



1
00:00:06,869 --> 00:00:01,829
station this is houston are you ready

2
00:00:06,879 --> 00:00:12,549
we are ready for the event

3
00:00:16,390 --> 00:00:14,310
good morning gizmodo this is mission

4
00:00:18,950 --> 00:00:16,400
control houston please call station for

5
00:00:20,630 --> 00:00:18,960
a voice check

6
00:00:24,390 --> 00:00:20,640
station this is good moto how do you

7
00:00:29,429 --> 00:00:27,670
we hear you loud and clear

8
00:00:31,029 --> 00:00:29,439
good morning this is rhea mr with

9
00:00:32,470 --> 00:00:31,039
gizmodel i'm so glad you were all able

10
00:00:34,150 --> 00:00:32,480
to join us today

11
00:00:35,910 --> 00:00:34,160
the photographs we've seen come back

12
00:00:37,990 --> 00:00:35,920
from the iss have been really something

13
00:00:39,990 --> 00:00:38,000

to see which made me wonder what the

14

00:00:42,389 --> 00:00:40,000

most memorable site you've come across

15

00:00:47,750 --> 00:00:42,399

was whether a space view or something

16

00:00:52,229 --> 00:00:49,910

we know i think both the sunrises and

17

00:00:54,549 --> 00:00:52,239

the sunsets are so beautiful that they

18

00:00:57,110 --> 00:00:54,559

almost don't even look real and

19

00:00:59,910 --> 00:00:57,120

we've seen several since we've been here

20

00:01:01,670 --> 00:00:59,920

and it never gets old we have jeff

21

00:01:03,189 --> 00:01:01,680

williams who just joined us

22

00:01:05,109 --> 00:01:03,199

and he's seen

23

00:01:06,550 --> 00:01:05,119

many more than us and i think he may

24

00:01:09,910 --> 00:01:06,560

want to say a couple words about it as

25

00:01:13,830 --> 00:01:11,670

yeah i would just add sunsets and

26

00:01:16,070 --> 00:01:13,840

sunrises are beautiful they're always

27

00:01:17,670 --> 00:01:16,080

spectacular especially

28

00:01:20,230 --> 00:01:17,680

as they occur

29

00:01:22,390 --> 00:01:20,240

uh behind varying weather and especially

30

00:01:25,190 --> 00:01:22,400

when you have big huge thunderstorms

31

00:01:26,870 --> 00:01:25,200

that are going up into the atmosphere

32

00:01:28,550 --> 00:01:26,880

that adds a lot of variety to it it's

33

00:01:33,910 --> 00:01:28,560

just it just

34

00:01:37,109 --> 00:01:35,510

you know one of the most intriguing

35

00:01:39,429 --> 00:01:37,119

things for me to watch has been the way

36

00:01:41,030 --> 00:01:39,439

that each new expedition to the iss

37

00:01:43,030 --> 00:01:41,040

seems to make the space station just a

38

00:01:44,870 --> 00:01:43,040

little bit more homey we've seen a

39

00:01:47,190 --> 00:01:44,880

coffee machine an experimental vegetable

40

00:01:49,190 --> 00:01:47,200

garden having logged quite a bit of time

41

00:01:50,550 --> 00:01:49,200

on the iss now between the three of you

42

00:01:59,670 --> 00:01:50,560

what element of home would you like to

43

00:02:02,630 --> 00:02:01,030

you know we're just chatting here trying

44

00:02:04,630 --> 00:02:02,640

to come up with something because we

45

00:02:06,630 --> 00:02:04,640

have lots of the conveniences of home we

46

00:02:08,869 --> 00:02:06,640

have a refrigerator it would be good to

47

00:02:10,949 --> 00:02:08,879

have a full-time freezer that would be a

48

00:02:13,510 --> 00:02:10,959

nice feature maybe some ice cream on

49

00:02:16,150 --> 00:02:13,520

board we've got movies we can watch

50

00:02:21,990 --> 00:02:16,160

connection with family on phones so uh i

51
00:02:26,150 --> 00:02:24,390
and tim you've been on the iss for a few

52
00:02:28,550 --> 00:02:26,160
months now but jeff you've only had a

53
00:02:30,550 --> 00:02:28,560
few days so far how long does it take to

54
00:02:32,630 --> 00:02:30,560
feel to start to feel comfortable again

55
00:02:34,229 --> 00:02:32,640
in microgravity is there an awkward

56
00:02:39,750 --> 00:02:34,239
learning curve at all for figuring out

57
00:02:44,630 --> 00:02:42,150
uh well i think i can say this time that

58
00:02:45,430 --> 00:02:44,640
there was really no learning curve i

59
00:02:48,150 --> 00:02:45,440
felt

60
00:02:50,309 --> 00:02:48,160
right back at home when i got here

61
