



1
00:07:41,360 --> 00:07:30,310

[Music]

2
00:07:43,370 --> 00:07:41,370

welcome live to NASA's Kennedy Space

3
00:07:45,950 --> 00:07:43,380

Center where we are just about 30 hours

4
00:07:47,480 --> 00:07:45,960

away from the return of human

5
00:07:49,249 --> 00:07:47,490

spaceflight to American soil

6
00:07:50,450 --> 00:07:49,259

I'm Joshua Santora with NASA

7
00:07:52,400 --> 00:07:50,460

communication here at the Kennedy Space

8
00:07:54,230 --> 00:07:52,410

Center and I'm so glad you're joining us

9
00:07:56,450 --> 00:07:54,240

for this question and answer session you

10
00:07:57,950 --> 00:07:56,460

saw just a second ago the amazing guests

11
00:07:59,120 --> 00:07:57,960

we have today make sure you're asking

12
00:08:00,710 --> 00:07:59,130

your questions we will take those live

13
00:08:02,420 --> 00:08:00,720

in just a few minutes and without

14

00:08:04,730 --> 00:08:02,430

further ado we want to jump right in so

15

00:08:11,749 --> 00:08:04,740

first up we have NASA Administrator Jim

16

00:08:23,230 --> 00:08:11,759

bridenstine and we have astronaut Nicole

17

00:08:26,140 --> 00:08:23,240

Mann astronaut Kjell Lindgren and

18

00:08:28,850 --> 00:08:26,150

Kennedy Space Center Director Bob Cabana

19

00:08:31,040 --> 00:08:28,860

are a huge thanks to you for for joining

20

00:08:33,019 --> 00:08:31,050

me today super excited to to share this

21

00:08:34,579 --> 00:08:33,029

moment with you all shared this this

22

00:08:37,250 --> 00:08:34,589

history with you all as we're creating

23

00:08:38,839 --> 00:08:37,260

history I'm gonna go ahead and start off

24

00:08:41,140 --> 00:08:38,849

here a little bit mister Cabana first

25

00:08:43,909 --> 00:08:41,150

question to you you're coming up here as

26
00:08:45,079 --> 00:08:43,919
you're almost the longest-serving Center

27
00:08:47,810 --> 00:08:45,089
Director in the Kennedy Space Center

28
00:08:49,610 --> 00:08:47,820
history so congratulations on that super

29
00:08:51,440 --> 00:08:49,620
excited for your leadership and for

30
00:08:53,150 --> 00:08:51,450
where we've come from I wanted to ask

31
00:08:55,670 --> 00:08:53,160
you tell us a little bit about the past

32
00:08:57,710 --> 00:08:55,680
almost nine years the retirement of the

33
00:08:59,150 --> 00:08:57,720
space shuttle program Mac mark - the

34
00:09:00,800 --> 00:08:59,160
last time we flew humans in space for

35
00:09:03,050 --> 00:09:00,810
America and we're about to do it again

36
00:09:04,910 --> 00:09:03,060
so what's that process been like for the

37
00:09:06,500 --> 00:09:04,920
Kennedy Space Center and for NASA well

38
00:09:08,269 --> 00:09:06,510

that's been a huge transformation Josh

39

00:09:10,699 --> 00:09:08,279

first off it's great to be part of

40

00:09:11,750 --> 00:09:10,709

another awesome NASA social and I

41

00:09:13,850 --> 00:09:11,760

couldn't be more excited about

42

00:09:16,010 --> 00:09:13,860

tomorrow's launch after 9 years without

43

00:09:19,699 --> 00:09:16,020

launching humans from the Kennedy Space

44

00:09:22,130 --> 00:09:19,709

Center last flight was July 2011 on STS

45

00:09:24,410 --> 00:09:22,140

135 Atlantis and now we're getting ready

46

00:09:27,110 --> 00:09:24,420

to launch crew dragon on a Falcon 9

47

00:09:28,550 --> 00:09:27,120

tomorrow from pad 39a you know the

48

00:09:30,079 --> 00:09:28,560

transformation that we've gone to the

49

00:09:33,199 --> 00:09:30,089

team just did an absolutely outstanding

50

00:09:34,699 --> 00:09:33,209

job I mean it was depressing here after

51
00:09:36,440 --> 00:09:34,709
that last shuttle flight the

52
00:09:38,810 --> 00:09:36,450
constellation program had been cancelled

53
00:09:39,980 --> 00:09:38,820
and we had to redefine what we were

54
00:09:41,750 --> 00:09:39,990
going to be here at the Kennedy Space

55
00:09:44,000 --> 00:09:41,760
Center redefine what we wanted our

56
00:09:45,949 --> 00:09:44,010
future to be and turning into this

57
00:09:48,440 --> 00:09:45,959
multi-user spaceport these

58
00:09:50,000 --> 00:09:48,450
public-private partnerships that we have

59
00:09:52,070 --> 00:09:50,010
it's a new way of doing business

60
00:09:54,560 --> 00:09:52,080
and it's it's great for our country and

61
00:09:56,210 --> 00:09:54,570
so we have evolved we utilized excess

62
00:09:58,340 --> 00:09:56,220
capacity that we had from the shuttle

63
00:10:00,860 --> 00:09:58,350

program to enable these new commercial

64

00:10:04,310 --> 00:10:00,870

operations on pad 39a we signed that

65

00:10:07,070 --> 00:10:04,320

agreement with SpaceX in July of 2014 in

66

00:10:08,990 --> 00:10:07,080

January of 2017 two and a half years

67

00:10:12,440 --> 00:10:09,000

later they flew the first mission off it

68

00:10:14,210 --> 00:10:12,450

and they've had over 18 successful

69

00:10:16,820 --> 00:10:14,220

flights off that pad now as we get ready

