



1
00:00:05,749 --> 00:00:02,230
station this is houston are you ready

2
00:00:05,759 --> 00:00:09,030
i am ready for the event

3
00:00:15,110 --> 00:00:11,030
way tv this is mission control houston

4
00:00:20,790 --> 00:00:17,109
station this is way tv how do you hear

5
00:00:20,800 --> 00:00:25,509
i read you loud and clear how me

6
00:00:29,189 --> 00:00:27,189
we read you tim good morning from

7
00:00:31,109 --> 00:00:29,199
huntsville this is josh barrett at way

8
00:00:33,110 --> 00:00:31,119
tv thank you for taking the time to talk

9
00:00:35,190 --> 00:00:33,120
to us i know you got a very busy week

10
00:00:36,709 --> 00:00:35,200
with the new crew coming up this weekend

11
00:00:38,630 --> 00:00:36,719
uh one of the flight controllers that i

12
00:00:40,150 --> 00:00:38,640
talked to here in huntsville said her

13
00:00:42,229 --> 00:00:40,160

favorite part about scott kelly's

14
00:00:44,630 --> 00:00:42,239
mission was watching you all welcome new

15
00:00:46,069 --> 00:00:44,640
crewmates to the iss

16
00:00:47,670 --> 00:00:46,079
she said you can feel the joy and the

17
00:00:49,590 --> 00:00:47,680
anticipation

18
00:00:50,950 --> 00:00:49,600
as you're waiting on your crew so can

19
00:00:52,630 --> 00:00:50,960
you talk about that a little bit what's

20
00:00:57,590 --> 00:00:52,640
it like from your perspective as you're

21
00:01:01,670 --> 00:00:59,430
we know it's a very interesting time

22
00:01:04,630 --> 00:01:01,680
because we had six people on board and

23
00:01:06,630 --> 00:01:04,640
then uh we lost half of our crew and uh

24
00:01:08,550 --> 00:01:06,640
tim your and i have had sort of a quiet

25
00:01:10,550 --> 00:01:08,560
time here you know it's a just a

26

00:01:12,149 --> 00:01:10,560

reduction of three people but it's a big

27

00:01:14,070 --> 00:01:12,159

station and uh you know we're

28

00:01:16,390 --> 00:01:14,080

anticipating this this new crew we're

29

00:01:18,630 --> 00:01:16,400

setting out their their clothes and

30

00:01:20,630 --> 00:01:18,640

we'll set up jeff's sleeping bag but uh

31

00:01:23,109 --> 00:01:20,640

i remember that moment coming on board

32

00:01:24,630 --> 00:01:23,119

and and seeing that uh that crew that

33

00:01:26,550 --> 00:01:24,640

had been here for a while and so that'll

34

00:01:28,789 --> 00:01:26,560

be our role now and we're just really

35

00:01:30,630 --> 00:01:28,799

looking forward to seeing jeff and alexi

36

00:01:32,870 --> 00:01:30,640

and a leg on board it'll be an exciting

37

00:01:36,390 --> 00:01:32,880

time and uh fresh blood here on space

38

00:01:40,870 --> 00:01:38,390

yeah i'm excited to watch you guys

39

00:01:42,789 --> 00:01:40,880

welcome them as well i know also next

40

00:01:44,870 --> 00:01:42,799

week you have a supply mission coming

41

00:01:46,789 --> 00:01:44,880

courtesy of a decatur made atlas 5

42

00:01:48,950 --> 00:01:46,799

rocket have you got a chance to look at

43

00:01:50,149 --> 00:01:48,960

the cargo manifest is there anything

44

00:01:55,190 --> 00:01:50,159

catching your eye that you're looking

45

00:01:58,870 --> 00:01:57,190

you know not in particular there's uh

46

00:02:01,190 --> 00:01:58,880

you know for every time we have a

47

00:02:03,749 --> 00:02:01,200

mission there's always a crew preference

48

00:02:05,749 --> 00:02:03,759

uh container and so we'll get a few

49

00:02:07,830 --> 00:02:05,759

things that are special to us just a few

50

00:02:09,430 --> 00:02:07,840

items that'll be nice you know maybe a

51
00:02:11,110 --> 00:02:09,440
few more foods that we don't have up

52
00:02:12,869 --> 00:02:11,120
here right now but

53
00:02:15,030 --> 00:02:12,879
in general i think we have a cargo

54
00:02:17,270 --> 00:02:15,040
vehicle come it's really a time for us

55
00:02:18,949 --> 00:02:17,280
to really focus on taking care of all

56
00:02:20,869 --> 00:02:18,959
that stowage and getting things put in

57
00:02:22,790 --> 00:02:20,879
the proper place i think that's probably

58
00:02:26,710 --> 00:02:22,800
our main focus when we get a new vehicle

59
00:02:31,030 --> 00:02:28,470
now i thought last week tim that you had

60
00:02:32,710 --> 00:02:31,040
to repair the urine processor assembly

61
00:02:34,790 --> 00:02:32,720
on the space station i know that's a

62
00:02:37,110 --> 00:02:34,800
piece of equipment they build here in

63
00:02:39,430 --> 00:02:37,120

marshall my question for you is when

64

00:02:40,949 --> 00:02:39,440

when something breaks on the iss and the

65

00:02:43,270 --> 00:02:40,959

people who know how to fix it are here

66

00:02:44,790 --> 00:02:43,280

on earth walk me through that process

67

00:02:46,150 --> 00:02:44,800