00:02:52,070 --> 00:02:50,319
in previous flights it has taken well

62
00:02:53,990 --> 00:02:52,080
the last flight probably took

63
00:02:56,309 --> 00:02:54,000

a couple days anyway and then the one

64

00:02:58,390 --> 00:02:56,319

before that i would say that you can

65

00:03:00,790 --> 00:02:58,400

feel an adaptation for

66

00:03:03,589 --> 00:03:00,800

as much as five or six weeks but this

67

00:03:08,149 --> 00:03:03,599

time it was uh almost as as if i never

68

00:03:11,589 --> 00:03:10,070

i hear you've got a new 3d printer

69

00:03:13,830 --> 00:03:11,599

headed towards you for the resupply

70

00:03:25,670 --> 00:03:13,840

mission headed up later today any plans

71

00:03:29,430 --> 00:03:26,949

you know

72

00:03:31,509 --> 00:03:29,440

oftentimes we have experiments like that

73

00:03:33,430 --> 00:03:31,519

the plan is actually dictated to us on

74

00:03:35,110 --> 00:03:33,440

what we're going to print you know if we

75

00:03:36,789 --> 00:03:35,120

uh if we had

76

00:03:38,309 --> 00:03:36,799

choice and what we could use that 3d

77

00:03:40,550 --> 00:03:38,319

printer for then i'm sure we could be

78

00:03:44,149 --> 00:03:40,560

quite creative

79

00:03:55,750 --> 00:03:45,589

if you did have that choice what might

80

00:03:59,429 --> 00:03:57,429

you know that's a good question you know

81

00:04:00,949 --> 00:03:59,439

i think perhaps

82

00:04:02,949 --> 00:04:00,959

you know there are some things here in

83

00:04:04,710 --> 00:04:02,959

in zero gravity that are lots of fun to

84

00:04:06,869 --> 00:04:04,720

play with you know we like to play with

85

00:04:09,509 --> 00:04:06,879

water and food and if we could come up

86

00:04:12,470 --> 00:04:09,519

with something that was unique to zero

87

00:04:14,630 --> 00:04:12,480

gravity in terms of how we'd be able to

88

00:04:16,310 --> 00:04:14,640

demonstrate our experience here in zero

89

00:04:17,590 --> 00:04:16,320

gravity that would be great so i think

90

00:04:24,469 --> 00:04:17,600

we'll have to put more thought into that

91

00:04:27,590 --> 00:04:25,909

you're coming to us from the space

92

00:04:29,670 --> 00:04:27,600

station's destiny lab today and i was

93

00:04:31,270 --> 00:04:29,680

just wondering which experiment each of

94

00:04:37,189 --> 00:04:31,280

you is most excited to see the results

95

00:04:40,390 --> 00:04:38,629

yeah you know i mean we do so many

96

00:04:43,110 --> 00:04:40,400

experiments during a six-month mission i

97

00:04:44,790 --> 00:04:43,120

think there's about 250 planned for

98

00:04:46,710 --> 00:04:44,800

46.47

99

00:04:49,110 --> 00:04:46,720

and lots of those experiments will

100

00:04:50,710 --> 00:04:49,120

actually just run um autonomously from

101

00:04:53,350 --> 00:04:50,720

the ground with very little interaction

102

00:04:55,670 --> 00:04:53,360

from us but some of them do require a

103

00:04:57,270 --> 00:04:55,680

lot of inter interaction and of course

104

00:05:00,230 --> 00:04:57,280

many of those experiments are also done

105

00:05:02,230 --> 00:05:00,240

on our own human bodies as well

106

00:05:04,710 --> 00:05:02,240

and for me i do enjoy the human

107

00:05:06,790 --> 00:05:04,720

physiology experiments i think it's nice

108

00:05:08,469 --> 00:05:06,800

to be able to contribute to the science

109

00:05:10,469 --> 00:05:08,479

that's going on on board the space

110

00:05:13,670 --> 00:05:10,479

station for the benefit of everyone back

111

00:05:15,510 --> 00:05:13,680

on earth um and uh also um there are

112

00:05:16,950 --> 00:05:15,520

some exciting experiments i know tim

113

00:05:18,390 --> 00:05:16,960

might like say recently he's been

114

00:05:20,150 --> 00:05:18,400

involved in some flame combustion

115

00:05:21,670 --> 00:05:20,160

experiments which from a you know i was

116

00:05:25,990 --> 00:05:21,680

watching over his shoulder i found them

117

00:05:29,990 --> 00:05:27,590

you know i particularly liked this

118

00:05:32,230 --> 00:05:30,000

experiment that we did in a glove box

119

00:05:33,990 --> 00:05:32,240

