



1
00:00:05,300 --> 00:00:02,750
and air force times good morning this is

2
00:00:07,010 --> 00:00:05,310
Mission Control Houston please call the

3
00:00:09,950 --> 00:00:07,020
International Space Station for a voice

4
00:00:14,299 --> 00:00:09,960
check station this is the air force time

5
00:00:15,499 --> 00:00:14,309
how do you hear me we read you loud and

6
00:00:24,529 --> 00:00:15,509
clear how do you hear us

7
00:00:27,170 --> 00:00:24,539
great this question is for four for all

8
00:00:29,450 --> 00:00:27,180
the all the astronauts wonder if you

9
00:00:31,730 --> 00:00:29,460
could tell me how your experience as Air

10
00:00:38,000 --> 00:00:31,740
Force and Navy pilots prepare G for this

11
00:00:39,830 --> 00:00:38,010
mission well this is Terry Virts and I'm

12
00:00:42,319 --> 00:00:39,840
an Air Force pilot by background and

13
00:00:44,869 --> 00:00:42,329

that was probably the most important

14

00:00:47,389 --> 00:00:44,879

training and formation and foundation

15

00:00:49,310 --> 00:00:47,399

that I had to be an astronaut there's

16

00:00:52,130 --> 00:00:49,320

something about my experience as being a

17

00:00:54,049 --> 00:00:52,140

pilot that helps the way you think you

18

00:00:55,670 --> 00:00:54,059

think in an operational manner you learn

19

00:00:58,250 --> 00:00:55,680

how to prioritize what's important and

20

00:00:59,689 --> 00:00:58,260

what's not and do things in a in the

21

00:01:00,920 --> 00:00:59,699

appropriate order when when there's

22

00:01:02,810 --> 00:01:00,930

something that comes up out of the

23

00:01:04,490 --> 00:01:02,820

ordinary and it also helps you to

24

00:01:05,780 --> 00:01:04,500

communicate when you don't have a long

25

00:01:08,179 --> 00:01:05,790

time and you have to get your point

26
00:01:10,609 --> 00:01:08,189
across quickly and clearly and so being

27
00:01:12,109 --> 00:01:10,619
a being a pilot is probably the most

28
00:01:13,280 --> 00:01:12,119
important training it's for sure the

29
00:01:14,870 --> 00:01:13,290
most important training that I've had

30
00:01:17,149 --> 00:01:14,880
and that we still do as astronauts and

31
00:01:18,920 --> 00:01:17,159
all the astronauts have aviation

32
00:01:20,450 --> 00:01:18,930
training of some kind or other even if

33
00:01:28,719 --> 00:01:20,460
they weren't military pilots it's what

34
00:01:31,749 --> 00:01:30,340
and did you if you want an answer from

35
00:01:34,300 --> 00:01:31,759
all of us I'll let Samantha and Butch

36
00:01:36,550 --> 00:01:34,310
are both Air Force and Navy pilots also

37
00:01:39,149 --> 00:01:36,560
so I'll let Samantha add to that great

38
00:01:45,309 --> 00:01:42,370

yeah I would say a number of things from

39

00:01:48,850 --> 00:01:45,319

my pilot training and background helped

40

00:01:51,130 --> 00:01:48,860

me for sure the habit of dealing with

41

00:01:54,010 --> 00:01:51,140

complex machines and complex operational

42

00:01:55,090 --> 00:01:54,020

environments helps a lot too you know

43

00:01:56,169 --> 00:01:55,100

when you're flying to space and you're

44

00:01:58,690 --> 00:01:56,179

doing just that you know you're a part

45

00:02:00,850 --> 00:01:58,700

of a team everybody counts on you doing

46

00:02:02,499 --> 00:02:00,860

exactly what you were trained for at the

47

00:02:04,149 --> 00:02:02,509

right moment following the procedures

48

00:02:05,859 --> 00:02:04,159

taking the right decisions in the right

49

00:02:09,009 --> 00:02:05,869

time and that's exactly what we trained

50

00:02:11,620 --> 00:02:09,019

for us as military pilots and then just

51
00:02:13,600 --> 00:02:11,630
there's a general aspects I think aspect

52
00:02:16,569 --> 00:02:13,610
of military life that I think I think

53
00:02:18,430 --> 00:02:16,579
teaches you perseverance teamwork you

54
00:02:20,699 --> 00:02:18,440
know putting the the goals of the team

55
00:02:23,410 --> 00:02:20,709
ahead of your personal goals

56
00:02:24,850 --> 00:02:23,420
self-discipline all that kind of stuff I

57
00:02:30,820 --> 00:02:24,860
think helps you a lot in the astronaut

58
00:02:34,450 --> 00:02:32,650
well go in third I don't have much to

59
00:02:36,400 --> 00:02:34,460
add to that I'd say I'd echo everything

60
00:02:38,080 --> 00:02:36,410
they said but as a naval aviator same

61
00:02:39,160 --> 00:02:38,090
thing certainly I think the one thing

62
00:02:40,390 --> 00:02:39,170
