



1
00:00:04,870 --> 00:00:02,550
station this is houston are you ready

2
00:00:09,030 --> 00:00:04,880
for the event

3
00:00:12,789 --> 00:00:10,870
columbia business school this is mission

4
00:00:15,030 --> 00:00:12,799
control houston please call station for

5
00:00:16,630 --> 00:00:15,040
a voice check

6
00:00:20,470 --> 00:00:16,640
station this is columbia's business

7
00:00:23,349 --> 00:00:21,990
i hear you loud and clear and i'm really

8
00:00:38,709 --> 00:00:23,359
delighted to be able to speak with you

9
00:00:43,270 --> 00:00:41,190
and we're all in 301 euros and we're all

10
00:00:45,590 --> 00:00:43,280
clutching our astronaut ice cream

11
00:00:47,270 --> 00:00:45,600
packets and we're excited to be able to

12
00:00:51,029 --> 00:00:47,280
ask you some questions so the first one

13
00:00:52,470 --> 00:00:51,039

comes from alex ortanian alex hi tim uh

14

00:00:54,709 --> 00:00:52,480

thanks for taking the time to speak to

15

00:00:56,389 --> 00:00:54,719

us today my question is what's the most

16

00:00:59,270 --> 00:00:56,399

important thing you learned during your

17

00:01:00,869 --> 00:00:59,280

mba that you continue to use reply uh in

18

00:01:04,149 --> 00:01:00,879

your role as a commander on the space

19

00:01:07,190 --> 00:01:05,830

you know it's a great question alex i

20

00:01:09,350 --> 00:01:07,200

think you know one of the things that

21

00:01:10,390 --> 00:01:09,360

the nba did for me was just reaffirmed

22

00:01:11,990 --> 00:01:10,400

that

23

00:01:14,789 --> 00:01:12,000

leadership is a continual learning

24

00:01:16,630 --> 00:01:14,799

process we are always learning and

25

00:01:18,550 --> 00:01:16,640

whether it's in a business scenario or

26
00:01:20,870 --> 00:01:18,560
here on space station or on the ground

27
00:01:22,550 --> 00:01:20,880
and the teams that work there it's very

28
00:01:25,590 --> 00:01:22,560
important for us to continue to build

29
00:01:28,230 --> 00:01:25,600
teams uh to to get along with people and

30
00:01:30,950 --> 00:01:28,240
to focus on results and part of that is

31
00:01:33,190 --> 00:01:30,960
us being individually competent in our

32
00:01:35,190 --> 00:01:33,200
tasks whether you're an astronaut we

33
00:01:37,590 --> 00:01:35,200
have very specific skills we need to

34
00:01:39,510 --> 00:01:37,600
have but as a business leader having

35
00:01:43,830 --> 00:01:39,520
those skills so that people respect you

36
00:01:46,950 --> 00:01:45,429
okay

37
00:01:49,830 --> 00:01:46,960
tim this comes from

38
00:01:51,990 --> 00:01:49,840

binanzu i'm going to ask on her behalf

39

00:01:54,069 --> 00:01:52,000

was there a business school moment in or

40

00:01:55,830 --> 00:01:54,079

outside the classroom which has proved

41

00:01:59,590 --> 00:01:55,840

to be a pivotal learning experience for

42

00:02:03,030 --> 00:02:00,950

you know i think there was one

43

00:02:05,670 --> 00:02:03,040

particular moment it was a personal

44

00:02:07,429 --> 00:02:05,680

leadership class that i had and this was

45

00:02:09,589 --> 00:02:07,439

about a year and a half into our program

46

00:02:11,670 --> 00:02:09,599

and by that point in time our class

47

00:02:13,589 --> 00:02:11,680

became very tight and we had spent a lot

48

00:02:15,830 --> 00:02:13,599

of time together not just in class but

49

00:02:19,030 --> 00:02:15,840

on the weekends in london and and in new

50

00:02:21,110 --> 00:02:19,040

york dubai and in buenos aires so we're

51
00:02:22,949 --> 00:02:21,120
a very tight group and and during this

52
00:02:24,550 --> 00:02:22,959
personal leadership class we had a small

53
00:02:26,630 --> 00:02:24,560
group session and it was really a

54
00:02:29,190 --> 00:02:26,640
feedback session for us to brainstorm

55
00:02:31,190 --> 00:02:29,200
about what our next steps would be and

56
00:02:33,589 --> 00:02:31,200
uh it was among a very small group of

57
00:02:36,550 --> 00:02:33,599
people that uh we all trusted each other

58
00:02:37,589 --> 00:02:36,560
and uh we were open to feedback and and

59
00:02:39,910 --> 00:02:37,599
there's actually been some really

60
00:02:42,790 --> 00:02:39,920
tremendous results out of that

61
00:02:44,390 --> 00:02:42,800
