



1
00:00:06,230 --> 00:00:02,149
station this is houston are you ready

2
00:00:13,030 --> 00:00:10,390
houston station is ready for the event

3
00:00:15,110 --> 00:00:13,040
u.s air force academy and jack swaggart

4
00:00:17,109 --> 00:00:15,120
aerospace academy this is mission

5
00:00:30,390 --> 00:00:17,119
control houston please call station for

6
00:00:36,630 --> 00:00:32,310
station this is jack swaggart aerospace

7
00:00:51,510 --> 00:00:38,470
hello we hear you loud and clear welcome

8
00:00:56,150 --> 00:00:53,430
we have a difficulty with audio on our

9
00:00:56,160 --> 00:01:01,430
okay guys okay how do you hear me now

10
00:01:03,910 --> 00:01:02,709
uh

11
00:01:04,950 --> 00:01:03,920
good morning

12
00:01:09,590 --> 00:01:04,960
um

13
00:01:13,990 --> 00:01:09,600

what do you miss most about earth and

14

00:01:18,070 --> 00:01:16,550

okay yeah well you know coming up here

15

00:01:19,429 --> 00:01:18,080

is of course a great adventure but

16

00:01:21,429 --> 00:01:19,439

there's always things the biggest thing

17

00:01:23,670 --> 00:01:21,439

you miss of course is your family and

18

00:01:25,990 --> 00:01:23,680

your friends and i would have to say

19

00:01:27,670 --> 00:01:26,000

probably after that i think food some of

20

00:01:36,469 --> 00:01:27,680

our favorite foods are the thing we

21

00:01:36,479 --> 00:01:43,749

next question okay uh thank you

22

00:01:48,870 --> 00:01:46,630

hello my name is karen arizo and my

23

00:01:51,749 --> 00:01:48,880

question is what type of food do you eat

24

00:01:56,789 --> 00:01:51,759

on the iss and how do you eat it if

25

00:02:01,429 --> 00:01:59,350

it's a good question

26

00:02:03,749 --> 00:02:01,439

our foods we eat are very similar to the

27

00:02:05,990 --> 00:02:03,759

foods you eat on the ground however our

28

00:02:07,990 --> 00:02:06,000

foods have to be prepared and packaged

29

00:02:10,630 --> 00:02:08,000

in a way that they can last for a long

30

00:02:12,949 --> 00:02:10,640

time before being eaten so they we do

31

00:02:13,830 --> 00:02:12,959

things like dehydrate them or irradiate

32

00:02:15,910 --> 00:02:13,840

them

33

00:02:17,990 --> 00:02:15,920

and as it comes to eating food well

34

00:02:19,510 --> 00:02:18,000

eating food can actually be kind of fun

35

00:02:21,990 --> 00:02:19,520

we actually have a little example right

36

00:02:23,830 --> 00:02:22,000

here

37

00:02:25,830 --> 00:02:23,840

yeah we have foods in many different

38

00:02:27,990 --> 00:02:25,840

forms you know and here's uh some some

39

00:02:29,510 --> 00:02:28,000

little some little candies that come in

40

00:02:31,670 --> 00:02:29,520

of course the same form that you're used

41

00:02:44,630 --> 00:02:31,680

to at home

42

00:02:47,270 --> 00:02:45,750

okay

43

00:02:53,270 --> 00:02:47,280

all right next question

44

00:02:57,670 --> 00:02:55,190

hello i'm luis rizzo and i have a

45

00:02:59,990 --> 00:02:57,680

question for you

46

00:03:05,110 --> 00:03:00,000

how and how often are you able to shower

47

00:03:09,350 --> 00:03:07,350

okay well we shower right before we

48

00:03:11,110 --> 00:03:09,360

leave for the space station and then we

49

00:03:12,470 --> 00:03:11,120

shower right after we return from the

50

00:03:14,229 --> 00:03:12,480

space station

51
00:03:16,149 --> 00:03:14,239
so we don't have a shower up here is the

52
00:03:18,790 --> 00:03:16,159
bottom line but what we do have is we

53
00:03:20,550 --> 00:03:18,800
have lots of towels and we uh of course

54
00:03:22,790 --> 00:03:20,560
some of these towels have a kind of soap

55
00:03:24,789 --> 00:03:22,800
built into them we wet these towels down

56
00:03:26,470 --> 00:03:24,799
quite a bit with hot water

57
00:03:28,229 --> 00:03:26,480
and basically you wash yourself up with

58
00:03:30,070 --> 00:03:28,239
the these wet towels and you can clean

