



PARK

findyourpark.com

Mississippi
CREATION A

FIND
YOU

PARK

our story #findyour

1
00:00:04,390 --> 00:00:02,470
station

2
00:00:07,590 --> 00:00:04,400
this is secretary jewell how do you hear

3
00:00:10,790 --> 00:00:09,430
secretary jewell we have you loud and

4
00:00:13,990 --> 00:00:10,800
clear it's great to have you on board

5
00:00:16,630 --> 00:00:14,000
the international space station welcome

6
00:00:19,750 --> 00:00:16,640
it's great to be on board i'm here at

7
00:00:21,750 --> 00:00:19,760
the science museum of minnesota with

8
00:00:24,790 --> 00:00:21,760
a wonderful group of people and we've

9
00:00:25,910 --> 00:00:24,800
just been paddling on the mississippi

10
00:00:27,830 --> 00:00:25,920
river so

11
00:00:31,509 --> 00:00:27,840
we got a lineup of questions for you are

12
00:00:34,630 --> 00:00:31,519
you ready for a few of them

13
00:00:40,310 --> 00:00:35,750

and uh

14

00:00:43,510 --> 00:00:42,389

absolutely please do

15

00:00:44,709 --> 00:00:43,520

all right

16

00:00:47,029 --> 00:00:44,719

um

17

00:00:49,190 --> 00:00:47,039

well one of the things that uh i think

18

00:00:50,310 --> 00:00:49,200

we'd all like to know is

19

00:00:52,869 --> 00:00:50,320

um

20

00:00:53,910 --> 00:00:52,879

on this celebration of the national park

21

00:00:56,549 --> 00:00:53,920

service

22

00:00:58,389 --> 00:00:56,559

anything you'd like to tell us about

23

00:01:03,830 --> 00:00:58,399

the national parks yourself in this

24

00:01:07,910 --> 00:01:06,390

well i i would imagine that you might

25

00:01:10,870 --> 00:01:07,920

have seen the video that the folks in

26
00:01:12,789 --> 00:01:10,880
houston helped me put together and to

27
00:01:15,510 --> 00:01:12,799
release yesterday

28
00:01:17,429 --> 00:01:15,520
that says mostly of what i would want to

29
00:01:19,510 --> 00:01:17,439
say in regards that national parks have

30
00:01:20,950 --> 00:01:19,520
been a big part of my life throughout my

31
00:01:23,190 --> 00:01:20,960
lifetime

32
00:01:25,270 --> 00:01:23,200
my father was primarily a school teacher

33
00:01:27,990 --> 00:01:25,280
but he participated in a program that

34
00:01:29,990 --> 00:01:28,000
the park service had when i was ages

35
00:01:32,310 --> 00:01:30,000
four five and six to spend summers out

36
00:01:35,270 --> 00:01:32,320
in devils tower national monument

37
00:01:37,350 --> 00:01:35,280
so i grew uh in a early on in

38
00:01:39,190 --> 00:01:37,360

appreciation of the parks and and every

39

00:01:41,109 --> 00:01:39,200

summer during those summers we'd go to

40

00:01:43,590 --> 00:01:41,119

yellowstone the tetons one summer we

41

00:01:46,789 --> 00:01:43,600

went to the glaciers or glacier national

42

00:01:47,590 --> 00:01:46,799

park the badlands of course

43

00:01:53,030 --> 00:01:47,600

and

44

00:01:56,149 --> 00:01:53,040

so that i had an early appreciation for

45

00:01:57,590 --> 00:01:56,159

the parks and for outdoor activities in

46

00:02:00,389 --> 00:01:57,600

general of course

47

00:02:02,469 --> 00:02:00,399

as i grew older had my own family

48

00:02:04,630 --> 00:02:02,479

i took my family on that same

49

00:02:07,190 --> 00:02:04,640

voyage same journey through those parks

50

00:02:08,469 --> 00:02:07,200

not only those parks but also parks like

51
00:02:11,110 --> 00:02:08,479
the grand canyon

52
00:02:13,830 --> 00:02:11,120
and the major parks in california so i

53
00:02:15,270 --> 00:02:13,840
mean it's a it's a beautiful part uh an

54
00:02:17,510 --> 00:02:15,280
important part of the heritage of

55
00:02:20,470 --> 00:02:17,520
america and americana important part of

56
00:02:22,070 --> 00:02:20,480
our history and uh i'm sure that most of

57
00:02:24,070 --> 00:02:22,080
us would agree that it's important to

58
00:02:27,510 --> 00:02:24,080
continue the commitment to preserve

59
00:02:31,910 --> 00:02:29,750
well thank you for that wonderful video

60
00:02:33,830 --> 00:02:31,920
i had a chance to see it we'll make sure

61
00:02:36,150 --> 00:02:33,840
our audience members get a link to it so

62
00:02:37,750 --> 00:02:36,160