maybe they didn't mention that I would

63
00:02:42,970 --> 00:02:40,400

add is you're put in stressful

64

00:02:45,550 --> 00:02:42,980

situations when you're in training you

65

00:02:48,610 --> 00:02:45,560

know flying a jet aircraft maybe not so

66

00:02:50,500 --> 00:02:48,620

terribly difficult but when you start

67

00:02:52,930 --> 00:02:50,510

employing all the capabilities of that

68

00:02:55,840 --> 00:02:52,940

airframe and leading multiple airplanes

69

00:02:57,910 --> 00:02:55,850

in combat scenarios that's very

70

00:02:59,290 --> 00:02:57,920

challenging can be very stressful and

71

00:03:00,880 --> 00:02:59,300

dealing with all those things

72

00:03:02,710 --> 00:03:00,890

multitasking is certainly something that

73

00:03:06,610 --> 00:03:02,720

helps you for this job right here

74

00:03:12,360 --> 00:03:06,620

without a question and when is your next

75

00:03:15,640 --> 00:03:14,290

yeah that's a great question because

76

00:03:17,050 --> 00:03:15,650

that's what Butch and I are in the

77

00:03:19,960 --> 00:03:17,060

middle of doing right now is preparing

78

00:03:21,940 --> 00:03:19,970

for it most recently I just took the

79

00:03:24,610 --> 00:03:21,950

space suits and got them resized so that

80

00:03:26,140 --> 00:03:24,620

they they fit me every space suit has

81

00:03:28,480 --> 00:03:26,150

different adjustments you can make on

82

00:03:30,190 --> 00:03:28,490

the arms and legs and gloves to fit the

83

00:03:32,950 --> 00:03:30,200

individual astronaut and so we just went

84

00:03:34,720 --> 00:03:32,960

through that process yesterday which was

85

00:03:37,240 --> 00:03:34,730

in there getting the water loops cleaned

86

00:03:38,860 --> 00:03:37,250

out making sure the fans work so every

87

00:03:40,420 --> 00:03:38,870

day for the next few weeks there's

88

00:03:42,699 --> 00:03:40,430

different tasks that we're doing and in

89

00:03:44,800 --> 00:03:42,709

terms of getting prepared for it we have

90

00:03:47,770 --> 00:03:44,810

to get the tools already we had to build

91

00:03:49,540 --> 00:03:47,780

up some tools for one of the greasing

92

00:03:51,280 --> 00:03:49,550

lubrication events we're gonna do on the

93

00:03:52,900 --> 00:03:51,290

robotic arm outside so there's a lot of

94

00:03:55,090 --> 00:03:52,910

preparation that goes into getting ready

95

00:03:56,350 --> 00:03:55,100

for the spacewalk and Butch and I are

96

00:03:58,180 --> 00:03:56,360

going to be doing our three spacewalks

97

00:04:01,150 --> 00:03:58,190

while samantha has the most important

98

00:04:02,710 --> 00:04:01,160

job of getting us suited up and getting

99

00:04:04,720 --> 00:04:02,720

us back in and out of the spacesuits

100

00:04:05,800 --> 00:04:04,730

which is a pretty big task in itself so

101

00:04:08,560 --> 00:04:05,810

the three of us will be very busy

102

00:04:10,840 --> 00:04:08,570

getting ready for and executing those

103

00:04:13,030 --> 00:04:10,850

spacewalks okay

104

00:04:20,020 --> 00:04:13,040

and have you have you done a spacewalk

105

00:04:22,060 --> 00:04:20,030

prior let this be your first yeah I had

106

00:04:23,850 --> 00:04:22,070

the opportunity before to Tarin Samantha

107

00:04:26,200 --> 00:04:23,860

got here in October to go outside and

108

00:04:28,030 --> 00:04:26,210

truly amazing and thrilling but one

109

00:04:30,820 --> 00:04:28,040

thing that I'll have to say is it's

110

00:04:32,409 --> 00:04:30,830

about 2% oh my goodness Wow look at the

111

00:04:35,080 --> 00:04:32,419

sights look at the look at all the

112

00:04:37,510 --> 00:04:35,090

beautiful the earth below and about 98%

113

00:04:39,280 --> 00:04:37,520

work it's a lot of work in preparing to

114

00:04:41,170 --> 00:04:39,290

go outside it's a lot of work while

115

00:04:42,700 --> 00:04:41,180

you're outside and you know it's five

116

00:04:44,330 --> 00:04:42,710

hours in the suit thereabouts before

117

00:04:46,310 --> 00:04:44,340

you even open the hatch

118

00:04:47,720 --> 00:04:46,320

and then your six our six six and a half

119

00:04:49,640 --> 00:04:47,730

hours outside and then once you get back

120

00:04:51,170 --> 00:04:49,650

in you've got to clean up the suit you

121

00:04:53,060 --> 00:04:51,180

can't just go straight to bed there's a

122

00:04:54,860 --> 00:04:53,070

lot of work so it's a long day a lot

123

00:04:57,550 --> 00:04:54,870

