



ISS 20
20 Years on the International Space Station

Forward IDA Control Panel

Zenith IDA Control Panel



Man on the left speaking into a microphone.

Man in the center with hands clasped.

Man on the right with hands clasped.

1
00:00:05,190 --> 00:00:03,429
good morning everyone it is my great

2
00:00:07,430 --> 00:00:05,200
pleasure to welcome nasa deputy

3
00:00:09,830 --> 00:00:07,440
administrator jim morhard and the crew

4
00:00:11,589 --> 00:00:09,840
of the international space station

5
00:00:13,990 --> 00:00:11,599
as someone who wanted to be an astronaut

6
00:00:16,390 --> 00:00:14,000
as a child i'm extremely excited to have

7
00:00:18,630 --> 00:00:16,400
you join us today i continue to be in

8
00:00:20,390 --> 00:00:18,640
awe of the incredible work that you do

9
00:00:22,310 --> 00:00:20,400
and i know i'm not alone

10
00:00:24,390 --> 00:00:22,320
everyone at nasdaq is thrilled that

11
00:00:26,870 --> 00:00:24,400
you're able to join us here today

12
00:00:28,310 --> 00:00:26,880
virtually as we get set to ring today's

13
00:00:30,550 --> 00:00:28,320

opening bell

14

00:00:32,549 --> 00:00:30,560

now there is a lot to celebrate and i'd

15

00:00:34,950 --> 00:00:32,559

like to begin by congratulating all of

16

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

you on launch america the first flight

17

00:00:40,069 --> 00:00:37,520

into orbit of american astronauts on

18

00:00:42,310 --> 00:00:40,079

american rockets from american soil

19

00:00:44,069 --> 00:00:42,320

since 2011.