what do you guys have to do you know you

68

00:02:50,550 --> 00:02:46,160

can't just call a plumber up there on

69

00:02:54,630 --> 00:02:52,390

you know after the uh the last week and

70

00:02:57,030 --> 00:02:54,640

a half i feel like i've uh earned half

71

00:02:59,589 --> 00:02:57,040

my degree in uh plumbing and uh

72

00:03:02,070 --> 00:02:59,599

electrician work but uh the thing that's

73

00:03:03,990 --> 00:03:02,080

most important and what the the ground

74

00:03:06,390 --> 00:03:04,000

team does exceedingly well is write the

75

00:03:07,670 --> 00:03:06,400

procedures so that we can repair it just

76

00:03:09,589 --> 00:03:07,680

by reading through this and with a

77

00:03:11,670 --> 00:03:09,599

little bit of help from the ground

78

00:03:13,509 --> 00:03:11,680

and you know by and large the equipment

79

00:03:15,670 --> 00:03:13,519

is also designed to be

80

00:03:17,350 --> 00:03:15,680

fixed like this so a combination of

81

00:03:19,670 --> 00:03:17,360

really good procedures from the smart

82

00:03:21,509 --> 00:03:19,680

folks we have on the ground and the

83

00:03:23,430 --> 00:03:21,519

design of these different pieces of

84

00:03:25,190 --> 00:03:23,440

equipment makes it so that we're able to

85

00:03:28,390 --> 00:03:25,200

repair it and we're very grateful for

86

00:03:32,630 --> 00:03:30,949

yeah i'm sure having your your restroom

87

00:03:34,390 --> 00:03:32,640

facilities working is a big relief i'm

88

00:03:35,589 --> 00:03:34,400

gonna switch now i've got some questions

89

00:03:37,830 --> 00:03:35,599

from space campers as you know

90

00:03:39,830 --> 00:03:37,840

huntsville's the home of space camp so

91

00:03:41,910 --> 00:03:39,840

mia from decatur this is a fantastic

92

00:03:43,990 --> 00:03:41,920

question she says if you can have one

93

00:03:51,750 --> 00:03:44,000

achievement on your gravestone besides

94

00:03:51,760 --> 00:03:56,390

probably being a good dad

95

00:04:00,869 --> 00:03:58,630

well that was a quick answer so i might

96

00:04:03,429 --> 00:04:00,879

mess up this young lady's name but juno

97

00:04:05,750 --> 00:04:03,439

leo from puerto rico is wondering how

98

00:04:07,350 --> 00:04:05,760

does it feel to risk your life and leave

99

00:04:11,589 --> 00:04:07,360

your family behind all the travel in

100

00:04:16,069 --> 00:04:13,910

you know we definitely know that when we

101
00:04:18,870 --> 00:04:16,079
launch on a rocket and when we live in

102
00:04:21,030 --> 00:04:18,880
space here and when we go home

103
00:04:24,070 --> 00:04:21,040
our life is in peril but

104
00:04:25,830 --> 00:04:24,080
at the same time there's a a really

105
00:04:27,430 --> 00:04:25,840
fabulous team that has designed this

106
00:04:29,990 --> 00:04:27,440
hardware and that has taken care of the

107
00:04:31,590 --> 00:04:30,000
operations and so i would say that we

108
00:04:33,990 --> 00:04:31,600
all feel like the the risk has been

109
00:04:36,550 --> 00:04:34,000
mitigated to such an extent that

110
00:04:38,390 --> 00:04:36,560
the benefits far outweigh the risks that

111
00:04:39,909 --> 00:04:38,400
that we entail and so

112
00:04:42,230 --> 00:04:39,919
all of us that serve here on space

113
00:04:44,150 --> 00:04:42,240

station are very proud to be able to

114

00:04:46,629 --> 00:04:44,160

advance the the state of the art in

115

00:04:48,870 --> 00:04:46,639

terms of uh human presence in space and

116

00:04:50,950 --> 00:04:48,880

science so i think all of us feel that

117

00:04:52,390 --> 00:04:50,960

it's a it's an even trade and you know

118

00:04:54,629 --> 00:04:52,400

sometimes it's hard

119

00:04:56,790 --> 00:04:54,639

you know when your family is is uh down

120

00:04:58,710 --> 00:04:56,800

on earth and we're up here working but

121

00:05:00,710 --> 00:04:58,720

we're also taken care of in lots of ways

122

00:05:03,270 --> 00:05:00,720

we can call our family practically every

123

00:05:05,110 --> 00:05:03,280

day we have a video conference so we we

124

00:05:10,469 --> 00:05:05,120

definitely feel connected even though

125

00:05:14,550 --> 00:05:12,629

yeah i'm sure that that's a huge relief

126

00:05:17,350 --> 00:05:14,560

to talk to your friends and family on

127

00:05:19,189 --> 00:05:17,360

the ground uh cooper from chicago wants

128

00:05:20,950 --> 00:05:19,199

to know how is this experience in space

129

00:05:25,990 --> 00:05:20,960

different from your previous space

130

00:05:31,189 --> 00:05:27,749

you know it's a good question last time

131

00:05:32,790 --> 00:05:31,199

i spent 58 days in space and uh i

132

00:05:33,990 --> 00:05:32,800

thought it was about the right length of

133

