



1  
00:00:07,909 --> 00:00:02,149  
station this is houston are you ready

2  
00:00:07,919 --> 00:00:11,270  
station we are ready

3  
00:00:14,870 --> 00:00:13,110  
european space agency this is mission

4  
00:00:17,029 --> 00:00:14,880  
control houston please call station for

5  
00:00:18,950 --> 00:00:17,039  
a voice check

6  
00:00:20,990 --> 00:00:18,960  
agency this is mission control houston

7  
00:00:28,900 --> 00:00:21,000  
please call station for

8  
00:00:28,910 --> 00:00:42,950  
[Music]

9  
00:00:47,830 --> 00:00:46,150  
zapio this is station i hear you uh okay

10  
00:01:10,710 --> 00:00:47,840  
there's a lot of echo but uh but i hear

11  
00:01:25,030 --> 00:01:11,850  
foreign

12  
00:01:31,730 --> 00:01:27,030  
be able to establish a connection with

13  
00:01:33,749 --> 00:01:31,740

you i imagine that you could in any case

14

00:01:35,109 --> 00:01:33,759

[Music]

15

00:01:39,270 --> 00:01:35,119

yes

16

00:01:43,830 --> 00:01:41,350

but as we france along i've taken many

17

00:01:46,069 --> 00:01:43,840

photographs

18

00:01:48,389 --> 00:01:46,079

i will try to take a few more and to

19

00:01:50,469 --> 00:01:48,399

center my photographing

20

00:01:53,030 --> 00:01:50,479

it's not as easy sometimes as it could

21

00:01:57,470 --> 00:01:53,040

be i'll try again to make even nicer

22

00:02:03,830 --> 00:02:01,030

[Music]

