



1  
00:00:06,070 --> 00:00:02,950  
i think it's important for people to

2  
00:00:09,509 --> 00:00:06,080  
realize that especially the youth that

3  
00:00:11,110 --> 00:00:09,519  
even if the cards that life deals you

4  
00:00:12,950 --> 00:00:11,120  
doesn't always come out in your favor

5  
00:00:16,310 --> 00:00:12,960  
for you to pursue your dreams from the

6  
00:00:18,710 --> 00:00:16,320  
start it's important to always dream

7  
00:00:20,550 --> 00:00:18,720  
i am sabrina thompson

8  
00:00:26,550 --> 00:00:20,560  
i work at nasa

9  
00:00:32,069 --> 00:00:29,509  
i was raised in a community that was

10  
00:00:33,910 --> 00:00:32,079  
it was considered the poorest community

11  
00:00:34,950 --> 00:00:33,920  
on long island in new york

12  
00:00:36,549 --> 00:00:34,960  
and

13  
00:00:38,310 --> 00:00:36,559

i remember

14

00:00:40,470 --> 00:00:38,320

trying to figure out what i wanted to go

15

00:00:42,470 --> 00:00:40,480

to college for what did i want to study

16

00:00:44,069 --> 00:00:42,480

one teacher told me how about you try

17

00:00:46,470 --> 00:00:44,079

mechanical engineering you're very

18

00:00:48,470 --> 00:00:46,480

creative and you know you're smart

19

00:00:50,549 --> 00:00:48,480

you're good in math and science

20

00:00:53,750 --> 00:00:50,559

and i remember

21

00:00:56,790 --> 00:00:53,760

asking my physics teacher about it

22

00:00:58,630 --> 00:00:56,800

and he said no he said you you know

23

00:01:00,389 --> 00:00:58,640

those classes are going to be so hard

24

00:01:02,310 --> 00:01:00,399

for you you should stick with what

25

00:01:04,390 --> 00:01:02,320

you're good at which at the time for me

26

00:01:07,590 --> 00:01:04,400

was art that's kind of what started me

27

00:01:09,990 --> 00:01:07,600

on this path actually to pursue a career

28

00:01:12,950 --> 00:01:10,000

in engineering so i said all that to say

29

00:01:15,190 --> 00:01:12,960

that you should never let some someone

30

00:01:16,310 --> 00:01:15,200

take away your dreams or hinder your

31

00:01:18,469 --> 00:01:16,320

dream

32

00:01:20,710 --> 00:01:18,479

working at nasa that that was a big

33

00:01:24,550 --> 00:01:20,720

accomplishment for me

34

00:01:26,710 --> 00:01:24,560

i'm the first in my family actually to

35

00:01:28,230 --> 00:01:26,720

receive a bachelor's degree and a

36

00:01:30,149 --> 00:01:28,240

master's degree

37

00:01:31,190 --> 00:01:30,159

and in the future hopefully a phd as

38

00:01:32,469 --> 00:01:31,200

well

39

00:01:34,390 --> 00:01:32,479

nasa

40

00:01:36,149 --> 00:01:34,400

is a place where there's a lot of great

41

00:01:38,390 --> 00:01:36,159

opportunities for people who love

42

00:01:41,429 --> 00:01:38,400

learning i'm one of those people i love

43

00:01:42,469 --> 00:01:41,439

to learn and i know that if i had a job

44

00:01:43,670 --> 00:01:42,479

that

45

00:01:47,350 --> 00:01:43,680

i couldn't

46

00:01:48,550 --> 00:01:47,360

would that would hinder me in some way

47

00:01:50,630 --> 00:01:48,560

and so i think that was one thing that

48

00:01:52,710 --> 00:01:50,640

really attracted me to nasa just the

49

00:01:55,590 --> 00:01:52,720

opportunities to learn

50

00:01:57,270 --> 00:01:55,600

we're making innovative things here and

51

00:01:58,870 --> 00:01:57,280

and so for me that's that's very

52

00:02:01,030 --> 00:01:58,880

important i'm contributing to the

53

00:02:02,709 --> 00:02:01,040

betterment of society so

54

00:02:04,550 --> 00:02:02,719

that's definitely important for me and

55

00:02:06,149 --> 00:02:04,560

nasa is definitely a place where you can

56

00:02:08,550 --> 00:02:06,159

do that

57

00:02:10,710 --> 00:02:08,560

i think my future is very bright i see

58

00:02:13,750 --> 00:02:10,720

myself

59

00:02:16,229 --> 00:02:13,760

actually working on space flight

60

00:02:18,949 --> 00:02:16,239

hardware getting into the lines of

61

00:02:21,430 --> 00:02:18,959

actually utilizing my skills as an

62

00:02:23,670 --> 00:02:21,440

aerospace mechanical engineer

63

00:02:26,309 --> 00:02:23,680

depending on you know how things turn

64

00:02:28,710 --> 00:02:26,319

over in the future i actually see myself

65

00:02:31,830 --> 00:02:28,720

becoming an astronaut

66

00:02:34,869 --> 00:02:31,840

and especially a motivational speaker i

67

00:02:37,430 --> 00:02:34,879

love talking with kids i love inspiring

68

00:02:40,150 --> 00:02:37,440

people motivating people just to

69

00:02:42,070 --> 00:02:40,160

get the energy inside of them that exist

70

00:02:43,030 --> 00:02:42,080

and use it for

71

00:02:44,630 --> 00:02:43,040

you know

72

00:02:47,270 --> 00:02:44,640

their betterment for the betterment of

73

00:02:50,229 --> 00:02:47,280

society it hurts me to see

74

00:02:52,869 --> 00:02:50,239

people accepting um

75

00:03:06,390 --> 00:02:52,879

how i'm saying this word mediocrity

76

00:03:11,509 --> 00:03:08,710

good afternoon everyone my name is

77

00:03:13,110 --> 00:03:11,519

sabrina thompson and you just saw my

78

00:03:15,750 --> 00:03:13,120

nasa story

79

00:03:17,670 --> 00:03:15,760

women's history month celebrates

80

00:03:20,149 --> 00:03:17,680

individual comp the individual

81

00:03:20,869 --> 00:03:20,159

contributions and stories of women like

82

00:03:22,149 --> 00:03:20,879

me

83

00:03:24,390 --> 00:03:22,159

our history

84

00:03:26,630 --> 00:03:24,400

which is our strength

85

00:03:28,710 --> 00:03:26,640

it's my pleasure to welcome you

86

00:03:30,309 --> 00:03:28,720

to the nasa and white house women's

87

00:03:33,830 --> 00:03:30,319

history month event

88

00:03:36,949 --> 00:03:33,840

at nasa headquarters in washington dc

89

00:03:40,869 --> 00:03:36,959

with that i'd like to introduce our host

90

00:03:49,110 --> 00:03:40,879

nasa deputy administrator lori garver

91

00:03:54,789 --> 00:03:52,149

thank you everyone um i am nasa

92

00:03:56,390 --> 00:03:54,799

associate deputy administrator rebecca

93

00:03:57,830 --> 00:03:56,400

kaiser

94

00:04:00,390 --> 00:03:57,840

associate deputy administrator for

95

00:04:03,990 --> 00:04:00,400

policy integration

96

00:04:06,229 --> 00:04:04,000

sabrina is one of the 32 women you will

97

00:04:10,229 --> 00:04:06,239

see featured on our women at nasa

98

00:04:13,190 --> 00:04:10,239

website that we are rolling out today

99

00:04:15,190 --> 00:04:13,200

i'm so excited about this website that

100

00:04:18,629 --> 00:04:15,200

is one of many stories and throughout

101

00:04:21,030 --> 00:04:18,639

our event today you'll also see a clip

102

00:04:21,909 --> 00:04:21,040

from deputy administrator lori garver's

103

00:04:24,230 --> 00:04:21,919

video

104

00:04:26,310 --> 00:04:24,240

and you'll see astronaut tracy

105

00:04:27,990 --> 00:04:26,320

caldwell-dyson's video which also are on

106

00:04:30,710 --> 00:04:28,000

the website

107

00:04:33,350 --> 00:04:30,720

before i go into more i would like to

108

00:04:35,030 --> 00:04:33,360

sincerely thank our science cheerleaders

109

00:04:36,870 --> 00:04:35,040

for being with us today they did a

110

00:04:38,230 --> 00:04:36,880

wonderful job during our warm-up event

111

00:04:39,350 --> 00:04:38,240

and they're here in our audience and

112

00:04:45,909 --> 00:04:39,360

please give them another round of

113

00:04:50,390 --> 00:04:48,310

and thank you so much to trina farrell

114

00:04:51,749 --> 00:04:50,400

who's one of our education specialists

115

00:04:54,870 --> 00:04:51,759

from langley

116

00:04:57,830 --> 00:04:54,880

who did also some wonderful education

117

00:05:04,070 --> 00:04:57,840

warm-up events for our audience thank

118

00:05:07,909 --> 00:05:06,310

so i am so proud of our website that

119

00:05:09,590 --> 00:05:07,919

we're rolling out today

120

00:05:11,430 --> 00:05:09,600

and we're highlighting all of these

121

00:05:13,270 --> 00:05:11,440

wonderful women

122

00:05:15,350 --> 00:05:13,280

and we have several of the women who are

123

00:05:17,110 --> 00:05:15,360

highlighted on our website here with us

124

00:05:19,590 --> 00:05:17,120

in the audience today can you please

125

00:05:21,029 --> 00:05:19,600

stand if you are one of our women at

126  
00:05:23,110 --> 00:05:21,039  
nasa

127  
00:05:31,590 --> 00:05:23,120  
website participants

128  
00:05:35,909 --> 00:05:33,510  
thank you you know

129  
00:05:37,110 --> 00:05:35,919  
nasa's vision is to reach for new

130  
00:05:39,029 --> 00:05:37,120  
heights

131  
00:05:41,749 --> 00:05:39,039  
and reveal the unknown

132  
00:05:44,790 --> 00:05:41,759  
so that what we do and what we learn

133  
00:05:47,510 --> 00:05:44,800  
will benefit all humankind

134  
00:05:49,270 --> 00:05:47,520  
these women on this website many of whom

135  
00:05:51,590 --> 00:05:49,280  
you just saw standing

136  
00:05:53,189 --> 00:05:51,600  
are doing just these things on a daily

137  
00:05:55,350 --> 00:05:53,199  
basis

138  
00:05:56,950 --> 00:05:55,360

so how did this website come about

139

00:05:59,590 --> 00:05:56,960

the white house counsel for women and

140

00:06:02,230 --> 00:05:59,600

girls has members from across the

141

00:06:04,390 --> 00:06:02,240

federal government and our agencies all

142

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

contribute our efforts to focus on

143

00:06:09,110 --> 00:06:06,400

enhancing opportunities and removing

144

00:06:11,029 --> 00:06:09,120

barriers for women and girls

145

00:06:12,790 --> 00:06:11,039

one of the priority areas for the

146

00:06:15,189 --> 00:06:12,800

council is increasing the number of

147

00:06:17,670 --> 00:06:15,199

women in science technology and

148

00:06:20,469 --> 00:06:17,680

engineering fields

149

00:06:22,150 --> 00:06:20,479

nasa is in a unique position to inspire

150

00:06:25,590 --> 00:06:22,160

girls and women to enter into these

151

00:06:27,990 --> 00:06:25,600

fields through its incredible mission

152

00:06:29,909 --> 00:06:28,000

so we thought what better way to inspire

153

00:06:32,469 --> 00:06:29,919

women and girls than to share some of

154

00:06:35,029 --> 00:06:32,479

the fascinating stories of women here at

155

00:06:37,909 --> 00:06:35,039

nasa and how they got to nasa through

156

00:06:40,550 --> 00:06:37,919

our website we could have provided links

157

00:06:43,189 --> 00:06:40,560

and lines of information to different

158

00:06:44,950 --> 00:06:43,199

resources for women and girls

159

00:06:46,469 --> 00:06:44,960

but what's more inspiring than seeing

160

00:06:49,589 --> 00:06:46,479

the women themselves and hearing their

161

00:06:51,830 --> 00:06:49,599

stories and so that's what we did

162

00:06:54,629 --> 00:06:51,840

we have a wonderful web designer who is

163

00:06:57,029 --> 00:06:54,639

also our manager of our open government

164

00:06:58,950 --> 00:06:57,039

initiative nick skitland who designed

165

00:07:00,710 --> 00:06:58,960

our website for us who's here in the

166

00:07:03,270 --> 00:07:00,720

audience with us today he did an

167

00:07:10,710 --> 00:07:03,280

incredible job and please go to the

168

00:07:15,350 --> 00:07:13,110

please go to the website

169

00:07:18,110 --> 00:07:15,360

starting today come back often we're

170

00:07:20,629 --> 00:07:18,120

going to have a lot of updates it's

171

00:07:23,510 --> 00:07:20,639

women.nasa.gov you can get there through

172

00:07:25,990 --> 00:07:23,520

our homepage nasa.gov it's fabulous

173

00:07:28,550 --> 00:07:26,000

you'll love it

174

00:07:31,510 --> 00:07:28,560

and now i have the honor to introduce

175

00:07:33,909 --> 00:07:31,520

nasa deputy administrator lori garver

176

00:07:36,870 --> 00:07:33,919

talk about inspirational

177

00:07:39,189 --> 00:07:36,880

imagine being second in command of an

178

00:07:40,710 --> 00:07:39,199

agency of more than eighteen thousand

179

00:07:44,230 --> 00:07:40,720

civil servants

180

00:07:46,869 --> 00:07:44,240

and more than forty thousand contractors

181

00:07:49,189 --> 00:07:46,879

imagine in just one day

182

00:07:51,430 --> 00:07:49,199

having to explain to congress why we

183

00:07:53,189 --> 00:07:51,440

need the multi-billion dollar james webb

184

00:07:55,110 --> 00:07:53,199

space telescope

185

00:07:57,270 --> 00:07:55,120

then turn around an hour later and have

186

00:07:58,790 --> 00:07:57,280

a meeting with the white house on

187

00:08:01,830 --> 00:07:58,800

with senior white house officials i

188

00:08:04,150 --> 00:08:01,840

should say on information technology

189

00:08:06,230 --> 00:08:04,160

and then have a media interview about

190

00:08:07,589 --> 00:08:06,240

nasa's proposed budget and that's on a

191

00:08:10,070 --> 00:08:07,599

light day

192

00:08:12,710 --> 00:08:10,080

uh lori is amazing and she does her job

193

00:08:14,950 --> 00:08:12,720

with intelligence candor and humor

194

00:08:27,510 --> 00:08:14,960

please help me welcome nasa deputy

195

00:08:33,509 --> 00:08:31,110

thank you very much rebecca uh we and

196

00:08:35,670 --> 00:08:33,519

sabrina it's a really real

197

00:08:38,949 --> 00:08:35,680

pleasure to be able to say welcome

198

00:08:42,949 --> 00:08:38,959

ladies to nasa i don't get to do that

199

00:08:46,310 --> 00:08:42,959

often enough really really great to see

200

00:08:47,509 --> 00:08:46,320

you all here and to share with you

201  
00:08:49,030 --> 00:08:47,519  
our stories

202  
00:08:51,030 --> 00:08:49,040  
as rebecca has talked about we are

203  
00:08:52,790 --> 00:08:51,040  
unveiling this website the women of nasa

204  
00:08:54,790 --> 00:08:52,800  
today we are so proud of the

205  
00:08:57,590 --> 00:08:54,800  
contributions of

206  
00:08:59,350 --> 00:08:57,600  
all women to uh that we are highlighting

207  
00:09:03,030 --> 00:08:59,360  
to nasa and we hope to even expand

208  
00:09:05,190 --> 00:09:03,040  
beyond a 32 some of which uh stood uh

209  
00:09:08,630 --> 00:09:05,200  
already i do believe they were going to

210  
00:09:10,790 --> 00:09:08,640  
tee up one minute of my of the

211  
00:09:14,310 --> 00:09:10,800  
four minutes i just said it is just too

212  
00:09:20,470 --> 00:09:14,320  
long uh on my profile on this video so

213  
00:09:23,750 --> 00:09:22,630

there are so many happy moments of my

214

00:09:25,670 --> 00:09:23,760

career

215

00:09:27,750 --> 00:09:25,680

when president obama asked me to come

216

00:09:29,269 --> 00:09:27,760

back there was no question that i was

217

00:09:33,030 --> 00:09:29,279

just thrilled to do

218

00:09:35,590 --> 00:09:33,040

anything here that he felt i could help

219

00:09:37,910 --> 00:09:35,600

him do at nasa so of course that's

220

00:09:40,630 --> 00:09:37,920

something that is pretty daunting to

221

00:09:42,790 --> 00:09:40,640

come to nasa to serve the president as

222

00:09:45,670 --> 00:09:42,800

the deputy administrator of

223

00:09:47,350 --> 00:09:45,680

an incredible agency going through the

224

00:09:48,710 --> 00:09:47,360

whole process of confirmation with

225

00:09:51,030 --> 00:09:48,720

charlie

226

00:09:53,110 --> 00:09:51,040

bolden was an incredibly

227

00:09:54,870 --> 00:09:53,120

wonderful experience

228

00:09:57,990 --> 00:09:54,880

there have been so many

229

00:10:00,230 --> 00:09:58,000

highlights for me the moment of liftoff

230

00:10:02,069 --> 00:10:00,240

of the last space shuttle mission where

231

00:10:05,509 --> 00:10:02,079

i was with the head of the russian space

232

00:10:07,110 --> 00:10:05,519

agency and on the balcony of osb2 we're

233

00:10:08,550 --> 00:10:07,120

standing there three and a half miles

234

00:10:11,670 --> 00:10:08,560

away and

235

00:10:13,030 --> 00:10:11,680

to think that the very organizations

236

00:10:15,110 --> 00:10:13,040

that

237

00:10:17,269 --> 00:10:15,120

symbolized the cold war were now working

238

00:10:24,790 --> 00:10:17,279

together and as the rocket lifted off it

239

00:10:30,870 --> 00:10:28,790

so again please go to the website and

240

00:10:33,750 --> 00:10:30,880

listen and watch as

241

00:10:35,990 --> 00:10:33,760

you outline we outline in this website

242

00:10:38,069 --> 00:10:36,000

for you the backgrounds and experiences

243

00:10:39,509 --> 00:10:38,079

of of those of us who work at nasa this

244

00:10:41,509 --> 00:10:39,519

is really all about you today this is

245

00:10:42,870 --> 00:10:41,519

about you students

246

00:10:46,069 --> 00:10:42,880

and

247

00:10:48,069 --> 00:10:46,079

the first lego league robotics teams all

248

00:10:50,069 --> 00:10:48,079

female teams we've got here as well as

249

00:10:51,590 --> 00:10:50,079

representatives from schools

250

00:10:54,949 --> 00:10:51,600

around the city

251

00:10:57,350 --> 00:10:54,959

i uniquely unfortunately of course is