involved certainly something we look

124

00:05:05,790 --> 00:04:57,560

forward to though it'll be a good day

125

00:05:11,100 --> 00:05:08,520

almost impossible to describe almost

126

00:05:13,140 --> 00:05:11,110

impossible I think the one the one

127

00:05:15,240 --> 00:05:13,150

comment I would make is that just

128

00:05:16,830 --> 00:05:15,250

realizing that you and whoever you're

129

00:05:19,800 --> 00:05:16,840

going out with we never go alone we

130

00:05:21,090 --> 00:05:19,810

always go in two or more that you're the

131

00:05:22,620 --> 00:05:21,100

only people in the universe doing this

132

00:05:25,470 --> 00:05:22,630

unique thing and having this opportunity

133

00:05:27,720 --> 00:05:25,480

it's quite quite humbling actually to be

134

00:05:32,100 --> 00:05:27,730

able to do it and and to experience it

135

00:05:33,600 --> 00:05:32,110

it truly is and if you have as you have

136

00:05:35,870 --> 00:05:33,610

a minute if you could talk a little bit

137

00:05:38,400 --> 00:05:35,880

this question is also for everyone any

138

00:05:45,320 --> 00:05:38,410

experiments you are currently doing

139

00:05:51,090 --> 00:05:48,180

well right now the space station is

140

00:05:53,970 --> 00:05:51,100

really a very very busy microgravity

141

00:05:56,670 --> 00:05:53,980

laboratory the Dragon spacecraft came up

142

00:05:58,740 --> 00:05:56,680

a couple of weeks ago and it took up a

143

00:06:01,320 --> 00:05:58,750

lot of experiments that now we are

144

00:06:03,000 --> 00:06:01,330

running so it happens very often

145

00:06:04,410 --> 00:06:03,010

actually that butch teri and I are all

146

00:06:05,640 --> 00:06:04,420

working in parallel on like three

147

00:06:07,250 --> 00:06:05,650

different experiments and there's like

148

00:06:09,180 --> 00:06:07,260

comm going on on on space-to-ground

149

00:06:10,590 --> 00:06:09,190

unlike three different in completely

150

00:06:13,110 --> 00:06:10,600

different topics

151

00:06:15,300 --> 00:06:13,120

I have personally looked and worked on a

152

00:06:18,180 --> 00:06:15,310

lot of human physiology experiments

153

00:06:20,910 --> 00:06:18,190

there is one called drain brain that

154

00:06:24,600 --> 00:06:20,920

studies the return of blood from the

155

00:06:26,430 --> 00:06:24,610

head towards the towards the heart there

156

00:06:28,680 --> 00:06:26,440

is another one which is called airway

157

00:06:31,530 --> 00:06:28,690

monitoring Terry and I just did a

158

00:06:32,880 --> 00:06:31,540

session last week that studies for the

159

00:06:34,470 --> 00:06:32,890

first time I'm really in microgravity

160

00:06:36,180 --> 00:06:34,480

and in the space environments what

161

00:06:38,370 --> 00:06:36,190

happens to our lungs and to the gas

162

00:06:40,890 --> 00:06:38,380

exchange in our lungs when we breathe

163

00:06:42,960 --> 00:06:40,900

and one that's happening right here

164

00:06:45,420 --> 00:06:42,970

actually next to where we are now which

165

00:06:46,680 --> 00:06:45,430

is dealing with fruit flies and it's

166

00:06:48,840 --> 00:06:46,690

actually very interesting a multi

167

00:06:50,820 --> 00:06:48,850

generation experiment since were

168

00:06:53,100 --> 00:06:50,830

actually breeding several generations of

169

00:06:54,840 --> 00:06:53,110

fruit flies and then you know some

170

00:06:56,670 --> 00:06:54,850

frozen samples of the different

171

00:06:58,530 --> 00:06:56,680

generations will go back to earth on on

172

00:07:01,380 --> 00:06:58,540

dragon and scientists on the ground can

173

00:07:02,760 --> 00:07:01,390

examine them and something similar I'm

174

00:07:04,980 --> 00:07:02,770

actually doing with the Japanese

175

00:07:06,930 --> 00:07:04,990

experiments on on worms and in that case

176

00:07:08,730 --> 00:07:06,940

we're also actually breeding several

177

00:07:10,770 --> 00:07:08,740

generations of those and see how

178

00:07:12,690 --> 00:07:10,780

adaptation to space flight actually gets

179

00:07:15,000 --> 00:07:12,700

transmitted from one generation to the

180

00:07:16,500 --> 00:07:15,010

next so very exciting science and a lot

181

00:07:21,669 --> 00:07:16,510

more of course but I don't I don't want

182

00:07:21,679 --> 00:07:33,570

thank you very much

183

00:07:37,260 --> 00:07:35,400

would you like more science because we

184

00:07:39,240 --> 00:07:37,270

