
ARMY

1
00:00:05,829 --> 00:00:02,629
station this is houston are you ready

2
00:00:09,830 --> 00:00:08,230
i'm ready for the event

3
00:00:11,430 --> 00:00:09,840
gail borden public library this is

4
00:00:14,150 --> 00:00:11,440
mission control houston please call

5
00:00:16,550 --> 00:00:14,160
station for a voice check

6
00:00:18,390 --> 00:00:16,560
station this is carol metal here with

7
00:00:22,470 --> 00:00:18,400
students at gale borden public library

8
00:00:26,550 --> 00:00:24,790
hello carol and everybody there i hear

9
00:00:37,670 --> 00:00:26,560
you loud and clear good to talk to you

10
00:00:42,389 --> 00:00:40,069
good morning jeff williams we have many

11
00:00:45,029 --> 00:00:42,399
questions to ask and we are excited to

12
00:00:47,670 --> 00:00:45,039
be asking them of an astronaut who has

13
00:00:49,110 --> 00:00:47,680

so much experience in the international

14
00:00:52,229 --> 00:00:49,120
space station

15
00:00:53,590 --> 00:00:52,239
and even though we are bears fans and

16
00:00:57,350 --> 00:00:53,600
i'm assuming

17
00:01:01,430 --> 00:00:57,360
that you uh coming from wisconsin a root

18
00:01:03,830 --> 00:01:01,440
for the archrival green bay packers

19
00:01:09,990 --> 00:01:03,840
we still have a lot of energy in this

20
00:01:15,350 --> 00:01:12,789
and i just want to add that uh wisconsin

21
00:01:16,310 --> 00:01:15,360
being america's dairyland

22
00:01:19,030 --> 00:01:16,320
that

23
00:01:21,990 --> 00:01:19,040
our library was named after the inventor

24
00:01:25,429 --> 00:01:22,000
of condensed milk gail borden who had

25
00:01:27,749 --> 00:01:25,439
many dairy farms in elgin

26
00:01:31,109 --> 00:01:27,759
libraries are huge supporters of

27
00:01:34,310 --> 00:01:31,119
technology education we present and we

28
00:01:37,749 --> 00:01:34,320
sponsor many technology events as well

29
00:01:40,469 --> 00:01:37,759
as teaching classes and technology we

30
00:01:41,990 --> 00:01:40,479
know that your father jeff was a teacher

31
00:01:45,270 --> 00:01:42,000
and i'm sure

32
00:01:47,910 --> 00:01:45,280
that your family knew the power that

33
00:01:51,590 --> 00:01:47,920
libraries can bring

34
00:01:52,710 --> 00:01:51,600
in this library alone our many resources

35
00:01:54,710 --> 00:01:52,720
include

36
00:01:56,469 --> 00:01:54,720
over 2500

37
00:02:00,950 --> 00:01:56,479
space related

38
00:02:04,950 --> 00:02:00,960

materials and so much uh information for

39
00:02:06,550 --> 00:02:04,960
uh everyone to learn about space and and

40
00:02:09,830 --> 00:02:06,560
astronomy and all

41
00:02:12,390 --> 00:02:09,840
we are so very proud to host this very

42
00:02:21,589 --> 00:02:12,400
special and unique event

43
00:02:26,150 --> 00:02:24,229
hello this is donovan after all of your

44
00:02:28,229 --> 00:02:26,160
training what surprised you the most

45
00:02:32,710 --> 00:02:28,239
about being on the international space

46
00:02:36,309 --> 00:02:33,990
that's a good question i don't know if

47
00:02:38,790 --> 00:02:36,319
i've had any real big surprises maybe

48
00:02:40,550 --> 00:02:38,800
that's the biggest surprise i have have

49
00:02:42,309 --> 00:02:40,560
had is that

50
00:02:45,110 --> 00:02:42,319
there are a few surprises up here we

51
00:02:47,110 --> 00:02:45,120
trained for years as you probably know

52
00:02:49,190 --> 00:02:47,120
we train in not only in houston but also

53
00:02:51,509 --> 00:02:49,200