252

00:11:00,630 --> 00:10:57,360

so ironic only have boys

253

00:11:03,269 --> 00:11:00,640

my of teenage boys and uh so it is

254

00:11:05,910 --> 00:11:03,279

especially wonderful to uh welcome you

255

00:11:07,350 --> 00:11:05,920

rebecca has her daughter uh down here

256

00:11:09,829 --> 00:11:07,360

just i think to continue to make me

257

00:11:12,870 --> 00:11:09,839

jealous that she

258

00:11:14,550 --> 00:11:12,880

has someone sammy to buy uh pink for

259

00:11:16,150 --> 00:11:14,560

march is

260

00:11:18,550 --> 00:11:16,160

women's history month and the white

261

00:11:20,069 --> 00:11:18,560

house council on women and girls is

262

00:11:22,710 --> 00:11:20,079

co-sponsoring this event with us today

263

00:11:25,750 --> 00:11:22,720

at nasa has identified education and

264

00:11:28,389 --> 00:11:25,760

employment as the two themes to focus on

265

00:11:31,670 --> 00:11:28,399

this month so the people you'll see here

266

00:11:32,710 --> 00:11:31,680

today are prime examples of what you can

267

00:11:34,630 --> 00:11:32,720

achieve

268

00:11:36,230 --> 00:11:34,640

if uh you

269

00:11:38,389 --> 00:11:36,240

pursue

270

00:11:41,269 --> 00:11:38,399

science and technology

271

00:11:42,949 --> 00:11:41,279

engineering and math education stem

272

00:11:44,870 --> 00:11:42,959

education is something that we care a

273

00:11:46,870 --> 00:11:44,880

lot about at nasa we are the largest

274

00:11:48,150 --> 00:11:46,880

federal employers of people in the stem

275

00:11:50,150 --> 00:11:48,160

fields

276

00:11:52,710 --> 00:11:50,160

while there are a lot of career paths

277

00:11:55,190 --> 00:11:52,720

that are of course going to make you all

278

00:11:57,509 --> 00:11:55,200

productive members of society

279

00:11:59,670 --> 00:11:57,519

we in particular believe that women

280

00:12:03,269 --> 00:11:59,680

going into the stem fields is something

281

00:12:05,030 --> 00:12:03,279

that we at nasa want to promote

282

00:12:06,310 --> 00:12:05,040

women have over the years made huge

283

00:12:09,110 --> 00:12:06,320

contributions

284

00:12:11,750 --> 00:12:09,120

to nasa we've been astronauts scientists

285

00:12:14,550 --> 00:12:11,760

engineers program managers and yes

286

00:12:16,949 --> 00:12:14,560

bureaucrats like me

287

00:12:18,629 --> 00:12:16,959

a woman wrote nasa's founding documents

288

00:12:21,110 --> 00:12:18,639

in 1958

289

00:12:23,590 --> 00:12:21,120

eileen galloway she only died a few

290

00:12:25,030 --> 00:12:23,600

years ago at 105 and it was a privilege

291

00:12:27,829 --> 00:12:25,040

to know her she worked for lyndon

292

00:12:31,350 --> 00:12:27,839

johnson in the united states senate and

293

00:12:34,150 --> 00:12:31,360

wrote the space act of 1958

294

00:12:36,069 --> 00:12:34,160

a woman founded nasa i know a lot of

295

00:12:38,470 --> 00:12:36,079

people believe it was eisenhower but i'm

296

00:12:41,910 --> 00:12:38,480

giving it to eileen galloway

297

00:12:43,910 --> 00:12:41,920

it was a woman who very recently uh

298

00:12:47,030 --> 00:12:43,920

she was funded by nasa research money

299

00:12:48,629 --> 00:12:47,040

but she found this unique life form on

300

00:12:51,670 --> 00:12:48,639

earth maybe you heard of it based on

301  
00:12:53,910 --> 00:12:51,680  
arsenic rather than carbon and she is

302  
00:12:56,389 --> 00:12:53,920  
only 33 years old

303  
00:12:58,949 --> 00:12:56,399  
but as i said we need more

304  
00:13:00,550 --> 00:12:58,959  
we have about 6 000 women at nasa here's

305  
00:13:03,430 --> 00:13:00,560  
the statistics part we love our

306  
00:13:06,870 --> 00:13:03,440  
statistics at nasa we have 18 000 civil

307  
00:13:09,350 --> 00:13:06,880  
servant employees as rebecca outlined 6

308  
00:13:12,389 --> 00:13:09,360  
600 are women

309  
00:13:14,230 --> 00:13:12,399  
uh 2 500 are engineers and that's out of

310  
00:13:16,150 --> 00:13:14,240  
uh or in technical fields and that's out

311  
00:13:18,069 --> 00:13:16,160  
about uh 9 000

312  
00:13:19,509 --> 00:13:18,079  
engineers

313  
00:13:22,150 --> 00:13:19,519

and

314

00:13:24,470 --> 00:13:22,160

our general employment

315

00:13:26,230 --> 00:13:24,480

so let's talk about that for a minute

316

00:13:28,310 --> 00:13:26,240

how do how do you guys feel about that

317

00:13:29,430 --> 00:13:28,320

are women a third

318

00:13:31,990 --> 00:13:29,440

a quarter

319

00:13:32,870 --> 00:13:32,000

of of uh the population

320

00:13:35,190 --> 00:13:32,880

no

321

00:13:36,470 --> 00:13:35,200

what are we

322

00:13:39,430 --> 00:13:36,480

we're actually a little more than half

323

00:13:41,030 --> 00:13:39,440

right so we live longer uh so

324

00:13:41,910 --> 00:13:41,040

we do

325

00:13:45,269 --> 00:13:41,920

uh

326

00:13:47,590 --> 00:13:45,279

have a ways to go i think i i know for

327

00:13:49,829 --> 00:13:47,600

myself i owe so much to the generation

328

00:13:51,509 --> 00:13:49,839

that came before me they literally

329

00:13:53,910 --> 00:13:51,519

opened the doors to allow me to have the

330

00:13:55,590 --> 00:13:53,920

opportunities that i have

331

00:13:58,230 --> 00:13:55,600

but that just makes me more committed

332

00:14:01,030 --> 00:13:58,240

every day to do the same for you

333

00:14:03,110 --> 00:14:01,040

we love to be proud of our female

334

00:14:04,870 --> 00:14:03,120

astronauts one of whom i'm going to be

335

00:14:08,629 --> 00:14:04,880

able to introduce in a moment we love to

336

00:14:11,110 --> 00:14:08,639

be proud of our cfo is a woman our cio

337

00:14:13,030 --> 00:14:11,120

is a woman one of our 10 center

338

00:14:15,509 --> 00:14:13,040

directors is a woman none of our mission

339

00:14:18,389 --> 00:14:15,519

directors are women our deputy's a woman

340

00:14:21,670 --> 00:14:18,399

i'm even the second woman deputy at nasa

341

00:14:24,230 --> 00:14:21,680

um okay it's progress uh but let's not

342

00:14:26,230 --> 00:14:24,240

let's let's not stop trying to reach uh

343

00:14:29,910 --> 00:14:26,240

for for full equality

344

00:14:31,269 --> 00:14:29,920

um i can see your generation is going to

345

00:14:32,790 --> 00:14:31,279

change that

346

00:14:35,430 --> 00:14:32,800

your generation no one's going to

347

00:14:38,310 --> 00:14:35,440

mention if you're the deputy that uh in

348

00:14:40,710 --> 00:14:38,320

particular uh you're you're a woman so

349

00:14:42,629 --> 00:14:40,720

this is uh a commitment

350

00:14:44,550 --> 00:14:42,639

that that i make to this and it's one of

351  
00:14:45,670 --> 00:14:44,560  
the reasons i'm so happy that nasa is

352  
00:14:47,030 --> 00:14:45,680  
partnering

353  
00:14:49,829 --> 00:14:47,040  
with the white house council on women

354  
00:14:51,990 --> 00:14:49,839  
and girls and doing this website

355  
00:14:54,389 --> 00:14:52,000  
so the white house also just issued a

356  
00:14:56,629 --> 00:14:54,399  
report called women in america it

357  
00:14:58,470 --> 00:14:56,639  
summarizes the status of women women

358  
00:15:00,230 --> 00:14:58,480  
generally in many areas including

359  
00:15:02,629 --> 00:15:00,240  
careers in education and health where

360  
00:15:04,629 --> 00:15:02,639  
we've made a lot a lot of advancements

361  
00:15:07,509 --> 00:15:04,639  
uh it's the first time this report has

362  
00:15:10,310 --> 00:15:07,519  
been done since 1963. i think people

363  
00:15:11,509 --> 00:15:10,320

thought maybe we were done are we done

364

00:15:14,389 --> 00:15:11,519

not so much

365

00:15:16,230 --> 00:15:14,399

uh as the report notes we do still have

366

00:15:17,269 --> 00:15:16,240

a long way to go but women are out

367

00:15:19,269 --> 00:15:17,279

making

368

00:15:21,670 --> 00:15:19,279

many many strides in the workplace and

369

00:15:23,910 --> 00:15:21,680

of course in in education i have to

370

00:15:25,430 --> 00:15:23,920

acknowledge having one of my uh boys

371

00:15:27,189 --> 00:15:25,440

just go through the college application

372

00:15:29,189 --> 00:15:27,199

process you know he can have lower

373

00:15:30,629 --> 00:15:29,199

scores and get in because women in

374

00:15:32,550 --> 00:15:30,639

general have higher scores and they need

375

00:15:34,949 --> 00:15:32,560

a few boys just to go to college these

376

00:15:36,550 --> 00:15:34,959

days to to meet with you guys so see i

377

00:15:39,509 --> 00:15:36,560

know

378

00:15:42,230 --> 00:15:39,519

as rebecca mentioned we have a host of

379

00:15:43,189 --> 00:15:42,240

female nasa innovators and trailblazers

380

00:15:47,509 --> 00:15:43,199

with us

381

00:15:49,990 --> 00:15:47,519

that stood and they continue to inspire

382

00:15:52,389 --> 00:15:50,000

me every day and for those of you who

383

00:15:53,509 --> 00:15:52,399

are students today you

384

00:15:56,069 --> 00:15:53,519

know

385

00:15:57,030 --> 00:15:56,079

you are the key to our future so please

386

00:15:59,269 --> 00:15:57,040

uh

387

00:16:02,470 --> 00:15:59,279

get a hold of of these women after the

388

00:16:05,269 --> 00:16:02,480

program talk to them about the uh

389

00:16:06,870 --> 00:16:05,279

careers that are possible to you if you

390

00:16:09,829 --> 00:16:06,880

go into any of the the science

391

00:16:11,590 --> 00:16:09,839

technology engineering and math careers

392

00:16:13,990 --> 00:16:11,600

you truly truly

393

00:16:16,470 --> 00:16:14,000

are our hopes and dreams and we at nasa

394

00:16:18,790 --> 00:16:16,480

hope we get a share of you as you enter

395

00:16:21,430 --> 00:16:18,800

these careers so again thank you for

396

00:16:23,189 --> 00:16:21,440

being here it is now my privilege

397

00:16:26,069 --> 00:16:23,199

to introduce

398

00:16:28,550 --> 00:16:26,079

the partners that nasa has in today's

399

00:16:30,470 --> 00:16:28,560

program as i mentioned uh the white

400

00:16:32,710 --> 00:16:30,480

house council for women and girls and

401  
00:16:35,110 --> 00:16:32,720  
the chair of that council is miss

402  
00:16:37,030 --> 00:16:35,120  
valerie jarrett she is the senior

403  
00:16:39,030 --> 00:16:37,040  
advisor to the president of the united

404  
00:16:41,430 --> 00:16:39,040  
states of america so i'd add that it's

405  
00:16:43,189 --> 00:16:41,440  
not just any old president uh assistant

406  
00:16:45,509 --> 00:16:43,199  
to the president of the united states of

407  
00:16:48,550 --> 00:16:45,519  
america for intergovernmental affairs

408  
00:16:50,389 --> 00:16:48,560  
and public engagement now uh

409  
00:16:53,509 --> 00:16:50,399  
ms jarrett was also

410  
00:16:55,749 --> 00:16:53,519  
the co-chair of the transition team for

411  
00:16:58,949 --> 00:16:55,759  
the obama administration and this was

412  
00:16:59,990 --> 00:16:58,959  
where i first got to meet this amazing

413  
00:17:02,949 --> 00:17:00,000

person

414

00:17:05,669 --> 00:17:02,959

as one of the true uh highlights and

415

00:17:07,750 --> 00:17:05,679

honors of my life and career has been to

416

00:17:10,309 --> 00:17:07,760

lead the transition team for the uh

417

00:17:12,309 --> 00:17:10,319

incoming obama administration at nasa so

418

00:17:15,029 --> 00:17:12,319

we spend a couple months think about now

419

00:17:17,110 --> 00:17:15,039

your your public your political science

420

00:17:19,750 --> 00:17:17,120

part of your studies

421

00:17:20,870 --> 00:17:19,760

when the election happens in the united

422

00:17:24,870 --> 00:17:20,880

states

423

00:17:28,069 --> 00:17:24,880

we transition to the new administration

424

00:17:29,830 --> 00:17:28,079

in such an efficient and effective way

425

00:17:32,150 --> 00:17:29,840

as we look around what is happening in

426

00:17:33,750 --> 00:17:32,160

the world today you really recognize the

427

00:17:35,830 --> 00:17:33,760

responsibility of that two and a half

428

00:17:37,590 --> 00:17:35,840

month period where you're learning what

429

00:17:40,630 --> 00:17:37,600

you can about what is happening in the

430

00:17:44,470 --> 00:17:40,640

government and being ready on the moment

431

00:17:46,470 --> 00:17:44,480

uh uh noon of january 20th of that new

432

00:17:47,190 --> 00:17:46,480

year to become

433

00:17:53,110 --> 00:17:47,200

the

434

00:17:55,830 --> 00:17:53,120

valerie jarrett

435

00:17:57,350 --> 00:17:55,840

co-led what has widely been

436

00:17:58,470 --> 00:17:57,360

reported as the most effective

437

00:18:01,110 --> 00:17:58,480

transition

438

00:18:02,470 --> 00:18:01,120

for government in our entire history and

439

00:18:04,950 --> 00:18:02,480

it was a privilege to work with her

440

00:18:07,590 --> 00:18:04,960

there it is a privilege to co-chair this

441

00:18:19,190 --> 00:18:07,600

event on women and girls please help me

442

00:18:23,909 --> 00:18:21,750

well good afternoon everybody

443

00:18:25,029 --> 00:18:23,919

yeah how are you guys doing you look

444

00:18:27,110 --> 00:18:25,039

great

445

00:18:28,870 --> 00:18:27,120

lori thank you for that introduction we

446

00:18:30,789 --> 00:18:28,880

had a terrific time during the

447

00:18:32,630 --> 00:18:30,799

transition and laurie doesn't know how

448

00:18:34,950 --> 00:18:32,640

cool i really think this all is so for

449

00:18:37,590 --> 00:18:34,960

me to be over here with you today i am

450

00:18:39,110 --> 00:18:37,600

just delighted uh the president asked me

451  
00:18:39,909 --> 00:18:39,120  
to come over and i said are you kidding

452  
00:18:41,350 --> 00:18:39,919  
i'm

453  
00:18:42,870 --> 00:18:41,360  
rushing over there to meet all these

454  
00:18:45,110 --> 00:18:42,880  
terrific young

455  
00:18:47,830 --> 00:18:45,120  
women and girls and

456  
00:18:49,830 --> 00:18:47,840  
academics and folks here at nasa what a

457  
00:18:51,830 --> 00:18:49,840  
terrific terrific opportunity is for me

458  
00:18:54,150 --> 00:18:51,840  
to be you guys look really good

459  
00:18:57,110 --> 00:18:54,160  
i heard about you all right and i love

460  
00:18:58,390 --> 00:18:57,120  
your outfits so um so let me tell you

461  
00:18:59,669 --> 00:18:58,400  
this

462  
00:19:01,909 --> 00:18:59,679  
i think

463  
00:19:03,590 --> 00:19:01,919

the fact that we can try to get young

464

00:19:05,750 --> 00:19:03,600

people interested in science and

465

00:19:07,430 --> 00:19:05,760

technology and engineering and math is

466

00:19:08,950 --> 00:19:07,440

exactly where we should put our focus

467

00:19:11,190 --> 00:19:08,960

right now and the president has made it

468

00:19:13,190 --> 00:19:11,200

a priority i um

469

00:19:15,510 --> 00:19:13,200

i think about the women astronaut sally

470

00:19:17,270 --> 00:19:15,520

ride or me mae jamison who i have to

471

00:19:19,510 --> 00:19:17,280

tell you guys i went to college with we

472

00:19:21,669 --> 00:19:19,520

lived in the same dorm and although i

473

00:19:23,510 --> 00:19:21,679

wouldn't have necessarily predicted that

474

00:19:26,390 --> 00:19:23,520

she would be an astronaut i knew that

475

00:19:28,950 --> 00:19:26,400

may had the gift and determination and

476

00:19:31,190 --> 00:19:28,960

tenacity to do whatever she put her mind

477

00:19:33,270 --> 00:19:31,200

to doing and so even though it's been

478

00:19:34,950 --> 00:19:33,280

just a few years ago since we were in

479

00:19:36,549 --> 00:19:34,960

college together you could laugh it's

480

00:19:39,909 --> 00:19:36,559

funny i know it's not like it was a few

481

00:19:42,789 --> 00:19:39,919

years ago it was like 30 years ago but

482

00:19:44,230 --> 00:19:42,799

i saw in her a spark and a passion and

483

00:19:45,990 --> 00:19:44,240

it's really what has fueled her all

484

00:19:47,510 --> 00:19:46,000

these years and i'm hoping and i can

485

00:19:49,750 --> 00:19:47,520

just tell by the looks of many of your

486

00:19:52,390 --> 00:19:49,760

faces that you guys have that passion

487

00:19:54,950 --> 00:19:52,400

too so the president has been focused

488

00:19:56,789 --> 00:19:54,960

like a laser beam on getting young folks

489

00:19:57,990 --> 00:19:56,799

involved in science and technology and

490

00:19:59,669 --> 00:19:58,000

engineering and math and i want to just

491

00:20:01,590 --> 00:19:59,679

talk to you a little bit about what

492

00:20:04,470 --> 00:20:01,600

we're doing at the white house

493

00:20:07,190 --> 00:20:04,480

so in 2009 the president set a very

494

00:20:09,830 --> 00:20:07,200

ambitious goal he wanted to move the u.s

495

00:20:11,990 --> 00:20:09,840

students to the top in math and science

496

00:20:14,149 --> 00:20:12,000

over the next decade and so in his state

497

00:20:16,390 --> 00:20:14,159

of the union this year the president

498

00:20:18,630 --> 00:20:16,400

called for the nation uh to have an