59
00:03:31,509 --> 00:03:30,080
yourself up pretty darn good we also

60
00:03:33,750 --> 00:03:31,519
have shampoos that are called like

61
00:03:35,430 --> 00:03:33,760
rinseless shampoos you kind of lather up

62
00:03:36,869 --> 00:03:35,440
your hair and you wash it really well

63
00:03:38,630 --> 00:03:36,879

and then you just wipe it down with a

64

00:03:41,030 --> 00:03:38,640

towel so we get ourselves pretty clean

65

00:03:43,350 --> 00:03:41,040

but there's no shower up here no running

66

00:03:45,350 --> 00:03:43,360

water we just have water in drink bags

67

00:03:51,110 --> 00:03:45,360

basically

68

00:03:55,910 --> 00:03:53,509

hi mr astronauts my name is paige

69

00:03:57,910 --> 00:03:55,920

courtwright and my question for you is

70

00:04:03,110 --> 00:03:57,920

how would you relate being in space to

71

00:04:07,509 --> 00:04:05,030

how would we relate being in space as

72

00:04:09,110 --> 00:04:07,519

being on earth well it's a very similar

73

00:04:11,110 --> 00:04:09,120

day in the sense that we get up in the

74

00:04:12,789 --> 00:04:11,120

morning we do the same things in the

75

00:04:14,789 --> 00:04:12,799

morning that you guys do you know you

76

00:04:16,390 --> 00:04:14,799

have some breakfast you brush your teeth

77

00:04:18,789 --> 00:04:16,400

all those the same things and we go off

78

00:04:20,870 --> 00:04:18,799

to work same idea except we have a very

79

00:04:22,710 --> 00:04:20,880

short commute to work we live right here

80

00:04:23,909 --> 00:04:22,720

in the same spot but then when we're

81

00:04:25,270 --> 00:04:23,919

actually doing things it's very

82

00:04:27,510 --> 00:04:25,280

different as you can tell everything

83

00:04:30,230 --> 00:04:27,520

floats here that makes everything very

84

00:04:31,990 --> 00:04:30,240

very different than on back on earth and

85

00:04:33,909 --> 00:04:32,000

so we have to change the way how we do

86

00:04:38,390 --> 00:04:33,919

things besides that though it is very

87

00:04:47,590 --> 00:04:40,469

hello astronauts my name is juan

88

00:04:50,550 --> 00:04:49,270

well you know in space there's lots of

89

00:04:51,909 --> 00:04:50,560

things you can do to have fun but the

90

00:04:53,749 --> 00:04:51,919

things that you know we enjoy the most

91

00:04:55,590 --> 00:04:53,759

are obviously floating around and being

92

00:04:57,110 --> 00:04:55,600

weightless this is a lot of fun and the

93

00:04:58,950 --> 00:04:57,120

other thing is we have a great view of

94

00:05:00,310 --> 00:04:58,960

the earth you know we have a cupola

95

00:05:02,070 --> 00:05:00,320

basically it's almost like a

96

00:05:04,150 --> 00:05:02,080

glass-bottom boat if you will it's got

97

00:05:05,670 --> 00:05:04,160

these six large windows and we go in

98

00:05:07,909 --> 00:05:05,680

there and we look straight down on the

99

00:05:11,189 --> 00:05:07,919

earth and we take a lot of pictures of

100

00:05:12,710 --> 00:05:11,199

our hometowns we take pictures of places

101
00:05:14,390 --> 00:05:12,720
that we've never been and we'd like to

102
00:05:16,150 --> 00:05:14,400
go someday the caribbean we just passed

103
00:05:17,990 --> 00:05:16,160
over the caribbean a little while ago

104
00:05:19,830 --> 00:05:18,000
it's a beautiful place to see from up

105
00:05:21,270 --> 00:05:19,840
here so that's the thing that we enjoy

106
00:05:25,990 --> 00:05:21,280
the most is looking out the window at

107
00:05:31,029 --> 00:05:28,950
um hello my name is brandon hernandez my

108
00:05:33,110 --> 00:05:31,039
question is when you're in space with no

109
00:05:35,909 --> 00:05:33,120
gravity for so long how do you feel when

110
00:05:40,070 --> 00:05:35,919
you come back to earth where this is

111
00:05:43,830 --> 00:05:42,550
good question you feel really really

112
00:05:45,510 --> 00:05:43,840
heavy

113