that they can look uh to it as well but

63
00:02:38,790 --> 00:02:37,760

the pictures that you're taking from

64

00:02:40,710 --> 00:02:38,800

space

65

00:02:43,430 --> 00:02:40,720

and how that giant camera looked so

66

00:02:46,869 --> 00:02:43,440

lightweight in a weightless space was

67

00:02:46,879 --> 00:02:52,229

there it is

68

00:02:59,910 --> 00:02:54,309

that's great

69

00:03:03,190 --> 00:03:01,670

yeah we actually i don't know if you

70

00:03:05,350 --> 00:03:03,200

guys know how much we've been talking

71

00:03:08,070 --> 00:03:05,360

about national parks up here

72

00:03:09,990 --> 00:03:08,080

the video that jeff made and

73

00:03:11,990 --> 00:03:10,000

having this event with with all of you

74

00:03:14,229 --> 00:03:12,000

folks we actually have been sharing

75

00:03:17,190 --> 00:03:14,239

memories about all the camping that we

76

00:03:19,270 --> 00:03:17,200

did growing up and so my family

77

00:03:21,509 --> 00:03:19,280

family vacations always grown up in

78

00:03:23,830 --> 00:03:21,519

california where uh put all the kids in

79

00:03:25,589 --> 00:03:23,840

the back of the car and let's drive to a

80

00:03:27,670 --> 00:03:25,599

national park and so i've got some

81

00:03:30,070 --> 00:03:27,680

really wonderful memories of trips to

82

00:03:32,869 --> 00:03:30,080

yosemite yellowstone

83

00:03:35,110 --> 00:03:32,879

all basically all over uh the west and

84

00:03:36,630 --> 00:03:35,120

the southwest and we visited many of

85

00:03:38,630 --> 00:03:36,640

those parks there

86

00:03:40,390 --> 00:03:38,640

i've got some wonderful memories of that

87

00:03:43,670 --> 00:03:40,400

and i think it's just an incredible

88

00:03:45,990 --> 00:03:43,680

thing that we have these special places

89

00:03:48,550 --> 00:03:46,000

that we've preserved them and that we

90

00:03:51,030 --> 00:03:48,560

have these beautiful areas for families

91

00:03:53,350 --> 00:03:51,040

to enjoy together so we've had a lot of

92

00:03:55,350 --> 00:03:53,360

fun on the space station talking about

93

00:03:58,470 --> 00:03:55,360

all of our experiences in the wilderness

94

00:04:00,470 --> 00:03:58,480

and and all of really the

95

00:04:02,550 --> 00:04:00,480

kind of the amazing training that that

96

00:04:04,070 --> 00:04:02,560

funny enough provides for space flight

97

00:04:06,710 --> 00:04:04,080

uh it's really uh quite like a

98

00:04:08,149 --> 00:04:06,720

backpacking trip up here sometimes

99

00:04:09,830 --> 00:04:08,159

i bet it is

100

00:04:11,350 --> 00:04:09,840

uh although sometimes even the

101
00:04:12,869 --> 00:04:11,360
backpacking food might taste a little

102
00:04:13,750 --> 00:04:12,879
better than your space food i don't know

103
00:04:15,670 --> 00:04:13,760
but

104
00:04:19,030 --> 00:04:15,680
i'll tell you we all together were in

105
00:04:20,710 --> 00:04:19,040
these giant voyager canoes and

106
00:04:23,270 --> 00:04:20,720
as we paddled down the river on a

107
00:04:25,590 --> 00:04:23,280
beautiful sunny day here

108
00:04:27,430 --> 00:04:25,600
with a little bit of wind and the

109
00:04:30,230 --> 00:04:27,440
insects tripping in the background we

110
00:04:33,990 --> 00:04:30,240
had a bald eagle that was our company we

111
00:04:34,870 --> 00:04:34,000
saw uh his or her nest way up in the sky

112
00:04:37,030 --> 00:04:34,880
uh

113
00:04:39,350 --> 00:04:37,040

they were the eagle was soaring over us

114

00:04:41,909 --> 00:04:39,360

looking for food and uh we went right

115

00:04:44,469 --> 00:04:41,919

through the confluence of the the

116

00:04:45,909 --> 00:04:44,479

minnesota and the uh mississippi rivers

117

00:04:48,550 --> 00:04:45,919

where the two rivers come together so

118

00:04:49,990 --> 00:04:48,560

it's pretty extraordinary we've got some

119

00:04:51,430 --> 00:04:50,000

questions here johanna do you want to

120

00:04:52,950 --> 00:04:51,440

come on up here and ask the first

121

00:04:54,629 --> 00:04:52,960

question

122

00:04:55,749 --> 00:04:54,639

they want to go first okay jovan you

123

00:04:56,710 --> 00:04:55,759