499

00:20:20,470 --> 00:20:18,640

effort to get a hundred thousand new

500

00:20:21,590 --> 00:20:20,480

teachers in science and technology and

501  
00:20:23,669 --> 00:20:21,600  
engineering and math so you'll have

502  
00:20:25,350 --> 00:20:23,679  
plenty of people out there ready to

503  
00:20:27,110 --> 00:20:25,360  
teach and engaged

504  
00:20:30,230 --> 00:20:27,120  
and dedicated to this very important

505  
00:20:31,510 --> 00:20:30,240  
field and as we focus on education we

506  
00:20:34,310 --> 00:20:31,520  
want to make sure that we're doing

507  
00:20:36,630 --> 00:20:34,320  
everything we can to support going into

508  
00:20:38,710 --> 00:20:36,640  
these important fields and so that's why

509  
00:20:41,190 --> 00:20:38,720  
in the president's education initiative

510  
00:20:44,230 --> 00:20:41,200  
called race to the top he invested four

511  
00:20:45,990 --> 00:20:44,240  
billion dollars specifically targeting

512  
00:20:47,590 --> 00:20:46,000  
women and girls and getting them

513  
00:20:49,990 --> 00:20:47,600

interested in these fields and so i want

514

00:20:51,510 --> 00:20:50,000

you to know you are on his mind

515

00:20:53,830 --> 00:20:51,520

it's also why he launched a new

516

00:20:55,750 --> 00:20:53,840

initiative called educate to innovate

517

00:20:57,830 --> 00:20:55,760

and this is a campaign

518

00:20:59,830 --> 00:20:57,840

that's a public-private partnership

519

00:21:01,990 --> 00:20:59,840

geared towards focusing on math and

520

00:21:03,750 --> 00:21:02,000

science and another one called change

521

00:21:06,310 --> 00:21:03,760

the equation where we now have over a

522

00:21:08,630 --> 00:21:06,320

hundred companies who are working with

523

00:21:10,870 --> 00:21:08,640

us to design curriculum and to mentor

524

00:21:12,710 --> 00:21:10,880

young girls and to get you guys all

525

00:21:14,710 --> 00:21:12,720

excited and knowing that if you pursue

526

00:21:16,149 --> 00:21:14,720

these careers when you finish your

527

00:21:18,630 --> 00:21:16,159

education there's going to be just a

528

00:21:20,549 --> 00:21:18,640

terrific job waiting for you at the end

529

00:21:21,830 --> 00:21:20,559

of it and to any of the employers who

530

00:21:24,070 --> 00:21:21,840

are watching out there we want to make

531

00:21:25,669 --> 00:21:24,080

sure that everyone gets engaged in this

532

00:21:28,230 --> 00:21:25,679

sometimes when you just walk in the door

533

00:21:29,909 --> 00:21:28,240

and you visit a potential employer you

534

00:21:31,830 --> 00:21:29,919

see what they're doing just like

535

00:21:34,070 --> 00:21:31,840

hopefully coming here today provides you

536

00:21:36,149 --> 00:21:34,080

with just a little inkling into what the

537

00:21:37,909 --> 00:21:36,159

possibilities would be and we want to

538

00:21:39,590 --> 00:21:37,919

make sure that we engage the private

539

00:21:41,350 --> 00:21:39,600

sector in that

540

00:21:44,549 --> 00:21:41,360

the federal workforce is getting

541

00:21:47,029 --> 00:21:44,559

involved as well we have over 200 000

542

00:21:48,630 --> 00:21:47,039

federal scientists and engineers who are

543

00:21:50,710 --> 00:21:48,640

working in their local schools and

544

00:21:52,630 --> 00:21:50,720

communities in their mentoring and

545

00:21:54,470 --> 00:21:52,640

providing providing experience in

546

00:21:55,669 --> 00:21:54,480

hands-on science to more and more

547

00:21:57,190 --> 00:21:55,679

students

548

00:21:58,789 --> 00:21:57,200

at the white house

549

00:22:01,029 --> 00:21:58,799

i chair the white house council on women

550

00:22:02,710 --> 00:22:01,039

and girls and our goal is to look across

551  
00:22:04,230 --> 00:22:02,720  
the federal government all the agencies

552  
00:22:05,990 --> 00:22:04,240  
and that's why we have nasa as a partner

553  
00:22:08,390 --> 00:22:06,000  
and we have every federal agency as a

554  
00:22:10,870 --> 00:22:08,400  
partner and our mission is simple what

555  
00:22:12,789 --> 00:22:10,880  
can we do to improve the quality of life

556  
00:22:13,990 --> 00:22:12,799  
in the united states for women and for

557  
00:22:16,149 --> 00:22:14,000  
girls

558  
00:22:17,909 --> 00:22:16,159  
because we want to celebrate you and all

559  
00:22:20,230 --> 00:22:17,919  
of your terrific accomplishments and we

560  
00:22:22,549 --> 00:22:20,240  
want to support you in every way we can

561  
00:22:23,750 --> 00:22:22,559  
and everything from at the uh the state

562  
00:22:25,430 --> 00:22:23,760  
of the union this year when the

563  
00:22:27,430 --> 00:22:25,440

president was focusing on science and

564

00:22:30,230 --> 00:22:27,440

technology and engineering and math the

565

00:22:32,549 --> 00:22:30,240

first lady had some young girls in the

566

00:22:34,390 --> 00:22:32,559

box who were interested in the field we

567

00:22:36,070 --> 00:22:34,400

had a science fair

568

00:22:37,750 --> 00:22:36,080

at the white house we had astronomy

569

00:22:39,110 --> 00:22:37,760

night at the white house we have an

570

00:22:40,630 --> 00:22:39,120

easter egg roll which most of you are

571

00:22:42,710 --> 00:22:40,640

too old for at the white house but we're

572

00:22:44,230 --> 00:22:42,720

going to focus on science there this

573

00:22:45,510 --> 00:22:44,240

year because we want to get people

574

00:22:47,669 --> 00:22:45,520

interested when they're young and we

575

00:22:48,789 --> 00:22:47,679

want to be able to help you so that the

576

00:22:51,270 --> 00:22:48,799

next time we come back in this

577

00:22:53,110 --> 00:22:51,280

auditorium is 10 times the size full of

578

00:22:54,470 --> 00:22:53,120

terrific young people interested in this

579

00:22:56,710 --> 00:22:54,480

field

580

00:22:58,789 --> 00:22:56,720

i also want to ask you a few questions

581

00:23:01,909 --> 00:22:58,799

just to give you things to think about

582

00:23:03,750 --> 00:23:01,919

first one is how can nasa do unique

583

00:23:05,909 --> 00:23:03,760

things to get young people interested in

584

00:23:07,430 --> 00:23:05,919

science obviously today is one step in

585

00:23:09,909 --> 00:23:07,440

the right direction for those of you who

586

00:23:12,070 --> 00:23:09,919

who are here are already interested so

587

00:23:13,750 --> 00:23:12,080

what can nasa do to help get you

588

00:23:15,909 --> 00:23:13,760

interested well let me throw out just a

589

00:23:17,590 --> 00:23:15,919

few ideas that we have and then you all

590

00:23:19,430 --> 00:23:17,600

will have some ideas too and i see you

591

00:23:22,470 --> 00:23:19,440

guys giggling in the back

592

00:23:24,149 --> 00:23:22,480

uh there is a current move growing to

593

00:23:26,470 --> 00:23:24,159

say for students who are seriously

594

00:23:27,430 --> 00:23:26,480

interested in space exploration and they

595

00:23:30,149 --> 00:23:27,440

call it

596

00:23:31,669 --> 00:23:30,159

a diy space do-it-yourself space just

597

00:23:32,950 --> 00:23:31,679

like you know do-it-yourself house

598

00:23:35,110 --> 00:23:32,960

repairs

599

00:23:36,870 --> 00:23:35,120

and these folks are building small

600

00:23:38,390 --> 00:23:36,880

satellite phones that you can put into

601  
00:23:39,350 --> 00:23:38,400  
orbit

602  
00:23:40,630 --> 00:23:39,360  
even

603  
00:23:42,230 --> 00:23:40,640  
in our high schools they're trying to

604  
00:23:44,710 --> 00:23:42,240  
build these mini satellites something

605  
00:23:46,710 --> 00:23:44,720  
that's never been done before

606  
00:23:48,310 --> 00:23:46,720  
or imagine if you could put the tools of

607  
00:23:50,310 --> 00:23:48,320  
invention right in the hands of all

608  
00:23:51,750 --> 00:23:50,320  
children so that they could just hit a

609  
00:23:53,590 --> 00:23:51,760  
print button

610  
00:23:55,750 --> 00:23:53,600  
and they could design computers that

611  
00:23:57,430 --> 00:23:55,760  
they would print out in 3d whatever they

612  
00:23:58,310 --> 00:23:57,440  
came up with that'd be pretty cool i

613  
00:23:59,669 --> 00:23:58,320

think

614

00:24:01,350 --> 00:23:59,679

or imagine if you could get an

615

00:24:03,350 --> 00:24:01,360

achievement badge

616

00:24:05,190 --> 00:24:03,360

in space exploration just like the girl

617

00:24:07,110 --> 00:24:05,200

scouts get their badges

618

00:24:09,590 --> 00:24:07,120

or a black belt in karate when you

619

00:24:12,789 --> 00:24:09,600

practice harder you go to the next level

620

00:24:15,350 --> 00:24:12,799

imagine if nasa with game designers and

621

00:24:16,630 --> 00:24:15,360

helped you create space explorers and

622

00:24:18,470 --> 00:24:16,640

you could have badges and you could

623

00:24:21,029 --> 00:24:18,480

start on your path to becoming an

624

00:24:23,029 --> 00:24:21,039

astronaut right now these are just a few

625

00:24:24,950 --> 00:24:23,039

of the many examples that we want to

626  
00:24:26,549 --> 00:24:24,960  
engage with you and get you excited and

627  
00:24:27,590 --> 00:24:26,559  
get you thinking about

628  
00:24:29,190 --> 00:24:27,600  
and

629  
00:24:31,269 --> 00:24:29,200  
i guess i would close by just saying

630  
00:24:33,590 --> 00:24:31,279  
this to you you all are so incredibly

631  
00:24:36,149 --> 00:24:33,600  
special you're just so

632  
00:24:38,149 --> 00:24:36,159  
gifted and you're so talented and we are

633  
00:24:40,070 --> 00:24:38,159  
all pulling for you and what we want you

634  
00:24:41,510 --> 00:24:40,080  
to do is pull for yourself

635  
00:24:43,029 --> 00:24:41,520  
challenge yourself

636  
00:24:45,029 --> 00:24:43,039  
see what you can do to push yourself

637  
00:24:46,950 --> 00:24:45,039  
just that little bit further and know

638  
00:24:50,149 --> 00:24:46,960

that from the president on of the united

639

00:24:52,549 --> 00:24:50,159

states to nasa to all of your incredible

640

00:24:54,630 --> 00:24:52,559

teachers everybody here is here really

641

00:24:55,909 --> 00:24:54,640

just to support you in your efforts and

642

00:24:58,149 --> 00:24:55,919

we should wish you

643

00:25:02,549 --> 00:24:58,159

the absolute very best congratulations

644

00:25:07,110 --> 00:25:05,350

uh-oh here comes something big

645

00:25:08,630 --> 00:25:07,120

well you know nasa we don't have the

646

00:25:09,669 --> 00:25:08,640

smalling

647

00:25:11,430 --> 00:25:09,679

tracy

648

00:25:14,950 --> 00:25:11,440

i just wanna

649

00:25:16,549 --> 00:25:14,960

thank you so much for coming i uh

650

00:25:18,310 --> 00:25:16,559

have to

651

00:25:19,750 --> 00:25:18,320

just let you know that a number of the

652

00:25:23,350 --> 00:25:19,760

events you talked about certainly

653

00:25:25,909 --> 00:25:23,360

astronomy night and the uh she president

654

00:25:27,590 --> 00:25:25,919

obama had the science fair winners and i

655

00:25:29,590 --> 00:25:27,600

of course always focus as i was telling

656

00:25:32,310 --> 00:25:29,600

you on the young women but i was allowed

657

00:25:34,549 --> 00:25:32,320

to bring my boys i only have boys to

658

00:25:36,789 --> 00:25:34,559

astronomy night on the white house lawn

659

00:25:38,390 --> 00:25:36,799

uh but of course the poor things uh we

660

00:25:40,470 --> 00:25:38,400

highlighted the woman that night she's

661

00:25:43,990 --> 00:25:40,480

she was a girl i think she's 11 who

662

00:25:46,070 --> 00:25:44,000

discovered a uh supernova

663

00:25:48,149 --> 00:25:46,080

and uh so the boys come home do your

664

00:25:51,350 --> 00:25:48,159

homework you haven't discovered anything

665

00:25:53,430 --> 00:25:51,360

you're 16 and 18 years old so sometimes

666

00:25:56,230 --> 00:25:53,440

it's it's it's a little a little hard to

667

00:25:59,750 --> 00:25:56,240

live in my house but uh we really want

668

00:26:01,029 --> 00:25:59,760

to thank uh valerie jarrett for her

669

00:26:02,310 --> 00:26:01,039

support

670

00:26:03,669 --> 00:26:02,320

of the

671

00:26:06,390 --> 00:26:03,679

women at

672

00:26:08,070 --> 00:26:06,400

nasa website we could not have done this

673

00:26:10,870 --> 00:26:08,080

without the white house leadership of

674

00:26:12,630 --> 00:26:10,880

the council and so we have of course

675

00:26:14,149 --> 00:26:12,640

nasa does not do things in small ways

676

00:26:16,630 --> 00:26:14,159

and tracy is going to help me present

677

00:26:20,470 --> 00:26:16,640

this because she's actually got pins on

678

00:26:22,710 --> 00:26:20,480

it valerie this is a montage that

679

00:26:25,830 --> 00:26:22,720

women have been on every mission that is

680

00:26:27,990 --> 00:26:25,840

represented here at nasa and our

681

00:26:29,990 --> 00:26:28,000

citation reads in recognition of your

682

00:26:32,470 --> 00:26:30,000

outstanding leadership in inspiring and

683

00:26:35,510 --> 00:26:32,480

preparing young women to become future

684

00:26:37,750 --> 00:26:35,520

scientists engineers leaders and

685

00:26:39,990 --> 00:26:37,760

innovators this montage contains the

686

00:26:42,710 --> 00:26:40,000

pins of space shuttle and international

687

00:26:44,470 --> 00:26:42,720

space station crews that included nasa

688

00:26:46,870 --> 00:26:44,480

female astronauts who were key

689

00:26:48,950 --> 00:26:46,880

contributors to the nation's human

690

00:26:49,990 --> 00:26:48,960

spaceflight program this is just a

691

00:26:52,950 --> 00:26:50,000

little thing

692

00:26:54,230 --> 00:26:52,960

i've gotten in ages thank you guys so

693

00:26:55,750 --> 00:26:54,240

much

694

00:26:57,909 --> 00:26:55,760

i think there's someone who's gonna take

695

00:27:00,149 --> 00:26:57,919

it for you here yes thank you guys have

696

00:27:01,830 --> 00:27:00,159

a great day enjoy your time thank you

697

00:27:03,590 --> 00:27:01,840

for coming

698

00:27:06,470 --> 00:27:03,600

this way okay

699

00:27:07,669 --> 00:27:06,480

thank you thank you again uh you you can

700

00:27:09,990 --> 00:27:07,679

sit down because i think we'll play your

701  
00:27:13,830 --> 00:27:10,000  
video first but thank you thank you

702  
00:27:15,750 --> 00:27:13,840  
again our our uh next and final speaker

703  
00:27:18,870 --> 00:27:15,760  
is as i'm sure you've all been waiting

704  
00:27:21,590 --> 00:27:18,880  
for uh our our astronaut who is here

705  
00:27:25,590 --> 00:27:21,600  
from outer space to talk to us

706  
00:27:28,789 --> 00:27:25,600  
tracy caldwell dyson is a chemist she is

707  
00:27:31,190 --> 00:27:28,799  
a nasa astronaut she is one of 53 women

708  
00:27:34,230 --> 00:27:31,200  
to travel to space out of some

709  
00:27:36,470 --> 00:27:34,240  
500 people who have been in orbit again

710  
00:27:38,470 --> 00:27:36,480  
we're still working on that tracy was a

711  
00:27:39,590 --> 00:27:38,480  
mission specialist on the space shuttle

712  
00:27:41,990 --> 00:27:39,600  
endeavor

713  
00:27:44,630 --> 00:27:42,000

that mission uh took place in august of

714

00:27:45,990 --> 00:27:44,640

2007. if you guys are paying much

715

00:27:48,549 --> 00:27:46,000

attention which hopefully you are

716

00:27:50,789 --> 00:27:48,559

endeavor is on the launch pad right now

717

00:27:52,789 --> 00:27:50,799

for liftoff in april

718

00:27:54,789 --> 00:27:52,799

on that mission she operated endeavour's

719

00:27:57,029 --> 00:27:54,799

robotic arm and served as a crew member

720

00:28:00,070 --> 00:27:57,039

inside the station directing directing

721

00:28:02,789 --> 00:28:00,080

four spacewalks and she flew more than

722

00:28:05,110 --> 00:28:02,799

five million miles in space just on that

723

00:28:08,230 --> 00:28:05,120

mission alone and that was a short

724

00:28:09,029 --> 00:28:08,240

mission probably about 12 or 13

725

00:28:10,789 --> 00:28:09,039

days

726

00:28:13,029 --> 00:28:10,799

but last year she launched aboard a

727

00:28:15,110 --> 00:28:13,039

russian soyuz capsule to the space

728

00:28:17,110 --> 00:28:15,120

station the international space station

729

00:28:19,590 --> 00:28:17,120

she went on to live aboard the station

730

00:28:21,909 --> 00:28:19,600

for nearly six months and it doesn't say

731

00:28:24,230 --> 00:28:21,919

how many million miles because i'm sure

732

00:28:27,350 --> 00:28:24,240

she knows she completed at that time

733

00:28:29,430 --> 00:28:27,360

then three of her own spacewalks to do

734

00:28:30,470 --> 00:28:29,440

repairs on the international space

735

00:28:32,470 --> 00:28:30,480

station

736

00:28:33,430 --> 00:28:32,480

when she and three of her colleagues

737

00:28:35,750 --> 00:28:33,440

joined

738

00:28:37,510 --> 00:28:35,760

uh with the space shuttle docking they

739

00:28:40,389 --> 00:28:37,520

did make history with four women in

740

00:28:43,110 --> 00:28:40,399