00:05:48,150 --> 00:05:45,520

your arms are feel like they're just

114

00:05:50,710 --> 00:05:48,160

weighing so much your body your legs

115

00:05:52,950 --> 00:05:50,720

everything it's amazing

116

00:05:55,430 --> 00:05:52,960

so you also have a little bit of an

117

00:05:57,830 --> 00:05:55,440

effect on the uh we call it neural

118

00:05:59,270 --> 00:05:57,840

vestibular system so you have an inner

119

00:06:01,189 --> 00:05:59,280

ear and it helps you figure out where

120

00:06:03,189 --> 00:06:01,199

gravity is and helps you know what's up

121

00:06:05,110 --> 00:06:03,199

and what's down but we don't use that up

122

00:06:07,590 --> 00:06:05,120

here because we don't have that gravity

123

00:06:09,749 --> 00:06:07,600

effect and so it when it goes when you

124

00:06:11,510 --> 00:06:09,759

come back down and it has to use use it

125

00:06:13,510 --> 00:06:11,520

again it kind of screws your head up for

126

00:06:15,749 --> 00:06:13,520

just a little bit until it reorients and

127

00:06:17,110 --> 00:06:15,759

gets it working all straight again and

128

00:06:18,950 --> 00:06:17,120

that takes a little bit different for

129

00:06:20,150 --> 00:06:18,960

each person but

130

00:06:24,870 --> 00:06:20,160

we're going to find out how that works

131

00:06:29,270 --> 00:06:27,029

hello mr astronauts my name is caleb

132

00:06:31,270 --> 00:06:29,280

bricks and my question is

133

00:06:35,590 --> 00:06:31,280

what is your evacuation plan in case of

134

00:06:39,670 --> 00:06:37,670

yeah that's a good question so basically

135

00:06:41,430 --> 00:06:39,680

we come up here right now since the

136

00:06:44,070 --> 00:06:41,440

shuttle program has been retired we use

137

00:06:46,230 --> 00:06:44,080

the soyuz russian soyuz vehicle to come

138

00:06:48,150 --> 00:06:46,240

up to the space station and to return so

139

00:06:50,309 --> 00:06:48,160

three folks come up to the uh space

140

00:06:51,589 --> 00:06:50,319

station on a soyuz capsule but it's just

141

00:06:53,990 --> 00:06:51,599

like when you drive somewhere in your

142

00:06:55,749 --> 00:06:54,000

car the capsule is parked outside

143

00:06:57,110 --> 00:06:55,759

or parked uh connected to the

144

00:06:58,950 --> 00:06:57,120

international space station and if

145

00:07:00,950 --> 00:06:58,960

there's an evacuation for some reason if

146

00:07:02,950 --> 00:07:00,960

there's a fire or a depressurization or

147

00:07:04,950 --> 00:07:02,960

somebody gets sick we the three of us

148

00:07:06,710 --> 00:07:04,960

will climb back into the soyuz capsule

149

00:07:09,029 --> 00:07:06,720

and we will fly back home so it's kind

150

00:07:10,790 --> 00:07:09,039

of like it's our it's it's our rescue

151

00:07:12,070 --> 00:07:10,800

ship but it's also the same craft that

152

00:07:15,189 --> 00:07:12,080

brought us up here and that will bring

153

00:07:19,749 --> 00:07:17,270

hello mr astronauts my name is eric

154

00:07:22,870 --> 00:07:19,759

vinson and i have a question my question

155

00:07:27,270 --> 00:07:22,880

is do you excise on the iss and if so

156

00:07:32,230 --> 00:07:30,469

yes we do we exercise about two hours

157

00:07:33,909 --> 00:07:32,240

every day and we need to do this so we

158

00:07:35,430 --> 00:07:33,919

don't have muscle loss and bone loss

159

00:07:36,870 --> 00:07:35,440

when we get back to earth which is very

160

00:07:38,309 --> 00:07:36,880

important for us

161

00:07:39,430 --> 00:07:38,319

so we have three different types of

162

00:07:41,589 --> 00:07:39,440

equipment

163

00:07:44,790 --> 00:07:41,599

we have a bicycle

164

00:07:46,790 --> 00:07:44,800

we have a treadmill and we have a

165

00:07:48,230 --> 00:07:46,800

resistive exercise device which is like

166

00:07:50,390 --> 00:07:48,240

lifting weights

167

00:07:52,550 --> 00:07:50,400

