



esa

European Space Agency



esa

1
00:00:07,110 --> 00:00:02,070
tim this is dallas how do you hear me

2
00:00:10,470 --> 00:00:08,950
hello to dallas and hello to everybody

3
00:00:11,430 --> 00:00:10,480
at the cheltenham science festival it's

4
00:00:14,150 --> 00:00:11,440
great to be talking to you this

5
00:00:18,070 --> 00:00:14,160
afternoon i hear you loud and clear way

6
00:00:22,550 --> 00:00:19,830
tim we just lost you momentarily but

7
00:00:24,630 --> 00:00:22,560
you're back now thank you so much from

8
00:00:27,429 --> 00:00:24,640
the times cheltenham science festival we

9
00:00:30,070 --> 00:00:27,439
are here in the space dome uh and we're

10
00:00:32,310 --> 00:00:30,080
very very excited to be talking to you

11
00:00:34,069 --> 00:00:32,320
now we've got a big group of kids uh

12
00:00:36,630 --> 00:00:34,079
from the sirens that's the kings hill

13
00:00:38,389 --> 00:00:36,640

school and some journalists how are you

14

00:00:43,110 --> 00:00:38,399

how are you feeling are you looking

15

00:00:47,350 --> 00:00:45,110

yes uh i'm doing great thanks it's been

16

00:00:50,470 --> 00:00:47,360

a fantastic six months up here really

17

00:00:52,229 --> 00:00:50,480

remarkable incredible experience and uh

18

00:00:53,750 --> 00:00:52,239

yes of course i'm looking forward to

19

00:00:55,670 --> 00:00:53,760

coming home looking forward to seeing my

20

00:01:01,750 --> 00:00:55,680

friends and my family but i am going to

21

00:01:05,750 --> 00:01:03,750

that's fantastic i'm going to start off

22

00:01:07,510 --> 00:01:05,760

with the siren susta

23

00:01:10,870 --> 00:01:07,520

kings hill school i want to introduce

24

00:01:12,950 --> 00:01:10,880

you to hannah slack who's in year 10 and

25

00:01:14,390 --> 00:01:12,960

she's got a fantastic question for you

26

00:01:15,830 --> 00:01:14,400

to get the ball rolling and then we'll

27

00:01:18,870 --> 00:01:15,840

talk to the press after that so i'm

28

00:01:20,870 --> 00:01:18,880

going to hand you to hannah now tim

29

00:01:22,469 --> 00:01:20,880

hi my question is do you think it will

30

00:01:26,789 --> 00:01:22,479

be hard to adapt to life back on earth

31

00:01:30,390 --> 00:01:28,630

hi hannah that's a good question to ask

32

00:01:32,710 --> 00:01:30,400

and one that i've been paying particular

33

00:01:34,390 --> 00:01:32,720

attention to recently uh but yes it is

34

00:01:36,469 --> 00:01:34,400

going to be quite tricky to adapt it's

35

00:01:39,109 --> 00:01:36,479

probably going to take me um at least

36

00:01:41,429 --> 00:01:39,119

two or three days before i feel well and

37

00:01:43,910 --> 00:01:41,439

it will take me several months before my

38

00:01:45,190 --> 00:01:43,920

my body fully recovers in terms of bone

39

00:01:46,389 --> 00:01:45,200

density

40

00:01:48,230 --> 00:01:46,399

and also be interesting to see if

41

00:01:51,030 --> 00:01:48,240

there's been any lasting changes for

42

00:01:52,789 --> 00:01:51,040

example to eyesight etc but generally

43

00:01:54,469 --> 00:01:52,799

speaking after about two or three days i

44

00:02:00,550 --> 00:01:54,479

should be fairly comfortable back on

45

00:02:03,510 --> 00:02:01,990

thank you very much tim i'm going to

46

00:02:05,190 --> 00:02:03,520

hand you over to some journalists now i

47

00:02:06,630 --> 00:02:05,200

know we've got a very very short amount

48

00:02:07,749 --> 00:02:06,640

of time so i'm not going to whistle on

49

00:02:09,749 --> 00:02:07,759

i'm going to hand over to the journalist

50

00:02:12,550 --> 00:02:09,759

now we're going to go round the room so

51
00:02:14,309 --> 00:02:12,560
here's question number one for you

52
00:02:16,390 --> 00:02:14,319
tim it's thomas moore from sky news

53
00:02:17,910 --> 00:02:16,400
hello now tell me are you i'm sure

54
00:02:20,390 --> 00:02:17,920
you're very well prepared for the

55
00:02:22,710 --> 00:02:20,400
physical rigors of reentry but what

56
00:02:25,990 --> 00:02:22,720
about the psychological the emotional

57
00:02:27,990 --> 00:02:26,000
impact of coming home back to earth and

58
00:02:29,910 --> 00:02:28,000
seeing friends and family and other

59
00:02:33,589 --> 00:02:29,920
