



1  
00:00:07,590 --> 00:00:02,629  
station this is houston on space ground

2  
00:00:12,230 --> 00:00:10,070  
we are ready for the event

3  
00:00:14,470 --> 00:00:12,240  
tech museum this is mission control in

4  
00:00:17,029 --> 00:00:14,480  
houston please call station for a voice

5  
00:00:19,349 --> 00:00:17,039  
check

6  
00:00:23,750 --> 00:00:19,359  
station this is tech museum how do you

7  
00:00:26,550 --> 00:00:25,269  
we've got we've got you loud and clear

8  
00:00:39,270 --> 00:00:26,560  
welcome aboard the international space

9  
00:00:44,069 --> 00:00:41,430  
good morning commander dan and flight

10  
00:00:46,310 --> 00:00:44,079  
engineer dawn we are proud to be here

11  
00:00:47,430 --> 00:00:46,320  
from the tech museum san jose with some

12  
00:00:50,150 --> 00:00:47,440  
special

13  
00:00:52,069 --> 00:00:50,160

guests our students from fifth grade

14

00:00:53,750 --> 00:00:52,079

washington elementary school also

15

00:00:58,310 --> 00:00:53,760

located down the street from the tech

16

00:01:01,510 --> 00:00:59,910

well it's fantastic it's great to be

17

00:01:06,390 --> 00:01:01,520

with you today and we're looking forward

18

00:01:06,400 --> 00:01:10,789

all right we're ready to begin

19

00:01:16,870 --> 00:01:14,469

hi my name is esther and my question is

20

00:01:21,350 --> 00:01:16,880

when was the international space station

21

00:01:23,990 --> 00:01:22,230

well the first piece of the

22

00:01:27,190 --> 00:01:24,000

international space station was launched

23

00:01:29,590 --> 00:01:27,200

in november of 1998

24

00:01:31,350 --> 00:01:29,600

so we've got over 13 years of run time

25

00:01:32,710 --> 00:01:31,360

we had the first crew come aboard space

26

00:01:35,749 --> 00:01:32,720

station permanent crew that's been

27

00:01:38,149 --> 00:01:35,759

living here like we do right now in late

28

00:01:44,870 --> 00:01:38,159

of 2000 towards the end of the year in

29

00:01:48,950 --> 00:01:47,030

hello my name is annette my question is

30

00:01:54,710 --> 00:01:48,960

what is the one thing you miss the most

31

00:01:58,230 --> 00:01:55,830

well

32

00:02:00,630 --> 00:01:58,240

my family is what i miss the most from

33

00:02:03,510 --> 00:02:00,640

earth when i'm on the space station but

34

00:02:05,030 --> 00:02:03,520

my family is not a thing in terms of

35

00:02:09,589 --> 00:02:05,040

earthly

36

00:02:12,229 --> 00:02:09,599

you

37

00:02:14,949 --> 00:02:12,239

at least i i don't really miss them

38

00:02:16,869 --> 00:02:14,959

because the holes that are left

39

00:02:18,630 --> 00:02:16,879

when you leave earth

40

00:02:20,790 --> 00:02:18,640

are filled with things that you can do

41

00:02:23,350 --> 00:02:20,800

on orbit that you can't do on earth like

42

00:02:25,270 --> 00:02:23,360

fly you could float up here you could

43

00:02:27,430 --> 00:02:25,280

see earth from the windows in a way that

44

00:02:28,869 --> 00:02:27,440

you can never see earth from earth so so

45

00:02:37,430 --> 00:02:28,879

these things fill the holes that are

46

00:02:40,630 --> 00:02:38,550

my name is

47

00:02:47,030 --> 00:02:40,640

my question is who inspired you become

48

00:02:50,869 --> 00:02:49,110

well i guess for me i had a lot of a lot

49

00:02:51,830 --> 00:02:50,879

of folks that inspired me ultimately to

50

00:02:53,750 --> 00:02:51,840

do this

51  
00:02:55,430 --> 00:02:53,760  