and that helps us very much that we like

168

00:07:54,469 --> 00:07:52,560

doing it and it helps us one that helps

169

00:07:56,070 --> 00:07:54,479

us feel better and they also stay in

170

00:07:59,270 --> 00:07:56,080

shape and it helps our muscles and our

171

00:08:01,189 --> 00:07:59,280

bones stay strong

172

00:08:03,350 --> 00:08:01,199

hello mr astronaut my name is robert

173

00:08:05,990 --> 00:08:03,360

romero and i have a question how many

174

00:08:11,589 --> 00:08:06,000

hours of sleep do you get and how can

175

00:08:15,029 --> 00:08:13,589

yeah that's uh it's interesting because

176
00:08:17,589 --> 00:08:15,039
up here like you know you probably know

177
00:08:19,510 --> 00:08:17,599
we go around the earth every 90 minutes

178
00:08:21,350 --> 00:08:19,520
so the sun is constantly rising and

179
00:08:23,350 --> 00:08:21,360
setting rising and setting as we circle

180
00:08:25,430 --> 00:08:23,360
the earth so we get 16 sunrises and

181
00:08:27,189 --> 00:08:25,440
sunsets every day so you can't look out

182
00:08:28,710 --> 00:08:27,199
the window to determine what time of the

183
00:08:30,230 --> 00:08:28,720
day it is you could wake up in the

184
00:08:32,389 --> 00:08:30,240
middle of the night and look out the

185
00:08:34,469 --> 00:08:32,399
window and it could be daytime so what

186
00:08:36,790 --> 00:08:34,479
we do is we keep a very similar

187
00:08:38,389 --> 00:08:36,800
uh kind of same similar profiles to what

188
00:08:40,709 --> 00:08:38,399

we live on earth you know we we sleep

189

00:08:42,550 --> 00:08:40,719

for eight hours roughly and we turn all

190

00:08:44,389 --> 00:08:42,560

the lights off in the space station we

191

00:08:45,910 --> 00:08:44,399

close the shutters on the windows so

192

00:08:47,509 --> 00:08:45,920

that the bright light doesn't come in

193

00:08:50,389 --> 00:08:47,519

and we close the doors to our small

194

00:08:51,990 --> 00:08:50,399

little uh our rooms and we sleep for

195

00:08:53,430 --> 00:08:52,000

eight hours then when we wake up we turn

196

00:08:55,269 --> 00:08:53,440

all the lights on inside the space

197

00:08:56,949 --> 00:08:55,279

station we open up the window shutters

198

00:08:58,150 --> 00:08:56,959

so that when it is light outside the

199

00:09:00,470 --> 00:08:58,160

light comes in

200

00:09:01,910 --> 00:09:00,480

and so we can have a very similar day as

201
00:09:03,350 --> 00:09:01,920
to what you have on earth but it's all

202
00:09:05,190 --> 00:09:03,360
artificial it's through the lights of

203
00:09:07,350 --> 00:09:05,200
the space station that we know whether

204
00:09:09,590 --> 00:09:07,360
it's nighttime or daytime and it's

205
00:09:15,990 --> 00:09:09,600
really is it our work day or is it our

206
00:09:20,150 --> 00:09:17,829
hello mr astronauts my name is jontel

207
00:09:21,590 --> 00:09:20,160
falcon and my question is how do you

208
00:09:27,750 --> 00:09:21,600
guys use

209
00:09:31,670 --> 00:09:29,990
well how do we use math and space well

210
00:09:33,990 --> 00:09:31,680
luckily i only have to use simple math

211
00:09:36,470 --> 00:09:34,000
up here that's good for me but the

212
00:09:38,230 --> 00:09:36,480
people who built and design and

213
00:09:41,269 --> 00:09:38,240

engineered this wonderful vehicle we're

214

00:09:43,430 --> 00:09:41,279

on use lots of math math is a means to

215

00:09:45,509 --> 00:09:43,440

an end you need math to be able to solve

216

00:09:48,230 --> 00:09:45,519

the problems of engineering and physics

217

00:09:57,590 --> 00:09:48,240

and everything we do in life and so it's

218

00:10:02,829 --> 00:10:00,470

that's my name is jermaine wilson

219

00:10:05,829 --> 00:10:02,839

by his name his name is rick

220

00:10:07,509 --> 00:10:05,839

rick mr rick hello mr rick my name is

221

00:10:09,030 --> 00:10:07,519

jermaine wilson and my question is can