it's right in front of us in which we we

120

00:05:36,230 --> 00:05:34,000

were experimenting with different

121

00:05:38,629 --> 00:05:36,240

materials and how combustion and zero

122

00:05:40,230 --> 00:05:38,639

gravity works for those materials and so

123

00:05:41,749 --> 00:05:40,240

i think for the combustion scientists

124

00:05:43,990 --> 00:05:41,759

they're very excited about it and we're

125

00:05:55,590 --> 00:05:44,000

looking forward to seeing those results

126

00:05:59,110 --> 00:05:57,110

jeff you'll have logged the most time

127

00:06:00,790 --> 00:05:59,120

and space of any american astronaut by

128

00:06:02,390 --> 00:06:00,800

the end of this mission and i was

129

00:06:10,550 --> 00:06:02,400

curious what you've seen change from

130

00:06:13,830 --> 00:06:12,309

well that uh i mean the most obvious

131

00:06:15,749 --> 00:06:13,840

thing is the station itself the first

132

00:06:18,710 --> 00:06:15,759

time i was here it was two modules

133

00:06:21,110 --> 00:06:18,720

before expedition one flew

134

00:06:22,710 --> 00:06:21,120

and then about a half a year later or so

135

00:06:23,670 --> 00:06:22,720

expedition one launched and since then

136

00:06:25,189 --> 00:06:23,680

there's been

137

00:06:27,350 --> 00:06:25,199

17

138

00:06:29,270 --> 00:06:27,360

years of continuous operation of the

139

00:06:31,670 --> 00:06:29,280

space station and over 15 years of

140

00:06:35,270 --> 00:06:31,680

continuous human presence on the space

141

00:06:37,110 --> 00:06:35,280

station now over 47 expeditions

142

00:06:39,430 --> 00:06:37,120

subsequent visits of course we were at

143

00:06:41,590 --> 00:06:39,440

different stages in the assembly

144

00:06:43,670 --> 00:06:41,600

next time about halfway through last

145

00:06:45,590 --> 00:06:43,680

time here uh six years ago we've

146

00:06:47,590 --> 00:06:45,600

essentially finished the assembly now

147

00:06:51,110 --> 00:06:47,600

it's a fully operational full

148

00:06:53,670 --> 00:06:51,120

utilization mode in orbiting laboratory

149

00:06:56,309 --> 00:06:53,680

and it's uh it's huge and we're still

150

00:06:58,550 --> 00:06:56,319

all very impressed just when we when we

151
00:07:00,230 --> 00:06:58,560
look at it out the window we've got some

152
00:07:02,870 --> 00:07:00,240
a couple windows that we can see much of

153
00:07:05,270 --> 00:07:02,880
the station and it's very very

154
00:07:08,070 --> 00:07:05,280
impressive very impressive facility that

155
00:07:15,589 --> 00:07:08,080
this uh international

156
00:07:19,350 --> 00:07:17,350
i've got a question for one from one of

157
00:07:22,710 --> 00:07:19,360
our readers for you um what's your

158
00:07:25,029 --> 00:07:22,720
favorite space recipe to make in the iss

159
00:07:26,550 --> 00:07:25,039
and they also want to know if you swap

160
00:07:35,270 --> 00:07:26,560
meals amongst different crew members

161
00:07:38,710 --> 00:07:36,710
we're just thinking about that you know

162
00:07:40,390 --> 00:07:38,720
what we find is that

163
00:07:42,230 --> 00:07:40,400

you know we have lots of great foods up

164

00:07:44,469 --> 00:07:42,240

here but you learn to combine different

165

00:07:46,390 --> 00:07:44,479

foods in certain ways we're pretty fond

166

00:07:47,909 --> 00:07:46,400

of tortillas because

167

00:07:50,070 --> 00:07:47,919

you can put just about anything in a

168

00:07:52,469 --> 00:07:50,080

tortilla and it combines the different

169

00:07:55,189 --> 00:07:52,479

foods and on occasion we'll exchange

170

00:07:57,189 --> 00:07:55,199

foods with our our russian colleagues

171

00:07:59,270 --> 00:07:57,199

tim peake has some special foods up here

172

00:08:01,510 --> 00:07:59,280

that we've had a chance to share and so

173

00:08:09,430 --> 00:08:01,520

it definitely adds to the experience and

174

00:08:12,309 --> 00:08:11,029

in the resupply mission that's headed up

175

00:08:13,430 --> 00:08:12,319

towards you later today is there

176

00:08:23,430 --> 00:08:13,440

anything that you're most looking

177

00:08:26,869 --> 00:08:24,710

you know

178

00:08:28,790 --> 00:08:26,879

