahead and

4676
09:20:54,070 --> 09:20:46,140
actually adjust that clocking 180 off to

4677
09:20:59,510 --> 09:20:56,830
okay

4678
09:21:03,310 --> 09:20:59,520
on the rip extender I'm gonna take my

4679
09:21:14,630 --> 09:21:03,320
red off of that put it on the APR

4680
09:21:18,230 --> 09:21:16,850
actually I don't know the back clocking

4681
09:21:20,810 --> 09:21:18,240
is going to work it's going to be

4682
09:21:26,030 --> 09:21:20,820
hitting the uh the brake

4683
09:21:29,630 --> 09:21:28,370
can you rotate it the other direction it

4684
09:21:33,350 --> 09:21:29,640
can rotate either left or right

4685
09:21:36,710 --> 09:21:34,850
I could get it pointed back into station

4686
09:22:07,190 --> 09:21:36,720
if that's what you want

4687
09:22:11,330 --> 09:22:08,926
Josh will have you pause there for just

4688
09:22:42,110 --> 09:22:37,030

okay

4689

09:22:44,086 --> 09:22:42,120

just adjust the pitch on the with X to

4690

09:22:46,790 --> 09:22:44,096

get this as low profile over the seated

4691

09:22:49,610 --> 09:22:46,800

card as possible

4692

09:22:51,350 --> 09:22:49,620

uh yeah I can absolutely go more uh

4693

09:22:53,870 --> 09:22:51,360

speaking Tina

4694

09:22:59,570 --> 09:22:53,880

that's what you mean

4695

09:23:04,190 --> 09:23:01,850

Okay so

4696

09:23:05,990 --> 09:23:04,200

for completeness good full twist test on

4697

09:23:14,266 --> 09:23:06,000

the apfr

4698

09:23:17,510 --> 09:23:16,310

I can go past three if you want it back

4699

09:23:19,070 --> 09:23:17,520

in closer

4700

09:23:23,330 --> 09:23:19,080

otherwise I can just go straight up and

4701
09:23:23,340 --> 09:23:33,490
check repurchase golf

4702
09:23:37,550 --> 09:23:35,926
we'll have you keep going Josh as low

4703
09:24:08,266 --> 09:23:37,560
profile as you can possibly get it by

4704
09:24:08,276 --> 09:24:21,890
foreign

4705
09:24:46,246 --> 09:24:40,010
ers

4706
09:24:46,256 --> 09:25:04,190
are you from

4707
09:25:08,266 --> 09:25:06,110
okay Josh we're going to have you

4708
09:25:10,246 --> 09:25:08,276
translate to the Anchor hooks clean up

4709
09:25:11,810 --> 09:25:10,256
those anchor Hooks and then you'll be

4710
09:25:16,246 --> 09:25:11,820
hitting the seated breaks on your way

4711
09:25:16,256 --> 09:25:28,310
okay

4712
09:25:32,390 --> 09:25:30,890
the folks are directly later of me can I

4713
09:25:34,070 --> 09:25:32,400

hit the break right now just go neuter

4714

09:25:40,906 --> 09:25:34,080

and get the hooks I'm in a great

4715

09:25:44,570 --> 09:25:43,010

tell you what you guys talk about it I

4716

09:25:46,850 --> 09:25:44,580

just hit it twice and I'm gonna go work

4717

09:25:49,610 --> 09:25:46,860

on some anchors

4718

09:25:52,190 --> 09:25:49,620

copy Josh we're probably happy with that

4719

09:25:53,330 --> 09:25:52,200

we may have you depressed in board see

4720

09:25:56,210 --> 09:25:53,340

the brake pedals on your way back in

4721

09:25:56,220 --> 09:26:12,710

for sure

4722

09:26:18,650 --> 09:26:15,586

okay friends I'm at your uh thinker

4723

09:26:23,926 --> 09:26:20,210

no you let me know if I've got this

4724

09:26:28,130 --> 09:26:23,936

wrong I'm gonna drop a rent on his

4725

09:26:31,906 --> 09:26:28,140

safety carry cable I'm gonna make

4726
09:26:34,670 --> 09:26:31,916
a uh I'm gonna connect him to my

4727
09:26:36,766 --> 09:26:34,680
waste better

4728
09:26:47,810 --> 09:26:36,776
and I'll read you

4729
09:26:54,170 --> 09:26:51,170
currently in a loss of signal between

4730
09:26:56,030 --> 09:26:54,180
in between satellites we'll have views

4731
09:26:57,766 --> 09:26:56,040
back outside the International Space

4732
09:27:01,970 --> 09:26:57,776
Station for you shortly

4733
09:27:03,950 --> 09:27:01,980
we just saw Josh cassetta ev1 the

4734
09:27:05,510 --> 09:27:03,960
astronaut in the suit with the red

4735
09:27:10,130 --> 09:27:05,520
stripes

4736
09:27:12,406 --> 09:27:10,140
just configured the AP fr the articuling

4737
09:27:13,790 --> 09:27:12,416
portable foot restraint into a low prow

4738
09:27:16,850 --> 09:27:13,800

profile

4739

09:27:19,610 --> 09:27:16,860

and just headed to the Anchor hooks

4740

09:27:22,426 --> 09:27:19,620

where he would release four

4741

09:27:25,426 --> 09:27:22,436

Frank Rubio and himself as he translates

4742

09:27:26,570 --> 09:27:25,436

back to the airlock

4743

