



1
00:00:06,550 --> 00:00:02,869
station this is the weather channel how

2
00:00:09,830 --> 00:00:08,390
we hear you loud and clear welcome

3
00:00:12,789 --> 00:00:09,840
aboard the international space station

4
00:00:15,350 --> 00:00:12,799
we're ready for your questions

5
00:00:16,950 --> 00:00:15,360
here we go

6
00:00:18,550 --> 00:00:16,960
well a special treat for you right now

7
00:00:20,870 --> 00:00:18,560
joining us from the international space

8
00:00:23,429 --> 00:00:20,880
station our engineers tracy caldwell

9
00:00:25,029 --> 00:00:23,439
dyson and doug wheelock both of you

10
00:00:26,630 --> 00:00:25,039
thanks for joining us i've got to ask

11
00:00:28,710 --> 00:00:26,640
you we've been watching down here on

12
00:00:30,230 --> 00:00:28,720
earth the tropics so active what's the

13
00:00:34,870 --> 00:00:30,240

view like from the international space

14

00:00:38,869 --> 00:00:37,990

i'll tell you the views spectacular

15

00:00:40,549 --> 00:00:38,879

and

16

00:00:41,910 --> 00:00:40,559

i think wheels has been watching it this

17

00:00:44,310 --> 00:00:41,920

morning he probably has the more

18

00:00:46,630 --> 00:00:44,320

descriptive words

19

00:00:49,190 --> 00:00:46,640

well uh this morning we actually flew

20

00:00:51,270 --> 00:00:49,200

between julia and igor

21

00:00:54,470 --> 00:00:51,280

coming up through the atlantic and it

22

00:00:56,630 --> 00:00:54,480

was just spectacular i looked out either

23

00:00:58,069 --> 00:00:56,640

side of the cupola windows and

24

00:00:59,830 --> 00:00:58,079

of course you could tell the rel

25

00:01:01,110 --> 00:00:59,840

relative size uh you could tell which

26

00:01:02,549 --> 00:01:01,120

one was igor

27

00:01:05,270 --> 00:01:02,559

and um

28

00:01:07,510 --> 00:01:05,280

it's just really really dramatic it's uh

29

00:01:08,789 --> 00:01:07,520

yesterday we had we had a pass directly

30

00:01:09,510 --> 00:01:08,799

over igor

31

00:01:10,950 --> 00:01:09,520

and

32

00:01:13,670 --> 00:01:10,960

i almost

33

00:01:14,710 --> 00:01:13,680

let go of my cameras so my breath was

34

00:01:17,429 --> 00:01:14,720

taken

35

00:01:19,830 --> 00:01:17,439

looking into the eye of the of the storm

36

00:01:21,590 --> 00:01:19,840

it just looked like a waterfall going in

37

00:01:22,630 --> 00:01:21,600

uh down through the eye we could see the

38

00:01:24,469 --> 00:01:22,640

atlantic

39

00:01:25,350 --> 00:01:24,479

clearly uh through the eye of the storm

40

00:01:27,590 --> 00:01:25,360

it was

41

00:01:29,910 --> 00:01:27,600

just absolutely stunning

42

00:01:36,230 --> 00:01:29,920

either of you ever seen images like that

43

00:01:41,429 --> 00:01:39,510

actually on my previous flight sts-118

44

00:01:43,429 --> 00:01:41,439

we actually our mission was cut short by

45

00:01:45,830 --> 00:01:43,439

hurricane dean and while we were in

46

00:01:49,109 --> 00:01:45,840

orbit we flew right over the eye of the

47

00:01:51,429 --> 00:01:49,119

hurricane and saw the same image that

48

00:01:54,630 --> 00:01:51,439

doug is describing to you

49

00:01:57,270 --> 00:01:54,640

right down the center of the eye

50

00:02:01,670 --> 00:01:57,280

it almost looks very very calm to what

51
00:02:06,469 --> 00:02:03,670
and for for me uh that was the first

52
00:02:08,229 --> 00:02:06,479
time really i mean this vantage point is

53
00:02:09,830 --> 00:02:08,239
it's so surreal when you're looking down

54
00:02:10,790 --> 00:02:09,840
