



1  
00:00:05,990 --> 00:00:02,310  
station this is houston are you ready

2  
00:00:06,000 --> 00:00:09,830  
i am ready for the event

3  
00:00:14,310 --> 00:00:12,390  
boston boston museum of science this is

4  
00:00:16,870 --> 00:00:14,320  
mission control houston please call

5  
00:00:19,189 --> 00:00:16,880  
station for a voice check

6  
00:00:22,950 --> 00:00:19,199  
station this is museum of science boston

7  
00:00:27,349 --> 00:00:25,029  
i hear you loud and clear welcome aboard

8  
00:00:29,589 --> 00:00:27,359  
the space station

9  
00:00:31,509 --> 00:00:29,599  
all right commander kelly we are so

10  
00:00:32,870 --> 00:00:31,519  
excited to talk to you today with a lot

11  
00:00:37,270 --> 00:00:32,880  
of high school students who have some

12  
00:00:44,869 --> 00:00:38,709  
what are your responsibilities for

13  
00:00:48,950 --> 00:00:46,389

well you know there are six of us on

14

00:00:51,270 --> 00:00:48,960

board and uh you know we share most of

15

00:00:53,270 --> 00:00:51,280

the responsibilities

16

00:00:55,590 --> 00:00:53,280

you know since we're you know so far

17

00:00:57,670 --> 00:00:55,600

away and going around the earth at uh

18

00:01:01,110 --> 00:00:57,680

pretty high speed we can't just call out

19

00:01:02,229 --> 00:01:01,120

for a repairman so you know one of our

20

00:01:04,869 --> 00:01:02,239

jobs is

21

00:01:06,630 --> 00:01:04,879

keeping all the systems maintained if

22

00:01:07,910 --> 00:01:06,640

something breaks we have to fix it

23

00:01:09,510 --> 00:01:07,920

whether it's

24

00:01:11,670 --> 00:01:09,520

you know a problem with the life support

25

00:01:14,230 --> 00:01:11,680

system or you know the electrical

26

00:01:15,190 --> 00:01:14,240

systems inside or outside for that

27

00:01:16,230 --> 00:01:15,200

matter

28

00:01:18,630 --> 00:01:16,240

um

29

00:01:21,109 --> 00:01:18,640

we do a lot of science experiments

30

00:01:22,789 --> 00:01:21,119

uh so we're also the uh you know the

31

00:01:25,030 --> 00:01:22,799

eyes and ears and the arms of the

32

00:01:28,070 --> 00:01:25,040

scientists on the ground and you know in

33

00:01:31,030 --> 00:01:28,080

some cases where the uh where this the

34

00:01:32,230 --> 00:01:31,040

uh scientific subjects were for human

35

00:01:33,670 --> 00:01:32,240

research

36

00:01:36,069 --> 00:01:33,680

and as the commander of the space

37

00:01:38,870 --> 00:01:36,079

station i'm also responsible for

38

00:01:41,510 --> 00:01:38,880

you know uh the overall kind of safety

39

00:01:44,230 --> 00:01:41,520

of how we operate on board and how we

40

00:01:47,510 --> 00:01:44,240

would uh respond in the case of an

41

00:01:51,429 --> 00:01:49,510

did you dream of being an astronaut when

42

00:01:56,389 --> 00:01:51,439

you're younger do you stumble upon the

43

00:01:59,510 --> 00:01:58,310

you know probably somewhere in between i

44

00:02:01,429 --> 00:01:59,520

was uh

45

00:02:03,270 --> 00:02:01,439

you know i had thought about being an

46

00:02:05,190 --> 00:02:03,280

astronaut when i was a kid but i think a

47

00:02:06,950 --> 00:02:05,200

lot of kids think about being an

48

00:02:07,910 --> 00:02:06,960

astronaut when they're a kid

49

00:02:11,750 --> 00:02:07,920

and

50

00:02:13,350 --> 00:02:11,760

little bit later in my life that i

51  
00:02:14,869 --> 00:02:13,360  
realized you know sometimes your dreams

52  
00:02:17,350 --> 00:02:14,879  
do come true

53  
00:02:19,270 --> 00:02:17,360  
um you know having said that you know i

54  
00:02:21,270 --> 00:02:19,280  
was in a uh

55  
00:02:23,190 --> 00:02:21,280  
kind of in a position as a

56  
00:02:25,510 --> 00:02:23,200  
pilot and a test pilot in the united

57  
00:02:28,869 --> 00:02:25,520  
states navy where i could you know apply

58  
00:02:32,229 --> 00:02:29,910  
so

59  
00:02:34,710 --> 00:02:32,239  
uh probably wasn't until i was you know

60  
00:02:36,710 --> 00:02:34,720  
in my early 30s that i realized that hey

61  
00:02:39,270 --> 00:02:36,720  
this is probably you know something that

62  
00:02:41,750 --> 00:02:39,280  
might not be completely out of the realm

63  
00:02:45,030 --> 00:02:41,760

of of a possibility for

64

00:02:52,790 --> 00:02:46,550

what was one of the hardest challenges

65

00:02:57,110 --> 00:02:53,910

um

66

00:02:58,710 --> 00:02:57,120

yeah that's uh pretty easy i was up here