in russia and japan and germany and

54
00:02:53,589 --> 00:02:51,519
canada for to cover all the systems and

55
00:02:55,830 --> 00:02:53,599
all the operations that we do and the

56
00:02:57,190 --> 00:02:55,840
trading is very good and effective so

57
00:02:59,589 --> 00:02:57,200
thankfully even though we've had some

58
00:03:01,670 --> 00:02:59,599
unexpected things occur up here they've

59
00:03:11,270 --> 00:03:01,680
been things that we have trained for and

60
00:03:17,670 --> 00:03:14,309
hi this is nayali what do you miss the

61
00:03:18,470 --> 00:03:17,680
most about earth when you are in

62
00:03:24,630 --> 00:03:18,480
what

63
00:03:29,830 --> 00:03:26,470

that's a very good question obviously

64
00:03:33,509 --> 00:03:29,840
the thing i miss the most is my family

65
00:03:36,470 --> 00:03:33,519
my wife my kids my grandkids my

66
00:03:38,789 --> 00:03:36,480
daughters-in-law i miss them uh being up

67
00:03:40,869 --> 00:03:38,799
here until you're here a long time and

68
00:03:42,390 --> 00:03:40,879
you're here for uh or you're in russia

69
00:03:43,509 --> 00:03:42,400
for a couple of months before the launch

70
00:03:45,110 --> 00:03:43,519
and then you'll launch you're up here

71
00:03:46,630 --> 00:03:45,120
for six months

72
00:03:48,710 --> 00:03:46,640
before you return to earth so that's

73
00:03:49,990 --> 00:03:48,720
what i missed the most but aside from

74
00:03:52,789 --> 00:03:50,000
that i also

75
00:03:55,270 --> 00:03:52,799
missed things like uh quiet

76
00:03:57,270 --> 00:03:55,280
um the the sound of just a breeze

77
00:04:00,149 --> 00:03:57,280
blowing through uh through the fields so

78
00:04:03,190 --> 00:04:00,159
the smell of grass and flowers and trees

79
00:04:05,030 --> 00:04:03,200
and all that this is a very uh sanitary

80
00:04:06,789 --> 00:04:05,040
environment up here we don't get those

81
00:04:09,110 --> 00:04:06,799
smells of nature

82
00:04:10,949 --> 00:04:09,120
and we've got continuous noise up here

83
00:04:12,949 --> 00:04:10,959
from fans and pumps running in the

84
00:04:19,189 --> 00:04:12,959
background so those are the things that

85
00:04:24,150 --> 00:04:21,749
hi this is danny do you ever see a

86
00:04:30,070 --> 00:04:24,160
shooting star flat fly past the space

87
00:04:35,430 --> 00:04:32,390
i ever i'm sorry i missed that do i ever

88
00:04:39,189 --> 00:04:35,440

see shooting stars is that what you said

89
00:04:44,629 --> 00:04:41,590
as a matter of fact you know to see a

90
00:04:46,310 --> 00:04:44,639
shooting star you see it when a meteor

91
00:04:48,870 --> 00:04:46,320
hits the atmosphere and then we call it

92
00:04:50,629 --> 00:04:48,880
a meteorite and we see it because of the

93
00:04:52,070 --> 00:04:50,639
friction and the heat that it builds up

94
00:04:54,629 --> 00:04:52,080
because it's going so fast through the

95
00:04:55,430 --> 00:04:54,639
atmosphere we're above the atmosphere up

96
00:04:58,710 --> 00:04:55,440
here

97
00:05:00,550 --> 00:04:58,720
so to see meteorites and i have seen a

98
00:05:04,469 --> 00:05:00,560
couple on occasion when i've been in the

99
00:05:06,310 --> 00:05:04,479
window looking out uh at uh on

100
00:05:08,790 --> 00:05:06,320
earth nighttime orbital night time when

101
00:05:10,790 --> 00:05:08,800
it's night where we're flying over i've

102
00:05:13,189 --> 00:05:10,800
seen them but they've been below us

103
00:05:14,790 --> 00:05:13,199