want to come up and ask your question

124

00:04:57,749 --> 00:04:56,720

first

125

00:04:59,510 --> 00:04:57,759

all right

126
00:05:01,110 --> 00:04:59,520
come on up

127
00:05:02,469 --> 00:05:01,120
and just uh kind of stand right next to

128
00:05:04,390 --> 00:05:02,479
me and

129
00:05:06,150 --> 00:05:04,400
see the astronauts right there

130
00:05:08,310 --> 00:05:06,160
i'm going to just lower this a little so

131
00:05:09,350 --> 00:05:08,320
hopefully you can see jovan there we go

132
00:05:11,990 --> 00:05:09,360
all right you want to wave at him

133
00:05:15,270 --> 00:05:12,000
katie's waiting at you here we go

134
00:05:17,029 --> 00:05:15,280
all right go ahead ask your question

135
00:05:19,110 --> 00:05:17,039
um

136
00:05:25,510 --> 00:05:19,120
are you guys on are you guys going to

137
00:05:29,270 --> 00:05:27,590
we are not going to the moon i wish we

138
00:05:30,790 --> 00:05:29,280

were going to the moon maybe one day

139

00:05:32,390 --> 00:05:30,800

we'll go back to the moon we are

140

00:05:33,909 --> 00:05:32,400

orbiting the earth

141

00:05:36,790 --> 00:05:33,919

uh we're

142

00:05:40,390 --> 00:05:36,800

on average about 250 miles above the

143

00:05:43,110 --> 00:05:40,400

earth's surface but we're going 17 500

144

00:05:44,870 --> 00:05:43,120

miles an hour in orbit around the earth

145

00:05:48,230 --> 00:05:44,880

and that takes us around the earth every

146

00:05:51,510 --> 00:05:48,240

90 minutes or 16 times a day

147

00:05:53,189 --> 00:05:51,520

so it's an incredible place to be to

148

00:05:56,070 --> 00:05:53,199

especially

149

00:05:57,350 --> 00:05:56,080

to look back in the view of the earth we

150

00:05:59,830 --> 00:05:57,360

are at

151

00:06:03,110 --> 00:05:59,840

an inclination of a little over 51

152

00:06:05,029 --> 00:06:03,120

degrees that means it's a we're on a

153

00:06:07,430 --> 00:06:05,039

incline to the equator

154

00:06:09,749 --> 00:06:07,440

that far so we can see the entire globe

155

00:06:11,909 --> 00:06:09,759

over a period of time with the exception

156

00:06:15,270 --> 00:06:11,919

of the poles so it's a it's a beautiful

157

00:06:16,550 --> 00:06:15,280

place to be for earth observation

158

00:06:17,590 --> 00:06:16,560

but i bet they'd both like to go to the

159

00:06:19,670 --> 00:06:17,600

moon would you like to go to the moon

160

00:06:20,710 --> 00:06:19,680

too yeah yeah me too i don't think it's

161

00:06:21,909 --> 00:06:20,720

gonna happen for me but maybe it'll

162

00:06:24,469 --> 00:06:21,919

happen for you

163

00:06:26,790 --> 00:06:24,479

all right thanks jovan

164

00:06:28,309 --> 00:06:26,800

okay john our super oops i guess i'm

165

00:06:29,670 --> 00:06:28,319

here i'm a little taller uh john is

166

00:06:31,270 --> 00:06:29,680

superintendent of the mississippi

167

00:06:32,830 --> 00:06:31,280

national river and recreation area he's

168

00:06:34,469 --> 00:06:32,840

got a question for you

169

00:06:35,990 --> 00:06:34,479

john

170

00:06:37,350 --> 00:06:36,000

some would be very appropriate in my

171

00:06:38,870 --> 00:06:37,360

question because i work on the

172

00:06:44,950 --> 00:06:38,880

mississippi river so can you see the

173

00:06:49,749 --> 00:06:47,830

you absolutely can jeff even pointed it

174

00:06:52,230 --> 00:06:49,759

out to me a few weeks ago as we're going

175

00:06:54,309 --> 00:06:52,240

around the globe uh he's been showing me

176

00:06:56,710 --> 00:06:54,319

the sights and it and it goes from the

177

00:06:59,189 --> 00:06:56,720

pyramids in egypt to our launch sites in

178

00:07:01,189 --> 00:06:59,199

baikonur and he made sure to point out

179

00:07:04,390 --> 00:07:01,199

the mississippi river and so

180

00:07:06,390 --> 00:07:04,400

it actually is a very short pass over it

181

00:07:08,950 --> 00:07:06,400

because we're going so quick so you got

182

00:07:10,790 --> 00:07:08,960

to get your camera ready and i got some

183

00:07:11,909 --> 00:07:10,800

beautiful shots with the sun glint

184

00:07:13,909 --> 00:07:11,919

coming in

185

