



1
00:00:05,269 --> 00:00:03,429
station this is houston are you ready

2
00:00:06,789 --> 00:00:05,279
for the event

3
00:00:11,430 --> 00:00:06,799
houston this is the international space

4
00:00:15,669 --> 00:00:13,350
canadian space agency po this is mission

5
00:00:19,349 --> 00:00:15,679
control houston please call station for

6
00:00:23,429 --> 00:00:21,189
station this is julie at the canadian

7
00:00:29,029 --> 00:00:23,439
space agency in san tuber quebec how do

8
00:00:32,950 --> 00:00:31,109
uh julie i hear you loud and clear and

9
00:00:34,709 --> 00:00:32,960
nice to be talking to uh people at the

10
00:00:39,030 --> 00:00:34,719
canadian space agency and everyone in

11
00:00:39,040 --> 00:00:43,350
so i have journalists for you

12
00:00:49,430 --> 00:00:46,470
hi chris it's uh jackie i'm from the

13
00:00:52,790 --> 00:00:49,440

cpcs the nature of things

14

00:00:54,709 --> 00:00:52,800

and uh what i wanted to ask you on this

15

00:00:56,630 --> 00:00:54,719

great day um

16

00:00:58,229 --> 00:00:56,640

you've managed to create an incredible

17

00:00:59,910 --> 00:00:58,239

platform while you've been up there

18

00:01:02,869 --> 00:00:59,920

seems everybody

19

00:01:10,870 --> 00:01:02,879

is tweeting is watching is listening how

20

00:01:14,950 --> 00:01:13,030

you know there are a lot of um

21

00:01:16,789 --> 00:01:14,960

really interesting things going on in

22

00:01:18,630 --> 00:01:16,799

canada right now

23

00:01:19,510 --> 00:01:18,640

and around the world

24

00:01:20,710 --> 00:01:19,520

and

25

00:01:22,789 --> 00:01:20,720

uh

26

00:01:24,950 --> 00:01:22,799

in all different fields and we tend to

27

00:01:26,710 --> 00:01:24,960

only focus on a few the ones that that

28

00:01:29,030 --> 00:01:26,720

somehow bubble up to

29

00:01:31,910 --> 00:01:29,040

to a level of public perception

30

00:01:34,390 --> 00:01:31,920

uh personally i think uh what we're

31

00:01:36,310 --> 00:01:34,400

doing in human exploration

32

00:01:38,310 --> 00:01:36,320

in uh trying to understand our world

33

00:01:40,550 --> 00:01:38,320

better trying to understand the area

34

00:01:41,830 --> 00:01:40,560

around our planet better and then try to

35

00:01:45,109 --> 00:01:41,840

understand the rest of the universe i

36

00:01:46,870 --> 00:01:45,119

think that is important i think it's a

37

00:01:48,149 --> 00:01:46,880

critical thing for the health of the

38

00:01:50,950 --> 00:01:48,159

planet the health of the canadian

39

00:01:53,350 --> 00:01:50,960

economy and and just generically for

40

00:01:56,310 --> 00:01:53,360

people and so

41

00:01:58,950 --> 00:01:56,320

uh for the last 20 years as an astronaut

42

00:02:00,630 --> 00:01:58,960

i have been speaking at schools uh

43

00:02:03,030 --> 00:02:00,640

talking to the media

44

00:02:04,709 --> 00:02:03,040

writing and doing everything i can to

45

00:02:07,190 --> 00:02:04,719

try and just let people know what the

46

00:02:09,830 --> 00:02:07,200

canadian space agency is doing

47

00:02:11,670 --> 00:02:09,840

and now living on the space station

48

00:02:12,869 --> 00:02:11,680

with the incredible privilege of

49

00:02:14,550 --> 00:02:12,879

commanding

50

00:02:16,550 --> 00:02:14,560

this spaceship

51
00:02:18,949 --> 00:02:16,560
and also with the new technology that's

52
00:02:20,949 --> 00:02:18,959
available through social media and the

53
00:02:23,190 --> 00:02:20,959
direct links that nasa has built between

54
00:02:25,830 --> 00:02:23,200
this spaceship and earth

55
00:02:27,030 --> 00:02:25,840
it has given us the opportunity now to

56
00:02:29,030 --> 00:02:27,040
really

57
00:02:30,949 --> 00:02:29,040
clearly transmit what it is we're doing

58
00:02:32,710 --> 00:02:30,959
up here and to let canadians and really

59
00:02:35,750 --> 00:02:32,720
the whole world see

60
00:02:38,150 --> 00:02:35,760
and that is the goal and i'm really

61
00:02:40,630 --> 00:02:38,160
delighted at the just the level of

62
00:02:42,309 --> 00:02:40,640
response when you give people a chance

63
00:02:44,070 --> 00:02:42,319

to see what's happening here in the

64

00:02:46,150 --> 00:02:44,080