every one of these vehicles has a little

179

00:08:30,550 --> 00:08:28,800

bit of fresh fruit on board i think

180

00:08:32,870 --> 00:08:30,560

we'll be excited to get some of that

181

00:08:35,269 --> 00:08:32,880

that fresh food

182

00:08:36,790 --> 00:08:35,279

there's always a resupply of uh

183

00:08:38,469 --> 00:08:36,800

of different items that we need on board

184

00:08:40,709 --> 00:08:38,479

and so we're excited about getting that

185

00:08:41,909 --> 00:08:40,719

especially some science there's one

186

00:08:43,990 --> 00:08:41,919

experiment that i think is going to be

187

00:08:46,389 --> 00:08:44,000

very interesting in which they plan on

188

00:08:48,389 --> 00:08:46,399

lighting a fire inside

189

00:08:49,590 --> 00:08:48,399

the cygnus vehicle as it departs so

190

00:08:51,990 --> 00:08:49,600

it'll be interesting to see what the

191

00:08:53,750 --> 00:08:52,000

results of that science are

192

00:08:55,269 --> 00:08:53,760

but we're always excited to get new

193

00:08:57,430 --> 00:08:55,279

equipment on board because it means that

194

00:09:04,790 --> 00:08:57,440

we can do our job better here and and

195

00:09:08,630 --> 00:09:06,550

all right well this is our last question

196

00:09:11,190 --> 00:09:08,640

here it sounds like so i was curious

197

00:09:12,710 --> 00:09:11,200

what destination in space besides the

198

00:09:20,630 --> 00:09:12,720

international space station of course

199

00:09:25,110 --> 00:09:22,470

we know i think the international space

200

00:09:27,110 --> 00:09:25,120

station is just a wonderful research

201

00:09:29,110 --> 00:09:27,120

platform and it's paving the way for

202

00:09:31,430 --> 00:09:29,120

future exploration of the solar system

203

00:09:33,269 --> 00:09:31,440

um and there are so many exciting places

204

00:09:35,670 --> 00:09:33,279

to go i think you know the the moon

205

00:09:37,829 --> 00:09:35,680

certainly offers many opportunities for

206

00:09:39,509 --> 00:09:37,839

further exploration and further

207

00:09:41,670 --> 00:09:39,519

resources that we can utilize and

208

00:09:43,670 --> 00:09:41,680

obviously stepping stones on the way to

209

00:09:45,350 --> 00:09:43,680

mars as well and um you know we're

210

00:09:47,670 --> 00:09:45,360

starting to work more and more closely

211

00:09:50,310 --> 00:09:47,680

towards that target of a manned mission

212

00:09:52,150 --> 00:09:50,320

to mars and having just completed the uh

213

00:09:53,590 --> 00:09:52,160

for scott kelly and misha konyenko the

214

00:09:55,430 --> 00:09:53,600

one year mission on board the space

215

00:09:57,590 --> 00:09:55,440

station um you know we're constantly

216

00:09:59,910 --> 00:09:57,600

learning about how we can overcome the

217

00:10:01,670 --> 00:09:59,920

challenges that face us on that journey

218

00:10:03,670 --> 00:10:01,680

to mars so i think the future of human

219

00:10:11,030 --> 00:10:03,680

space flight over the next 10 to 15

220

00:10:14,150 --> 00:10:12,630

well thanks so much guys it was such a

221

00:10:15,590 --> 00:10:14,160

pleasure talking with you all have a

222

00:10:18,870 --> 00:10:15,600

great rest of the mission and the safe

223

00:10:21,750 --> 00:10:18,880

plan at home

224

00:10:25,350 --> 00:10:23,590

station this is houston acr that

225

00:10:26,230 --> 00:10:25,360

concludes the gizmodo portion of the

226
00:10:27,990 --> 00:10:26,240
event

227
00:10:30,470 --> 00:10:28,000
please stand by for a voice check from

228
00:10:37,750 --> 00:10:30,480
the verge

229
00:10:41,829 --> 00:10:40,790
we hear you loud and clear

230
00:10:43,590 --> 00:10:41,839
great

231
00:10:46,790 --> 00:10:43,600
well i'm so excited to talk with you

232
00:10:48,470 --> 00:10:46,800
today um so first off i would love to

233
00:10:50,550 --> 00:10:48,480
have you describe your day-to-day

234
00:10:52,150 --> 00:10:50,560
routine on the station you know what are

235
00:10:54,069 --> 00:10:52,160
your hours like is it a typical

236
00:10:58,870 --> 00:10:54,079
nine-to-five gig and what do you spend

237