could certainly go on there's a lot of

185

00:07:40,680 --> 00:07:39,250

stuff going on actually if I could turn

186

00:07:43,170 --> 00:07:40,690

that camera round you'd see a pink

187

00:07:45,780 --> 00:07:43,180

Columbus module on the other end of the

188

00:07:47,460 --> 00:07:45,790

station and we're growing plants there

189

00:07:49,440 --> 00:07:47,470

and there the light that's used for the

190

00:07:50,640 --> 00:07:49,450

plant growth is is pink so it looks

191

00:07:53,070 --> 00:07:50,650

pretty cool especially at night when you

192

00:07:54,990 --> 00:07:53,080

turn all the other lights off today my

193

00:07:58,440 --> 00:07:55,000

experiment of the day is working on

194

00:08:00,060 --> 00:07:58,450

Robonaut it's a big humanoid type of

195

00:08:01,170 --> 00:08:00,070

robot that we have that hopefully

196

00:08:03,030 --> 00:08:01,180

eventually will be able to go outside

197

00:08:06,090 --> 00:08:03,040

and do some of the space walking tasks

198

00:08:07,620 --> 00:08:06,100

for us but right now we just got legs so

199

00:08:08,790 --> 00:08:07,630

today is the is the big day that he's

200

00:08:11,220 --> 00:08:08,800

gonna be able to move his legs for the

201
00:08:13,200 --> 00:08:11,230
first time and I've been working on an

202
00:08:17,280 --> 00:08:13,210
experiment called cslm is the acronym

203
00:08:20,580 --> 00:08:17,290
it's a material science experiment where

204
00:08:22,530 --> 00:08:20,590
they melt and mix different metal alloys

205
00:08:25,380 --> 00:08:22,540
and and look at the process of cooling

206
00:08:26,940 --> 00:08:25,390
them alloys down and so there's there's

207
00:08:28,230 --> 00:08:26,950
like Samantha said there every day it's

208
00:08:38,040 --> 00:08:28,240
a different experiment and there's lots

209
00:08:40,260 --> 00:08:38,050
and lots of it thank you station and

210
00:08:42,870 --> 00:08:40,270
this is Houston ACR that concludes the

211
00:08:44,520 --> 00:08:42,880
Air Force x portion of the event please

212
00:08:47,340 --> 00:08:44,530
stand by for a voice check from the

213
00:08:51,020 --> 00:08:47,350

Houston Chronicle station this is the

214

00:08:56,340 --> 00:08:53,490

we've got you loud and clear how do you

215

00:08:59,910 --> 00:08:56,350

hear us I hear you guys just fine

216

00:09:04,440 --> 00:09:01,530

there was a lot of excitement this week

217

00:09:06,090 --> 00:09:04,450

about the dragon and cst-100 I know you

218

00:09:09,360 --> 00:09:06,100

guys had a visit from the dragon up

219

00:09:12,450 --> 00:09:09,370

there how important is it do you think

220

00:09:14,190 --> 00:09:12,460

for the station to have redundancy and

221

00:09:17,570 --> 00:09:14,200

the ability to get you guys up and down

222

00:09:22,320 --> 00:09:20,490

well it's absolutely critical without a

223

00:09:24,450 --> 00:09:22,330

vehicle to get here obviously the space

224

00:09:27,060 --> 00:09:24,460

station would would would be in pretty

225

00:09:29,030 --> 00:09:27,070

bad shape thankfully for us we all came

226

00:09:31,470 --> 00:09:29,040

here on the Soyuz which was a great ride

227

00:09:32,880 --> 00:09:31,480

it was fine and it's a very reliable and

228

00:09:34,920 --> 00:09:32,890

good spacecraft but it's going to be

229

00:09:36,630 --> 00:09:34,930

really good to have a spaceship

230

00:09:38,640 --> 00:09:36,640

launching from Florida from America

231

00:09:41,010 --> 00:09:38,650

again and Boeing and SpaceX are the two

232

00:09:42,420 --> 00:09:41,020

contractors who won that contract and as

233

00:09:43,530 --> 00:09:42,430

you know there was a press conference

234

00:09:44,900 --> 00:09:43,540

just the other day with our

235

00:09:47,480 --> 00:09:44,910

administrator and many

236

00:09:50,300 --> 00:09:47,490

person so there's definitely a big

237

00:09:53,990 --> 00:09:50,310

effort and focus from NASA right now to

238

00:09:56,990 --> 00:09:54,000

get a capability to launch humans from

239

00:09:59,300 --> 00:09:57,000

Florida from America on on the NASA

240

00:10:01,850 --> 00:09:59,310

spacecraft with Boeing and SpaceX and

241

00:10:03,050 --> 00:10:01,860

will also be coming on the Soyuz also so

242

00:10:04,160 --> 00:10:03,060

in the future we'll actually have three

243

00:10:05,690 --> 00:10:04,170

different ways to get here so that

244

00:10:09,320 --> 00:10:05,700

redundancy is an important part of it