222

00:10:14,630 --> 00:10:09,040

you see the earth spin or rotate from

223

00:10:19,190 --> 00:10:16,790

that's a good question i don't know

224

00:10:22,310 --> 00:10:19,200

you know we are going over we are

225

00:10:24,870 --> 00:10:22,320

traveling around the earth so fast at 17

226

00:10:26,550 --> 00:10:24,880

500 miles an hour so the earth is looks

227

00:10:28,310 --> 00:10:26,560

to us like the earth is spinning below

228

00:10:30,069 --> 00:10:28,320

very very quickly but it's really us

229

00:10:32,230 --> 00:10:30,079

that that's going around the earth very

230

00:10:34,790 --> 00:10:32,240

quickly so you don't actually see the

231

00:10:36,230 --> 00:10:34,800

earth spin uh but you you kind of know

232

00:10:37,910 --> 00:10:36,240

that it is

233

00:10:39,269 --> 00:10:37,920

uh just well basically i guess on all

234

00:10:40,630 --> 00:10:39,279

our training and all everything we

235

00:10:41,990 --> 00:10:40,640

learned in school but you really can't

236

00:10:43,910 --> 00:10:42,000

see the earth spinning because we're

237

00:10:45,430 --> 00:10:43,920

traveling so fast it's kind of like an

238

00:10:47,990 --> 00:10:45,440

analogy might be if you were in a very

239

00:10:49,990 --> 00:10:48,000

fast airplane and you went by a very

240

00:10:51,910 --> 00:10:50,000

slow airplane it wouldn't look wouldn't

241

00:10:53,670 --> 00:10:51,920

couldn't tell if that small airplane was

242

00:10:55,030 --> 00:10:53,680

standing still or if it was moving but

243

00:10:56,790 --> 00:10:55,040

you know it's moving because it's it's

244

00:10:58,630 --> 00:10:56,800

flying in the air so based on what you

245

00:11:03,829 --> 00:10:58,640

know you know based on what we know the

246

00:11:07,829 --> 00:11:06,230

hello mr rick and mr steve my

247

00:11:09,590 --> 00:11:07,839

my name is angel martinez and my

248

00:11:14,949 --> 00:11:09,600

question is how do math and science work

249

00:11:19,030 --> 00:11:16,630

that's a great question math and science

250

00:11:20,310 --> 00:11:19,040

we do lots of science up here and we

251
00:11:27,590 --> 00:11:20,320
have an example one of the science

252
00:11:32,470 --> 00:11:29,910
this is called spheres and the idea

253
00:11:34,389 --> 00:11:32,480
behind this is it's a little remote

254
00:11:36,870 --> 00:11:34,399
could not remote control but a software

255
00:11:38,870 --> 00:11:36,880
controlled uh piece of equipment or

256
00:11:40,710 --> 00:11:38,880
satellite and what it can do is you can

257
00:11:42,470 --> 00:11:40,720
have a software in there you load up and

258
00:11:44,389 --> 00:11:42,480
it will then control the satellite

259
00:11:45,910 --> 00:11:44,399
however you want to then the engineers

260
00:11:47,910 --> 00:11:45,920
and scientists have working on different

261
00:11:49,350 --> 00:11:47,920
algorithms and different ways of

262
00:11:50,629 --> 00:11:49,360
controlling these satellites and they've

263
00:11:52,389 --> 00:11:50,639

actually have three of them up here they

264

00:11:54,310 --> 00:11:52,399

can then do it all together and try to

265

00:11:55,750 --> 00:11:54,320

get them to all together to do something

266

00:11:57,509 --> 00:11:55,760

and so that is a great science

267

00:11:59,829 --> 00:11:57,519

experiment they have going and of course

268

00:12:02,150 --> 00:11:59,839

to do those kind of engineering tasks

269

00:12:03,990 --> 00:12:02,160

and science tasks you need math math

270

00:12:05,430 --> 00:12:04,000

solves your your equations you'll come

271

00:12:07,269 --> 00:12:05,440

up with the equations through physics

272

00:12:08,629 --> 00:12:07,279

and science but you have to have math to

273

00:12:18,470 --> 00:12:08,639

actually solve the and get come up with

274

00:12:22,470 --> 00:12:20,790

hello mr rick since

275

00:12:26,550 --> 00:12:22,480