00:05:35,270 --> 00:05:34,000

time i thought i could have stayed a

134

00:05:36,230 --> 00:05:35,280

little bit longer it would have been

135

00:05:38,469 --> 00:05:36,240

okay

136

00:05:40,629 --> 00:05:38,479

and maybe uh it was the right time to go

137

00:05:43,350 --> 00:05:40,639

back after two months but this time

138

00:05:45,670 --> 00:05:43,360

we're i guess over 90 days now and uh

139

00:05:47,430 --> 00:05:45,680

i'm very grateful to have this length of

140

00:05:49,270 --> 00:05:47,440

time and space because

141

00:05:52,150 --> 00:05:49,280

the longer you get up here the the more

142

00:05:54,310 --> 00:05:52,160

proficient you get at your skills for

143

00:05:56,390 --> 00:05:54,320

taking care of station and working with

144

00:05:58,390 --> 00:05:56,400

science and repairing the vehicle but

145

00:06:01,350 --> 00:05:58,400

also just feeling comfortable in space

146

00:06:03,270 --> 00:06:01,360

and i tell you what the view is

147

00:06:05,270 --> 00:06:03,280

mind-blowing and

148

00:06:06,870 --> 00:06:05,280

i am very grateful for every day that i

149

00:06:10,629 --> 00:06:06,880

can look out the window and take more

150

00:06:14,070 --> 00:06:12,469

yeah we all love seeing the photographs

151

00:06:16,629 --> 00:06:14,080

that you guys take up there when you

152

00:06:18,870 --> 00:06:16,639

send them back down to earth sarah from

153

00:06:19,830 --> 00:06:18,880

huntsville wants to know if you wanted

154

00:06:22,710 --> 00:06:19,840

to be

155

00:06:27,830 --> 00:06:22,720

you were in the army was that something

156

00:06:31,350 --> 00:06:29,830

you know i think uh i've thought i know

157

00:06:34,390 --> 00:06:31,360

that i've thought about being an

158

00:06:36,390 --> 00:06:34,400

astronaut since i was about six and i

159

00:06:38,950 --> 00:06:36,400

think the first time that it really

160

00:06:40,710 --> 00:06:38,960

became real to me was when i was at west

161

00:06:42,790 --> 00:06:40,720

point and we had some former astronauts

162

00:06:44,629 --> 00:06:42,800

come and speak to us and

163

00:06:47,350 --> 00:06:44,639

that was a very seminal moment for me

164

00:06:49,430 --> 00:06:47,360

because i recognized that

165

00:06:51,029 --> 00:06:49,440

even though i was a plebe at west point

166

00:06:53,749 --> 00:06:51,039

here were these guys who had come and

167

00:06:55,749 --> 00:06:53,759

spoken to the corps of cadets who had

168

00:06:58,469 --> 00:06:55,759

achieved that goal and so i i definitely

169

00:06:59,350 --> 00:06:58,479

thought about that when i was in college

170

00:07:01,350 --> 00:06:59,360

and

171

00:07:04,150 --> 00:07:01,360

it provided a great motivation to work

172

00:07:08,550 --> 00:07:04,160

hard and study in math and science and

173

00:07:12,550 --> 00:07:10,950

yeah it's all paying off right now is

174

00:07:14,150 --> 00:07:12,560

get the spectacular views you were

175

00:07:15,430 --> 00:07:14,160

talking about that wraps up the space

176
00:07:16,710 --> 00:07:15,440
camper questions i wanted to switch

177
00:07:18,150 --> 00:07:16,720
gears real quick

178
00:07:19,350 --> 00:07:18,160
and talk a little bit about the science

179
00:07:21,189 --> 00:07:19,360
you guys are doing up there i know the

180
00:07:23,189 --> 00:07:21,199
science control room here in huntsville

181
00:07:25,029 --> 00:07:23,199
helps you through those experiments has

182
00:07:27,510 --> 00:07:25,039
there been an experiment where that you

183
00:07:29,670 --> 00:07:27,520
were working on it and you just paused

184
00:07:32,390 --> 00:07:29,680
and thought wow this is cool this is

185
00:07:37,510 --> 00:07:32,400
something very significant uh

186
00:07:40,629 --> 00:07:39,270
you know i would say that the majority

187
00:07:43,670 --> 00:07:40,639
of the science experiments that i've

188
00:07:45,830 --> 00:07:43,680

done up here have had a wow factor to me

189

00:07:48,390 --> 00:07:45,840

you know we do ultrasounds on ourself

190

00:07:50,309 --> 00:07:48,400

guided by a remote guide on the ground

191

00:07:52,550 --> 00:07:50,319

and so we're essentially turning

192

00:07:53,749 --> 00:07:52,560

ourselves into ultrasound techs looking

193

00:07:55,670 --> 00:07:53,759

at our body

194

00:07:56,869 --> 00:07:55,680

uh and uh and the scientists on the

195

00:07:59,029 --> 00:07:56,879

ground be able to understand the

196

00:08:01,830 --> 00:07:59,039

differences between living on earth and

197

00:08:04,230 --> 00:08:01,840

living in zero gravity i've lit

198

00:08:06,070 --> 00:08:04,240

fires here on space station in a in a

199

00:08:07,350 --> 00:08:06,080

glove box which i thought was pretty

200