human beings for the first time in six

60
00:02:37,830 --> 00:02:35,509
yes it's a good question to ask i think

61
00:02:39,670 --> 00:02:37,840
i'm i'm ready for it and and we have you

62
00:02:42,070 --> 00:02:39,680
know good contact up here in the space

63
00:02:44,070 --> 00:02:42,080

station of course on a daily basis with

64

00:02:46,710 --> 00:02:44,080

mission control all over the world and

65

00:02:48,630 --> 00:02:46,720

our families too who i'm able to call um

66

00:02:50,630 --> 00:02:48,640

so that has helped that you know keeping

67

00:02:51,750 --> 00:02:50,640

in connection with planet earth and with

68

00:02:53,670 --> 00:02:51,760

everybody back on earth but i'm

69

00:02:55,110 --> 00:02:53,680

certainly looking forward to coming back

70

00:02:57,030 --> 00:02:55,120

and seeing friends and family again and

71

00:03:04,149 --> 00:02:57,040

i don't think it will be too hard to

72

00:03:08,630 --> 00:03:06,309

hi tim uh this is tom whipple from the

73

00:03:11,509 --> 00:03:08,640

times um my question is the fact that

74

00:03:14,470 --> 00:03:11,519

you're in space at all represents a big

75

00:03:17,110 --> 00:03:14,480

change in uk space policy until you came

76

00:03:18,869 --> 00:03:17,120

along uh we decided that it wasn't

77

00:03:21,110 --> 00:03:18,879

worthwhile scientifically but that

78

00:03:23,830 --> 00:03:21,120

changed so my question is as you reach

79

00:03:28,229 --> 00:03:23,840

the end of your trip have you been

80

00:03:32,630 --> 00:03:30,630

it's a very important question to ask

81

00:03:34,309 --> 00:03:32,640

and it's certainly one that i'm sure

82

00:03:35,990 --> 00:03:34,319

people will be uh paying a lot of

83

00:03:37,990 --> 00:03:36,000

attention to and researching into from

84

00:03:39,509 --> 00:03:38,000

my personal perspective of course i

85

00:03:41,670 --> 00:03:39,519

think this has been an exceptionally

86

00:03:43,430 --> 00:03:41,680

worthwhile endeavor and it's not just

87

00:03:45,430 --> 00:03:43,440

about this one mission this is about the

88

00:03:47,589 --> 00:03:45,440

uk becoming involved in human space

89

00:03:49,830 --> 00:03:47,599

flight hopefully for the foreseeable

90

00:03:52,630 --> 00:03:49,840

future not just for our science

91

00:03:55,190 --> 00:03:52,640

community not just for our industry but

92

00:03:57,509 --> 00:03:55,200

also for the kids and for education and

93

00:03:59,190 --> 00:03:57,519

outreach and to try to inspire people to

94

00:04:01,750 --> 00:03:59,200

look at science and look at space in a

95

00:04:04,070 --> 00:04:01,760

different way space is going to play an

96

00:04:06,470 --> 00:04:04,080

ever increasingly important role in our

97

00:04:08,390 --> 00:04:06,480

lives and if the uk is not in the

98

00:04:10,390 --> 00:04:08,400

forefront of that then we're missing out

99

00:04:15,830 --> 00:04:10,400

quite simply so i certainly think this

100

00:04:19,509 --> 00:04:17,830

hi tim it's still mackey from bbc radio

101
00:04:21,749 --> 00:04:19,519
5 live we've been asking five live

102
00:04:23,189 --> 00:04:21,759
listeners today um whether or not uh

103
00:04:24,950 --> 00:04:23,199
they had questions for you we had lots

104
00:04:26,310 --> 00:04:24,960
of interesting ones um lots of which you

105
00:04:28,310 --> 00:04:26,320
probably wouldn't want to have heard

106
00:04:30,790 --> 00:04:28,320
here's one from five live listener adam

107
00:04:32,629 --> 00:04:30,800
in leoncy and he asked what have you

108
00:04:36,790 --> 00:04:32,639
learned about earth in the time that

109
00:04:41,030 --> 00:04:38,870
well i've learned so much about earth

110
00:04:43,189 --> 00:04:41,040
just in terms of being able to see it

111
00:04:45,830 --> 00:04:43,199
changing over over six months and really

112
00:04:48,070 --> 00:04:45,840
most of it is about how beautiful the

113
00:04:50,790 --> 00:04:48,080

planet is how thin and fragile the

114

00:04:52,070 --> 00:04:50,800

atmosphere is how remarkable the weather

115

00:04:53,990 --> 00:04:52,080

systems are

116

00:04:56,390 --> 00:04:54,000

that globally affect the planet the

117

00:04:59,110 --> 00:04:56,400