ex

276

00:12:28,949 --> 00:12:26,560

from diverse backgrounds what kinds of

277

00:12:30,790 --> 00:12:28,959

teammate team building activities have

278

00:12:36,150 --> 00:12:30,800

you done

279

00:12:39,590 --> 00:12:37,509

yeah that's right we have uh three

280

00:12:41,190 --> 00:12:39,600

russian cosmonauts up here we have steve

281

00:12:43,430 --> 00:12:41,200

and i from the united states and we got

282

00:12:44,790 --> 00:12:43,440

koichi wakata who's uh from japan he's

283

00:12:47,350 --> 00:12:44,800

actually the commander of the space

284

00:12:49,750 --> 00:12:47,360

station for these few weeks a few months

285

00:12:52,230 --> 00:12:49,760

uh obviously we trained a lot together

286

00:12:53,910 --> 00:12:52,240

on the ground as for international space

287

00:12:56,230 --> 00:12:53,920

station before you launch you train for

288

00:12:58,150 --> 00:12:56,240

about two and a half almost three years

289

00:12:59,829 --> 00:12:58,160

and of course we train with each other

290

00:13:02,470 --> 00:12:59,839

on a daily basis

291

00:13:03,590 --> 00:13:02,480

and we do lots of obviously simulations

292

00:13:06,470 --> 00:13:03,600

and spend a lot of time in the

293

00:13:08,310 --> 00:13:06,480

simulators together but we also did a uh

294

00:13:10,389 --> 00:13:08,320

basically we went to camping i guess it

295

00:13:12,150 --> 00:13:10,399

was outdoor leadership where we went

296

00:13:15,110 --> 00:13:12,160

outside and we spent a week out in the

297

00:13:17,190 --> 00:13:15,120

wilderness and we were

298

00:13:19,430 --> 00:13:17,200

basically out up in the washington

299

00:13:21,829 --> 00:13:19,440

washington state area san juan islands

300

00:13:23,910 --> 00:13:21,839

kayaking sea kayaking so we kind of

301
00:13:25,590 --> 00:13:23,920
learned to get to know each other we got

302
00:13:27,990 --> 00:13:25,600
to work with each other in kind of an

303
00:13:30,550 --> 00:13:28,000
off nominal or an extreme situation if

304
00:13:32,870 --> 00:13:30,560
you will camping and backpacking and

305
00:13:34,870 --> 00:13:32,880
canoeing out in the uh out in the ocean

306
00:13:36,230 --> 00:13:34,880
there so we spent a lot of time together

307
00:13:37,829 --> 00:13:36,240
training but we also do some of these

308
00:13:39,829 --> 00:13:37,839
side activities too just to get to know

309
00:13:41,509 --> 00:13:39,839
each other and then up here of course we

310
00:13:43,910 --> 00:13:41,519
live together we dinner together on a

311
00:13:45,590 --> 00:13:43,920
daily basis and we do a lot of science

312
00:13:47,030 --> 00:13:45,600
together we do a lot of repair work

313
00:13:49,189 --> 00:13:47,040

together so we get to know each other

314

00:13:50,310 --> 00:13:49,199

quite well and we don't really think of

315

00:13:51,829 --> 00:13:50,320

each other as coming from different

316

00:13:53,750 --> 00:13:51,839

countries we just think of each other as

317

00:13:55,990 --> 00:13:53,760

our crewmates you know koichi's our

318

00:13:57,189 --> 00:13:56,000

crewmate uh our russian crewmates down

319

00:13:58,870 --> 00:13:57,199

the other end they're just our crewmates

320

00:14:00,069 --> 00:13:58,880

we don't think of them as from coming

321

00:14:04,310 --> 00:14:00,079

from other countries they're just our

322

00:14:07,910 --> 00:14:06,069

hello mr steve

323

00:14:09,430 --> 00:14:07,920

my question is what is the difference

324

00:14:15,590 --> 00:14:09,440

between a mission commander flight

325

00:14:18,470 --> 00:14:17,509

well that's a good question

326

00:14:20,550 --> 00:14:18,480

um

327

00:14:22,870 --> 00:14:20,560

mission specialist was a term back used

328

00:14:25,670 --> 00:14:22,880

in the shuttle and that's similar to a

329

00:14:27,590 --> 00:14:25,680

flight engineer these days uh there's

330

00:14:29,829 --> 00:14:27,600