23

00:02:05,830 --> 00:02:03,840

well uh in your name i have uh set the

24

00:02:08,630 --> 00:02:05,840

first step uh first stone of a new

25

00:02:11,589 --> 00:02:08,640

school

26

00:02:13,990 --> 00:02:11,599

uh your message from the heavens

27

00:02:18,070 --> 00:02:14,000

is one that is

28

00:02:21,350 --> 00:02:20,470

and uh we are happy to be able to find

29

00:02:23,750 --> 00:02:21,360

you

30

00:02:27,270 --> 00:02:23,760

connected to every part of the world

31

00:02:28,949 --> 00:02:27,280

well that will be great pleasure

32

00:02:29,750 --> 00:02:28,959

for all of the french schools i hope

33

00:02:32,790 --> 00:02:29,760

that

34

00:02:34,550 --> 00:02:32,800

this adventure technological adventure

35

00:02:35,750 --> 00:02:34,560

is not from an egotistical standpoint

36

00:02:37,750 --> 00:02:35,760

but i've done it a little bit for

37

00:02:40,070 --> 00:02:37,760

everybody to help

38

00:02:42,710 --> 00:02:40,080

move progress along on behalf of france

39

00:02:45,110 --> 00:02:42,720

i you can see that i have my flag here

40

00:02:46,949 --> 00:02:45,120

last time i was at the isa palace i

41

00:02:48,390 --> 00:02:46,959

brought it to you and i will bring this

42

00:02:50,710 --> 00:02:48,400

as well

43

00:02:53,430 --> 00:02:50,720

and this adventure also is to help the

44

00:02:56,390 --> 00:02:53,440

young dream and to search for

45

00:02:59,430 --> 00:02:56,400

scientific and technical locations

46

00:02:59,440 --> 00:03:05,030

well for the uh

47

00:03:09,430 --> 00:03:06,630

we are here at the planetarium with an

48

00:03:11,670 --> 00:03:09,440

astrophysicist who is next to me

49

00:03:12,470 --> 00:03:11,680

she's a lady and we have with us the

50

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

young

51  
00:03:15,750 --> 00:03:14,239  
the youth i know that they're full of

52  
00:03:18,070 --> 00:03:15,760  
questions

53  
00:03:20,309 --> 00:03:18,080  
because you're bringing to them

54  
00:03:23,110 --> 00:03:20,319  
knowledge

55  
00:03:24,869 --> 00:03:23,120  
to all of humanity which you have

56  
00:03:26,309 --> 00:03:24,879  
imparted to us ever since you've been up

57  
00:03:29,110 --> 00:03:26,319  
there

58  
00:03:29,830 --> 00:03:29,120  
and many of your compatriots

59  
00:03:32,070 --> 00:03:29,840  
have

60  
00:03:39,110 --> 00:03:32,080  
eagerly kept up with you and also for

61  
00:03:42,070 --> 00:03:40,550  
and so you uh

62  
00:03:43,670 --> 00:03:42,080  
you can see very clearly from up there

63  
00:03:45,110 --> 00:03:43,680

where you are the planet must be

64

00:03:46,390 --> 00:03:45,120

protected

65

00:03:48,550 --> 00:03:46,400

there are many questions that have been

66

00:03:49,990 --> 00:03:48,560

prepared to present to you i have one

67

00:03:54,550 --> 00:03:50,000

more comment i'd like to make and i

68

00:04:00,149 --> 00:03:58,390

uh you'll be meeting the next president

69

00:04:02,630 --> 00:04:00,159

and i look forward to meeting you thank

70

00:04:04,149 --> 00:04:02,640

you very much

71

00:04:10,630 --> 00:04:04,159

thank you mr president

72

00:04:11,920 --> 00:04:10,640

thank you it's an honor

73

00:04:20,740 --> 00:04:11,930

hello thomas

74

00:04:27,030 --> 00:04:23,130

[Applause]

75

00:04:30,790 --> 00:04:28,790

how do you feel a sense of vertigo up

76

00:04:32,469 --> 00:04:30,800

there

77

00:04:34,230 --> 00:04:32,479

that fellowship told you i'm sorry i

78

00:04:47,909 --> 00:04:34,240

didn't understand the question could you

79

00:04:51,430 --> 00:04:49,350

did you feel the sense of vertigo up

80

00:04:54,150 --> 00:04:51,440

there it's a very good question listen

81

00:04:56,629 --> 00:04:54,160

no i didn't feel vertigo because

82

00:04:57,990 --> 00:04:56,639

my brain was accustomed to it

83

00:04:59,830 --> 00:04:58,000

i was accustomed to the idea that i

84

00:05:01,670 --> 00:04:59,840

wasn't going to fall you see i can pitch

85

00:05:03,029 --> 00:05:01,680

myself up to the ceiling and i

86

00:05:04,710 --> 00:05:03,039

understood that it would work well that

87

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

there would be no falling and so that's

88

00:05:08,550 --> 00:05:06,800

what happened outside of the space

89

00:05:09,909 --> 00:05:08,560

center

90

00:05:12,710 --> 00:05:09,919

other things that i am afraid of and

91

00:05:16,150 --> 00:05:12,720

that's losing my tools not to be able to

92

00:05:17,990 --> 00:05:16,160

uh be able to fulfill the stage of

93

00:05:20,150 --> 00:05:18,000

the tasks that are given to me and so i

94

00:05:21,590 --> 00:05:20,160

need to concentrate you see i can see my

95

00:05:25,029 --> 00:05:21,600

feet beneath me

96

00:05:26,469 --> 00:05:25,039

450 kilometers of emptiness of space it

97

00:05:32,060 --> 00:05:26,479

was such a super feeling i took

98

00:05:32,070 --> 00:05:35,189

[Music]

99

00:05:35,199 --> 00:05:47,350

here's tomas would like to would

100

00:05:47,360 --> 00:05:59,749

is

101  
00:06:03,430 --> 00:06:01,270  
i'm sorry once again i could not

102  
00:06:04,629 --> 00:06:03,440  
understand the sound is very

103  
00:06:11,830 --> 00:06:04,639  
poor could you repeat your question

104  
00:06:16,230 --> 00:06:12,630  
hello thomas

105  
00:06:17,909 --> 00:06:16,240  
[Music]

106  
00:06:22,200 --> 00:06:17,919  
haley from the class to represent our

107  
00:06:22,210 --> 00:06:33,110  
[Music]