which is very strange as they pass

104
00:05:20,710 --> 00:05:14,800
through the atmosphere but i have seen

105
00:05:25,270 --> 00:05:23,510
hello this is jillian what experiments

106
00:05:29,990 --> 00:05:25,280
are you working on in space that will

107
00:05:34,629 --> 00:05:32,070
well i hope that most of the experiments

108
00:05:36,629 --> 00:05:34,639
that we have up here will help in some

109
00:05:38,870 --> 00:05:36,639
way either directly or indirect directly

110
00:05:40,629 --> 00:05:38,880
the people on earth and we do a wide

111
00:05:43,270 --> 00:05:40,639
variety of experiments as as you

112
00:05:44,950 --> 00:05:43,280
probably know doing your research uh

113
00:05:47,270 --> 00:05:44,960

into the program

114
00:05:49,590 --> 00:05:47,280
we do experiments across the different

115
00:05:51,270 --> 00:05:49,600
spectrum of science disciplines

116
00:05:53,990 --> 00:05:51,280
one of the most interesting things that

117
00:05:55,909 --> 00:05:54,000
we do areas that we study are the human

118
00:05:57,990 --> 00:05:55,919
body and the effects of weightlessness

119
00:06:00,150 --> 00:05:58,000
on the human body we've got studies

120
00:06:03,110 --> 00:06:00,160
going on to study changes in vision in

121
00:06:06,309 --> 00:06:03,120
space we've got studies going on to to

122
00:06:08,390 --> 00:06:06,319
to look at the changes in bone density

123
00:06:10,790 --> 00:06:08,400
in cardiovascular

124
00:06:13,749 --> 00:06:10,800
changes in the body all of those things

125
00:06:14,550 --> 00:06:13,759
have direct applicability to health

126
00:06:15,990 --> 00:06:14,560
and

127
00:06:17,350 --> 00:06:16,000
for everybody

128
00:06:18,950 --> 00:06:17,360
and understanding

129
00:06:20,550 --> 00:06:18,960
how we can better

130
00:06:23,749 --> 00:06:20,560
treat

131
00:06:24,790 --> 00:06:23,759
diseases or other ailments that we occur

132
00:06:26,950 --> 00:06:24,800
injuries

133
00:06:29,590 --> 00:06:26,960
that kind of thing on earth so i trust

134
00:06:30,710 --> 00:06:29,600
everything will benefit directly or

135
00:06:35,990 --> 00:06:30,720
indirectly

136
00:06:40,790 --> 00:06:38,469
hi this is sarah here is a question from

137
00:06:43,830 --> 00:06:40,800
the african american research library

138
00:06:46,230 --> 00:06:43,840

and cultural center of broward county in

139
00:06:47,990 --> 00:06:46,240
fort lauderdale florida pearl would like

140
00:06:54,469 --> 00:06:48,000
to know what does it feel like the

141
00:06:57,830 --> 00:06:56,309
you know that something significant just

142
00:06:59,990 --> 00:06:57,840
happened in your life when the rocket

143
00:07:01,990 --> 00:07:00,000
lifts off from the launch pad it's

144
00:07:04,629 --> 00:07:02,000
almost getting fired like imagine

145
00:07:06,390 --> 00:07:04,639
getting fired on a slingshot or whatnot

146
00:07:08,309 --> 00:07:06,400
although it starts out kind of slow

147
00:07:10,950 --> 00:07:08,319
there's a lot of rumbling and when you

148
00:07:12,629 --> 00:07:10,960
first lift off the launch pad

149
00:07:14,790 --> 00:07:12,639
it seems like you're moving very slow

150
00:07:17,510 --> 00:07:14,800
but the acceleration

151
00:07:19,270 --> 00:07:17,520
builds up very very quickly and it only

152
00:07:20,550 --> 00:07:19,280
takes a few seconds before you realize

153
00:07:22,870 --> 00:07:20,560
that you are moving out and you're

154
00:07:25,350 --> 00:07:22,880
moving on fast and after a few minutes