auroras certainly during the winter the

118

00:05:01,110 --> 00:04:59,120

aurora was absolutely magnificent

119

00:05:03,189 --> 00:05:01,120

and even now going into summer we have

120

00:05:04,790 --> 00:05:03,199

little surprises like noctilucent clouds

121

00:05:06,629 --> 00:05:04,800

coming up in june

122

00:05:08,790 --> 00:05:06,639

so honestly every time i go to the

123

00:05:10,469 --> 00:05:08,800

cupola window and look outside i can

124

00:05:11,990 --> 00:05:10,479

normally find something new that i

125

00:05:13,830 --> 00:05:12,000

haven't seen before and that has been

126

00:05:18,870 --> 00:05:13,840

what's been most remarkable about the

127

00:05:23,350 --> 00:05:21,430

hi tim ken goodwin from itv west country

128

00:05:24,390 --> 00:05:23,360

we've got lots of young people here what

129

00:05:26,870 --> 00:05:24,400

do you think

130

00:05:29,110 --> 00:05:26,880

has been the result of your trip on the

131

00:05:30,950 --> 00:05:29,120

young people that you've engaged with on

132

00:05:32,150 --> 00:05:30,960

social media and that you've managed to

133

00:05:37,990 --> 00:05:32,160

talk to

134

00:05:42,550 --> 00:05:40,230

you know part of uh part of this mission

135

00:05:44,710 --> 00:05:42,560

before i uh launched was to try and

136

00:05:46,230 --> 00:05:44,720

engage with as many people as possible

137

00:05:47,990 --> 00:05:46,240

and to try and share the experience as

138

00:05:49,510 --> 00:05:48,000

much as possible it's already been

139

00:05:51,590 --> 00:05:49,520

mentioned that it's been you know a long

140

00:05:53,430 --> 00:05:51,600

time since the uk actually

141

00:05:55,430 --> 00:05:53,440

enjoyed having a british astronaut helen

142

00:05:57,189 --> 00:05:55,440

sharma 25 years ago and so these

143

00:05:58,629 --> 00:05:57,199

opportunities don't come around very

144

00:05:59,909 --> 00:05:58,639

often and it's important that we make

145

00:06:01,670 --> 00:05:59,919

the most of them

146

00:06:03,670 --> 00:06:01,680

and part of that is to reach out to our

147

00:06:05,110 --> 00:06:03,680

young generation and try and let them

148

00:06:06,950 --> 00:06:05,120

share the mission to try and get them

149

00:06:09,350 --> 00:06:06,960

excited about science and excited about

150

00:06:11,510 --> 00:06:09,360

space and i've had such a brilliant um

151
00:06:13,590 --> 00:06:11,520
support team on the ground who've run

152
00:06:16,070 --> 00:06:13,600
the educational outreach program and

153
00:06:18,070 --> 00:06:16,080
we've had so many competitions in a vast

154
00:06:19,830 --> 00:06:18,080
uh array of different spheres from

155
00:06:22,629 --> 00:06:19,840
things like rocket seeds to space

156
00:06:24,629 --> 00:06:22,639
dinners to the astro pie computer

157
00:06:26,629 --> 00:06:24,639
fit and healthy exercise like mission x

158
00:06:28,309 --> 00:06:26,639
and space to earth the list just goes on

159
00:06:30,550 --> 00:06:28,319
and i think we've reached over a million

160
00:06:32,710 --> 00:06:30,560
children across the uk which is truly

161
00:06:34,790 --> 00:06:32,720
remarkable and so i hope that certainly

162
00:06:36,469 --> 00:06:34,800
will help to have an impact in uh

163
00:06:43,909 --> 00:06:36,479

inspiring our future scientists and

164

00:06:47,990 --> 00:06:46,070

tim this is david alard from bbc south

165

00:06:50,469 --> 00:06:48,000

today our viewers have loved seeing the

166

00:06:52,550 --> 00:06:50,479

photos you've tweeted of the weather

167

00:06:55,110 --> 00:06:52,560

along the south coast of the sunshine of

168

00:06:59,749 --> 00:06:55,120

the storms but what do you miss most

169

00:07:04,070 --> 00:07:01,110

you know this is going to sound truly

170

00:07:05,350 --> 00:07:04,080

remarkable but i most miss the rain

171

00:07:07,029 --> 00:07:05,360

and i think perhaps because that's

172

00:07:09,749 --> 00:07:07,039

because i haven't had a shower for six

173

00:07:11,510 --> 00:07:09,759

months but uh the the feeling of of nice

174

00:07:14,070 --> 00:07:11,520

cold drizzle on my face right now

175

00:07:15,510 --> 00:07:14,080

actually sounds blissful uh which most

176

00:07:22,710 --> 00:07:15,520