108  
00:06:37,830 --> 00:06:35,430  
that you can eat that you can grow yes

109  
00:06:39,350 --> 00:06:37,840  
we grow plants to see how they will

110  
00:06:42,150 --> 00:06:39,360  
function in space

111  
00:06:46,390 --> 00:06:44,150  
educate the scientific people on earth

112  
00:06:48,870 --> 00:06:46,400  
scientists on earth but you know we eat

113  
00:06:50,870 --> 00:06:48,880

whatever we can we don't have a lot of

114

00:06:53,510 --> 00:06:50,880

fresh food most of what we have is in

115

00:06:55,990 --> 00:06:53,520

cans so every friday we

116

00:06:57,909 --> 00:06:56,000

harvest our salad we get together and we

117

00:06:59,350 --> 00:06:57,919

prepare a dinner all together with our

118

00:07:01,430 --> 00:06:59,360

international

119

00:07:03,749 --> 00:07:01,440

team or initial

120

00:07:05,670 --> 00:07:03,759

every friday we prefer salad

121

00:07:08,309 --> 00:07:05,680

and then of course we eat the rest of

122

00:07:10,150 --> 00:07:08,319

the uh food that we have on hand

123

00:07:12,150 --> 00:07:10,160

it was sort of like a feast out of it

124

00:07:14,070 --> 00:07:12,160

because salad is sort of

125

00:07:19,909 --> 00:07:14,080

not an ordinary thing but we do get to

126

00:07:25,430 --> 00:07:22,550

hello this is janet thomas we'll pose a

127

00:07:25,440 --> 00:07:30,550

um

128

00:07:35,029 --> 00:07:31,990

have you been able to get you can see

129

00:07:37,270 --> 00:07:35,039

the land but can you also see the stars

130

00:07:38,950 --> 00:07:37,280

yes we observe the stars we observe the

131

00:07:41,270 --> 00:07:38,960

stars but you know the space standard

132

00:07:43,029 --> 00:07:41,280

station has a lot of windows which look

133

00:07:44,950 --> 00:07:43,039

down toward earth or not many that look

134

00:07:45,830 --> 00:07:44,960

upwards toward the stars we have

135

00:07:47,909 --> 00:07:45,840

instruments for that we have

136

00:07:49,110 --> 00:07:47,919

spectrometers which look toward the

137

00:07:53,189 --> 00:07:49,120

stars but

138

00:07:55,830 --> 00:07:53,199

we look to the slant a little bit uh

139

00:07:57,749 --> 00:07:55,840

we at night however we do observe the

140

00:08:00,230 --> 00:07:57,759

stars and we can see them going by very

141

00:08:02,390 --> 00:08:00,240

quickly we see very luminous very

142

00:08:04,710 --> 00:08:02,400

brilliant points that are the stars

143

00:08:06,869 --> 00:08:04,720

there's no pollution that keeps us from

144

00:08:08,230 --> 00:08:06,879

seeing the stars really brightly

145

00:08:09,749 --> 00:08:08,240

and so we're able to read the

146

00:08:10,869 --> 00:08:09,759

constellations but it's not like on

147

00:08:12,550 --> 00:08:10,879

earth we don't have a lot of time

148

00:08:13,909 --> 00:08:12,560

because it goes by very quickly

149

00:08:15,749 --> 00:08:13,919

evidently it's one of the most beautiful

150

00:08:17,510 --> 00:08:15,759

things that you can say

151  
00:08:18,390 --> 00:08:17,520  
to imagine you can imagine how the stars

152  
00:08:20,390 --> 00:08:18,400  
are

153  
00:08:22,070 --> 00:08:20,400  
suspended on the

154  
00:08:23,670 --> 00:08:22,080  
firmament of space

155  
00:08:25,350 --> 00:08:23,680  
but of course the earth is much more

156  
00:08:27,430 --> 00:08:25,360  
beautiful because it's much more varied

157  
00:08:29,510 --> 00:08:27,440  
there are many more colors more forms

158  
00:08:30,869 --> 00:08:29,520  
the blue of the oceans the mountains etc

159  
00:08:32,230 --> 00:08:30,879  
and so if i had to choose i'd rather

160  
00:08:39,450 --> 00:08:32,240  
look at the land

161  
00:08:56,150 --> 00:08:47,880  
[Music]