through it because like tracy had

55
00:02:12,710 --> 00:02:10,800
mentioned

56
00:02:14,550 --> 00:02:12,720
it looks so peaceful and so calm and

57
00:02:17,270 --> 00:02:14,560
it's so beautiful the spiral bands and

58
00:02:18,309 --> 00:02:17,280
everything uh and then you look down and

59
00:02:20,390 --> 00:02:18,319
just sort of

60
00:02:23,030 --> 00:02:20,400
uh project yourself to being below those

61
00:02:25,510 --> 00:02:23,040
clouds and and you can only imagine what

62
00:02:28,150 --> 00:02:25,520
chaos and torment is going on underneath

63
00:02:31,509 --> 00:02:28,160

those those clouds and so it's a it's a

64

00:02:35,430 --> 00:02:33,110

now tracy we know that you'll be

65

00:02:36,790 --> 00:02:35,440

returning home soon how closely do you

66

00:02:38,470 --> 00:02:36,800

monitor the weather do you think that

67

00:02:43,110 --> 00:02:38,480

the tropics will have any impact on your

68

00:02:46,390 --> 00:02:44,710

you know i know there's a lot of folks

69

00:02:47,830 --> 00:02:46,400

back home that are preparing for my

70

00:02:50,390 --> 00:02:47,840

return

71

00:02:52,710 --> 00:02:50,400

and i have to trust that they're looking

72

00:02:55,270 --> 00:02:52,720

out for those kinds of things and

73

00:02:56,949 --> 00:02:55,280

i'd have to say that

74

00:02:58,790 --> 00:02:56,959

the weather in kazakhstan is probably a

75

00:03:01,670 --> 00:02:58,800

lot clearer than it is

76

00:03:03,910 --> 00:03:01,680

in route to houston but

77

00:03:05,750 --> 00:03:03,920

i trust that the folks that are picking

78

00:03:07,750 --> 00:03:05,760

me up are the ones that are looking out

79

00:03:09,750 --> 00:03:07,760

for that

80

00:03:11,430 --> 00:03:09,760

tracy i'm going to ask you specifically

81

00:03:13,430 --> 00:03:11,440

since you're returning home in just

82

00:03:15,430 --> 00:03:13,440

really a matter of hours what's it going

83

00:03:20,309 --> 00:03:15,440

to be like your last your last day on

84

00:03:23,589 --> 00:03:22,070

i i fear it's going to be a little

85

00:03:26,630 --> 00:03:23,599

emotional

86

00:03:29,110 --> 00:03:26,640

this is such an incredible

87

00:03:31,750 --> 00:03:29,120

vehicle that we have that doesn't even

88

00:03:33,110 --> 00:03:31,760

come close to stating what a work of art

89

00:03:34,710 --> 00:03:33,120

this is

90

00:03:35,750 --> 00:03:34,720

to be a part of something like this

91

00:03:37,030 --> 00:03:35,760

that's so

92

00:03:38,789 --> 00:03:37,040

enormous

93

00:03:43,270 --> 00:03:38,799

the only

94

00:03:44,949 --> 00:03:43,280

fact that it was put together designed

95

00:03:48,070 --> 00:03:44,959

and run by

96

00:03:49,990 --> 00:03:48,080

all of our international partners is

97

00:03:52,470 --> 00:03:50,000

something

98

00:03:54,149 --> 00:03:52,480

i don't know huge it's bigger than i am

99

00:03:56,949 --> 00:03:54,159

and to be engulfed by something like

100

00:03:57,990 --> 00:03:56,959

that uh it's it's hard to let go of so i

101
00:04:00,309 --> 00:03:58,000
imagine it's going to be a little

102
00:04:02,949 --> 00:04:00,319
emotional

103
00:04:04,949 --> 00:04:02,959
doug for you we know that the nasa

104
00:04:06,869 --> 00:04:04,959
program is changing direction a little

105
00:04:08,390 --> 00:04:06,879
bit we know that the shuttle program is

106
00:04:10,229 --> 00:04:08,400
not going to be

107
00:04:16,469 --> 00:04:10,239
going any further what are your thoughts

108
00:04:19,509 --> 00:04:17,990