universe around them when you get them

65

00:02:48,550 --> 00:02:46,160

to experience it as people

66

00:02:50,790 --> 00:02:48,560

then the response becomes overwhelming

67

00:02:52,229 --> 00:02:50,800

and uh the you know twitter is just a

68

00:02:53,589 --> 00:02:52,239

means of communication it's just another

69

00:02:56,229 --> 00:02:53,599

form of radio

70

00:02:58,390 --> 00:02:56,239

but it's extremely vivid the level of

71

00:03:00,149 --> 00:02:58,400

public support and i'm really pleased to

72

00:03:02,229 --> 00:03:00,159

see it and i think it's

73

00:03:03,589 --> 00:03:02,239

the science is important but i think

74

00:03:05,430 --> 00:03:03,599

people's awareness of the science we're

75

00:03:06,949 --> 00:03:05,440

doing is important as well and i'm just

76

00:03:15,509 --> 00:03:06,959

pleased to be the the messenger in the

77

00:03:19,509 --> 00:03:17,750

good morning mr hadfield

78

00:03:21,190 --> 00:03:19,519

so

79

00:03:22,550 --> 00:03:21,200

excuse me you were saying effectively

80

00:03:24,710 --> 00:03:22,560

that science

81

00:03:27,190 --> 00:03:24,720

is very important

82

00:03:29,750 --> 00:03:27,200

because it helps us to better

83

00:03:32,869 --> 00:03:29,760

understand the universe the planet we

84

00:03:34,470 --> 00:03:32,879

live on and i just wonder

85

00:03:36,149 --> 00:03:34,480

within this

86

00:03:38,070 --> 00:03:36,159

framework

87

00:03:39,750 --> 00:03:38,080

how is

88

00:03:40,869 --> 00:03:39,760

scientific

89

00:03:42,309 --> 00:03:40,879

research

90

00:03:45,190 --> 00:03:42,319

important in

91

00:03:53,270 --> 00:03:46,869

since

92

00:03:58,789 --> 00:03:55,670

cut the financing with

93

00:04:01,350 --> 00:03:58,799

respect to some of these

94

00:04:05,429 --> 00:04:01,360

scientific research projects so can you

95

00:04:08,789 --> 00:04:07,509

and what have been some of these

96

00:04:11,750 --> 00:04:08,799

research projects that you've been

97

00:04:15,589 --> 00:04:14,550

it is always very necessary

98

00:04:18,949 --> 00:04:15,599

within

99

00:04:21,349 --> 00:04:18,959

a country like canada a province like

100

00:04:24,310 --> 00:04:21,359

quebec in canada it's like a family like

101

00:04:26,950 --> 00:04:24,320

at home it's good to have a balance

102

00:04:29,670 --> 00:04:26,960

between your dreams and what is

103

00:04:32,469 --> 00:04:29,680

practical between what i want to do and

104

00:04:36,310 --> 00:04:32,479

what i have to do every day and just as

105

00:04:38,870 --> 00:04:36,320

it is at home you have to use a part of

106

00:04:42,310 --> 00:04:38,880

the money for today and some of the

107

00:04:44,310 --> 00:04:42,320

money for the problems insurance health

108

00:04:45,830 --> 00:04:44,320

and all of that stuff but also at the

109

00:04:46,870 --> 00:04:45,840

same time you have to look at some of

110

00:04:49,110 --> 00:04:46,880

this

111

00:04:52,629 --> 00:04:49,120

and save it for the future and look out

112

00:04:55,189 --> 00:04:52,639

for the future to inspire my children

113

00:04:57,909 --> 00:04:55,199

our children and to be able to better

114

00:05:01,110 --> 00:04:57,919

understand the environment for health in

115

00:05:04,150 --> 00:05:01,120

the future for my family or for our

116

00:05:09,670 --> 00:05:07,029

the big question is what is the proper

117

00:05:10,469 --> 00:05:09,680

balance within this obviously and so for

118

00:05:13,029 --> 00:05:10,479

me

119

00:05:13,830 --> 00:05:13,039

and in canada we have

120

00:05:19,430 --> 00:05:13,840

a

121

00:05:22,469 --> 00:05:19,440

very high

122

00:05:24,390 --> 00:05:22,479

quality of life and at the same time

123

00:05:27,270 --> 00:05:24,400

we have a lot of universities

124

00:05:29,270 --> 00:05:27,280

uh those of our relations we also have

125

00:05:31,350 --> 00:05:29,280

the opportunities for the young

126
00:05:33,029 --> 00:05:31,360
canadians

127
00:05:35,749 --> 00:05:33,039
as never before

128
00:05:39,189 --> 00:05:35,759
and it is difficult it's

129
00:05:41,270 --> 00:05:39,199
maybe not the easiest moment in history

130
00:05:44,390 --> 00:05:41,280
but between the first and the second