67

00:03:01,350 --> 00:02:58,720

um

68

00:03:03,910 --> 00:03:01,360

when my sister-in-law uh

69

00:03:06,949 --> 00:03:03,920

last on my last flight congresswoman

70

00:03:09,110 --> 00:03:06,959

gabrielle giffords was shot and uh

71

00:03:11,270 --> 00:03:09,120

in tucson with a bunch of other people

72

00:03:12,949 --> 00:03:11,280

some of those people were killed and

73

00:03:15,430 --> 00:03:12,959

you know i still

74

00:03:18,149 --> 00:03:15,440

wasn't uh you know coming home for a few

75

00:03:19,910 --> 00:03:18,159

months so that was uh you know a very

76

00:03:21,030 --> 00:03:19,920

difficult time

77

00:03:22,149 --> 00:03:21,040

also

78

00:03:23,990 --> 00:03:22,159

uh

79

00:03:25,990 --> 00:03:24,000

you know three of my classmates lost

80

00:03:29,270 --> 00:03:26,000

lost their lives on

81

00:03:30,869 --> 00:03:29,280

columbia and uh you know as well as

82

00:03:33,830 --> 00:03:30,879

um

83

00:03:35,910 --> 00:03:33,840

you know their their crewmates and my uh

84

00:03:39,910 --> 00:03:35,920

my colleagues so that was uh

85

00:03:47,190 --> 00:03:41,110

what personal goals do you want to

86

00:03:51,430 --> 00:03:48,789

i think the the question is what kind of

87

00:03:54,630 --> 00:03:51,440

goals do i want to accomplish in space i

88

00:03:56,309 --> 00:03:54,640

you know we have a lot of uh

89

00:03:57,750 --> 00:03:56,319

you know a lot of mission objectives on

90

00:04:00,470 --> 00:03:57,760

the space station

91

00:04:02,229 --> 00:04:00,480

um there's 400 different scientific

92

00:04:03,589 --> 00:04:02,239

experiments that are going on throughout

93

00:04:05,990 --> 00:04:03,599

the year i'm here

94

00:04:07,990 --> 00:04:06,000

uh you know i one of my goals would be

95

00:04:09,990 --> 00:04:08,000

to to do all those and doing well and

96

00:04:12,070 --> 00:04:10,000

have the the researchers on the ground

97

00:04:13,910 --> 00:04:12,080

be happy with the uh

98

00:04:15,030 --> 00:04:13,920

you know the results and the data they

99

00:04:17,509 --> 00:04:15,040

are getting

100

00:04:19,349 --> 00:04:17,519

uh you know my other big goal is that

101

00:04:20,870 --> 00:04:19,359

you know we don't

102

00:04:23,189 --> 00:04:20,880

you know have anyone get hurt up here

103

00:04:25,590 --> 00:04:23,199

you know we're very safe about how we uh

104

00:04:27,510 --> 00:04:25,600

we operate we take uh

105

00:04:29,670 --> 00:04:27,520

good care of the space station and its

106

00:04:32,070 --> 00:04:29,680

hardware and leave this uh this

107

00:04:35,270 --> 00:04:32,080

magnificent facility in better condition

108

00:04:37,990 --> 00:04:35,280

than uh than when i arrived so uh you

109

00:04:39,670 --> 00:04:38,000

know safety and then uh you know taking

110

00:04:42,390 --> 00:04:39,680

care of the hardware and uh completing

111

00:04:44,870 --> 00:04:42,400

all the work that's asked of us are my

112

00:04:46,310 --> 00:04:44,880

main goals

113

00:04:52,550 --> 00:04:46,320

is there anything about being in space

114

00:04:56,950 --> 00:04:54,870

you know we have a pretty big system on

115

00:04:59,189 --> 00:04:56,960

the ground that

116

00:05:01,110 --> 00:04:59,199

you know that trains us and you know we

117

00:05:03,350 --> 00:05:01,120

do training in houston we do training in

118

00:05:05,590 --> 00:05:03,360

japan and europe and uh

119

00:05:07,830 --> 00:05:05,600

in germany in russia we spend a lot of

120

00:05:10,230 --> 00:05:07,840

time there also in canada

121

00:05:12,870 --> 00:05:10,240

and you know we have a great team on the

122

00:05:14,390 --> 00:05:12,880

ground that that prepares us uh

123

00:05:17,350 --> 00:05:14,400

to come up here

124

00:05:19,909 --> 00:05:17,360

so you know i think um you know for the

125

00:05:22,950 --> 00:05:19,919

most part as far as the kind of the work

126

00:05:24,950 --> 00:05:22,960

uh tasks that i've been asked to do

127

00:05:27,350 --> 00:05:24,960

i feel pretty prepared

128

00:05:28,870 --> 00:05:27,360

you know some of the stuff uh

129

00:05:30,469 --> 00:05:28,880

that might be a little bit surprising

130

00:05:32,390 --> 00:05:30,479

for instance i did a couple of space

131

00:05:34,790 --> 00:05:32,400

walks recently and i was really

132

00:05:36,390 --> 00:05:34,800

surprised at how much uh

133

00:05:38,870 --> 00:05:36,400