when i was your age though i have to

52  
00:02:56,949 --> 00:02:55,440  
admit i didn't i didn't at that point

53  
00:02:58,790 --> 00:02:56,959  
want to become an astronaut not because

54  
00:02:59,990 --> 00:02:58,800  
i didn't want to do it but because it

55  
00:03:01,430 --> 00:03:00,000  
never occurred to me that was something

56  
00:03:04,390 --> 00:03:01,440  
that i could do

57  
00:03:07,110 --> 00:03:04,400  
and it was probably many teachers it was

58  
00:03:08,949 --> 00:03:07,120  
my parents it was uh it was people that

59  
00:03:10,550 --> 00:03:08,959  
i work with throughout my career that

60  
00:03:12,470 --> 00:03:10,560  
that ultimately

61  
00:03:14,630 --> 00:03:12,480  
inspired me to do this but when i was

62  
00:03:16,790 --> 00:03:14,640  
your age the things that really got all

63  
00:03:19,430 --> 00:03:16,800

of us fired up as we were growing up was

64

00:03:21,350 --> 00:03:19,440

watching the apollo landings on the moon

65

00:03:24,390 --> 00:03:21,360

and from that point on i was always

66

00:03:25,830 --> 00:03:24,400

interested in space and had no idea that

67

00:03:31,430 --> 00:03:25,840

someday i would actually get a chance to

68

00:03:35,910 --> 00:03:33,990

hi my name is sophia my question is what

69

00:03:42,149 --> 00:03:35,920

is the greatest satisfaction you have

70

00:03:45,350 --> 00:03:43,110

i think

71

00:03:47,830 --> 00:03:45,360

some of the greatest satisfactions you

72

00:03:49,830 --> 00:03:47,840

have here is completing a good day's

73

00:03:52,470 --> 00:03:49,840

worth of work whether that day's worth

74

00:03:54,869 --> 00:03:52,480

of work is doing a science experiment or

75

00:03:58,149 --> 00:03:54,879

whether that day's worth of work is

76  
00:03:59,990 --> 00:03:58,159  
fixing something that's broken or doing

77  
00:04:02,550 --> 00:04:00,000  
maintenance uh

78  
00:04:05,110 --> 00:04:02,560  
it's all good and at the end of the day

79  
00:04:11,990 --> 00:04:05,120  
you could say wow what a day that has

80  
00:04:16,390 --> 00:04:14,869  
hi my name is erica my question is

81  
00:04:23,590 --> 00:04:16,400  
what was the worst thing that has

82  
00:04:28,790 --> 00:04:26,390  
ERICA that's a really tough question i i

83  
00:04:30,230 --> 00:04:28,800  
really have a hard time thinking of too

84  
00:04:31,510 --> 00:04:30,240  
many bad things that have ever happened

85  
00:04:32,870 --> 00:04:31,520  
up here i've had

86  
00:04:35,189 --> 00:04:32,880  
i've been able to fly a couple times on

87  
00:04:36,710 --> 00:04:35,199  
a space shuttle and uh helping to build

88  
00:04:38,469 --> 00:04:36,720

the space station and now i've been able

89

00:04:41,510 --> 00:04:38,479

to live here for uh for several months

90

00:04:43,510 --> 00:04:41,520

already and every day is wonderful i

91

00:04:45,030 --> 00:04:43,520

guess one of the hard things to take is

92

00:04:47,590 --> 00:04:45,040

when it comes time to actually leave

93

00:04:49,110 --> 00:04:47,600

because it is really a wonderful place

94

00:04:50,950 --> 00:04:49,120

to be and

95

00:04:52,950 --> 00:04:50,960

when it comes time to come home

96

00:04:55,830 --> 00:04:52,960

part of you just cannot wait to see your

97

00:04:57,270 --> 00:04:55,840

family part of you is also saying gosh

98

00:04:58,950 --> 00:04:57,280

i'm going to miss those views of earth

99

00:05:00,070 --> 00:04:58,960

i'm going to miss floating around on