131
00:05:46,950 --> 00:05:44,400
world war it was a tough time

132
00:05:49,270 --> 00:05:46,960
every historic time there's always

133
00:05:50,950 --> 00:05:49,280
problems so this

134
00:05:53,110 --> 00:05:50,960
reminds us

135
00:05:55,909 --> 00:05:53,120
or make us think that these are the

136
00:05:58,150 --> 00:05:55,919
worst problems ever but they may not be

137
00:05:59,430 --> 00:05:58,160
at the same time you always have to be

138
00:06:01,270 --> 00:05:59,440

thinking

139

00:06:04,150 --> 00:06:01,280

long term

140

00:06:06,309 --> 00:06:04,160

and to have a balance between today and

141

00:06:08,110 --> 00:06:06,319

tomorrow and with what we do here today

142

00:06:11,350 --> 00:06:08,120

we have our

143

00:06:14,629 --> 00:06:11,360

manipulating arm and also we have some

144

00:06:18,870 --> 00:06:15,909

download

145

00:06:20,469 --> 00:06:18,880

in the station such as the microflow

146

00:06:23,510 --> 00:06:20,479

that was

147

00:06:25,110 --> 00:06:23,520

designed and invented in canada in

148

00:06:28,150 --> 00:06:25,120

quebec

149

00:06:30,390 --> 00:06:28,160

and this is a huge

150

00:06:33,350 --> 00:06:30,400

improvement for

151
00:06:37,430 --> 00:06:33,360
blood tests for canada this was an

152
00:06:43,430 --> 00:06:40,629
thanks to the money for research

153
00:06:44,950 --> 00:06:43,440
we were able to do this but also

154
00:06:47,189 --> 00:06:44,960
it was

155
00:06:49,909 --> 00:06:47,199
financed by some canadian businesses and

156
00:06:55,270 --> 00:06:49,919
it's good for canadian health and

157
00:06:58,790 --> 00:06:56,390
me

158
00:07:00,950 --> 00:06:58,800
from what i do as an astronaut is to

159
00:07:02,469 --> 00:07:00,960
work as hard as possible

160
00:07:06,309 --> 00:07:02,479
so that every

161
00:07:09,029 --> 00:07:06,319
penny that is given to the agency to me

162
00:07:12,150 --> 00:07:09,039
because this is my responsibility i

163
00:07:13,350 --> 00:07:12,160

fulfill it to the maximum

164

00:07:15,510 --> 00:07:13,360

potential

165

00:07:18,390 --> 00:07:15,520

for me and for the station

166

00:07:26,870 --> 00:07:18,400

for the space station program and for

167

00:07:29,909 --> 00:07:28,550

hi chris it's peter wright from the

168

00:07:32,469 --> 00:07:29,919

canadian press

169

00:07:34,150 --> 00:07:32,479

we've seen you smiling all the time

170

00:07:35,749 --> 00:07:34,160

we've seen your tweets we've seen your

171

00:07:38,150 --> 00:07:35,759

pictures

172

00:07:39,510 --> 00:07:38,160

um a question i have to ask and people

173

00:07:41,749 --> 00:07:39,520

kind of wonder sometimes is there

174

00:07:43,350 --> 00:07:41,759

anything you find frustrating up there

175

00:07:45,589 --> 00:07:43,360

is there anything that just gets you

176

00:07:46,950 --> 00:07:45,599

gets your temper going

177

00:07:49,189 --> 00:07:46,960

i just wonder if there's any

178

00:07:51,270 --> 00:07:49,199

difficulties you face any frustrations

179

00:07:52,790 --> 00:07:51,280

that you keep to yourself or

180

00:07:54,070 --> 00:07:52,800

just to keep yourself going and if you

181

00:07:58,550 --> 00:07:54,080

can answer in french as well i'd

182

00:08:03,110 --> 00:08:01,510

peter this this is a marvelous marvelous

183

00:08:04,070 --> 00:08:03,120

human experience

184

00:08:06,150 --> 00:08:04,080

and

185

00:08:08,869 --> 00:08:06,160

i mean the only thing that gets me mad

186

00:08:11,749 --> 00:08:08,879

is i have to sleep i mean it's this is a

187

00:08:13,749 --> 00:08:11,759

tremendous opportunity one that i've

188

00:08:15,350 --> 00:08:13,759

i've dreamed about since i was a young

189

00:08:17,029 --> 00:08:15,360

canadian and one that i've worked

190

00:08:17,990 --> 00:08:17,039

towards ever since

191

00:08:18,790 --> 00:08:18,000

and

192

00:08:20,950 --> 00:08:18,800

my

193

00:08:23,029 --> 00:08:20,960

resolution has been to make the absolute

194

00:08:25,029 --> 00:08:23,039

most of it to spend as little time

195

00:08:26,950 --> 00:08:25,039

sleeping as i can if i get an extra

196

00:08:28,309 --> 00:08:26,960

three or four minutes go look out the

197