00:08:08,790 --> 00:08:07,360

amazing and

201
00:08:11,430 --> 00:08:08,800
and today i was helping to set up an

202
00:08:13,350 --> 00:08:11,440
experiment with liquid crystals so all

203
00:08:15,670 --> 00:08:13,360
these different experiments in some

204
00:08:17,830 --> 00:08:15,680
respects have a wow factor and i hope

205
00:08:22,469 --> 00:08:17,840
that someday they have benefits for

206
00:08:26,150 --> 00:08:24,390
yeah i love following the experiments

207
00:08:27,990 --> 00:08:26,160
that you guys do now i talk to the folks

208
00:08:29,670 --> 00:08:28,000
here in huntsville all the time about

209
00:08:31,189 --> 00:08:29,680
working with you guys but i want to hear

210
00:08:32,870 --> 00:08:31,199
from you what's what's the day-to-day

211
00:08:34,230 --> 00:08:32,880
interaction like how

212
00:08:36,709 --> 00:08:34,240
how much do you work with the people

213
00:08:40,949 --> 00:08:36,719

here in huntsville on a day-to-day basis

214

00:08:44,870 --> 00:08:42,469

we know it's not every day but when we

215

00:08:46,310 --> 00:08:44,880

have dedicated time for experiments uh

216

00:08:48,790 --> 00:08:46,320

one thing i particularly like you know

217

00:08:51,590 --> 00:08:48,800

we have this formal way of talking on

218

00:08:53,110 --> 00:08:51,600

our space to ground loops and uh

219

00:08:54,949 --> 00:08:53,120

that's the the typical way that we

220

00:08:57,829 --> 00:08:54,959

communicate one thing i especially like

221

00:08:59,509 --> 00:08:57,839

when we have experiments with uh with

222

00:09:02,070 --> 00:08:59,519

one of the primary operators in

223

00:09:03,990 --> 00:09:02,080

huntsville or sometimes in cleveland is

224

00:09:05,509 --> 00:09:04,000

that we have a dedicated space to ground

225

00:09:07,990 --> 00:09:05,519

loop and we can essentially have a

226

00:09:10,070 --> 00:09:08,000

conversation back and forth as they help

227

00:09:12,230 --> 00:09:10,080

us set up the experiment and and look at

228

00:09:14,870 --> 00:09:12,240

the results and i find that very

229

00:09:17,190 --> 00:09:14,880

rewarding and it feels as if you're part

230

00:09:18,630 --> 00:09:17,200

of the team and uh sort of a lab partner

231

00:09:21,110 --> 00:09:18,640

with the folks on the ground that are

232

00:09:23,509 --> 00:09:21,120

the experts in that area of science so i

233

00:09:28,790 --> 00:09:23,519

i've just really enjoyed my time working

234

00:09:32,470 --> 00:09:30,630

well tim i think that wraps up all the

235

00:09:34,870 --> 00:09:32,480

time we have thank you very much again i

236

00:09:36,389 --> 00:09:34,880

know you're very busy i hope you enjoy

237

00:09:40,389 --> 00:09:36,399

the rest of your time up in space and

238

00:09:43,190 --> 00:09:42,070

thank you so much josh i enjoyed talking

239

00:09:48,550 --> 00:09:43,200

with you you guys take care in

240

00:09:53,030 --> 00:09:51,030

station this is houston acr that

241

00:09:55,350 --> 00:09:53,040

concludes the way tv portion of the

242

00:09:58,070 --> 00:09:55,360

event please stand by for a voice check

243

00:09:59,910 --> 00:09:58,080

from cbs news

244

00:10:01,190 --> 00:09:59,920

station this is bill harwood cbs news at

245

00:10:04,550 --> 00:10:01,200

the kennedy space center how do you read

246

00:10:08,949 --> 00:10:07,190

hey bill i read you loud and clear

247

00:10:10,310 --> 00:10:08,959

well great uh you know i was just

248

00:10:12,310 --> 00:10:10,320

thinking about that the other day you've

249

00:10:14,230 --> 00:10:12,320

been up there i guess today is 91 days

250

00:10:16,310 --> 00:10:14,240

or something like that in your increment

251
00:10:18,389 --> 00:10:16,320
which is uh nosing up on twice as long

252
00:10:19,829 --> 00:10:18,399
as your first flight and i was just

253
00:10:21,350 --> 00:10:19,839
wondering with scott kelly back on the

254
00:10:24,069 --> 00:10:21,360
ground and thinking about long duration

255
00:10:25,590 --> 00:10:24,079
flights uh does the time fly for you or

256
00:10:29,030 --> 00:10:25,600
does it drag or is it something in the

257
00:10:33,269 --> 00:10:31,350
you know bill uh i think all of us on

258
00:10:35,430 --> 00:10:33,279
board are just amazed at how fast the

259
00:10:37,110 --> 00:10:35,440
time goes you know sometimes like uh tim

260
00:10:38,630 --> 00:10:37,120
peake and i were

261
00:10:40,470 --> 00:10:38,640
starting dinner about eight o'clock last

262
00:10:42,949 --> 00:10:40,480
night and both of us were commenting man

263
00:10:44,389 --> 00:10:42,959

what happened to the day it just flew by

264

00:10:45,829 --> 00:10:44,399

and the same thing happens with the

265

00:10:46,949 --> 00:10:45,839