162  
00:08:59,590 --> 00:08:57,509  
i'm sorry i didn't understand or didn't

163  
00:09:00,710 --> 00:08:59,600

hear the question rather

164

00:09:02,230 --> 00:09:00,720

it makes you feel

165

00:09:06,710 --> 00:09:02,240

there was a question about stars but i

166

00:09:09,430 --> 00:09:08,230

question about the stars let me repeat

167

00:09:11,910 --> 00:09:09,440

it

168

00:09:14,230 --> 00:09:11,920

the question was can you see the stars

169

00:09:16,230 --> 00:09:14,240

better from the space station can you

170

00:09:18,949 --> 00:09:16,240

see the colors of the stars better from

171

00:09:21,509 --> 00:09:18,959

the space station

172

00:09:23,910 --> 00:09:21,519

the colors yes we can see

173

00:09:25,190 --> 00:09:23,920

many more colors in the stars we see the

174

00:09:27,430 --> 00:09:25,200

colors in the stars we have new

175

00:09:28,630 --> 00:09:27,440

instances of blue and red

176  
00:09:30,470 --> 00:09:28,640  
and so

177  
00:09:32,070 --> 00:09:30,480  
you have to become accustomed to you

178  
00:09:33,750 --> 00:09:32,080  
have to accustom your vision to being

179  
00:09:35,590 --> 00:09:33,760  
able to when you're especially when

180  
00:09:38,150 --> 00:09:35,600  
you're the cupola to be able to discern

181  
00:09:39,910 --> 00:09:38,160  
the different stars colors and so then

182  
00:09:42,230 --> 00:09:39,920  
we begin to distinguish the differences

183  
00:09:43,670 --> 00:09:42,240  
among the statues the stars the biggest

184  
00:09:45,670 --> 00:09:43,680  
the smallest

185  
00:09:47,590 --> 00:09:45,680  
the colors i can imagine that through

186  
00:09:49,110 --> 00:09:47,600  
the spectrometer you can see even better

187  
00:09:51,829 --> 00:09:49,120  
but in any case we can see it much more

188  
00:09:53,190 --> 00:09:51,839

clearly than you can on land unless of

189

00:09:57,670 --> 00:09:53,200

course you're in a

190

00:10:01,829 --> 00:09:59,030

i would like to present you one of the

191

00:10:14,790 --> 00:10:01,839

children who wants to ask you a question

192

00:10:14,800 --> 00:10:17,990

is

193

00:10:21,670 --> 00:10:19,110

are we

194

00:10:23,430 --> 00:10:21,680

hit by debris here in space listen the

195

00:10:25,190 --> 00:10:23,440

station is very well protected and

196

00:10:27,430 --> 00:10:25,200

armored against debris against small

197

00:10:29,750 --> 00:10:27,440

debris against major debris we have to

198

00:10:31,509 --> 00:10:29,760

maneuver to move the station to avoid

199

00:10:34,710 --> 00:10:31,519

the larger debris

200

00:10:37,509 --> 00:10:34,720

we are very seldom touched by debris

201  
00:10:39,990 --> 00:10:37,519  
happily we can hear them go by

202  
00:10:41,590 --> 00:10:40,000  
but we can see them from the uh window

203  
00:10:42,550 --> 00:10:41,600  
of the cupola which helps through which

204  
00:10:44,790 --> 00:10:42,560  
we

205  
00:10:46,550 --> 00:10:44,800  
observe the earth it'll make a small

206  
00:10:47,990 --> 00:10:46,560  
impact like for example when you have a

207  
00:10:49,829 --> 00:10:48,000  
little bit of gravel hitting the

208  
00:10:51,350 --> 00:10:49,839  
windshield of the car

209  
00:10:53,509 --> 00:10:51,360  
but happily

210  
00:10:55,590 --> 00:10:53,519  
we have very resistant windows it does

211  
00:10:57,030 --> 00:10:55,600  
make you think and worry a little bit

212  
00:10:57,910 --> 00:10:57,040  
it's a problem that we have to fight

213  
00:10:59,269 --> 00:10:57,920

against

214

00:11:01,110 --> 00:10:59,279

and the space center

215

00:11:06,069 --> 00:11:01,120

agency has projects to clean up the

216

00:11:09,829 --> 00:11:07,829

to clean the space

217

00:11:11,829 --> 00:11:09,839

of space debris

218

00:11:17,190 --> 00:11:11,839

another question

219

00:11:22,550 --> 00:11:19,030

how is your experience in space

220

00:11:26,069 --> 00:11:25,110

well it's easier in space it's normal

221

00:11:29,590 --> 00:11:26,079

because

222

00:11:31,430 --> 00:11:29,600

when we train it's very we make it very

223

00:11:32,949 --> 00:11:31,440

difficult so that for the day when we do

224

00:11:34,790 --> 00:11:32,959

it for real it's going to be easier than

225

00:11:36,069 --> 00:11:34,800

it was in training that's why difference

226

00:11:37,350 --> 00:11:36,079

and other differences that in the

227

00:11:42,150 --> 00:11:37,360

swimming pool

228

00:11:43,509 --> 00:11:42,160

deep but you always have a floor beneath

229

00:11:45,350 --> 00:11:43,519

your feet and it's not a different