09:27:29,266 --> 09:27:26,580

thank you

4744

09:27:31,670 --> 09:27:29,276

and next steps will be as you recall

4745

09:27:33,710 --> 09:27:31,680

releasing ev2's anchor hook and

4746

09:27:35,630 --> 09:27:33,720

attaching it to

4747

09:28:22,426 --> 09:27:35,640

your waste tether

4748

09:28:26,950 --> 09:28:25,190

okay I've got a good load path by right

4749

09:28:30,766 --> 09:28:26,960

there in extender

4750

09:28:33,290 --> 09:28:30,776

black on black is connected to ranks

4751
09:28:35,086 --> 09:28:33,300
anchor hook gate close by the lock back

4752
09:28:36,290 --> 09:28:35,096
on black and I'm going to retrieve my

4753
09:28:39,470 --> 09:28:36,300
rep

4754
09:28:41,570 --> 09:28:39,480
and then I'm gonna go get my anchor from

4755
09:29:50,926 --> 09:28:41,580
three zero one one

4756
09:29:54,650 --> 09:29:52,550
forward

4757
09:29:57,290 --> 09:29:54,660
I'll get this port

4758
09:29:59,266 --> 09:29:57,300
AI

4759
09:30:04,130 --> 09:29:59,276
s

4760
09:30:04,140 --> 09:30:07,426
and

4761
09:30:13,610 --> 09:30:09,710
I missed it did you release your anchor

4762
09:30:29,150 --> 09:30:16,850
I did it's on my mini workstation

4763
09:30:37,190 --> 09:30:30,530

I'll figure out I'm going to continue

4764

09:30:42,890 --> 09:30:39,710

thing just had confirmation from Josh

4765

09:30:44,690 --> 09:30:42,900

cassida that both anchor hooks have been

4766

09:30:46,850 --> 09:30:44,700

released

4767

09:31:10,010 --> 09:30:46,860

and he is now heading towards the

4768

09:31:15,710 --> 09:31:13,010

okay I'll hit B

4769

09:31:45,406 --> 09:31:15,720

a very great pedal if you wanted it and

4770

09:31:45,416 --> 09:31:51,406

in

4771

09:31:51,416 --> 09:32:05,350

copy Josh

4772

09:32:12,230 --> 09:32:08,510

hey Frank yeah is there a chance your

4773

09:32:16,970 --> 09:32:13,850

looks like it's just floating off

4774

09:32:16,980 --> 09:32:38,390

seconds

4775

09:32:43,970 --> 09:32:42,230

yeah it um because on March but it does

4776
09:32:45,230 --> 09:32:43,980
not seem to be revealing your dirty it's

4777
09:32:49,490 --> 09:32:45,240
not as

4778
09:32:54,370 --> 09:32:51,950
I'm going to continue in Xena

4779
09:33:08,150 --> 09:32:54,380
with a good take each other

4780
09:33:08,160 --> 09:33:13,850
all right I'm on the fetus for coffee

4781
09:33:13,860 --> 09:33:26,050
I see you looking good

4782
09:33:33,406 --> 09:33:29,390
currently seeing heck abuse or those HD

4783
09:33:39,766 --> 09:33:36,110
helmet cam as he translates back to the

4784
09:33:39,776 --> 09:33:47,870
okay

4785
09:33:47,880 --> 09:33:58,130
copy Frank

4786
09:33:58,140 --> 09:34:06,970
uh

4787
09:34:11,150 --> 09:34:09,290
as the astronauts enter the crew lock

4788
09:34:13,610 --> 09:34:11,160

portion of the quest airlock Ingress

4789

09:34:15,710 --> 09:34:13,620

Begins the end of the spacewalk for the

4790

09:34:17,510 --> 09:34:15,720

day however the spacewalk timer will

4791

09:34:20,030 --> 09:34:17,520

continue to run until repressurization

4792

09:34:21,130 --> 09:34:20,040

begins at which point the clock will

4793

09:34:23,450 --> 09:34:21,140

stop

4794

09:34:25,550 --> 09:34:23,460

once the crew lock is completely

4795

09:34:26,926 --> 09:34:25,560

repressurized the astronauts on the

4796

09:34:28,970 --> 09:34:26,936

other side of the quest air lock will

4797

09:34:30,586 --> 09:34:28,980

bring our space walkers from the crew

4798

09:34:32,570 --> 09:34:30,596

luck portion of the airlock to the

4799

09:34:35,150 --> 09:34:32,580

equipment lock and will help them doff

4800

09:34:38,630 --> 09:34:35,160

their suits and the safers will be

4801
09:34:45,586 --> 09:34:41,570
again we're six hours and 49 minutes and

4802
09:34:49,130 --> 09:34:45,596
59 tickets into today's space walk and

4803
09:34:52,190 --> 09:34:49,140
we see ev1 Josh cassida designated with

4804
09:34:57,350 --> 09:34:52,200
the suit with the red stripes at the

4805
09:35:02,870 --> 09:35:00,730
all right Frank when you're ready for me

4806
09:35:07,610 --> 09:35:02,880
because you know if you're ready for it

4807
09:35:10,630 --> 09:35:08,500
you're ready

4808
09:35:13,830 --> 09:35:10,640
[Music]

4809
09:35:31,690 --> 09:35:13,840
as I can get

4810
09:35:31,700 --> 09:35:37,266
[Applause]

4811
09:35:41,766 --> 09:35:40,040
thank you

4812
09:35:58,310 --> 09:35:41,776
[Applause]