people in the uk would probably find

177

00:07:25,830 --> 00:07:24,550

this is joe durham from bbc radio

178

00:07:31,830 --> 00:07:25,840

gloucestershire what are you looking

179

00:07:35,189 --> 00:07:33,909

well uh it stands with that reason that

180

00:07:37,749 --> 00:07:35,199

the thing i'm looking forward to most is

181

00:07:40,309 --> 00:07:37,759

seeing my family again um but apart from

182

00:07:42,550 --> 00:07:40,319

that i think it's just enjoying planet

183

00:07:45,029 --> 00:07:42,560

earth uh in terms of the outdoors i love

184

00:07:47,189 --> 00:07:45,039

the outdoors i i'm cycling hiking

185

00:07:49,589 --> 00:07:47,199

climbing camping at any opportunity i

186

00:07:51,510 --> 00:07:49,599

can get and uh having lived now in the

187

00:07:53,589 --> 00:07:51,520

space station which is an incredible

188

00:07:55,749 --> 00:07:53,599

place to live it's truly uh you know

189

00:07:57,909 --> 00:07:55,759

groundbreaking up here what we're doing

190

00:07:59,589 --> 00:07:57,919

but having spent six months up here i'm

191

00:08:01,029 --> 00:07:59,599

really looking forward to some fresh air

192

00:08:07,110 --> 00:08:01,039

and just getting outdoors and enjoying

193

00:08:11,270 --> 00:08:09,270

hi tim it's charlotte gay here from

194

00:08:13,589 --> 00:08:11,280

heart radio um a bit of a sports

195

00:08:16,469 --> 00:08:13,599

question what do you reckon of england

196

00:08:20,790 --> 00:08:16,479

winning euro 2016 and if not england who

197

00:08:24,790 --> 00:08:22,790

well i'm rooting for england of course

198

00:08:26,469 --> 00:08:24,800

for euro 2016 so i'm gonna i'm going to

199

00:08:27,749 --> 00:08:26,479

stick with that answer and of course i

200

00:08:34,550 --> 00:08:27,759

look forward to watching it when i get

201
00:08:37,589 --> 00:08:35,990
hi tim it's tim cooper here from the

202
00:08:40,310 --> 00:08:37,599
british forces broadcasting service

203
00:08:41,670 --> 00:08:40,320
forces tv you've been in space what are

204
00:08:43,430 --> 00:08:41,680
you planning to do now are you thinking

205
00:08:45,269 --> 00:08:43,440
of reinvigorating your reserve career

206
00:08:46,949 --> 00:08:45,279
with the british army reserves and do

207
00:08:48,310 --> 00:08:46,959
you hope to inspire other soldiers

208
00:08:54,150 --> 00:08:48,320
sailors and airmen to ditch their

209
00:08:58,389 --> 00:08:56,150
well now of course i'm a full-time

210
00:08:59,990 --> 00:08:58,399
employee of the european space agency

211
00:09:02,870 --> 00:09:00,000
and that's exactly what i'll go back and

212
00:09:05,590 --> 00:09:02,880
do is is to continue to represent the uk

213
00:09:07,110 --> 00:09:05,600

as a british astronaut within isa um and

214

00:09:08,630 --> 00:09:07,120

there's an awful lot going on back at

215

00:09:10,790 --> 00:09:08,640

the european space agency at the moment

216

00:09:13,829 --> 00:09:10,800

just my my class of shenanigans the

217

00:09:16,470 --> 00:09:13,839

class of 2009 um already alex gerst has

218

00:09:17,910 --> 00:09:16,480

been reassigned to a mission in 2019

219

00:09:19,990 --> 00:09:17,920

he'll be back on the space station for

220

00:09:22,230 --> 00:09:20,000

the second time the space station has a

221

00:09:24,070 --> 00:09:22,240

life out to a 2024 maybe even a bit

222

00:09:25,910 --> 00:09:24,080

beyond that and we're already very

223

00:09:28,389 --> 00:09:25,920

actively looking at future missions to

224

00:09:30,230 --> 00:09:28,399

the moon a stepping stone onto mars and

225

00:09:32,310 --> 00:09:30,240

so there's an awful lot of work to be

226

00:09:33,829 --> 00:09:32,320

done back in the european space agency

227

00:09:41,269 --> 00:09:33,839

and sorry i missed the second part of

228

00:09:45,030 --> 00:09:42,790

just came to know tim if you'd like to

229

00:09:49,750 --> 00:09:45,040

inspire other forces personnel to do

230

00:09:53,430 --> 00:09:51,670

absolutely i mean i think that what

231

00:09:55,590 --> 00:09:53,440

we're doing is very important we've got

232

00:09:57,670 --> 00:09:55,600

some um very difficult and challenging

233

00:09:59,990 --> 00:09:57,680

missions coming up in the future and the