100

00:05:05,909 --> 00:05:00,080

station i'm going to miss doing the

101  
00:05:10,790 --> 00:05:08,469  
my name is sergio my question is after

102  
00:05:13,350 --> 00:05:10,800  
being in space for many

103  
00:05:15,350 --> 00:05:13,360  
days or weeks you feel

104  
00:05:20,230 --> 00:05:15,360  
different physically as you return to

105  
00:05:24,310 --> 00:05:22,469  
when we return to earth

106  
00:05:27,909 --> 00:05:24,320  
at least for me it takes me a while to

107  
00:05:31,110 --> 00:05:27,919  
get my my earth legs back uh maybe a day

108  
00:05:33,029 --> 00:05:31,120  
or two and it's it's kind of like

109  
00:05:40,390 --> 00:05:33,039  
sailors getting their sea legs after

110  
00:05:45,189 --> 00:05:43,430  
hello my name is emma my question is

111  
00:05:53,749 --> 00:05:45,199  
do you have internet in space and can

112  
00:05:57,430 --> 00:05:55,990  
well han i don't own an ipad an ipad yet

113  
00:05:58,230 --> 00:05:57,440

and and i certainly don't have one up

114

00:05:59,430 --> 00:05:58,240

here

115

00:06:01,510 --> 00:05:59,440

at some point i think that would be a

116

00:06:03,749 --> 00:06:01,520

really good tool to have up here because

117

00:06:06,629 --> 00:06:03,759

it would be a lot easier to have a

118

00:06:08,390 --> 00:06:06,639

single tablet a single screen to take

119

00:06:10,390 --> 00:06:08,400

with you to do procedures and to do

120

00:06:12,870 --> 00:06:10,400

science experiments instead of having a

121

00:06:15,430 --> 00:06:12,880

big laptop with you we have ipods up

122

00:06:17,430 --> 00:06:15,440

here so uh so nasa and roscosmos and

123

00:06:19,749 --> 00:06:17,440

european space agency

124

00:06:22,070 --> 00:06:19,759

we've got ipods we can actually uplink

125

00:06:27,189 --> 00:06:22,080

all the music that we like to hear and

126

00:06:32,230 --> 00:06:28,550

hi

127

00:06:38,469 --> 00:06:32,240

my name is oscar and my question is what

128

00:06:44,230 --> 00:06:41,110

oh that the temperature in space station

129

00:06:47,110 --> 00:06:44,240

i happen to have a machine right here

130

00:06:50,950 --> 00:06:47,120

which measures the temperature

131

00:06:59,430 --> 00:06:50,960

and it shows it's 22 degrees right now

132

00:07:04,230 --> 00:07:02,710

hi my name is amanda and my question is

133

00:07:09,430 --> 00:07:04,240

how do you communicate with their

134

00:07:13,830 --> 00:07:11,830

well samantha we can use email

135

00:07:15,510 --> 00:07:13,840

we can talk to them

136

00:07:17,430 --> 00:07:15,520

almost like you would on a tel with a

137

00:07:19,430 --> 00:07:17,440

telephone or cell phone we do that

138

00:07:22,230 --> 00:07:19,440

actually with our laptop computers and

139

00:07:24,710 --> 00:07:22,240

so we can call home and talk to our

140

00:07:27,110 --> 00:07:24,720

families maybe a couple of times a day

141

00:07:29,670 --> 00:07:27,120

if we have if we have enough free time

142

00:07:31,749 --> 00:07:29,680

we can also talk to them and see them at

143

00:07:33,830 --> 00:07:31,759

the same time at least once once a week

144

00:07:36,150 --> 00:07:33,840

so we can actually get a a picture of

145

00:07:38,469 --> 00:07:36,160

them on a laptop screen and they can

146

00:07:40,230 --> 00:07:38,479

have a picture of us and and we can

147

00:07:41,510 --> 00:07:40,240

actually take them on a virtual tour fly

148

00:07:44,710 --> 00:07:41,520