well it uh

109
00:04:21,270 --> 00:04:19,519
my thoughts as i as

110
00:04:23,030 --> 00:04:21,280
i look ahead for our our kids and our

111
00:04:25,749 --> 00:04:23,040
grandkids uh to what we'll see in the

112
00:04:27,830 --> 00:04:25,759
next 50 years

113
00:04:30,230 --> 00:04:27,840

nasa has never seemed to disappoint you

114

00:04:33,030 --> 00:04:30,240

know when we when we get at a crossroads

115

00:04:33,830 --> 00:04:33,040

uh when we're between programs are

116

00:04:36,550 --> 00:04:33,840

are

117

00:04:39,189 --> 00:04:36,560

designing a new new vision to explore uh

118

00:04:41,350 --> 00:04:39,199

maybe a little further out

119

00:04:43,590 --> 00:04:41,360

you know there is a there is a point of

120

00:04:47,110 --> 00:04:43,600

of where will we go next what will we do

121

00:04:48,710 --> 00:04:47,120

next and um and i i think over the next

122

00:04:50,629 --> 00:04:48,720

couple of years as we see a lot of

123

00:04:53,590 --> 00:04:50,639

return on science that we're doing

124

00:04:55,830 --> 00:04:53,600

beginning to really start to do 100 now

125

00:04:57,430 --> 00:04:55,840

on the space station and we we

126

00:04:59,670 --> 00:04:57,440

understand how to bring these things

127

00:05:02,390 --> 00:04:59,680

back how to make life better on earth

128

00:05:03,350 --> 00:05:02,400

and and through that research how to

129

00:05:05,350 --> 00:05:03,360

how to

130

00:05:07,189 --> 00:05:05,360

better optimize projecting ourselves

131

00:05:08,070 --> 00:05:07,199

further into this out into the solar

132

00:05:10,710 --> 00:05:08,080

system

133

00:05:13,830 --> 00:05:10,720

and maybe back to the moon maybe to mars

134

00:05:16,310 --> 00:05:13,840

um it's very very exciting uh just just

135

00:05:18,790 --> 00:05:16,320

the unknown and and uh

136

00:05:20,870 --> 00:05:18,800

and how nasa is gonna respond to that in

137

00:05:23,029 --> 00:05:20,880

in our in our future vision and it's i

138

00:05:25,510 --> 00:05:23,039

know it's gonna be spectacular it's

139

00:05:27,270 --> 00:05:25,520

never as never disappointed us as we as

140

00:05:29,990 --> 00:05:27,280

we came out of the apollo program and we

141

00:05:31,990 --> 00:05:30,000

wonder what what next and then the

142

00:05:34,469 --> 00:05:32,000

shuttle program was only just a dream at

143

00:05:36,950 --> 00:05:34,479

that point and um and an impossible

144

00:05:39,270 --> 00:05:36,960

dream at that and uh and now here we

145

00:05:41,430 --> 00:05:39,280

find ourselves in the uh in the in the

146

00:05:44,150 --> 00:05:41,440

twilight of the shuttle era and we're

147

00:05:47,110 --> 00:05:44,160

looking at the space station uh to be a

148

00:05:49,590 --> 00:05:47,120

platform to uh help us in research

149

00:05:52,870 --> 00:05:49,600

and uh develop new materials and uh

150

00:05:55,029 --> 00:05:52,880

develop new uh ways in propulsion to try

151

00:05:56,710 --> 00:05:55,039

to take us deeper and further and i

152

00:05:59,430 --> 00:05:56,720

think our kids and our grandkids are

153

00:06:02,710 --> 00:05:59,440

gonna are in for a uh just a thrilling

154

00:06:05,029 --> 00:06:02,720

and fascinating future with nasa so so i

155

00:06:06,390 --> 00:06:05,039

you know the change is always is not

156

00:06:08,550 --> 00:06:06,400

always bad and so

157

00:06:10,390 --> 00:06:08,560

uh we're certainly uh sad to see the

158

00:06:11,110 --> 00:06:10,400

space shuttle go it's been a workhorse