4813
09:35:58,320 --> 09:36:03,906

beautiful

4814

09:36:07,970 --> 09:36:06,170

and Josh as you're heading in we'll have

4815

09:36:10,246 --> 09:36:07,980

you close the hatch thermal cover as

4816

09:36:21,270 --> 09:36:10,256

well and attach the hook to the magnetic

4817

09:36:21,280 --> 09:36:42,710

[Applause]

4818

09:37:27,406 --> 09:36:45,560

foreign

4819

09:37:27,416 --> 09:37:38,070

um

4820

09:37:38,080 --> 09:37:54,290

[Applause]

4821

09:37:54,300 --> 09:38:04,740

okay

4822

09:38:09,050 --> 09:38:06,530

[Applause]

4823

09:38:11,086 --> 09:38:09,060

quick Handover coming up in 15 seconds

4824

09:38:12,710 --> 09:38:11,096

nice work Josh you see that thermal

4825

09:38:41,890 --> 09:38:12,720

cover coming closed

4826
09:38:46,490 --> 09:38:44,510
astronauts Frank Rubio and Josh Casa

4827
09:38:48,830 --> 09:38:46,500
both back inside the quest airlock now

4828
09:38:51,710 --> 09:38:48,840
in the cruel up portion

4829
09:38:55,426 --> 09:38:51,720
as Josh is working to move his tether

4830
09:38:56,870 --> 09:38:55,436
and to close the thermal cover

4831
09:38:57,890 --> 09:38:56,880
it doesn't look like it's going to stay

4832
09:39:02,800 --> 09:38:57,900
on

4833
09:39:02,810 --> 09:39:09,230
[Music]