00:07:16,550 --> 00:07:13,919

with our our good advice from our expert

186

00:07:19,110 --> 00:07:16,560

photographer here it's it's a fantastic

187

00:07:23,670 --> 00:07:19,120

place to photograph over the us and it's

188

00:07:27,510 --> 00:07:25,909

so when we were paddling down the river

189

00:07:29,510 --> 00:07:27,520

today we could see the different colors

190

00:07:31,270 --> 00:07:29,520

together can you actually see colors

191

00:07:32,469 --> 00:07:31,280

like that from outer space where you

192

00:07:37,510 --> 00:07:32,479

know the muddy river full of the

193

00:07:42,469 --> 00:07:39,830

absolutely it's very obvious from space

194

00:07:44,629 --> 00:07:42,479

you see where rivers dump into the ocean

195

00:07:47,110 --> 00:07:44,639

you see where it dumps into the lake

196

00:07:48,790 --> 00:07:47,120

one very beautiful confluence of rivers

197

00:07:50,710 --> 00:07:48,800

that i pointed out to kate

198

00:07:52,950 --> 00:07:50,720

in the last couple of days is the white

199

00:07:54,950 --> 00:07:52,960

river where it flows into the missouri

200

00:07:57,189 --> 00:07:54,960

river the white river course carries a

201
00:07:58,869 --> 00:07:57,199
lot of the soil sediment coming from the

202
00:08:00,950 --> 00:07:58,879
badlands and the missouri river comes

203
00:08:03,589 --> 00:08:00,960
down it's a little clearer and that's a

204
00:08:05,749 --> 00:08:03,599
beautiful confluence of a very a very

205
00:08:07,189 --> 00:08:05,759
stark contrast in colors

206
00:08:08,150 --> 00:08:07,199
definitely you can see it and as kate

207
00:08:10,070 --> 00:08:08,160
mentioned

208
00:08:13,029 --> 00:08:10,080
when we get sun glit when the sun is

209
00:08:15,510 --> 00:08:13,039
reflected off the waters

210
00:08:16,950 --> 00:08:15,520
that is especially impressive and you

211
00:08:18,309 --> 00:08:16,960
can see different colors you see

212
00:08:21,110 --> 00:08:18,319
currents

213
00:08:22,469 --> 00:08:21,120

you can see shipwrecks or boat wakes

214

00:08:24,150 --> 00:08:22,479

we can see

215

00:08:26,230 --> 00:08:24,160

ship traffic barge traffic on the

216

00:08:29,589 --> 00:08:26,240

mississippi river very clearly

217

00:08:31,110 --> 00:08:29,599

especially through a big lens like this

218

00:08:32,389 --> 00:08:31,120

wow that's amazing

219

00:08:34,149 --> 00:08:32,399

you know

220

00:08:36,070 --> 00:08:34,159

i'm gonna ask a question while i ask

221

00:08:38,149 --> 00:08:36,080

mayor coleman of saint paul to come on

222

00:08:39,990 --> 00:08:38,159

up here i was just in glacier national

223

00:08:41,589 --> 00:08:40,000

park yesterday actually and yellowstone

224

00:08:44,550 --> 00:08:41,599

because it's a big week for the national

225

00:08:46,070 --> 00:08:44,560

park service and i'm curious um

226

00:08:48,070 --> 00:08:46,080

whether you see

227

00:08:50,070 --> 00:08:48,080

impacts to glaciers and impacts of

228

00:08:52,150 --> 00:08:50,080

climate change uh from outer space

229

00:08:53,509 --> 00:08:52,160

whether there's pictures from the past

230

00:08:54,870 --> 00:08:53,519

or now that

231

00:08:56,389 --> 00:08:54,880

can compare where you can help us

232

00:09:01,269 --> 00:08:56,399

understand what's happening to our

233

00:09:05,910 --> 00:09:03,990

yeah we actually have uh whole teams of

234

00:09:07,910 --> 00:09:05,920

folks on the ground that are analyzing

235

00:09:10,470 --> 00:09:07,920

some of the crew earth observation

236

00:09:13,190 --> 00:09:10,480

photographs we take from space and so

237

00:09:15,509 --> 00:09:13,200

we can take we can take photographs of a

238

00:09:17,509 --> 00:09:15,519

number of different phenomenon we send

239

00:09:19,350 --> 00:09:17,519

those those down and

240

00:09:21,750 --> 00:09:19,360

the the data analysis folks can take a

241

00:09:23,829 --> 00:09:21,760

look at a lot of different things that

242

00:09:26,550 --> 00:09:23,839

are happening over time and so this

243

00:09:29,509 --> 00:09:26,560

isn't just limited to glaciers

244

00:09:31,430 --> 00:09:29,519