20

00:00:46,869 --> 00:00:44,079

this past weekend in partnership with

21

00:00:49,830 --> 00:00:46,879

spacex nasa successfully launched crew

22

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

dragon the first ever commercial crew

23

00:00:54,389 --> 00:00:52,640

vehicle with astronauts robert behnken

24

00:00:55,990 --> 00:00:54,399

and douglas hurley to the international

25

00:00:57,830 --> 00:00:56,000

space station

26

00:00:59,990 --> 00:00:57,840

it is truly a pivotal moment in the

27

00:01:02,790 --> 00:01:00,000

development of the space economy and a

28

00:01:05,189 --> 00:01:02,800

new era of private human space flight

29

00:01:06,710 --> 00:01:05,199

for nearly 20 years humans have lived

30

00:01:08,710 --> 00:01:06,720

and worked aboard the international

31

00:01:11,109 --> 00:01:08,720

space station operating and maintaining

32

00:01:13,429 --> 00:01:11,119

the station with resupply and crew

33

00:01:15,270 --> 00:01:13,439

rotations needed regularly

34

00:01:17,670 --> 00:01:15,280

nasa's decision to partner with the

35

00:01:20,149 --> 00:01:17,680

commercial industry to provide these

36

00:01:22,710 --> 00:01:20,159

these services enables economic growth

37

00:01:25,030 --> 00:01:22,720

in low earth orbit and make space more

38

00:01:26,870 --> 00:01:25,040

accessible than ever before

39

00:01:28,950 --> 00:01:26,880

congratulations again on this new

40

00:01:29,910 --> 00:01:28,960

endeavor it is certainly an exciting

41

00:01:31,830 --> 00:01:29,920

time

42

00:01:33,190 --> 00:01:31,840

nasdaq is honored to celebrate launch

43

00:01:34,789 --> 00:01:33,200

america with you

44

00:01:37,109 --> 00:01:34,799

we look forward to seeing everything

45

00:01:39,030 --> 00:01:37,119

that nasa has in store with your artemis

46

00:01:41,350 --> 00:01:39,040

program and sharing many more

47

00:01:42,950 --> 00:01:41,360

inspirational milestones in the months

48

00:01:44,789 --> 00:01:42,960

and years ahead

49

00:01:47,429 --> 00:01:44,799

now please join me in welcoming jim

50

00:01:49,830 --> 00:01:47,439

morhard for further remarks

51
00:01:52,149 --> 00:01:49,840
thank you so much adina today you know

52
00:01:53,429 --> 00:01:52,159
we're celebrating a new era in space

53
00:01:55,830 --> 00:01:53,439
exploration

54
00:01:57,190 --> 00:01:55,840
and we're really at the dawn of a new

55
00:01:59,350 --> 00:01:57,200
space age

56
00:02:00,870 --> 00:01:59,360
you know we're expanding the economy in

57
00:02:03,030 --> 00:02:00,880
low earth orbit

58
00:02:05,270 --> 00:02:03,040
there's a growing demand for research on

59
00:02:07,910 --> 00:02:05,280
the international space station and nasa

60
00:02:11,029 --> 00:02:07,920
is working on things like mass producing

61
00:02:12,869 --> 00:02:11,039
retinal implants creating live human

62
00:02:16,150 --> 00:02:12,879
tissue that can't be

63
00:02:18,949 --> 00:02:16,160

constructed in the gravity of earth

64

00:02:21,670 --> 00:02:18,959

and developing better fiber optics

65

00:02:23,190 --> 00:02:21,680

that will make it them better and easier

66

00:02:25,589 --> 00:02:23,200

to use

67

00:02:29,510 --> 00:02:25,599

it used to be that nasa developed built

68

00:02:32,470 --> 00:02:29,520

launched and operated spacecraft

69

00:02:35,110 --> 00:02:32,480

and now we want the commercial industry

70

00:02:37,110 --> 00:02:35,120

to do just that in low earth orbit we

71

00:02:39,110 --> 00:02:37,120

really want to be one of many customers

72

00:02:40,949 --> 00:02:39,120

in the commercial marketplace

73

00:02:43,990 --> 00:02:40,959

and as we get more customers and

74

00:02:45,990 --> 00:02:44,000

suppliers we're driving down cost and

75

00:02:47,430 --> 00:02:46,000

really increasing innovation that's what

76

00:02:49,350 --> 00:02:47,440

we're trying to do

77

00:02:51,270 --> 00:02:49,360

to give you an idea really of how

78

00:02:52,630 --> 00:02:51,280

important this launch was

79

00:02:55,030 --> 00:02:52,640

and is

80

00:02:56,309 --> 00:02:55,040

once we get a full complement of our

81

00:02:58,630 --> 00:02:56,319

astronauts

82

00:03:00,309 --> 00:02:58,640

up at the international space station

83

00:03:03,430 --> 00:03:00,319

we're going to increase research and

84

00:03:05,190 --> 00:03:03,440

development by 300 percent

85

00:03:08,070 --> 00:03:05,200

ultimately we really hope to have

86

00:03:11,190 --> 00:03:08,080

commercial space stations that this