159

00:06:16,550 --> 00:06:11,120

uh

160

00:06:18,550 --> 00:06:16,560

but i think there are bigger and better

161

00:06:20,390 --> 00:06:18,560

things to come and uh and i think it's

162

00:06:23,510 --> 00:06:20,400

gonna be a very very exciting future for

163

00:06:25,749 --> 00:06:23,520

our kids and our grandkids

164

00:06:27,189 --> 00:06:25,759

the international space station is truly

165

00:06:32,830 --> 00:06:27,199

international what's it been like

166

00:06:36,150 --> 00:06:35,189

counterparts i well i have to say that

167

00:06:38,309 --> 00:06:36,160

um

168

00:06:42,550 --> 00:06:38,319

when i first arrived we also had

169

00:06:44,990 --> 00:06:42,560

suici on board from japan and um also uh

170

00:06:48,629 --> 00:06:45,000

naoko who joined us during

171

00:06:51,510 --> 00:06:48,639

sts-131 and it has been a it's been a

172

00:06:53,749 --> 00:06:51,520

joy to to be a truly international crew

173

00:06:54,950 --> 00:06:53,759

um all the way through uh the time that

174

00:06:57,430 --> 00:06:54,960

i've been here

175

00:06:59,189 --> 00:06:57,440

it's um it's great you learn a lot about

176

00:07:01,589 --> 00:06:59,199

their culture you learn a lot about your

177

00:07:04,469 --> 00:07:01,599

own uh and the same goes true for your

178

00:07:06,550 --> 00:07:04,479

own your own personality and how you uh

179

00:07:08,309 --> 00:07:06,560

how you adapt and incorporate yourself

180

00:07:10,950 --> 00:07:08,319

into a new culture

181

00:07:13,110 --> 00:07:10,960

we've been training and

182

00:07:15,670 --> 00:07:13,120

being friends with our

183

00:07:17,749 --> 00:07:15,680

russian crewmates well before we arrived

184

00:07:18,710 --> 00:07:17,759

on the space station and it's just been

185

00:07:20,629 --> 00:07:18,720

um

186

00:07:21,589 --> 00:07:20,639

it's been i think a warm

187

00:07:28,070 --> 00:07:21,599

uh

188

00:07:30,469 --> 00:07:28,080

board to work together as a team to face

189

00:07:33,589 --> 00:07:30,479

these challenges that we have everything

190

00:07:36,309 --> 00:07:33,599

from the daily uh daily schedule to the

191

00:07:37,430 --> 00:07:36,319

big things like a pump module failing

192

00:07:40,309 --> 00:07:37,440

it's been

193

00:07:42,710 --> 00:07:40,319

a lesson for all of us and a joy and

194

00:07:44,950 --> 00:07:42,720

also challenging at times to understand

195

00:07:47,510 --> 00:07:44,960

one another but we always make it work

196

00:07:49,749 --> 00:07:47,520

and body language does go a long way as

197

00:07:51,110 --> 00:07:49,759

well as hand gestures if we ever get to

198

00:07:53,589 --> 00:07:51,120

a point where we don't find the right

199

00:07:55,430 --> 00:07:53,599

words but it's uh for myself it's been

200

00:07:59,270 --> 00:07:55,440

very rewarding i think we all feel that

201
00:08:02,710 --> 00:08:01,029
well then i have to ask you you've been

202
00:08:04,950 --> 00:08:02,720
on the space station for a while now are

203
00:08:06,390 --> 00:08:04,960
there any modern conveniences of home

204
00:08:15,029 --> 00:08:06,400
that you don't have on the international

205
00:08:20,469 --> 00:08:17,430
uh there are a lot of those um one is

206
00:08:22,710 --> 00:08:20,479
running water uh that's a that's a

207
00:08:26,790 --> 00:08:22,720
uh i sure i sure miss uh haven't had a

208
00:08:28,390 --> 00:08:26,800
shower since june 15th and so uh um i i

209
00:08:29,830 --> 00:08:28,400
