



 GOLD AWARD 2010

宇宙飛行士
JAXA
宇宙航空研究開発機構

0014

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С. ФУРУКАВА



宇宙飛行士
KUREHA

1
00:00:07,909 --> 00:00:04,070
station this is houston are you ready

2
00:00:11,509 --> 00:00:09,750
that's affirmative i am ready for the

3
00:00:13,430 --> 00:00:11,519
event

4
00:00:26,950 --> 00:00:13,440
young astronauts club this is houston

5
00:00:26,960 --> 00:00:43,350
i read you loud and clear

6
00:00:54,069 --> 00:00:46,310
so let's say it together good evening

7
00:00:57,910 --> 00:00:55,750
good evening

8
00:00:59,189 --> 00:00:57,920
mr kwame can you make yourself

9
00:01:00,790 --> 00:00:59,199
introduction

10
00:01:03,830 --> 00:01:00,800
well how do you do

11
00:01:10,550 --> 00:01:03,840
i am chuya koyama i'm a cartoonist i'm

12
00:01:15,030 --> 00:01:12,550
how do you

13
00:01:17,749 --> 00:01:15,040

that space brothers is a cartoon that i

14

00:01:21,109 --> 00:01:17,759

love and i've been reading it

15

00:01:22,149 --> 00:01:21,119

in houston thank you

16

00:01:23,990 --> 00:01:22,159

thank you

17

00:01:29,350 --> 00:01:24,000

so now let's start with the

18

00:01:35,109 --> 00:01:31,109

in sendai please

19

00:01:41,749 --> 00:01:38,310

now if you break your bone in the space

20

00:01:44,069 --> 00:01:41,759

will you cure earth faster than on earth

21

00:01:45,350 --> 00:01:44,079

or will it be the same

22

00:01:46,469 --> 00:01:45,360

or

23

00:01:51,510 --> 00:01:46,479

will it be

24

00:01:51,520 --> 00:01:55,510

in space

25

00:01:58,550 --> 00:01:57,270

yes that's a good question thank you for

26

00:02:01,830 --> 00:01:58,560

that

27

00:02:03,350 --> 00:02:01,840

well we don't know the details yet

28

00:02:04,230 --> 00:02:03,360

but

29

00:02:07,510 --> 00:02:04,240

when

30

00:02:09,749 --> 00:02:07,520

the fracture cures

31

00:02:13,750 --> 00:02:09,759

you have to have the bone and you have

32

00:02:19,190 --> 00:02:16,390

that is flowing into

33

00:02:21,589 --> 00:02:19,200

the around at that fractured bone

34

00:02:23,589 --> 00:02:21,599

and on earth for example if you break

35

00:02:24,869 --> 00:02:23,599

your bone on the leg it is difficult for

36

00:02:26,150 --> 00:02:24,879

you to

37

00:02:33,030 --> 00:02:26,160

walk

38

00:02:35,750 --> 00:02:33,040

be that it might

39

00:02:39,509 --> 00:02:35,760

be easier to cure on the space but we're

40

00:02:41,750 --> 00:02:39,519

on zero gravity here and so the cells of

41

00:02:43,750 --> 00:02:41,760

you of creating the bones is something

42

00:02:45,910 --> 00:02:43,760

that we really have to look into and we

43

00:02:48,630 --> 00:02:45,920

have to study in the future this is a

44

00:02:52,470 --> 00:02:48,640

micro uh a world so

45

00:02:54,710 --> 00:02:52,480

we do want to i do hope that you will uh

46

00:02:56,550 --> 00:02:54,720

be the one to make a research and study

47

00:02:59,350 --> 00:02:56,560

on that aspect thank you for your good

48

00:03:02,390 --> 00:02:59,360

question okay the next question is miss

49

00:03:04,869 --> 00:03:02,400

momma my name is minami momma

50

00:03:08,869 --> 00:03:04,879

now when you're in space do you catch

51
00:03:12,949 --> 00:03:08,879
cold and when you fall ill do you drink

52
00:03:14,869 --> 00:03:12,959
medicines or do you uh and also do you

53
00:03:17,190 --> 00:03:14,879
check your fever

54
00:03:23,750 --> 00:03:17,200
using thermometers how do you cure

55
00:03:28,309 --> 00:03:25,589
thank you thank you for your medical

56
00:03:31,110 --> 00:03:28,319
question when you catch cold you suffer

57
00:03:32,949 --> 00:03:31,120
it's painful isn't it well we have we