87

00:03:13,350 --> 00:03:11,200

crude transportation system will come go

88

00:03:16,309 --> 00:03:13,360

to and deliver astronauts

89

00:03:22,070 --> 00:03:16,319

like you said it's been nine years since

90

00:03:26,789 --> 00:03:24,470

space center with the leadership of

91

00:03:28,949 --> 00:03:26,799

president trump and the vice president

92

00:03:31,190 --> 00:03:28,959

we're going forward to the moon in

93

00:03:33,110 --> 00:03:31,200

preparation to go to mars

94

00:03:36,149 --> 00:03:33,120

and to do so we've got to start with

95

00:03:38,309 --> 00:03:36,159

regular human rated spacecraft flights

96

00:03:39,750 --> 00:03:38,319

from the united states and we also

97

00:03:41,750 --> 00:03:39,760

really need to test out on the

98

00:03:42,470 --> 00:03:41,760

international space station

99

00:03:45,430 --> 00:03:42,480

just

100

00:03:47,110 --> 00:03:45,440

how safe it is to be up there for long

101
00:03:50,550 --> 00:03:47,120
durations

102
00:03:52,630 --> 00:03:50,560
it's you know spacex is doing this

103
00:03:55,429 --> 00:03:52,640
demonstration it's really an end-to-end

104
00:03:56,550 --> 00:03:55,439
flight test to make sure all our systems

105
00:03:58,630 --> 00:03:56,560
are working

106
00:04:01,589 --> 00:03:58,640
and that includes the launch getting to

107
00:04:03,270 --> 00:04:01,599
orbit docking now our astronauts are

108
00:04:04,949 --> 00:04:03,280
looking at how

109
00:04:07,750 --> 00:04:04,959
the crew dragon and the international

110
00:04:10,070 --> 00:04:07,760
space station work together and we'll be

111
00:04:12,309 --> 00:04:10,080
looking at the undocking and the

112
00:04:13,589 --> 00:04:12,319
re-entry and the splashdown which will

113
00:04:15,670 --> 00:04:13,599

happen off

114

00:04:17,749 --> 00:04:15,680
on the in the atlantic off of florida

115

00:04:20,069 --> 00:04:17,759
you you think about it about it a

116

00:04:23,189 --> 00:04:20,079
majority of americans have never even

117

00:04:24,230 --> 00:04:23,199
seen a splashdown of a space capsule

118

00:04:26,629 --> 00:04:24,240
this is

119

00:04:29,670 --> 00:04:26,639
really the first reusable capsule and

120

00:04:31,670 --> 00:04:29,680
the first reusable rocket that has

121

00:04:34,230 --> 00:04:31,680
transported astronauts

122

00:04:36,950 --> 00:04:34,240
and no co private company has ever done

123

00:04:39,189 --> 00:04:36,960
that before it's really to me it's an

124

00:04:41,189 --> 00:04:39,199
unprecedented milestone

125

00:04:43,909 --> 00:04:41,199
this is about turning over low earth

126
00:04:47,030 --> 00:04:43,919
orbit to our commercial companies as we

127
00:04:48,550 --> 00:04:47,040
prepare to explore the moon and mars

128
00:04:50,629 --> 00:04:48,560
we've really entered into a

129
00:04:52,870 --> 00:04:50,639
transformational era

130
00:04:54,870 --> 00:04:52,880
and with the leadership of the president

131
00:04:57,350 --> 00:04:54,880
we're going to transform space so it

132
00:04:58,390 --> 00:04:57,360
remains in our interest and interest of

133
00:05:02,870 --> 00:04:58,400
all

134
00:05:04,550 --> 00:05:02,880
we do it not because

135
00:05:06,230 --> 00:05:04,560
no one else can

136
00:05:08,150 --> 00:05:06,240
we do it really to advance the human

137
00:05:10,629 --> 00:05:08,160
condition of all people

138
00:05:12,710 --> 00:05:10,639

and yes we we've got struggles on earth

139

00:05:14,390 --> 00:05:12,720

here but we're going to get through this

140

00:05:15,749 --> 00:05:14,400

time in our history

141

00:05:18,310 --> 00:05:15,759

and our hope is that we're going to

142

00:05:20,150 --> 00:05:18,320

inspire the next generation to do

143

00:05:22,870 --> 00:05:20,160

stunning achievements

144

00:05:25,430 --> 00:05:22,880

it's how we move forward as a species

145

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

but also we hope to instill hope for

146

00:05:30,790 --> 00:05:26,800

those who need it

147

00:05:33,430 --> 00:05:30,800

and again unite the nation and the world

148

00:05:35,029 --> 00:05:33,440

now we're happy to join nasdaq today for

149

00:05:36,950 --> 00:05:35,039

your opening bell

150

00:05:39,350 --> 00:05:36,960

and we're joined with bob benkin and

151
00:05:40,230 --> 00:05:39,360
doug hurley who just did that amazing

152
00:05:42,469 --> 00:05:40,240
launch

153
00:05:43,590 --> 00:05:42,479
and then rode that dragon capsule up to

154
00:05:45,830 --> 00:05:43,600
the station

155