00:08:30,550 --> 00:08:28,319

window when i get back from this i'm

198

00:08:33,909 --> 00:08:30,560

gonna regret every minute that i didn't

199

00:08:36,550 --> 00:08:33,919

spend looking at the world or or trying

200

00:08:38,230 --> 00:08:36,560

small experiments or doing things that

201
00:08:39,029 --> 00:08:38,240
that are impossible in the rest of my

202
00:08:41,750 --> 00:08:39,039
life

203
00:08:43,990 --> 00:08:41,760
and no i mean

204
00:08:46,550 --> 00:08:44,000
you can find beauty and

205
00:08:48,470 --> 00:08:46,560
pleasure in every day or you can find

206
00:08:50,710 --> 00:08:48,480
frustration and hate in every day it's

207
00:08:53,350 --> 00:08:50,720
kind of a personal choice and up here

208
00:08:55,430 --> 00:08:53,360
the opportunity for the pleasurable

209
00:08:59,350 --> 00:08:55,440
beautiful part is overwhelmingly in the

210
00:09:02,070 --> 00:08:59,360
majority so i i i don't let myself

211
00:09:04,470 --> 00:09:02,080
get that way it's not going to help and

212
00:09:05,829 --> 00:09:04,480
it um and it's kind of coward and too

213
00:09:33,590 --> 00:09:05,839

counterintuitive to being in a place

214

00:09:37,590 --> 00:09:34,870

fine about everything that's gonna

215

00:09:40,150 --> 00:09:37,600

happen today and i have been dreaming

216

00:09:42,150 --> 00:09:40,160

about being in the station since i was 9

217

00:09:44,790 --> 00:09:42,160

or 10 years old and i've been

218

00:09:46,230 --> 00:09:44,800

training for this moment all my life

219

00:09:49,269 --> 00:09:46,240

so for me

220

00:09:51,670 --> 00:09:49,279

the most frustrating part maybe

221

00:09:54,389 --> 00:09:51,680

is the need to sleep because this takes

222

00:09:57,509 --> 00:09:54,399

out a couple of hours of my day and like

223

00:10:00,630 --> 00:09:57,519

i said before it is an environment that

224

00:10:04,389 --> 00:10:00,640

is amazing inspiring and when i have

225

00:10:06,550 --> 00:10:04,399

three extra minutes we have the window

226

00:10:08,630 --> 00:10:06,560

and that is like a dream

227

00:10:12,310 --> 00:10:08,640

to look out that window

228

00:10:15,350 --> 00:10:12,320

and so i would say no

229

00:10:17,509 --> 00:10:15,360

i chose the emotions of being here i can

230

00:10:21,110 --> 00:10:17,519

change the emotions myself this is a

231

00:10:24,949 --> 00:10:21,120

personal choice so i choose

232

00:10:31,190 --> 00:10:24,959

to be in a good mood and to

233

00:10:35,829 --> 00:10:33,829

hi chris it's jackie again from uh the

234

00:10:38,550 --> 00:10:35,839

nature of things at cbc

235

00:10:40,230 --> 00:10:38,560

um and uh because i'm here for the

236

00:10:42,630 --> 00:10:40,240

nature of things i'm wondering if david

237

00:10:45,030 --> 00:10:42,640

suzuki was up there with you

238

00:10:46,790 --> 00:10:45,040

what would you want to tell him and show

239

00:10:49,269 --> 00:10:46,800

him about how

240

00:10:59,190 --> 00:10:49,279

the science in space has applications

241

00:11:01,829 --> 00:11:00,550

jackie uh

242

00:11:04,949 --> 00:11:01,839

the real world

243

00:11:08,150 --> 00:11:04,959

is a tiny little blue speck

244

00:11:10,550 --> 00:11:08,160

uh surrounded by everything else

245

00:11:12,069 --> 00:11:10,560

and we are only just now just starting

246

00:11:13,430 --> 00:11:12,079

to understand

247

00:11:15,509 --> 00:11:13,440

um

248

00:11:18,630 --> 00:11:15,519

about all the rest of that

249

00:11:20,710 --> 00:11:18,640

and it is only by by taking these first

250

00:11:24,150 --> 00:11:20,720

steps away from our planet both with

251

00:11:26,710 --> 00:11:24,160

machinery with robots but but more

252

00:11:29,110 --> 00:11:26,720

uh interestingly and much more deeply

253

00:11:31,829 --> 00:11:29,120

with people that we can really start to

254

00:11:34,150 --> 00:11:31,839

see the world's place in all of that

255

00:11:35,990 --> 00:11:34,160

and so for any person that came up i

256

00:11:38,069 --> 00:11:36,000

mean we we grab each other by the scruff

257

00:11:40,310 --> 00:11:38,079

of the neck up here but for any person

258

00:11:41,990 --> 00:11:40,320

that that came up here to the space

259