230

00:11:46,790 --> 00:11:45,360

feeling whereas when you're out here you

231

00:11:48,710 --> 00:11:46,800

don't have a floor there's difference

232

00:11:50,710 --> 00:11:48,720

between day and night which we don't

233

00:11:53,590 --> 00:11:50,720

simulate in the swimming pool when we

234

00:11:55,110 --> 00:11:53,600

train in the diving suit

235

00:11:56,790 --> 00:11:55,120

but of course when you're out here it's

236

00:11:58,470 --> 00:11:56,800

like somebody turns the light off you

237

00:12:00,790 --> 00:11:58,480

can even get lost because it's

238

00:12:02,790 --> 00:12:00,800

complicated it's a real labyrinth

239

00:12:04,069 --> 00:12:02,800

it's a little bit strange out here

240

00:12:06,310 --> 00:12:04,079

you have to be a little bit more careful

241

00:12:07,829 --> 00:12:06,320

because evidently in the pool we have

242

00:12:09,910 --> 00:12:07,839

divers who are out there to help us and

243

00:12:11,430 --> 00:12:09,920

safety is much more easily afforded

244

00:12:12,949 --> 00:12:11,440

whereas when you're outside of the space

245

00:12:14,389 --> 00:12:12,959

station nobody can come out to help you

246

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

so you really have to pay attention to

247

00:12:18,550 --> 00:12:16,399

what you do because your life is more at

248

00:12:19,670 --> 00:12:18,560

risk out here in space than when you're

249

00:12:30,629 --> 00:12:19,680

training

250

00:12:34,150 --> 00:12:32,389

what you're doing up there stimulates

251  
00:12:36,069 --> 00:12:34,160  
people's dreams but you have to study

252  
00:12:37,750 --> 00:12:36,079  
well to do it

253  
00:12:41,670 --> 00:12:37,760  
here's a young boy who has a question

254  
00:12:45,030 --> 00:12:43,269  
i think it's

255  
00:12:46,949 --> 00:12:45,040  
everything is done

256  
00:12:49,590 --> 00:12:46,959  
step by step basis

257  
00:12:51,350 --> 00:12:49,600  
you cannot be discouraged by a path that

258  
00:12:53,190 --> 00:12:51,360  
seems very long you have to do your best

259  
00:12:55,430 --> 00:12:53,200  
at school every day you have to do your

260  
00:12:56,710 --> 00:12:55,440  
best in sports you have to do your best

261  
00:12:59,430 --> 00:12:56,720  
to speak foreign languages there are

262  
00:13:00,949 --> 00:12:59,440  
many things that are learned also

263  
00:13:02,550 --> 00:13:00,959

outside of school

264

00:13:04,389 --> 00:13:02,560

for example to become an astronaut my

265

00:13:06,790 --> 00:13:04,399

experience in sports

266

00:13:08,310 --> 00:13:06,800

in music my travels all of this is uh in

267

00:13:10,150 --> 00:13:08,320

the end has helped me quite a bit but i

268

00:13:12,389 --> 00:13:10,160

think you have to do all the things one

269

00:13:14,150 --> 00:13:12,399

by one you must not say to yourself well

270

00:13:15,590 --> 00:13:14,160

there's 10 years ahead it's going to be

271

00:13:17,190 --> 00:13:15,600

very difficult i'll never get to the end

272

00:13:19,030 --> 00:13:17,200

of it you have to tell yourself what do

273

00:13:20,949 --> 00:13:19,040

i do this year that as well what do i do

274

00:13:22,710 --> 00:13:20,959

next year

275

00:13:24,470 --> 00:13:22,720

it's a construction it's an edifice that

276

00:13:26,550 --> 00:13:24,480

you build it's like a lego construction

277

00:13:29,670 --> 00:13:26,560

brick by brick you mustn't look at the

278

00:13:30,949 --> 00:13:29,680

end which shows you the constructed lego

279

00:13:33,269 --> 00:13:30,959

structure you have to begin from the

280

00:13:35,030 --> 00:13:33,279

beginning and then take it stage by

281

00:13:37,110 --> 00:13:35,040

stage this the way i did

282

00:13:40,710 --> 00:13:37,120

i think it works well is what i advise

283

00:13:42,550 --> 00:13:40,720

to the youngest and then everybody

284

00:13:45,110 --> 00:13:42,560

all kinds of specialties are needed in

285

00:13:47,430 --> 00:13:45,120

space there's not just astrophysicists

286

00:13:48,470 --> 00:13:47,440

and astronauts but there are many other

287

00:13:49,670 --> 00:13:48,480

paths

288

00:13:57,030 --> 00:13:49,680

professions that are interesting that

289

00:13:57,040 --> 00:14:00,790

here's a question for you

290

00:14:00,800 --> 00:14:05,120

from another student

291

00:14:35,350 --> 00:14:12,830

[Music]

292

00:14:40,389 --> 00:14:36,710

are we attached when we get out of the

293

00:14:46,480 --> 00:14:41,990

when you leave the space station are you

294

00:14:53,430 --> 00:14:49,509

[Music]