234

00:10:02,389 --> 00:10:00,000

space sector needs as many talented uh

235

00:10:04,470 --> 00:10:02,399

professional people as as it can so it's

236

00:10:06,230 --> 00:10:04,480

certainly a route that i would encourage

237

00:10:07,750 --> 00:10:06,240

people to follow from whether they come

238

00:10:12,790 --> 00:10:07,760

from a military background or any

239

00:10:17,030 --> 00:10:14,790

hi tim it's john oldham here from radio

240

00:10:19,030 --> 00:10:17,040

winston uh let me just ask you tim

241

00:10:20,470 --> 00:10:19,040

you've had this exciting six months

242

00:10:27,269 --> 00:10:20,480

you're not gonna come down to the ground

243

00:10:31,509 --> 00:10:29,110

no i don't think so uh there's gonna be

244

00:10:34,389 --> 00:10:31,519

an awful lot to do certainly over the

245

00:10:35,990 --> 00:10:34,399

next year in terms of uh debriefing and

246

00:10:37,190 --> 00:10:36,000

of course the medical tests so much of

247

00:10:39,030 --> 00:10:37,200

the experiments and the science that

248

00:10:40,870 --> 00:10:39,040

we've done up here is actually on my own

249

00:10:42,870 --> 00:10:40,880

body so those experiments will continue

250

00:10:45,030 --> 00:10:42,880

for the next year and as i've mentioned

251
00:10:46,630 --> 00:10:45,040
we've got a very active program of human

252
00:10:48,630 --> 00:10:46,640
space flight within european space

253
00:10:50,389 --> 00:10:48,640
agencies so the important thing is to

254
00:10:52,550 --> 00:10:50,399
try and use the information that i've

255
00:10:54,230 --> 00:10:52,560
gained during this six-month mission uh

256
00:10:56,230 --> 00:10:54,240
in terms of improving how we do

257
00:10:57,509 --> 00:10:56,240
operations on board the space station

258
00:11:04,310 --> 00:10:57,519
and looking forward to how we can

259
00:11:08,230 --> 00:11:06,389
ken hi it's dallas again um i just have

260
00:11:10,069 --> 00:11:08,240
a quick question

261
00:11:12,550 --> 00:11:10,079
i was there for your launch way back in

262
00:11:14,310 --> 00:11:12,560
december and time has gone extremely

263
00:11:17,030 --> 00:11:14,320

quickly i still have a bag of laundry

264

00:11:18,550 --> 00:11:17,040

which i haven't unpacked from baikonur

265

00:11:20,550 --> 00:11:18,560

and uh when i realized that you were

266

00:11:26,069 --> 00:11:20,560

coming back it can't be six months

267

00:11:31,509 --> 00:11:28,550

you know yes time is a funny thing and

268

00:11:33,829 --> 00:11:31,519

uh it has gone very quickly um but then

269

00:11:36,470 --> 00:11:33,839

again sometimes when i think back to uh

270

00:11:38,389 --> 00:11:36,480

for example when tim tim copra and scott

271

00:11:40,710 --> 00:11:38,399

kelly did that first space walk and that

272

00:11:42,949 --> 00:11:40,720

was only six days into the mission that

273

00:11:45,110 --> 00:11:42,959

does seem like a long time ago when i

274

00:11:47,030 --> 00:11:45,120

think i i celebrated christmas and new

275

00:11:49,190 --> 00:11:47,040

year up here on board the space station

276

00:11:50,629 --> 00:11:49,200

again it feels like a long time um and

277

00:11:52,629 --> 00:11:50,639

i've just been fortunate really that

278

00:11:54,230 --> 00:11:52,639

we've had so many exciting and

279

00:11:55,750 --> 00:11:54,240

interesting events during this six-month

280

00:11:57,509 --> 00:11:55,760

mission and they've been nicely paced

281

00:11:59,110 --> 00:11:57,519

out so throughout the mission there's

282

00:12:00,949 --> 00:11:59,120

always been something really good to

283

00:12:02,629 --> 00:12:00,959

look forward to and that's really life

284

00:12:04,069 --> 00:12:02,639

on board the space station

285

00:12:09,190 --> 00:12:04,079

it's an incredibly exciting place to

286

00:12:13,110 --> 00:12:10,790

talking of christmas this is dallas

287

00:12:15,590 --> 00:12:13,120

still here i have a christmas question

288

00:12:17,350 --> 00:12:15,600

for you from uh somebody from uh from

289

00:12:20,069 --> 00:12:17,360

the school if you just want to introduce

290

00:12:21,750 --> 00:12:20,079

yourself and say your question to tim

291

00:12:27,509 --> 00:12:21,760