00:11:44,310 --> 00:11:42,000

station of course the first thing i

260

00:11:46,949 --> 00:11:44,320

would do uh would be to take them to the

261

00:11:49,430 --> 00:11:46,959

big window so they could truly see our

262

00:11:52,949 --> 00:11:49,440

earth to understand

263

00:11:56,470 --> 00:11:52,959

uh the magnificence of it the the

264

00:11:58,710 --> 00:11:56,480

inevitable power of it the size the the

265

00:12:00,790 --> 00:11:58,720

rolling beauty of it but also the

266

00:12:03,350 --> 00:12:00,800

inherent fragility of it and when you

267

00:12:05,430 --> 00:12:03,360

see the the blackness and the harshness

268

00:12:07,670 --> 00:12:05,440

of the universe and the

269

00:12:10,150 --> 00:12:07,680

the one layer of onion skin atmosphere

270

00:12:12,710 --> 00:12:10,160

that's around our planet

271

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

then it it becomes so vivid in your mind

272

00:12:16,310 --> 00:12:14,639

that that it it permanently changes your

273

00:12:17,910 --> 00:12:16,320

thinking if you hadn't thought about it

274

00:12:20,069 --> 00:12:17,920

before

275

00:12:22,150 --> 00:12:20,079

and then of course just the science

276

00:12:23,910 --> 00:12:22,160

that's on board we're running uh

277

00:12:25,509 --> 00:12:23,920

hundreds of experiments on the space

278

00:12:27,990 --> 00:12:25,519

station that can't be run on the surface

279

00:12:29,829 --> 00:12:28,000

of the earth and so after we got over

280

00:12:32,069 --> 00:12:29,839

the initial wonder of it

281

00:12:34,710 --> 00:12:32,079

uh i would go around to each of the

282

00:12:36,310 --> 00:12:34,720

racks around and talk about the uh the

283

00:12:37,590 --> 00:12:36,320

metals research that's going on in that

284

00:12:40,389 --> 00:12:37,600

rack over there

285

00:12:43,030 --> 00:12:40,399

or the crystallization research that's

286

00:12:45,750 --> 00:12:43,040

going on over my head to try and

287

00:12:47,269 --> 00:12:45,760

make better materials on earth or a

288

00:12:49,350 --> 00:12:47,279

microflow here in my hands that's

289

00:12:51,269 --> 00:12:49,360

floating around a canadian experiment

290

00:12:52,470 --> 00:12:51,279

that has taken this challenge and

291

00:12:54,629 --> 00:12:52,480

necessity

292

00:12:56,790 --> 00:12:54,639

uh of keeping people healthy out here

293

00:12:58,629 --> 00:12:56,800

and as a result have come up with a a

294

00:12:59,990 --> 00:12:58,639

way of doing blood analysis and

295

00:13:02,150 --> 00:13:00,000

something that you can see is the size

296

00:13:05,350 --> 00:13:02,160

of a of a

297

00:13:07,110 --> 00:13:05,360

bread box or a big loaf of bread um

298

00:13:09,110 --> 00:13:07,120

that when you challenge people with a

299

00:13:10,790 --> 00:13:09,120

new extreme with a new frontier and a

300

00:13:13,030 --> 00:13:10,800

new environment they come up with new

301
00:13:14,389 --> 00:13:13,040
solutions and mounted to the top of this

302
00:13:15,269 --> 00:13:14,399
space station

303
00:13:17,030 --> 00:13:15,279
is

304
00:13:19,350 --> 00:13:17,040
uh the alpha magnetic spectrometer the

305
00:13:21,590 --> 00:13:19,360
control computer is right here beside me

306
00:13:24,710 --> 00:13:21,600
and it is trying to understand the

307
00:13:26,389 --> 00:13:24,720
absolute stuff of the universe what is

308
00:13:28,550 --> 00:13:26,399
antimatter what is the percentage of

309
00:13:30,710 --> 00:13:28,560
antimatter and dark matter collecting

310
00:13:31,990 --> 00:13:30,720
dark energy from the universe try you

311
00:13:34,629 --> 00:13:32,000
know something that has just very

312
00:13:38,150 --> 00:13:34,639
recently even been theorized and proven

313
00:13:39,910 --> 00:13:38,160

and we are using this human platform to

314

00:13:41,110 --> 00:13:39,920

dig into that to actually get out there

315

00:13:42,550 --> 00:13:41,120

and sample it

316

00:13:43,430 --> 00:13:42,560

something that can't be done any other

317

00:13:46,230 --> 00:13:43,440

way

318

00:13:48,550 --> 00:13:46,240

so uh it would be with with great

319

00:13:50,949 --> 00:13:48,560

pleasure and pride that

320