58
00:03:35,270 --> 00:03:32,959
have brought various

59
00:03:36,949 --> 00:03:35,280
uh things uh to

60
00:03:39,190 --> 00:03:36,959
um

61
00:03:41,670 --> 00:03:39,200
to cure disease here in space we have

62
00:03:43,270 --> 00:03:41,680
the stethoscope and thermometers as well

63
00:03:45,910 --> 00:03:43,280

and we do have some

64

00:03:47,670 --> 00:03:45,920

equipment to check your eyes as well and

65

00:03:50,229 --> 00:03:47,680

usually when you're healthy it is all

66

00:03:53,270 --> 00:03:50,239

right but if you catch cold we do have

67

00:03:55,190 --> 00:03:53,280

some medicines for that

68

00:03:58,390 --> 00:03:55,200

and also painkillers

69

00:03:59,589 --> 00:03:58,400

and other general medicines we do have a

70

00:04:03,509 --> 00:03:59,599

few amount

71

00:04:05,910 --> 00:04:03,519

but we cannot prepare a lot of medicines

72

00:04:08,869 --> 00:04:05,920

and that is to a task that we'll have to

73

00:04:10,149 --> 00:04:08,879

address going forward but in addition to

74

00:04:13,509 --> 00:04:10,159

the illness

75

00:04:17,749 --> 00:04:15,030

there is a time

76

00:04:21,030 --> 00:04:17,759

when uh you have appendicitis for

77

00:04:24,150 --> 00:04:21,040

example so how to deal with that is a

78

00:04:25,749 --> 00:04:24,160

question because you suddenly get an

79

00:04:27,749 --> 00:04:25,759

appendicitis

80

00:04:30,550 --> 00:04:27,759

even when you're healthy

81

00:04:32,629 --> 00:04:30,560

so thank you for such question okay next

82

00:04:34,950 --> 00:04:32,639

we go to mr ochi

83

00:04:37,830 --> 00:04:34,960

ochi is my name

84

00:04:40,390 --> 00:04:37,840

is the space food does it the same than

85

00:04:46,870 --> 00:04:40,400

in on earth or is it does it taste

86

00:04:50,469 --> 00:04:48,310

thank you for your

87

00:04:52,469 --> 00:04:50,479

exciting question

88

00:04:55,510 --> 00:04:52,479

now i

89

00:04:57,830 --> 00:04:55,520

think that it does not taste different

90

00:04:59,749 --> 00:04:57,840

like for example i have here

91

00:05:01,909 --> 00:04:59,759

a teriyaki chicken

92

00:05:05,830 --> 00:05:01,919

and if you open your bag you can eat it

93

00:05:06,950 --> 00:05:05,840

as it it is and this is also a kind of

94

00:05:09,510 --> 00:05:06,960

pea

95

00:05:11,909 --> 00:05:09,520

and what we do is to add some boiling

96

00:05:14,629 --> 00:05:11,919

water to make it soft we have about 100

97

00:05:17,670 --> 00:05:14,639

types of food and i think the taste it

98

00:05:19,670 --> 00:05:17,680

tastes the same as on earth

99

00:05:23,350 --> 00:05:19,680

food is something that will be a

100

00:05:25,830 --> 00:05:23,360

material to compose your body so we will

101
00:05:28,790 --> 00:05:25,840
you please check out what you eat and

102
00:05:29,670 --> 00:05:28,800
thank you for your good question

103
00:05:32,629 --> 00:05:29,680
right

104
00:05:35,350 --> 00:05:32,639
so we had some questions on

105
00:05:38,950 --> 00:05:35,360
um illness and also on space food from

106
00:05:41,590 --> 00:05:38,960
sendai now mr furukawa we have questions

107
00:05:49,189 --> 00:05:41,600
from children in tokyo first of all mr

108
00:05:49,199 --> 00:05:53,670
my name is

109
00:05:58,309 --> 00:05:56,150
you were a medical surgeon

110
00:06:00,550 --> 00:05:58,319
did your vocation of being being a

111
00:06:03,350 --> 00:06:00,560
medical surgeon help in becoming an

112
00:06:09,189 --> 00:06:04,070
hi

113
00:06:13,430 --> 00:06:11,430

well as a doctor

114

00:06:16,469 --> 00:06:13,440

we have i have obtained various

115

00:06:18,950 --> 00:06:16,479