4834
09:39:14,746 --> 09:39:10,086
um

4835
09:39:17,330 --> 09:39:16,970
okay

4836
09:39:21,230 --> 09:39:17,340
um

4837
09:39:25,790 --> 09:39:23,690
okay I'm back with you Xena and remind

4838
09:39:28,310 --> 09:39:25,800

me where we're connecting this uh strap

4839

09:39:30,050 --> 09:39:28,320

on the normal cover yeah so once you've

4840

09:39:32,210 --> 09:39:30,060

got the hook from the stowage tether

4841

09:39:35,290 --> 09:39:32,220

Point attach the hook to the magnetic

4842

09:40:02,746 --> 09:39:38,030

that's what I don't see

4843

09:40:28,630 --> 09:40:05,030

I see it was just shut down flush with

4844

09:40:34,310 --> 09:40:31,850

okay we've got it and finishing it down

4845

09:40:36,050 --> 09:40:34,320

nice job nice work yep you'll cinch it

4846

09:40:45,950 --> 09:40:36,060

until six lines are visible

4847

09:40:45,960 --> 09:40:50,570

not staying

4848

09:40:50,580 --> 09:40:54,950

it's immediately pulled away

4849

09:40:54,960 --> 09:40:59,870

Josh that's fine not surprising

4850

09:41:04,850 --> 09:41:02,870

check your hekka LEDs are off and then

4851
09:41:13,130 --> 09:41:04,860
you can remove the SCU from its storage

4852
09:41:21,906 --> 09:41:15,950
hey I believe my haircut is off my

4853
09:41:21,916 --> 09:41:25,906
or LED is off

4854
09:41:29,746 --> 09:41:28,070
copy both LEDs are off

4855
09:41:32,210 --> 09:41:29,756
once you've got your Stu's from the

4856
09:41:37,490 --> 09:41:32,220
stowagecraft remove your DCM cover

4857
09:41:43,070 --> 09:41:38,570
icide

4858
09:41:47,690 --> 09:41:45,230
six hours and 57 minutes into today's

4859
09:41:49,246 --> 09:41:47,700
space walk both crew members are back

4860
09:41:51,290 --> 09:41:49,256
inside the crew lock portion of the

4861
09:41:53,150 --> 09:41:51,300
quest airlock and they have closed the

4862
09:41:55,850 --> 09:41:53,160
thermal cover

4863
09:41:58,010 --> 09:41:55,860

again this is the beginning

4864

09:42:01,246 --> 09:41:58,020

this is the ending of the spacewalk

4865

09:42:02,870 --> 09:42:01,256

however that spacewalk time or timer

4866

09:42:05,210 --> 09:42:02,880

will continue to run until

4867

09:42:06,890 --> 09:42:05,220

repressurization begins at which point

4868

09:42:08,570 --> 09:42:06,900

the clock will stop

4869

09:42:11,210 --> 09:42:08,580

once the crew lock is completely

4870

09:42:12,586 --> 09:42:11,220

repressurized the astronauts on the

4871

09:42:14,390 --> 09:42:12,596

other side of the Queen's airlock will

4872

09:42:16,610 --> 09:42:14,400

bring our spacewalkers from the crew

4873

09:42:18,170 --> 09:42:16,620

luck portion of the airlock to the

4874

09:42:19,906 --> 09:42:18,180

equipment lock and will help them doff

4875

09:42:22,310 --> 09:42:19,916

their suits and the safers will be

4876
09:42:57,766 --> 09:42:22,320
removed

4877
09:43:02,926 --> 09:43:00,530
YouTube connection

4878
09:43:05,390 --> 09:43:02,936
okay copy for both of you

4879
09:43:08,210 --> 09:43:05,400
and if you are feeling a little bit warm

4880
09:43:10,426 --> 09:43:08,220
a tcd setting between 8 and Max cold

4881
09:43:13,426 --> 09:43:10,436
will minimize the time to get cooling on

4882
09:43:14,690 --> 09:43:13,436
the SCU with that you can switch water

4883
09:43:16,906 --> 09:43:14,700
to off

4884
09:43:20,510 --> 09:43:16,916
that's the forward position expect water

4885
09:43:38,990 --> 09:43:21,770
first

4886
09:43:39,000 --> 09:44:13,970
um

4887
09:44:13,980 --> 09:44:17,150
foreign

4888
09:44:22,490 --> 09:44:20,870

okay I'm set on tcv

4889

09:44:24,950 --> 09:44:22,500

I think when you're ready we'll go water

4890

09:44:28,790 --> 09:44:24,960

off okay okay I'm ready okay here comes

4891

09:44:28,800 --> 09:44:32,266

and my water's off

4892

09:44:39,950 --> 09:44:37,130

copy Waters off for ev1 and ev2

4893

09:44:42,890 --> 09:44:39,960

all right we will be waiting two minutes

4894

09:44:45,230 --> 09:44:42,900

now with your emu water off for now you

4895

09:44:46,906 --> 09:44:45,240

can verify that the outer hatch is clear

4896

09:44:49,130 --> 09:44:46,916

of any hardware

4897

09:44:58,610 --> 09:44:49,140

verify the hatch position per the hatch

4898

09:45:03,230 --> 09:45:01,370

it is clear and I can see the decal but

4899

09:45:11,570 --> 09:45:03,240

you don't want me to you have to attach

4900

09:45:11,580 --> 09:45:22,550

a from Josh

4901
09:45:22,560 --> 09:46:03,110
got just over a minute to go

4902
09:46:03,120 --> 09:46:27,350
foreign

4903
09:46:42,766 --> 09:46:32,990
okay

4904
09:46:48,830 --> 09:46:45,730
you know what is grateful in my feet

4905
09:46:50,870 --> 09:46:48,840
yeah it's about the bags

4906
09:46:58,190 --> 09:46:50,880
unfortunately I have them as far as or

4907
09:47:19,390 --> 09:47:00,650
can I give you a little more room there

4908
09:47:19,400 --> 09:47:34,990
[Applause]

4909
09:47:39,890 --> 09:47:37,550
there's no way to get them on top of me

4910
09:47:39,900 --> 09:47:52,860
okay

4911
09:47:52,870 --> 09:48:25,070
[Music]

4912
09:48:43,510 --> 09:48:27,150
foreign

4913
09:48:43,520 --> 09:48:52,550

[Applause]

4914

09:48:52,560 --> 09:48:55,320

all right

4915

09:48:55,330 --> 09:49:17,210

[Applause]

4916

09:49:17,220 --> 09:49:25,790

okay that's just coming down

4917

09:49:25,800 --> 09:49:45,406

oh it's clear here

4918

09:49:45,416 --> 09:50:03,586

all right go on the left

4919

09:50:03,596 --> 09:50:11,570

not quite 360 degrees

4920

09:50:16,550 --> 09:50:13,906

we are in the Lost division

4921

09:50:19,490 --> 09:50:16,560

all right good stuff

4922

09:50:21,586 --> 09:50:19,500

nice work guys okay if you can just

4923

09:50:33,766 --> 09:50:21,596

check that your SEO is still connected

4924

09:50:38,990 --> 09:50:36,406

connected awesome

4925

09:50:41,450 --> 09:50:39,000

excellent and just check for me that the

4926
09:50:51,470 --> 09:50:41,460
hatch is fully closed and locked

4927
09:50:55,790 --> 09:50:52,610
perfect

4928
09:51:01,010 --> 09:50:55,800
on the UIA check that oxygen for emu one

4929
09:51:06,050 --> 09:51:02,690
you

4930
09:51:16,850 --> 09:51:06,060
[Music]