00:13:53,829 --> 00:13:50,959

i would have anybody come up and someone

321

00:13:56,150 --> 00:13:53,839

of david suzuki's stature would be a

322

00:13:59,670 --> 00:13:56,160

wonderful

323

00:14:01,670 --> 00:13:59,680

representative of humanity to come up

324

00:14:12,550 --> 00:14:01,680

and really see the magnificence of what

325

00:14:12,560 --> 00:14:27,430

good morning mr hatfield friends um

326

00:14:32,870 --> 00:14:30,710

was it a very important time when mr

327

00:14:34,389 --> 00:14:32,880

research had told him

328

00:14:36,629 --> 00:14:34,399

or had written

329

00:14:40,389 --> 00:14:36,639

the limit

330

00:14:42,870 --> 00:14:40,399

by writing sky is no longer the

331

00:14:45,910 --> 00:14:42,880

limit and i saw this in the office and

332

00:14:48,629 --> 00:14:45,920

for him this was a very touching moment

333

00:14:49,829 --> 00:14:48,639

so i just wanted to share this moment

334

00:14:51,750 --> 00:14:49,839

for you because i thought it was

335

00:14:54,230 --> 00:14:51,760

beautiful i saw this

336

00:14:56,629 --> 00:14:54,240

on his wall

337

00:15:07,910 --> 00:14:56,639

and i had a question you had spoken

338

00:15:07,920 --> 00:15:17,829

and you mentioned how fragile

339

00:15:23,509 --> 00:15:19,990

what do you think about

340

00:15:25,670 --> 00:15:23,519

global warming when you look at it from

341

00:15:26,389 --> 00:15:25,680

space do you think in canada we should

342

00:15:28,470 --> 00:15:26,399

change

343

00:15:31,670 --> 00:15:28,480

the things we're doing

344

00:15:35,430 --> 00:15:33,590

maybe wake up

345

00:15:37,670 --> 00:15:35,440

strongly

346

00:15:42,230 --> 00:15:37,680

regarding global warming what do you

347

00:15:48,710 --> 00:15:46,310

yes it is like having a glance here from

348

00:15:49,990 --> 00:15:48,720

the station when you look at earth

349

00:15:52,710 --> 00:15:50,000

because

350

00:15:59,749 --> 00:15:52,720

right now you can see

351
00:16:03,749 --> 00:16:02,710
right between kazakhstan and russia

352
00:16:09,910 --> 00:16:03,759
and

353
00:16:12,949 --> 00:16:09,920
last 20 years the changes there were

354
00:16:14,470 --> 00:16:12,959
amazing and that was a human change

355
00:16:17,030 --> 00:16:14,480
change that

356
00:16:24,310 --> 00:16:17,040
has occurred thanks to what humans have

357
00:16:31,590 --> 00:16:28,150
it's almost like a small ocean and now

358
00:16:33,030 --> 00:16:31,600
there's almost nothing it's just sand

359
00:16:35,670 --> 00:16:33,040
and that is a

360
00:16:37,749 --> 00:16:35,680
result of our decisions of what we have

361
00:16:40,870 --> 00:16:37,759
done

362
00:16:44,629 --> 00:16:40,880
this is maybe the future

363
00:16:46,949 --> 00:16:44,639

for some of the other parts of the world

364

00:16:49,829 --> 00:16:46,959

and the planet and our country as well

365

00:16:52,069 --> 00:16:49,839

so it's up to us to think about this to

366

00:16:53,749 --> 00:16:52,079

see this to know this

367

00:16:56,389 --> 00:16:53,759

and it's hard to

368

00:16:58,389 --> 00:16:56,399

to know obviously it's far from canada

369

00:17:01,430 --> 00:16:58,399

and you may say this is not our problem

370

00:17:02,310 --> 00:17:01,440

but that's not true the big lakes are

371

00:17:05,270 --> 00:17:02,320

not

372

00:17:08,390 --> 00:17:05,280

unlimited there is a limit

373

00:17:11,110 --> 00:17:08,400

of how much water there is in the rivers

374

00:17:12,549 --> 00:17:11,120

in the lakes so it is

375

00:17:15,590 --> 00:17:12,559

needed

376

00:17:16,470 --> 00:17:15,600

it's very important for us to think of

377

00:17:19,750 --> 00:17:16,480

what

378

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

we are doing and obviously we cannot

379

00:17:22,230 --> 00:17:20,880

change

380

00:17:25,429 --> 00:17:22,240

that quickly

381

00:17:28,150 --> 00:17:25,439

the small changes are what can

382

00:17:30,870 --> 00:17:28,160

translate into a bigger change and

383

00:17:32,870 --> 00:17:30,880

myself as an individual what you do what

384

00:17:35,669 --> 00:17:32,880

each canadian does

385

00:17:37,350 --> 00:17:35,679

together it is possible

386

00:17:39,669 --> 00:17:37,360