295

00:14:56,230 --> 00:14:55,350

are you uh

296

00:14:57,430 --> 00:14:56,240

yes

297

00:14:59,350 --> 00:14:57,440

when you leave

298

00:15:00,870 --> 00:14:59,360

you are attached because

299

00:15:02,629 --> 00:15:00,880

you want to be sure that you don't drift

300

00:15:05,269 --> 00:15:02,639

away into space

301  
00:15:07,030 --> 00:15:05,279  
because i don't know if you've seen it

302  
00:15:08,310 --> 00:15:07,040  
you want to avoid that evidently we're

303  
00:15:10,550 --> 00:15:08,320  
always attached

304  
00:15:13,590 --> 00:15:10,560  
we have like a sort of a spool that lets

305  
00:15:15,430 --> 00:15:13,600  
you out that's attached to the space uh

306  
00:15:16,710 --> 00:15:15,440  
exit port

307  
00:15:18,710 --> 00:15:16,720  
and of course when we worked a certain

308  
00:15:21,030 --> 00:15:18,720  
space you have to be attached

309  
00:15:22,230 --> 00:15:21,040  
uh with uh some sort of device the way

310  
00:15:23,910 --> 00:15:22,240  
we might do when we're climbing a

311  
00:15:25,350 --> 00:15:23,920  
mountain

312  
00:15:27,269 --> 00:15:25,360  
we attach ourselves sometimes by the

313  
00:15:29,030 --> 00:15:27,279

feet we put the feet on the platform

314

00:15:30,550 --> 00:15:29,040

which allows you to work with two hands

315

00:15:32,150 --> 00:15:30,560

there are many ways to attach yourself

316

00:15:34,470 --> 00:15:32,160

with the rulers you must always be

317

00:15:35,749 --> 00:15:34,480

attached to the station at all times if

318

00:15:38,230 --> 00:15:35,759

you ever

319

00:15:40,949 --> 00:15:38,240

were to be separated from the station

320

00:15:43,509 --> 00:15:40,959

which has never happened but we do have

321

00:15:45,110 --> 00:15:43,519

in our backpack a little

322

00:15:48,069 --> 00:15:45,120

sort of a scooter space scooter a little

323

00:15:49,829 --> 00:15:48,079

jet pack which we deploy and that with a

324

00:15:51,910 --> 00:15:49,839

joystick you can control it to pilot

325

00:15:54,550 --> 00:15:51,920

yourself to return to the station

326

00:15:56,629 --> 00:15:54,560

but we only have enough fuel for one try

327

00:16:20,790 --> 00:15:56,639

so the rule really is to never get

328

00:16:23,350 --> 00:16:21,910

you know we do a lot of scientific

329

00:16:25,269 --> 00:16:23,360

research with

330

00:16:27,189 --> 00:16:25,279

the hands of we are the hands of the

331

00:16:29,749 --> 00:16:27,199

researchers who are on the earth

332

00:16:31,269 --> 00:16:29,759

and we then provo produce results for

333

00:16:33,430 --> 00:16:31,279

them to help them do their science but

334

00:16:35,910 --> 00:16:33,440

we're also explorers on the other side i

335

00:16:37,590 --> 00:16:35,920

see it in the profile of my colleagues

336

00:16:39,509 --> 00:16:37,600

we all of us would like to go none of us

337

00:16:41,430 --> 00:16:39,519

has ever been to the moon certainly the

338

00:16:42,790 --> 00:16:41,440

moon will be a stage to learn to how to

339

00:16:44,389 --> 00:16:42,800

get to mars

340

00:16:46,629 --> 00:16:44,399

and then what we all have in our heads

341

00:16:48,069 --> 00:16:46,639

is to go to mars

342

00:16:49,749 --> 00:16:48,079

there will be many difficulties to

343

00:16:51,749 --> 00:16:49,759

surmount certainly we work all of the

344

00:16:53,030 --> 00:16:51,759

agencies are working on resolving these

345