00:05:47,590 --> 00:05:45,840
and chris cassidy's with us too and he's

156
00:05:49,590 --> 00:05:47,600
the current commander of the

157
00:05:51,270 --> 00:05:49,600
international space station

158
00:05:52,710 --> 00:05:51,280
so dina i think you've got a few

159
00:05:55,350 --> 00:05:52,720
questions for the crew and i'm going to

160
00:05:57,590 --> 00:05:55,360
leave it to you right here great thank

161
00:06:00,070 --> 00:05:57,600
you very much jim

162
00:06:02,230 --> 00:06:00,080
all right well i am i just can't believe

163
00:06:03,590 --> 00:06:02,240

i get to interview um our astronauts

164

00:06:05,830 --> 00:06:03,600

today but uh

165

00:06:08,710 --> 00:06:05,840

robert and douglas you are the first

166

00:06:10,469 --> 00:06:08,720

people to fly crew dragon the idea is

167

00:06:12,230 --> 00:06:10,479

that spaceships like this will enable

168

00:06:14,390 --> 00:06:12,240

people to become private astronauts to

169

00:06:15,909 --> 00:06:14,400

make space flight more common what are

170

00:06:17,510 --> 00:06:15,919

your thoughts about making space flight

171

00:06:19,029 --> 00:06:17,520

more common and accessible to private

172

00:06:26,950 --> 00:06:19,039

citizens and the role that you are

173

00:06:31,590 --> 00:06:29,590

well it's great to talk to you today um

174

00:06:33,590 --> 00:06:31,600

we think that

175

00:06:35,670 --> 00:06:33,600

the more people that get to fly to space

176

00:06:37,830 --> 00:06:35,680

the better off we'll be as a species and

177

00:06:39,110 --> 00:06:37,840

the better off the individuals will be

178

00:06:41,189 --> 00:06:39,120

going forward

179

00:06:42,950 --> 00:06:41,199

it's really transformational when you

180

00:06:45,749 --> 00:06:42,960

come into space and look back at our

181

00:06:49,350 --> 00:06:45,759

planet and see how fragile it is and how

182

00:06:51,189 --> 00:06:49,360

thin the atmosphere is it really does

183

00:06:53,670 --> 00:06:51,199

change you for the better and i think

184

00:06:58,150 --> 00:06:53,680

the more people that we expose to this

185

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

that is truly inspirational so thank you

186

00:07:04,469 --> 00:07:02,800

well chris as the commander of the

187

00:07:06,150 --> 00:07:04,479

international space station this is the

188

00:07:08,390 --> 00:07:06,160

second time you've lived on the space

189

00:07:15,510 --> 00:07:08,400

station so what makes the space station

190

00:07:19,749 --> 00:07:17,589

well uh on a technical

191

00:07:22,150 --> 00:07:19,759

answer there's so many things that that

192

00:07:23,990 --> 00:07:22,160

are are marvel to me that we are able to

193

00:07:25,510 --> 00:07:24,000

conduct keep an atmosphere going keep

194

00:07:27,830 --> 00:07:25,520

the people safe keep the equipment

195

00:07:30,550 --> 00:07:27,840

running and safe and conduct all this

196

00:07:32,550 --> 00:07:30,560

amazing research but more on a

197

00:07:34,150 --> 00:07:32,560

philosophical level i think it's the

198

00:07:36,469 --> 00:07:34,160

international cooperation and the

199

00:07:38,230 --> 00:07:36,479

partnership that has been forged over

200

00:07:40,629 --> 00:07:38,240

these 20 years

201
00:07:42,629 --> 00:07:40,639
that really i find so impressive and

202
00:07:44,629 --> 00:07:42,639
very analogous to the partnership we now

203
00:07:47,589 --> 00:07:44,639
have with the commercial partners as

204
00:07:50,790 --> 00:07:47,599
demonstrated uh just the other day so uh

205
00:07:52,309 --> 00:07:50,800
quite an impressive place to live and be

206
00:07:54,710 --> 00:07:52,319
well that's absolutely wonderful and

207
00:07:55,909 --> 00:07:54,720
what's amazing is that you're it's like

208
00:07:58,469 --> 00:07:55,919
we're talking to you as if you're on

209
00:08:00,469 --> 00:07:58,479
earth but yet you are so far above us

210
00:08:02,070 --> 00:08:00,479
so it's a it's a wonderful wonderful

211
00:08:03,749 --> 00:08:02,080
pleasure and honor to have a chance to

212
00:08:05,589 --> 00:08:03,759
speak with you today i think we're going

213
00:08:14,469 --> 00:08:05,599

to get ready to ring today's opening

214

00:08:14,479 --> 00:08:38,730

so

215

00:08:38,740 --> 00:08:48,230

[Music]

216

00:09:00,920 --> 00:08:51,070

uh

217

00:09:00,930 --> 00:09:11,750

[Music]

218

00:09:11,760 --> 00:09:26,230

so

219

00:09:40,970 --> 00:09:28,260

alright

220

00:10:01,740 --> 00:09:58,800

[Music]