you know better the view was when you're

134

00:05:41,189 --> 00:05:38,880

in the space suit crawling around on the

135

00:05:41,990 --> 00:05:41,199

outside of the space station uh you know

136

00:05:43,990 --> 00:05:42,000

i'd

137

00:05:47,270 --> 00:05:44,000

been flying in space my first flight was

138

00:05:49,909 --> 00:05:47,280

in 1999 and uh you know i've spent a lot

139

00:05:52,310 --> 00:05:49,919

of time in space previously and i

140

00:05:53,830 --> 00:05:52,320

um you know i didn't really uh realize

141

00:05:56,070 --> 00:05:53,840

how much better the view would be so

142

00:05:59,590 --> 00:05:56,080

that was a little bit surprising i guess

143

00:06:01,350 --> 00:05:59,600

maybe i was unprepared for that

144

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

how does getting a glimpse at the scale

145

00:06:09,909 --> 00:06:03,280

of the universe affect perception of

146

00:06:13,189 --> 00:06:11,590

you know i you know i don't know if it's

147

00:06:15,189 --> 00:06:13,199

getting a glimpse of the universe but

148

00:06:17,510 --> 00:06:15,199

definitely you know at least for me when

149

00:06:19,029 --> 00:06:17,520

i'm up here and i've been up here for a

150

00:06:21,270 --> 00:06:19,039

long time now

151  
00:06:23,270 --> 00:06:21,280  
and you do feel a sense of detachment

152  
00:06:24,550 --> 00:06:23,280  
from the earth so it almost feels like

153  
00:06:25,749 --> 00:06:24,560  
you know you and your crew mates are

154  
00:06:27,830 --> 00:06:25,759  
here and every

155  
00:06:31,749 --> 00:06:27,840  
thing else that's going on is uh you

156  
00:06:32,629 --> 00:06:31,759  
know 250 miles below my feet and

157  
00:06:33,749 --> 00:06:32,639  
so

158  
00:06:36,469 --> 00:06:33,759  
you know i think there's a little bit

159  
00:06:38,870 --> 00:06:36,479  
more of a an awareness about you know

160  
00:06:40,950 --> 00:06:38,880  
events on the earth and how

161  
00:06:43,590 --> 00:06:40,960  
you know they impact uh you know one

162  
00:06:46,390 --> 00:06:43,600  
another and uh you know the environment

163  
00:06:49,110 --> 00:06:46,400

and you know you have a certain uh i

164

00:06:51,350 --> 00:06:49,120

think a different kind of empathy for uh

165

00:06:54,150 --> 00:06:51,360

you know what's going on on our planet

166

00:06:55,510 --> 00:06:54,160

when you're not on the planet uh

167

00:06:57,350 --> 00:06:55,520

you know and to you know that's

168

00:06:59,270 --> 00:06:57,360

something i i think of i was a little

169

00:07:00,230 --> 00:06:59,280

bit unprepared for as well to go back to

170

00:07:03,909 --> 00:07:00,240

the uh

171

00:07:07,990 --> 00:07:06,230

with so many astronauts coming from so

172

00:07:14,550 --> 00:07:08,000

many different cultures do you ever find

173

00:07:18,550 --> 00:07:16,629

you know i i don't think uh

174

00:07:21,749 --> 00:07:18,560

you would uh

175

00:07:23,909 --> 00:07:21,759

we would have culture clashes or i would

176

00:07:25,909 --> 00:07:23,919

describe uh

177

00:07:28,070 --> 00:07:25,919

you know really we don't really have any

178

00:07:29,510 --> 00:07:28,080

conflict um

179

00:07:31,430 --> 00:07:29,520

you know one of the great things about

180

00:07:33,990 --> 00:07:31,440

this program is it is an international

181

00:07:35,510 --> 00:07:34,000

program and you do get to experience you

182

00:07:36,710 --> 00:07:35,520

know the different cultures that are

183

00:07:39,749 --> 00:07:36,720

involved

184

00:07:41,189 --> 00:07:39,759

in this program and it's uh

185

00:07:42,950 --> 00:07:41,199

you know you do recognize there are

186

00:07:44,309 --> 00:07:42,960

differences um

187

00:07:47,670 --> 00:07:44,319

and there are you know differences

188

00:07:49,990 --> 00:07:47,680

between you know our countries and uh

189

00:07:51,430 --> 00:07:50,000

and uh you know just our perceptions but

190

00:07:53,029 --> 00:07:51,440

that's something i think that makes this

191

00:07:57,670 --> 00:07:53,039

program great and something i've really

192

00:07:57,680 --> 00:08:04,230

do you ever get homesick

193

00:08:08,150 --> 00:08:05,670

um

194

00:08:10,150 --> 00:08:08,160

yeah i wouldn't call it homesick you

195

00:08:11,589 --> 00:08:10,160

know it's not

196

00:08:14,230 --> 00:08:11,599

i've been up here i don't even know how

197

00:08:15,830 --> 00:08:14,240