4931
09:51:22,970 --> 09:51:20,266
TV2 is on good overview

4932
09:51:25,010 --> 09:51:22,980
probably both LEDs are on and both

4933
09:51:27,586 --> 09:51:25,020
powered on check that the power voltage

4934
09:51:31,426 --> 09:51:27,596
for ev1 and 2 are between 18 and 19

4935
09:51:36,170 --> 09:51:34,010
about 18 decimal 13 to 18 decimal

4936
09:51:39,110 --> 09:51:36,180
effects

4937
09:51:44,230 --> 09:51:39,120
copy both on your DCM switch power to

4938
09:51:52,730 --> 09:51:46,490

it worked for either one I'll let you

4939

09:51:52,740 --> 09:51:55,630

the three people

4940

09:52:00,586 --> 09:51:57,890

thank you

4941

09:52:04,850 --> 09:52:00,596

copy both with that congratulations and

4942

09:52:09,950 --> 09:52:07,850

all right so much Tina good job thank

4943

09:52:11,450 --> 09:52:09,960

you really appreciate it

4944

09:52:13,790 --> 09:52:11,460

for the whole team for dealing with a

4945

09:52:18,110 --> 09:52:13,800

bunch of curveballs out there

4946

09:52:22,850 --> 09:52:20,630

all right thanks Tina nice work Josh and

4947

09:52:25,730 --> 09:52:22,860

Frank let's get you inside we are

4948

09:52:29,210 --> 09:52:25,740

picking up at the crew lock repress

4949

09:52:30,586 --> 09:52:29,220

on your DCM take your O2 actuator to

4950

09:53:42,830 --> 09:52:30,596

press

4951
09:53:44,690 --> 09:53:42,840
okay Josh check that the EV hatch m-ped

4952
09:53:46,790 --> 09:53:44,700
is closed

4953
09:53:49,730 --> 09:53:46,800
okay it's closed

4954
09:53:51,530 --> 09:53:49,740
okay for the ID hatch Equalization valve

4955
09:53:53,926 --> 09:53:51,540
I'm going to throttle that from off to

4956
09:53:56,926 --> 09:53:53,936
Norm I'll go slow and you let me know if

4957
09:53:58,550 --> 09:53:56,936
I need to adjust copy

4958
09:54:00,406 --> 09:53:58,560
just a heads up as we're coming down

4959
09:54:02,210 --> 09:54:00,416
when the crew lock gets to four you can

4960
09:54:13,850 --> 09:54:02,220
expect an alert tone and our next

4961
09:54:18,530 --> 09:54:16,130
hold on dude I'm getting a uh

4962
09:54:20,810 --> 09:54:18,540
O2 actuator

4963
09:54:22,670 --> 09:54:20,820

fail or false

4964

09:54:33,950 --> 09:54:22,680

checking

4965

09:54:33,960 --> 09:54:39,906

need me to read anything let me know

4966

09:54:46,070 --> 09:54:44,210

okay for ed2 we see the O2 actuator is

4967

09:54:49,246 --> 09:54:46,080

not in press yet it is in between

4968

09:54:49,256 --> 09:54:59,510

you can copy this

4969

09:54:59,520 --> 09:55:04,010

okay and I have O2 version press

4970

09:55:04,020 --> 09:55:11,870

I think I had gone past

4971

09:55:11,880 --> 09:56:24,950

the problem

4972

09:56:29,510 --> 09:56:27,230

okay Josh and Frank how's the rate I'm

4973

09:56:32,086 --> 09:56:29,520

about halfway between off and Norm so I

4974

09:56:35,810 --> 09:56:32,096

can go faster or slower

4975

09:56:37,550 --> 09:56:35,820

good for me I'm not having any trouble

4976
09:56:39,586 --> 09:56:37,560
for me you can um

4977
09:56:40,490 --> 09:56:39,596
uh you can go faster for me if you want

4978
09:56:42,890 --> 09:56:40,500
but

4979
09:56:54,050 --> 09:56:42,900
exactly too

4980
09:56:59,746 --> 09:56:56,510
with repressurization having begun on

4981
09:57:01,970 --> 09:56:59,756
our spacewalk clock for the day

4982
09:57:04,190 --> 09:57:01,980
this spacewalk clock for the day will

4983
09:57:07,190 --> 09:57:04,200
now end this spacewalk officially ended

4984
09:57:09,406 --> 09:57:07,200
at 3 25 PM Central Time the elapsed time

4985
09:57:10,550 --> 09:57:09,416
for this spacewalk was 7 hours and 11

4986
09:57:12,170 --> 09:57:10,560
minutes

4987
09:57:14,330 --> 09:57:12,180
in the equipment lock portion of the

4988
09:57:16,670 --> 09:57:14,340

airlock you see Nicole man and Jack's

4989

09:57:19,070 --> 09:57:16,680

astronaut koichiwakata who will help our

4990

09:57:20,746 --> 09:57:19,080

spacewalkers adopt their spacesuits once

4991

09:57:23,570 --> 09:57:20,756

they bring them in from the other side

4992

09:57:25,010 --> 09:57:23,580

of the hatch after refresh has come has

4993

09:59:29,810 --> 09:57:25,020

concluded

4994

09:59:34,730 --> 09:59:32,266

after seven hours and 11 minutes today's

4995

09:59:36,586 --> 09:59:34,740

spacewalk has ended let's look back at

4996

09:59:38,810 --> 09:59:36,596

some of what was accomplished on the

4997

09:59:42,290 --> 09:59:38,820

254th spacewalk in support of station

4998

09:59:44,570 --> 09:59:42,300

assembly maintenance and upgrades

4999

09:59:47,746 --> 09:59:44,580

Expedition 68 flight Engineers Josh

5000

09:59:50,746 --> 09:59:47,756

cassida and Frank Rubio of NASA began a

5001
09:59:52,490 --> 09:59:50,756
spacewalk at 8 14 a.m central time to

5002
09:59:54,050 --> 09:59:52,500
assemble a mounting bracket on the

5003
09:59:55,906 --> 09:59:54,060
starboard side of the station's truss

5004
09:59:57,290 --> 09:59:55,916
assembly in preparation for the

5005
10:00:00,470 --> 09:59:57,300
installation of a pair of International

5006
10:00:02,390 --> 10:00:00,480
Space Station rollout solar arrays on

5007
10:00:04,130 --> 10:00:02,400
the space station

5008
10:00:07,850 --> 10:00:04,140
that's the designated extra vehicular

5009
10:00:10,850 --> 10:00:07,860
crew member one ev1 wore the suit with

5010
10:00:13,850 --> 10:00:10,860
the red stripes while Rubio that's Frank

5011
10:00:16,790 --> 10:00:13,860
Rubio designated extra vehicular crew

5012
10:00:19,246 --> 10:00:16,800
member number two ev2 is

5013
10:00:20,630 --> 10:00:19,256

or the suit with the unmarked toward the

5014

10:00:24,230 --> 10:00:20,640

unmarked suit

5015

10:00:25,840 --> 10:00:24,240

the duo was able to complete most of his

5016

10:00:28,550 --> 10:00:25,850

tasks today and

5017

10:00:30,470 --> 10:00:28,560

[Music]