221

00:10:27,430 --> 00:10:01,750

all right

222

00:10:29,030 --> 00:10:27,440

we got um we got the opening bell there

223

00:10:31,590 --> 00:10:29,040

we are going to hand it over to morgan

224

00:10:34,230 --> 00:10:31,600

brennan uh for a couple of very special

225

00:10:36,069 --> 00:10:34,240

guests morning morgan

226

00:10:37,350 --> 00:10:36,079

good morning carl and thank you we're

227

00:10:39,670 --> 00:10:37,360

going to turn now to the international

228

00:10:43,430 --> 00:10:39,680

space station station this is cnbc how

229

00:10:52,150 --> 00:10:45,030

the international space station has you

230

00:10:55,509 --> 00:10:53,990

great well thank you for joining us this

231

00:10:57,110 --> 00:10:55,519

morning on the heels of bringing that

232

00:10:59,990 --> 00:10:57,120

nasdaq opening bell

233

00:11:01,509 --> 00:11:00,000

historic weekend as bob and doug you

234

00:11:03,190 --> 00:11:01,519

became the first astronaut to launch

235

00:11:04,790 --> 00:11:03,200

from american soil in nine years first

236

00:11:06,710 --> 00:11:04,800

to make this journey

237

00:11:09,430 --> 00:11:06,720

via both a commercial rocket and a

238

00:11:12,069 --> 00:11:09,440

commercial spacecraft got to start right

239

00:11:13,990 --> 00:11:12,079

there how was the ride especially given

240

00:11:21,030 --> 00:11:14,000

the fact that you have the space shuttle

241

00:11:25,750 --> 00:11:22,790

well hello morgan thank you for taking

242

00:11:28,069 --> 00:11:25,760

the time to speak with us today our

243

00:11:30,630 --> 00:11:28,079

experience on board dragon was just

244

00:11:32,550 --> 00:11:30,640

really exciting for us both the fueling

245

00:11:33,990 --> 00:11:32,560

event before we lifted off it was uh

246

00:11:35,910 --> 00:11:34,000

different than the space shuttle a

247

00:11:37,829 --> 00:11:35,920

little bit more dynamic a little bit

248

00:11:39,350 --> 00:11:37,839

more exciting for us uh probably a

249

00:11:41,030 --> 00:11:39,360

little bit just a little bit at least

250

00:11:43,110 --> 00:11:41,040

because it was the first time anyone had

251
00:11:45,350 --> 00:11:43,120
done that we

252
00:11:47,110 --> 00:11:45,360
then launched into into space on board

253
00:11:48,790 --> 00:11:47,120
the falcon 9 and

254
00:11:50,870 --> 00:11:48,800
the ride i'll say was a little bit

255
00:11:52,230 --> 00:11:50,880
smoother than our shuttle experience the

256
00:11:53,990 --> 00:11:52,240
shuttle was a little bit rougher at

257
00:11:56,550 --> 00:11:54,000
least at the beginning

258
00:11:58,310 --> 00:11:56,560
later in the flight it did wake us up a

259
00:12:00,710 --> 00:11:58,320
little bit though as we continued all

260
00:12:02,629 --> 00:12:00,720
the way into low earth orbit just really

261
00:12:05,110 --> 00:12:02,639
exciting for both of us uh i know we

262
00:12:08,069 --> 00:12:05,120
were smiling and talking through the

263
00:12:16,230 --> 00:12:08,079

entire uh way uphill so it was just a

264

00:12:19,190 --> 00:12:17,829

that's great and just for our viewers

265

00:12:21,190 --> 00:12:19,200

given the fact we do have a little bit

266

00:12:23,190 --> 00:12:21,200

of a delay keep in mind this is a live

267

00:12:25,110 --> 00:12:23,200

interview it's taking place

268

00:12:27,670 --> 00:12:25,120

with the international space station

269

00:12:30,470 --> 00:12:27,680

which is 250 miles above earth

270

00:12:32,230 --> 00:12:30,480

expedition expedition 63 iss commander

271

00:12:34,790 --> 00:12:32,240

chris cassidy flight engineers bob

272

00:12:35,750 --> 00:12:34,800

banken and doug hurley are with us this

273

00:12:38,710 --> 00:12:35,760

morning

274

00:12:44,949 --> 00:12:38,720

guys major moment in history

275

00:12:49,750 --> 00:12:47,990

well i think for me personally it's

276

00:12:52,389 --> 00:12:49,760

it's a great way to

277

00:12:56,310 --> 00:12:52,399

fly your third time in space

278

00:12:58,150 --> 00:12:56,320

after nine year wait to fly previously

279

00:13:00,389 --> 00:12:58,160

on the last shuttle flight so this is a

280

00:13:02,069 --> 00:13:00,399

good way to kind of bookend it from a

281