00:11:02,230 --> 00:11:00,470
you know it's a great question you know

238
00:11:04,150 --> 00:11:02,240

and it's a interesting place to both

239

00:11:06,310 --> 00:11:04,160

work and live because some aspects of

240

00:11:08,870 --> 00:11:06,320

our job are sort of like

241

00:11:10,710 --> 00:11:08,880

at home we have a a list of events we

242

00:11:12,310 --> 00:11:10,720

have to perform every day but when you

243

00:11:14,630 --> 00:11:12,320

wake up and you get out of your sleeping

244

00:11:16,790 --> 00:11:14,640

bag and your crew quarters you float out

245

00:11:18,870 --> 00:11:16,800

usually we float out to the place where

246

00:11:21,430 --> 00:11:18,880

we have all our food stowed and get some

247

00:11:23,509 --> 00:11:21,440

coffee and some breakfast and then do

248

00:11:25,990 --> 00:11:23,519

some cleanup and then the rest of the

249

00:11:27,829 --> 00:11:26,000

day is really filled with with science

250

00:11:30,230 --> 00:11:27,839

experiments with maintenance so that we

251
00:11:32,550 --> 00:11:30,240
can maintain the quality of life that we

252
00:11:34,630 --> 00:11:32,560
have up here we exercise for about two

253
00:11:36,630 --> 00:11:34,640
and a half hours every day and so the

254
00:11:39,269 --> 00:11:36,640
day is very full we work off of a

255
00:11:41,110 --> 00:11:39,279
schedule and off of procedures and we

256
00:11:43,509 --> 00:11:41,120
communicate with the ground at all the

257
00:11:45,030 --> 00:11:43,519
different control centers to get help

258
00:11:47,190 --> 00:11:45,040
with all the different procedures that

259
00:11:47,910 --> 00:11:47,200
we execute up here so we have a full day

260
00:11:50,870 --> 00:11:47,920
and

261
00:11:53,670 --> 00:11:50,880
we usually work from about 6 or 6 30 in

262
00:11:55,190 --> 00:11:53,680
the morning until about 7 or 7 30 in the

263
00:11:57,110 --> 00:11:55,200

evening

264

00:11:58,710 --> 00:11:57,120

wow that definitely is a full day and

265

00:12:00,629 --> 00:11:58,720

and you mentioned communication and that

266

00:12:02,389 --> 00:12:00,639

was my next question is what is your

267

00:12:04,629 --> 00:12:02,399

communication like with the ground how

268

00:12:06,550 --> 00:12:04,639

often do you speak with co-workers and

269

00:12:11,910 --> 00:12:06,560

loved ones and and what's the biggest

270

00:12:15,110 --> 00:12:13,590

well you know during the working day of

271

00:12:16,710 --> 00:12:15,120

course we're talking with mission

272

00:12:18,310 --> 00:12:16,720

control centers all around the world

273

00:12:19,670 --> 00:12:18,320

that are supporting us in the science

274

00:12:21,350 --> 00:12:19,680

that we're doing on board and the

275

00:12:23,190 --> 00:12:21,360

maintenance activities

276

00:12:25,590 --> 00:12:23,200

and so that's probably who we're

277

00:12:27,430 --> 00:12:25,600

communicating with most of all but we

278

00:12:29,590 --> 00:12:27,440

also have great communications on board

279

00:12:32,470 --> 00:12:29,600

the space station uh with our families

280

00:12:34,710 --> 00:12:32,480

we can use voice over ip telephones and

281

00:12:36,550 --> 00:12:34,720

effectively we can call anywhere in the

282

00:12:38,150 --> 00:12:36,560

on the planet so we can keep in touch

283

00:12:40,069 --> 00:12:38,160

with friends and families in the

284

00:12:41,670 --> 00:12:40,079

evenings once we've finished our working

285

00:12:43,990 --> 00:12:41,680

day

286

00:12:46,310 --> 00:12:44,000

wonderful and i'd love to talk more

287

00:12:48,230 --> 00:12:46,320

about what is your daily hygiene like

288

00:12:50,629 --> 00:12:48,240

you know what is what is the general

289

00:12:52,790 --> 00:12:50,639

human upkeep like how do you deal with

290

00:13:00,069 --> 00:12:52,800

no showers going to the bathroom all

291

00:13:04,389 --> 00:13:02,550

yeah hygiene up here is actually

292

00:13:06,310 --> 00:13:04,399

very good it takes a little bit to get

293

00:13:08,069 --> 00:13:06,320

acclimated to working in this

294

00:13:10,870 --> 00:13:08,079

environment obviously

295

00:13:12,230 --> 00:13:10,880