155
00:07:27,350 --> 00:07:25,360
of course you get the sensation of speed

156
00:07:30,550 --> 00:07:27,360
as you see the earth going by and then

157
00:07:32,230 --> 00:07:30,560
you see that the sky turned from a blue

158
00:07:33,830 --> 00:07:32,240
the blue sky that we see when we get

159
00:07:36,550 --> 00:07:33,840
above the weather if we're going through

160
00:07:38,230 --> 00:07:36,560
weather and the blue turns to black even

161
00:07:40,390 --> 00:07:38,240
though it's daytime and the sun is

162
00:07:42,870 --> 00:07:40,400
shining and you know you're entering

163
00:07:44,790 --> 00:07:42,880

space so those are just several of the

164
00:07:47,189 --> 00:07:44,800
elements that you

165
00:07:52,629 --> 00:07:47,199
observe and take note of when you are

166
00:07:59,270 --> 00:07:56,070
hi this is carter has the spaceship ever

167
00:08:04,469 --> 00:07:59,280
had any problems when you were aboard

168
00:08:08,629 --> 00:08:06,869
occasionally we have problems

169
00:08:10,309 --> 00:08:08,639
most of the problems that we have are

170
00:08:11,270 --> 00:08:10,319
relatively minor

171
00:08:13,270 --> 00:08:11,280
but

172
00:08:15,670 --> 00:08:13,280
during my time on board we've we have

173
00:08:19,110 --> 00:08:15,680
had some major problems we had problems

174
00:08:20,629 --> 00:08:19,120
of uh a major power system problem that

175
00:08:22,950 --> 00:08:20,639
that

176
00:08:24,390 --> 00:08:22,960
took down our abilities to to maintain

177
00:08:25,990 --> 00:08:24,400
the space station to maintain the

178
00:08:27,749 --> 00:08:26,000
attitude of the space station for a long

179
00:08:29,029 --> 00:08:27,759
period of time to maintain the power of

180
00:08:30,710 --> 00:08:29,039
all the systems

181
00:08:34,230 --> 00:08:30,720
uh to uh

182
00:08:35,829 --> 00:08:34,240
to in a real long term like days it had

183
00:08:38,149 --> 00:08:35,839
a direct impact to the life support

184
00:08:39,670 --> 00:08:38,159
system so those are our major problems

185
00:08:41,589 --> 00:08:39,680
one is probably the worst the most

186
00:08:43,990 --> 00:08:41,599
serious thing with that we had well i've

187
00:08:46,389 --> 00:08:44,000
been on board was a fire in the russian

188
00:08:49,190 --> 00:08:46,399

segment thankfully we responded as we're

189
00:08:51,350 --> 00:08:49,200
trained and we uh we saved the situation

190
00:08:53,430 --> 00:08:51,360
fairly rapidly it did cause some

191
00:08:55,509 --> 00:08:53,440
contamination in the into the atmosphere

192
00:08:57,430 --> 00:08:55,519
we had to clean up the atmosphere

193
00:08:59,990 --> 00:08:57,440
but thankfully we were safe the entire

194
00:09:02,230 --> 00:09:00,000
time and and we resolved the problem but

195
00:09:04,630 --> 00:09:02,240
those things do occur we spent a lot of

196
00:09:07,110 --> 00:09:04,640
time training before the flight uh to

197
00:09:14,230 --> 00:09:07,120
react to to those kinds of problems uh

198
00:09:21,350 --> 00:09:17,829
hi this is leilani will pets ever be

199
00:09:28,710 --> 00:09:21,360
allowed on the international

200
00:09:32,389 --> 00:09:30,630
was the question could we have pets on

201
00:09:36,949 --> 00:09:32,399
the international space station yes

202
00:09:40,949 --> 00:09:39,509
uh well we have had

203
00:09:42,790 --> 00:09:40,959
uh

204
00:09:44,790 --> 00:09:42,800
bugs and animals on board the

205
00:09:46,310 --> 00:09:44,800