00:13:04,949 --> 00:13:02,079

career standpoint

282

00:13:06,470 --> 00:13:04,959

and to fly with two close friends and

283

00:13:09,269 --> 00:13:06,480

get to spend some time on the space

284

00:13:19,269 --> 00:13:09,279

station is just a it's a real icing on

285

00:13:23,509 --> 00:13:21,190

great bob and doug you worked closely

286

00:13:25,750 --> 00:13:23,519

with spacex on design and development of

287

00:13:27,350 --> 00:13:25,760

crew dragon you named it endeavor on

288

00:13:29,590 --> 00:13:27,360

this trip as well

289

00:13:31,590 --> 00:13:29,600

what was the process of that design and

290

00:13:39,350 --> 00:13:31,600

development like and how involved was

291

00:13:43,430 --> 00:13:41,670

well for both doug and i we did spend

292

00:13:45,750 --> 00:13:43,440

quite a bit of time working directly

293

00:13:48,550 --> 00:13:45,760

with the team out in hawthorne

294

00:13:50,550 --> 00:13:48,560

we've of course visited most of spacex's

295

00:13:52,389 --> 00:13:50,560

facilities around the country at

296

00:13:54,550 --> 00:13:52,399

mcgregor texas and then down at the

297

00:13:57,670 --> 00:13:54,560

kennedy space center

298

00:14:00,150 --> 00:13:57,680

our experience was was pretty

299

00:14:01,829 --> 00:14:00,160

extensive we were able to get to all the

300

00:14:04,069 --> 00:14:01,839

facilities interface with all the

301
00:14:06,310 --> 00:14:04,079
different aspects of the vehicle

302
00:14:09,509 --> 00:14:06,320
i think doug and i went something like

303
00:14:11,829 --> 00:14:09,519
32 consecutive weeks with travel out to

304
00:14:14,069 --> 00:14:11,839
california to work directly with that

305
00:14:16,230 --> 00:14:14,079
team face to face it really just does

306
00:14:17,990 --> 00:14:16,240
help to be able to see each other

307
00:14:20,150 --> 00:14:18,000
managing that through the pandemic that

308
00:14:22,470 --> 00:14:20,160
we faced was a bit of a challenge but

309
00:14:24,710 --> 00:14:22,480
one that we overcame and the spacex team

310
00:14:27,430 --> 00:14:24,720
did a wonderful job with uh facilitating

311
00:14:30,069 --> 00:14:27,440
that providing a clean environment and

312
00:14:32,389 --> 00:14:30,079
ensuring that we didn't get exposed to

313
00:14:34,310 --> 00:14:32,399

anything that might potentially

314

00:14:37,750 --> 00:14:34,320

impact hardware production or of course

315

00:14:40,389 --> 00:14:37,760

a launch delay i do know that

316

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

elon was involved in quite a bit of the

317

00:14:44,710 --> 00:14:42,880

development process i know that many of

318

00:14:45,430 --> 00:14:44,720

the topics that we would discuss would

319

00:14:46,710 --> 00:14:45,440

then

320

00:14:49,350 --> 00:14:46,720

be percolated up through the

321

00:14:51,269 --> 00:14:49,360

organization and he would give the final

322

00:14:53,110 --> 00:14:51,279

approval on many of the aspects of

323

00:14:54,790 --> 00:14:53,120

things that we were trying to get

324

00:14:57,110 --> 00:14:54,800

developed and so

325

00:14:59,670 --> 00:14:57,120

definitely a huge team that pulled

326

00:15:01,990 --> 00:14:59,680

together and spacex just did a wonderful

327

00:15:09,990 --> 00:15:02,000

job with allowing us to be a part of

328

00:15:13,750 --> 00:15:11,509

and chris i'll put this question to you

329

00:15:15,030 --> 00:15:13,760

as we usher in this new era of human

330

00:15:17,430 --> 00:15:15,040

space flight

331

00:15:19,189 --> 00:15:17,440

how close are we really to this

332

00:15:21,829 --> 00:15:19,199

commercialized space reality or the

333

00:15:26,710 --> 00:15:21,839

so-called colonization of space how do

334

00:15:31,910 --> 00:15:29,430

well i i see that the this uh the the

335

00:15:34,389 --> 00:15:31,920

space station eventually will will no

336

00:15:36,629 --> 00:15:34,399

longer be operated by the government i i

337

00:15:38,870 --> 00:15:36,639

i'm not entirely privy to all the

338

00:15:41,189 --> 00:15:38,880

details but there there's plans for

339

00:15:42,870 --> 00:15:41,199

after uh the government is done with the

340

00:15:46,230 --> 00:15:42,880