space at once the first time we've had

741

00:28:45,029 --> 00:28:43,120

four women in space at one time she says

742

00:28:47,510 --> 00:28:45,039

she wanted to be an astronaut for many

743

00:28:49,430 --> 00:28:47,520

years but let's watch and listen to her

744

00:29:04,389 --> 00:28:49,440

story in her own words as seen on our

745

00:29:04,399 --> 00:29:06,789

wow

746

00:29:10,310 --> 00:29:07,990

the greatest

747

00:29:14,389 --> 00:29:10,320

barrier i've had to overcome in my

748

00:29:21,990 --> 00:29:16,389

that's the scariest thing that i've ever

749

00:29:22,000 --> 00:29:24,310

yeah

750

00:29:28,630 --> 00:29:26,549

i'm not completely void of it

751  
00:29:31,190 --> 00:29:28,640  
um

752  
00:29:32,310 --> 00:29:31,200  
but uh

753  
00:29:34,230 --> 00:29:32,320  
what

754  
00:29:35,750 --> 00:29:34,240  
uh

755  
00:29:37,510 --> 00:29:35,760  
when i look back on the moments that

756  
00:29:39,990 --> 00:29:37,520  
i've struggled the most it's been where

757  
00:29:41,750 --> 00:29:40,000  
i've let my confidence

758  
00:29:43,190 --> 00:29:41,760  
droop

759  
00:29:45,269 --> 00:29:43,200  
what had gone for me is i'm a hard

760  
00:29:47,350 --> 00:29:45,279  
worker you tell me i can't do something

761  
00:29:50,470 --> 00:29:47,360  
i'm going to prove to you that i can

762  
00:29:53,669 --> 00:29:50,480  
determination that that that

763  
00:29:56,710 --> 00:29:53,679

pays a lot of the bill and

764

00:29:57,990 --> 00:29:56,720

and really helps you overcome fears for

765

00:30:00,310 --> 00:29:58,000

at least

766

00:30:03,029 --> 00:30:00,320

a number of people i know

767

00:30:05,029 --> 00:30:03,039

what did i want to be when i grew up

768

00:30:06,549 --> 00:30:05,039

well i think like all kids

769

00:30:08,870 --> 00:30:06,559

when you

770

00:30:11,110 --> 00:30:08,880

look up in the stars and

771

00:30:13,110 --> 00:30:11,120

you see the infinity of space you think

772

00:30:14,630 --> 00:30:13,120

you want to be an astronaut

773

00:30:17,110 --> 00:30:14,640

but then also you got pets and you want

774

00:30:18,789 --> 00:30:17,120

to become a veterinarian and you see

775

00:30:21,750 --> 00:30:18,799

heroes like firemen come out and save

776

00:30:23,510 --> 00:30:21,760

the day you want to be one of those two

777

00:30:25,990 --> 00:30:23,520

probably wasn't until i was about 16

778

00:30:28,070 --> 00:30:26,000

years old when i got really serious

779

00:30:31,110 --> 00:30:28,080

about what i wanted to be

780

00:30:32,549 --> 00:30:31,120

and it was a little bit of research i

781

00:30:33,669 --> 00:30:32,559

discovered i wanted to become an

782

00:30:35,669 --> 00:30:33,679

astronaut

783

00:30:37,590 --> 00:30:35,679

you know when i was a

784

00:30:39,909 --> 00:30:37,600

kid in high school i was really

785

00:30:41,750 --> 00:30:39,919

fascinated by science

786

00:30:45,750 --> 00:30:41,760

i was fascinated

787

00:30:48,389 --> 00:30:45,760

there were these questions out there

788

00:30:50,870 --> 00:30:48,399

like why is the sky blue why does water

789

00:30:53,830 --> 00:30:50,880

boil and i i was a kid with just a lot

790

00:30:55,990 --> 00:30:53,840

of questions and no answers and

791

00:30:56,870 --> 00:30:56,000

was that curiosity

792

00:30:59,909 --> 00:30:56,880

that

793

00:31:01,990 --> 00:30:59,919

i was was satiated was

794

00:31:03,830 --> 00:31:02,000

was quenched by

795

00:31:05,269 --> 00:31:03,840

science and namely chemistry i think

796

00:31:06,950 --> 00:31:05,279

that's why i gravitated towards

797

00:31:08,230 --> 00:31:06,960

chemistry because it went it answered

798

00:31:10,149 --> 00:31:08,240

the questions

799

00:31:11,750 --> 00:31:10,159

that i had

800

00:31:14,549 --> 00:31:11,760

my whole life

801  
00:31:17,110 --> 00:31:14,559  
i focused on area of chemistry that

802  
00:31:19,430 --> 00:31:17,120  
really fascinated me it had nothing

803  
00:31:20,549 --> 00:31:19,440  
really to do with a space or being an

804  
00:31:22,389 --> 00:31:20,559  
astronaut but it was something that

805  
00:31:23,669 --> 00:31:22,399  
really motivated me

806  
00:31:25,350 --> 00:31:23,679  
and

807  
00:31:27,029 --> 00:31:25,360  
turned out to be pretty successful at it

808  
00:31:30,310 --> 00:31:27,039  
and i think that's

809  
00:31:33,909 --> 00:31:30,320  
100 because i really enjoyed it i had

810  
00:31:35,190 --> 00:31:33,919  
some struggles in college with math

811  
00:31:36,630 --> 00:31:35,200  
and

812  
00:31:38,870 --> 00:31:36,640  
those really

813  
00:31:40,630 --> 00:31:38,880

were a roadblock to

814

00:31:42,870 --> 00:31:40,640

succeeding in chemistry i understood

815

00:31:44,630 --> 00:31:42,880

chemistry fine i mean i could picture

816

00:31:46,470 --> 00:31:44,640

molecules and electrons zooming around a

817

00:31:47,669 --> 00:31:46,480

nucleus and all that kind of good stuff

818

00:31:49,190 --> 00:31:47,679

but

819

00:31:51,990 --> 00:31:49,200

in order to keep going further in

820

00:31:54,870 --> 00:31:52,000

chemistry which was my passion i had to

821

00:31:56,470 --> 00:31:54,880

prove a level of competency in math that

822

00:31:58,149 --> 00:31:56,480

i just wasn't comfortable with and why

823

00:32:01,190 --> 00:31:58,159

didn't i feel comfortable with math

824

00:32:03,750 --> 00:32:01,200

because math was this abstract thing

825

00:32:05,669 --> 00:32:03,760

that um was something you did on paper

826

00:32:07,269 --> 00:32:05,679

but it did just didn't have any

827

00:32:09,590 --> 00:32:07,279

application in the outside world

828

00:32:10,870 --> 00:32:09,600

according to tracy caldwell

829

00:32:11,750 --> 00:32:10,880

and

830

00:32:13,830 --> 00:32:11,760

uh

831

00:32:15,909 --> 00:32:13,840

what what what started to make a

832

00:32:18,149 --> 00:32:15,919

difference to me in math and why i

833

00:32:20,710 --> 00:32:18,159

thought i could conquer it was the day

834

00:32:23,269 --> 00:32:20,720

that i i was learning a topic in math

835

00:32:25,110 --> 00:32:23,279

and calculus and it made no sense to me

836

00:32:26,310 --> 00:32:25,120

it was an abstract thing

837

00:32:28,389 --> 00:32:26,320

and then

838

00:32:30,070 --> 00:32:28,399

in that same semester i was taking a

839

00:32:32,630 --> 00:32:30,080

class in chemistry and physical

840

00:32:34,310 --> 00:32:32,640

chemistry and there's actually math

841

00:32:36,149 --> 00:32:34,320

believe it or not that describes the

842

00:32:39,269 --> 00:32:36,159

motion of electron around the nucleus of

843

00:32:40,870 --> 00:32:39,279

an atom go figure i didn't i wasn't even

844

00:32:43,669 --> 00:32:40,880

prepared for that but it got my

845

00:32:46,950 --> 00:32:43,679

attention why because i loved chemistry

846

00:32:48,070 --> 00:32:46,960

and and here was chemistry using math

847

00:32:50,870 --> 00:32:48,080

to

848

00:32:53,590 --> 00:32:50,880

help me understand chemistry better

849

00:32:55,430 --> 00:32:53,600

so what i learned from that was that you

850

00:32:56,630 --> 00:32:55,440

know that that math did have an

851  
00:32:59,750 --> 00:32:56,640  
application

852  
00:33:02,470 --> 00:32:59,760  
it was chemistry and and i could get

853  
00:33:05,350 --> 00:33:02,480  
really excited about something that

854  
00:33:06,870 --> 00:33:05,360  
scares me if i can

855  
00:33:08,870 --> 00:33:06,880  
appreciate

856  
00:33:11,269 --> 00:33:08,880  
i make a connection to it to something

857  
00:33:12,630 --> 00:33:11,279  
that i really enjoy

858  
00:33:14,870 --> 00:33:12,640  
and it's

859  
00:33:16,630 --> 00:33:14,880  
overcoming that that fear of mass

860  
00:33:19,029 --> 00:33:16,640  
knowing that knowing that yes indeed i

861  
00:33:21,029 --> 00:33:19,039  
can't understand math i've got to humble

862  
00:33:23,830 --> 00:33:21,039  
myself and ask questions

863  
00:33:25,110 --> 00:33:23,840

i've got to work hard and do extra

864

00:33:27,110 --> 00:33:25,120

problems

865

00:33:30,230 --> 00:33:27,120

you know when i don't feel like it or

866

00:33:31,350 --> 00:33:30,240

i'm scared and i just gotta go for it

867

00:33:33,350 --> 00:33:31,360

because

868

00:33:36,070 --> 00:33:33,360

it's if it's an obstacle to get to what

869

00:33:38,870 --> 00:33:36,080

i want it's gonna still be there whether

870

00:33:40,870 --> 00:33:38,880

i want it to be or not and it's amazing

871

00:33:42,310 --> 00:33:40,880

how much you can grow when you decide

872

00:33:44,149 --> 00:33:42,320

you're just going to conquer that thing

873

00:33:46,950 --> 00:33:44,159

and not let that thing conquer you so

874

00:33:50,149 --> 00:33:46,960

i'm really glad that i got over math

875

00:33:53,029 --> 00:33:50,159

if i'd give some advice

876

00:33:56,149 --> 00:33:53,039

just based on on my own life and and

877

00:33:58,789 --> 00:33:56,159

what put me on the right path

878

00:34:01,029 --> 00:33:58,799

that's to know yourself

879

00:34:03,830 --> 00:34:01,039

uh you know you've heard people say

880

00:34:04,830 --> 00:34:03,840

dream big or follow your heart but

881

00:34:06,470 --> 00:34:04,840

know

882

00:34:08,310 --> 00:34:06,480

yourself

883

00:34:10,389 --> 00:34:08,320

and put some stock in the things that

884

00:34:12,069 --> 00:34:10,399

you enjoy doing

885

00:34:14,550 --> 00:34:12,079

because it's

886

00:34:15,430 --> 00:34:14,560

it's when you enjoy what you're doing

887

00:34:17,270 --> 00:34:15,440

that

888

00:34:18,950 --> 00:34:17,280

it's going to bring out the best in you

889

00:34:21,430 --> 00:34:18,960

and that's what we want that's what you

890

00:34:23,430 --> 00:34:21,440

want

891

00:34:36,069 --> 00:34:23,440

i'm tracy caldwell dyson and i work at

892

00:34:40,869 --> 00:34:38,470

well thank you very much and lori thank

893

00:34:42,149 --> 00:34:40,879

you for that introduction and a bit of a

894

00:34:44,629 --> 00:34:42,159

history on

895

00:34:46,950 --> 00:34:44,639

what i've done at nasa since i got here

896

00:34:51,909 --> 00:34:49,430

it is uh one second i got so many

897

00:34:53,430 --> 00:34:51,919

pockets on this thing

898

00:34:55,589 --> 00:34:53,440

it is so cool that that's how you carry

899

00:34:57,190 --> 00:34:55,599

your water um

900

00:34:58,470 --> 00:34:57,200

it really is a privilege for me to be

901  
00:35:00,829 --> 00:34:58,480  
here today

902  
00:35:04,470 --> 00:35:00,839  
women's history month women at

903  
00:35:06,470 --> 00:35:04,480  
nasa science cheerleaders

904  
00:35:08,069 --> 00:35:06,480  
and all the inspiring women of the are

905  
00:35:10,950 --> 00:35:08,079  
the inspiring stories of the featured

906  
00:35:12,390 --> 00:35:10,960  
women and the untold stories of so many

907  
00:35:13,910 --> 00:35:12,400  
others

908  
00:35:15,750 --> 00:35:13,920  
i'm just grateful for good timing

909  
00:35:18,150 --> 00:35:15,760  
actually i happen to be the only female

910  
00:35:19,030 --> 00:35:18,160  
astronaut in town uh that just returned

911  
00:35:20,630 --> 00:35:19,040  
from a

912  
00:35:22,870 --> 00:35:20,640  
a life in space

913  
00:35:24,710 --> 00:35:22,880

um you know it's it's amazing the hoops

914

00:35:26,790 --> 00:35:24,720

you have to go through to get an

915

00:35:29,030 --> 00:35:26,800

invitation to such an event but it's

916

00:35:31,510 --> 00:35:29,040

that no really it really is an honor to

917

00:35:33,670 --> 00:35:31,520

be here um and i do feel honored

918

00:35:36,150 --> 00:35:33,680

standing before not only this audience

919

00:35:37,990 --> 00:35:36,160

but amongst these incredible women

920

00:35:39,349 --> 00:35:38,000

they're inspiteful insightful and

921

00:35:41,910 --> 00:35:39,359

inspiring

922

00:35:43,430 --> 00:35:41,920

whose tenacity courage intelligence and

923

00:35:44,870 --> 00:35:43,440

strong character

924

00:35:48,230 --> 00:35:44,880

is as

925

00:35:50,790 --> 00:35:48,240

lifelike and and tangible on screen as

926

00:35:52,470 --> 00:35:50,800

i'm certain they are in person

927

00:35:53,829 --> 00:35:52,480

these women have my respect and at the

928

00:35:55,910 --> 00:35:53,839

very least they should have your full

929

00:35:58,230 --> 00:35:55,920

attention when you watch those videos

930

00:35:59,589 --> 00:35:58,240

i've i've watched them and if you're

931

00:36:01,109 --> 00:35:59,599

anything like me

932

00:36:02,870 --> 00:36:01,119

you'll catch yourself smiling with

933

00:36:05,349 --> 00:36:02,880

probably a tear in your eye as you are

934

00:36:07,670 --> 00:36:05,359

absorbed in their stories

935

00:36:09,990 --> 00:36:07,680

i know that you'll be inspired with them

936

00:36:12,230 --> 00:36:10,000

and you'll embrace their messages i hope

937

00:36:13,990 --> 00:36:12,240

and through them convince yourself that

938

00:36:16,310 --> 00:36:14,000

you too have what it takes to be a

939

00:36:17,750 --> 00:36:16,320

success just like them

940

00:36:19,270 --> 00:36:17,760

so you guys remember that those hoops i

941

00:36:20,950 --> 00:36:19,280

was telling you i had to go through to

942

00:36:22,950 --> 00:36:20,960

to get here

943

00:36:24,310 --> 00:36:22,960

to get invited to one of these things

944

00:36:26,950 --> 00:36:24,320

yeah i had to go into space and live

945

00:36:28,710 --> 00:36:26,960

there for six months

946

00:36:31,430 --> 00:36:28,720

so i brought with me just a few slides

947

00:36:33,030 --> 00:36:31,440

just to kind of recap what life was like

948

00:36:34,710 --> 00:36:33,040

up there and give you guys a little

949

00:36:36,230 --> 00:36:34,720

taste for what it's like to live in

950

00:36:38,550 --> 00:36:36,240

microgravity on board the most

951  
00:36:40,870 --> 00:36:38,560  
incredible magnificent vehicle ever

952  
00:36:46,870 --> 00:36:40,880  
built by our entire planet and that's

953  
00:36:50,950 --> 00:36:48,950  
that's me and my crew that uh and our

954  
00:36:53,670 --> 00:36:50,960  
backups that's us getting ready for

955  
00:36:55,030 --> 00:36:53,680  
launch my commander sasha schwarzoff

956  
00:36:57,589 --> 00:36:55,040  
these are going to go pretty fast so i'm

957  
00:36:59,109 --> 00:36:57,599  
going to try to be brief with what i say

958  
00:37:01,990 --> 00:36:59,119  
there's us on the launch pad getting

959  
00:37:03,109 --> 00:37:02,000  
ready to get into our soyuz rocket

960  
00:37:06,710 --> 00:37:03,119  
and there's a

961  
00:37:12,150 --> 00:37:09,829  
it's us launching

962  
00:37:13,589 --> 00:37:12,160  
that's our vehicle uh in the two days

963  
00:37:15,430 --> 00:37:13,599

that it took us to get to the space

964

00:37:17,670 --> 00:37:15,440

station and that's what that beautiful

965

00:37:21,990 --> 00:37:17,680

vehicle looks like

966

00:37:23,589 --> 00:37:22,000

that's us just about before we dock

967

00:37:25,430 --> 00:37:23,599

and those are the that's the crew that's

968

00:37:30,390 --> 00:37:25,440

all of us on the earth uh

969

00:37:33,990 --> 00:37:32,790

oleg kotov tj creamer and suicinaguchi

970

00:37:37,190 --> 00:37:34,000

were the three that were on board when

971

00:37:39,190 --> 00:37:37,200

we arrived and two days after i arrived

972

00:37:42,630 --> 00:37:39,200

a space shuttle launched space space

973

00:37:45,270 --> 00:37:42,640

shuttle uh discovery with sts-131 and

974

00:37:46,630 --> 00:37:45,280

they had a number of spacewalks i helped

975

00:37:47,829 --> 00:37:46,640

prepare those guys to get out the

976  
00:37:49,589 --> 00:37:47,839  
airlock

977  
00:37:51,990 --> 00:37:49,599  
just a few shots of what it's like to be

978  
00:37:55,109 --> 00:37:52,000  
a spacewalker outside doing an eva we

979  
00:37:56,710 --> 00:37:55,119  
call it extra vehicular activity

980  
00:37:57,910 --> 00:37:56,720  
and there's discovery there in our empty

981  
00:37:59,910 --> 00:37:57,920  
payload bay with the two little

982  
00:38:02,069 --> 00:37:59,920  
spacewalkers inside

983  
00:38:03,910 --> 00:38:02,079  
there's uh all of us inside node one

984  
00:38:05,430 --> 00:38:03,920  
enjoying a meal and that just gives you

985  
00:38:07,990 --> 00:38:05,440  
a feel for

986  
00:38:10,630 --> 00:38:08,000  
how everybody hangs out

987  
00:38:12,069 --> 00:38:10,640  
that's suici there and myself

988  
00:38:13,910 --> 00:38:12,079

there's the four ladies as lori

989

00:38:15,510 --> 00:38:13,920

mentioned uh first time four ladies were

990

00:38:17,109 --> 00:38:15,520

in space together

991

00:38:19,430 --> 00:38:17,119

and actually shannon walker and myself

992

00:38:20,710 --> 00:38:19,440

were the first two uh females to live on

993

00:38:24,069 --> 00:38:20,720

board together on the international

994

00:38:28,470 --> 00:38:26,870

atlantis uh i'm sorry discovery went

995

00:38:31,109 --> 00:38:28,480