5018

10:00:38,330 --> 10:00:30,480

back in alert Town we're gonna wait two

5019

10:00:43,370 --> 10:00:40,850

again the duo was able to complete most

5020

10:00:46,790 --> 10:00:43,380

of their Eva tests for today which

5021

10:00:49,426 --> 10:00:46,800

included the 3A irosa cable rerouting

5022

10:00:52,130 --> 10:00:49,436

cable routing the removal of the H

5023

10:00:55,010 --> 10:00:52,140

fixture on the 1B Mass canister

5024

10:00:57,050 --> 10:00:55,020

they build out an installation of the

5025

10:00:58,790 --> 10:00:57,060

upper triangle to the mass canister on

5026

10:01:01,130 --> 10:00:58,800

the 1B power Channel

5027

10:01:03,230 --> 10:01:01,140

as well the installation as well as the

5028

10:01:04,370 --> 10:01:03,240

installation of the left and right

5029

10:01:07,010 --> 10:01:04,380

struts

5030

10:01:10,370 --> 10:01:07,020

what was left off for for today's Eva

5031

10:01:12,830 --> 10:01:10,380

was the colors and the irosa cable

5032

10:01:15,110 --> 10:01:12,840

routing

5033

10:01:17,810 --> 10:01:15,120

both of these are not critical for the

5034

10:01:21,406 --> 10:01:17,820

Eva or the installation for future

5035

10:01:23,630 --> 10:01:21,416

iroses they will be completed for the 1B

5036

10:01:31,310 --> 10:01:23,640

irosa

5037

10:01:35,990 --> 10:01:33,470

for completion of the right and left

5038

10:01:38,210 --> 10:01:36,000

struts the crew members

5039

10:01:39,530 --> 10:01:38,220

translate it back to the airlock where

5040

10:02:39,830 --> 10:01:39,540

they are currently

5041

10:02:44,990 --> 10:02:43,310

okay the pressure is 255 millimeters

5042

10:02:47,150 --> 10:02:45,000

we're going to wait one more minute to

5043

10:03:37,730 --> 10:02:47,160

make sure that doesn't change

5044

10:03:45,350 --> 10:03:41,570

okay we're at 254.3 so that is a good

5045

10:03:47,570 --> 10:03:45,360

leak check we're moving on uh both of

5046

10:03:51,050 --> 10:03:47,580

you please check that your glove heaters

5047

10:04:04,190 --> 10:03:52,670

ering

5048

10:04:09,170 --> 10:04:06,650

contamination visible free v-board

5049

10:04:16,310 --> 10:04:09,180

it's not visible for you too

5050

10:04:21,290 --> 10:04:18,230

y

5051
10:04:23,030 --> 10:04:21,300
spacewalk we have some updated

5052
10:04:27,110 --> 10:04:23,040
statistics for you

5053
10:04:28,970 --> 10:04:27,120
today the 254th spacewalk

5054
10:04:31,130 --> 10:04:28,980
in support of the ISS assembly

5055
10:04:34,790 --> 10:04:31,140
maintenance and upgrades

5056
10:04:37,246 --> 10:04:34,800
it was the ninth spacewalk of 2022

5057
10:04:39,290 --> 10:04:37,256
it was the first spacewalk of expedition

5058
10:04:42,130 --> 10:04:39,300
68.

5059
10:04:44,450 --> 10:04:42,140
the first of Josh cassida's career

5060
10:04:46,010 --> 10:04:44,460
tolling out to be seven hours and 11

5061
10:04:47,746 --> 10:04:46,020
minutes for him

5062
10:04:49,190 --> 10:04:47,756
as well as the first spacewalk for Frank

5063
10:04:51,470 --> 10:04:49,200

Rubio

5064

10:04:54,710 --> 10:04:51,480

telling out for another seven hours and

5065

10:04:54,720 --> 10:04:59,450

total spacewalk time over

5066

10:05:06,370 --> 10:05:01,670

the total spacewalk time

5067

10:05:10,130 --> 10:05:06,380

over the 254 spacewalks equals out to 1

5068

10:05:13,130 --> 10:05:10,140

609 hours and 48 minutes which is the

5069

10:05:22,310 --> 10:05:13,140

equivalent of 71 days zero hours and 48

5070

10:05:22,320 --> 10:05:39,426

foreign

5071

10:05:44,210 --> 10:05:42,170

get it yeah I don't know

5072

10:05:46,130 --> 10:05:44,220

why it just doesn't do you want me to

5073

10:05:50,746 --> 10:05:46,140

please

5074

10:06:00,720 --> 10:05:52,550

bring your keyboard down just a little

5075

10:06:00,730 --> 10:06:05,990

[Applause]

5076
10:06:22,086 --> 10:06:08,926
all right okay through your stuff here

5077
10:06:22,096 --> 10:06:27,570
again you're looking

5078
10:06:51,890 --> 10:06:47,780
[Applause]

5079
10:06:56,650 --> 10:06:51,900
come on

5080
10:06:56,660 --> 10:07:13,246
[Applause]