00:16:54,310 --> 00:16:53,040

problems

346

00:16:56,069 --> 00:16:54,320

and of course

347

00:16:58,550 --> 00:16:56,079

all the people who are still on earth to

348

00:17:00,710 --> 00:16:58,560

assist us and this adventures that we

349

00:17:02,470 --> 00:17:00,720

learned a great deal about life

350

00:17:04,390 --> 00:17:02,480

i hope it'll be part of it but if it's

351

00:17:06,309 --> 00:17:04,400

not if it's not me then it's not a

352

00:17:08,870 --> 00:17:06,319

problem it'll be maybe one of you maybe

353

00:17:11,669 --> 00:17:08,880

the person who goes to mars

354

00:17:13,510 --> 00:17:11,679

is perhaps uh among you in school maybe

355

00:17:15,270 --> 00:17:13,520

of your age it's not important what

356

00:17:17,189 --> 00:17:15,280

counts is that we do go

357

00:17:18,789 --> 00:17:17,199

integrate international adventure that

358

00:17:20,710 --> 00:17:18,799

france is part of it

359

00:17:22,309 --> 00:17:20,720

and we have these questions that come to

360

00:17:23,750 --> 00:17:22,319

our minds where are we coming from where

361

00:17:25,669 --> 00:17:23,760

are we going how does

362

00:17:26,710 --> 00:17:25,679

life created how does it disappear these

363

00:17:38,630 --> 00:17:26,720

are the questions that we'd like to

364

00:17:43,350 --> 00:17:40,549

do you feel differently when you feel

365

00:17:45,430 --> 00:17:43,360

weight the first time

366

00:17:47,990 --> 00:17:45,440

that's a good question listen the first

367

00:17:50,470 --> 00:17:48,000

time that i was

368

00:17:52,390 --> 00:17:50,480

in weight it was in the soyuz you know

369

00:17:55,110 --> 00:17:52,400

our vehicle that brought us to the space

370

00:17:57,430 --> 00:17:55,120

station which is very small so we didn't

371

00:18:00,470 --> 00:17:57,440

we were floating but we didn't really

372

00:18:02,549 --> 00:18:00,480

get the feeling that

373

00:18:05,029 --> 00:18:02,559

when i was floating in a larger volume

374

00:18:07,590 --> 00:18:05,039

and arriving at the station no i didn't

375

00:18:08,789 --> 00:18:07,600

feel different i wasn't ill i was lucky

376

00:18:09,750 --> 00:18:08,799

some people would feel a little bit of

377

00:18:11,430 --> 00:18:09,760

illness

378

00:18:12,870 --> 00:18:11,440

because everything changes a little bit

379

00:18:14,549 --> 00:18:12,880

like uh

380

00:18:15,830 --> 00:18:14,559

seasickness in a boat for example but i

381

00:18:18,310 --> 00:18:15,840

felt a little bit

382

00:18:19,909 --> 00:18:18,320

as if i wasn't quite uh i felt a little

383

00:18:22,630 --> 00:18:19,919

bit uncoordinated it's like riding a

384

00:18:23,430 --> 00:18:22,640

bike learning to wrangle ride a bike

385

00:18:25,510 --> 00:18:23,440

so

386

00:18:26,789 --> 00:18:25,520

we know how to walk and to run on earth

387

00:18:28,789 --> 00:18:26,799

but this is a little bit like learning

388

00:18:29,830 --> 00:18:28,799

how to ride a bike i was a little bit

389

00:18:31,190 --> 00:18:29,840

sort of

390

00:18:32,870 --> 00:18:31,200

uncoordinated

391

00:18:34,950 --> 00:18:32,880

now i'm fully

392

00:18:36,390 --> 00:18:34,960

accustomed to it it feels very natural

393

00:18:38,150 --> 00:18:36,400

to the point that when i come back to

394

00:18:40,470 --> 00:18:38,160

earth i'll have to relearn a little bit

395

00:18:42,230 --> 00:18:40,480

when i get back how to move about

396