knowledge and techno and skills for

116

00:06:21,749 --> 00:06:18,960

example when i conduct

117

00:06:22,950 --> 00:06:21,759

experiment here for example taking some

118

00:06:25,270 --> 00:06:22,960

blood from

119

00:06:28,710 --> 00:06:25,280

my colleagues and also

120

00:06:31,590 --> 00:06:28,720

supersonic devices um

121

00:06:34,950 --> 00:06:31,600

that is that kind of skill is useful and

122

00:06:38,070 --> 00:06:34,960

once in case of my colleague with false

123

00:06:41,110 --> 00:06:38,080

sex or a sustained injury i can cure for

124

00:06:43,510 --> 00:06:41,120

them i can treat them so they feel safe

125

00:06:45,749 --> 00:06:43,520

in case of astronaut there are some

126

00:06:48,150 --> 00:06:45,759

common aspects that we all study

127

00:06:51,749 --> 00:06:48,160

beforehand and there are aspects where

128

00:06:53,350 --> 00:06:51,759

we utilize each people's personalities

129

00:06:55,589 --> 00:06:53,360

but for common

130

00:06:57,510 --> 00:06:55,599

area we learn

131

00:07:00,150 --> 00:06:57,520

the things that are necessary for

132

00:07:02,309 --> 00:07:00,160

astronauts but for others we divide our

133

00:07:04,070 --> 00:07:02,319

labor for example those who are very

134

00:07:07,110 --> 00:07:04,080

good in

135

00:07:08,790 --> 00:07:07,120

handling machines will be the one to

136

00:07:11,670 --> 00:07:08,800

be in

137

00:07:14,950 --> 00:07:11,680

charge of maintenance and repair and

138

00:07:16,950 --> 00:07:14,960

also for doctors like me i will take

139

00:07:20,070 --> 00:07:16,960

part in treating

140

00:07:22,950 --> 00:07:20,080

our colleagues in case they fall sick

141

00:07:25,909 --> 00:07:22,960

and also it is very important for

142

00:07:28,309 --> 00:07:25,919

children for you to learn how to study

143

00:07:30,550 --> 00:07:28,319

beforehand

144

00:07:32,150 --> 00:07:30,560

thank you for your question now next we

145

00:07:35,110 --> 00:07:32,160

go to miss

146

00:07:37,189 --> 00:07:35,120

katsta my name is hazuki cutsta can you

147

00:07:39,270 --> 00:07:37,199

sleep well every day

148

00:07:40,230 --> 00:07:39,280

in an environment totally different from

149

00:07:42,710 --> 00:07:40,240

us

150

00:07:50,869 --> 00:07:42,720

is there anything you take care of every

151
00:07:54,469 --> 00:07:51,830

yes

152
00:07:57,589 --> 00:07:54,479

that's a good question too

153
00:08:00,390 --> 00:07:57,599

in my case i can sleep very well well

154
00:08:03,350 --> 00:08:00,400

originally i

155
00:08:05,029 --> 00:08:03,360

can sleep anywhere very well so i'm not

156
00:08:07,830 --> 00:08:05,039

taking particular

157
00:08:09,749 --> 00:08:07,840

care what i think was interesting in the

158
00:08:12,710 --> 00:08:09,759

space is because we go

159
00:08:14,790 --> 00:08:12,720

we sleep in the sleeping bag and when we

160
00:08:17,029 --> 00:08:14,800

go inside the sleeping bag and when i

161
00:08:18,629 --> 00:08:17,039

close my eyes we really don't know which

162
00:08:22,070 --> 00:08:18,639

way i am looking

163
00:08:24,469 --> 00:08:22,080

i do not know whether i am looking down

164

00:08:26,469 --> 00:08:24,479

or looking up we are not

165

00:08:29,589 --> 00:08:26,479

because there is no gravity there is no

166

00:08:31,990 --> 00:08:29,599

bed that we are on like in on the earth

167

00:08:34,230 --> 00:08:32,000

and that is the interesting part but on

168

00:08:37,829 --> 00:08:34,240

space i can sleep very well thank you

169

00:08:37,839 --> 00:08:45,509

next uh

170

00:08:52,230 --> 00:08:48,070

how does air bubble perform inside the

171

00:09:10,790 --> 00:09:01,829