home and then atlantis came shortly

996

00:38:32,870 --> 00:38:31,119

after they did there's the crew

997

00:38:35,829 --> 00:38:32,880

there's the two of my classmates tj

998

00:38:37,910 --> 00:38:35,839

creamers and ken ham

999

00:38:40,150 --> 00:38:37,920

they dropped off a russian research

1000

00:38:41,990 --> 00:38:40,160

module and then went home shortly after

1001  
00:38:44,069 --> 00:38:42,000  
they left then we got

1002  
00:38:45,270 --> 00:38:44,079  
oleg tj and suici home and brought back

1003  
00:38:47,589 --> 00:38:45,280  
up with them

1004  
00:38:49,670 --> 00:38:47,599  
wheels sorry doug wheelock shannon

1005  
00:38:51,670 --> 00:38:49,680  
walker and fyodor yucci and that's them

1006  
00:38:53,990 --> 00:38:51,680  
making their way to the space station

1007  
00:38:56,470 --> 00:38:54,000  
and docking to that new module that the

1008  
00:38:57,430 --> 00:38:56,480  
sts-132 crew bot brought up with them

1009  
00:38:59,190 --> 00:38:57,440  
and that's

1010  
00:39:01,589 --> 00:38:59,200  
them on their first day in the space

1011  
00:39:04,230 --> 00:39:01,599  
station here's just a few shots of

1012  
00:39:06,230 --> 00:39:04,240  
of life namely my life on board there's

1013  
00:39:08,390 --> 00:39:06,240

doug wheelock getting into our

1014

00:39:11,430 --> 00:39:08,400

minus 80 degree freezer and shannon's

1015

00:39:13,990 --> 00:39:11,440

there shutting the door to it

1016

00:39:15,670 --> 00:39:14,000

my two crew mates sasha scorchoff and

1017

00:39:19,349 --> 00:39:15,680

Michal Kornienko

1018

00:39:19,359 --> 00:39:23,670

it's just me hanging out

1019

00:39:28,630 --> 00:39:26,390

it's our microgravity science glovebox

1020

00:39:29,990 --> 00:39:28,640

we do some science in there that's me uh

1021

00:39:31,750 --> 00:39:30,000

getting ready to do some maintenance on

1022

00:39:33,190 --> 00:39:31,760

our carbon dioxide removal assembly and

1023

00:39:36,150 --> 00:39:33,200

that's what it looks like once you open

1024

00:39:38,069 --> 00:39:36,160

the panel and get that monster out

1025

00:39:39,430 --> 00:39:38,079

that helps us to clean the air on board

1026  
00:39:41,270 --> 00:39:39,440  
the space station

1027  
00:39:42,710 --> 00:39:41,280  
and you're not void of chores that's me

1028  
00:39:45,109 --> 00:39:42,720  
vacuuming

1029  
00:39:47,589 --> 00:39:45,119  
on saturday did a lot of demonstrations

1030  
00:39:49,510 --> 00:39:47,599  
for uh for kids experiments and some

1031  
00:39:50,710 --> 00:39:49,520  
neurological experiments where they

1032  
00:39:52,710 --> 00:39:50,720  
tried to get inside my head and

1033  
00:39:54,390 --> 00:39:52,720  
understand how it worked

1034  
00:39:55,670 --> 00:39:54,400  
just uh

1035  
00:39:57,990 --> 00:39:55,680  
every day working on board that's the

1036  
00:40:02,150 --> 00:39:58,000  
fourth of july with my two u.s crewmates

1037  
00:40:03,990 --> 00:40:03,030  
and then

1038  
00:40:04,870 --> 00:40:04,000

one of the

1039

00:40:07,990 --> 00:40:04,880

uh

1040

00:40:11,750 --> 00:40:08,000

the

1041

00:40:13,670 --> 00:40:11,760

international space station this uh this

1042

00:40:16,390 --> 00:40:13,680

pump um

1043

00:40:19,030 --> 00:40:16,400

circulates ammonia through the lines

1044

00:40:20,390 --> 00:40:19,040

that then cools down water that is used

1045

00:40:23,190 --> 00:40:20,400

to uh

1046

00:40:26,790 --> 00:40:23,200

cool down the avionics on board one of

1047

00:40:27,829 --> 00:40:26,800

our pumps failed and it

1048

00:40:29,510 --> 00:40:27,839

that whole

1049

00:40:31,670 --> 00:40:29,520

period of time took on a life of its own

1050

00:40:33,910 --> 00:40:31,680

as we went out to help repair

1051  
00:40:36,069 --> 00:40:33,920  
and uh actually remove and replace we

1052  
00:40:37,750 --> 00:40:36,079  
did three spacewalks doug and myself

1053  
00:40:40,069 --> 00:40:37,760  
with shannon at the

1054  
00:40:41,750 --> 00:40:40,079  
at the controls to get the station back

1055  
00:40:43,430 --> 00:40:41,760  
up and running

1056  
00:40:45,990 --> 00:40:43,440  
this is kind of my favorite part that's

1057  
00:40:47,670 --> 00:40:46,000  
the cupola our bay window and these are

1058  
00:40:49,510 --> 00:40:47,680  
just some of the awesome shots that you

1059  
00:40:51,349 --> 00:40:49,520  
see out of that

1060  
00:40:53,910 --> 00:40:51,359  
earth observations they're probably the

1061  
00:40:55,349 --> 00:40:53,920  
most fascinating

1062  
00:40:57,430 --> 00:40:55,359  
part of looking out that window that's

1063  
00:40:59,349 --> 00:40:57,440

the bahamas and this picture doesn't

1064

00:41:01,030 --> 00:40:59,359

even do it justice there are some

1065

00:41:02,390 --> 00:41:01,040

amazing things that you see out that

1066

00:41:03,829 --> 00:41:02,400

window and no

1067

00:41:06,950 --> 00:41:03,839

no view is ever the same that's

1068

00:41:08,470 --> 00:41:06,960

unfortunately the gulf oil spill

1069

00:41:10,150 --> 00:41:08,480

you can actually see contrails of

1070

00:41:13,109 --> 00:41:10,160

airplanes and the airplanes themselves

1071

00:41:15,750 --> 00:41:13,119

as well as the wake from boats

1072

00:41:17,430 --> 00:41:15,760

moons were always extraordinary

1073

00:41:19,109 --> 00:41:17,440

and i actually thought i saw a mount

1074

00:41:21,109 --> 00:41:19,119

everest out there but the earth the

1075

00:41:23,109 --> 00:41:21,119

earth ops folks told me nope that's

1076

00:41:25,349 --> 00:41:23,119

that's not just mountains tracy

1077

00:41:27,910 --> 00:41:25,359

we also saw a lot of hurricanes during

1078

00:41:29,430 --> 00:41:27,920

the period of time i was there

1079

00:41:30,950 --> 00:41:29,440

and i could never get enough of that

1080

00:41:33,030 --> 00:41:30,960

horizon

1081

00:41:35,670 --> 00:41:33,040

it was amazing when the sun would set

1082

00:41:38,470 --> 00:41:35,680

the the glint on the uh

1083

00:41:41,109 --> 00:41:38,480

on the earth was just amazing different

1084

00:41:42,950 --> 00:41:41,119

opalescent colors of yellow and pink and

1085

00:41:45,109 --> 00:41:42,960

blue and just looking at the space

1086

00:41:47,670 --> 00:41:45,119

station itself was was

1087

00:41:49,270 --> 00:41:47,680

a very amazing thing i mean that shot

1088

00:41:51,270 --> 00:41:49,280

there you see all the robotic arms that

1089

00:41:52,950 --> 00:41:51,280

we have up there to date

1090

00:41:55,589 --> 00:41:52,960

all connected and

1091

00:41:57,190 --> 00:41:55,599

and ready to do their job it's um it's a

1092

00:41:58,550 --> 00:41:57,200

pretty exciting thing those of you

1093

00:42:00,710 --> 00:41:58,560

involved in robotics so i really

1094

00:42:02,150 --> 00:42:00,720

appreciate that

1095

00:42:03,990 --> 00:42:02,160

it's really cool just looking at the

1096

00:42:06,069 --> 00:42:04,000

vehicle and seeing the things that get

1097

00:42:08,069 --> 00:42:06,079

docked to it those uh toaster oven grids

1098

00:42:10,550 --> 00:42:08,079

look like uh there's actually the solar

1099

00:42:12,069 --> 00:42:10,560

arrays that you see in that photo there

1100

00:42:13,910 --> 00:42:12,079

reflecting off the payload bay of the

1101

00:42:15,349 --> 00:42:13,920

shuttle

1102

00:42:17,430 --> 00:42:15,359

just looking at hardware is pretty

1103

00:42:19,589 --> 00:42:17,440

fascinating up there

1104

00:42:21,270 --> 00:42:19,599

the terminator when the sun sets and it

1105

00:42:23,349 --> 00:42:21,280

casts a dark shadow on the earth it's

1106

00:42:24,630 --> 00:42:23,359

one of the most eerie things that you

1107

00:42:26,390 --> 00:42:24,640

can see up there but it's actually

1108

00:42:29,109 --> 00:42:26,400

exciting it's like a scary movie that

1109

00:42:32,470 --> 00:42:29,119

you don't want to watch but you do

1110

00:42:35,670 --> 00:42:32,480

the planet just disappears it's amazing

1111

00:42:38,230 --> 00:42:35,680

but i love looking at that moon and uh

1112

00:42:40,069 --> 00:42:38,240

you get some very very uh unique shots

1113

00:42:41,589 --> 00:42:40,079

of it from up there

1114

00:42:43,910 --> 00:42:41,599

but again i could never get enough of

1115

00:42:45,990 --> 00:42:43,920

the horizon and again these pictures are

1116

00:42:48,069 --> 00:42:46,000

are just giving you a sample of

1117

00:42:49,589 --> 00:42:48,079

of what life is like lightning it

1118

00:42:51,270 --> 00:42:49,599

actually lights up the entire space

1119

00:42:54,150 --> 00:42:51,280

station

1120

00:42:56,950 --> 00:42:54,160

aurora barely out borealis is it's it's

1121

00:43:00,150 --> 00:42:56,960

light that dances it's it's just

1122

00:43:02,790 --> 00:43:01,670

and it does glow green like that it's

1123

00:43:05,030 --> 00:43:02,800

amazing

1124

00:43:07,430 --> 00:43:05,040

when the sun sets you know the earth is

1125

00:43:09,270 --> 00:43:07,440

still a very uh

1126

00:43:10,630 --> 00:43:09,280

intriguing place with all of its city

1127

00:43:12,550 --> 00:43:10,640

lights and

1128

00:43:14,950 --> 00:43:12,560

and the places you call home it believe

1129

00:43:16,630 --> 00:43:14,960

it or not the the the world is mostly

1130

00:43:19,670 --> 00:43:16,640

water because when you do actually land

1131

00:43:21,589 --> 00:43:19,680

over fly over the land it's uh very rare

1132

00:43:23,270 --> 00:43:21,599

that you see lights

1133

00:43:25,109 --> 00:43:23,280

mesospheric clouds are things you only

1134

00:43:26,790 --> 00:43:25,119

see when the sun sets and they're very

1135

00:43:29,190 --> 00:43:26,800

hard to

1136

00:43:31,190 --> 00:43:29,200

to take photos of

1137

00:43:32,309 --> 00:43:31,200

all good things i guess come to an end

1138

00:43:34,870 --> 00:43:32,319

but

1139

00:43:36,150 --> 00:43:34,880

this one was quite tearful for us as we

1140

00:43:40,470 --> 00:43:36,160

pulled away

1141

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

on the surface of the earth it's a

1142

00:43:47,750 --> 00:43:45,200

bit of a stiff landing compared to a

1143

00:43:49,990 --> 00:43:47,760

shuttle that's for sure

1144

00:43:52,790 --> 00:43:50,000

and that's us

1145

00:43:54,230 --> 00:43:52,800

enjoying our little furry chairs

1146

00:43:55,750 --> 00:43:54,240

talking to my husband on a satellite

1147

00:43:57,829 --> 00:43:55,760

phone who has deployed it on a ship at

1148

00:44:00,950 --> 00:43:57,839

the same time

1149

00:44:02,950 --> 00:44:00,960

that's my favorite path time

1150

00:44:16,309 --> 00:44:02,960

and that right there is the culmination

1151  
00:44:21,349 --> 00:44:18,630  
thank you thank you but um honestly uh

1152  
00:44:23,670 --> 00:44:21,359  
that life that i led up there was uh was

1153  
00:44:25,349 --> 00:44:23,680  
not my doing it was the the doing of all

1154  
00:44:27,670 --> 00:44:25,359  
of those what was it that number you

1155  
00:44:29,270 --> 00:44:27,680  
gave eighteen thousand

1156  
00:44:31,589 --> 00:44:29,280  
civil studies

1157  
00:44:34,150 --> 00:44:31,599  
all those people that put this space

1158  
00:44:36,390 --> 00:44:34,160  
program together it you you see the

1159  
00:44:38,790 --> 00:44:36,400  
astronauts most often but

1160  
00:44:40,470 --> 00:44:38,800  
you get on that website and you and you

1161  
00:44:41,990 --> 00:44:40,480  
listen and watch the stories of these

1162  
00:44:44,230 --> 00:44:42,000  
women and you'll see you'll see what

1163  
00:44:46,630 --> 00:44:44,240

makes nasa so great it's not just the

1164

00:44:47,750 --> 00:44:46,640

people who fly in space okay

1165

00:44:49,190 --> 00:44:47,760

but um

1166

00:44:51,190 --> 00:44:49,200

i'm here to give you guys a little bit

1167

00:44:52,390 --> 00:44:51,200

of advice uh you're not tired yet you're

1168

00:44:53,750 --> 00:44:52,400

not bored

1169

00:44:55,270 --> 00:44:53,760

can i keep going

1170

00:44:56,069 --> 00:44:55,280

i haven't used up too much of your time

1171

00:44:57,990 --> 00:44:56,079

yet

1172

00:44:59,430 --> 00:44:58,000

you got a little bit more

1173

00:45:00,630 --> 00:44:59,440

okay

1174

00:45:02,870 --> 00:45:00,640

well you guys

1175

00:45:05,829 --> 00:45:02,880

you know what you are the best at being

1176

00:45:07,910 --> 00:45:05,839

you and you're at your best

1177

00:45:10,230 --> 00:45:07,920

when what you do makes you happy

1178

00:45:11,829 --> 00:45:10,240

just like my video there

1179

00:45:13,349 --> 00:45:11,839

so know yourself

1180

00:45:15,270 --> 00:45:13,359

and take stock in the things that you

1181

00:45:18,390 --> 00:45:15,280

enjoy doing

1182

00:45:21,030 --> 00:45:18,400

pay attention to what fuels you what

1183

00:45:24,230 --> 00:45:21,040

gets your attention

1184

00:45:25,750 --> 00:45:24,240

what would get you out of bed early

1185

00:45:27,910 --> 00:45:25,760

what is it that you're doing that causes

1186

00:45:31,030 --> 00:45:27,920

you to totally forget and not even care

1187

00:45:35,430 --> 00:45:32,630

what is it that you pick up that you

1188

00:45:37,030 --> 00:45:35,440

can't put down

1189

00:45:39,349 --> 00:45:37,040

what are you doing when what matters to

1190

00:45:42,150 --> 00:45:39,359

you the most is doing it right and not

1191

00:45:43,510 --> 00:45:42,160

getting it over with

1192

00:45:45,589 --> 00:45:43,520

what's taking root in the back of your

1193

00:45:47,109 --> 00:45:45,599

mind right now

1194

00:45:48,950 --> 00:45:47,119

and what is it that you're itching to

1195

00:45:51,430 --> 00:45:48,960

try but you're wondering how in the

1196

00:45:52,710 --> 00:45:51,440

world am i going to do it

1197

00:45:55,430 --> 00:45:52,720

throughout your life i hope you take

1198

00:45:57,270 --> 00:45:55,440

note of these things

1199

00:45:58,790 --> 00:45:57,280

all that you do influences what you

1200

00:46:00,150 --> 00:45:58,800

become

1201  
00:46:02,309 --> 00:46:00,160  
you never know what you'll be down the

1202  
00:46:04,550 --> 00:46:02,319  
road and when and where those influences

1203  
00:46:06,630 --> 00:46:04,560  
are going to come into play

1204  
00:46:08,390 --> 00:46:06,640  
my father was an electrician

1205  
00:46:09,829 --> 00:46:08,400  
i started going on job sites with him at

1206  
00:46:11,750 --> 00:46:09,839  
a very young age

1207  
00:46:13,030 --> 00:46:11,760  
my mom needed a babysitter so i think i

1208  
00:46:14,790 --> 00:46:13,040  
was about two years old when i started

1209  
00:46:16,309 --> 00:46:14,800  
to go to work with dad

1210  
00:46:17,910 --> 00:46:16,319  
when i was five he started his own

1211  
00:46:19,270 --> 00:46:17,920  
commercial electrical contracting

1212  
00:46:20,470 --> 00:46:19,280  
company

1213  
00:46:22,630 --> 00:46:20,480

and when i was

1214

00:46:24,470 --> 00:46:22,640

seven i got my first paycheck

1215

00:46:26,870 --> 00:46:24,480

back then minimum wage was about five

1216

00:46:29,349 --> 00:46:26,880

donuts from winchell's

1217

00:46:31,750 --> 00:46:29,359

i was 10 when i got my first tool belt i

1218

00:46:34,230 --> 00:46:31,760

was 15 when i wired up my first sub

1219

00:46:36,309 --> 00:46:34,240

panel with relays and i was 19 when my

1220

00:46:37,829 --> 00:46:36,319

dad sent me on my first service call

1221

00:46:39,510 --> 00:46:37,839

alone

1222

00:46:41,670 --> 00:46:39,520

i worked for my father on weekends

1223

00:46:43,750 --> 00:46:41,680

nights and on every school break until i

1224

00:46:45,829 --> 00:46:43,760

was 25 years old and my father retired

1225

00:46:47,510 --> 00:46:45,839

his company

1226  
00:46:49,190 --> 00:46:47,520  
it wasn't the most glamorous life being

1227  
00:46:50,950 --> 00:46:49,200  
an electrician

1228  
00:46:53,670 --> 00:46:50,960  
every day was a long day

1229  
00:46:55,910 --> 00:46:53,680  
getting up at 3 a.m to beat the traffic

1230  
00:46:58,630 --> 00:46:55,920  
driving 70 to 100 miles sometimes just

1231  
00:47:01,190 --> 00:46:58,640  
to get to a job site you put in a hard

1232  
00:47:03,190 --> 00:47:01,200  
long day and then you'd get back in the

1233  
00:47:04,230 --> 00:47:03,200  
truck and merge with traffic to come

1234  
00:47:06,069 --> 00:47:04,240  
home

1235  
00:47:08,470 --> 00:47:06,079  
when i was 16 and i started driving the

1236  
00:47:10,309 --> 00:47:08,480  
work truck and picking up the guys

1237  
00:47:12,150 --> 00:47:10,319  
then i would sit into the la traffic for

1238  
00:47:13,109 --> 00:47:12,160

70 to 100 miles just to get to the job

1239

00:47:17,030 --> 00:47:13,119

site

1240

00:47:19,589 --> 00:47:17,040

today but back then there was rarely a

1241

00:47:20,630 --> 00:47:19,599

porta potty and if there was there was

1242

00:47:22,470 --> 00:47:20,640

only one

1243

00:47:25,430 --> 00:47:22,480

it wasn't marked for women

1244

00:47:26,870 --> 00:47:25,440