00:18:43,750 --> 00:18:42,240

on earth how to handle objects because

397

00:18:46,630 --> 00:18:43,760

i've forgotten all of that

398

00:18:48,710 --> 00:18:46,640

now we have a way of doing things uh

399

00:18:50,310 --> 00:18:48,720

without in a weightless environment you

400

00:18:51,430 --> 00:18:50,320

can see that i let things go and it just

401  
00:18:54,150 --> 00:18:51,440  
stays there

402  
00:18:55,590 --> 00:18:54,160  
on earth i'll have to learn to

403  
00:18:59,190 --> 00:18:55,600  
to do things again if i don't want to

404  
00:19:03,750 --> 00:19:01,270  
good morning the last question

405  
00:19:05,029 --> 00:19:03,760  
it's from the parent of a student who

406  
00:19:16,060 --> 00:19:05,039  
has it for you

407  
00:19:16,070 --> 00:19:21,669  
[Music]

408  
00:19:25,110 --> 00:19:24,390  
i don't need a lot of food anyway but no

409  
00:19:26,789 --> 00:19:25,120  
it's

410  
00:19:29,830 --> 00:19:26,799  
perhaps the freedom

411  
00:19:31,830 --> 00:19:29,840  
the station is rather confined volume

412  
00:19:33,990 --> 00:19:31,840  
it's uh we're lucky that it's as big as

413  
00:19:36,230 --> 00:19:34,000

it is but we can't go out and go to the

414

00:19:38,150 --> 00:19:36,240

forest or take a bike trip uh go out to

415

00:19:39,590 --> 00:19:38,160

the mountains of the sea i've always

416

00:19:40,870 --> 00:19:39,600

enjoyed doing that on earth and so i

417

00:19:43,430 --> 00:19:40,880

missed that a little bit the second

418

00:19:45,669 --> 00:19:43,440

thing evidently is those who are near me

419

00:19:47,909 --> 00:19:45,679

uh i can call we can call each other but

420

00:19:49,190 --> 00:19:47,919

it is six months of absence from those

421

00:19:50,710 --> 00:19:49,200

whom we love

422

00:19:51,669 --> 00:19:50,720

it's not just in the space station this

423

00:19:53,430 --> 00:19:51,679

happens for people who work in

424

00:19:55,510 --> 00:19:53,440

submarines

425

00:19:57,750 --> 00:19:55,520

who have the same experience to be far

426  
00:20:00,310 --> 00:19:57,760  
away from your family your friends those

427  
00:20:01,510 --> 00:20:00,320  
who are close and near and dear to you

428  
00:20:09,510 --> 00:20:01,520  
i wish i could have brought them with me

429  
00:20:13,270 --> 00:20:11,270  
well we wish you all the very best uh

430  
00:20:15,669 --> 00:20:13,280  
here's another question thomas thank you

431  
00:20:17,830 --> 00:20:15,679  
for your uh

432  
00:20:22,650 --> 00:20:17,840  
interconnection with us interchange from

433  
00:20:25,350 --> 00:20:23,909  
[Music]

434  
00:20:26,950 --> 00:20:25,360  
certainly invite you to come to our

435  
00:20:28,230 --> 00:20:26,960  
planetarium when you come back thanks

436  
00:20:32,149 --> 00:20:28,240  
again

437  
00:20:35,990 --> 00:20:33,909  
listen it's been a pleasure to have uh

438  
00:20:37,430 --> 00:20:36,000

have all of you aboard the space station

439

00:20:40,310 --> 00:20:37,440

and it will be a pleasure to come and

440

00:20:42,870 --> 00:20:40,320

meet all of you at the planetarium

441

00:20:45,110 --> 00:20:42,880

after i return to earth

442

00:20:51,990 --> 00:20:45,120

station this is houston acr that

443

00:20:55,270 --> 00:20:53,590

thank you president hollande and all

444

00:20:57,510 --> 00:20:55,280

presidents with the all participants

445

00:20:59,110 --> 00:20:57,520

with the european space agency we are