is

172

00:09:13,350 --> 00:09:10,800

inside

173

00:09:16,550 --> 00:09:13,360

the green tea

174

00:09:19,509 --> 00:09:16,560

now this is a big there's a big bubble

175

00:09:22,870 --> 00:09:19,519

and small bubble and the bubble does not

176

00:09:25,030 --> 00:09:22,880

necessarily go up like in on earth like

177

00:09:27,590 --> 00:09:25,040

for example mr wakata the astronaut

178

00:09:30,310 --> 00:09:27,600

wakata and an american

179

00:09:33,110 --> 00:09:30,320

don pettit astronaut

180

00:09:36,470 --> 00:09:33,120

had studied about the bubble inside

181

00:09:38,470 --> 00:09:36,480

water they took a video and

182

00:09:41,269 --> 00:09:38,480

so they showed it on

183

00:09:44,070 --> 00:09:41,279

the internet so please take a check

184

00:09:48,070 --> 00:09:44,080

now if you cannot see it please ask

185

00:09:51,110 --> 00:09:48,080

somebody in jaxa thank you

186

00:09:53,910 --> 00:09:51,120

thank you very much

187

00:09:56,630 --> 00:09:53,920

right so there's so many things that you

188

00:09:59,670 --> 00:09:56,640

wonder what's happening in space now

189

00:10:02,710 --> 00:09:59,680

next we go over to nagoya first of all

190

00:10:05,750 --> 00:10:02,720

miss mitsuda please

191

00:10:11,829 --> 00:10:08,710

well you wrote that in space you feel

192

00:10:22,630 --> 00:10:11,839

full quickly eating meal is it easier to

193

00:10:25,590 --> 00:10:24,550

yes it is true

194

00:10:28,230 --> 00:10:25,600

i feel

195

00:10:31,030 --> 00:10:28,240

full quickly um eating meal very quickly

196

00:10:33,110 --> 00:10:31,040

so it may be easier for you to go on a

197

00:10:36,069 --> 00:10:33,120

diet i lost weight too

198

00:10:39,110 --> 00:10:36,079

and because of zero gravity all my body

199

00:10:40,470 --> 00:10:39,120

fluid goes up so my waist and my legs

200

00:10:42,389 --> 00:10:40,480

are thinner

201
00:10:45,269 --> 00:10:42,399
so for a woman

202
00:10:48,470 --> 00:10:45,279
it could be a good news however what is

203
00:10:49,670 --> 00:10:48,480
troublesome is that you have a round

204
00:10:52,389 --> 00:10:49,680
face now

205
00:10:55,190 --> 00:10:52,399
but this swelling of the face

206
00:10:57,750 --> 00:10:55,200
will be will go away in just a few weeks

207
00:11:00,310 --> 00:10:57,760
back on earth so it is only temporary

208
00:11:04,310 --> 00:11:00,320
thank you for your good question

209
00:11:08,069 --> 00:11:04,320
next we go to mr kadotta

210
00:11:08,079 --> 00:11:11,829
my name is takeshi

211
00:11:16,069 --> 00:11:12,630
well

212
00:11:18,389 --> 00:11:16,079
on the ground the blood

213
00:11:20,470 --> 00:11:18,399

because of the gravity

214

00:11:22,230 --> 00:11:20,480

many of the blood would go down to your

215

00:11:24,710 --> 00:11:22,240

feet but in space

216

00:11:27,030 --> 00:11:24,720

there's no um

217

00:11:29,990 --> 00:11:27,040

there's no up and down so

218

00:11:32,230 --> 00:11:30,000

the uh i think the blood will circulate

219

00:11:35,269 --> 00:11:32,240

regardless of your position

220

00:11:42,630 --> 00:11:35,279

does it affect your brain and

221

00:11:49,829 --> 00:11:47,030

yes i don't think there is any impact

222

00:11:52,870 --> 00:11:49,839

when i reached the space

223

00:11:53,990 --> 00:11:52,880

there was this shift of body fluid as i

224

00:11:56,949 --> 00:11:54,000

just said

225

00:11:59,670 --> 00:11:56,959

the blood and the blood blood uh body

226

00:12:02,949 --> 00:11:59,680

fluid goes up into your head and i was

227

00:12:05,590 --> 00:12:02,959

really able to feel that the blood has

228

00:12:08,069 --> 00:12:05,600