245

00:10:10,880 --> 00:10:09,330

also I think Samantha my daughter wanted

246

00:10:12,980 --> 00:10:10,890

me and my seven-year-old daughter wanted

247

00:10:26,510 --> 00:10:12,990

me to ask you a question she was

248

00:10:29,630 --> 00:10:26,520

wondering if it was scary in space Terry

249

00:10:31,100 --> 00:10:29,640

has something to say about that well if

250

00:10:33,230 --> 00:10:31,110

you had to live with me and Butch yes

251

00:10:38,750 --> 00:10:33,240

it's very scary in space everywhere

252

00:10:40,970 --> 00:10:38,760

every morning she has to look at us no I

253

00:10:44,330 --> 00:10:40,980

I don't think it's scary

254

00:10:46,670 --> 00:10:44,340

I enjoy a lot being up here it's very

255

00:10:48,410 --> 00:10:46,680

interesting and challenging work it's a

256

00:10:50,360 --> 00:10:48,420

great working environment it's a great

257

00:10:52,190 --> 00:10:50,370

living environment it's a privilege to

258

00:10:54,680 --> 00:10:52,200

be up here and and it's also a lot of

259

00:10:56,420 --> 00:10:54,690

fun so I hope that you're a daughter on

260

00:10:59,660 --> 00:10:56,430

the contrary we'll maybe try and get to

261

00:11:01,370 --> 00:10:59,670

space ourself one day I think she'd like

262

00:11:03,110 --> 00:11:01,380

to go to Mars one day so we'll we'll see

263

00:11:05,030 --> 00:11:03,120

about that

264

00:11:06,890 --> 00:11:05,040

obviously the other big news down here

265

00:11:07,970 --> 00:11:06,900

this week is everyone's getting excited

266

00:11:10,220 --> 00:11:07,980

for Superbowl and I know there's a

267

00:11:11,810 --> 00:11:10,230

couple of football fans up there you

268

00:11:13,880 --> 00:11:11,820

guys had plans to watch the game are you

269

00:11:15,800 --> 00:11:13,890

gonna be able to watch it live will you

270

00:11:22,430 --> 00:11:15,810

have traditional Super Bowl snacks or

271

00:11:26,570 --> 00:11:22,440

how are you gonna watch the game yeah

272

00:11:30,050 --> 00:11:26,580

regrettably our bedtime or at least my

273

00:11:31,370 --> 00:11:30,060

bedtime is quite early and the game

274

00:11:34,160 --> 00:11:31,380

actually comes on in the middle of night

275

00:11:35,990 --> 00:11:34,170

but I am an early riser so I think that

276

00:11:37,940 --> 00:11:36,000

I get up usually around 4:30 so I think

277

00:11:39,290 --> 00:11:37,950

I might be able to watch the end of it I

278

00:11:40,790 --> 00:11:39,300

don't know about these guys here I'll

279

00:11:42,050 --> 00:11:40,800

let them speak for themselves but I look

280

00:11:45,260 --> 00:11:42,060

forward to at least watching the end and

281

00:11:46,460 --> 00:11:45,270

since Ian haven't seen the outcome and I

282

00:11:52,350 --> 00:11:46,470

might throw something on the grill just

283

00:11:56,160 --> 00:11:54,180

Tereus a few days ago you tweeze a

284

00:11:59,160 --> 00:11:56,170

picture of yourself I guess in a JJ

285

00:12:00,540 --> 00:11:59,170

watch your greatest football player on

286

00:12:03,900 --> 00:12:00,550

earth I think you know we can all agree

287

00:12:06,030 --> 00:12:03,910

with about that and Houston is butch the

288

00:12:10,759 --> 00:12:06,040

greatest football player in in space

289

00:12:16,620 --> 00:12:13,680

I think that's probably safe to say yeah

290

00:12:19,800 --> 00:12:16,630

miss butch here he had his he was a

291

00:12:25,350 --> 00:12:19,810

college football player in in space and

292

00:12:28,230 --> 00:12:25,360

it's samantha is the greatest european

293

00:12:33,360 --> 00:12:28,240

football player like in soccer as we

294

00:12:35,310 --> 00:12:33,370

call it but yes but yeah we enjoy that

295

00:12:37,170 --> 00:12:35,320

and whenever we do a PR with different

296

00:12:38,670 --> 00:12:37,180

events we always get a football out and

297

00:12:43,290 --> 00:12:38,680

use that to demonstrate the zero gravity

298

00:12:44,850 --> 00:12:43,300

you know floating I'm sure it's not only

299

00:12:46,290 --> 00:12:44,860

in Houston I think most people can agree

300

00:12:47,939 --> 00:12:46,300

that JJ Watt is the greatest football

301
00:12:54,180 --> 00:12:47,949
player not only on earth but probably in

302
00:12:56,040 --> 00:12:54,190
the whole universe few months Scott

303
00:12:59,040 --> 00:12:56,050
Kelly was gonna launch the space station

304
00:13:00,720 --> 00:12:59,050
for a one-year mission butch has been up