weeks as well by the time you get to

266

00:10:48,949 --> 00:10:46,959

friday and you're looking forward to a

267

00:10:51,910 --> 00:10:48,959

little bit of off time on saturday and

268

00:10:53,509 --> 00:10:51,920

sunday uh that week has just zoomed by

269

00:10:56,230 --> 00:10:53,519

so it's it's almost hard to believe that

270

00:10:57,670 --> 00:10:56,240

we've been here for 91 days

271

00:10:58,790 --> 00:10:57,680

you know you mentioned off time you're

272

00:11:03,509 --> 00:10:58,800

going to get a chance to watch a little

273

00:11:06,949 --> 00:11:05,190

looking forward to it you know we we've

274

00:11:08,710 --> 00:11:06,959

been able to watch a lot of significant

275

00:11:11,590 --> 00:11:08,720

sporting events up here and it's it's

276

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

always a pleasure we have a projection

277

00:11:15,509 --> 00:11:13,440

system here and so we can watch it on

278

00:11:16,550 --> 00:11:15,519

the big screen

279

00:11:18,069 --> 00:11:16,560

well

280

00:11:19,670 --> 00:11:18,079

that's great you know i was i was

281

00:11:21,829 --> 00:11:19,680

thinking about you again the other day

282

00:11:23,829 --> 00:11:21,839

because you know i remember covering

283

00:11:26,630 --> 00:11:23,839

when you got knocked off a flight back i

284

00:11:29,030 --> 00:11:26,640

guess it was in 2011 or maybe 2010 and

285

00:11:30,710 --> 00:11:29,040

and all the time you put into to get

286

00:11:32,069 --> 00:11:30,720

back and now you're up there you're 91

287

00:11:34,310 --> 00:11:32,079

days into this flight i mean it just

288

00:11:36,230 --> 00:11:34,320

strikes me as an amazing

289

00:11:38,069 --> 00:11:36,240

personal story that and one that you

290

00:11:39,670 --> 00:11:38,079

must truly appreciate

291

00:11:41,430 --> 00:11:39,680

uh the opportunity to do what you're

292

00:11:43,750 --> 00:11:41,440

doing i is it all you'd hoped it would

293

00:11:46,949 --> 00:11:43,760

be um i mean what do you think about

294

00:11:50,949 --> 00:11:48,470

well bill i'd have to say that it's a

295

00:11:52,389 --> 00:11:50,959

lot more than i expected it to be and uh

296

00:11:55,110 --> 00:11:52,399

you know having taken a little bit

297

00:11:57,829 --> 00:11:55,120

longer route to get back here i think

298

00:12:00,230 --> 00:11:57,839

i have a measure of gratitude that uh

299

00:12:02,949 --> 00:12:00,240

that may be a little bit uncommon so

300

00:12:04,629 --> 00:12:02,959

every day no kidding when i wake up i am

301

00:12:06,870 --> 00:12:04,639

very grateful to be here and for this

302

00:12:09,590 --> 00:12:06,880

opportunity you know coincidentally you

303

00:12:11,430 --> 00:12:09,600

know steve bowen was our capcom this

304

00:12:14,069 --> 00:12:11,440

morning who was able to fill into my

305

00:12:16,389 --> 00:12:14,079

role in on sts-133 and do such a

306

00:12:18,550 --> 00:12:16,399

fabulous job so it's funny to watch the

307

00:12:19,430 --> 00:12:18,560

full circle of events as i spend time up

308

00:12:21,590 --> 00:12:19,440

here

309

00:12:23,350 --> 00:12:21,600

wow that's interesting

310

00:12:25,269 --> 00:12:23,360

tell me about the maybe the differences

311

00:12:26,710 --> 00:12:25,279

you've noted uh between your first stay

312

00:12:28,310 --> 00:12:26,720

up there and now and i don't mean you

313

00:12:29,350 --> 00:12:28,320

know different modules and things like

314

00:12:31,509 --> 00:12:29,360

that

315

00:12:32,870 --> 00:12:31,519

your your personal uh

316

00:12:34,629 --> 00:12:32,880

i don't know what i'm looking for here

317

00:12:35,829 --> 00:12:34,639

is is it your second time around up

318

00:12:37,750 --> 00:12:35,839

there what are some of the differences

319

00:12:39,430 --> 00:12:37,760

you've noticed about the way you you've

320

00:12:43,750 --> 00:12:39,440

adapted to life in space or just

321

00:12:47,030 --> 00:12:45,350

you know i can actually comment on both

322

00:12:48,470 --> 00:12:47,040

those i think you know from the

323

00:12:51,110 --> 00:12:48,480

standpoint of the crew member when they

324

00:12:52,790 --> 00:12:51,120

come up here i think your body remembers

325

00:12:55,829 --> 00:12:52,800

the time that it spent up here because

326

00:12:58,230 --> 00:12:55,839

it felt as if the adaptation was was

327

00:12:59,750 --> 00:12:58,240

much faster this time and almost to the

328

00:13:02,150 --> 00:12:59,760

extent that i felt like i picked up

329

00:13:04,389 --> 00:13:02,160

after uh where i left off

330

00:13:07,750 --> 00:13:04,399

back in uh you know a few years back in

331

00:13:09,590 --> 00:13:07,760