conversation among those people not just

62
00:02:47,110 --> 00:02:44,400
myself but some of the other folks in

63
00:02:48,949 --> 00:02:47,120

that group and uh it was just a seminal

64

00:02:51,190 --> 00:02:48,959

moment i think for for many of us to

65

00:02:53,350 --> 00:02:51,200

have that trusting environment to to

66

00:02:55,190 --> 00:02:53,360

share with other people uh that we're in

67

00:02:58,070 --> 00:02:55,200

a similar experience from a business

68

00:03:01,270 --> 00:02:58,080

school perspective and be able to

69

00:03:06,149 --> 00:03:02,710

our next question comes from catherine

70

00:03:08,149 --> 00:03:06,159

canfield yes hi i'm kate my question is

71

00:03:10,309 --> 00:03:08,159

what have you found is the most

72

00:03:12,710 --> 00:03:10,319

motivating way to get buy-in from your

73

00:03:15,589 --> 00:03:12,720

crew on critical issues that you're

74

00:03:18,630 --> 00:03:17,509

hi kate that's a great question i think

75

00:03:21,750 --> 00:03:18,640

that uh

76

00:03:24,309 --> 00:03:21,760

it's very very important to to listen

77

00:03:26,710 --> 00:03:24,319

and uh to be flexible in your thinking

78

00:03:28,470 --> 00:03:26,720

and what happens i find with myself and

79

00:03:29,990 --> 00:03:28,480

i've seen this with others is that that

80

00:03:31,589 --> 00:03:30,000

often times when you get in those

81

00:03:33,670 --> 00:03:31,599

conversations and if you can keep an

82

00:03:36,070 --> 00:03:33,680

open mind your own opinion and the

83

00:03:38,309 --> 00:03:36,080

approach that you take may change and so

84

00:03:39,990 --> 00:03:38,319

it's it's good to uh to try to include

85

00:03:42,550 --> 00:03:40,000

the viewpoints of others and maybe

86

00:03:44,789 --> 00:03:42,560

sometimes it's not appropriate to to

87

00:03:46,869 --> 00:03:44,799

incorporate theirs but making sure that

88

00:03:51,270 --> 00:03:46,879

people are included in the process i

89

00:03:55,429 --> 00:03:54,070

our next question is from alex weinstein

90

00:03:57,589 --> 00:03:55,439

hey tim thanks for being here for us

91

00:03:59,110 --> 00:03:57,599

today um my question is what new

92

00:04:04,470 --> 00:03:59,120

perspectives have you gained from

93

00:04:04,480 --> 00:04:07,670

you know it's a good question

94

00:04:10,470 --> 00:04:09,429

our planet actually has lots of borders

95

00:04:14,869 --> 00:04:10,480

we have

96

00:04:17,349 --> 00:04:14,879

create natural borders

97

00:04:19,590 --> 00:04:17,359

um there are borders that are are there

98

00:04:21,189 --> 00:04:19,600

for very specific cultural and

99

00:04:22,069 --> 00:04:21,199

historical reasons but i understand your

100

00:04:24,070 --> 00:04:22,079

question

101
00:04:25,830 --> 00:04:24,080
and i guess one thing that you can get a

102
00:04:27,749 --> 00:04:25,840
very physical sense of from this

103
00:04:30,230 --> 00:04:27,759
viewpoint is that the planet is very

104
00:04:33,909 --> 00:04:30,240
interconnected you see you see roads at

105
00:04:36,230 --> 00:04:33,919
night that connect cities across borders

106
00:04:38,629 --> 00:04:36,240
you see the contrails of jets leaving

107
00:04:40,469 --> 00:04:38,639
major hubs that cross all over the globe

108
00:04:42,390 --> 00:04:40,479
and you see ships going through channels

109
00:04:44,469 --> 00:04:42,400
and through waterways so you can tell

110
00:04:46,710 --> 00:04:44,479
that we're a very interconnected planet

111
00:04:48,070 --> 00:04:46,720
and from that perspective i think that

112
00:04:50,150 --> 00:04:48,080
you know it's it's good for us to

113
00:04:52,230 --> 00:04:50,160

recognize that that there are lots of

114

00:04:53,030 --> 00:04:52,240

differences among peoples and countries

115

00:04:55,430 --> 00:04:53,040

but

116

00:04:56,950 --> 00:04:55,440

they're ways that we connect and it's

117

00:04:58,950 --> 00:04:56,960

there's ways to sort that out i think

118

00:05:01,029 --> 00:04:58,960

business actually is a tremendous way

119

00:05:06,070 --> 00:05:01,039

that that we are able to have some that

120

00:05:09,029 --> 00:05:07,749

our next question comes from robbie

121

00:05:11,749 --> 00:05:09,039

rutkoff

122