305
00:13:03,269 --> 00:13:00,730
there for a couple months longer than

306
00:13:06,990 --> 00:13:03,279
Terry and Samantha but y'all back there

307
00:13:08,519 --> 00:13:07,000
a few months how much do you think that

308
00:13:10,500 --> 00:13:08,529
a one-year mission how much of a

309
00:13:12,030 --> 00:13:10,510
challenge is that going to be you know

310
00:13:18,569 --> 00:13:12,040
from a health standpoint from a mental

311
00:13:20,759 --> 00:13:18,579
health standpoint firfer Scott you know

312
00:13:22,939 --> 00:13:20,769
I don't I don't foresee anything from a

313
00:13:25,050 --> 00:13:22,949

health standpoint necessarily you know

314

00:13:26,160 --> 00:13:25,060

Scott's kind of a gym rat he likes

315

00:13:27,150 --> 00:13:26,170

getting in and working out and doing

316

00:13:29,460 --> 00:13:27,160

those type of things and it's an

317

00:13:31,860 --> 00:13:29,470

absolute necessity up here to keep

318

00:13:33,269 --> 00:13:31,870

yourself physically fit to prepare

319

00:13:35,250 --> 00:13:33,279

yourself for the return back to earth

320

00:13:36,900 --> 00:13:35,260

and I think Scott will do that one and

321

00:13:38,670 --> 00:13:36,910

take care of that without issue I think

322

00:13:42,150 --> 00:13:38,680

one of the things that that is difficult

323

00:13:45,269 --> 00:13:42,160

is it is it is concentration all day

324

00:13:48,960 --> 00:13:45,279

every day it's so much at stake up here

325

00:13:50,670 --> 00:13:48,970

so many science projects so many

326

00:13:52,050 --> 00:13:50,680

experiments so many everything that

327

00:13:54,930 --> 00:13:52,060

people put a lot of effort into for

328

00:13:56,370 --> 00:13:54,940

literally for decades and to be in

329

00:13:58,139 --> 00:13:56,380

charge of that have those things in your

330

00:13:59,579 --> 00:13:58,149

hands you you want to make sure you get

331

00:14:02,040 --> 00:13:59,589

it right so it's a lot of concentration

332

00:14:03,179 --> 00:14:02,050

and over the long haul that can wear on

333

00:14:05,120 --> 00:14:03,189

you so I think that's one thing that

334

00:14:06,770 --> 00:14:05,130

that they are aware of

335

00:14:08,450 --> 00:14:06,780

got some plans in to give a couple extra

336

00:14:12,260 --> 00:14:08,460

days off as the time goes on and I think

337

00:14:14,030 --> 00:14:12,270

that's probably really smart you

338

00:14:16,100 --> 00:14:14,040

mentioned that you know after about four

339

00:14:18,080 --> 00:14:16,110

months he was ready to come home the

340

00:14:19,460 --> 00:14:18,090

last time have you reached that point

341

00:14:21,680 --> 00:14:19,470

butch well you're kind of ready to come

342

00:14:25,610 --> 00:14:21,690

home that four months is about right or

343

00:14:31,090 --> 00:14:25,620

are you still enjoying yourself and wish

344

00:14:37,610 --> 00:14:36,080

will answer that truthfully I am not

345

00:14:40,400 --> 00:14:37,620

ready to come home

346

00:14:41,750 --> 00:14:40,410

I would love to pipe my family up here

347

00:14:43,520 --> 00:14:41,760

and share some time with them but I

348

00:14:45,980 --> 00:14:43,530

don't have the four month doldrums at

349

00:14:47,480 --> 00:14:45,990

all I'm enjoying myself they've kept us

350

00:14:48,830 --> 00:14:47,490

busy interacting with the ground the

351

00:14:50,600 --> 00:14:48,840

different control centers around the

352

00:14:52,310 --> 00:14:50,610

globe has been fun we've tried to make

353

00:14:54,230 --> 00:14:52,320

it fun to have some laughs that's had

354

00:14:56,000 --> 00:14:54,240

some good times we cut to keep it light

355

00:14:57,710 --> 00:14:56,010

up here as well and it's really an

356

00:15:00,950 --> 00:14:57,720

enjoyable place in such a unique

357

00:15:02,750 --> 00:15:00,960

environment four months is not too long

358

00:15:03,200 --> 00:15:02,760

or long enough I think six maybe about

359

00:15:04,490 --> 00:15:03,210

right

360

00:15:06,350 --> 00:15:04,500

we'll see I'll let you know in a couple

361

00:15:07,900 --> 00:15:06,360

months but right now I'm energetic and

362

00:15:12,350 --> 00:15:07,910

having a good time

363

00:15:13,670 --> 00:15:12,360

well I'm glad to hear that Terry and

364

00:15:16,640 --> 00:15:13,680

Samantha both been sending back some

365

00:15:18,980 --> 00:15:16,650

some great pictures from the planet

366

00:15:20,510 --> 00:15:18,990