we don't have a shower and that's

296

00:13:14,710 --> 00:13:12,240

probably one of the things that most of

297

00:13:16,389 --> 00:13:14,720

us most miss while we're up here and

298

00:13:18,550 --> 00:13:16,399

look forward to when we get back in the

299

00:13:20,310 --> 00:13:18,560

ground but we we still are able to keep

300

00:13:21,750 --> 00:13:20,320

very clean essentially taking sponge

301
00:13:23,829 --> 00:13:21,760
bass

302
00:13:25,590 --> 00:13:23,839
we have a toilet that you would you

303
00:13:27,430 --> 00:13:25,600
would recognize as a toilet and it works

304
00:13:30,389 --> 00:13:27,440
very well

305
00:13:32,389 --> 00:13:30,399
and brushing your teeth and shaving is

306
00:13:34,550 --> 00:13:32,399
things like that is just like we do on

307
00:13:36,629 --> 00:13:34,560
the ground you just have to work a

308
00:13:38,069 --> 00:13:36,639
little bit harder and get accustomed to

309
00:13:39,750 --> 00:13:38,079
managing

310
00:13:42,550 --> 00:13:39,760
all the things because of course

311
00:13:44,470 --> 00:13:42,560
everything floats up here

312
00:13:46,710 --> 00:13:44,480
right and speaking of floating what has

313
00:13:48,629 --> 00:13:46,720

been the biggest adjustment for you both

314

00:13:51,189 --> 00:13:48,639

physically and mentally with going into

315

00:13:59,110 --> 00:13:51,199

microgravity and do you have a favorite

316

00:14:03,509 --> 00:14:01,670

well you know as a first first timer to

317

00:14:05,269 --> 00:14:03,519

space as a rookie astronaut my

318

00:14:07,350 --> 00:14:05,279

adaptation was you know i know it was

319

00:14:09,670 --> 00:14:07,360

really interesting for tim and scott at

320

00:14:11,269 --> 00:14:09,680

the time to observe uh seeing somebody

321

00:14:12,870 --> 00:14:11,279

who's never been in space before you

322

00:14:14,870 --> 00:14:12,880

know gradually progress and learning how

323

00:14:17,030 --> 00:14:14,880

to cope with microgravity i it took

324

00:14:18,870 --> 00:14:17,040

about 24 hours before i felt actually

325

00:14:20,710 --> 00:14:18,880

comfortable because for the first 24

326

00:14:22,790 --> 00:14:20,720

hours there's a lot of dizziness and

327

00:14:25,189 --> 00:14:22,800

disorientation just as your vestibular

328

00:14:27,110 --> 00:14:25,199

system needs to really shut down and i

329

00:14:28,790 --> 00:14:27,120

think your brain tends to then rely just

330

00:14:30,550 --> 00:14:28,800

on information coming from the eye so

331

00:14:33,030 --> 00:14:30,560

you don't feel nauseous

332

00:14:35,350 --> 00:14:33,040

and then it's uh it was a real

333

00:14:36,870 --> 00:14:35,360

interesting and fun two weeks i think

334

00:14:39,350 --> 00:14:36,880

kind of developing all the tricks you

335

00:14:42,150 --> 00:14:39,360

need to learn how to handle microgravity

336

00:14:43,670 --> 00:14:42,160

um and even now i still enjoy just in

337

00:14:45,189 --> 00:14:43,680

this environment working and living in

338

00:14:48,790 --> 00:14:45,199

this environment it's a lot of fun once

339

00:14:53,110 --> 00:14:50,949

great and what about the trip to and

340

00:14:55,110 --> 00:14:53,120

from the station jeff i know you've done

341

00:15:01,829 --> 00:14:55,120

this quite a bit so which part do you

342

00:15:04,310 --> 00:15:02,710

uh

343

00:15:07,269 --> 00:15:04,320

boy they're both highlights and there's

344

00:15:10,150 --> 00:15:07,279

a lot of highlights in the in during the

345

00:15:11,750 --> 00:15:10,160

voyage on station as well

346

00:15:13,590 --> 00:15:11,760

i mean obviously to get here you're

347

00:15:16,310 --> 00:15:13,600

looking forward to the launch and it's a

348

00:15:18,150 --> 00:15:16,320

it's a very exciting ride uh this time

349

00:15:20,470 --> 00:15:18,160

it was five and a half hours as opposed

350

00:15:22,629 --> 00:15:20,480

to two days to get here so it was good

351
00:15:24,550 --> 00:15:22,639
to get here in a short amount of time of

352
00:15:25,509 --> 00:15:24,560
course the landing is pretty dynamic too

353
00:15:27,430 --> 00:15:25,519
and plus

354