and it wasn't very inviting

1245

00:47:28,870 --> 00:47:26,880

most of the guys from the other trades

1246

00:47:30,710 --> 00:47:28,880

knew who i was i was known as jc's

1247

00:47:32,630 --> 00:47:30,720

daughter tc

1248

00:47:34,630 --> 00:47:32,640

and they knew to leave me alone and just

1249

00:47:36,069 --> 00:47:34,640

let me work for the most part

1250

00:47:37,990 --> 00:47:36,079

sometimes i got a lot more attention

1251

00:47:40,390 --> 00:47:38,000

than i wanted or i deserved and it

1252

00:47:42,549 --> 00:47:40,400

wasn't always flattering helpful cordial

1253

00:47:44,390 --> 00:47:42,559

or even appropriate

1254

00:47:45,990 --> 00:47:44,400

i was worn out and filthy after every

1255

00:47:47,430 --> 00:47:46,000

day on the job

1256

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

and heading back to school at the end of

1257

00:47:50,950 --> 00:47:48,480

summer

1258

00:47:52,710 --> 00:47:50,960

i had pale skin weathered hands sliced

1259

00:47:54,069 --> 00:47:52,720

fingers broken nails

1260

00:47:56,710 --> 00:47:54,079

i was

1261

00:47:58,950 --> 00:47:56,720

had bruises all over from head to toe

1262

00:48:01,270 --> 00:47:58,960

and heading into class i looked nothing

1263

00:48:03,270 --> 00:48:01,280

like the other girls at school

1264

00:48:05,270 --> 00:48:03,280

construction's a tough business

1265

00:48:07,349 --> 00:48:05,280

the job is tiring the hours are long and

1266

00:48:08,870 --> 00:48:07,359

good workers are hard to find

1267

00:48:10,390 --> 00:48:08,880

i was my father's most loyal and

1268

00:48:12,870 --> 00:48:10,400

reliable employee and yet when the

1269

00:48:14,630 --> 00:48:12,880

minimum wage went from donuts to cash i

1270

00:48:16,390 --> 00:48:14,640

was usually the last one to get paid if

1271

00:48:18,390 --> 00:48:16,400

i got paid at all

1272

00:48:20,470 --> 00:48:18,400

i would have worked for my dad for free

1273

00:48:23,030 --> 00:48:20,480

i think all of you would too right to

1274

00:48:24,870 --> 00:48:23,040

mom and dad you love them

1275

00:48:26,710 --> 00:48:24,880

my dad didn't make me work for him he

1276

00:48:28,470 --> 00:48:26,720

didn't make me feel guilty my sister

1277

00:48:30,150 --> 00:48:28,480

didn't work for him

1278

00:48:31,990 --> 00:48:30,160

he gave me a choice

1279

00:48:33,589 --> 00:48:32,000

you know what

1280

00:48:36,069 --> 00:48:33,599

i liked it

1281

00:48:37,510 --> 00:48:36,079

i liked working with tools

1282

00:48:40,470 --> 00:48:37,520

i discovered

1283

00:48:41,829 --> 00:48:40,480

that i liked fixing things

1284

00:48:44,150 --> 00:48:41,839

i loved it when dad came back from the

1285

00:48:45,829 --> 00:48:44,160

supply house and he had a new tool he'd

1286

00:48:48,230 --> 00:48:45,839

say it was to make our life easier but

1287

00:48:49,910 --> 00:48:48,240

we knew it was just an excuse he'd

1288

00:48:51,030 --> 00:48:49,920

figure it out and then he'd show me how

1289

00:48:52,870 --> 00:48:51,040

to use it

1290

00:48:54,470 --> 00:48:52,880

we used to remodel retail stores and

1291

00:48:56,069 --> 00:48:54,480

offices it was the best thing ever to go

1292

00:48:57,510 --> 00:48:56,079

in and demolish the place and then build

1293

00:48:59,510 --> 00:48:57,520

it right back up

1294

00:49:01,190 --> 00:48:59,520

i loved crawling in ceilings hauling the

1295

00:49:03,349 --> 00:49:01,200

ladders pulling the wire making up the j

1296

00:49:05,109 --> 00:49:03,359

boxes bending the pipe calculating the

1297

00:49:06,470 --> 00:49:05,119

circuits and eating the lunch that mom

1298

00:49:08,390 --> 00:49:06,480

packed

1299

00:49:10,309 --> 00:49:08,400

dad had this fantastic knack for solving

1300

00:49:12,309 --> 00:49:10,319

problems and whenever we got into a snag

1301

00:49:14,630 --> 00:49:12,319

he'd figure out a way to solve it

1302

00:49:16,790 --> 00:49:14,640

i watched my dad for a number of years

1303

00:49:19,109 --> 00:49:16,800

how he worked how he used tools

1304

00:49:20,630 --> 00:49:19,119

how he approached problems

1305

00:49:22,630 --> 00:49:20,640

with all those years of experience and

1306

00:49:23,990 --> 00:49:22,640

everything my father had taught me i had

1307

00:49:26,069 --> 00:49:24,000

achieved journeyman status as an

1308

00:49:27,430 --> 00:49:26,079

electrician it was rather funny that

1309

00:49:29,670 --> 00:49:27,440

when it came time for me to begin my

1310

00:49:31,430 --> 00:49:29,680

undergraduate research in chemistry that

1311

00:49:32,710 --> 00:49:31,440

the new professor on faculty actually

1312

00:49:34,870 --> 00:49:32,720

recruited me

1313

00:49:37,030 --> 00:49:34,880

to be in his group not for my talents in

1314

00:49:38,870 --> 00:49:37,040

chemistry but for my simple skills in

1315

00:49:40,790 --> 00:49:38,880

construction

1316

00:49:42,870 --> 00:49:40,800

i installed lights and outlets designed

1317

00:49:44,390 --> 00:49:42,880

circuit boards i spent more time

1318

00:49:45,750 --> 00:49:44,400

with a wrench in my hand assembling

1319

00:49:47,430 --> 00:49:45,760

equipment than i ever did holding a

1320

00:49:49,430 --> 00:49:47,440

beaker and mixing chemicals which is not

1321

00:49:51,910 --> 00:49:49,440

at all what i pictured my life as a

1322

00:49:54,069 --> 00:49:51,920

researcher in a chemistry lab to be like

1323

00:49:55,670 --> 00:49:54,079

after all that the lab was functional i

1324

00:49:57,270 --> 00:49:55,680

had a front row seat my professor's

1325

00:49:59,030 --> 00:49:57,280

undivided attention is he taught me

1326  
00:50:01,190 --> 00:49:59,040  
everything he could with the time i had

1327  
00:50:03,030 --> 00:50:01,200  
left how lasers were used to study

1328  
00:50:04,470 --> 00:50:03,040  
molecules

1329  
00:50:06,870 --> 00:50:04,480  
since then and every step of the way of

1330  
00:50:08,950 --> 00:50:06,880  
my path of becoming an astronaut i found

1331  
00:50:10,470 --> 00:50:08,960  
myself and others benefiting from the

1332  
00:50:12,790 --> 00:50:10,480  
skills i learned simply by doing

1333  
00:50:13,750 --> 00:50:12,800  
something that i loved and was natural

1334  
00:50:15,349 --> 00:50:13,760  
to me

1335  
00:50:17,430 --> 00:50:15,359  
i was completely clueless though to the

1336  
00:50:18,790 --> 00:50:17,440  
impact that it would have on my life

1337  
00:50:20,390 --> 00:50:18,800  
looking back on it i think god was

1338  
00:50:22,630 --> 00:50:20,400

preparing me all along to live on board

1339

00:50:25,670 --> 00:50:22,640

the international space station

1340

00:50:27,109 --> 00:50:25,680

where things often break they get lost

1341

00:50:27,829 --> 00:50:27,119

and they don't always work out the way

1342

00:50:29,109 --> 00:50:27,839

that

1343

00:50:30,470 --> 00:50:29,119

they were planned

1344

00:50:31,910 --> 00:50:30,480

and sometimes

1345

00:50:33,270 --> 00:50:31,920

you're one of the only people on board

1346

00:50:34,710 --> 00:50:33,280

that can fix it

1347

00:50:35,910 --> 00:50:34,720

like i said you never know what's down

1348

00:50:37,750 --> 00:50:35,920

the road

1349

00:50:39,109 --> 00:50:37,760

there'll be a lot of great moments down

1350

00:50:40,630 --> 00:50:39,119

the road for you

1351

00:50:42,950 --> 00:50:40,640

especially if you

1352

00:50:44,950 --> 00:50:42,960

take to work take to heart the words of

1353

00:50:46,309 --> 00:50:44,960

advice that you hear from these women at

1354

00:50:47,990 --> 00:50:46,319

nasa

1355

00:50:50,390 --> 00:50:48,000

remember what i said about their strong

1356

00:50:52,549 --> 00:50:50,400

character

1357

00:50:55,589 --> 00:50:52,559

do you know what i mean by that

1358

00:50:56,870 --> 00:50:55,599

strong character

1359

00:50:58,230 --> 00:50:56,880

amidst all their hopes and their

1360

00:50:59,589 --> 00:50:58,240

inspirations

1361

00:51:01,510 --> 00:50:59,599

you'll notice that these women became

1362

00:51:02,950 --> 00:51:01,520

bold in their struggles

1363

00:51:05,109 --> 00:51:02,960

and it was the challenges that they had

1364

00:51:07,109 --> 00:51:05,119

to overcome not necessarily the

1365

00:51:09,109 --> 00:51:07,119

victories that they won

1366

00:51:12,069 --> 00:51:09,119

that refined their spirit

1367

00:51:13,190 --> 00:51:12,079

and it defined their character

1368

00:51:15,270 --> 00:51:13,200

now here's what you guys are going to

1369

00:51:16,710 --> 00:51:15,280

face as you grow up

1370

00:51:19,589 --> 00:51:16,720

imagine that there's something that you

1371

00:51:21,190 --> 00:51:19,599

want to do that's out there

1372

00:51:22,470 --> 00:51:21,200

but there's this wall right in front of

1373

00:51:23,829 --> 00:51:22,480

you

1374

00:51:28,790 --> 00:51:23,839

there's fear

1375

00:51:30,470 --> 00:51:28,800

fail before you get there

1376

00:51:33,990 --> 00:51:30,480

there's doubt

1377

00:51:34,829 --> 00:51:34,000

get there

1378

00:51:36,870 --> 00:51:34,839

there's

1379

00:51:38,230 --> 00:51:36,880

discouragement that's when he hit the

1380

00:51:40,470 --> 00:51:38,240

wall

1381

00:51:42,309 --> 00:51:40,480

there's obstacles that's you figuring

1382

00:51:44,950 --> 00:51:42,319

out the wall

1383

00:51:46,150 --> 00:51:44,960

there's trials that's you overcoming the

1384

00:51:48,630 --> 00:51:46,160

wall

1385

00:51:51,190 --> 00:51:48,640

there's threats to your confidence

1386

00:51:53,030 --> 00:51:51,200

that's falling off the wall

1387

00:51:54,790 --> 00:51:53,040

there's criticism

1388

00:51:56,150 --> 00:51:54,800

that's you being judged by others about

1389

00:51:58,390 --> 00:51:56,160

things that are sometimes not even

1390

00:52:00,069 --> 00:51:58,400

related to the wall

1391

00:52:01,910 --> 00:52:00,079

and there's failure

1392

00:52:04,950 --> 00:52:01,920

that's when you find a different way to

1393

00:52:06,870 --> 00:52:04,960

pass over the wall there's hesitation

1394

00:52:09,030 --> 00:52:06,880

that's you holding back

1395

00:52:10,390 --> 00:52:09,040

from conquering the wall

1396

00:52:12,870 --> 00:52:10,400

and of course there's perceptions like

1397

00:52:14,710 --> 00:52:12,880

well no one else is doing it

1398

00:52:17,190 --> 00:52:14,720

that's you waiting for others to confirm

1399

00:52:18,549 --> 00:52:17,200

for you that what you're doing is right

1400

00:52:20,870 --> 00:52:18,559

when all you need is a belief in

1401

00:52:23,190 --> 00:52:20,880

yourself

1402

00:52:24,309 --> 00:52:23,200

so how do you overcome it how do you how

1403

00:52:25,349 --> 00:52:24,319

do you overcome it when you hit that

1404

00:52:26,790 --> 00:52:25,359

wall

1405

00:52:30,309 --> 00:52:26,800

you do what you like and you like what

1406

00:52:31,910 --> 00:52:30,319

you do that's a slogan somewhere

1407

00:52:33,750 --> 00:52:31,920

i think you'll find that to be the one

1408

00:52:35,349 --> 00:52:33,760

thing that resonates inside of truly

1409

00:52:37,270 --> 00:52:35,359

successful people and you might have a

1410

00:52:39,510 --> 00:52:37,280

different measure of success

1411

00:52:40,950 --> 00:52:39,520

but honest people haven't have who have

1412

00:52:43,109 --> 00:52:40,960

experienced it

1413

00:52:44,549 --> 00:52:43,119

have the sweet sensation

1414

00:52:46,390 --> 00:52:44,559

and they describe it as a sense of joy

1415

00:52:49,190 --> 00:52:46,400

and fulfillment in their heart

1416

00:52:50,549 --> 00:52:49,200

that sounds pretty good doesn't it

1417

00:52:52,950 --> 00:52:50,559

i grew up in the deserts of southern

1418

00:52:54,790 --> 00:52:52,960

california riding dirt bikes i was nine

1419

00:52:57,430 --> 00:52:54,800

when mom and dad got me my first

1420

00:52:59,589 --> 00:52:57,440

motorcycle it was a honda xr80

1421

00:53:01,109 --> 00:52:59,599

does anyone here ride those things

1422

00:53:02,390 --> 00:53:01,119

yeah right

1423

00:53:04,230 --> 00:53:02,400

you spent a lot of time in the beginning

1424

00:53:06,069 --> 00:53:04,240

falling off of them don't you

1425

00:53:07,430 --> 00:53:06,079

at least i did

1426  
00:53:09,270 --> 00:53:07,440  
anyway i mean well when you're decked

1427  
00:53:10,870 --> 00:53:09,280  
out in boots and leathers and a padded

1428  
00:53:13,670 --> 00:53:10,880  
shirt and you got gloves and helmet i

1429  
00:53:16,230 --> 00:53:13,680  
mean you're all geared up to fall right

1430  
00:53:18,150 --> 00:53:16,240  
well mom uh mom took that as uh medical

1431  
00:53:19,510 --> 00:53:18,160  
insurance and and to me all that gear

1432  
00:53:21,430 --> 00:53:19,520  
just was an invitation to climb the

1433  
00:53:24,069 --> 00:53:21,440  
tallest hill that i could

1434  
00:53:25,750 --> 00:53:24,079  
i felt invincible and power powerful and

1435  
00:53:27,030 --> 00:53:25,760  
and quite mammoth on my little red bike

1436  
00:53:28,950 --> 00:53:27,040  
and i don't think i was even four feet

1437  
00:53:30,630 --> 00:53:28,960  
tall back then

1438  
00:53:32,230 --> 00:53:30,640

i'd come to what seemed to me is a

1439

00:53:35,430 --> 00:53:32,240

massive hill so tall that i couldn't

1440

00:53:37,109 --> 00:53:35,440

even see anything but the sky above it

1441

00:53:38,470 --> 00:53:37,119

i don't know what it is about infinity

1442

00:53:40,630 --> 00:53:38,480

for me but

1443

00:53:42,710 --> 00:53:40,640

just like the horizon and those pictures

1444

00:53:43,910 --> 00:53:42,720

you saw that's bathing in the in the

1445

00:53:46,390 --> 00:53:43,920

ocean

1446

00:53:48,630 --> 00:53:46,400

or the stars when they're fixed deep in

1447

00:53:50,790 --> 00:53:48,640

the blackness of space

1448

00:53:52,790 --> 00:53:50,800

i find myself captivated with my heart

1449

00:53:54,870 --> 00:53:52,800

pounding and i'm nearly breathless as i

1450

00:53:56,790 --> 00:53:54,880

try to reach out there

1451  
00:53:57,750 --> 00:53:56,800  
with my eyes and my thoughts and touch

1452  
00:54:01,510 --> 00:53:57,760  
it

1453  
00:54:03,109 --> 00:54:01,520  
i don't know

1454  
00:54:04,549 --> 00:54:03,119  
when i stood there though what was

1455  
00:54:05,829 --> 00:54:04,559  
between me and that summit was nothing

1456  
00:54:08,069 --> 00:54:05,839  
short of mother nature's bad

1457  
00:54:09,829 --> 00:54:08,079  
housekeeping there were ruts in the in

1458  
00:54:10,950 --> 00:54:09,839  
the in the trail there was soft sand at

1459  
00:54:12,549 --> 00:54:10,960  
the base

1460  
00:54:13,990 --> 00:54:12,559  
there was boulders outcropping

1461  
00:54:16,230 --> 00:54:14,000  
everywhere tight curves and deep

1462  
00:54:18,390 --> 00:54:16,240  
crevices paralleling the very path i

1463  
00:54:19,670 --> 00:54:18,400

envisioned myself taking to the top

1464

00:54:22,150 --> 00:54:19,680

oh yeah and don't forget there's that

1465

00:54:23,510 --> 00:54:22,160

thorny bush right there at the peak

1466

00:54:25,349 --> 00:54:23,520

i usually couldn't tell either where the

1467

00:54:26,950 --> 00:54:25,359

trail went at the top for all i knew

1468

00:54:28,309 --> 00:54:26,960

sitting there with my engine eileen i

1469

00:54:30,470 --> 00:54:28,319

could be headed for a cliff and have to

1470

00:54:33,030 --> 00:54:30,480

swerve quickly to avoid falling into the

1471

00:54:34,630 --> 00:54:33,040

abyss and taking my beloved bike with me

1472

00:54:37,109 --> 00:54:34,640

if mom was there she'd be watching me

1473

00:54:39,030 --> 00:54:37,119

like this

1474

00:54:39,990 --> 00:54:39,040

anyway the hills uh were tough and i

1475

00:54:41,349 --> 00:54:40,000

knew it was going to take a lot of

1476

00:54:43,109 --> 00:54:41,359

energy and focus and all the strength

1477

00:54:44,549 --> 00:54:43,119

and attention and agility that i had to

1478

00:54:45,829 --> 00:54:44,559

make it around those obstacles to where

1479

00:54:48,549 --> 00:54:45,839

i wanted to go

1480

00:54:49,910 --> 00:54:48,559

and that was on top of that mountain

1481

00:54:51,990 --> 00:54:49,920

young ladies i hope that you'll believe

1482

00:54:53,910 --> 00:54:52,000

me when i say this that when you find

1483

00:54:56,789 --> 00:54:53,920

that thing in life that you want to do

1484

00:54:58,069 --> 00:54:56,799

and that wall gets in front of you

1485

00:54:59,910 --> 00:54:58,079

that you're going to keep your heart at

1486

00:55:01,670 --> 00:54:59,920

the top of that hill

1487

00:55:03,670 --> 00:55:01,680

okay

1488

00:55:05,109 --> 00:55:03,680

i want to see some heads nod

1489

00:55:07,030 --> 00:55:05,119

okay

1490

00:55:09,190 --> 00:55:07,040

i was 27 years old when i was selected

1491

00:55:11,109 --> 00:55:09,200

by nasa to be an astronaut and i had

1492

00:55:12,870 --> 00:55:11,119

just turned 28 when i showed up for my

1493

00:55:14,470 --> 00:55:12,880