to make a change

387

00:17:42,630 --> 00:17:39,679

so this is the first graduate but this

388

00:17:45,990 --> 00:17:42,640

has to be done gradually

389

00:17:47,110 --> 00:17:46,000

climate is changing naturally and

390

00:17:49,510 --> 00:17:47,120

perhaps

391

00:17:52,470 --> 00:17:49,520

as a result of what we have done

392

00:17:54,870 --> 00:17:52,480

our influence like you said

393

00:17:57,909 --> 00:17:54,880

the global warming but

394

00:18:00,950 --> 00:17:57,919

it's not the first time in the planet

395

00:18:03,510 --> 00:18:00,960

history and it won't be the last

396

00:18:05,510 --> 00:18:03,520

and so maybe we just need to be more

397

00:18:07,830 --> 00:18:05,520

responsible in

398

00:18:08,870 --> 00:18:07,840

prolonged the decisions we make and

399

00:18:11,510 --> 00:18:08,880

think of

400

00:18:12,830 --> 00:18:11,520

the longer term more than five years

401
00:18:15,669 --> 00:18:12,840
more than the

402
00:18:18,070 --> 00:18:15,679
upcoming elections more than just one

403
00:18:18,870 --> 00:18:18,080
life span

404
00:18:23,669 --> 00:18:18,880
and

405
00:18:26,789 --> 00:18:23,679
further so with smaller changes

406
00:18:29,909 --> 00:18:26,799
and with very small steps

407
00:18:33,990 --> 00:18:29,919
we may be able to keep the health of our

408
00:18:37,750 --> 00:18:36,070
uh just one quick last one chris uh

409
00:18:40,310 --> 00:18:37,760
let's talk about social media you have

410
00:18:42,390 --> 00:18:40,320
over half a million followers last i

411
00:18:44,710 --> 00:18:42,400
checked and and counting

412
00:18:46,870 --> 00:18:44,720
uh can we talk about uh that in the

413
00:18:48,789 --> 00:18:46,880

context of of all those that you've seen

414

00:18:51,430 --> 00:18:48,799

out there of all the uh tweets that

415

00:18:53,029 --> 00:18:51,440

you've had of all the images you've shot

416

00:18:54,789 --> 00:18:53,039

but particularly was there one that

417

00:18:57,029 --> 00:18:54,799

stood out and the other part is i

418

00:18:58,470 --> 00:18:57,039

understand your son evan is also helping

419

00:19:05,750 --> 00:18:58,480

you out on this so we can sort of wrap

420

00:19:07,909 --> 00:19:06,549

well

421

00:19:10,230 --> 00:19:07,919

first

422

00:19:13,190 --> 00:19:10,240

let me just say that a tremendous number

423

00:19:15,029 --> 00:19:13,200

of people have worked very very hard to

424

00:19:16,070 --> 00:19:15,039

make this type of thing possible for our

425

00:19:17,110 --> 00:19:16,080

country

426

00:19:19,430 --> 00:19:17,120

and for me to be here as a

427

00:19:20,950 --> 00:19:19,440

representative

428

00:19:22,789 --> 00:19:20,960

you know people right across the country

429

00:19:24,710 --> 00:19:22,799

building canadarm that was our ticket on

430

00:19:26,870 --> 00:19:24,720

board

431

00:19:28,870 --> 00:19:26,880

the people at the space agency of course

432

00:19:30,390 --> 00:19:28,880

do tremendous work

433

00:19:32,789 --> 00:19:30,400

i've worked at this for a long time

434

00:19:34,950 --> 00:19:32,799

myself along with the other astronauts

435

00:19:38,310 --> 00:19:34,960

and so this is only the result of that

436

00:19:40,470 --> 00:19:38,320

that this possibility even exists

437

00:19:42,789 --> 00:19:40,480

and the public awareness of it comes

438

00:19:44,630 --> 00:19:42,799

from all that huge pyramid of work that

439

00:19:47,590 --> 00:19:44,640

leads up to it

440

00:19:49,029 --> 00:19:47,600

and really is is culminating now

441

00:19:51,669 --> 00:19:49,039

with with something really clear to

442

00:19:53,830 --> 00:19:51,679

focus on and i think it's great uh

443

00:19:55,430 --> 00:19:53,840

enlisted the aid of someone who's who's

444

00:19:58,549 --> 00:19:55,440

of the right generation to try and give

445

00:20:00,150 --> 00:19:58,559

me advice on on how to use social media

446

00:20:02,070 --> 00:20:00,160

in addition to all the other uh

447

00:20:03,590 --> 00:20:02,080

wonderful work that's being done and my

448

00:20:05,510 --> 00:20:03,600

son evan has been helping me with that

449

00:20:08,149 --> 00:20:05,520

and doing a terrific job

450