concentrated in my blood it sort of was

229

00:12:11,430 --> 00:12:08,079

a little painful but in about a week or

230

00:12:13,030 --> 00:12:11,440

so that symptom had faded away and we i

231

00:12:15,269 --> 00:12:13,040

returned to normal

232

00:12:18,710 --> 00:12:15,279

i could uh see

233

00:12:21,110 --> 00:12:18,720

that that the brain was able to identify

234

00:12:24,310 --> 00:12:21,120

or detect that there was such a lot of

235

00:12:27,190 --> 00:12:24,320

flood and so it tried to drain that

236

00:12:29,990 --> 00:12:27,200

blood from uh the brain through urine

237

00:12:31,990 --> 00:12:30,000

and i was able to feel the body reaction

238

00:12:33,829 --> 00:12:32,000

proper body reaction thank you for

239

00:12:35,509 --> 00:12:33,839

another medical question

240

00:12:38,470 --> 00:12:35,519

now next mission

241

00:12:41,590 --> 00:12:38,480

mr yamane my name

242

00:12:43,670 --> 00:12:41,600

now before you realize your dream of

243

00:12:46,629 --> 00:12:43,680

becoming an astronaut you spent so many

244

00:12:48,949 --> 00:12:46,639

years but even before that

245

00:12:52,069 --> 00:12:48,959

in order to become a surgeon you studied

246

00:12:54,550 --> 00:12:52,079

a lot to obtain your position and honor

247

00:12:57,269 --> 00:12:54,560

so you resetted all that and you aspired

248

00:12:59,910 --> 00:12:57,279

to become an astronaut what was your

249

00:13:01,910 --> 00:12:59,920

aspiration i am now in the second grade

250

00:13:04,389 --> 00:13:01,920

of junior high school and there are lots

251
00:13:06,870 --> 00:13:04,399
of things i would want to become and

252
00:13:08,550 --> 00:13:06,880
what i would like to try in the future

253
00:13:15,269 --> 00:13:08,560
what is the most important thing in

254
00:13:18,870 --> 00:13:17,030
yes thank you very much for your good

255
00:13:21,990 --> 00:13:18,880
question

256
00:13:24,790 --> 00:13:22,000
well in space

257
00:13:27,110 --> 00:13:24,800
i i really did want to work in space i

258
00:13:29,509 --> 00:13:27,120
had a strong aspiration and for the

259
00:13:32,710 --> 00:13:29,519
examination to become astronaut some there

260
00:13:35,110 --> 00:13:32,720
are so many people who are trying to

261
00:13:37,269 --> 00:13:35,120
pass that exam i thought that it might

262
00:13:39,910 --> 00:13:37,279
be very difficult but if you pass the

263
00:13:43,509 --> 00:13:39,920

test your life will change i thought if

264

00:13:46,150 --> 00:13:43,519

i did not challenge i may regret it

265

00:13:49,509 --> 00:13:46,160

in the future so that's why i try to do

266

00:13:52,389 --> 00:13:49,519

my best as much as i can and i challenge

267

00:13:53,670 --> 00:13:52,399

the examination and luckily i passed

268

00:13:56,069 --> 00:13:53,680

so uh

269

00:13:57,829 --> 00:13:56,079

i think it is very good that you have a

270

00:14:01,829 --> 00:13:57,839

lot of things in your mind that you want

271

00:14:03,670 --> 00:14:01,839

to challenge in the future so to aspire

272

00:14:06,230 --> 00:14:03,680

to and to have dreams of becoming

273

00:14:08,550 --> 00:14:06,240

something in the future and to exert

274

00:14:10,629 --> 00:14:08,560

your effort in order to realize your

275

00:14:11,990 --> 00:14:10,639

dream is very important

276

00:14:14,790 --> 00:14:12,000

and

277

00:14:16,629 --> 00:14:14,800

how you could achieve your dream i think

278

00:14:18,310 --> 00:14:16,639

you could think you should think about

279

00:14:20,790 --> 00:14:18,320

how you could

280

00:14:23,430 --> 00:14:20,800

become a step closer to the dream so if

281