through the space station and bring that

149

00:07:46,950 --> 00:07:44,720

laptop with us and uh but um but it's

150

00:07:52,869 --> 00:07:46,960

it's it's not like being home but it's

151  
00:08:00,790 --> 00:07:55,589  
my name is daniel and how on when does

152  
00:08:06,790 --> 00:08:04,150  
oh space station is made to never come

153  
00:08:08,629 --> 00:08:06,800  
back to earth at least in one piece

154  
00:08:12,550 --> 00:08:08,639  
what's going to happen is space station

155  
00:08:16,070 --> 00:08:12,560  
we can continue to maintain it occupy it

156  
00:08:18,150 --> 00:08:16,080  
repair it and refurbish it and when it's

157  
00:08:19,189 --> 00:08:18,160  
time to

158  
00:08:22,629 --> 00:08:19,199  
to

159  
00:08:24,950 --> 00:08:22,639  
program

160  
00:08:27,270 --> 00:08:24,960  
space station as a whole will be

161  
00:08:30,309 --> 00:08:27,280  
deorbited and it will burn up in the

162  
00:08:36,230 --> 00:08:30,319  
atmosphere somewhere probably over the

163  
00:08:41,909 --> 00:08:39,509

hello my name is francisco and

164

00:08:43,670 --> 00:08:41,919

my question is is going to a bathroom or

165

00:08:50,630 --> 00:08:43,680

taking a shower in space different than

166

00:08:55,990 --> 00:08:53,750

well it for one thing just to be clear

167

00:08:57,430 --> 00:08:56,000

we don't get to take a shower up here

168

00:09:00,230 --> 00:08:57,440

we actually

169

00:09:01,750 --> 00:09:00,240

make do with towels with soap and water

170

00:09:03,350 --> 00:09:01,760

and we

171

00:09:04,710 --> 00:09:03,360

stay up here for six months and that's

172

00:09:07,190 --> 00:09:04,720

okay it's a little bit like being on a

173

00:09:09,350 --> 00:09:07,200

camping trip for a long time

174

00:09:10,790 --> 00:09:09,360

it's really difficult there used to be a

175

00:09:12,630 --> 00:09:10,800

shower on an old space station that the

176

00:09:14,710 --> 00:09:12,640

united states had called skylab a long

177

00:09:16,310 --> 00:09:14,720

time ago and it's really hard to manage

178

00:09:18,230 --> 00:09:16,320

all that water those droplets of water

179

00:09:20,630 --> 00:09:18,240

which would just float around so for us

180

00:09:22,630 --> 00:09:20,640

it's very easy to do it that way

181

00:09:23,829 --> 00:09:22,640

and we have a toilet that works great

182

00:09:25,030 --> 00:09:23,839

and

183

00:09:28,470 --> 00:09:25,040

we use

184

00:09:31,190 --> 00:09:28,480

uh airflow to take the to help in the

185

00:09:33,030 --> 00:09:31,200

way that gravity helps on planet earth

186

00:09:39,269 --> 00:09:33,040

and uh and other than that it works

187

00:09:44,949 --> 00:09:42,470

hi my name is eduardos camilla and my

188

00:09:48,829 --> 00:09:44,959

question is what made you decide to

189

00:09:52,070 --> 00:09:50,710

astronaut oh

190

00:09:57,910 --> 00:09:52,080

i was

191

00:10:00,870 --> 00:09:57,920

years old when john glenn flew

192

00:10:02,470 --> 00:10:00,880

and when i saw john glenn fly

193

00:10:05,190 --> 00:10:02,480

i thought to myself that's something

194

00:10:06,870 --> 00:10:05,200

that i would like to do and then i sort

195

00:10:10,230 --> 00:10:06,880

of forgot about that

196

00:10:12,630 --> 00:10:10,240

until i graduated from college

197

00:10:14,069 --> 00:10:12,640

after having taken math and science and

198

00:10:16,790 --> 00:10:14,079

engineering

199

00:10:18,790 --> 00:10:16,800