00:05:13,830 --> 00:05:11,759

hey tim welcome back to cbs virtually

123

00:05:16,070 --> 00:05:13,840

um i'm curious to know what you would

124

00:05:18,230 --> 00:05:16,080

say are the three biggest differences in

125

00:05:21,670 --> 00:05:18,240

the dynamics of managing a team in space

126

00:05:25,430 --> 00:05:23,270

that's a great question you know i don't

127

00:05:26,790 --> 00:05:25,440

think there are fundamental differences

128

00:05:29,909 --> 00:05:26,800

but there are certain things that are

129

00:05:30,950 --> 00:05:29,919

amplified that all of us notice so for

130

00:05:32,950 --> 00:05:30,960

example

131

00:05:35,590 --> 00:05:32,960

our communication with the ground is

132

00:05:36,390 --> 00:05:35,600

typically on an open space to ground

133

00:05:37,189 --> 00:05:36,400

loop

134

00:05:39,430 --> 00:05:37,199

and

135

00:05:41,990 --> 00:05:39,440

what you learn from that is that

136

00:05:43,830 --> 00:05:42,000

that uh there's a lot less context and a

137

00:05:46,070 --> 00:05:43,840

lot less content in the communication

138

00:05:48,230 --> 00:05:46,080

when it's not face to face we have video

139

00:05:50,230 --> 00:05:48,240

conferences with our leadership on

140

00:05:51,029 --> 00:05:50,240

occasion but it's just not the same and

141

00:05:52,950 --> 00:05:51,039

so

142

00:05:54,629 --> 00:05:52,960

what ends up happening is that your tone

143

00:05:56,870 --> 00:05:54,639

of voice and the words that you use

144

00:05:59,510 --> 00:05:56,880

become very very important and also

145

00:06:01,029 --> 00:05:59,520

conversely the words that people uh give

146

00:06:02,629 --> 00:06:01,039

you and their tone of voice is very

147

00:06:05,110 --> 00:06:02,639

important so there's a

148

00:06:07,590 --> 00:06:05,120

much stronger emphasis on that

149

00:06:11,110 --> 00:06:07,600

and from a different perspective here as

150

00:06:13,510 --> 00:06:11,120

a crew there's also um a change in terms

151
00:06:16,390 --> 00:06:13,520
of communication because you know we're

152
00:06:18,550 --> 00:06:16,400
all together it's all six of us and so

153
00:06:21,110 --> 00:06:18,560
uh tone is important and learning to get

154
00:06:22,629 --> 00:06:21,120
along is is a very very vital skill so

155
00:06:24,309 --> 00:06:22,639
that's probably something that's that's

156
00:06:26,230 --> 00:06:24,319
more amplified here too

157
00:06:27,029 --> 00:06:26,240
the third thing that comes to mind is

158
00:06:29,670 --> 00:06:27,039
that

159
00:06:33,029 --> 00:06:29,680
oftentimes you see a a wide variety of

160
00:06:34,870 --> 00:06:33,039
leadership styles maybe not just

161
00:06:37,350 --> 00:06:34,880
among different people but different

162
00:06:39,430 --> 00:06:37,360
circumstances and i would say with the

163
00:06:41,510 --> 00:06:39,440

the exception of emergency situations

164

00:06:43,909 --> 00:06:41,520

here on space station a directive

165

00:06:45,029 --> 00:06:43,919

leadership style is just not appropriate

166

00:06:47,590 --> 00:06:45,039

and so

167

00:06:48,710 --> 00:06:47,600

it's interesting watching the process of

168

00:06:50,469 --> 00:06:48,720

of how

169

00:06:52,469 --> 00:06:50,479

things work here in space and on the

170

00:06:54,550 --> 00:06:52,479

ground but you know by and large it's

171

00:06:56,629 --> 00:06:54,560

the same and those three things to me

172

00:06:59,110 --> 00:06:56,639

though kind of stand out as uh as a

173

00:07:02,710 --> 00:07:00,790

will campbell is next

174

00:07:05,589 --> 00:07:02,720

hi tim this next question is inspired by

175

00:07:07,189 --> 00:07:05,599

my brother who's a naval aviator um as

176

00:07:09,909 --> 00:07:07,199

you've progressed in your career from

177

00:07:12,150 --> 00:07:09,919

helos to the space station how have you

178

00:07:16,150 --> 00:07:12,160

managed the increased emphasis on team

179

00:07:20,150 --> 00:07:18,230

it's a great question you know uh even

180

00:07:22,070 --> 00:07:20,160

your brother the naval aviator i'm sure

181

00:07:24,309 --> 00:07:22,080

would say that uh even though he's

182

00:07:26,710 --> 00:07:24,319

making individual decisions in that jet

183