00:20:10,470 --> 00:20:08,159

um as evidenced by the number of people

451
00:20:12,149 --> 00:20:10,480
and twitter's just one measure of course

452
00:20:13,909 --> 00:20:12,159
uh you know there's over half a million

453
00:20:16,070 --> 00:20:13,919
people following on twitter but social

454
00:20:16,870 --> 00:20:16,080
media has many different forms

455
00:20:18,390 --> 00:20:16,880
and

456
00:20:20,390 --> 00:20:18,400
the numbers are are

457
00:20:22,230 --> 00:20:20,400
good to read but what's what's important

458
00:20:24,070 --> 00:20:22,240
out of it is

459
00:20:26,230 --> 00:20:24,080
is the impact that it has

460
00:20:27,830 --> 00:20:26,240
and you asked what what is significant

461
00:20:30,950 --> 00:20:27,840
out of that for me

462
00:20:33,270 --> 00:20:30,960
i read constantly about school rooms

463
00:20:35,990 --> 00:20:33,280

across canada and around the world that

464

00:20:38,149 --> 00:20:36,000

are using this to teach

465

00:20:40,310 --> 00:20:38,159

that are using uh the work that i'm

466

00:20:41,909 --> 00:20:40,320

doing the science that we have on board

467

00:20:44,310 --> 00:20:41,919

like microflow

468

00:20:46,870 --> 00:20:44,320

the pictures that we take of the world

469

00:20:51,029 --> 00:20:46,880

uh the fact that i speak three languages

470

00:20:53,110 --> 00:20:51,039

uh one reasonably and two passably

471

00:20:54,310 --> 00:20:53,120

they use the fact that i play guitar and

472

00:20:56,710 --> 00:20:54,320

play music

473

00:20:59,669 --> 00:20:56,720

they use all of those different facets

474

00:21:02,870 --> 00:20:59,679

of this human experience leaving earth

475

00:21:04,230 --> 00:21:02,880

in order to teach in order to inspire

476
00:21:05,750 --> 00:21:04,240
young people

477
00:21:07,750 --> 00:21:05,760
all around the world but specifically

478
00:21:08,710 --> 00:21:07,760
for us of course in canada

479
00:21:15,190 --> 00:21:08,720
to

480
00:21:17,510 --> 00:21:15,200
and it's it's a really clear message

481
00:21:19,909 --> 00:21:17,520
when you can see one canadian

482
00:21:22,070 --> 00:21:19,919
constantly comparing all of these places

483
00:21:22,950 --> 00:21:22,080
around the world almost simultaneously

484
00:21:27,669 --> 00:21:22,960
it

485
00:21:29,830 --> 00:21:27,679
foreign and different when they are all

486
00:21:32,149 --> 00:21:29,840
viewed in 90 minutes and for me it's

487
00:21:34,470 --> 00:21:32,159
very heartwarming when i see that people

488
00:21:37,430 --> 00:21:34,480

are internalizing that when they start

489

00:21:39,909 --> 00:21:37,440

stop using the third person and start

490

00:21:40,870 --> 00:21:39,919

talking about we and us and not just you

491

00:21:43,350 --> 00:21:40,880

and they

492

00:21:46,310 --> 00:21:43,360

and and so uh

493

00:21:47,350 --> 00:21:46,320

uh i mean mine is just one voice in in

494

00:21:49,350 --> 00:21:47,360

billions

495

00:21:51,510 --> 00:21:49,360

um i'm the commander of this spaceship

496

00:21:53,430 --> 00:21:51,520

but i'm the 35th commander of this

497

00:21:55,190 --> 00:21:53,440

spaceship this is this is by no means

498

00:21:57,750 --> 00:21:55,200

any sort of pinnacle

499

00:21:58,789 --> 00:21:57,760

but at the same time i'm trying to

500

00:22:00,950 --> 00:21:58,799

use

501
00:22:02,870 --> 00:22:00,960
uh whatever means i can in order to just

502
00:22:04,549 --> 00:22:02,880
help people see themselves better and to

503
00:22:06,149 --> 00:22:04,559
make better decisions whether they're

504
00:22:09,029 --> 00:22:06,159
five years old or whether they're 85

505
00:22:10,630 --> 00:22:09,039
years old and social media and all of

506
00:22:13,350 --> 00:22:10,640
the work that the people are doing has

507
00:22:16,070 --> 00:22:13,360
been a big part of that

508
00:22:17,669 --> 00:22:16,080
station this is houston acr the canadian

509
00:22:20,070 --> 00:22:17,679
space agency passes along their

510
00:22:23,750 --> 00:22:20,080
sincerest appreciation that concludes

511
00:22:28,230 --> 00:22:26,390
thank you thank you very much nice to

512
00:22:30,470 --> 00:22:28,240
talk

513
00:22:32,070 --> 00:22:30,480

thank you space agency and thank you