uh these hard subjects that that allow

200

00:10:21,110 --> 00:10:18,800

you to go in a technology-rich

201  
00:10:24,870 --> 00:10:21,120  
environment like a spacecraft and

202  
00:10:27,670 --> 00:10:24,880  
operate and after after i had a math and

203  
00:10:30,230 --> 00:10:27,680  
science and engineering then i realized

204  
00:10:37,670 --> 00:10:30,240  
i'm qualified to be an astronaut and so

205  
00:10:43,190 --> 00:10:40,710  
hi my name is ivan and my question is

206  
00:10:45,269 --> 00:10:43,200  
when you were training was it hard did

207  
00:10:51,030 --> 00:10:45,279  
you ever feel like giving up because it

208  
00:11:00,470 --> 00:10:51,829  
i

209  
00:11:02,230 --> 00:11:00,480  
the pool

210  
00:11:04,630 --> 00:11:02,240  
and uh maybe you're having trouble with

211  
00:11:06,470 --> 00:11:04,640  
the tools or the spacesuit or you're

212  
00:11:09,590 --> 00:11:06,480  
learning how to fly um the airplanes

213  
00:11:11,110 --> 00:11:09,600

that we we train in t-38s and maybe you

214

00:11:12,790 --> 00:11:11,120

don't fly quite as well as you'd like to

215

00:11:14,710 --> 00:11:12,800

on a particular day

216

00:11:17,350 --> 00:11:14,720

i would not say that there was ever time

217

00:11:19,030 --> 00:11:17,360

i didn't i wanted to give up though all

218

00:11:21,350 --> 00:11:19,040

the things we do and there's such a wide

219

00:11:24,389 --> 00:11:21,360

variety of things they're so much fun

220

00:11:25,910 --> 00:11:24,399

that i just feel privileged and so lucky

221

00:11:31,269 --> 00:11:25,920

every day that i get to do the things i

222

00:11:34,870 --> 00:11:33,110

hello my name is brian and my question

223

00:11:38,790 --> 00:11:34,880

is how are you guys feel floating around

224

00:11:44,870 --> 00:11:42,470

oh floating around in space is wonderful

225

00:11:47,269 --> 00:11:44,880

dan is going to illustrate some things

226  
00:11:48,710 --> 00:11:47,279  
that are really hard to do when you're

227  
00:11:49,750 --> 00:11:48,720  
on earth

228  
00:11:55,509 --> 00:11:49,760  
and

229  
00:11:56,710 --> 00:11:55,519  
experience to be able to be truly

230  
00:11:58,230 --> 00:11:56,720  
weightless

231  
00:12:03,190 --> 00:11:58,240  
and

232  
00:12:11,750 --> 00:12:03,200  
of

233  
00:12:16,550 --> 00:12:13,750  
hi my name is antonia

234  
00:12:22,150 --> 00:12:16,560  
and my question is how do you exercise

235  
00:12:26,470 --> 00:12:23,509  
but that's really important for us to do

236  
00:12:28,629 --> 00:12:26,480  
exercise in space um when we're here

237  
00:12:30,310 --> 00:12:28,639  
in space we're essentially weightless

238  
00:12:31,910 --> 00:12:30,320

that is our the the

239

00:12:33,670 --> 00:12:31,920

the weight that we'd ordinarily feel if

240

00:12:35,910 --> 00:12:33,680

we're standing on planet earth is offset

241

00:12:37,430 --> 00:12:35,920

by the orbital motion that we and the

242

00:12:40,230 --> 00:12:37,440

space station and all the things around

243

00:12:42,150 --> 00:12:40,240

us have so that forces counterbalance so

244

00:12:44,150 --> 00:12:42,160

we're essentially free-floating and what

245

00:12:45,509 --> 00:12:44,160

that means is our muscles don't have to

246

00:12:47,030 --> 00:12:45,519

be strong our bones don't have to be

247

00:12:49,269 --> 00:12:47,040

strong our hearts don't have to pump a

248

00:12:51,910 --> 00:12:49,279

lot of blood to do the things we do up