they've got a huge list of

245

00:09:34,150 --> 00:09:31,440

scientific observations that we can make

246

00:09:37,030 --> 00:09:34,160

from space as well as things for example

247

00:09:38,870 --> 00:09:37,040

with international disaster charter when

248

00:09:40,230 --> 00:09:38,880

there's floods when there's hurricanes

249

00:09:43,110 --> 00:09:40,240

that kind of thing we actually have a

250

00:09:44,949 --> 00:09:43,120

way to expedite that up on board

251

00:09:46,310 --> 00:09:44,959

obviously there's satellites that are

252

00:09:48,150 --> 00:09:46,320

unmanned satellites that are taking

253

00:09:50,470 --> 00:09:48,160

pictures out but astronauts can take

254

00:09:51,990 --> 00:09:50,480

photography we have some unique oblique

255

00:09:54,550 --> 00:09:52,000

angles where we can look at things from

256

00:09:56,389 --> 00:09:54,560

the side and see all kinds of phenomenon

257

00:09:59,430 --> 00:09:56,399

on the planet

258

00:10:01,750 --> 00:09:59,440

so we just had devastating floods in

259

00:10:03,670 --> 00:10:01,760

louisiana is that something that you

260

00:10:08,389 --> 00:10:03,680

guys have been engaged in from up there

261

00:10:12,949 --> 00:10:11,030

well we have we try to take pictures

262

00:10:15,110 --> 00:10:12,959

when an event like that happens on the

263

00:10:16,870 --> 00:10:15,120

earth of the event area and we've been

264

00:10:18,870 --> 00:10:16,880

trying every day

265

00:10:20,550 --> 00:10:18,880

since the flood occurred to louisiana

266

00:10:23,030 --> 00:10:20,560

when we have a passover louisiana to

267

00:10:24,550 --> 00:10:23,040

take pictures uh the first few days that

268

00:10:25,990 --> 00:10:24,560

we attempted to do that the weather

269

00:10:28,310 --> 00:10:26,000

didn't cooperate so we didn't have a

270

00:10:29,990 --> 00:10:28,320

clear view but in the in the recent days

271

00:10:32,310 --> 00:10:30,000

we were able to take some extensive

272

00:10:34,710 --> 00:10:32,320

photography of that area and hopefully

273

00:10:37,590 --> 00:10:34,720

it'll be of some use some aid

274

00:10:39,590 --> 00:10:37,600

to the to the recovery teams and the and

275

00:10:41,590 --> 00:10:39,600

the ground teams that are going into to

276

00:10:43,190 --> 00:10:41,600

assist in that

277

00:10:45,590 --> 00:10:43,200

that's great we're glad you're up there

278

00:10:47,509 --> 00:10:45,600

uh looking at us and looking after us uh

279

00:10:48,949 --> 00:10:47,519

mayor coleman chris coleman is the mayor

280

00:10:51,350 --> 00:10:48,959

of saint paul

281

00:10:52,949 --> 00:10:51,360

mr mayor gotta lift it up for you a

282

00:10:54,949 --> 00:10:52,959

little bit well thank you so much it's

283

00:10:57,030 --> 00:10:54,959

an honor to be talking with you i i like

284

00:10:58,949 --> 00:10:57,040

you're comparing a backpacking trip to

285

00:11:00,470 --> 00:10:58,959

uh to being on the space shuttle or out

286

00:11:02,150 --> 00:11:00,480

of the space station

287

00:11:03,829 --> 00:11:02,160

i think if the secretary goes back into

288

00:11:05,590 --> 00:11:03,839

her former line of work at rei some

289

00:11:07,110 --> 00:11:05,600

weightless camping equipment would

290

00:11:08,230 --> 00:11:07,120

really be ideal

291

00:11:10,150 --> 00:11:08,240

that'd be great

292

00:11:12,389 --> 00:11:10,160

so i have a i have a to test your

293

00:11:16,230 --> 00:11:12,399

astronaut knowledge and your

294

00:11:17,750 --> 00:11:16,240

your history we have two space shuttle

295

00:11:19,509 --> 00:11:17,760

astronauts that came from the city of

296

00:11:23,590 --> 00:11:19,519

saint paul so your trivia question is

297

00:11:23,600 --> 00:11:27,269

well i know one is bob cabana

298

00:11:32,710 --> 00:11:29,509

that's not who that's not the judges

299

00:11:35,110 --> 00:11:32,720

were not looking for bob cabana

300

00:11:37,829 --> 00:11:35,120

he's from minneapolis he's a minneapolis

301

00:11:42,470 --> 00:11:40,470

oh sorry sorry see i'm i'm from

302

00:11:45,110 --> 00:11:42,480

wisconsin so i it to me it's all just