long now over 250 days

198

00:08:17,270 --> 00:08:15,840

and uh

199

00:08:20,710 --> 00:08:17,280

there's definitely a lot of things on

200

00:08:23,510 --> 00:08:20,720

earth earth that i miss and uh

201  
00:08:26,390 --> 00:08:23,520  
you know but i still um

202  
00:08:27,830 --> 00:08:26,400  
appreciate this opportunity and you know

203  
00:08:30,469 --> 00:08:27,840  
still enjoy

204  
00:08:32,790 --> 00:08:30,479  
a lot about being up here but uh so i

205  
00:08:35,509 --> 00:08:32,800  
wouldn't really call it homesick as as

206  
00:08:38,389 --> 00:08:35,519  
if i have this uh you know overwhelming

207  
00:08:40,230 --> 00:08:38,399  
longing and uh you know desire

208  
00:08:42,310 --> 00:08:40,240  
like this overwhelming desire that i

209  
00:08:44,230 --> 00:08:42,320  
need to get back home it's not quite

210  
00:08:45,910 --> 00:08:44,240  
like that but definitely there are

211  
00:08:46,870 --> 00:08:45,920  
things that i miss on earth you know

212  
00:08:49,750 --> 00:08:46,880  
people

213  
00:08:51,030 --> 00:08:49,760

you know human uh you know contact even

214

00:08:53,829 --> 00:08:51,040

though the people up here are great

215

00:08:56,150 --> 00:08:53,839

there's not many of us and the variety

216

00:08:58,470 --> 00:08:56,160

is good and you know also just being

217

00:09:01,030 --> 00:08:58,480

outside and having the freedom to kind

218

00:09:03,829 --> 00:09:01,040

of do and uh you know go where you want

219

00:09:05,430 --> 00:09:03,839

and uh you know just experience nature

220

00:09:06,710 --> 00:09:05,440

this is a pretty closed environment we

221

00:09:08,389 --> 00:09:06,720

live in up here

222

00:09:11,670 --> 00:09:08,399

so it's kind of like if you never left

223

00:09:21,829 --> 00:09:13,829

can you describe how it feels being in

224

00:09:25,829 --> 00:09:23,829

yeah so um

225

00:09:28,470 --> 00:09:25,839

you know the space station's pretty big

226

00:09:30,870 --> 00:09:28,480

so it's not like i get

227

00:09:33,829 --> 00:09:30,880

claustrophobic but like i said

228

00:09:35,910 --> 00:09:33,839

previously you do miss going outside

229

00:09:37,590 --> 00:09:35,920

i miss having that kind of freedom to do

230

00:09:39,670 --> 00:09:37,600

what you want we live on a very tightly

231

00:09:41,190 --> 00:09:39,680

controlled schedule so

232

00:09:42,710 --> 00:09:41,200

you know you're pretty much scheduled

233

00:09:44,389 --> 00:09:42,720

except you know on the weekends from

234

00:09:45,670 --> 00:09:44,399

when you wake up until when you go to

235

00:09:47,430 --> 00:09:45,680

sleep and you're always trying to think

236

00:09:49,670 --> 00:09:47,440

ahead hey what's the next thing i have

237

00:09:52,070 --> 00:09:49,680

to do

238

00:09:54,550 --> 00:09:52,080

when i go to sleep at night i'm at work

239

00:09:56,310 --> 00:09:54,560

and when i wake up at in the morning i'm

240

00:09:57,829 --> 00:09:56,320

still at work you know it's like you've

241

00:09:59,590 --> 00:09:57,839

you know gone to your office somewhere

242

00:10:00,870 --> 00:09:59,600

if you work in an office and you've

243

00:10:02,310 --> 00:10:00,880

never left

244

00:10:05,190 --> 00:10:02,320

um

245

00:10:08,150 --> 00:10:05,200

the microgravity environment although

246

00:10:10,389 --> 00:10:08,160

it looks you know like it's fun which

247

00:10:13,350 --> 00:10:10,399

should which it is

248

00:10:16,069 --> 00:10:13,360

um it makes a lot of things more

249

00:10:17,509 --> 00:10:16,079

difficult uh to do

250

00:10:19,829 --> 00:10:17,519

you know with the exception of moving

251

00:10:21,430 --> 00:10:19,839

around heavy objects and maybe

252

00:10:23,990 --> 00:10:21,440

you know getting into some kind of

253

00:10:25,910 --> 00:10:24,000

position if i needed to you know work on

254

00:10:29,430 --> 00:10:25,920

something up here on the ceiling i could

255

00:10:31,990 --> 00:10:29,440

turn like that most everything is is uh

256

00:10:34,230 --> 00:10:32,000

more of a uh makes it more difficult

257

00:10:36,870 --> 00:10:34,240

because you know everything's got to be

258

00:10:39,910 --> 00:10:36,880

you know velcroed to the wall or secured

259

00:10:41,269 --> 00:10:39,920

somewhere to the ceiling to the floor

260

00:10:42,790 --> 00:10:41,279

so it's um

261

00:10:45,990 --> 00:10:42,800

you know makes it a much challenging