00:14:25,509 --> 00:14:23,440

you maintain your dream and if you

282

00:14:27,350 --> 00:14:25,519

maintain if you continue efforts i'm

283

00:14:30,629 --> 00:14:27,360

sure that you will be able to realize

284

00:14:32,470 --> 00:14:30,639

your dream thank you very much for a lot

285

00:14:35,189 --> 00:14:32,480

of uh uh

286

00:14:36,389 --> 00:14:35,199

questions um now we'll go back to sendai

287

00:14:38,150 --> 00:14:36,399

once again

288

00:14:40,389 --> 00:14:38,160

now miss shingo

289

00:14:51,670 --> 00:14:40,399

my name is ai shindo

290

00:14:55,750 --> 00:14:53,990

yes that is a very good point that you

291

00:14:57,030 --> 00:14:55,760

raised

292

00:14:59,910 --> 00:14:57,040

water

293

00:15:02,629 --> 00:14:59,920

is recycled over and over again it is

294

00:15:05,590 --> 00:15:02,639

because we have an equipment

295

00:15:08,470 --> 00:15:05,600

device to do that and through filter

296

00:15:10,949 --> 00:15:08,480

we clean the water and we also use

297

00:15:13,189 --> 00:15:10,959

chemical reactions as well

298

00:15:17,189 --> 00:15:13,199

so that we could drink the water once

299

00:15:23,269 --> 00:15:19,990

is in the air

300

00:15:26,470 --> 00:15:23,279

and when you chill the air

301
00:15:28,310 --> 00:15:26,480
the water become condensed

302
00:15:32,470 --> 00:15:28,320
and we thought we used that water to

303
00:15:34,710 --> 00:15:32,480
recycle we also use the urine as well

304
00:15:36,629 --> 00:15:34,720
we can treat the urine

305
00:15:40,069 --> 00:15:36,639
and change it to

306
00:15:43,749 --> 00:15:40,079
drinking water in space water is very

307
00:15:46,949 --> 00:15:43,759
scarce so that is why we recycled water

308
00:15:49,430 --> 00:15:46,959
such technology can be used for at the

309
00:15:52,069 --> 00:15:49,440
times of disaster as well on uh thank

310
00:15:59,269 --> 00:15:52,079
you very much for a good question

311
00:16:04,470 --> 00:16:02,310
my name is tatsuki kubo

312
00:16:07,749 --> 00:16:04,480
mr furukawa

313
00:16:09,269 --> 00:16:07,759

what was the hardest training

314

00:16:11,110 --> 00:16:09,279

for you and

315

00:16:12,310 --> 00:16:11,120

when it was very hard what were you

316

00:16:17,350 --> 00:16:12,320

thinking of

317

00:16:25,110 --> 00:16:21,509

yes that is a very interesting question

318

00:16:27,670 --> 00:16:25,120

well physically what the hardest was uh

319

00:16:31,269 --> 00:16:27,680

the survival training conducted in

320

00:16:34,550 --> 00:16:31,279

russia in winter the soyuz capsule has

321

00:16:37,030 --> 00:16:34,560

three people on board and in kazakhstan

322

00:16:39,990 --> 00:16:37,040

uh will be will be landing on the casa

323

00:16:42,150 --> 00:16:40,000

fusion and if there is a problem we have

324

00:16:44,710 --> 00:16:42,160

to rush and get out

325

00:16:47,590 --> 00:16:44,720

into the earth we really don't know

326

00:16:49,749 --> 00:16:47,600

where we will land in that case it might

327

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

be on the in the snow

328

00:16:53,749 --> 00:16:51,759

in the middle of the winter so that is

329

00:16:57,189 --> 00:16:53,759

the assumption we had when we carried

330

00:16:58,470 --> 00:16:57,199

out that training and we have this

331

00:17:01,590 --> 00:16:58,480

um

332

00:17:03,670 --> 00:17:01,600

communication and we they would know

333

00:17:05,669 --> 00:17:03,680

where we'd land but it might be that it

334

00:17:07,590 --> 00:17:05,679

will take some time for the rescue

335

00:17:09,110 --> 00:17:07,600

workers to come so the three will have

336

00:17:13,590 --> 00:17:09,120