space station perhaps we turn that over

341

00:15:48,389 --> 00:15:46,240

to operating from a commercial entity or

342

00:15:51,189 --> 00:15:48,399

add additional modules that commercial

343

00:15:53,030 --> 00:15:51,199

entities uh provide and and we are

344

00:15:55,509 --> 00:15:53,040

really close technically that's not a

345

00:15:57,749 --> 00:15:55,519

leap far at all it's just a matter of

346

00:16:00,550 --> 00:15:57,759

getting the will getting the um

347

00:16:02,230 --> 00:16:00,560

the demand and uh and when we can make

348

00:16:04,150 --> 00:16:02,240

it happen and that's super exciting

349

00:16:06,230 --> 00:16:04,160

because there's so much capability

350

00:16:09,829 --> 00:16:06,240

that's offered here on the space station

351

00:16:12,150 --> 00:16:09,839

but ultimately uh our destination as

352

00:16:14,389 --> 00:16:12,160

space travelers is mars with a stop at

353

00:16:16,150 --> 00:16:14,399

the moon and uh and the international

354

00:16:18,629 --> 00:16:16,160

space station gives us that core that

355

00:16:20,550 --> 00:16:18,639

bedrock of knowledge that we have to

356

00:16:23,189 --> 00:16:20,560

really fine-tune all of the technical

357

00:16:24,470 --> 00:16:23,199

things we need to do to accomplish those

358

00:16:31,670 --> 00:16:24,480

two larger

359

00:16:36,870 --> 00:16:34,150

whether it's virgin galactic or blue

360

00:16:40,069 --> 00:16:36,880

origin or even the prospective sale of

361

00:16:41,749 --> 00:16:40,079

seats on spacex's crew dragon

362

00:16:44,470 --> 00:16:41,759

what do you think of all the space

363

00:16:45,990 --> 00:16:44,480

tourism efforts that are underway do you

364

00:16:48,310 --> 00:16:46,000

think non-professionals are going to be

365

00:16:49,110 --> 00:16:48,320

able to handle g-force and some of the

366

00:16:51,030 --> 00:16:49,120

other

367

00:16:55,990 --> 00:16:51,040

things that are associated with going to

368

00:17:00,069 --> 00:16:57,910

well each one of us experienced it for

369

00:17:02,069 --> 00:17:00,079

the first time just like hopefully a lot

370

00:17:04,630 --> 00:17:02,079

of other people will get to do going

371

00:17:06,549 --> 00:17:04,640

forward as we privatize the

372

00:17:07,750 --> 00:17:06,559

low earth orbit and suborbital

373

00:17:09,829 --> 00:17:07,760

industries

374

00:17:11,750 --> 00:17:09,839

i i think it's just very much based on

375

00:17:15,189 --> 00:17:11,760

the individual and you know with the

376

00:17:17,029 --> 00:17:15,199

proper instruction and training

377

00:17:18,549 --> 00:17:17,039

those folks will at least understand

378

00:17:20,470 --> 00:17:18,559

what they're going to go through whether

379

00:17:22,069 --> 00:17:20,480

it's a suborbital flight or an actual

380

00:17:23,669 --> 00:17:22,079

trip to the international space station

381

00:17:26,150 --> 00:17:23,679

or low earth orbit

382

00:17:28,230 --> 00:17:26,160

i think managing folks expectations as

383

00:17:30,789 --> 00:17:28,240

they do that is an important part of the

384

00:17:33,990 --> 00:17:30,799

training and then obviously there's the

385

00:17:36,549 --> 00:17:34,000

physical aspects but i think most people

386

00:17:39,110 --> 00:17:36,559

should be able to to physically tolerate

387

00:17:40,310 --> 00:17:39,120

any of those flights and once again as i

388

00:17:42,950 --> 00:17:40,320

said before

389

00:17:50,549 --> 00:17:42,960

just take in what is just an incredible

390

00:17:53,909 --> 00:17:52,070

and finally

391

00:17:56,150 --> 00:17:53,919

given the fact that you do quite

392

00:17:57,750 --> 00:17:56,160

literally have this unique view of the

393

00:17:59,750 --> 00:17:57,760

world right now

394

00:18:01,669 --> 00:17:59,760

orbiting above it

395

00:18:02,870 --> 00:18:01,679

what is the perspective or the insights

396

00:18:04,070 --> 00:18:02,880

that you would want to share with those

397

00:18:05,909 --> 00:18:04,080

of us that are

398

00:18:08,230 --> 00:18:05,919

quite frankly in what's been a difficult

399

00:18:18,150 --> 00:18:08,240

2020 navigating quite a number of

400

00:18:23,430 --> 00:18:20,870