262

00:10:52,069 --> 00:10:46,000

work environment

263

00:10:57,590 --> 00:10:54,870

how do you eat your food um

264

00:10:58,829 --> 00:10:57,600

i got some food here you know we have

265

00:11:00,389 --> 00:10:58,839

this

266

00:11:02,790 --> 00:11:00,399

uh

267

00:11:05,670 --> 00:11:02,800

rehydratable food this is like this is a

268

00:11:07,590 --> 00:11:05,680

sweet and sour chicken so we

269

00:11:09,990 --> 00:11:07,600

actually the water dispenser is right

270

00:11:11,110 --> 00:11:10,000

here i can show you we just add water to

271

00:11:12,630 --> 00:11:11,120

it

272

00:11:14,790 --> 00:11:12,640

and uh

273

00:11:17,829 --> 00:11:14,800

put a lot of water in this

274

00:11:19,829 --> 00:11:17,839

and uh it rehydrates

275

00:11:21,750 --> 00:11:19,839

i had lunch already so i'm not gonna eat

276

00:11:23,350 --> 00:11:21,760

it now but

277

00:11:26,630 --> 00:11:23,360

just put water in it

278

00:11:28,389 --> 00:11:26,640

and uh you know open it up and

279

00:11:30,069 --> 00:11:28,399

it's not too bad then we have stuff

280

00:11:33,110 --> 00:11:30,079

that's uh

281

00:11:35,910 --> 00:11:33,120

irradiated food

282

00:11:37,829 --> 00:11:35,920

and uh it's in these packages

283

00:11:41,430 --> 00:11:37,839

so you know you open up the package and

284

00:11:42,870 --> 00:11:41,440

it's this stuff is already wet so it uh

285

00:11:44,710 --> 00:11:42,880

you know kind of sticks together and you

286

00:11:47,990 --> 00:11:44,720

just eat it out of the bag with a with a

287

00:11:51,350 --> 00:11:49,910

how does your social media work do you

288

00:11:53,110 --> 00:11:51,360

take photos that you send back to earth

289

00:11:59,829 --> 00:11:53,120

for other people to post or can you post

290

00:12:04,069 --> 00:12:01,910

yeah so uh we've got a lot of cameras on

291

00:12:05,430 --> 00:12:04,079

board yeah i take the pictures even

292

00:12:06,790 --> 00:12:05,440

though you didn't ask that question but

293

00:12:08,389 --> 00:12:06,800

like a lot of the pictures i take of the

294

00:12:11,030 --> 00:12:08,399

earth i use this

295

00:12:12,870 --> 00:12:11,040

this long lens camera through uh through

296

00:12:13,990 --> 00:12:12,880

this window right down here that's right

297

00:12:15,670 --> 00:12:14,000

below us

298

00:12:18,949 --> 00:12:15,680

and uh

299

00:12:21,269 --> 00:12:18,959

then i post them um

300

00:12:22,710 --> 00:12:21,279

normally i post them myself

301

00:12:24,310 --> 00:12:22,720

um

302

00:12:26,470 --> 00:12:24,320

although i don't do that all the time it

303

00:12:29,110 --> 00:12:26,480

depends uh but most of the time i do it

304

00:12:30,230 --> 00:12:29,120

myself we have an internet connection

305

00:12:33,750 --> 00:12:30,240

and uh

306

00:12:38,550 --> 00:12:33,760

but everything i post is my you know

307

00:12:40,389 --> 00:12:38,560

picture and uh you know my words

308

00:12:41,829 --> 00:12:40,399

and the internet connection is kind of

309

00:12:43,110 --> 00:12:41,839

slow so it

310

00:12:46,470 --> 00:12:43,120

you know takes some time it's kind of

311

00:12:47,590 --> 00:12:46,480

like old fashioned dial up but

312

00:12:51,110 --> 00:12:47,600

it's

313

00:12:59,430 --> 00:12:53,269

do astronauts have to be engineers do

314

00:13:02,470 --> 00:13:01,430

um

315

00:13:04,829 --> 00:13:02,480

so

316

00:13:08,310 --> 00:13:04,839

they don't have to be engineers but

317

00:13:09,990 --> 00:13:08,320

most most uh

318

00:13:11,670 --> 00:13:10,000

i'm waving one of my colleagues through

319

00:13:12,949 --> 00:13:11,680

here he was going down to the russian

320

00:13:14,710 --> 00:13:12,959

segment

321

00:13:17,190 --> 00:13:14,720

and um

322

00:13:18,949 --> 00:13:17,200

yeah so

323

00:13:21,590 --> 00:13:18,959

most astronauts have some kind of

324

00:13:22,949 --> 00:13:21,600

technical i do have a technical

325

00:13:25,990 --> 00:13:22,959

background

326

00:13:28,310 --> 00:13:26,000

in science engineering math uh you know

327

00:13:29,829 --> 00:13:28,320

i i was an engineering major in college

328

00:13:31,829 --> 00:13:29,839

but a uh

329

00:13:34,629 --> 00:13:31,839

a uh

330

00:13:37,509 --> 00:13:34,639

pilot in the navy and some astronauts

331

00:13:41,910 --> 00:13:37,519

are in the military um

332

00:13:45,509 --> 00:13:43,430

uh you know one

333