first day on the job

1494

00:55:17,349 --> 00:55:14,480

there i was on top of that monstrous

1495

00:55:19,190 --> 00:55:17,359

hill i just climbed i was an astronaut

1496

00:55:21,109 --> 00:55:19,200

but i wasn't at the summit yet

1497

00:55:22,870 --> 00:55:21,119

i came there to fly in space and i had a

1498

00:55:25,430 --> 00:55:22,880

long way to go still

1499

00:55:27,030 --> 00:55:25,440

i had my heart set on doing an eva i

1500

00:55:28,950 --> 00:55:27,040

mean after all what's a space walker but

1501  
00:55:31,109 --> 00:55:28,960  
a construction worker in a pressurized

1502  
00:55:32,230 --> 00:55:31,119  
suit working 220 miles above the surface

1503  
00:55:33,750 --> 00:55:32,240  
of the earth

1504  
00:55:36,630 --> 00:55:33,760  
doing construction

1505  
00:55:38,230 --> 00:55:36,640  
at mach 25 in the vacuum of space i mean

1506  
00:55:40,150 --> 00:55:38,240  
i felt like i was born to do that come

1507  
00:55:43,589 --> 00:55:40,160  
on

1508  
00:55:45,589 --> 00:55:43,599  
pressurized suit is perhaps the hardest

1509  
00:55:47,990 --> 00:55:45,599  
part about training for a spacewalk

1510  
00:55:49,670 --> 00:55:48,000  
especially for someone slender like me

1511  
00:55:51,430 --> 00:55:49,680  
it takes years of training to become

1512  
00:55:53,510 --> 00:55:51,440  
qualified for an eva and it's not always

1513  
00:55:55,190 --> 00:55:53,520

a given that you're going to do one

1514

00:55:56,390 --> 00:55:55,200

though i was so grateful for my first

1515

00:55:57,829 --> 00:55:56,400

space flight

1516

00:55:59,430 --> 00:55:57,839

i'll shamefully admit that i was

1517

00:56:02,150 --> 00:55:59,440

heartbroken when i didn't get selected

1518

00:56:03,670 --> 00:56:02,160

to do an ava on my first flight i don't

1519

00:56:05,589 --> 00:56:03,680

think i ever worked harder for anything

1520

00:56:06,870 --> 00:56:05,599

in all my life like i did to be a

1521

00:56:08,390 --> 00:56:06,880

spacewalker

1522

00:56:10,549 --> 00:56:08,400

and that's saying a lot because i worked

1523

00:56:11,750 --> 00:56:10,559

hard my whole life

1524

00:56:13,349 --> 00:56:11,760

remember that wall i was telling you

1525

00:56:14,870 --> 00:56:13,359

about

1526

00:56:16,470 --> 00:56:14,880

well i was told early in my career that

1527

00:56:17,910 --> 00:56:16,480

if i got to do an eva

1528

00:56:20,069 --> 00:56:17,920

i would never do a complicated

1529

00:56:22,390 --> 00:56:20,079

time-critical spacewalk

1530

00:56:23,270 --> 00:56:22,400

certainly not one that was unplanned

1531

00:56:25,190 --> 00:56:23,280

you could say i was a little

1532

00:56:26,630 --> 00:56:25,200

disappointed by that

1533

00:56:28,789 --> 00:56:26,640

you know that period in my life was much

1534

00:56:31,670 --> 00:56:28,799

like that hill i faced on my motorcycle

1535

00:56:33,750 --> 00:56:31,680

ruts crevices and boulders and all

1536

00:56:35,109 --> 00:56:33,760

who put those things there

1537

00:56:36,710 --> 00:56:35,119

why couldn't i move that wall and get

1538

00:56:38,390 --> 00:56:36,720

what i wanted

1539

00:56:39,510 --> 00:56:38,400

it wasn't for lack of effort or hard

1540

00:56:42,150 --> 00:56:39,520

work

1541

00:56:43,670 --> 00:56:42,160

i wanted to do an eva so badly

1542

00:56:44,789 --> 00:56:43,680

but i could not see a clear way to get

1543

00:56:47,030 --> 00:56:44,799

there

1544

00:56:48,309 --> 00:56:47,040

it was like having your desires

1545

00:56:49,670 --> 00:56:48,319

have a head-on collision with

1546

00:56:52,230 --> 00:56:49,680

uncertainty

1547

00:56:53,910 --> 00:56:52,240

nothing about it was in my control

1548

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

mom sent me a bible verse it was second

1549

00:56:58,870 --> 00:56:56,559

chronicles chapter 20 verse 15. don't be

1550

00:57:00,470 --> 00:56:58,880

afraid and discouraged the battle is not

1551  
00:57:02,069 --> 00:57:00,480  
yours but god's

1552  
00:57:04,069 --> 00:57:02,079  
does anybody here know that serenity

1553  
00:57:05,829 --> 00:57:04,079  
prayer

1554  
00:57:08,150 --> 00:57:05,839  
you probably heard it god grant me the

1555  
00:57:10,069 --> 00:57:08,160  
grace to accept with serenity the things

1556  
00:57:12,309 --> 00:57:10,079  
that i cannot change

1557  
00:57:13,510 --> 00:57:12,319  
the courage to change the things that i

1558  
00:57:15,190 --> 00:57:13,520  
can

1559  
00:57:16,630 --> 00:57:15,200  
and that precious wisdom to know the

1560  
00:57:19,430 --> 00:57:16,640  
difference

1561  
00:57:21,589 --> 00:57:19,440  
in a little little red book of wisdom by

1562  
00:57:23,190 --> 00:57:21,599  
mark demas he writes when i finally

1563  
00:57:24,950 --> 00:57:23,200

learned to relinquish

1564

00:57:26,789 --> 00:57:24,960

personal control

1565

00:57:27,990 --> 00:57:26,799

a responsibility for everything beyond

1566

00:57:29,670 --> 00:57:28,000

my control

1567

00:57:30,789 --> 00:57:29,680

the ship of my emotions entered calm

1568

00:57:32,549 --> 00:57:30,799

waters

1569

00:57:34,390 --> 00:57:32,559

and my husband reminds me of a japanese

1570

00:57:36,710 --> 00:57:34,400

proverb that says if you fall down seven

1571

00:57:38,150 --> 00:57:36,720

times you get up eight

1572

00:57:39,430 --> 00:57:38,160

when it came to doing a space walk i

1573

00:57:41,430 --> 00:57:39,440

realized there was nothing more i could

1574

00:57:43,510 --> 00:57:41,440

do that i didn't already do

1575

00:57:45,270 --> 00:57:43,520

and the rest was in god's hands so i

1576

00:57:47,190 --> 00:57:45,280

waited for his timing

1577

00:57:49,510 --> 00:57:47,200

and by the grace of god through a

1578

00:57:51,349 --> 00:57:49,520

serendipitous critical failure of our

1579

00:57:53,030 --> 00:57:51,359

external thermal control system lupe

1580

00:57:54,630 --> 00:57:53,040

ammonia pump module the first and

1581

00:57:56,549 --> 00:57:54,640

largest failure in the onboard history

1582

00:57:58,230 --> 00:57:56,559

of our international space station

1583

00:58:00,549 --> 00:57:58,240

taking with at half our station's power

1584

00:58:02,230 --> 00:58:00,559

and setting us up for a bad situation if

1585

00:58:04,630 --> 00:58:02,240

we lost our second remaining ammonia

1586

00:58:06,390 --> 00:58:04,640

pump a system involving the largest

1587

00:58:08,069 --> 00:58:06,400

fluid lines and quick desk in Exxon

1588

00:58:09,510 --> 00:58:08,079

station containing the most toxic

1589

00:58:11,910 --> 00:58:09,520

substance on board

1590

00:58:14,069 --> 00:58:11,920

i got not only a complicated time

1591

00:58:15,829 --> 00:58:14,079

critical unplanned spacewalk that lasted

1592

00:58:17,990 --> 00:58:15,839

over eight hours

1593

00:58:19,190 --> 00:58:18,000

i got three of them

1594

00:58:21,430 --> 00:58:19,200

so remember

1595

00:58:24,470 --> 00:58:21,440

some things are out of your control

1596

00:58:27,670 --> 00:58:24,480

that's not always a bad thing

1597

00:58:29,829 --> 00:58:27,680

you guys are your best at being you

1598

00:58:32,150 --> 00:58:29,839

and you're at your best when what you do

1599

00:58:33,910 --> 00:58:32,160

makes you happy

1600

00:58:36,630 --> 00:58:33,920

learn about yourself

1601  
00:58:38,470 --> 00:58:36,640  
discover what motivates you you never

1602  
00:58:40,710 --> 00:58:38,480  
know what's down the road

1603  
00:58:42,150 --> 00:58:40,720  
you'll hit a few walls on the way

1604  
00:58:43,109 --> 00:58:42,160  
just keep your heart at the top of that

1605  
00:58:44,309 --> 00:58:43,119  
hill

1606  
00:58:46,549 --> 00:58:44,319  
and remember

1607  
00:58:49,430 --> 00:58:46,559  
some things are beyond your control

1608  
00:58:51,430 --> 00:58:49,440  
and that can bring about good things

1609  
00:59:04,390 --> 00:58:51,440  
godspeed ladies and thank you for your

1610  
00:59:10,390 --> 00:59:06,710  
tracy thank you so much that was truly

1611  
00:59:13,670 --> 00:59:10,400  
inspirational really appreciate that

1612  
00:59:16,390 --> 00:59:13,680  
we do have uh uh some questions uh from

1613  
00:59:20,390 --> 00:59:16,400

our audience today and so i'd like to

1614

00:59:32,549 --> 00:59:20,400

invite uh let's see we have anna t

1615

00:59:36,710 --> 00:59:35,030

my name is anna t i go to i'm an eighth

1616

00:59:38,710 --> 00:59:36,720

grader at longfellow middle school i'm

1617

00:59:41,589 --> 00:59:38,720

with the jam doctors robotics team and

1618

00:59:43,109 --> 00:59:41,599

my question is for lori garver

1619

00:59:44,710 --> 00:59:43,119

i know that you recently spoke at the

1620

00:59:47,030 --> 00:59:44,720

international space conference about the

1621

00:59:49,109 --> 00:59:47,040

importance of international cooperation

1622

00:59:50,789 --> 00:59:49,119

what experiences or opportunities would

1623

00:59:52,710 --> 00:59:50,799

you recommend high school students take

1624

00:59:54,710 --> 00:59:52,720

part in to bring together the countries

1625

00:59:56,710 --> 00:59:54,720

of the world

1626

00:59:58,630 --> 00:59:56,720

wow that's a great question i live in

1627

01:00:00,789 --> 00:59:58,640

mclean so how great that you're you go

1628

01:00:02,710 --> 01:00:00,799

to longfellow

1629

01:00:04,710 --> 01:00:02,720

they

1630

01:00:08,470 --> 01:00:04,720

aspects of the space program that are

1631

01:00:11,910 --> 01:00:08,480

international to me and and actually the

1632

01:00:13,430 --> 01:00:11,920

photos that tracy just showed i think

1633

01:00:15,589 --> 01:00:13,440

reinforce

1634

01:00:18,230 --> 01:00:15,599

this global perspective that we have

1635

01:00:20,789 --> 01:00:18,240

from space when people who have gone to

1636

01:00:22,309 --> 01:00:20,799

space come back they always tell us they

1637

01:00:24,470 --> 01:00:22,319

have a

1638

01:00:26,789 --> 01:00:24,480

epiphany on orbit that there aren't

1639

01:00:28,470 --> 01:00:26,799

borders between countries and going to

1640

01:00:30,309 --> 01:00:28,480

space has allowed us to really look back

1641

01:00:32,390 --> 01:00:30,319

and see not only the fragility of our

1642

01:00:34,710 --> 01:00:32,400

world but how we have to work together i

1643

01:00:36,230 --> 01:00:34,720

would say as high schoolers you have the

1644

01:00:37,430 --> 01:00:36,240

opportunity

1645

01:00:39,349 --> 01:00:37,440

to

1646

01:00:40,710 --> 01:00:39,359

study other cultures

1647

01:00:44,309 --> 01:00:40,720

certainly

1648

01:00:46,630 --> 01:00:44,319

there are all kinds of opportunities i

1649

01:00:49,109 --> 01:00:46,640

would absolutely suggest you

1650

01:00:50,470 --> 01:00:49,119

study at least one additional language

1651

01:00:52,870 --> 01:00:50,480

to english

1652

01:00:55,589 --> 01:00:52,880

because as you grow

1653

01:00:57,109 --> 01:00:55,599

up and go to college and beyond to

1654

01:00:58,549 --> 01:00:57,119

really live in another culture and

1655

01:01:01,670 --> 01:00:58,559

understand it i'm sure you feel that way

1656

01:01:03,910 --> 01:01:01,680

about your time in russia is invaluable

1657

01:01:05,990 --> 01:01:03,920

all of us the world is getting smaller

1658

01:01:07,510 --> 01:01:06,000

as we through space actually and

1659

01:01:09,349 --> 01:01:07,520

satellites connect

1660

01:01:13,030 --> 01:01:09,359

the world

1661

01:01:14,789 --> 01:01:13,040

we have the ability i think to

1662

01:01:16,789 --> 01:01:14,799

recognize

1663

01:01:19,109 --> 01:01:16,799

we can't make decisions alone

1664

01:01:20,710 --> 01:01:19,119

that don't affect the rest so

1665

01:01:23,510 --> 01:01:20,720

i would guess that all of your careers

1666

01:01:25,109 --> 01:01:23,520

are going to be somewhat international

1667

01:01:26,710 --> 01:01:25,119

and so i would take the opportunity in

1668

01:01:29,589 --> 01:01:26,720

high school to study other languages

1669

01:01:31,510 --> 01:01:29,599

other cultures and really really gain

1670

01:01:33,030 --> 01:01:31,520

this appreciation for being a global

1671

01:01:34,470 --> 01:01:33,040

citizen

1672

01:01:38,069 --> 01:01:34,480

thanks son

1673

01:01:40,470 --> 01:01:38,079

we have a question from pradyuta

1674

01:01:42,870 --> 01:01:40,480

my name is proud utep padmanabhan from

1675

01:01:44,789 --> 01:01:42,880

oak hill elementary fifth grade

1676

01:01:47,349 --> 01:01:44,799

i'm with the capital girls first lego

1677

01:01:49,430 --> 01:01:47,359

league team my question is for tracy

1678

01:01:51,270 --> 01:01:49,440

caldwell dyson

1679

01:01:54,150 --> 01:01:51,280

when he traveled through the earth's

1680

01:01:55,670 --> 01:01:54,160

atmosphere and exit its field does it

1681

01:01:57,430 --> 01:01:55,680

feel any different

1682

01:01:59,670 --> 01:01:57,440

can you please explain how your body

1683

01:02:01,430 --> 01:01:59,680

reacts to the lack of gravitational

1684

01:02:02,870 --> 01:02:01,440

forces

1685

01:02:04,789 --> 01:02:02,880

well when you

1686

01:02:06,630 --> 01:02:04,799

go through the atmosphere

1687

01:02:08,870 --> 01:02:06,640

you don't necessarily notice it when

1688

01:02:11,029 --> 01:02:08,880

you're sitting inside the capsule or the

1689

01:02:13,109 --> 01:02:11,039

or the space shuttle because of all the

1690

01:02:16,230 --> 01:02:13,119

the forces of acceleration that you're

1691

01:02:18,549 --> 01:02:16,240

experiencing you can't tell really um as

1692

01:02:20,150 --> 01:02:18,559

on your way up when you're launching

1693

01:02:22,069 --> 01:02:20,160

exactly what is you going through the

1694

01:02:22,950 --> 01:02:22,079

atmosphere and how much of it is you

1695

01:02:24,950 --> 01:02:22,960

just

1696

01:02:27,990 --> 01:02:24,960

shooting up like a rocket

1697

01:02:29,270 --> 01:02:28,000

going uh 17 500 miles per hour so it's

1698

01:02:30,789 --> 01:02:29,280

kind of hard to distinguish the

1699

01:02:32,789 --> 01:02:30,799

difference coming home it's a much

1700

01:02:35,430 --> 01:02:32,799

different story especially when you come

1701

01:02:37,430 --> 01:02:35,440

home in a soyuz capsule you definitely

1702

01:02:38,710 --> 01:02:37,440

know when you hit the atmosphere and you

1703

01:02:40,390 --> 01:02:38,720

know when you get through it because

1704

01:02:42,630 --> 01:02:40,400

your parachute opens up and it's the

1705

01:02:45,510 --> 01:02:42,640

greatest shock of your life but

1706

01:02:47,750 --> 01:02:45,520

um there's there's no other sensation on

1707

01:02:49,349 --> 01:02:47,760

the way up there and

1708

01:02:50,870 --> 01:02:49,359

it's kind of different where you

1709

01:02:53,589 --> 01:02:50,880

experience the where you first

1710

01:02:55,589 --> 01:02:53,599

experience microgravity once you get to

1711

01:02:57,750 --> 01:02:55,599

space because on the shuttle

1712

01:02:59,589 --> 01:02:57,760

um you know i had i was one of the first

1713

01:03:02,309 --> 01:02:59,599

people to unstrap out of my seat because

1714

01:03:05,430 --> 01:03:02,319

i my job was to film the external tank

1715

01:03:08,710 --> 01:03:05,440

as it fell away so everybody stayed put

1716

01:03:10,150 --> 01:03:08,720

and had i not unstrapped right away

1717

01:03:11,829 --> 01:03:10,160

the only thing i would

1718

01:03:13,190 --> 01:03:11,839

that would give me a clue that i was in

1719

01:03:15,270 --> 01:03:13,200

microgravity would be everything else

1720

01:03:16,710 --> 01:03:15,280

that was floating around me because when

1721

01:03:18,230 --> 01:03:16,720

you're strapped in your seats you can't

1722

01:03:19,750 --> 01:03:18,240

really tell and you're strapped in there

1723

01:03:21,349 --> 01:03:19,760

pretty good

1724

01:03:23,270 --> 01:03:21,359

but on the soyuz

1725

01:03:25,750 --> 01:03:23,280

because and you saw in the picture there

1726

01:03:28,309 --> 01:03:25,760

how small it is inside there and your

1727

01:03:29,510 --> 01:03:28,319

your in your seat very very tightly

1728

01:03:32,150 --> 01:03:29,520

cinched

1729

01:03:34,309 --> 01:03:32,160

you can't really tell um that your body

1730

01:03:36,309 --> 01:03:34,319

is floating and the only sensation that

1731

01:03:37,670 --> 01:03:36,319

you have is a panel that is in front of

1732

01:03:39,750 --> 01:03:37,680

you and you look at it and you have this

1733

01:03:41,750 --> 01:03:39,760

sensation that you are upside down

1734

01:03:43,109 --> 01:03:41,760

hanging from your straps you know when

1735

01:03:45,670 --> 01:03:43,119

you're sitting in your seat right now

1736

01:03:48,150 --> 01:03:45,680

you can feel your bottom touching the

1737

01:03:50,069 --> 01:03:48,160

chair but when you're in space

1738

01:03:52,230 --> 01:03:50,079

you don't have that sensation anymore

1739

01:03:54,069 --> 01:03:52,240

and and now you can feel the straps on