suppose i'm looking forward to that when

210
00:08:30,710 --> 00:08:29,840
i come back i still have a few more

211
00:08:33,670 --> 00:08:30,720
months

212
00:08:38,310 --> 00:08:35,990
we have ways to to uh to take care of

213
00:08:40,630 --> 00:08:38,320

our personal hygiene but uh but you you

214

00:08:42,230 --> 00:08:40,640

know on occasion you do miss some warm

215

00:08:43,909 --> 00:08:42,240

water running over your body so you can

216

00:08:45,829 --> 00:08:43,919

clean yourself

217

00:08:59,110 --> 00:08:45,839

so that's probably the number one modern

218

00:08:59,120 --> 00:09:02,870

well um

219

00:09:02,880 --> 00:09:08,150

the other the other thing uh

220

00:09:08,160 --> 00:09:13,670

no go ahead please continue your thought

221

00:09:16,630 --> 00:09:15,350

we were just sort of laughing sorry if

222

00:09:18,870 --> 00:09:16,640

we threw you for a loop there but the

223

00:09:20,550 --> 00:09:18,880

other thing that we that we really miss

224

00:09:23,190 --> 00:09:20,560

that i miss

225

00:09:24,870 --> 00:09:23,200

your sense of smell sort of uh

226

00:09:26,949 --> 00:09:24,880

sort of fades away a little bit i think

227

00:09:28,790 --> 00:09:26,959

it sort of goes into hibernation and you

228

00:09:30,870 --> 00:09:28,800

because this place is like a laboratory

229

00:09:33,269 --> 00:09:30,880

so everything is pretty sterile and it's

230

00:09:35,030 --> 00:09:33,279

uh it's the smell of machinery running

231

00:09:37,829 --> 00:09:35,040

you know like computers and things like

232

00:09:40,150 --> 00:09:37,839

that and so i think that a you know that

233

00:09:41,990 --> 00:09:40,160

in turn uh affects your sense of taste

234

00:09:44,070 --> 00:09:42,000

and so and so

235

00:09:45,430 --> 00:09:44,080

the aromas and things like that so i i

236

00:09:47,590 --> 00:09:45,440

really miss and tracey had just

237

00:09:48,949 --> 00:09:47,600

mentioned you know the the smell of

238

00:09:52,150 --> 00:09:48,959

fresh coffee

239

00:09:53,910 --> 00:09:52,160

and also you know the the smell of uh

240

00:09:55,509 --> 00:09:53,920

when you're walking outside of a

241

00:09:57,750 --> 00:09:55,519

restaurant and you smell the food

242

00:10:00,150 --> 00:09:57,760

cooking and and things like that those

243

00:10:01,990 --> 00:10:00,160

are smells that you uh they tend to fade

244

00:10:04,069 --> 00:10:02,000

into like distant memory when you come

245

00:10:05,829 --> 00:10:04,079

here to the space station

246

00:10:07,590 --> 00:10:05,839

one thing that was really neat we had a

247

00:10:09,190 --> 00:10:07,600

progress resupply vehicle that docked

248

00:10:11,509 --> 00:10:09,200

this past weekend

249

00:10:13,430 --> 00:10:11,519

and um one of the things on the top we

250

00:10:15,350 --> 00:10:13,440

opened the hatch and we had fresh fruits

251
00:10:16,389 --> 00:10:15,360
and vegetables in there

252
00:10:18,790 --> 00:10:16,399
and

253
00:10:20,870 --> 00:10:18,800
i never dreamed that an apple like

254
00:10:23,670 --> 00:10:20,880
through the skin could actually smell so

255
00:10:25,750 --> 00:10:23,680
good but uh but it's it smells that you

256
00:10:28,069 --> 00:10:25,760
miss like that that's really the smell

257
00:10:30,389 --> 00:10:28,079
of life the smell of the earth you know

258
00:10:31,190 --> 00:10:30,399
uh that you that you miss as well and so

259
00:10:32,790 --> 00:10:31,200
uh

260
00:10:38,310 --> 00:10:32,800
so that was a real treat getting some