00:13:48,470 --> 00:13:45,519

russian pilot uh from the russian

334

00:13:50,550 --> 00:13:48,480

military one my japanese colleague was a

335

00:13:53,110 --> 00:13:50,560

f-15 pilot in the japanese air force

336

00:13:55,030 --> 00:13:53,120

american colleague is a medical doctor

337

00:13:57,829 --> 00:13:55,040

and then the other two the two

338

00:14:00,629 --> 00:13:57,839

cosmonauts are engineers as far as

339

00:14:02,949 --> 00:14:00,639

coding and programming

340

00:14:03,910 --> 00:14:02,959

no you don't need to know that although

341

00:14:05,910 --> 00:14:03,920

we

342

00:14:07,670 --> 00:14:05,920

you know as a as a skill that you come

343

00:14:09,430 --> 00:14:07,680

into the astronaut office or the

344

00:14:10,790 --> 00:14:09,440

astronaut program with although we do

345

00:14:13,189 --> 00:14:10,800

have a lot of computers and there's a

346

00:14:15,750 --> 00:14:13,199

huge network of computers here that we

347

00:14:17,750 --> 00:14:15,760

actually have to take care of

348

00:14:18,949 --> 00:14:17,760

take care of them

349

00:14:22,230 --> 00:14:18,959

the

350

00:14:23,590 --> 00:14:22,240

don't

351  
00:14:26,790 --> 00:14:23,600  
you know do what i think you're

352  
00:14:29,670 --> 00:14:28,230  
do you perceive night and day

353  
00:14:34,470 --> 00:14:29,680  
differently because you see the sun

354  
00:14:39,430 --> 00:14:36,069  
yeah so we uh you know we're flying

355  
00:14:41,750 --> 00:14:39,440  
around the earth every 90 minutes so uh

356  
00:14:42,829 --> 00:14:41,760  
you know there's uh sunrise and the

357  
00:14:48,550 --> 00:14:42,839  
sunset

358  
00:14:53,189 --> 00:14:52,150  
and as a result

359  
00:14:55,350 --> 00:14:53,199  
you do

360  
00:14:57,670 --> 00:14:55,360  
perceive night and day

361  
00:14:59,750 --> 00:14:57,680  
somewhat differently

362  
00:15:01,430 --> 00:14:59,760  
but it's not really because of that

363  
00:15:03,590 --> 00:15:01,440

because we're not looking outside all

364

00:15:05,910 --> 00:15:03,600

the time we don't have a whole lot of

365

00:15:08,150 --> 00:15:05,920

time to look outside so mostly our

366

00:15:09,910 --> 00:15:08,160

perception of night and day

367

00:15:11,829 --> 00:15:09,920

is really not having much of a

368

00:15:13,110 --> 00:15:11,839

perception of it because

369

00:15:14,470 --> 00:15:13,120

we're living in this enclosed

370

00:15:16,870 --> 00:15:14,480

environment and

371

00:15:18,150 --> 00:15:16,880

you know we're not outside

372

00:15:20,230 --> 00:15:18,160

it's kind of like you know the

373

00:15:22,550 --> 00:15:20,240

perception you would have in your house

374

00:15:29,110 --> 00:15:22,560

if you closed all the blinds and you

375

00:15:29,120 --> 00:15:34,790

of being on the iss

376

00:15:37,430 --> 00:15:36,230

i'm sorry you're gonna have to repeat

377

00:15:39,189 --> 00:15:37,440

your question i didn't hear the first

378

00:15:45,910 --> 00:15:39,199

part

379

00:15:51,350 --> 00:15:48,069

you know so a lot of this stuff is great

380

00:15:54,150 --> 00:15:51,360

right so uh you know the the floating is

381

00:15:55,430 --> 00:15:54,160

is fun and um

382

00:15:57,350 --> 00:15:55,440

you know the view

383

00:15:59,829 --> 00:15:57,360

is is great

384

00:16:02,550 --> 00:15:59,839

um but the best part about this for me

385

00:16:04,150 --> 00:16:02,560

is doing something that is uh

386

00:16:06,470 --> 00:16:04,160

you know incredibly challenging

387

00:16:08,150 --> 00:16:06,480

incredibly uh difficult work

388

00:16:09,910 --> 00:16:08,160

at it and

389

00:16:12,389 --> 00:16:09,920

you know the feeling of satisfaction you

390

00:16:14,389 --> 00:16:12,399

get from from doing a good job and uh

391

00:16:16,230 --> 00:16:14,399

you know that's what i like about flying

392

00:16:17,350 --> 00:16:16,240

in space is really just the challenge

393

00:16:19,189 --> 00:16:17,360

and the uh

394

00:16:20,790 --> 00:16:19,199

you know the the hard work and then you

395

00:16:22,230 --> 00:16:20,800

know hopefully being successful at it

396

00:16:24,310 --> 00:16:22,240

and that's something that you know i

397

00:16:25,749 --> 00:16:24,320

tell kids and you know other people that

398

00:16:27,030 --> 00:16:25,759

you can you know you can do that in the

399

00:16:28,550 --> 00:16:27,040

space program but you can do that in

400