2009 so from that standpoint it's really

332

00:13:11,590 --> 00:13:09,600

nice to spend more time here feel more

333

00:13:14,230 --> 00:13:11,600

comfortable and more time to look out

334

00:13:16,629 --> 00:13:14,240

the window and the other observation

335

00:13:17,430 --> 00:13:16,639

that is very clear to me is the fact

336

00:13:21,269 --> 00:13:17,440

that

337

00:13:23,350 --> 00:13:21,279

flight have become much more mature and

338

00:13:25,750 --> 00:13:23,360

so things just operate very very

339

00:13:28,949 --> 00:13:25,760

smoothly now and they did before but to

340

00:13:31,829 --> 00:13:28,959

even a much greater extent now

341

00:13:33,670 --> 00:13:31,839

almost like it's it's it's a mature

342

00:13:37,590 --> 00:13:33,680

stable ops i guess since you don't have

343

00:13:42,470 --> 00:13:40,150

absolutely we're definitely focused on

344

00:13:44,150 --> 00:13:42,480

on the mission here and uh and every

345

00:13:45,670 --> 00:13:44,160

different center has gotten so much

346

00:13:47,509 --> 00:13:45,680

better in terms of how they conduct

347

00:13:48,949 --> 00:13:47,519

operations it's it's very impressive to

348

00:13:50,629 --> 00:13:48,959

watch

349

00:13:52,310 --> 00:13:50,639

um tell me a little bit about what it's

350

00:13:54,310 --> 00:13:52,320

like going from six people to three

351

00:13:55,590 --> 00:13:54,320

people i've always thought that uh it's

352

00:13:57,030 --> 00:13:55,600

not like you're crowded with six but

353

00:13:59,030 --> 00:13:57,040

always thought it'd be kind of a welcome

354

00:14:01,269 --> 00:13:59,040

break to go down to three if it was me

355

00:14:03,189 --> 00:14:01,279

just to have more space and more

356

00:14:04,629 --> 00:14:03,199

time i guess i don't know personal space

357

00:14:05,990 --> 00:14:04,639

to myself what's it like for you what's

358

00:14:10,310 --> 00:14:06,000

what's the differences with life with

359

00:14:15,110 --> 00:14:12,310

you know bill the change is not big

360

00:14:17,110 --> 00:14:15,120

because uh it may sound like uh you know

361

00:14:19,350 --> 00:14:17,120

we're cramped up in the space station

362

00:14:20,389 --> 00:14:19,360

six people in a small area but space

363

00:14:22,550 --> 00:14:20,399

station

364

00:14:24,389 --> 00:14:22,560

is really huge and so from a space

365

00:14:25,750 --> 00:14:24,399

standpoint you don't notice it so much

366

00:14:28,310 --> 00:14:25,760

but i mean the interaction has changed a

367

00:14:29,829 --> 00:14:28,320

little bit because you know i typically

368

00:14:31,269 --> 00:14:29,839

we had three people down here and we

369

00:14:33,829 --> 00:14:31,279

would see our russian colleagues on

370

00:14:37,030 --> 00:14:33,839

occasion and now tim peake and i are

371

00:14:39,590 --> 00:14:37,040

here in the us os and we have yuri down

372

00:14:41,030 --> 00:14:39,600

on the other end of space station and so

373

00:14:42,790 --> 00:14:41,040

i think you know the main thing you

374

00:14:44,310 --> 00:14:42,800

notice is that you don't have to

375

00:14:47,110 --> 00:14:44,320

coordinate as much if you want to

376

00:14:48,870 --> 00:14:47,120

exercise at a different time for example

377

00:14:50,790 --> 00:14:48,880

and it is a little bit quieter and it's

378

00:14:53,110 --> 00:14:50,800

a different time but we're also really

379

00:14:55,350 --> 00:14:53,120

looking forward to adding jeff alexia

380

00:14:56,550 --> 00:14:55,360

and aleg to the crew

381

00:14:58,230 --> 00:14:56,560

well i was going to ask you about that

382

00:15:00,470 --> 00:14:58,240

you know the station's changed quite a

383

00:15:01,350 --> 00:15:00,480

bit since jeff was up there last what do

384

00:15:06,710 --> 00:15:01,360

you think is going to be the biggest

385

00:15:10,069 --> 00:15:07,750

you know i don't think much is really

386

00:15:12,949 --> 00:15:10,079

going to surprise jeff because he has so

387

00:15:14,150 --> 00:15:12,959

much experience up here

388

00:15:16,949 --> 00:15:14,160

and

389

00:15:18,949 --> 00:15:16,959

he'll just fit right into the groove i

390

00:15:21,350 --> 00:15:18,959

can't see jeff being surprised by by

391

00:15:23,350 --> 00:15:21,360

much in terms of the operations because

392

00:15:25,269 --> 00:15:23,360

things are very stable now you know i

393

00:15:27,509 --> 00:15:25,279

think some of the connectivity we have

394

00:15:29,749 --> 00:15:27,519

is a little bit better we have internet

395

00:15:31,590 --> 00:15:29,759

not super fast but we do have internet

396

00:15:33,269 --> 00:15:31,600

it's a nice feature and some of those

397

00:15:36,550 --> 00:15:33,279