303

00:11:46,230 --> 00:11:45,120

one big city sorry

304

00:11:48,069 --> 00:11:46,240

well we have

305

00:11:49,509 --> 00:11:48,079

we actually we have we have a bunch of

306

00:11:51,670 --> 00:11:49,519

folks from minnesota we have pinkie

307

00:11:53,670 --> 00:11:51,680

nelson but he was from wilmer but the

308

00:11:55,190 --> 00:11:53,680

space shuttle astronauts were digger

309

00:11:57,190 --> 00:11:55,200

carrie

310

00:11:59,350 --> 00:11:57,200

uh heidi's definition piper

311

00:12:00,470 --> 00:11:59,360

we're both from saint paul

312

00:12:02,310 --> 00:12:00,480

yeah yeah

313

00:12:06,550 --> 00:12:02,320

yes and i should know that they're both

314

00:12:10,629 --> 00:12:08,629

well i'll tell you mayor we claim pinky

315

00:12:15,030 --> 00:12:10,639

nelson in my home community of seattle

316

00:12:16,790 --> 00:12:15,040

now so yeah can we have him well yeah

317

00:12:17,509 --> 00:12:16,800

you want him back okay we'll let him

318

00:12:19,269 --> 00:12:17,519

know

319

00:12:21,590 --> 00:12:19,279

uh johanna do you have a question now

320

00:12:23,190 --> 00:12:21,600

come on up come on up

321

00:12:25,110 --> 00:12:23,200

well let's start with one we'll see

322

00:12:27,430 --> 00:12:25,120

where we go from there we got uh about

323

00:12:29,430 --> 00:12:27,440

eight more minutes yeah come on up

324

00:12:41,590 --> 00:12:29,440

johanna was on our paddling trip today

325

00:12:41,600 --> 00:12:45,509

hello

326

00:12:45,519 --> 00:12:56,310

my name is johanna

327

00:13:02,629 --> 00:12:58,389

um

328

00:13:02,639 --> 00:13:08,310

are wormholes real yeah

329

00:13:12,710 --> 00:13:10,470

hey johanna it is great to be talking to

330

00:13:14,629 --> 00:13:12,720

you from the space station thank you so

331

00:13:17,509 --> 00:13:14,639

much for coming up and giving us your

332

00:13:19,509 --> 00:13:17,519

question and our wormholes reel is

333

00:13:21,990 --> 00:13:19,519

pretty fascinating i think that gets

334

00:13:23,190 --> 00:13:22,000

into a realm of some extremely complex

335

00:13:25,350 --> 00:13:23,200

physics

336

00:13:27,350 --> 00:13:25,360

i actually like to watch a lot of

337

00:13:29,829 --> 00:13:27,360

science fiction and you always see

338

00:13:32,069 --> 00:13:29,839

fantastic wormholes in science fiction

339

00:13:34,310 --> 00:13:32,079

and folks can get from one place to the

340

00:13:36,470 --> 00:13:34,320

other in the galaxy we don't quite have

341

00:13:38,870 --> 00:13:36,480

harnessed that technology yet

342

00:13:41,430 --> 00:13:38,880

at nasa but we are working on a lot of

343

00:13:43,990 --> 00:13:41,440

technologies to transport us beyond low

344

00:13:46,389 --> 00:13:44,000

earth orbit and i bet you there are some

345

00:13:48,629 --> 00:13:46,399

physicists out there that are digging

346

00:13:51,829 --> 00:13:48,639

very deep into that question that are

347

00:13:54,470 --> 00:13:51,839

extremely interested in how all of this

348

00:13:57,350 --> 00:13:54,480

gets put together in space and time and

349

00:13:58,949 --> 00:13:57,360

so we just really like to thank you for

350

00:14:01,430 --> 00:13:58,959

beaming your question up to the space

351
00:14:03,509 --> 00:14:01,440
station

352
00:14:04,870 --> 00:14:03,519
thanks another one

353
00:14:05,990 --> 00:14:04,880
um

354
00:14:07,350 --> 00:14:06,000
uh

355
00:14:14,150 --> 00:14:07,360
yes um

356
00:14:18,550 --> 00:14:16,310
that's a good question uh of course the

357
00:14:19,990 --> 00:14:18,560
theory would say that time changes uh

358
00:14:22,550 --> 00:14:20,000
with speed

359
00:14:25,750 --> 00:14:22,560
uh we don't notice any change here it

360
00:14:27,269 --> 00:14:25,760
works uh i mean time goes by actually it

361
00:14:28,470 --> 00:14:27,279
seems like it goes by pretty fast up

362
00:14:30,069 --> 00:14:28,480
here because we're

363
00:14:32,710 --> 00:14:30,079

having a pretty good time with all the

364

00:14:33,990 --> 00:14:32,720

work going on and and whatnot in its

365

00:14:36,550 --> 00:14:34,000

challenging work