00:16:30,310 --> 00:16:28,560

many other things in your life that you

401

00:16:32,230 --> 00:16:30,320

choose you know choose something

402

00:16:37,189 --> 00:16:32,240

that challenges you work hard at it and

403

00:16:38,790 --> 00:16:37,199

then you know be proud of your successes

404

00:16:40,230 --> 00:16:38,800

what was it like adapting to the

405

00:16:44,310 --> 00:16:40,240

conditions on earth when you turned from

406

00:16:47,590 --> 00:16:45,749

yeah you're definitely uh you're

407

00:16:49,430 --> 00:16:47,600

definitely dizzy you're

408

00:16:51,670 --> 00:16:49,440

you know you're sore for a while at

409

00:16:53,829 --> 00:16:51,680

least i was you know your

410

00:16:55,509 --> 00:16:53,839

your joints up here

411

00:16:57,030 --> 00:16:55,519

you know i think everyone's different

412

00:16:59,749 --> 00:16:57,040

but for me it's

413

00:17:00,870 --> 00:16:59,759

you know much better here um

414

00:17:02,710 --> 00:17:00,880

because there's not a whole lot of

415

00:17:05,909 --> 00:17:02,720

stress on them so i generally don't feel

416

00:17:07,429 --> 00:17:05,919

as uh you know have as much uh you know

417

00:17:08,949 --> 00:17:07,439

like joint pain and things like that and

418

00:17:11,189 --> 00:17:08,959

then when you get back on earth that

419

00:17:12,630 --> 00:17:11,199

kind of all comes back um

420

00:17:15,029 --> 00:17:12,640

but you're dizzy

421

00:17:16,870 --> 00:17:15,039

at first and being up for for a long

422

00:17:18,789 --> 00:17:16,880

time is uh

423

00:17:20,789 --> 00:17:18,799

is much different than a shuttle flight

424

00:17:23,669 --> 00:17:20,799

and how your vestibular system is

425

00:17:26,470 --> 00:17:23,679

affected but you pretty quickly adapt uh

426

00:17:28,470 --> 00:17:26,480

back to earth and uh you know it's which

427

00:17:32,549 --> 00:17:28,480

means in some ways you feel better and

428

00:17:37,669 --> 00:17:32,559

in some ways you you feel worse

429

00:17:43,029 --> 00:17:40,470

yeah so we don't shower we don't

430

00:17:45,430 --> 00:17:43,039

have a shower or bathtub

431

00:17:48,950 --> 00:17:45,440

what we do do is we get some water out

432

00:17:51,430 --> 00:17:48,960

of the water dispenser and we

433

00:17:53,110 --> 00:17:51,440

put it on a on a towel similar to this

434

00:17:56,950 --> 00:17:53,120

one and

435

00:18:03,510 --> 00:17:58,390

that's the shower that's the space

436

00:18:10,789 --> 00:18:05,270

do you have any down time and if so what

437

00:18:14,310 --> 00:18:12,070

you know we have a little bit of time in

438

00:18:16,630 --> 00:18:14,320

the evenings

439

00:18:19,830 --> 00:18:16,640

but you know most of our our

440

00:18:22,150 --> 00:18:19,840

waking hours during the week is work

441

00:18:24,390 --> 00:18:22,160

you get we get up you know around

442

00:18:26,830 --> 00:18:24,400

you know 6 6 30 in the morning and kind

443

00:18:28,390 --> 00:18:26,840

of prepare for the day and

444

00:18:29,590 --> 00:18:28,400

uh

445

00:18:32,310 --> 00:18:29,600

you know

446

00:18:35,270 --> 00:18:32,320

the last kind of official activity we

447

00:18:37,029 --> 00:18:35,280

have is around 7 or 7 30 at night a

448

00:18:39,270 --> 00:18:37,039

meeting with the ground to talk about

449

00:18:43,830 --> 00:18:39,280

any questions that remain

450

00:18:46,870 --> 00:18:44,789

today

451  
00:18:49,270 --> 00:18:46,880  
and then uh you know we generally go to

452  
00:18:50,390 --> 00:18:49,280  
sleep around 10 o'clock at night so it's

453  
00:18:51,750 --> 00:18:50,400  
a little bit of time there in the

454  
00:18:53,750 --> 00:18:51,760  
evenings and then on the weekends and

455  
00:18:56,390 --> 00:18:53,760  
what you know i do and i think most

456  
00:18:58,950 --> 00:18:56,400  
people do is you know you take you take

457  
00:19:02,070 --> 00:18:58,960  
pictures of the earth sometimes you uh

458  
00:19:04,390 --> 00:19:02,080  
you might watch movies read a book

459  
00:19:05,590 --> 00:19:04,400  
and uh you know i think people myself

460  
00:19:07,270 --> 00:19:05,600  
included spend a lot of time

461  
00:19:08,870 --> 00:19:07,280  
communicating with folks on the ground

462  
00:19:12,470 --> 00:19:08,880  
via email or

463  
00:19:12,480 --> 00:19:16,150

things like that

464

00:19:24,789 --> 00:19:17,750

what is it like to use the bathroom in

465