00:15:29,430 --> 00:15:27,440
by that time after six months up here

355
00:15:32,150 --> 00:15:29,440
you're ready to go home so you're very

356
00:15:33,829 --> 00:15:32,160
excited about getting back into that

357
00:15:37,110 --> 00:15:33,839
into the atmosphere go through in the

358
00:15:39,269 --> 00:15:37,120
atmosphere with which is a

359
00:15:41,990 --> 00:15:39,279
you know one of the

360
00:15:43,749 --> 00:15:42,000
challenges of space flight is safely

361
00:15:45,829 --> 00:15:43,759
being able to do that but it also means

362
00:15:48,230 --> 00:15:45,839
that you know you're going home and you

363
00:15:49,910 --> 00:15:48,240

feel like you're home as soon as you hit

364

00:15:51,350 --> 00:15:49,920

the ground even though it's halfway

365

00:15:54,069 --> 00:15:51,360

around the world in the middle of

366

00:15:56,389 --> 00:15:54,079

nowhere

367

00:15:58,389 --> 00:15:56,399

and what about earth do you guys miss

368

00:16:01,110 --> 00:15:58,399

the most and what do you miss most from

369

00:16:02,710 --> 00:16:01,120

gravity um and also what do you like the

370

00:16:06,870 --> 00:16:02,720

most about being in space what are the

371

00:16:12,150 --> 00:16:10,230

you know um living in zero gravity is

372

00:16:14,550 --> 00:16:12,160

some of the best uh

373

00:16:16,470 --> 00:16:14,560

things about living and some of the most

374

00:16:18,470 --> 00:16:16,480

frustrating things about living because

375

00:16:20,790 --> 00:16:18,480

uh you know you can't just put your

376

00:16:21,990 --> 00:16:20,800

things out on a table and and expect it

377

00:16:24,069 --> 00:16:22,000

to be there you have to be very

378

00:16:26,310 --> 00:16:24,079

meticulous about all the things that you

379

00:16:27,670 --> 00:16:26,320

have it has to be in a certain place and

380

00:16:29,829 --> 00:16:27,680

you have to remember where you put it

381

00:16:31,910 --> 00:16:29,839

because no longer is it just a flat

382

00:16:33,990 --> 00:16:31,920

surface in which something can be stowed

383

00:16:36,550 --> 00:16:34,000

it can be stowed on any surface either

384

00:16:38,150 --> 00:16:36,560

with tape or with velcro and so that

385

00:16:40,069 --> 00:16:38,160

becomes uh you know a little bit of a

386

00:16:44,470 --> 00:16:40,079

challenge until you get used to living

387

00:16:48,069 --> 00:16:45,910

i'm also curious about what the

388

00:16:49,030 --> 00:16:48,079

selection process is like for each

389

00:16:50,870 --> 00:16:49,040

mission

390

00:16:53,030 --> 00:16:50,880

what goes into deciding which astronaut

391

00:16:55,430 --> 00:16:53,040

is going to fly during which period and

392

00:17:01,110 --> 00:16:55,440

how is the commander picked and so on

393

00:17:04,710 --> 00:17:02,870

you know

394

00:17:06,870 --> 00:17:04,720

a lot of smart guys on the ground that

395

00:17:09,350 --> 00:17:06,880

look at the different skills of each

396

00:17:11,669 --> 00:17:09,360

individual crew member and uh

397

00:17:14,230 --> 00:17:11,679

you know we have a very very talented

398

00:17:16,390 --> 00:17:14,240

group of people at each one of the

399

00:17:18,309 --> 00:17:16,400

different agencies that provide

400

00:17:20,710 --> 00:17:18,319

astronauts for the international space

401
00:17:21,669 --> 00:17:20,720
station astronauts and cosmonauts

402
00:17:23,429 --> 00:17:21,679
and so

403
00:17:25,590 --> 00:17:23,439
frankly i think that

404
00:17:27,829 --> 00:17:25,600
you can pick a wide variety of people

405
00:17:29,270 --> 00:17:27,839
for these missions and they'll all be

406
00:17:31,270 --> 00:17:29,280
very successful

407
00:17:33,029 --> 00:17:31,280
there are very specific skills that we

408
00:17:35,990 --> 00:17:33,039
all have to have even just to be

409
00:17:37,909 --> 00:17:36,000
assigned be able to fly the robotic arm

410
00:17:40,310 --> 00:17:37,919
because we have vehicles that come here

411
00:17:42,870 --> 00:17:40,320
that we capture and then the ground

412
00:17:44,950 --> 00:17:42,880
docks it on to the space station we have

413
00:17:46,549 --> 00:17:44,960

spacewalks and it's a very challenging