to survive

337

00:17:16,150 --> 00:17:13,600

so we spent 48 hours in the outside

338

00:17:18,230 --> 00:17:16,160

in the winter and the what the

339

00:17:19,429 --> 00:17:18,240

temperature was minus 20 degrees and it

340

00:17:21,669 --> 00:17:19,439

was so

341

00:17:23,189 --> 00:17:21,679

cold and we did not have any stoves to

342

00:17:25,270 --> 00:17:23,199

warm ourselves

343

00:17:29,669 --> 00:17:25,280

and we used the survival kit in the

344

00:17:33,990 --> 00:17:29,679

space and what we did was to

345

00:17:35,430 --> 00:17:34,000

use ax and to cut trees and we

346

00:17:38,150 --> 00:17:35,440

thought we

347

00:17:40,549 --> 00:17:38,160

burned that tree

348

00:17:42,870 --> 00:17:40,559

but this was the first time that i

349

00:17:45,590 --> 00:17:42,880

couldn't sleep sleep at night because it

350

00:17:47,990 --> 00:17:45,600

was so cold it was very hard but it was

351

00:17:50,950 --> 00:17:48,000

a good training for me mentally i

352

00:17:53,510 --> 00:17:50,960

belonged to a baseball club um when i

353

00:17:55,750 --> 00:17:53,520

was small and i remembered about my

354

00:17:58,070 --> 00:17:55,760

training and practice i had to underco

355

00:18:00,470 --> 00:17:58,080

when i was in the baseball club that was

356

00:18:03,190 --> 00:18:00,480

hard too at that time but looking back

357

00:18:04,630 --> 00:18:03,200

it's not it wasn't that hard so that is

358

00:18:07,350 --> 00:18:04,640

why i

359

00:18:09,430 --> 00:18:07,360

i remembered about my experience at the

360

00:18:11,830 --> 00:18:09,440

baseball club and i thought i will be

361

00:18:13,909 --> 00:18:11,840

able to endure so maybe you would be

362

00:18:16,390 --> 00:18:13,919

facing something difficult in the future

363

00:18:17,830 --> 00:18:16,400

but please hang on now we go over to

364

00:18:21,190 --> 00:18:17,840

nagoya mr

365

00:18:24,310 --> 00:18:21,200

sushta my name is kasutoshi matsushita

366

00:18:32,230 --> 00:18:24,320

what is the difference in developing

367

00:18:32,240 --> 00:18:35,830

that is a good question too

368

00:18:40,950 --> 00:18:38,789

well in terms of potential

369

00:18:42,950 --> 00:18:40,960

in space if you are to manufacture

370

00:18:48,710 --> 00:18:42,960

medicine

371

00:18:51,990 --> 00:18:48,720

laboratory or a plant

372

00:18:54,470 --> 00:18:52,000

manufacturing manu plant

373

00:18:56,470 --> 00:18:54,480

in the space but actually this was not

374

00:18:59,029 --> 00:18:56,480

realized realistic because

375

00:19:01,909 --> 00:18:59,039

there is a limited means of bringing

376

00:19:03,830 --> 00:19:01,919

those manufactured products back to

377

00:19:06,549 --> 00:19:03,840

earth but what we are doing now is

378

00:19:07,590 --> 00:19:06,559

conducting some

379

00:19:09,990 --> 00:19:07,600

partial

380

00:19:12,710 --> 00:19:10,000

experiments and production because in on

381

00:19:15,630 --> 00:19:12,720

space we can have a better quality

382

00:19:18,310 --> 00:19:15,640

crystallization now on earth

383

00:19:21,510 --> 00:19:18,320

crystallization is not the the quality

384

00:19:24,150 --> 00:19:21,520

is not that good but on earth we have a

385

00:19:27,029 --> 00:19:24,160

good equipment for analysis so what we

386

00:19:30,470 --> 00:19:27,039

can do is to use the 3d

387

00:19:33,029 --> 00:19:30,480

structure analysis on on the earth and

388

00:19:35,830 --> 00:19:33,039

then what we could do is to develop new

389

00:19:40,150 --> 00:19:35,840

medicines up in space as well like you

390

00:19:42,549 --> 00:19:40,160

might know but we had experimented some