international space station i wouldn't

206
00:09:48,310 --> 00:09:46,320
call them pets though they're

207
00:09:50,389 --> 00:09:48,320
usually they're part of an experiment

208
00:09:51,910 --> 00:09:50,399
and it's kind of dangerous when you have

209
00:09:53,910 --> 00:09:51,920
something like that that's part of an

210
00:09:56,150 --> 00:09:53,920
experiment to make it a pet because then

211
00:09:59,030 --> 00:09:56,160
that changes the whole relationship that

212
00:10:01,190 --> 00:09:59,040
you have with it um so

213
00:10:03,110 --> 00:10:01,200

might there be pets in the future i

214
00:10:04,790 --> 00:10:03,120
don't know i don't know of any plans to

215
00:10:07,509 --> 00:10:04,800
really have any pets

216
00:10:09,750 --> 00:10:07,519
it takes a lot of resources

217
00:10:10,790 --> 00:10:09,760
to keep the air

218
00:10:13,269 --> 00:10:10,800
healthy

219
00:10:15,030 --> 00:10:13,279
for food for waste products all of that

220
00:10:16,949 --> 00:10:15,040
and having a pet on board just adds to

221
00:10:18,150 --> 00:10:16,959
that so i don't see that happening in

222
00:10:23,829 --> 00:10:18,160
the life of the international space

223
00:10:30,470 --> 00:10:26,949
hi this is bridget how many astronauts

224
00:10:36,069 --> 00:10:30,480
are on the space station you

225
00:10:39,590 --> 00:10:38,310
the international space station is very

226
00:10:42,310 --> 00:10:39,600
international

227
00:10:44,949 --> 00:10:42,320
uh we typically have a crew of six on

228
00:10:47,350 --> 00:10:44,959
board currently we have three of us on

229
00:10:49,269 --> 00:10:47,360
board there are two russians and me on

230
00:10:51,910 --> 00:10:49,279
board right now

231
00:10:53,990 --> 00:10:51,920
we had three others just leave a little

232
00:10:56,389 --> 00:10:54,000
over a week ago to

233
00:10:59,110 --> 00:10:56,399
an american a russian and a british

234
00:11:00,949 --> 00:10:59,120
astronaut where we are awaiting their

235
00:11:03,110 --> 00:11:00,959
replacements which will

236
00:11:05,829 --> 00:11:03,120
be a japanese astronaut an american

237
00:11:08,790 --> 00:11:05,839
astronaut and another russian cosmonaut

238
00:11:12,069 --> 00:11:08,800

i've been on board with uh canadians

239
00:11:14,230 --> 00:11:12,079
with germans with belgiums

240
00:11:16,069 --> 00:11:14,240
with there have been uh french

241
00:11:18,310 --> 00:11:16,079
astronauts on board and there have been

242
00:11:20,710 --> 00:11:18,320
uh astronauts from many countries from

243
00:11:22,550 --> 00:11:20,720
the european space agency from japan

244
00:11:24,790 --> 00:11:22,560
from canada from america

245
00:11:27,110 --> 00:11:24,800
uh and from russia so it is very

246
00:11:29,430 --> 00:11:27,120
international normally the crew

247
00:11:31,350 --> 00:11:29,440
is made up of six currently we're going

248
00:11:36,310 --> 00:11:31,360
through about a three week period of

249
00:11:39,990 --> 00:11:38,949
hi this is kaden here's a question from

250
00:11:42,470 --> 00:11:40,000
uh

251
00:11:44,710 --> 00:11:42,480
from the waukegan public library

252
00:11:46,630 --> 00:11:44,720
in waukegan illinois

253
00:11:52,550 --> 00:11:46,640
elena would like to know how did you

254
00:11:56,310 --> 00:11:53,990
well the

255
00:11:59,030 --> 00:11:56,320
main way to become an astronaut is to

256
00:12:01,030 --> 00:11:59,040
apply for the job that's that's for

257
00:12:03,910 --> 00:12:01,040