00:07:29,110 --> 00:07:26,720

or helicopter

184

00:07:31,589 --> 00:07:29,120

it uh it really comes down to those

185

00:07:34,070 --> 00:07:31,599

decisions impacting the bigger team and

186

00:07:37,749 --> 00:07:34,080

uh even when i was uh you know a young

187

00:07:39,749 --> 00:07:37,759

aviator and a lieutenant flying apaches

188

00:07:42,390 --> 00:07:39,759

the decisions i made affected all the

189

00:07:44,070 --> 00:07:42,400

people that i flew with and uh i think

190

00:07:47,270 --> 00:07:44,080

that that's still true up here today you

191

00:07:49,430 --> 00:07:47,280

know we have lots of individual uh

192

00:07:51,589 --> 00:07:49,440

skills and and uh individual tasks that

193

00:07:53,430 --> 00:07:51,599

we do but we always have to consider the

194

00:07:54,469 --> 00:07:53,440

impact that it has on the broader team

195

00:07:55,589 --> 00:07:54,479

so

196

00:07:57,589 --> 00:07:55,599

i guess there's always going to be a

197

00:08:00,550 --> 00:07:57,599

balance between you know your individual

198

00:08:02,629 --> 00:08:00,560

decisions and that the team aspect but

199

00:08:04,469 --> 00:08:02,639

you know in my experience those

200

00:08:07,189 --> 00:08:04,479

individual decisions always have come

201
00:08:09,990 --> 00:08:07,199
back to sort of an impact on on the

202
00:08:13,909 --> 00:08:12,309
connor bogan is next hi tim i know

203
00:08:15,510 --> 00:08:13,919
there's a lot of space between us but we

204
00:08:18,230 --> 00:08:15,520
really appreciate the opportunity to

205
00:08:20,950 --> 00:08:18,240
speak with such a star

206
00:08:22,790 --> 00:08:20,960
what skills do you think overlap between

207
00:08:25,990 --> 00:08:22,800
being an astronaut and being a business

208
00:08:32,070 --> 00:08:29,189
it's a great question i think that uh

209
00:08:33,750 --> 00:08:32,080
that teamwork is is the thing that is

210
00:08:36,790 --> 00:08:33,760
the greatest overlap

211
00:08:39,430 --> 00:08:36,800
uh human space flight is completely a

212
00:08:41,350 --> 00:08:39,440
team sport we have six people up here

213
00:08:43,909 --> 00:08:41,360

but there is an army of people on the

214

00:08:46,310 --> 00:08:43,919

ground that support this and

215

00:08:48,070 --> 00:08:46,320

dedicated their lives and careers to

216

00:08:50,550 --> 00:08:48,080

human space flight so we have a very

217

00:08:52,870 --> 00:08:50,560

visible role but they're doing really

218

00:08:54,550 --> 00:08:52,880

the yeoman's work on the ground to make

219

00:08:56,150 --> 00:08:54,560

this kind of mission possible in any

220

00:08:59,269 --> 00:08:56,160

future human space flight endeavor

221

00:09:01,190 --> 00:08:59,279

possible so teamwork is absolutely vital

222

00:09:01,910 --> 00:09:01,200

and and anybody who doesn't recognize

223

00:09:06,389 --> 00:09:01,920

that

224

00:09:08,470 --> 00:09:06,399

know i think doesn't really quite have

225

00:09:10,389 --> 00:09:08,480

the right focus and here on board we

226

00:09:12,870 --> 00:09:10,399

recognize that that

227

00:09:15,509 --> 00:09:12,880

there's no sole person who's making this

228

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

work that all of us have to not just get

229

00:09:21,030 --> 00:09:17,519

along but work well together and be more

230

00:09:25,509 --> 00:09:22,630

tim i'm going to ask the next question

231

00:09:26,630 --> 00:09:25,519

on behalf of lindsay delevine and her

232

00:09:28,389 --> 00:09:26,640

question is

233

00:09:30,470 --> 00:09:28,399

in a high-stakes setting such as the

234

00:09:32,150 --> 00:09:30,480

international space station is there any

235

00:09:37,190 --> 00:09:32,160

room for risk-taking

236

00:09:42,470 --> 00:09:39,509

it's a great question you know

237

00:09:44,470 --> 00:09:42,480

we uh we use the word risk in a probably

238

00:09:46,790 --> 00:09:44,480

a different way than is used in the the

239

00:09:47,670 --> 00:09:46,800

business community you know for us our

240

00:09:53,190 --> 00:09:47,680

whole

241

00:09:54,870 --> 00:09:53,200

because what we do is inherently risky

242

00:09:57,350 --> 00:09:54,880

you know we launch on a rocket to get

243