414

00:17:48,710 --> 00:17:46,559

task and we have to be proficient in

415

00:17:50,789 --> 00:17:48,720

that and then just be able to work here

416

00:17:52,789 --> 00:17:50,799

on space station so

417

00:17:54,710 --> 00:17:52,799

the the challenge of each one of the

418

00:17:56,710 --> 00:17:54,720

different agencies is to have a pool of

419

00:17:59,350 --> 00:17:56,720

people that they can assign and frankly

420

00:18:01,830 --> 00:17:59,360

i think you know all of the people that

421

00:18:03,430 --> 00:18:01,840

are astronauts in those agencies can be

422

00:18:05,110 --> 00:18:03,440

assigned because they have those skills

423

00:18:07,110 --> 00:18:05,120

they've been selected for it and they've

424

00:18:08,950 --> 00:18:07,120

been trained for it in terms of

425

00:18:10,630 --> 00:18:08,960

you know selecting the commander there's

426

00:18:12,390 --> 00:18:10,640

also a wide variety of people that can

427

00:18:14,150 --> 00:18:12,400

be selected for that as well i think

428

00:18:16,150 --> 00:18:14,160

it's it's good that someone has a

429

00:18:18,070 --> 00:18:16,160

previous flight experience so they know

430

00:18:19,830 --> 00:18:18,080

what to expect and uh

431

00:18:21,430 --> 00:18:19,840

you know beyond that uh

432

00:18:22,470 --> 00:18:21,440

there's uh just a

433

00:18:24,470 --> 00:18:22,480

um

434

00:18:26,630 --> 00:18:24,480

a lot of timing i think in terms of of

435

00:18:28,710 --> 00:18:26,640

who they select and uh who's available

436

00:18:31,350 --> 00:18:28,720

for that flight

437

00:18:33,430 --> 00:18:31,360

great and i'm curious to know what's the

438

00:18:35,510 --> 00:18:33,440

air like up there is there a distinct

439

00:18:40,830 --> 00:18:35,520

difference between the environment on

440

00:18:46,310 --> 00:18:43,750

earth know we we get to enjoy pretty

441

00:18:48,870 --> 00:18:46,320

good air up here it's it's recycled it's

442

00:18:51,669 --> 00:18:48,880

uh scrubbed from uh carbon dioxide and

443

00:18:54,950 --> 00:18:51,679

other harmful gases uh it's a fairly

444

00:18:56,310 --> 00:18:54,960

constant humidity and temperature um the

445

00:18:58,310 --> 00:18:56,320

one thing that's very different from

446

00:19:01,669 --> 00:18:58,320

planet earth is we we have about 10

447

00:19:03,270 --> 00:19:01,679

times the co2 level up here um but other

448

00:19:06,150 --> 00:19:03,280

than that it's a it's a pretty good

449

00:19:08,310 --> 00:19:06,160

atmosphere um often people ask about the

450

00:19:10,230 --> 00:19:08,320

smell of of space and and the smell of

451
00:19:12,789 --> 00:19:10,240
the space station i remember it being

452
00:19:15,110 --> 00:19:12,799
almost like a a clinical smell when i

453
00:19:16,710 --> 00:19:15,120
came on board um and i know you know

454
00:19:18,789 --> 00:19:16,720
jeff having just arrived a couple of

455
00:19:20,390 --> 00:19:18,799
days ago said ah that very familiar

456
00:19:22,230 --> 00:19:20,400
smell it's quite hard to describe at the

457
00:19:23,990 --> 00:19:22,240
space station and it's similar for when

458
00:19:26,070 --> 00:19:24,000
astronauts come back in from a spacewalk

459
00:19:28,710 --> 00:19:26,080
as well and you open up the airlock and

460
00:19:30,470 --> 00:19:28,720
you can smell a very distinctive smell

461
00:19:32,710 --> 00:19:30,480
it's almost like i think a metallic

462
00:19:34,150 --> 00:19:32,720
ionization type of smell

463
00:19:36,710 --> 00:19:34,160

maybe that's the smell of space who

464

00:19:40,470 --> 00:19:38,710

well i really appreciate you guys taking

465

00:19:41,990 --> 00:19:40,480

the time to speak with me today this has

466

00:19:44,310 --> 00:19:42,000

been a lot of fun and i feel like i've

467

00:19:48,310 --> 00:19:44,320

learned a lot about your daily routine

468

00:19:52,870 --> 00:19:49,750

it's our pleasure nice chatting with you

469

00:20:03,029 --> 00:19:54,630

station this is houston acr that

470

00:20:03,039 --> 00:20:09,190

thank you so much

471

00:20:13,350 --> 00:20:11,669

thank you gizmodo and the verge station