that's true with any job but the

258
00:12:05,670 --> 00:12:03,920
criteria and what makes you competitive

259
00:12:08,389 --> 00:12:05,680
is is very

260
00:12:10,389 --> 00:12:08,399
unique i would say about historically

261
00:12:13,750 --> 00:12:10,399
about half the astronauts have been from

262
00:12:15,110 --> 00:12:13,760
military backgrounds and i like myself

263
00:12:16,790 --> 00:12:15,120

most of us

264
00:12:18,550 --> 00:12:16,800
are from

265
00:12:20,710 --> 00:12:18,560
aviation communities in the different

266
00:12:22,790 --> 00:12:20,720
branches of services most of us are

267
00:12:25,269 --> 00:12:22,800
experimental test pilots

268
00:12:27,670 --> 00:12:25,279
so that's half historically half the the

269
00:12:29,590 --> 00:12:27,680
astronaut core the other half are made

270
00:12:31,829 --> 00:12:29,600
up of scientists and engineers and

271
00:12:34,550 --> 00:12:31,839
medical doctors and even a few school

272
00:12:36,710 --> 00:12:34,560
teachers uh historically

273
00:12:38,310 --> 00:12:36,720
most of them have master's degrees or

274
00:12:40,629 --> 00:12:38,320
phds

275
00:12:42,230 --> 00:12:40,639
or as i said medical doctors in

276
00:12:44,310 --> 00:12:42,240
different fields of science and

277
00:12:46,550 --> 00:12:44,320
engineering

278
00:12:48,389 --> 00:12:46,560
just about everybody has good strong

279
00:12:49,829 --> 00:12:48,399
operational background too a lot of

280
00:12:52,629 --> 00:12:49,839
people have worked in extreme

281
00:12:55,269 --> 00:12:52,639
environments uh or in environments that

282
00:12:56,470 --> 00:12:55,279
are very operationally oriented a lot of

283
00:12:58,310 --> 00:12:56,480
people

284
00:13:01,190 --> 00:12:58,320
among the civilian ranks also have

285
00:13:03,910 --> 00:13:01,200
aviation backgrounds uh our private

286
00:13:06,629 --> 00:13:03,920
pilots and and such

287
00:13:09,350 --> 00:13:06,639
but just about everybody is in science

288
00:13:15,030 --> 00:13:09,360

engineering uh technology of some type

289
00:13:23,670 --> 00:13:17,829
hi this is anya and my question is what

290
00:13:30,550 --> 00:13:27,190
our menu is uh is varied wide and varied

291
00:13:31,590 --> 00:13:30,560
um of course it's it's hard to have food

292
00:13:33,190 --> 00:13:31,600
up here that

293
00:13:35,190 --> 00:13:33,200
we don't have a refrigerator well we

294
00:13:37,190 --> 00:13:35,200
have a small one but the food is not

295
00:13:39,350 --> 00:13:37,200
refrigerated in general

296
00:13:41,269 --> 00:13:39,360
so it has to have a shelf life that

297
00:13:43,269 --> 00:13:41,279
lasts a long time months at a time so we

298
00:13:45,910 --> 00:13:43,279
have a lot of food that's it's like

299
00:13:48,790 --> 00:13:45,920
military meals ready to eat

300
00:13:51,030 --> 00:13:48,800
like this here is a chicken with corn

301
00:13:52,629 --> 00:13:51,040
and baked beans and you just heat it up

302
00:13:53,750 --> 00:13:52,639
and cut it open

303
00:13:56,310 --> 00:13:53,760
and eat it

304
00:13:58,310 --> 00:13:56,320
we've got a lot of other food that is

305
00:14:00,550 --> 00:13:58,320
dehydrated

306
00:14:03,430 --> 00:14:00,560
like right here is probably one of your

307
00:14:06,310 --> 00:14:03,440
favorite foods asparagus we have lots of

308
00:14:08,470 --> 00:14:06,320
vegetables like this dehydrated and we

309
00:14:10,550 --> 00:14:08,480
stick a needle uh in the end of this

310