366

00:14:41,110 --> 00:14:36,560

but subjectively the time feels the same

367

00:14:44,550 --> 00:14:43,030

um

368

00:14:46,470 --> 00:14:44,560

thank you for your time it was nice

369

00:14:47,509 --> 00:14:46,480

meeting you

370

00:14:48,710 --> 00:14:47,519

thank you hannah you want to be an

371

00:14:50,870 --> 00:14:48,720

astronaut

372

00:14:54,710 --> 00:14:50,880

um

373

00:14:57,430 --> 00:14:55,990

well i don't really want to be an

374

00:14:58,550 --> 00:14:57,440

astronaut but i've always wanted to go

375

00:14:59,750 --> 00:14:58,560

to space

376

00:15:02,389 --> 00:14:59,760

but

377

00:15:07,590 --> 00:15:02,399

i'm i'm an artist right now i'm just

378

00:15:12,150 --> 00:15:10,150

all right a room would you come on up

379

00:15:13,829 --> 00:15:12,160

here and ask your question roo is the

380

00:15:15,910 --> 00:15:13,839

head of an organization called outdoor

381

00:15:18,550 --> 00:15:15,920

afro and that's making sure that the

382

00:15:20,069 --> 00:15:18,560

outdoors feel welcoming to all people in

383

00:15:21,269 --> 00:15:20,079

particular african americans who are

384

00:15:23,189 --> 00:15:21,279

very much underrepresented in the

385

00:15:24,870 --> 00:15:23,199

outdoors and she's brought this group of

386

00:15:27,189 --> 00:15:24,880

uh people out to paddle with us this

387

00:15:27,990 --> 00:15:27,199

morning so rue thank you very much

388

00:15:30,790 --> 00:15:28,000

um

389

00:15:34,150 --> 00:15:30,800

my question is uh what are you missing

390

00:15:37,829 --> 00:15:34,160

about nature uh while you're up there um

391

00:15:40,949 --> 00:15:37,839

i don't see any plants or any trees

392

00:15:46,470 --> 00:15:40,959

so what or what place of nature are you

393

00:15:49,590 --> 00:15:48,310

that is a great question and and you

394

00:15:52,550 --> 00:15:49,600

really have hit the nail on the head we

395

00:15:54,550 --> 00:15:52,560

do miss nature up here uh we i would say

396

00:15:55,749 --> 00:15:54,560

we miss everything about being outdoors

397

00:15:57,509 --> 00:15:55,759

we miss

398

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

just small things that you don't notice

399

00:16:01,110 --> 00:15:59,600

until they're gone like feeling breeze

400

00:16:03,990 --> 00:16:01,120

against your face

401
00:16:05,590 --> 00:16:04,000
hearing nature sounds seeing green

402
00:16:07,189 --> 00:16:05,600
somebody told me actually to pack a lot

403
00:16:09,430 --> 00:16:07,199
of green shirts because you're going to

404
00:16:11,670 --> 00:16:09,440
want to see green up here and you can

405
00:16:13,590 --> 00:16:11,680
see the the lab behind us has got some

406
00:16:15,590 --> 00:16:13,600
nice colors on it but there's nothing

407
00:16:17,829 --> 00:16:15,600
like seeing a forest

408
00:16:19,749 --> 00:16:17,839
or a beautiful meadow i think that's

409
00:16:22,150 --> 00:16:19,759
really hardwired into the human

410
00:16:25,189 --> 00:16:22,160
experience so we miss all of those

411
00:16:27,350 --> 00:16:25,199
things we do actually have a few plants

412
00:16:29,350 --> 00:16:27,360
up here they're not on video it's part

413
00:16:30,870 --> 00:16:29,360

of an experiment we just put it in the

414

00:16:32,790 --> 00:16:30,880

columbus module

415

00:16:34,870 --> 00:16:32,800

in the in the um

416

00:16:36,389 --> 00:16:34,880

one of the payload racks there and we're

417

00:16:39,030 --> 00:16:36,399

actually going to take a look at plant

418

00:16:41,350 --> 00:16:39,040

growth on board we do have a lot of

419

00:16:44,790 --> 00:16:41,360

things up here that we can take a look

420

00:16:47,189 --> 00:16:44,800

at through the lenses and see

421

00:16:49,030 --> 00:16:47,199

beautiful landscapes in nature and that

422

00:16:50,790 --> 00:16:49,040

brings it a little bit closer but i

423

00:16:52,389 --> 00:16:50,800

would say there's nothing like

424

00:16:57,509 --> 00:16:52,399

like a beautiful walk on a summer

425

00:16:57,519 --> 00:17:00,230

thank you

426

00:17:03,749 --> 00:17:02,389

so we also have with us congresswoman