1740

01:03:56,069 --> 01:03:54,079

your shoulder and and in your mind it's

1741

01:03:57,670 --> 01:03:56,079

like when you hook your legs around a

1742

01:03:59,029 --> 01:03:57,680

bar and you hang upside down you know

1743

01:04:01,029 --> 01:03:59,039

that feeling

1744

01:04:03,349 --> 01:04:01,039

that is what it felt like for me inside

1745

01:04:05,029 --> 01:04:03,359

the soyuz uh when i first got to uh to

1746

01:04:07,109 --> 01:04:05,039

space and microgravity

1747

01:04:09,029 --> 01:04:07,119

so does that answer your question yes

1748

01:04:10,829 --> 01:04:09,039

thank you you're welcome

1749

01:04:13,750 --> 01:04:10,839

and a question from anna

1750

01:04:15,990 --> 01:04:13,760

my name is anna morris i'm from

1751

01:04:18,150 --> 01:04:16,000

greenbrier west elementary my team name

1752

01:04:19,990 --> 01:04:18,160

is their robotics chicks my question is

1753

01:04:21,750 --> 01:04:20,000

for sabrina thompson

1754

01:04:24,710 --> 01:04:21,760

i would like to know how you use

1755

01:04:26,870 --> 01:04:24,720

creativity in your job as an aerospace

1756

01:04:29,990 --> 01:04:26,880

engineer what have you created or

1757

01:04:32,309 --> 01:04:30,000

invented to work in space

1758

01:04:34,870 --> 01:04:32,319

well so far i've only been working at

1759

01:04:37,190 --> 01:04:34,880

nasa goddard for about a year

1760

01:04:40,710 --> 01:04:37,200

and i haven't had the opportunity to

1761

01:04:43,190 --> 01:04:40,720

create or invent anything as of yet

1762

01:04:45,270 --> 01:04:43,200

right now i work in safety so my job

1763

01:04:47,670 --> 01:04:45,280

consists mostly of

1764

01:04:49,750 --> 01:04:47,680

creating policies and procedures to

1765

01:04:53,270 --> 01:04:49,760

protect the nasa scientists and

1766

01:04:57,829 --> 01:04:53,280

engineers when they're doing their jobs

1767

01:05:01,589 --> 01:04:59,990

creating or inventing something that'll

1768

01:05:03,750 --> 01:05:01,599

work in space

1769

01:05:06,069 --> 01:05:03,760

but for the meantime

1770

01:05:08,470 --> 01:05:06,079

in my leisure when i'm outside of work i

1771

01:05:11,349 --> 01:05:08,480

do a lot of outreach activities with

1772

01:05:12,710 --> 01:05:11,359

students like you guys and um i just

1773

01:05:15,270 --> 01:05:12,720

create different activities and

1774

01:05:17,750 --> 01:05:15,280

experiments that um you know i actually

1775

01:05:20,230 --> 01:05:17,760

perform with you guys and um

1776

01:05:22,549 --> 01:05:20,240

i do that pretty much you know at least

1777

01:05:25,910 --> 01:05:22,559

a couple times a month so that's where

1778

01:05:28,309 --> 01:05:25,920

i'm able to use my creative side

1779

01:05:31,990 --> 01:05:28,319

does that answer your question

1780

01:05:34,150 --> 01:05:32,000

okay thank you and uh from samantha m

1781

01:05:36,549 --> 01:05:34,160

um my name is samantha mendez and i'm

1782

01:05:37,750 --> 01:05:36,559

from chantay high school i'm a senior

1783

01:05:40,470 --> 01:05:37,760

i'm with

1784

01:05:42,950 --> 01:05:40,480

first robotics team 612 chantelle

1785

01:05:45,589 --> 01:05:42,960

robotics and i'm a mentor of super

1786

01:05:48,309 --> 01:05:45,599

computers and fill team and my question

1787

01:05:49,510 --> 01:05:48,319

is for lori garvis

1788

01:05:51,750 --> 01:05:49,520

heyman

1789

01:05:54,870 --> 01:05:51,760

granat once wrote that reading writing

1790

01:05:56,069 --> 01:05:54,880

and arithmetic are important only if

1791

01:05:58,309 --> 01:05:56,079

served

1792

01:06:00,470 --> 01:05:58,319

to make our children more humane with

1793

01:06:02,309 --> 01:06:00,480

technology and globalization do you

1794

01:06:04,230 --> 01:06:02,319

believe that increasing the number of

1795

01:06:06,309 --> 01:06:04,240

females in the field of mathematics and

1796

01:06:11,109 --> 01:06:06,319

science will also increase the morality

1797

01:06:18,789 --> 01:06:14,069

wow that's a very interesting question

1798

01:06:23,510 --> 01:06:22,230

i've been known to use that um

1799

01:06:25,750 --> 01:06:23,520

i actually believe that women's

1800

01:06:28,470 --> 01:06:25,760

perspective on these topics is

1801  
01:06:32,390 --> 01:06:28,480  
meaningful and is is going to cause us

1802  
01:06:34,309 --> 01:06:32,400  
to have uh a different approach

1803  
01:06:36,630 --> 01:06:34,319  
than just men that's that's uh what

1804  
01:06:38,309 --> 01:06:36,640  
diversity is all about i do think i

1805  
01:06:40,150 --> 01:06:38,319  
bring something different to this than

1806  
01:06:42,870 --> 01:06:40,160  
than a man would and i don't think that

1807  
01:06:45,990 --> 01:06:42,880  
any any of you uh should should feel

1808  
01:06:47,829 --> 01:06:46,000  
differently about that uh we have i

1809  
01:06:51,349 --> 01:06:47,839  
think a responsibility

1810  
01:06:52,630 --> 01:06:51,359  
uh i i am a parent but of course i don't

1811  
01:06:53,990 --> 01:06:52,640  
really believe

1812  
01:06:55,829 --> 01:06:54,000  
being mother's that much different than

1813  
01:06:57,190 --> 01:06:55,839

being a father but i i do believe that

1814

01:07:01,190 --> 01:06:57,200

we have a responsibility to the next

1815

01:07:02,230 --> 01:07:01,200

generation and uh that we take an

1816

01:07:04,630 --> 01:07:02,240

interest

1817

01:07:08,470 --> 01:07:04,640

and a responsibility for that in in a

1818

01:07:10,150 --> 01:07:08,480

differentiated way as women we have uh i

1819

01:07:11,430 --> 01:07:10,160

think i mentioned a little bit about

1820

01:07:12,870 --> 01:07:11,440

this

1821

01:07:15,829 --> 01:07:12,880

need to have

1822

01:07:19,589 --> 01:07:15,839

more women engineers specifically

1823

01:07:21,750 --> 01:07:19,599

women tend to now we're all already

1824

01:07:23,670 --> 01:07:21,760

as as we talked a little bit about have

1825

01:07:25,430 --> 01:07:23,680

a higher percentage of women than men

1826

01:07:27,670 --> 01:07:25,440

graduating from college a higher

1827

01:07:30,710 --> 01:07:27,680

percentage of women and then men lawyers

1828

01:07:32,069 --> 01:07:30,720

and doctors but not engineers and i

1829

01:07:33,670 --> 01:07:32,079

can't help but think that one of the

1830

01:07:36,950 --> 01:07:33,680

reasons is

1831

01:07:40,230 --> 01:07:36,960

because we are not taught early on that

1832

01:07:41,670 --> 01:07:40,240

engineers actually are very very much

1833

01:07:44,069 --> 01:07:41,680

committed to and responsible for making

1834

01:07:47,190 --> 01:07:44,079

the world a better place and that's what

1835

01:07:49,829 --> 01:07:47,200

a lot of us want to do and so

1836

01:07:52,230 --> 01:07:49,839

as people i think recognize better the

1837

01:07:53,829 --> 01:07:52,240

contributions that engineers and stem

1838

01:07:57,349 --> 01:07:53,839

careers more broadly

1839

01:07:59,270 --> 01:07:57,359

contribute to a better future to

1840

01:08:01,270 --> 01:07:59,280

the humanities

1841

01:08:03,510 --> 01:08:01,280

advancement i think we will have more

1842

01:08:06,069 --> 01:08:03,520

women and that will be a good thing

1843

01:08:10,870 --> 01:08:06,079

thank you and we're going to take one

1844

01:08:13,510 --> 01:08:10,880

last question this is from sarvajna

1845

01:08:17,749 --> 01:08:13,520

my name is sarvajna kay from greenbriar

1846

01:08:20,470 --> 01:08:17,759

west es 6th grade and i am with the

1847

01:08:23,430 --> 01:08:20,480

robotics tricks fill team and my question

1848

01:08:25,269 --> 01:08:23,440

is for tracy caldwell dyson

1849

01:08:27,269 --> 01:08:25,279

what was the most important thing you

1850

01:08:29,829 --> 01:08:27,279

learned on your trip

1851

01:08:30,630 --> 01:08:29,839

oh goodness

1852

01:08:33,269 --> 01:08:30,640

oh

1853

01:08:35,349 --> 01:08:33,279

that's a hard one to answer you know

1854

01:08:37,110 --> 01:08:35,359

there's a lot of important things that

1855

01:08:38,870 --> 01:08:37,120

that you learn especially

1856

01:08:40,149 --> 01:08:38,880

well every day right

1857

01:08:41,749 --> 01:08:40,159

you don't have to just go to space for

1858

01:08:43,510 --> 01:08:41,759

that but um

1859

01:08:45,510 --> 01:08:43,520

but when you go to space it presents a

1860

01:08:46,789 --> 01:08:45,520

unique opportunity to learn important

1861

01:08:47,829 --> 01:08:46,799

things

1862

01:08:50,229 --> 01:08:47,839

um

1863

01:08:52,390 --> 01:08:50,239

just like lori mentioned you know

1864

01:08:53,829 --> 01:08:52,400

astronauts come back and they

1865

01:08:55,189 --> 01:08:53,839

have

1866

01:08:57,430 --> 01:08:55,199

somewhat of a

1867

01:08:58,789 --> 01:08:57,440

revelation about looking down at the

1868

01:09:00,550 --> 01:08:58,799

earth and

1869

01:09:03,110 --> 01:09:00,560

and just how

1870

01:09:04,309 --> 01:09:03,120

gosh it's so many things it's fragile

1871

01:09:07,030 --> 01:09:04,319

it's plump

1872

01:09:08,149 --> 01:09:07,040

it's blue it's yellow it's pink it's

1873

01:09:09,669 --> 01:09:08,159

green it's

1874

01:09:11,669 --> 01:09:09,679

it's amazing

1875

01:09:13,669 --> 01:09:11,679

and um

1876

01:09:15,430 --> 01:09:13,679

you you don't see the borders that you

1877

01:09:16,390 --> 01:09:15,440

hear about here and you fight for down

1878

01:09:17,669 --> 01:09:16,400

here

1879

01:09:20,149 --> 01:09:17,679

um

1880

01:09:21,749 --> 01:09:20,159

and you you feel very protective of it

1881

01:09:23,349 --> 01:09:21,759

up there and that's one reason why you

1882

01:09:25,030 --> 01:09:23,359

want to bring everybody up there and

1883

01:09:26,309 --> 01:09:25,040

stick their nose in that cupola window

1884

01:09:28,470 --> 01:09:26,319

and let them see what you're seeing

1885

01:09:31,110 --> 01:09:28,480

because if they did even the person that

1886

01:09:32,829 --> 01:09:31,120

cares the least about our environment

1887

01:09:36,070 --> 01:09:32,839

would change their mind i'm i'm pretty

1888

01:09:37,990 --> 01:09:36,080

convinced when you see that earth

1889

01:09:40,149 --> 01:09:38,000

through your eyes your very own eyes

1890

01:09:42,309 --> 01:09:40,159

you're in disbelief

1891

01:09:44,630 --> 01:09:42,319

you cannot believe that you are up there

1892

01:09:46,229 --> 01:09:44,640

looking at that thing you can't believe

1893

01:09:47,749 --> 01:09:46,239

what you're seeing and it's going by

1894

01:09:50,309 --> 01:09:47,759

fast you better be paying attention

1895

01:09:51,990 --> 01:09:50,319

we're going mach 25 folks and that earth

1896

01:09:53,189 --> 01:09:52,000

doesn't stand still

1897

01:09:54,709 --> 01:09:53,199

and

1898

01:09:56,950 --> 01:09:54,719

a lot a lot of times you go over parts

1899

01:09:58,070 --> 01:09:56,960

of the earth where there's

1900

01:10:00,470 --> 01:09:58,080

clouds

1901  
01:10:02,470 --> 01:10:00,480  
and you can't really see the earth below

1902  
01:10:04,310 --> 01:10:02,480  
but then when the clouds part and you

1903  
01:10:06,630 --> 01:10:04,320  
see this incredible

1904  
01:10:08,070 --> 01:10:06,640  
uh landmass features you saw some of the

1905  
01:10:09,830 --> 01:10:08,080  
photos today as some of those that

1906  
01:10:12,790 --> 01:10:09,840  
caught our eye and then you see mother

1907  
01:10:15,910 --> 01:10:12,800  
nature at her finest with the with the

1908  
01:10:19,110 --> 01:10:15,920  
storms the the the hurricanes the that

1909  
01:10:22,070 --> 01:10:19,120  
you could see for for thousands of miles

1910  
01:10:24,229 --> 01:10:22,080  
you can see for thousands of miles

1911  
01:10:26,229 --> 01:10:24,239  
up there you can see the curvature of

1912  
01:10:28,229 --> 01:10:26,239  
the earth you can see you can see

1913  
01:10:30,870 --> 01:10:28,239

lightning and you can see lightning

1914

01:10:32,630 --> 01:10:30,880

spread all across the planet all look i

1915

01:10:34,390 --> 01:10:32,640

mean you would not believe standing here

1916

01:10:37,430 --> 01:10:34,400

on the surface of the earth just how far

1917

01:10:38,870 --> 01:10:37,440

lightning can go it's amazing that that

1918

01:10:40,950 --> 01:10:38,880

that people in different parts of the

1919

01:10:41,830 --> 01:10:40,960

world are experiencing the same storm

1920

01:10:44,790 --> 01:10:41,840

system

1921

01:10:47,750 --> 01:10:44,800

and i watched it up in space you can see

1922

01:10:49,430 --> 01:10:47,760

the this when the sun sets you can watch

1923

01:10:51,430 --> 01:10:49,440

all the stars come out

1924

01:10:53,750 --> 01:10:51,440

you can watch the moon set and when the

1925

01:10:55,510 --> 01:10:53,760

moon sets but behind the atmosphere and

1926

01:10:57,030 --> 01:10:55,520

you saw a picture of it it distorts the

1927

01:10:58,390 --> 01:10:57,040

view of it there was once i looked out

1928

01:11:00,149 --> 01:10:58,400

the window and i thought

1929

01:11:01,750 --> 01:11:00,159

i thought there was a branding iron that

1930

01:11:03,910 --> 01:11:01,760

had landed on the earth it was actually

1931

01:11:06,470 --> 01:11:03,920

the moon with the way that the sun was

1932

01:11:08,630 --> 01:11:06,480

setting on it that it turned red and

1933

01:11:10,709 --> 01:11:08,640

orange and it was distorted and it was

1934

01:11:12,149 --> 01:11:10,719

the way it was spread out across what

1935

01:11:13,510 --> 01:11:12,159

looked like the earth but it was

1936

01:11:16,149 --> 01:11:13,520

actually being distorted through the

1937

01:11:18,310 --> 01:11:16,159

atmosphere in my view through it

1938

01:11:20,310 --> 01:11:18,320

and then when the sun sets and you look

1939

01:11:24,870 --> 01:11:20,320

at the stars

1940

01:11:26,630 --> 01:11:24,880

from where we are here right you look

1941

01:11:28,550 --> 01:11:26,640

through the atmosphere and you see

1942

01:11:30,310 --> 01:11:28,560

things twinkling but you don't see them

1943

01:11:31,910 --> 01:11:30,320

twinkle up in space because you're above

1944

01:11:33,110 --> 01:11:31,920

the atmosphere

1945

01:11:34,709 --> 01:11:33,120

and the other thing you see when you're

1946

01:11:36,470 --> 01:11:34,719

down here looking up at the stars and it

1947

01:11:38,630 --> 01:11:36,480

doesn't matter if you're yosemite away

1948

01:11:41,669 --> 01:11:38,640

from all the lights and and light

1949

01:11:43,590 --> 01:11:41,679

pollution you see so many stars that you

1950

01:11:45,270 --> 01:11:43,600

can't even make out a constellation that

1951

01:11:47,590 --> 01:11:45,280

you're so used to seeing

1952

01:11:49,750 --> 01:11:47,600

it's the same thing in space but here on

1953

01:11:51,910 --> 01:11:49,760

the bottom on the on the earth you look

1954

01:11:53,910 --> 01:11:51,920

and you see you see all the stars look

1955

01:11:56,630 --> 01:11:53,920

like they're in the same plane but when

1956

01:11:59,990 --> 01:11:56,640

you're above the atmosphere you actually

1957

01:12:01,430 --> 01:12:00,000

see depth in stars you see stars that

1958

01:12:03,750 --> 01:12:01,440

are further away

1959

01:12:05,910 --> 01:12:03,760

than they are as close to you and that's

1960

01:12:07,669 --> 01:12:05,920

the most amazing thing and if i had to

1961

01:12:09,030 --> 01:12:07,679

say the most important thing i learned

1962

01:12:10,870 --> 01:12:09,040

up there

1963

01:12:12,950 --> 01:12:10,880

was that when i think about

1964

01:12:15,189 --> 01:12:12,960

how many people get to see

1965

01:12:17,510 --> 01:12:15,199

what i'm seeing

1966

01:12:20,310 --> 01:12:17,520

how much more important it is that we

1967

01:12:21,270 --> 01:12:20,320

get more people to see that very thing

1968

01:12:23,990 --> 01:12:21,280

because

1969

01:12:27,030 --> 01:12:24,000

you realize just how small you are

1970

01:12:29,590 --> 01:12:27,040

when you're above the earth that far and

1971

01:12:31,189 --> 01:12:29,600

you see so much of it and you know how

1972

01:12:32,709 --> 01:12:31,199

many people there are on that planet

1973

01:12:34,550 --> 01:12:32,719

that need to come up and take a look at

1974

01:12:36,229 --> 01:12:34,560

that same thing you're looking at

1975

01:12:38,149 --> 01:12:36,239

so the most important thing i learned

1976

01:12:42,630 --> 01:12:38,159

was how small i was and how important it

1977

01:12:42,640 --> 01:12:50,070

thank you all

1978

01:12:53,910 --> 01:12:51,830

please uh give one more round of

1979

01:12:56,310 --> 01:12:53,920

applause to our wonderful panelists

1980

01:13:00,149 --> 01:12:56,320

sabrina thompson tracy cavall dyson and

1981

01:13:05,590 --> 01:13:02,950

thank you all for coming today to share

1982

01:13:06,870 --> 01:13:05,600

a women's history month event with us

1983

01:13:11,270 --> 01:13:06,880

and

1984

01:13:13,270 --> 01:13:11,280

go science go engineering go math