00:14:12,470 --> 00:14:10,560
little bag and stick hot water in it in

311
00:14:14,870 --> 00:14:12,480
10 or 15 minutes it's ready to eat cut

312
00:14:17,910 --> 00:14:14,880
it open with a pair of scissors and uh

313
00:14:20,230 --> 00:14:17,920

and dish it up with a with a spoon uh

314
00:14:22,710 --> 00:14:20,240
and we have lots of different kinds of

315
00:14:24,550 --> 00:14:22,720
foods uh all the

316
00:14:26,150 --> 00:14:24,560
the entrees that you might think of all

317
00:14:29,189 --> 00:14:26,160
of the vegetables that you might think

318
00:14:30,949 --> 00:14:29,199
of the side dishes desserts and then of

319
00:14:32,629 --> 00:14:30,959
course we have drinks

320
00:14:35,910 --> 00:14:32,639
and the drinks come in bags like this

321
00:14:38,389 --> 00:14:35,920
where we stick a needle in insert either

322
00:14:41,030 --> 00:14:38,399
cool or hot water into it depending upon

323
00:14:43,110 --> 00:14:41,040
what it is this is a chocolate chocolate

324
00:14:45,910 --> 00:14:43,120
breakfast drink like you might have in

325
00:14:47,910 --> 00:14:45,920
your house so that's one example i

326
00:14:49,590 --> 00:14:47,920
typically drink coffee every morning but

327
00:14:51,750 --> 00:14:49,600
through a straw all our drinks are done

328
00:14:53,189 --> 00:14:51,760
through a straw uh we also have a lot of

329
00:14:55,590 --> 00:14:53,199
international food we got a lot of

330
00:14:57,990 --> 00:14:55,600
russian food on board we sometimes have

331
00:15:00,389 --> 00:14:58,000
european food and japanese food and even

332
00:15:08,790 --> 00:15:00,399
canadian the canadians contribute some

333
00:15:20,310 --> 00:15:12,389
hi this is vires if you discovered a

334
00:15:24,710 --> 00:15:22,389
that's a hard question i don't know if i

335
00:15:26,470 --> 00:15:24,720
would ever want to name a planet myself

336
00:15:28,949 --> 00:15:26,480
i have no idea what i would name a

337
00:15:31,430 --> 00:15:28,959
planet i think that's such a significant

338
00:15:33,670 --> 00:15:31,440

thing to name a planet that it would

339
00:15:36,629 --> 00:15:33,680
have to be much much bigger than me we'd

340
00:15:39,430 --> 00:15:36,639
have to involve people around the world

341
00:15:43,030 --> 00:15:39,440
and maybe maybe even children around the

342
00:15:45,189 --> 00:15:43,040
world have a contest to come up with a

343
00:15:47,509 --> 00:15:45,199
name and then have a selection committee

344
00:15:53,590 --> 00:15:47,519
to choose the winner that's much bigger

345
00:16:01,509 --> 00:15:56,550
hi this is enzo would you want to go on

346
00:16:04,870 --> 00:16:03,189
that's a good question

347
00:16:07,030 --> 00:16:04,880
thankfully i don't have to answer that

348
00:16:09,350 --> 00:16:07,040
question because i think mars will be

349
00:16:11,350 --> 00:16:09,360
beyond my career

350
00:16:13,430 --> 00:16:11,360
that's a completely different mission

351
00:16:14,949 --> 00:16:13,440
you know we leave earth and we orbit the

352
00:16:16,470 --> 00:16:14,959
earth and we can look out the window

353
00:16:17,990 --> 00:16:16,480
from the space station we can see the

354
00:16:20,870 --> 00:16:18,000
earth all the time day and night we

355
00:16:23,350 --> 00:16:20,880
orbit the earth 16 times a day every 90

356
00:16:24,790 --> 00:16:23,360
minutes and earth is our home so there's

357
00:16:26,389 --> 00:16:24,800
a connection there

358
00:16:28,870 --> 00:16:26,399