427

00:17:04,470 --> 00:17:03,759

betty mccollum

428

00:17:05,990 --> 00:17:04,480

who

429

00:17:08,549 --> 00:17:06,000

has been a champion for our national

430

00:17:10,309 --> 00:17:08,559

parks and a champion for uh tribal

431

00:17:12,150 --> 00:17:10,319

communities and she's great to work with

432

00:17:13,429 --> 00:17:12,160

so uh congresswoman mccollum you want to

433

00:17:15,669 --> 00:17:13,439

say something to our astronauts here

434

00:17:18,549 --> 00:17:15,679

thank you secretary julian it's great

435

00:17:20,870 --> 00:17:18,559

it's just wonderful being able to talk

436

00:17:22,789 --> 00:17:20,880

to you and ask you a question about

437

00:17:25,029 --> 00:17:22,799

climate change i'm going to have my

438

00:17:26,549 --> 00:17:25,039

first opportunity shortly i hope in the

439

00:17:28,630 --> 00:17:26,559

next couple months to go to glacier

440

00:17:31,029 --> 00:17:28,640

national park because i want to see the

441

00:17:33,350 --> 00:17:31,039

glacier before it disappears you said

442

00:17:35,750 --> 00:17:33,360

that you have a log of

443

00:17:38,150 --> 00:17:35,760

photos now that nasa's taken what is the

444

00:17:40,470 --> 00:17:38,160

biggest takeaway that we can share with

445

00:17:46,470 --> 00:17:40,480

people after this conversation about the

446

00:17:51,110 --> 00:17:48,789

i don't know i would have to uh review

447

00:17:52,950 --> 00:17:51,120

the data we as kate said before we've

448

00:17:55,190 --> 00:17:52,960

taken pictures of the earth for many

449

00:17:55,909 --> 00:17:55,200

many years now so you'd have to go back

450

00:17:58,230 --> 00:17:55,919

and

451
00:17:59,750 --> 00:17:58,240
actually compare

452
00:18:02,390 --> 00:17:59,760
the changes

453
00:18:03,750 --> 00:18:02,400
i've been up here now a year and a half

454
00:18:05,909 --> 00:18:03,760
total

455
00:18:07,990 --> 00:18:05,919
and i see the seasons go by but it's not

456
00:18:09,190 --> 00:18:08,000
enough time not enough exposure for us

457
00:18:11,830 --> 00:18:09,200
to see

458
00:18:13,029 --> 00:18:11,840
much beyond that now some seasons are

459
00:18:16,710 --> 00:18:13,039
more

460
00:18:18,310 --> 00:18:16,720
others colder than

461
00:18:20,390 --> 00:18:18,320
some winters are colder than others more

462
00:18:23,190 --> 00:18:20,400
snow in different areas so you see

463
00:18:24,549 --> 00:18:23,200

variations across the planet but beyond

464

00:18:26,150 --> 00:18:24,559

that it would be very difficult to

465

00:18:28,630 --> 00:18:26,160

answer that question from our

466

00:18:30,310 --> 00:18:28,640

observation up here sounds like

467

00:18:31,669 --> 00:18:30,320

something congress should find there you

468

00:18:33,590 --> 00:18:31,679

go

469

00:18:35,270 --> 00:18:33,600

i can't disagree with there i think

470

00:18:37,990 --> 00:18:35,280

we're almost out of time i just want to

471

00:18:40,549 --> 00:18:38,000

tell both of you how enormously proud we

472

00:18:44,789 --> 00:18:40,559

are of what you're doing

473

00:18:48,549 --> 00:18:46,070

we send you

474

00:18:51,990 --> 00:18:48,559

nature and sunshine and

475

00:18:57,110 --> 00:18:52,000

birds chirping and wind

476

00:19:00,950 --> 00:18:59,110

thank you and it means a whole lot to

477

00:19:03,590 --> 00:19:00,960

make this connection with you guys and

478

00:19:05,909 --> 00:19:03,600

to talk with folks that have just done

479

00:19:08,230 --> 00:19:05,919

amazing things like like paddling on a

480

00:19:09,669 --> 00:19:08,240

river it brings it a little bit closer

481

00:19:11,669 --> 00:19:09,679

i know that we're looking forward to

482

00:19:13,830 --> 00:19:11,679

getting back to our beautiful planet at

483

00:19:16,390 --> 00:19:13,840

the same time we really love our vantage

484

00:19:18,870 --> 00:19:16,400

point up here and it's amazing

485

00:19:46,870 --> 00:19:18,880

to see the entire earth from a continent

486

00:19:53,669 --> 00:19:48,150

station this is houston acr that

487

00:19:57,110 --> 00:19:55,430

thank you madam secretary station we're