not much difference when we on a working

331

00:14:31,350 --> 00:14:29,839

daily basis between what the commander

332

00:14:32,870 --> 00:14:31,360

does and what a flight engineer does on

333

00:14:34,470 --> 00:14:32,880

the space station we still do the same

334

00:14:36,230 --> 00:14:34,480

amount of work we do the science we do

335

00:14:38,629 --> 00:14:36,240

the repair of the station we all keep it

336

00:14:40,870 --> 00:14:38,639

running what a commander though does or

337

00:14:42,470 --> 00:14:40,880

what it has to do is he works a lot with

338

00:14:44,710 --> 00:14:42,480

the ground to make sure everything in

339

00:14:47,189 --> 00:14:44,720

the big picture is working well he also

340

00:14:49,030 --> 00:14:47,199

has a responsibility of making sure

341

00:14:50,150 --> 00:14:49,040

we're all ready for any emerging cases

342

00:14:51,829 --> 00:14:50,160

and then getting us through the

343

00:14:54,310 --> 00:14:51,839

emergency case

344

00:14:56,470 --> 00:14:54,320

and those tasks along with just making

345

00:14:57,990 --> 00:14:56,480

sure everybody gets along and all things

346

00:15:01,829 --> 00:14:58,000

are running smoothly is mainly the

347

00:15:07,269 --> 00:15:05,030

hello mr rick my name is arjuni gray

348

00:15:10,550 --> 00:15:07,279

what does this what does the station

349

00:15:13,269 --> 00:15:10,560

satellite have a control console or a

350

00:15:17,990 --> 00:15:13,279

cockpit like the side of like the space

351

00:15:21,030 --> 00:15:19,670

yeah that's a good question because you

352

00:15:23,750 --> 00:15:21,040

wonder who's controlling the space

353

00:15:25,350 --> 00:15:23,760

station well obviously the ground folks

354

00:15:26,870 --> 00:15:25,360

have a lot of control on what's going on

355

00:15:28,870 --> 00:15:26,880

onboard the space station but our

356

00:15:31,269 --> 00:15:28,880

interface with the space station is all

357

00:15:33,670 --> 00:15:31,279

done with laptop computers there is no

358

00:15:35,749 --> 00:15:33,680

cockpit if you will there's no control

359

00:15:37,829 --> 00:15:35,759

station it's uh it's simply laptop

360

00:15:40,069 --> 00:15:37,839

computers we have dozens and dozens and

361

00:15:42,150 --> 00:15:40,079

dozens of laptop computers and of course

362

00:15:44,069 --> 00:15:42,160

these have very specialized software

363

00:15:45,990 --> 00:15:44,079

some of them have software that where we

364

00:15:47,829 --> 00:15:46,000

could send commands to the systems of

365

00:15:50,069 --> 00:15:47,839

the space station to open valves and

366

00:15:51,590 --> 00:15:50,079

close valves some of them we use to look

367

00:15:53,749 --> 00:15:51,600

at our schedule like what's the next

368

00:15:55,590 --> 00:15:53,759

task i have some of them we use to read

369

00:15:57,509 --> 00:15:55,600

our procedure some of them we used to

370

00:15:59,590 --> 00:15:57,519

read our email so all these different

371

00:16:03,110 --> 00:15:59,600

computers have different uh different

372

00:16:04,310 --> 00:16:03,120

purposes and and it in it's really now a

373

00:16:06,150 --> 00:16:04,320

control

374

00:16:09,749 --> 00:16:06,160

cockpit like an airplane it's simply all

375

00:16:13,189 --> 00:16:09,759

these laptop computers

376

00:16:15,030 --> 00:16:13,199

hi sir i'm ctc sarah foles um and i have

377

00:16:17,110 --> 00:16:15,040

a question coming from del rio middle

378

00:16:22,870 --> 00:16:17,120

school what would happen to a sponge or

379

00:16:26,069 --> 00:16:24,629

that's a good question so we brought

380

00:16:30,389 --> 00:16:26,079

some stuff to just to try to figure that

381

00:16:35,110 --> 00:16:32,790

yeah so steve's got a this is a drinking

382

00:16:36,230 --> 00:16:35,120

bag it's basically filled with water

383

00:16:37,749 --> 00:16:36,240