creature comforts that you're used to on

398

00:15:38,710 --> 00:15:36,560

the earth they mean a whole lot up here

399

00:15:40,310 --> 00:15:38,720

yeah i'm sure about that but it'll also

400

00:15:41,749 --> 00:15:40,320

be good i guess to get i mean he's got

401
00:15:43,910 --> 00:15:41,759
enormous amount of experience i mean

402
00:15:46,470 --> 00:15:43,920
having another american on board with uh

403
00:15:47,990 --> 00:15:46,480
that level of experience must uh

404
00:15:49,590 --> 00:15:48,000
i don't think makes life easier for you

405
00:15:53,590 --> 00:15:49,600
but it's got to be a it's got to be

406
00:15:56,629 --> 00:15:55,030
we know i think

407
00:15:58,629 --> 00:15:56,639
we're definitely looking forward to

408
00:16:00,389 --> 00:15:58,639
having jeff and his expertise on board i

409
00:16:01,670 --> 00:16:00,399
think you know there's there's two sides

410
00:16:04,150 --> 00:16:01,680
of the coin you could have someone who's

411
00:16:05,590 --> 00:16:04,160
brand new up here who is uh is learning

412
00:16:07,670 --> 00:16:05,600
for the first time and that's a fun

413
00:16:09,829 --> 00:16:07,680

process to watch or you can have someone

414

00:16:12,550 --> 00:16:09,839

who's super experienced like jeff for

415

00:16:13,990 --> 00:16:12,560

example and we can learn a lot from him

416

00:16:15,670 --> 00:16:14,000

especially you know one thing i'm

417

00:16:17,910 --> 00:16:15,680

especially looking forward to talking to

418

00:16:20,069 --> 00:16:17,920

jeff about is his uh his photography

419

00:16:22,310 --> 00:16:20,079

expertise because we're developing

420

00:16:24,870 --> 00:16:22,320

expertise but jeff has a real passion

421

00:16:26,949 --> 00:16:24,880

for photography and we're hoping to to

422

00:16:28,150 --> 00:16:26,959

learn a lot from him in that area

423

00:16:29,749 --> 00:16:28,160

well that'd be well your pictures have

424

00:16:30,790 --> 00:16:29,759

been pretty good tim so keep them coming

425

00:16:31,990 --> 00:16:30,800

for sure

426

00:16:34,150 --> 00:16:32,000

um

427

00:16:35,430 --> 00:16:34,160

you guys have a pretty busy schedule

428

00:16:37,509 --> 00:16:35,440

coming up here in the near term i guess

429

00:16:39,110 --> 00:16:37,519

you got a progress um

430

00:16:41,509 --> 00:16:39,120

cygnus coming up at the end of the month

431

00:16:43,110 --> 00:16:41,519

and then presumably spacex in

432

00:16:44,870 --> 00:16:43,120

in early april talk to me a little bit

433

00:16:49,269 --> 00:16:44,880

about visiting vehicles and what you

434

00:16:53,590 --> 00:16:51,430

we know we definitely practice uh for

435

00:16:57,110 --> 00:16:53,600

the uh the grappling of this vehicle

436

00:16:59,189 --> 00:16:57,120

because we have uh a free flyer capture

437

00:17:01,110 --> 00:16:59,199

uh scenario in which we use a robotic

438

00:17:03,030 --> 00:17:01,120

arm to grab on to that vehicle so that

439

00:17:04,630 --> 00:17:03,040

it can be docked onto station or birth

440

00:17:06,150 --> 00:17:04,640

onto station actually

441

00:17:07,750 --> 00:17:06,160

so from that standpoint there's some

442

00:17:09,510 --> 00:17:07,760

training involved and then there's the

443

00:17:12,150 --> 00:17:09,520

excitement of watching that vehicle come

444

00:17:14,230 --> 00:17:12,160

in and then grabbing it with the robotic

445

00:17:16,069 --> 00:17:14,240

arm but then after that

446

00:17:18,390 --> 00:17:16,079

it's a lot of logistics and we're

447

00:17:19,990 --> 00:17:18,400

bringing up lots of equipment and it's a

448

00:17:22,390 --> 00:17:20,000

big station but there's not a huge

449

00:17:23,990 --> 00:17:22,400

amount of extra room for stowage and so

450

00:17:25,990 --> 00:17:24,000

it's definitely important for us to get

451
00:17:27,909 --> 00:17:26,000
things organized in such a manner that

452
00:17:29,270 --> 00:17:27,919
when all these uh these new pieces of

453
00:17:30,950 --> 00:17:29,280
equipment come on board we have the

454
00:17:32,870 --> 00:17:30,960
right place to put it and we can still

455
00:17:34,390 --> 00:17:32,880
do our our normal science operations

456
00:17:36,070 --> 00:17:34,400
here on boards that's going to be the

457
00:17:37,350 --> 00:17:36,080
bulk of our work for the next several

458
00:17:39,190 --> 00:17:37,360
weeks

459
00:17:41,590 --> 00:17:39,200
now uh beam is coming up i guess on

460
00:17:43,590 --> 00:17:41,600
spacex eight uh does the ground pull

461
00:17:48,710 --> 00:17:43,600
that out and mount it outside or do you

462
00:17:53,430 --> 00:17:51,270
uh it's going to be a a ground operation

463
00:17:55,830 --> 00:17:53,440

and uh from the inside we're going to be