00:09:59,190 --> 00:09:57,360

here we dock to a space station with

244

00:10:00,230 --> 00:09:59,200

lots of mechanisms and operations that

245

00:10:04,710 --> 00:10:00,240

have to

246

00:10:07,509 --> 00:10:04,720

we do spacewalks and go outside with

247

00:10:09,750 --> 00:10:07,519

hardware that may be imperfect and uh

248

00:10:13,269 --> 00:10:09,760

and so from that standpoint you know we

249

00:10:14,550 --> 00:10:13,279

are all about risk mitigation and uh

250

00:10:17,350 --> 00:10:14,560

from the standpoint of you know risk

251

00:10:19,430 --> 00:10:17,360

taking i understand the the context of

252

00:10:21,430 --> 00:10:19,440

risk-taking in terms of of trying to

253

00:10:23,990 --> 00:10:21,440

come up with new ideas and and broaden

254

00:10:25,829 --> 00:10:24,000

that out but i think there's probably

255

00:10:28,310 --> 00:10:25,839

you know what most people would consider

256

00:10:30,150 --> 00:10:28,320

less creativity in our job especially

257

00:10:31,590 --> 00:10:30,160

here the creativity really needs to

258

00:10:34,389 --> 00:10:31,600

happen on the ground when you're coming

259

00:10:37,430 --> 00:10:34,399

up with a plan in our case the best case

260

00:10:40,630 --> 00:10:37,440

scenario really is is to have a well

261

00:10:42,630 --> 00:10:40,640

designed and uh a well-written plan and

262

00:10:44,710 --> 00:10:42,640

then for us to execute it well and

263

00:10:46,550 --> 00:10:44,720

that's not very creative but that's a

264

00:10:49,030 --> 00:10:46,560

means by which we're able to mitigate a

265

00:10:49,829 --> 00:10:49,040

lot of risk

266

00:10:52,230 --> 00:10:49,839

okay

267

00:10:54,069 --> 00:10:52,240

uh beth dewoody is next hi tim thanks

268

00:10:57,030 --> 00:10:54,079

again for doing this we're clearly very

269

00:10:59,350 --> 00:10:57,040

excited my question is um as we move

270

00:11:01,750 --> 00:10:59,360

forward in our careers what advice do

271

00:11:06,790 --> 00:11:01,760

you have for leading international teams

272

00:11:09,350 --> 00:11:08,230

it's a great question we've had lots of

273

00:11:11,430 --> 00:11:09,360

experience

274

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

with international travel i had some

275

00:11:15,670 --> 00:11:13,440

international groups

276
00:11:18,069 --> 00:11:15,680
international training you know we have

277
00:11:20,310 --> 00:11:18,079
three cosmonauts on our team here we

278
00:11:21,430 --> 00:11:20,320
have a british astronaut here on board

279
00:11:22,550 --> 00:11:21,440
and so

280
00:11:24,710 --> 00:11:22,560
we're pretty

281
00:11:26,230 --> 00:11:24,720
used to an international environment you

282
00:11:28,389 --> 00:11:26,240
know from my

283
00:11:30,550 --> 00:11:28,399
position i think it's very important to

284
00:11:33,030 --> 00:11:30,560
understand the cultures of the people

285
00:11:35,110 --> 00:11:33,040
that you work with and to the extent

286
00:11:37,590 --> 00:11:35,120
that i think it's important to to take a

287
00:11:39,670 --> 00:11:37,600
stab at their language too and so if you

288
00:11:41,990 --> 00:11:39,680

can have at least some basic language

289

00:11:44,069 --> 00:11:42,000

skills even if it's just to show a good

290

00:11:45,990 --> 00:11:44,079

effort i think that's very important and

291

00:11:47,910 --> 00:11:46,000

then from that standpoint

292

00:11:49,350 --> 00:11:47,920

with different groups of people diverse

293

00:11:51,670 --> 00:11:49,360

groups of people and cultures and

294

00:11:53,910 --> 00:11:51,680

opinions i think it's very important to

295

00:11:55,110 --> 00:11:53,920

uh to listen more

296

00:11:56,389 --> 00:11:55,120

and to

297

00:12:00,150 --> 00:11:56,399

to be flexible

298

00:12:03,750 --> 00:12:01,829

i'm going to ask the next two questions

299

00:12:05,350 --> 00:12:03,760

on behalf of students who could not be

300

00:12:07,030 --> 00:12:05,360

here this one is from

301
00:12:09,269 --> 00:12:07,040
zao way

302
00:12:11,430 --> 00:12:09,279
do you have any important advice to

303
00:12:13,590 --> 00:12:11,440
current students on how to best leverage

304
00:12:15,350 --> 00:12:13,600
the resources and access