you can see you know we obviously we

384

00:16:39,509 --> 00:16:37,759

can't drink out of a cup so we got to

385

00:16:41,350 --> 00:16:39,519

keep it in a bag and steve's going to

386

00:16:43,670 --> 00:16:41,360

just squirt the water in this and then

387

00:16:45,910 --> 00:16:43,680

here's a simple washcloth

388

00:16:47,590 --> 00:16:45,920

and you know up here without gravity you

389

00:16:51,749 --> 00:16:47,600

can squirt a lot of water into a

390

00:16:55,829 --> 00:16:53,509

and then of course without gravity when

391

00:16:57,509 --> 00:16:55,839

you got to squeeze the washcloth it's

392

00:17:18,789 --> 00:16:57,519

basically well we'll see what's going to

393

00:17:23,909 --> 00:17:20,549

station this is houston acr it sounds

394

00:17:26,949 --> 00:17:25,510

yeah and if you shake your obviously the

395

00:17:28,789 --> 00:17:26,959

water is not going anywhere if you

396

00:17:30,070 --> 00:17:28,799

squeeze your hand but if you uh shake

397

00:17:38,950 --> 00:17:30,080

your hand obviously the water will

398

00:17:44,230 --> 00:17:41,430

hi i'm ctc catherine lowry and i have a

399

00:17:46,789 --> 00:17:44,240

question from lincoln k-8 choice school

400

00:17:54,870 --> 00:17:46,799

what happens when you run low on food

401

00:17:58,630 --> 00:17:56,150

okay that was a good question yeah if

402

00:18:01,350 --> 00:17:58,640

you obviously if you low run you run low

403

00:18:04,150 --> 00:18:01,360

on food well obviously you got to start

404

00:18:05,830 --> 00:18:04,160

eating a little bit less but we have a

405

00:18:07,350 --> 00:18:05,840

series of cargo ships that come up here

406

00:18:09,669 --> 00:18:07,360

on a regular basis we have the russian

407

00:18:11,350 --> 00:18:09,679

cargo ship we have a couple of

408

00:18:13,270 --> 00:18:11,360

commercial cargo ships that come up here

409

00:18:15,909 --> 00:18:13,280

in fact we just got one it's parked

410

00:18:17,909 --> 00:18:15,919

behind us nader uh what about three or

411

00:18:20,070 --> 00:18:17,919

four days ago it came up and we docked

412

00:18:22,070 --> 00:18:20,080

and it brought us a lots of food and

413

00:18:23,350 --> 00:18:22,080

lots of science equipment

414

00:18:25,350 --> 00:18:23,360

but you know the folks on the ground

415

00:18:27,350 --> 00:18:25,360

think far far ahead and they make sure

416

00:18:29,830 --> 00:18:27,360

that we have enough food for many many

417

00:18:31,750 --> 00:18:29,840

months if not years so it's really

418

00:18:33,590 --> 00:18:31,760

unlikely that a crew is going to run low

419

00:18:36,549 --> 00:18:33,600

on food you may run out of your favorite

420

00:18:47,510 --> 00:18:36,559

food once in a while but we sell them

421

00:18:50,710 --> 00:18:49,350

sir i'm ctc noah black and i have a

422

00:18:53,029 --> 00:18:50,720

question coming from

423

00:18:54,549 --> 00:18:53,039

lincoln k school can you see other

424

00:18:55,990 --> 00:18:54,559

planets from the space station do they

425

00:19:01,909 --> 00:18:56,000

look any different when you're in space

426

00:19:06,390 --> 00:19:04,150

yes i mean you can see like venus and

427

00:19:08,789 --> 00:19:06,400

saturn and the same thing as you can see

428

00:19:10,310 --> 00:19:08,799

in the earth sky we see the same thing

429

00:19:11,350 --> 00:19:10,320

it might look just a little bit clearer

430

00:19:13,350 --> 00:19:11,360

because we're not going through the

431

00:19:15,430 --> 00:19:13,360

atmosphere but they're pretty much the

432

00:19:19,830 --> 00:19:15,440

same size and that kind of same relative

433

00:19:19,840 --> 00:19:24,390

thank you sir

434

00:19:27,590 --> 00:19:25,990

rick and steve we thank you very much

435

00:19:32,390 --> 00:19:27,600

for giving us this opportunity to speak

436

00:19:32,400 --> 00:19:41,430

we thank you very much