5081
10:07:17,030 --> 10:07:15,290
again you're looking inside the quest

5082
10:07:19,610 --> 10:07:17,040
airlock equipment lock portion of the

5083
10:07:21,950 --> 10:07:19,620
airlock where you see Nicole man

5084
10:07:23,630 --> 10:07:21,960
NASA astronaut and Jax astronaut

5085
10:07:26,210 --> 10:07:23,640
koichiwakata who will help our

5086
10:07:27,650 --> 10:07:26,220
spacewalkers Dolph their spacesuits once

5087
10:07:31,490 --> 10:07:27,660
they bring them in from the other side

5088
10:07:34,130 --> 10:07:31,500

of the hatch after repress has concluded

5089

10:07:36,050 --> 10:07:34,140

open IV I'm gonna take the IV hatch

5090

10:07:38,870 --> 10:07:36,060

Equalization valve to Norm you can

5091

10:07:40,906 --> 10:07:38,880

expect an alert tone and when the DP DT

5092

10:07:42,710 --> 10:07:40,916

gets to about zero you're going to get

5093

10:07:44,030 --> 10:07:42,720

another tone and then we'll start

5094

10:08:15,650 --> 10:07:44,040

working on the hatch

5095

10:09:04,010 --> 10:08:17,746

all right

5096

10:10:58,130 --> 10:09:38,450

foreign

5097

10:10:58,140 --> 10:11:38,510

famous

5098

10:11:38,520 --> 10:11:50,266

house

5099

10:11:55,070 --> 10:11:53,266

I'm going to drop these uh safety

5100

10:12:02,870 --> 10:11:55,080

Cutters just to make the egress easier

5101
10:12:02,880 --> 10:12:05,450
okay

5102
10:12:05,460 --> 10:12:53,510
that's great

5103
10:12:53,520 --> 10:13:01,970
foreign

5104
10:13:01,980 --> 10:13:14,450
[Applause]