hi this is amazing and i'd like to know

292

00:12:31,430 --> 00:12:29,269

hi maisie well i think the greatest

293

00:12:33,110 --> 00:12:31,440

present i got for christmas was finding

294

00:12:34,949 --> 00:12:33,120

out that i was going to do a space walk

295

00:12:35,910 --> 00:12:34,959

and really i don't think you can top

296

00:12:36,949 --> 00:12:35,920

that

297

00:12:38,710 --> 00:12:36,959

but

298

00:12:40,470 --> 00:12:38,720

my next big present this year of course

299

00:12:42,550 --> 00:12:40,480

is going to be hopefully getting back

300

00:12:50,550 --> 00:12:42,560

safely a week on saturday and seeing my

301

00:12:55,990 --> 00:12:53,430

hi my name is roxy and what advice would

302

00:13:01,430 --> 00:12:56,000

you give to someone like me to become an

303

00:13:04,550 --> 00:13:03,030

i'm sorry i didn't quite get that

304

00:13:11,190 --> 00:13:04,560

question i i understood it was something

305

00:13:15,350 --> 00:13:13,430

yes because dallas here the question was

306

00:13:20,389 --> 00:13:15,360

any advice for somebody who would like

307

00:13:23,590 --> 00:13:22,230

well do you know i mean the the you've

308

00:13:25,509 --> 00:13:23,600

obviously got an interest in uh

309

00:13:27,670 --> 00:13:25,519

astronomy and the first thing is is just

310

00:13:30,389 --> 00:13:27,680

to do what i'm sure you're doing and

311

00:13:32,870 --> 00:13:30,399

enjoying as a hobby um and looking up at

312

00:13:34,389 --> 00:13:32,880

the stars um of trying to find great

313

00:13:36,710 --> 00:13:34,399

places to go and view the stars where

314

00:13:38,790 --> 00:13:36,720

there isn't too much light pollution

315

00:13:40,230 --> 00:13:38,800

and just recording and documenting what

316

00:13:41,670 --> 00:13:40,240

you're doing enjoying that and if you're

317

00:13:43,110 --> 00:13:41,680

passionate about things you'll tend to

318

00:13:45,910 --> 00:13:43,120

be very good at them and that's

319

00:13:47,829 --> 00:13:45,920

certainly something that i enjoyed as a

320

00:13:50,069 --> 00:13:47,839

youngster as well was a little bit of an

321

00:13:52,150 --> 00:13:50,079

astronomy and also aviation they were

322

00:13:54,310 --> 00:13:52,160

two things i was very interested in and

323

00:13:56,230 --> 00:13:54,320

uh and so i would just encourage anybody

324

00:13:57,829 --> 00:13:56,240

who's interested in that to really

325

00:14:03,590 --> 00:13:57,839

continue what you're good at and be

326

00:14:07,269 --> 00:14:05,110

hello again tim it's phil mackey again

327

00:14:08,870 --> 00:14:07,279

from radio 5 live i just wondered what

328

00:14:14,470 --> 00:14:08,880

you've learned about yourself while

329

00:14:19,269 --> 00:14:16,069

um that's a good question i haven't

330

00:14:21,189 --> 00:14:19,279

really reflected on that too much and uh

331

00:14:23,430 --> 00:14:21,199

i don't really think that i i have

332

00:14:25,750 --> 00:14:23,440

probably learned an awful lot about

333

00:14:27,509 --> 00:14:25,760

myself that stands out uh maybe when i

334

00:14:29,030 --> 00:14:27,519

come back down and i'll reflect on this

335

00:14:30,710 --> 00:14:29,040

mission i'll have time to think about

336

00:14:32,470 --> 00:14:30,720

everything that's gone on

337

00:14:34,069 --> 00:14:32,480

i'll be able to kind of answer that a

338

00:14:36,150 --> 00:14:34,079

bit more fully but

339

00:14:38,790 --> 00:14:36,160

we're honestly so busy up here we just

340

00:14:40,150 --> 00:14:38,800

take every day as it comes

341

00:14:41,910 --> 00:14:40,160

obviously we're working in a quite a

342

00:14:43,350 --> 00:14:41,920

high pressure environment a stressful

343

00:14:45,670 --> 00:14:43,360

environment but then that's something i

344

00:14:48,470 --> 00:14:45,680

was used to anyway in the military spent

345

00:14:50,870 --> 00:14:48,480

16 years as a military pilot

346

00:14:52,389 --> 00:14:50,880

and so i think after a career such as

347

00:14:58,310 --> 00:14:52,399

that it's hard to learn think new things

348

00:15:01,829 --> 00:14:59,829

hi tim this is tom whipple from the

349

00:15:07,350 --> 00:15:01,839

times again um what are your views on