obviously you know you guys been very

367

00:15:21,980 --> 00:15:20,520

excited about what you've seen I'm

368

00:15:25,070 --> 00:15:21,990

interested sort of from each of you what

369

00:15:29,620 --> 00:15:25,080

the coolest thing you've seen in space

370

00:15:33,590 --> 00:15:31,820

that's really hard question to answer

371

00:15:36,500 --> 00:15:33,600

because there's so many cool things it's

372

00:15:38,090 --> 00:15:36,510

hard to rank one above the other I guess

373

00:15:39,950 --> 00:15:38,100

for me one thing the sunrises and

374

00:15:42,260 --> 00:15:39,960

sunsets is probably my favorite but what

375

00:15:44,330 --> 00:15:42,270

the one picture that stands out is early

376

00:15:45,920 --> 00:15:44,340

in the mission we were flying over

377

00:15:49,250 --> 00:15:45,930

Northern Europe at night when there was

378

00:15:51,110 --> 00:15:49,260

some aurora and I got a some some pretty

379

00:15:53,030 --> 00:15:51,120

amazing shots of england and france and

380

00:15:54,230 --> 00:15:53,040

ireland with aurora and the distance and

381

00:15:55,730 --> 00:15:54,240

there was one night there was a big

382

00:15:58,430 --> 00:15:55,740

storm there so you could see lightning

383

00:16:03,910 --> 00:15:58,440

going off so that that's one out of many

384

00:16:08,319 --> 00:16:06,189

from my point of view I mean what are

385

00:16:09,970 --> 00:16:08,329

you what really always triggers a

386

00:16:13,539 --> 00:16:09,980

special emotion for me is when we fly

387

00:16:15,129 --> 00:16:13,549

over over Europe and but from a special

388

00:16:17,019 --> 00:16:15,139

perspective I really enjoy the spaces

389

00:16:18,669 --> 00:16:17,029

where we kind of fly over Gibraltar and

390

00:16:20,769 --> 00:16:18,679

onto the Mediterranean there there is

391

00:16:23,019 --> 00:16:20,779

something that has a special emotional

392

00:16:26,319 --> 00:16:23,029

connection I think it's the history that

393

00:16:27,939 --> 00:16:26,329

I relate to and the culture and I don't

394

00:16:30,369 --> 00:16:27,949

know it always resonates with me a lot

395

00:16:32,079 --> 00:16:30,379

from a visual point of view I guess I

396

00:16:33,579 --> 00:16:32,089

would just throw out the the last thing

397

00:16:35,169 --> 00:16:33,589

that really impressed me that I saw

398

00:16:36,970 --> 00:16:35,179

yesterday actually two of them one was

399

00:16:39,989 --> 00:16:36,980

last week for the first time I have I

400

00:16:43,780 --> 00:16:39,999

had like two I had some night passes

401
00:16:46,960 --> 00:16:43,790
over I guess the Thailand area and and

402
00:16:50,349 --> 00:16:46,970
those like parts of the sea were like

403
00:16:52,449 --> 00:16:50,359
totally full of very very bright green

404
00:16:54,400 --> 00:16:52,459
dots that I understand are fishing boats

405
00:16:56,710 --> 00:16:54,410
and that was just so impressive I mean

406
00:16:58,359 --> 00:16:56,720
so many of them and so bright it was an

407
00:16:59,829 --> 00:16:58,369
incredible sight and that's not thing I

408
00:17:02,049 --> 00:16:59,839
saw just yesterday for the first time

409
00:17:03,819 --> 00:17:02,059
which was like a an Aurora and listing

410
00:17:07,360 --> 00:17:03,829
Aurora's multiple times but the reason

411
00:17:08,860 --> 00:17:07,370
was like the the blue the the blue

412
00:17:10,539 --> 00:17:08,870
stripe the really bright blue stripes

413
00:17:14,019 --> 00:17:10,549

that comes up on the earth name when the

414

00:17:15,460 --> 00:17:14,029

Sun rises it kind of you know it kind of

415

00:17:17,500 --> 00:17:15,470

touched the aurora so I had this

416

00:17:19,299 --> 00:17:17,510

incredible blue turning over into this

417

00:17:21,220 --> 00:17:19,309

incredible green of the Aurora and I had

418

00:17:27,549 --> 00:17:21,230

never seen that so it was really amazing

419

00:17:29,350 --> 00:17:27,559

to see that without question I mean like

420

00:17:31,210 --> 00:17:29,360

they said look the views at the window

421

00:17:32,710 --> 00:17:31,220

are magnificent yeah there's there's no

422

00:17:34,840 --> 00:17:32,720

way you could pick one at least I can't

423

00:17:37,330 --> 00:17:34,850

over the other but without question the

424

00:17:39,279 --> 00:17:37,340

memory I think I will take back is when

425

00:17:41,379 --> 00:17:39,289

Terry and Samantha arrived I've been

426