5105
10:13:20,210 --> 10:13:18,170
so uh one of the bags it has a a wire

5106
10:13:23,510 --> 10:13:20,220
tie that's wrapped in cloth like it's an

5107
10:13:27,970 --> 10:13:23,520
integral part of the bag that is stuck

5108
10:13:31,246 --> 10:13:27,980
between one of the roller hooks on the

5109
10:13:33,290 --> 10:13:31,256
crew lock side do you want us to deal

5110
10:13:37,790 --> 10:13:33,300
with that now or get these guys out and

5111
10:13:44,570 --> 10:13:40,246
the hatches open okay but it just has

5112
10:13:51,110 --> 10:13:44,580
this bag stuck in one of the hooks

5113
10:13:56,810 --> 10:13:53,450

yeah dick thanks for the report if you

5114

10:14:00,470 --> 10:13:56,820

can get it clear that would be better uh

5115

10:14:05,030 --> 10:14:03,230

okay coffee so um quick is just going to

5116

10:14:07,426 --> 10:14:05,040

take the uh

5117

10:14:09,350 --> 10:14:07,436

handle to unlatch and then I'll be able

5118

10:14:12,830 --> 10:14:09,360

to clear

5119

10:14:12,840 --> 10:14:58,790

here's some coffee

5120

10:15:03,490 --> 10:15:00,766

okay we have it clear and the hatch is

5121

10:15:18,830 --> 10:15:03,500

back in a nominal config

5122

10:15:18,840 --> 10:15:31,550

where does Frank get to go first

5123

10:15:39,710 --> 10:15:32,810

he said let us know when you're

5124

10:15:39,720 --> 10:16:20,870

um

5125

10:16:20,880 --> 10:16:33,906

foreign

5126
10:16:54,170 --> 10:16:36,406
we'll take care of step four for the com

5127
10:16:54,180 --> 10:18:55,510
foreign

5128
10:19:22,510 --> 10:18:59,086
yeah Houston on one uh step four is

5129
10:19:28,850 --> 10:19:26,570
currently seeing views of Nicole Mann

5130
10:19:32,266 --> 10:19:28,860
NASA astronaut and suit up lead today

5131
10:19:36,290 --> 10:19:32,276
with koichiwakata of jaxa helping Frank

5132
10:19:39,586 --> 10:19:36,300
Rubio that's ev2 that's

5133
10:19:44,630 --> 10:19:39,596
donning the suit the unmarked suit

5134
10:19:48,890 --> 10:19:46,906
he's currently been moved into the

5135
10:19:51,470 --> 10:19:48,900
equipment lock

5136
10:19:53,390 --> 10:19:51,480
and now they're headed to grab a hold of

5137
10:19:56,630 --> 10:19:53,400
Josh cassida

5138
10:19:59,330 --> 10:19:56,640

the duo will then help the two space

5139

10:26:49,426 --> 10:19:59,340

Walkers doff their suits and take off

5140

10:26:52,670 --> 10:26:51,290

currently in a brief Hanover between

5141

10:26:54,470 --> 10:26:52,680

satellites

5142

10:27:00,830 --> 10:26:54,480

we'll have views back inside the quest

5143

10:27:05,510 --> 10:27:03,170

again we're waiting for the crew to doff

5144

10:27:07,190 --> 10:27:05,520

their helmets after they have made their

5145

10:27:08,810 --> 10:27:07,200

way back to the equipment lock section

5146

10:27:11,570 --> 10:27:08,820

of the airlock

5147

10:27:14,746 --> 10:27:11,580

where we have suitable lead as astronaut

5148

10:27:17,810 --> 10:27:14,756

Nicole Mann and Jax ashrock koji or

5149

10:33:30,830 --> 10:27:17,820

Kata helping the crew doff their suits

5150

10:33:35,086 --> 10:33:32,870

and we currently see Nicole Mann and

5151
10:33:52,426 --> 10:33:35,096
koichiwakata helping Frank Rubio out of

5152
10:33:52,436 --> 10:34:15,610
they have now moved over to Josh cassida

5153
10:34:29,350 --> 10:34:19,010
and Josh Kessler's helmet has been

5154
10:34:33,890 --> 10:34:31,850
Expedition 68 flight Engineers Josh

5155
10:34:36,470 --> 10:34:33,900
cassida and Frank Rubio of NASA and

5156
10:34:40,070 --> 10:34:36,480
concluded their spacewalk today at 4 25

5157
10:34:42,230 --> 10:34:40,080
PM eastern time after 7 hours and 11

5158
10:34:44,810 --> 10:34:42,240
minutes in preparation for upcoming

5159
10:34:47,450 --> 10:34:44,820
solar array installation

5160
10:34:50,030 --> 10:34:47,460
Rubio completed the majority of their

5161
10:34:51,530 --> 10:34:50,040
primary objectives today to assemble a

5162
10:34:53,450 --> 10:34:51,540
mounting bracket on the starboard side

5163
10:34:55,906 --> 10:34:53,460

of the station's trust assembly and

5164

10:34:57,790 --> 10:34:55,916

preparation for the solar arrays

5165

10:35:00,470 --> 10:34:57,800

installation of a pair of international

5166

10:35:02,810 --> 10:35:00,480

ISS solar arrays

5167

10:35:05,746 --> 10:35:02,820

rollout solar arrays the duo completed

5168

10:35:07,246 --> 10:35:05,756

the routing of cables on the 3A power

5169

10:35:09,766 --> 10:35:07,256

Channel and began the installation

5170

10:35:11,030 --> 10:35:09,776

process of a modification kit on the 1B

5171

10:35:13,790 --> 10:35:11,040

power Channel

5172

10:35:16,370 --> 10:35:13,800

which will act as a scaffolding for the

5173

10:35:17,926 --> 10:35:16,380

new solar arrays the crew deferred some

5174

10:35:19,370 --> 10:35:17,936

plan tasks associated with the

5175

10:35:21,290 --> 10:35:19,380

completion of the modification kit

5176
10:35:23,510 --> 10:35:21,300
including the installation of collars

5177
10:35:26,030 --> 10:35:23,520
and the routing of cables for the 1B

5178
10:35:27,710 --> 10:35:26,040
power channel the remaining work will be

5179
10:35:29,870 --> 10:35:27,720
completed during a future spacewalk

5180
10:35:32,690 --> 10:35:29,880
prior to the arrival of the solar arrays

5181
10:35:34,906 --> 10:35:32,700
for the 1B power Channel and no changes

5182
10:35:37,130 --> 10:35:34,916
are planned for the next two upcoming US

5183
10:35:39,710 --> 10:35:37,140
spacewalks

5184
10:35:41,746 --> 10:35:39,720
this was the 254th spacewalk in support

5185
10:35:43,550 --> 10:35:41,756
of station space station assembly

5186
10:35:45,650 --> 10:35:43,560
upgrades and maintenance and was the

5187
10:35:48,170 --> 10:35:45,660
first spacewalk for both astronauts

5188
10:35:50,390 --> 10:35:48,180

cassida and Rubio are in the midst of a

5189

10:35:52,070 --> 10:35:50,400

planned six-month science Mission living

5190

10:35:54,050 --> 10:35:52,080

and working aboard the microgravity

5191

10:35:55,550 --> 10:35:54,060

laboratory to advance scientific

5192

10:35:57,950 --> 10:35:55,560

knowledge and demonstrate new

5193

10:36:00,766 --> 10:35:57,960

technologies for future human and

5194

10:36:03,170 --> 10:36:00,776

robotic exploration missions including

5195

10:36:04,130 --> 10:36:03,180

lunar missions through NASA's Artemis

5196

10:36:09,110 --> 10:36:04,140

program

5197

10:36:11,390 --> 10:36:09,120

currently having the tanking of the SLS

5198

10:36:13,310 --> 10:36:11,400

or the space launch rocket being shown

5199

10:36:15,766 --> 10:36:13,320

on the public channel the media channel

5200

10:36:18,830 --> 10:36:15,776

with today's conclusion of the Eva we'll

5201
10:36:23,450 --> 10:36:18,840
head back over to KSC to finish out

5202
10:36:27,110 --> 10:36:23,460
to finish showing the fueling as well

5203
10:36:39,470 --> 10:36:27,120
coming up on Thursday November 15th will

5204
10:36:58,070 --> 10:36:42,586
the Russian ABA will start at 9 00 a.m

5205
10:37:03,830 --> 10:37:00,830
and now with the

5206
10:37:05,510 --> 10:37:03,840
crew back inside safely from finishing

5207
10:37:09,050 --> 10:37:05,520
their Eva

5208
10:37:17,230 --> 10:37:09,060
we'll wrap our coverage here

5209
10:38:09,586 --> 10:37:38,160
[Music]

5210
10:38:09,596 --> 10:38:14,710
foreign

5211
10:38:20,870 --> 10:38:18,470
of the space launch system and Orion and

5212
10:38:25,610 --> 10:38:20,880
launch of the Orion spacecraft

5213
10:38:28,610 --> 10:38:25,620

tonight at 104 a.m Eastern Time

5214

10:38:31,190 --> 10:38:28,620

from the East Coast of Florida

5215

10:38:34,070 --> 10:38:31,200

we are headed to Sunset as you can see

5216

10:38:36,766 --> 10:38:34,080

from the shot here in roughly about 23