305
00:12:19,269 --> 00:12:15,360
at columbia business school to improve

306
00:12:23,350 --> 00:12:21,670
it's a good question you know i think

307
00:12:25,590 --> 00:12:23,360
from my

308
00:12:28,550 --> 00:12:25,600
perspective leadership is really a

309
00:12:30,230 --> 00:12:28,560
hands-on learning process um i mean

310
00:12:31,670 --> 00:12:30,240
clearly there's an academic portion to

311
00:12:33,430 --> 00:12:31,680
it and we can always

312
00:12:35,350 --> 00:12:33,440
go to classes and we can read books you

313
00:12:37,030 --> 00:12:35,360

know the case studies that we had

314

00:12:38,470 --> 00:12:37,040

at columbia business school in london

315

00:12:41,829 --> 00:12:38,480

business school were

316

00:12:43,990 --> 00:12:41,839

very very useful and uh insightful

317

00:12:45,670 --> 00:12:44,000

the class we had in specific leadership

318

00:12:47,190 --> 00:12:45,680

skills and uh

319

00:12:48,710 --> 00:12:47,200

and techniques i think that's very

320

00:12:50,870 --> 00:12:48,720

important but at the end of the day once

321

00:12:53,269 --> 00:12:50,880

you graduate it's going to be a hands-on

322

00:12:55,910 --> 00:12:53,279

thing and and the primary resource in my

323

00:12:57,030 --> 00:12:55,920

opinion really is your classmates

324

00:12:58,629 --> 00:12:57,040

because

325

00:13:00,230 --> 00:12:58,639

over a period of time you're going to

326

00:13:01,750 --> 00:13:00,240

build strong relationships and you're

327

00:13:03,910 --> 00:13:01,760

going to find people that you really

328

00:13:04,870 --> 00:13:03,920

trust and that you connect with

329

00:13:07,910 --> 00:13:04,880

and

330

00:13:09,910 --> 00:13:07,920

think you need to turn to when you have

331

00:13:12,629 --> 00:13:09,920

uh questions and challenges and

332

00:13:14,790 --> 00:13:12,639

leadership positions because it's it's a

333

00:13:17,430 --> 00:13:14,800

it's a tough business being a leader is

334

00:13:19,829 --> 00:13:17,440

very very tough and doing it by yourself

335

00:13:21,269 --> 00:13:19,839

doing it solo is is even tougher so

336

00:13:22,790 --> 00:13:21,279

having someone you can lean on and

337

00:13:24,790 --> 00:13:22,800

someone you can consult is very

338

00:13:26,470 --> 00:13:24,800

important and and your fellow students

339

00:13:29,269 --> 00:13:26,480

are really going to be one of those best

340

00:13:33,590 --> 00:13:31,350

the next question on behalf of amir

341

00:13:35,110 --> 00:13:33,600

tavoli is a handful

342

00:13:37,030 --> 00:13:35,120

when looking down at the earth what do

343

00:13:38,550 --> 00:13:37,040

you see as our generation's most

344

00:13:40,470 --> 00:13:38,560

important challenge

345

00:13:45,750 --> 00:13:40,480

fixing the world we live in today or

346

00:13:50,310 --> 00:13:47,350

it's a good question i don't think it's

347

00:13:52,310 --> 00:13:50,320

a mutually exclusive problem i mean i

348

00:13:54,389 --> 00:13:52,320

think we should try to fix the world i

349

00:13:57,430 --> 00:13:54,399

think that we should also continue our

350

00:13:59,350 --> 00:13:57,440

efforts to explore and uh in some ways i

351

00:14:00,949 --> 00:13:59,360

think that that perhaps they're related

352

00:14:03,590 --> 00:14:00,959

you know i've spent some time at some of

353

00:14:06,870 --> 00:14:03,600

the the newer space companies and i see

354

00:14:09,750 --> 00:14:06,880

these young people that are super bright

355

00:14:11,829 --> 00:14:09,760

and completely on fire for human space

356

00:14:14,389 --> 00:14:11,839

flight and for space flight in general

357

00:14:16,949 --> 00:14:14,399

and so as a consequence of this of this

358

00:14:18,949 --> 00:14:16,959

vision of exploration

359

00:14:21,430 --> 00:14:18,959

i think that they've been energized to

360

00:14:23,670 --> 00:14:21,440

perform and to uh to do things that they

361

00:14:25,910 --> 00:14:23,680

never would have done otherwise and so

362

00:14:28,550 --> 00:14:25,920

that can result in

363

00:14:30,550 --> 00:14:28,560

economic development and prosperity and

364

00:14:32,230 --> 00:14:30,560

those kinds of things i help i think

365

00:14:34,470 --> 00:14:32,240