249

00:12:54,069 --> 00:12:51,920

here which means if we just let things

250

00:12:56,550 --> 00:12:54,079

be our bodies would adapt to this and it

251  
00:12:57,910 --> 00:12:56,560  
would be very difficult to be strong

252  
00:13:00,550 --> 00:12:57,920  
enough to be healthy when you came back

253  
00:13:02,870 --> 00:13:00,560  
to earth so for us we exercise almost

254  
00:13:05,350 --> 00:13:02,880  
two and a half hours every day we do

255  
00:13:07,190 --> 00:13:05,360  
running on a treadmill or bicycling on a

256  
00:13:09,269 --> 00:13:07,200  
bicycle that's uh right here in this

257  
00:13:10,949 --> 00:13:09,279  
this laboratory with us and we also do

258  
00:13:13,590 --> 00:13:10,959  
weight training using a special machine

259  
00:13:16,310 --> 00:13:13,600  
that uses vacuum big

260  
00:13:17,590 --> 00:13:16,320  
big pneumatic or air powered cylinders

261  
00:13:19,430 --> 00:13:17,600  
that actually

262  
00:13:27,269 --> 00:13:19,440  
make it feel like lifting weights would

263  
00:13:35,910 --> 00:13:29,350

hi my name is juan and who or what

264

00:13:38,949 --> 00:13:37,110

uh

265

00:13:42,150 --> 00:13:38,959

for for me i think it was

266

00:13:45,590 --> 00:13:42,160

uh self-motivation after watching john

267

00:13:47,829 --> 00:13:45,600

glenn uh fly in space and then the other

268

00:13:50,150 --> 00:13:47,839

astronauts that followed john glenn

269

00:13:51,269 --> 00:13:50,160

watching the lunar program when i saw

270

00:13:53,750 --> 00:13:51,279

that

271

00:13:54,949 --> 00:13:53,760

it made me say wow this is a really cool

272

00:13:56,790 --> 00:13:54,959

thing to do

273

00:13:59,189 --> 00:13:56,800

and then i

274

00:14:01,189 --> 00:13:59,199

took math and science and engineering in

275

00:14:04,550 --> 00:14:01,199

college and

276

00:14:06,949 --> 00:14:04,560

did well in that and that's the key

277

00:14:09,189 --> 00:14:06,959

to doing everything cool in life

278

00:14:14,829 --> 00:14:09,199

and it was also the key that opened up

279

00:14:20,150 --> 00:14:17,750

astronaut hi my name is lisa and my

280

00:14:27,269 --> 00:14:20,160

question is when you were a kid was

281

00:14:32,230 --> 00:14:30,310

i think when i was a kid um i wanted to

282

00:14:33,750 --> 00:14:32,240

be an astronomer my the space related

283

00:14:36,629 --> 00:14:33,760

thing that i was interested in was

284

00:14:38,870 --> 00:14:36,639

astronomy and i wanted to be

285

00:14:40,949 --> 00:14:38,880

i also wanted to be

286

00:14:43,990 --> 00:14:40,959

a coast guard person who went out on

287

00:14:46,150 --> 00:14:44,000

small boats coast guard small cutters

288

00:14:48,230 --> 00:14:46,160

and rescued people on stormy nights and

289

00:14:49,670 --> 00:14:48,240

things like that and i was very lucky to

290

00:14:55,829 --> 00:14:49,680

get the chance to do both of those

291

00:15:00,870 --> 00:14:58,389

my name hello my name is samantha

292

00:15:06,310 --> 00:15:00,880

and my question is what is your mission

293

00:15:08,790 --> 00:15:07,670

our mission

294

00:15:11,590 --> 00:15:08,800

is to

295

00:15:14,629 --> 00:15:11,600

learn how to live and work in space and

296

00:15:17,829 --> 00:15:14,639

expand human knowledge on living and

297

00:15:20,389 --> 00:15:17,839

working in space and at the same time we

298

00:15:23,030 --> 00:15:20,399

do science experiments

299

00:15:30,230 --> 00:15:23,040