391

00:19:46,070 --> 00:19:42,559

things for influenza as medicines for

392

00:19:48,630 --> 00:19:46,080

influenza and also muscle atrophy and

393

00:19:51,350 --> 00:19:48,640

also some other medicines that may be

394

00:19:53,909 --> 00:19:51,360

used to cure cancer

395

00:19:55,990 --> 00:19:53,919

and that was a very good question

396

00:19:58,150 --> 00:19:56,000

pharmaceutical and medical question

397

00:20:01,909 --> 00:19:58,160

thank you very much

398

00:20:03,750 --> 00:20:01,919

now uh we'll go back to mr koyama he

399

00:20:05,190 --> 00:20:03,760

would like to have some words

400

00:20:07,270 --> 00:20:05,200

thank you very much

401
00:20:09,270 --> 00:20:07,280
and the cartoonist um

402
00:20:12,070 --> 00:20:09,280
thank you so much mr furukawa for

403
00:20:14,710 --> 00:20:12,080
joining us and everybody here was intent

404
00:20:20,230 --> 00:20:14,720
in listening to you your answer can i

405
00:20:20,240 --> 00:20:23,029
yes please

406
00:20:23,039 --> 00:20:28,870
well uh after the launch and until now

407
00:20:32,390 --> 00:20:30,310
what was your

408
00:20:34,390 --> 00:20:32,400
do you have any experience that you were

409
00:20:37,830 --> 00:20:34,400
um

410
00:20:37,840 --> 00:20:44,789
on space

411
00:20:48,230 --> 00:20:45,750
well

412
00:20:50,230 --> 00:20:48,240
it wasn't really a strange experience

413
00:20:53,590 --> 00:20:50,240

but

414

00:20:56,870 --> 00:20:53,600

in the soyuz spacecraft i had a window

415

00:20:58,390 --> 00:20:56,880

there and the first time i saw us

416

00:20:59,669 --> 00:20:58,400

from that window

417

00:21:02,230 --> 00:20:59,679

i saw

418

00:21:04,950 --> 00:21:02,240

the atmosphere layer

419

00:21:07,190 --> 00:21:04,960

which was blue at that time soyuz was

420

00:21:09,590 --> 00:21:07,200

spinning

421

00:21:11,510 --> 00:21:09,600

and it's not that i was always able to

422

00:21:12,950 --> 00:21:11,520

see that earth but when i saw the

423

00:21:15,750 --> 00:21:12,960

atmosphere

424

00:21:17,590 --> 00:21:15,760

layer i was very much touched

425

00:21:18,390 --> 00:21:17,600

it was thin

426

00:21:21,750 --> 00:21:18,400

but

427

00:21:24,070 --> 00:21:21,760

that atmosphere is a protecting earth

428

00:21:27,350 --> 00:21:24,080

and that's what i was able to see with

429

00:21:29,830 --> 00:21:27,360

my own eyes and here on in international

430

00:21:32,390 --> 00:21:29,840

space station i could see earth as well

431

00:21:34,870 --> 00:21:32,400

and the atmospheric layer and whenever i

432

00:21:37,669 --> 00:21:34,880

see it i'm moved

433

00:21:40,230 --> 00:21:37,679

now uh it makes me it reminds me that we

434

00:21:43,190 --> 00:21:40,240

really have to cherish our planet thank

435

00:21:45,190 --> 00:21:43,200

you so much for your question

436

00:21:48,070 --> 00:21:45,200

thank you mr furukawa

437

00:21:52,149 --> 00:21:48,080

so okay so please

438

00:21:54,390 --> 00:21:52,159

uh let us thank mr furukawa by all

439

00:22:10,149 --> 00:21:54,400

thank you very much

440

00:22:11,510 --> 00:22:10,159

questions

441

00:22:13,190 --> 00:22:11,520

thank you very much

442

00:22:15,510 --> 00:22:13,200

let's

443

00:22:22,470 --> 00:22:15,520

all wave our hands

444

00:22:22,480 --> 00:22:26,390

thank you very much

445

00:22:33,110 --> 00:22:30,789

continue to foster your scientific mind

446

00:22:35,110 --> 00:22:33,120

of wondering about things

447

00:22:36,070 --> 00:22:35,120

thank you very much with this

448

00:22:38,710 --> 00:22:36,080

we will

449

00:22:45,190 --> 00:22:38,720

end our communication with mr furukawa