help lead to fixing our problems when

366

00:14:36,870 --> 00:14:34,480

there's more resources available to to

367

00:14:40,150 --> 00:14:36,880

solve those problems in terms of of

368

00:14:42,710 --> 00:14:40,160

intellectual capital and uh and money

369

00:14:45,750 --> 00:14:42,720

that that's all a good thing so in my

370

00:14:46,710 --> 00:14:45,760

mind they're they're very related

371

00:14:49,430 --> 00:14:46,720

right

372

00:14:51,910 --> 00:14:49,440

uh sampuna does gupta please hi tim

373

00:14:53,910 --> 00:14:51,920

thanks again for doing this um so we all

374

00:14:55,189 --> 00:14:53,920

took operations recently and i was

375

00:14:57,189 --> 00:14:55,199

wondering if you could talk a little bit

376

00:14:58,710 --> 00:14:57,199

about some of the biggest process

377

00:15:01,990 --> 00:14:58,720

improvement opportunities at the space

378

00:15:05,910 --> 00:15:04,310

it's a great question you know they're

379

00:15:08,870 --> 00:15:05,920

it's interesting having

380

00:15:10,470 --> 00:15:08,880

been here before it was uh 2009 so it's

381

00:15:13,269 --> 00:15:10,480

been a bit of time

382

00:15:16,069 --> 00:15:13,279

and from a process standpoint you can

383

00:15:17,750 --> 00:15:16,079

see that that space station

384

00:15:19,110 --> 00:15:17,760

has really become a much more mature

385

00:15:21,189 --> 00:15:19,120

process

386

00:15:22,629 --> 00:15:21,199

and it's a big machine not just the

387

00:15:25,350 --> 00:15:22,639

hardware but the people that are

388

00:15:27,110 --> 00:15:25,360

involved in in all the organizations

389

00:15:29,269 --> 00:15:27,120

that make this work and so i've seen

390

00:15:31,189 --> 00:15:29,279

this transition where things have become

391

00:15:32,470 --> 00:15:31,199

better and better

392

00:15:34,230 --> 00:15:32,480

but we can still

393

00:15:36,629 --> 00:15:34,240

even improve upon that and there's two

394

00:15:38,470 --> 00:15:36,639

areas that that come to mind that we're

395

00:15:40,629 --> 00:15:38,480

still working on and we're making

396

00:15:43,110 --> 00:15:40,639

progress on but we'll continue to uh to

397

00:15:45,990 --> 00:15:43,120

improve and that is getting a

398

00:15:48,150 --> 00:15:46,000

peer-reviewed top-tier science onboard

399

00:15:50,230 --> 00:15:48,160

station sooner so that we can get it

400

00:15:52,470 --> 00:15:50,240

here we can get the results back sooner

401

00:15:54,790 --> 00:15:52,480

i think that's very important

402

00:15:57,829 --> 00:15:54,800

and also i think it's uh it's vital for

403

00:16:00,310 --> 00:15:57,839

us to continue our development of uh

404

00:16:01,990 --> 00:16:00,320

of life support systems you know we have

405

00:16:04,790 --> 00:16:02,000

really good life support systems on

406

00:16:07,269 --> 00:16:04,800

board but the process to develop that

407

00:16:08,629 --> 00:16:07,279

hardware faster maybe a quicker turn in

408

00:16:10,470 --> 00:16:08,639

terms of getting that hardware up here

409

00:16:12,230 --> 00:16:10,480

so we can test it improve it and get it

410

00:16:14,870 --> 00:16:12,240

back down and that's another area in

411

00:16:15,829 --> 00:16:14,880

which we can make headway

412

00:16:17,670 --> 00:16:15,839

okay

413

00:16:19,110 --> 00:16:17,680

richard shaw has a question

414

00:16:22,150 --> 00:16:19,120

hi tim thanks for so proudly

415

00:16:24,150 --> 00:16:22,160

representing cbs at the space station

416

00:16:25,990 --> 00:16:24,160

my question is just hearing your

417

00:16:28,150 --> 00:16:26,000

thoughts on the commercialization of

418

00:16:29,509 --> 00:16:28,160

space whether it's through the rise of

419

00:16:31,509 --> 00:16:29,519

tourism or

420

00:16:35,509 --> 00:16:31,519

the discussion of industrial endeavors

421

00:16:39,110 --> 00:16:37,670

it's a great question you know there are

422

00:16:41,749 --> 00:16:39,120

a lot of companies now that are talking

423

00:16:43,509 --> 00:16:41,759

about flying uh humans in space people

424

00:16:45,110 --> 00:16:43,519

in space i think it i think it's a great

425

00:16:47,910 --> 00:16:45,120

idea

426

00:16:49,430 --> 00:16:47,920