that can only be done up here

300

00:15:35,189 --> 00:15:33,030

hello my name is marilyn um

301  
00:15:41,110 --> 00:15:35,199  
my question is

302  
00:15:44,550 --> 00:15:43,430  
it's amazing to be in space it is

303  
00:15:47,590 --> 00:15:44,560  
wonderful

304  
00:15:49,189 --> 00:15:47,600  
we get to wake up in the morning and fly

305  
00:15:51,829 --> 00:15:49,199  
like superman

306  
00:15:54,710 --> 00:15:51,839  
down this you know 100 feet down the the

307  
00:15:56,470 --> 00:15:54,720  
space station make breakfast we get to

308  
00:15:58,389 --> 00:15:56,480  
float over to a window where we can

309  
00:16:01,829 --> 00:15:58,399  
actually

310  
00:16:03,990 --> 00:16:01,839  
a glass bubble where we can see the

311  
00:16:06,470 --> 00:16:04,000  
earth going by

312  
00:16:09,269 --> 00:16:06,480  
and we can see from horizon to horizon

313  
00:16:10,470 --> 00:16:09,279

360 degrees all around us thousands of

314

00:16:12,389 --> 00:16:10,480  
miles

315

00:16:14,470 --> 00:16:12,399  
we get the chance to do incredible

316

00:16:16,470 --> 00:16:14,480  
science experiments with really really

317

00:16:18,629 --> 00:16:16,480  
smart people all around the world that

318

00:16:21,590 --> 00:16:18,639  
are helping to uh to do the research we

319

00:16:23,350 --> 00:16:21,600  
do here we get to work on things and

320

00:16:25,670 --> 00:16:23,360  
and repair things when things don't

321

00:16:27,509 --> 00:16:25,680  
quite go as well as we'd like hardware

322

00:16:29,910 --> 00:16:27,519  
wise we get to do spacewalks sometimes

323

00:16:31,590 --> 00:16:29,920  
we get to do robotics

324

00:16:33,829 --> 00:16:31,600  
operations sometimes

325

00:16:36,710 --> 00:16:33,839  
in short every day is different every

326

00:16:42,710 --> 00:16:36,720

day is wonderful and it's one of the

327

00:16:50,389 --> 00:16:44,470

hi my name is jonathan do you get to

328

00:16:55,749 --> 00:16:52,949

we really don't cook our food we have

329

00:16:57,990 --> 00:16:55,759

food that's more like camp and food

330

00:17:00,550 --> 00:16:58,000

and so it comes in pouches and it comes

331

00:17:03,350 --> 00:17:00,560

in envelopes that are freeze dried and

332

00:17:05,909 --> 00:17:03,360

we either inject hot water into it or

333

00:17:07,750 --> 00:17:05,919

room temperature water or we put in a

334

00:17:09,189 --> 00:17:07,760

food warmer which looks a little bit

335

00:17:11,750 --> 00:17:09,199

like a suitcase

336

00:17:18,150 --> 00:17:11,760

and and just warm it up and then we rip

337

00:17:24,150 --> 00:17:20,949

hi my name is jesus

338

00:17:32,870 --> 00:17:24,160

my question is what does the spell

339

00:17:37,510 --> 00:17:34,950

i think the question was what does space

340

00:17:43,510 --> 00:17:37,520

smell like and uh correct me if i got

341

00:17:48,070 --> 00:17:45,669

that's correct what does

342

00:17:50,710 --> 00:17:48,870

yes

343

00:17:52,950 --> 00:17:50,720

okay that is correct okay good good

344

00:17:54,390 --> 00:17:52,960

that's an interesting question and

345

00:17:55,510 --> 00:17:54,400

and it's it's something that i think a

346

00:17:57,750 --> 00:17:55,520

lot of people that have flown here

347

00:17:59,590 --> 00:17:57,760

before have noticed and that is after

348

00:18:01,270 --> 00:17:59,600

you dock a space shuttle or soyuz

349

00:18:02,870 --> 00:18:01,280

spacecraft to space station after you go