the trip to mars

359
00:16:30,629 --> 00:16:28,880
will also last months

360
00:16:32,710 --> 00:16:30,639
so you're off the planet for months but

361
00:16:35,350 --> 00:16:32,720
you're also out of the view largely of

362
00:16:38,069 --> 00:16:35,360
the planet you can't even see stars out

363
00:16:40,550 --> 00:16:38,079

there because the sun is shining we only

364
00:16:42,389 --> 00:16:40,560
see stars here when we are behind the

365
00:16:44,629 --> 00:16:42,399
shadow of the earth and the sun isn't

366
00:16:47,269 --> 00:16:44,639
shining on us if the sun is shining on

367
00:16:49,269 --> 00:16:47,279
us it's so bright we can't see the stars

368
00:16:50,949 --> 00:16:49,279
so that's a completely different uh

369
00:16:52,710 --> 00:16:50,959
mission so

370
00:16:54,710 --> 00:16:52,720
thankfully i don't have to answer that

371
00:16:56,710 --> 00:16:54,720
question whether i would go to mars if

372
00:16:59,829 --> 00:16:56,720
esther

373
00:17:05,270 --> 00:17:02,310
hi this is evan i have a question from

374
00:17:07,350 --> 00:17:05,280
the yuma county library in yuma arizona

375
00:17:14,390 --> 00:17:07,360
ben would like to know is it fun to play

376
00:17:20,230 --> 00:17:17,189
every astronaut no matter how old he or

377
00:17:22,870 --> 00:17:20,240
she is turns into a kid again to play

378
00:17:25,429 --> 00:17:22,880
with the food we play with the food all

379
00:17:27,350 --> 00:17:25,439
the time and it's a lot of fun and we

380
00:17:35,669 --> 00:17:27,360
don't have our mom and dad up here to

381
00:17:39,909 --> 00:17:37,990
hi this is madison

382
00:17:43,830 --> 00:17:39,919
do you think there is life on another

383
00:17:47,909 --> 00:17:46,070
that's a good question i know that uh

384
00:17:50,470 --> 00:17:47,919
his question comes up all the time and

385
00:17:52,390 --> 00:17:50,480
that's largely what's driving or what in

386
00:17:53,830 --> 00:17:52,400
part what's driving i think space

387
00:17:56,230 --> 00:17:53,840
exploration and

388
00:17:58,950 --> 00:17:56,240

the the goal to get to mars uh

389
00:18:01,190 --> 00:17:58,960
personally i i don't see any evidence

390
00:18:03,669 --> 00:18:01,200
that there's life on other planets but

391
00:18:06,150 --> 00:18:03,679
it sure doesn't hurt to to go look for

392
00:18:08,150 --> 00:18:06,160
it and uh who and even

393
00:18:10,789 --> 00:18:08,160
during the looking who knows what we're

394
00:18:13,110 --> 00:18:10,799
going to discover the history of human

395
00:18:15,590 --> 00:18:13,120
civilization is really the history of

396
00:18:17,430 --> 00:18:15,600
discovery and exploration and if you

397
00:18:20,630 --> 00:18:17,440
study history my father was a history

398
00:18:23,029 --> 00:18:20,640
teacher if you study history you grow to

399
00:18:25,510 --> 00:18:23,039
appreciate how important discovery

400
00:18:26,950 --> 00:18:25,520
exploration trying to figure out what's

401
00:18:30,310 --> 00:18:26,960
around the corner what's over the

402
00:18:34,630 --> 00:18:30,320
horizon what's on the next planet is uh

403
00:18:38,870 --> 00:18:37,270
hold stand up here i i'm understanding

404
00:18:42,950 --> 00:18:38,880
that we are

405
00:18:45,430 --> 00:18:42,960
jeff

406
00:18:47,190 --> 00:18:45,440
from elgin and we know what your words

407
00:18:49,430 --> 00:18:47,200
of wisdom have been and it's about

408
00:18:51,350 --> 00:18:49,440
discovery innovation and expanding