the uh the challenge there is that

427

00:16:52,150 --> 00:16:49,440

human space flight

428

00:16:55,590 --> 00:16:52,160

has to be almost perfect

429

00:16:56,310 --> 00:16:55,600

every time without fail and uh you know

430

00:16:58,550 --> 00:16:56,320

that

431

00:17:00,949 --> 00:16:58,560

in some respects stands

432

00:17:03,910 --> 00:17:00,959

uh against the way that businesses tend

433

00:17:05,669 --> 00:17:03,920

to work right we uh we learn we fail we

434

00:17:08,150 --> 00:17:05,679

improve we go better

435

00:17:10,390 --> 00:17:08,160

well the consequences of failure

436

00:17:12,470 --> 00:17:10,400

in uh space flight are catastrophic and

437

00:17:14,789 --> 00:17:12,480

so it's going to be a challenge

438

00:17:17,909 --> 00:17:14,799

on the other hand you know mining

439

00:17:20,470 --> 00:17:17,919

resources on near earth objects or the

440

00:17:22,630 --> 00:17:20,480

moon i think it's very fascinating to me

441

00:17:25,189 --> 00:17:22,640

because then it comes down to the

442

00:17:27,189 --> 00:17:25,199

technical feasibility um what your

443

00:17:29,430 --> 00:17:27,199

business plan is like and what your

444

00:17:31,110 --> 00:17:29,440

return on investment is going to be so

445

00:17:34,470 --> 00:17:31,120

it'll be uh it'll be great to see what

446

00:17:36,870 --> 00:17:34,480

happens here the next several years

447

00:17:38,070 --> 00:17:36,880

okay sonic cox come on up

448

00:17:39,669 --> 00:17:38,080

hi tim

449

00:17:41,430 --> 00:17:39,679

um i'd like to know how will the lessons

450

00:17:43,510 --> 00:17:41,440

learned from scott kelly's year in space

451
00:17:47,350 --> 00:17:43,520
be applied to nasa's long-term plans for

452
00:17:50,630 --> 00:17:48,870
that's a great question we spent a lot

453
00:17:53,430 --> 00:17:50,640
of time with uh scott kelly and misha

454
00:17:55,430 --> 00:17:53,440
korenyenko up here uh great folks

455
00:17:56,950 --> 00:17:55,440
you know we don't have a full data set

456
00:17:59,270 --> 00:17:56,960
you know the science would like to have

457
00:18:01,350 --> 00:17:59,280
an n of a lot and now we have an n of

458
00:18:04,150 --> 00:18:01,360
two but i think we'll be able to see

459
00:18:06,470 --> 00:18:04,160
some trends uh physiologically on what

460
00:18:07,909 --> 00:18:06,480
what occurred especially since scott has

461
00:18:10,470 --> 00:18:07,919
a twin brother i think that may help

462
00:18:12,549 --> 00:18:10,480
from a scientific standpoint but equally

463
00:18:14,470 --> 00:18:12,559

if not more important i think is is

464

00:18:16,150 --> 00:18:14,480

going to be their observations on what

465

00:18:18,310 --> 00:18:16,160

it's like to live in space for two years

466

00:18:20,789 --> 00:18:18,320

what are the the challenges in terms of

467

00:18:21,909 --> 00:18:20,799

communications operations living

468

00:18:23,190 --> 00:18:21,919

environment

469

00:18:24,870 --> 00:18:23,200

those kinds of things i think will be

470

00:18:27,350 --> 00:18:24,880

very valuable lessons that we can take

471

00:18:31,350 --> 00:18:29,350

uh tim unfortunately we're being told

472

00:18:34,230 --> 00:18:31,360

that our window of opportunity is

473

00:18:36,150 --> 00:18:34,240

closing we could probably keep you uh

474

00:18:37,750 --> 00:18:36,160

here all day and all night or whatever

475

00:18:40,150 --> 00:18:37,760

the the time is

476

00:18:41,830 --> 00:18:40,160

wherever you are around our globe

477

00:18:43,669 --> 00:18:41,840

i just want to say on behalf of everyone

478

00:18:45,110 --> 00:18:43,679

here and everyone at the school we

479

00:18:51,270 --> 00:18:45,120

really appreciate you spending the time

480

00:18:55,430 --> 00:18:53,350

well it's been my pleasure to speak with

481

00:18:56,630 --> 00:18:55,440

you all my experience at columbia

482

00:18:58,710 --> 00:18:56,640

business school in london business

483

00:19:00,630 --> 00:18:58,720

school was a tremendous highlight and

484

00:19:02,870 --> 00:19:00,640

i'm very grateful for my opportunity to

485

00:19:05,270 --> 00:19:02,880

have uh have studied there so

486

00:19:11,750 --> 00:19:05,280

my best to all of you