350

00:18:05,110 --> 00:18:02,880

outside and do a spacewalk or somebody

351  
00:18:07,909 --> 00:18:05,120  
goes outside and comes back in

352  
00:18:09,190 --> 00:18:07,919  
and you equalize

353  
00:18:10,870 --> 00:18:09,200  
the the

354  
00:18:12,710 --> 00:18:10,880  
the pressure difference between outside

355  
00:18:14,950 --> 00:18:12,720  
which is nearly zero and inside which is

356  
00:18:17,110 --> 00:18:14,960  
like it is on planet earth you get a

357  
00:18:19,350 --> 00:18:17,120  
chance to smell something that's that's

358  
00:18:21,590 --> 00:18:19,360  
a little bit metallic smelling a little

359  
00:18:23,510 --> 00:18:21,600  
bit oily smelling maybe

360  
00:18:26,150 --> 00:18:23,520  
and um there's some theories on what

361  
00:18:28,950 --> 00:18:26,160  
that actually is and although we're

362  
00:18:30,390 --> 00:18:28,960  
flying in essentially the vacuum of

363  
00:18:32,310 --> 00:18:30,400

space where there's very very little

364

00:18:34,150 --> 00:18:32,320

matter up here there's still a little

365

00:18:36,310 --> 00:18:34,160

bit and some of it is charged and some

366

00:18:37,990 --> 00:18:36,320

of it actually causes potentially some

367

00:18:41,190 --> 00:18:38,000

reactions on the various materials that

368

00:18:44,310 --> 00:18:41,200

are outside so our theory is that the

369

00:18:46,070 --> 00:18:44,320

smell of space this uh this oily

370

00:18:48,150 --> 00:18:46,080

metallic sort of smell

371

00:18:49,590 --> 00:18:48,160

is probably associated with that but

372

00:18:51,590 --> 00:18:49,600

it's very distinctive and it's very

373

00:18:53,590 --> 00:18:51,600

repeatable and it doesn't matter whether

374

00:18:55,430 --> 00:18:53,600

you're in a shuttle doing a spacewalk or

375

00:19:01,510 --> 00:18:55,440

coming on a soyuz it's always pretty

376

00:19:07,270 --> 00:19:04,630

hi my name is eileen and my question is

377

00:19:12,789 --> 00:19:07,280

when you return to earth what is your

378

00:19:16,230 --> 00:19:14,710

when i return to earth

379

00:19:19,270 --> 00:19:16,240

we're going to have a

380

00:19:22,310 --> 00:19:19,280

a fairly extensive period a month or two

381

00:19:23,750 --> 00:19:22,320

of rehabilitation and and that's just

382

00:19:26,150 --> 00:19:23,760

getting your muscles and your

383

00:19:27,270 --> 00:19:26,160

cardiovascular system your heart pumping

384

00:19:29,590 --> 00:19:27,280

blood

385

00:19:31,350 --> 00:19:29,600

so it's used to being back on earth

386

00:19:33,750 --> 00:19:31,360

again so that's the first thing i'm

387

00:19:35,190 --> 00:19:33,760

going to do when i get back to earth

388

00:19:37,350 --> 00:19:35,200

and actually the first thing i'm going

389

00:19:47,830 --> 00:19:37,360

to do when i get back to houston is is

390

00:19:52,070 --> 00:19:49,669

thank you everybody for participating in

391

00:19:53,830 --> 00:19:52,080

this event i'd really like to thank

392

00:19:55,830 --> 00:19:53,840

commander dan burbank and flight

393

00:19:57,750 --> 00:19:55,840

engineer don pettit it's been an amazing

394

00:19:59,190 --> 00:19:57,760

experience for here at the tech museum

395

00:20:14,390 --> 00:19:59,200

in san jose

396

00:20:19,430 --> 00:20:16,950

station this is houston acr thank you

397

00:20:21,110 --> 00:20:19,440

that concludes the event

398

00:20:23,830 --> 00:20:21,120

and thank you everybody at the tech