464

00:17:57,830 --> 00:17:55,840

the ones that uh that inflate this this

465

00:18:00,789 --> 00:17:57,840

new vehicle and so we're we're excited

466

00:18:02,630 --> 00:18:00,799

about uh that that whole operation

467

00:18:05,270 --> 00:18:02,640

tell me about that a little bit uh that

468

00:18:06,870 --> 00:18:05,280

strikes me as a potentially useful

469

00:18:08,390 --> 00:18:06,880

technology down the road whether it's

470

00:18:10,950 --> 00:18:08,400

whether it's around the moon or you know

471

00:18:13,190 --> 00:18:10,960

a mars habitat of some kind to

472

00:18:14,870 --> 00:18:13,200

to help you get there um

473

00:18:16,630 --> 00:18:14,880

how comfortable are you with the whole

474

00:18:18,070 --> 00:18:16,640

idea of an inflatable module you tell

475

00:18:19,750 --> 00:18:18,080

somebody on the street they go what you

476

00:18:21,110 --> 00:18:19,760

know and obviously they know what

477

00:18:25,830 --> 00:18:21,120

they're doing but but

478

00:18:30,070 --> 00:18:27,270

well i think the technology has

479

00:18:32,150 --> 00:18:30,080

tremendous potential because uh you know

480

00:18:34,070 --> 00:18:32,160

it's very expensive to get things into

481

00:18:35,510 --> 00:18:34,080

space there's this huge weight penalty

482

00:18:37,510 --> 00:18:35,520

and you can almost well you can

483

00:18:39,510 --> 00:18:37,520

calculate how much things are going to

484

00:18:41,830 --> 00:18:39,520

cost based upon how heavy they are based

485

00:18:43,909 --> 00:18:41,840

upon the state of the art and if we can

486

00:18:46,310 --> 00:18:43,919

take uh you know a smaller volume and

487

00:18:49,669 --> 00:18:46,320

make it larger that has tremendous

488

00:18:51,350 --> 00:18:49,679

potential benefit uh for for all future

489

00:18:53,110 --> 00:18:51,360

human exploration

490

00:18:55,350 --> 00:18:53,120

and so uh from that standpoint we're

491

00:18:57,270 --> 00:18:55,360

very excited about it and we'll we'll

492

00:19:00,070 --> 00:18:57,280

make sure that we do things safely

493

00:19:01,590 --> 00:19:00,080

because it's a new technology and uh you

494

00:19:03,110 --> 00:19:01,600

know it's attached on to this this

495

00:19:04,390 --> 00:19:03,120

vehicle so we'll go through all the

496

00:19:06,310 --> 00:19:04,400

different measures to make sure that

497

00:19:08,630 --> 00:19:06,320

it's safe and and hopefully prove that

498

00:19:10,390 --> 00:19:08,640

it's a very viable and uh useful

499

00:19:12,230 --> 00:19:10,400

technology in the future

500

00:19:13,990 --> 00:19:12,240

um i know the purpose of this first run

501
00:19:15,430 --> 00:19:14,000
is just to inflate it and let it sit

502
00:19:16,710 --> 00:19:15,440
there and you know let the sensors do

503
00:19:18,230 --> 00:19:16,720
their thing but do you guys ever go

504
00:19:19,750 --> 00:19:18,240
inside this thing or is it

505
00:19:23,669 --> 00:19:19,760
strictly a matter of inflating it and

506
00:19:26,470 --> 00:19:24,950
you know it started out that weren't

507
00:19:28,310 --> 00:19:26,480
really going to go in at all and now

508
00:19:30,470 --> 00:19:28,320
we'll go in on occasion to change out

509
00:19:33,110 --> 00:19:30,480
some sensors um

510
00:19:34,549 --> 00:19:33,120
but it's a good size volume and so maybe

511
00:19:36,710 --> 00:19:34,559
at the end of its life there'll be an

512
00:19:38,630 --> 00:19:36,720
additional purpose for it

513
00:19:40,789 --> 00:19:38,640

but uh for right now it's just to open

514

00:19:42,870 --> 00:19:40,799

the hatch chains out some sensors on

515

00:19:44,870 --> 00:19:42,880

occasion and then close the hatch but

516

00:19:47,029 --> 00:19:44,880

that's probably the best bet the best

517

00:19:48,870 --> 00:19:47,039

way to deal with new technology because

518

00:19:50,230 --> 00:19:48,880

you know we try to mitigate risk in in

519

00:19:52,710 --> 00:19:50,240

every way that we can and that's

520

00:19:54,150 --> 00:19:52,720

probably the best way to do that

521

00:19:56,870 --> 00:19:54,160

well listen tim thanks a lot they've

522

00:19:58,070 --> 00:19:56,880

given me the old wrap here and uh i wish

523

00:19:59,110 --> 00:19:58,080

you best of luck for the rest of your

524

00:20:03,110 --> 00:19:59,120

increment look forward to seeing you

525

00:20:06,549 --> 00:20:04,390

thanks bill it's great chatting with you

526

00:20:09,669 --> 00:20:06,559

and look forward to seeing you soon

527

00:20:15,590 --> 00:20:11,990

station this is houston acr

528

00:20:18,149 --> 00:20:15,600

thank you that concludes the event

529

00:20:19,750 --> 00:20:18,159

thank you tv and cbs news station we are