00:17:43,330 --> 00:17:41,389

here two months and when they came in

427

00:17:44,850 --> 00:17:43,340

the looks on their faces and watching

428

00:17:47,740 --> 00:17:44,860

Samantha who's the first-time flyer

429

00:17:49,450 --> 00:17:47,750

finally get to a window that she can see

430

00:17:51,159 --> 00:17:49,460

down towards the earth and watch her

431

00:17:54,519 --> 00:17:51,169

expression and the things that she's

432

00:17:56,740 --> 00:17:54,529

trying to describe I saw take place was

433

00:17:57,190 --> 00:17:56,750

just thrilling to watch it was truly

434

00:18:01,090 --> 00:17:57,200

amazing

435

00:18:03,430 --> 00:18:01,100

it was neat one more thing last night we

436

00:18:05,019 --> 00:18:03,440

had a chance to just real quick last

437

00:18:06,669 --> 00:18:05,029

night we had a chance to fly over the

438

00:18:08,320 --> 00:18:06,679

east coast of the US which was a

439

00:18:10,029 --> 00:18:08,330

beautiful pass I got some great shots of

440

00:18:13,299 --> 00:18:10,039

it but it was the blizzard so you could

441

00:18:14,470 --> 00:18:13,309

see Atlanta DC Baltimore New York and

442

00:18:15,940 --> 00:18:14,480

then he it was getting cloudier and

443

00:18:16,810 --> 00:18:15,950

cloudier and you could see a hurricane

444

00:18:17,950 --> 00:18:16,820

there it looks

445

00:18:19,419 --> 00:18:17,960

looks like our hurricane just off the

446

00:18:21,249 --> 00:18:19,429

coast of Boston that was that was pretty

447

00:18:22,659 --> 00:18:21,259

amazing to know how many people down

448

00:18:23,769 --> 00:18:22,669

there in America are being affected and

449

00:18:25,090 --> 00:18:23,779

then to be able to see it in the

450

00:18:27,310 --> 00:18:25,100

moonlight because that whenever the moon

451

00:18:28,960 --> 00:18:27,320

shines you can see clouds not like

452

00:18:30,370 --> 00:18:28,970

daytime but but you can definitely see

453

00:18:34,620 --> 00:18:30,380

them that was that was pretty cool sorry

454

00:18:36,970 --> 00:18:34,630

go ahead just a final quick question

455

00:18:39,100 --> 00:18:36,980

maybe maybe one of y'all could describe

456

00:18:41,289 --> 00:18:39,110

the condition of the station it's been

457

00:18:43,210 --> 00:18:41,299

up there now it'll be 15 years inhabited

458

00:18:46,269 --> 00:18:43,220

later this year and then you know it's

459

00:18:47,830 --> 00:18:46,279

got a lifetime of 20 24 maybe 2028 how

460

00:18:51,940 --> 00:18:47,840

would you describe it is it a well-worn

461

00:18:54,009 --> 00:18:51,950

house is it have the new car feel is it

462

00:18:58,629 --> 00:18:54,019

you know a clunker how would you

463

00:19:00,789 --> 00:18:58,639

characterize it well the station I think

464

00:19:02,289 --> 00:19:00,799

overall is in great shape it's it's an

465

00:19:04,659 --> 00:19:02,299

amazingly good shape for as long as it's

466

00:19:06,580 --> 00:19:04,669

been here you module by module it's it's

467

00:19:08,860 --> 00:19:06,590

different as far as the age and and how

468

00:19:10,480 --> 00:19:08,870

new it is here in the Japanese module

469

00:19:12,580 --> 00:19:10,490

this it's like a new car in here

470

00:19:14,769 --> 00:19:12,590

everything looks brand new and it's

471

00:19:16,269 --> 00:19:14,779

really kept up well no one is kind of

472

00:19:17,879 --> 00:19:16,279

our eating area it was the very first

473

00:19:21,009 --> 00:19:17,889

American module that got launched so

474

00:19:23,950 --> 00:19:21,019

that is definitely has a used-car feel

475

00:19:25,330 --> 00:19:23,960

not a new car feel the American segment

476
00:19:27,279 --> 00:19:25,340
modules are different than the Russian

477
00:19:30,310 --> 00:19:27,289
segment model modules but overall on

478
00:19:32,019 --> 00:19:30,320
both segments personally I think it's in

479
00:19:33,789 --> 00:19:32,029
great shape it requires a lot of effort

480
00:19:34,869 --> 00:19:33,799
we have to constantly clean it and you

481
00:19:37,240 --> 00:19:34,879
know make sure we keep it in good shape

482
00:19:39,279 --> 00:19:37,250
because like with time like anything it

483
00:19:40,690 --> 00:19:39,289
would get worn out but we spent a lot of

484
00:19:42,220 --> 00:19:40,700
time cleaning it and we get a lot of

485
00:19:44,850 --> 00:19:42,230
spare parts that we can replace things

486
00:19:47,110 --> 00:19:44,860
with and it's in great shape