350

00:15:11,430 --> 00:15:09,430

well you know my views on brexit are

351

00:15:13,269 --> 00:15:11,440

personal views and uh you know i don't

352

00:15:15,670 --> 00:15:13,279

feel the need to impart them on anybody

353

00:15:17,430 --> 00:15:15,680

else but uh as well i'd like to say in

354

00:15:19,509 --> 00:15:17,440

terms of cooperation and partnership of

355

00:15:22,230 --> 00:15:19,519

course is just the fact that i'm i'm

356

00:15:24,470 --> 00:15:22,240

here floating in the most incredible

357

00:15:25,910 --> 00:15:24,480

achievement of uh not just european

358

00:15:27,990 --> 00:15:25,920

cooperation but international

359

00:15:30,310 --> 00:15:28,000

cooperation and this space station would

360

00:15:32,069 --> 00:15:30,320

not exist if it wasn't for all of the

361

00:15:34,310 --> 00:15:32,079

international partners and what they

362

00:15:36,389 --> 00:15:34,320

have managed to achieve despite their

363

00:15:38,710 --> 00:15:36,399

political differences throughout the

364

00:15:40,550 --> 00:15:38,720

years and hopefully that will continue

365

00:15:45,590 --> 00:15:40,560

into the future of space exploration as

366

00:15:49,670 --> 00:15:47,350

tim it's thomas moore from sky news

367

00:15:51,670 --> 00:15:49,680

again over the last six months almost

368

00:15:54,870 --> 00:15:51,680

every minute has been accounted for by

369

00:15:56,790 --> 00:15:54,880

the space agencies every movement

370

00:15:58,949 --> 00:15:56,800

has been closely observed by cameras on

371

00:16:01,189 --> 00:15:58,959

board the isf how much are you looking

372

00:16:02,470 --> 00:16:01,199

forward to a bit of peace and quiet it

373

00:16:07,509 --> 00:16:02,480

might have felt like you're living in a

374

00:16:10,389 --> 00:16:09,030

yes i think you've probably hit the nail

375

00:16:12,629 --> 00:16:10,399

on the head there thomas i'm certainly

376

00:16:14,710 --> 00:16:12,639

looking forward to uh just having uh

377

00:16:17,110 --> 00:16:14,720

some nice time with my family some

378

00:16:18,550 --> 00:16:17,120

private time uh and some peace and quiet

379

00:16:20,550 --> 00:16:18,560

peace and quiet will probably still be

380

00:16:22,550 --> 00:16:20,560

quite hard to come by in the next couple

381

00:16:24,389 --> 00:16:22,560

of months there's so much to do in the

382

00:16:29,829 --> 00:16:24,399

post flight period but it's certainly

383

00:16:32,870 --> 00:16:31,430

ken goodwin from itv west country

384

00:16:34,790 --> 00:16:32,880

looking back over the last six months

385

00:16:36,470 --> 00:16:34,800

what's been the defining moment when you

386

00:16:41,829 --> 00:16:36,480

looked out of the window and said i've

387

00:16:46,150 --> 00:16:43,590

there was there was one moment on the

388

00:16:48,230 --> 00:16:46,160

space walk when tim copper and myself

389

00:16:50,310 --> 00:16:48,240

were waiting to install an electrical

390

00:16:51,990 --> 00:16:50,320

component and we had to wait for the sun

391

00:16:53,430 --> 00:16:52,000

to set because of course the sun

392

00:16:55,269 --> 00:16:53,440

striking the solar rays would have been

393

00:16:57,749 --> 00:16:55,279

dangerous for us to have changed out the

394

00:16:59,670 --> 00:16:57,759

electrical component and mission control

395

00:17:01,749 --> 00:16:59,680

in houston basically told us that we had

396

00:17:03,910 --> 00:17:01,759

about 10 minutes to hang out take

397

00:17:05,909 --> 00:17:03,920

photographs and wait for the sun to set

398

00:17:08,230 --> 00:17:05,919

and that is unheard of on a spacewalk

399

00:17:09,750 --> 00:17:08,240

where normally every minute is uh

400

00:17:12,069 --> 00:17:09,760

accounted for so

401
00:17:14,949 --> 00:17:12,079
that was truly incredible just to be

402
00:17:16,549 --> 00:17:14,959
able to uh explore you know that that

403
00:17:18,549 --> 00:17:16,559
part of the space station and look down

404
00:17:20,230 --> 00:17:18,559
on planet earth and also look behind me

405
00:17:22,309 --> 00:17:20,240
and look out into the darkness and the

406
00:17:24,390 --> 00:17:22,319
vastness of space whilst outside the

407
00:17:31,029 --> 00:17:24,400