00:19:29,510 --> 00:19:27,909

um what's it like to use the bathroom

466

00:19:32,789 --> 00:19:29,520

you know like i said earlier a lot of

467

00:19:36,150 --> 00:19:32,799

things are made more challenging up here

468

00:19:41,830 --> 00:19:36,160

because everything floats and uh that's

469

00:19:41,840 --> 00:19:48,390

do you have trouble sleeping

470

00:19:52,950 --> 00:19:49,830

yeah you know

471

00:19:56,710 --> 00:19:52,960

sometimes i think i sleep okay up here

472

00:19:59,669 --> 00:19:56,720

and other times not it's um

473

00:20:01,750 --> 00:19:59,679

it's different you know

474

00:20:04,230 --> 00:20:01,760

in some ways it's more comfortable and

475

00:20:06,789 --> 00:20:04,240

in some ways less i think you know one

476

00:20:08,630 --> 00:20:06,799

of the reasons why it's uh is less

477

00:20:11,990 --> 00:20:08,640

comfortable is

478

00:20:14,870 --> 00:20:12,000

the same position i'm in right now

479

00:20:16,710 --> 00:20:14,880

and kind of like the level of comfort is

480

00:20:19,909 --> 00:20:16,720

the same whether i'm

481

00:20:20,870 --> 00:20:19,919

asleep or awake it's just just like this

482

00:20:23,190 --> 00:20:20,880

so

483

00:20:25,430 --> 00:20:23,200

it's not like when you

484

00:20:26,470 --> 00:20:25,440

are on earth and you go lay down in your

485

00:20:29,430 --> 00:20:26,480

bed

486

00:20:30,390 --> 00:20:29,440

and you get an immediately like a change

487

00:20:32,310 --> 00:20:30,400

in your

488

00:20:34,549 --> 00:20:32,320

your comfort level because now you're

489

00:20:35,510 --> 00:20:34,559

lying down so

490

00:20:38,149 --> 00:20:35,520

um

491

00:20:40,950 --> 00:20:38,159

you know for for me that

492

00:20:44,149 --> 00:20:40,960

lack of that change in how

493

00:20:46,230 --> 00:20:44,159

you know comfortable you feel uh makes i

494

00:20:47,990 --> 00:20:46,240

think sleeping up here

495

00:20:52,230 --> 00:20:48,000

you know especially over long periods of

496

00:20:58,789 --> 00:20:54,149

do you believe there is life outside our

497

00:21:01,190 --> 00:20:59,750

i do

498

00:21:02,710 --> 00:21:01,200

um

499

00:21:03,909 --> 00:21:02,720

you know there

500

00:21:04,950 --> 00:21:03,919

are

501  
00:21:07,350 --> 00:21:04,960  
so many

502  
00:21:09,990 --> 00:21:07,360  
different uh

503  
00:21:11,750 --> 00:21:10,000  
stars out there in the universe

504  
00:21:14,230 --> 00:21:11,760  
apparently more

505  
00:21:16,470 --> 00:21:14,240  
than you know in every beach and on

506  
00:21:17,909 --> 00:21:16,480  
every desert on earth and if you

507  
00:21:19,510 --> 00:21:17,919  
consider

508  
00:21:21,110 --> 00:21:19,520  
those kind of numbers and you know we

509  
00:21:22,870 --> 00:21:21,120  
fly over a lot of those beaches and

510  
00:21:24,950 --> 00:21:22,880  
deserts and there's a lot of sand down

511  
00:21:27,750 --> 00:21:24,960  
there if you consider that's how many

512  
00:21:30,149 --> 00:21:27,760  
stars there are and the potential for

513  
00:21:33,190 --> 00:21:30,159

planets that would be inhabitable you

514

00:21:35,190 --> 00:21:33,200

know i just have to believe that there

515

00:21:37,190 --> 00:21:35,200

is life out there and i don't know what

516

00:21:39,350 --> 00:21:37,200

kind of life but i i think it would be

517

00:21:41,510 --> 00:21:39,360

very unlikely that there wasn't

518

00:21:43,430 --> 00:21:41,520

i also believe that the distances are so

519

00:21:45,669 --> 00:21:43,440

great it's not like that life is

520

00:21:46,710 --> 00:21:45,679

visiting our planet you know in the form

521

00:21:49,750 --> 00:21:46,720

of

522

00:21:51,830 --> 00:21:49,760

ufos or anything like that so

523

00:21:53,669 --> 00:21:51,840

you know on one hand yeah i believe

524

00:21:55,350 --> 00:21:53,679

there is life out there but i don't

525

00:21:58,230 --> 00:21:55,360

believe that uh

526

00:22:01,350 --> 00:21:58,240

you know we experience it in the form of

527

00:22:04,390 --> 00:22:02,870

commander kelly thanks so much for

528

00:22:06,390 --> 00:22:04,400

talking to us today the space station

529

00:22:08,149 --> 00:22:06,400

will be flying over boston at 11 10

530

00:22:24,789 --> 00:22:08,159

greenwich time so we'll all be waving

531

00:22:31,270 --> 00:22:27,270

station this is houston acr

532

00:22:35,430 --> 00:22:33,669

thank you boston museum of science