well i i will tell you that the pandemic

401
00:18:25,590 --> 00:18:23,440
challenge for example should give

402
00:18:28,070 --> 00:18:25,600
the entire country and the entire world

403
00:18:30,070 --> 00:18:28,080
an appreciation for really what it's

404
00:18:31,909 --> 00:18:30,080
like to be an astronaut preparing to

405
00:18:34,310 --> 00:18:31,919
launch into space

406
00:18:36,390 --> 00:18:34,320
the quarantine level the

407
00:18:38,710 --> 00:18:36,400
preparation to ensure that you don't

408
00:18:42,470 --> 00:18:38,720
bring anything you don't want all the

409
00:18:44,549 --> 00:18:42,480
way into orbit and infect or pass it on

410
00:18:47,190 --> 00:18:44,559
to your crewmates is something that

411
00:18:49,029 --> 00:18:47,200
we've done for years as astronauts and

412
00:18:51,430 --> 00:18:49,039
if you look back in our history of our

413
00:18:53,669 --> 00:18:51,440

space program there was a time when the

414

00:18:56,070 --> 00:18:53,679

astronauts returning from the moon

415

00:18:58,310 --> 00:18:56,080

went into a lockdown in a quarantine

416

00:18:59,750 --> 00:18:58,320

behind the glass to just make sure that

417

00:19:02,070 --> 00:18:59,760

nothing came back with them that we

418

00:19:04,310 --> 00:19:02,080

didn't want to have back on earth and so

419

00:19:07,350 --> 00:19:04,320

i think that what's called the overview

420

00:19:09,590 --> 00:19:07,360

effect that astronauts

421

00:19:11,190 --> 00:19:09,600

typically achieve when they have

422

00:19:13,270 --> 00:19:11,200

accomplished their first space flight

423

00:19:15,430 --> 00:19:13,280

and look back at the earth and realize

424

00:19:18,150 --> 00:19:15,440

that you know there are no boundaries or

425

00:19:20,070 --> 00:19:18,160

borders uh really observable from space

426

00:19:22,230 --> 00:19:20,080

for the most part you see that it's a

427

00:19:24,950 --> 00:19:22,240

single planet with a shared atmosphere

428

00:19:27,909 --> 00:19:24,960

it's our shared place uh in this

429

00:19:29,830 --> 00:19:27,919

universe and so i think that perspective

430

00:19:32,150 --> 00:19:29,840

as we go through things like the the

431

00:19:34,070 --> 00:19:32,160

pandemic or we see the challenges across

432

00:19:36,710 --> 00:19:34,080

our nation or across the world and

433

00:19:38,390 --> 00:19:36,720

recognize that we all face them together

434

00:19:40,390 --> 00:19:38,400

uh hopefully a little bit of the

435

00:19:42,230 --> 00:19:40,400

astronaut experience and a little bit of

436

00:19:43,669 --> 00:19:42,240

that perspective is uh

437

00:19:45,750 --> 00:19:43,679

being shared by the rest of the world

438

00:19:47,590 --> 00:19:45,760

right now we're able to get through it

439

00:19:49,350 --> 00:19:47,600
on the international space station

440

00:19:50,789 --> 00:19:49,360
through cooperation with our

441

00:19:52,710 --> 00:19:50,799
international partners with our

442

00:19:54,950 --> 00:19:52,720
commercial partners of course

443

00:19:57,350 --> 00:19:54,960
and hopefully we can be an inspiration

444

00:20:04,950 --> 00:19:57,360
and an example for what we'd like to see

445

00:20:10,310 --> 00:20:06,630
i think i speak for many people when i

446

00:20:12,070 --> 00:20:10,320
say you are inspiring us right now thank

447

00:20:13,110 --> 00:20:12,080
you so much for your service and your

448

00:20:14,710 --> 00:20:13,120
bravery

449

00:20:16,950 --> 00:20:14,720
may you all have safe journeys back to

450

00:20:19,190 --> 00:20:16,960
earth when that time does come bob

451
00:20:23,029 --> 00:20:19,200
benkin doug hurley chris cassidy joining

452
00:20:25,029 --> 00:20:23,039
us exclusively from 250 miles above

453
00:20:32,070 --> 00:20:25,039
earth at the international space station

454
00:20:35,830 --> 00:20:34,070
station this is houston hcr that

455
00:20:38,070 --> 00:20:35,840
concludes our event as we count down to

456
00:20:39,669 --> 00:20:38,080
20 continuous years of humans living and

457
00:20:43,110 --> 00:20:39,679
working on the international space

458
00:20:46,870 --> 00:20:44,549
thank you to all participants from

459
00:20:48,230 --> 00:20:46,880
nasdaq and cnbc station we are now