space station i think that really is a

408
00:17:39,510 --> 00:17:34,070
uh hi my name's john and i'd like to

409
00:17:44,470 --> 00:17:41,430
hi john yeah it's really important to

410
00:17:46,230 --> 00:17:44,480
keep fit and we have three main devices

411
00:17:48,470 --> 00:17:46,240
one's a bike machine one's a running

412
00:17:50,150 --> 00:17:48,480
machine and one's a weightlifting

413
00:17:52,390 --> 00:17:50,160

machine that uses vacuum cylinders

414

00:17:54,190 --> 00:17:52,400

instead of weights and between those

415

00:17:56,549 --> 00:17:54,200

three devices we try and keep our

416

00:17:58,549 --> 00:17:56,559

cardiovascular system as healthy as

417

00:18:00,470 --> 00:17:58,559

possible and we also try and reduce the

418

00:18:02,390 --> 00:18:00,480

bone density loss and the muscle mass

419

00:18:04,390 --> 00:18:02,400

loss so we work out probably up to about

420

00:18:06,870 --> 00:18:04,400

one and a half hours to two hours every

421

00:18:14,390 --> 00:18:06,880

day to try and stop the negative effects

422

00:18:23,830 --> 00:18:16,950

um hi my name's maya could you like him

423

00:18:29,830 --> 00:18:26,630

hi maya um well the closest thing i

424

00:18:31,270 --> 00:18:29,840

think i can liken it to is scuba diving

425

00:18:33,029 --> 00:18:31,280

i don't know if you've ever tried it

426

00:18:34,950 --> 00:18:33,039

it's a lovely sport it's one i really

427

00:18:37,510 --> 00:18:34,960

enjoyed doing and i also had the

428

00:18:39,190 --> 00:18:37,520

privilege of going on a nemo mission

429

00:18:41,110 --> 00:18:39,200

which was one of nasa's exploration

430

00:18:44,470 --> 00:18:41,120

missions and living underwater for 12

431

00:18:45,990 --> 00:18:44,480

days and that's a similar an experience

432

00:18:47,909 --> 00:18:46,000

as living on board the international

433

00:18:49,350 --> 00:18:47,919

space station that i can think of

434

00:18:51,430 --> 00:18:49,360

actually when you're scuba diving in

435

00:18:53,669 --> 00:18:51,440

water it feels similar to being in

436

00:18:55,830 --> 00:18:53,679

microgravity as well which is why we use

437

00:19:02,549 --> 00:18:55,840

underwater swimming pools on earth in

438

00:19:06,070 --> 00:19:03,990

tim i think we're running out of time

439

00:19:08,950 --> 00:19:06,080

sadly we've got a few more seconds left

440

00:19:10,710 --> 00:19:08,960

i just wanted to say a huge thank you

441

00:19:11,830 --> 00:19:10,720

from the space dome i wish you could be

442

00:19:13,510 --> 00:19:11,840

here in the space zone because it's

443

00:19:15,430 --> 00:19:13,520

absolutely terrific it's all blacked out

444

00:19:17,510 --> 00:19:15,440

and we've got these beautiful stars

445

00:19:19,430 --> 00:19:17,520

sparkling about above us it's about 100

446

00:19:21,909 --> 00:19:19,440

degrees outside we're all sweating and

447

00:19:23,110 --> 00:19:21,919

baking in here but um hopefully next

448

00:19:24,870 --> 00:19:23,120

year you might be able to come here in

449

00:19:27,190 --> 00:19:24,880

person that would be lovely to actually

450

00:19:29,190 --> 00:19:27,200

to get you here and and talk to you live

451

00:19:30,950 --> 00:19:29,200

if you think you've been busy

452

00:19:32,390 --> 00:19:30,960

for the last six months just wait till

453

00:19:33,909 --> 00:19:32,400

you get back to earth because i know

454

00:19:36,310 --> 00:19:33,919

there's a lot of people who who want to

455

00:19:38,230 --> 00:19:36,320

talk to you but on behalf of everyone

456

00:19:40,789 --> 00:19:38,240

here at the times cheltenham science

457

00:19:42,710 --> 00:19:40,799

festival i just want to say a huge huge

458

00:19:48,710 --> 00:19:42,720

thank you maybe a round of applause for

459

00:19:52,390 --> 00:19:50,789

thank you dallas and thank you to

460

00:19:54,310 --> 00:19:52,400

everybody at the cheltenham science

461

00:19:56,310 --> 00:19:54,320

festival it's been a real pleasure

462

00:19:57,830 --> 00:19:56,320

talking to you this afternoon and enjoy

463

00:19:58,870 --> 00:19:57,840

the rest of the festival and yes i

464

00:20:04,310 --> 00:19:58,880

certainly look forward to being there