70

00:10:19,040 --> 00:10:16,830

for the first humans to launch off that

71

00:10:21,200 --> 00:10:19,050

pad for the Commercial Crew program on

72

00:10:23,570 --> 00:10:21,210

that crew dragon and it's just truly

73

00:10:26,060 --> 00:10:23,580

exciting just an awesome job by the KSC

74

00:10:28,820 --> 00:10:26,070

team making that transformation happen a

75

00:10:30,200 --> 00:10:28,830

great future it's interesting people may

76
00:10:31,850 --> 00:10:30,210
not really believe us when we say it was

77
00:10:33,710 --> 00:10:31,860
depressing but it was like it was a

78
00:10:35,480 --> 00:10:33,720
really tough time here and the energy is

79
00:10:37,100 --> 00:10:35,490
just growing now for the past few years

80
00:10:39,050 --> 00:10:37,110
we've seen the energy just on the rise

81
00:10:41,150 --> 00:10:39,060
mr. Brian Stein next question to you

82
00:10:43,460 --> 00:10:41,160
obviously the energy is not building to

83
00:10:45,770 --> 00:10:43,470
a single moment that build the energy is

84
00:10:47,470 --> 00:10:45,780
building towards a future so as we fly

85
00:10:49,790 --> 00:10:47,480
this mission as we look to the future

86
00:10:53,000 --> 00:10:49,800
what can people look forward to in the

87
00:10:54,830 --> 00:10:53,010
next 10 years of human exploration so I

88
00:10:57,560 --> 00:10:54,840

think you know Bob hit it just right he

89

00:10:59,330 --> 00:10:57,570

talked about a multi-user spaceport well

90

00:11:01,160 --> 00:10:59,340

we want space itself to also be

91

00:11:03,560 --> 00:11:01,170

multi-user so we're looking forward to a

92

00:11:06,530 --> 00:11:03,570

very robust commercial marketplace in

93

00:11:09,200 --> 00:11:06,540

space we want NASA to be a customer one

94

00:11:10,490 --> 00:11:09,210

customer of many customers and we want

95

00:11:12,260 --> 00:11:10,500

to have numerous providers that are

96

00:11:14,930 --> 00:11:12,270

competing on cost and innovation that

97

00:11:18,440 --> 00:11:14,940

includes launch but it also includes

98

00:11:20,990 --> 00:11:18,450

habitation so the future with Commercial

99

00:11:24,620 --> 00:11:21,000

Crew with commercial resupply with the

100

00:11:26,690 --> 00:11:24,630

multi-user spaceport is exceptionally

101

00:11:28,430 --> 00:11:26,700

bright but it's all about

102

00:11:30,830 --> 00:11:28,440

commercialization of low-earth orbit so

103

00:11:31,910 --> 00:11:30,840

that we can use nasa's resources to do

104

00:11:34,340 --> 00:11:31,920

the things that have not yet been

105

00:11:37,160 --> 00:11:34,350

commercialized like go to the moon and

106

00:11:39,260 --> 00:11:37,170

on to Mars but all the while we're doing

107

00:11:40,970 --> 00:11:39,270

these things we're thinking about how

108

00:11:43,280 --> 00:11:40,980

can we commercialize this so we can get

109

00:11:45,860 --> 00:11:43,290

resources that are not from the American

110

00:11:47,840 --> 00:11:45,870

taxpayer the reason Apollo ended is

111

00:11:50,930 --> 00:11:47,850

because it was a 100 percent government

112

00:11:52,250 --> 00:11:50,940

program without commercial interest well

113

00:11:54,170 --> 00:11:52,260

we're doing things differently this time

114

00:11:56,570 --> 00:11:54,180

we're going to the moon sustainably and

115

00:11:58,040 --> 00:11:56,580

we're going on to Mars and what we learn

116

00:12:00,910 --> 00:11:58,050

in this program the Commercial Crew

117

00:12:03,010 --> 00:12:00,920

program is going to inform how we have

118

00:12:04,690 --> 00:12:03,020

sustainability

119

00:12:07,030 --> 00:12:04,700

well beyond low-earth orbit all the way

120

00:12:08,890 --> 00:12:07,040

to the moon and on to Mars when we talk

121

00:12:10,180 --> 00:12:08,900

about commercialization of spaceflight

122

00:12:11,560 --> 00:12:10,190

I think people probably think of

123

00:12:13,240 --> 00:12:11,570

commercialization in air flight I hope

124

00:12:15,130 --> 00:12:13,250

that they do and I know you've talked

125

00:12:16,180 --> 00:12:15,140

about that some this week of is that

126

00:12:20,760 --> 00:12:16,190

really division are we talking about

127

00:12:22,870 --> 00:12:20,770

like a robust spaceflight commercial and

128

00:12:24,760 --> 00:12:22,880

existence where people are just buying

129

00:12:26,410 --> 00:12:24,770

space tickets I mean that that would be

130

00:12:28,090 --> 00:12:26,420

nice if we could get there but we have

131

00:12:31,890 --> 00:12:28,100

to remember where we were in the dawn of

132

00:12:35,310 --> 00:12:31,900

aviation where we were we think about

133

00:12:37,720 --> 00:12:35,320

Barnstormers and airmail pilots and

134

00:12:41,170 --> 00:12:37,730

Daredevils like that was that was the

135

00:12:43,620 --> 00:12:41,180

realm of aviation at its dawn and then

136

00:12:47,500 --> 00:12:43,630

and then we had a gentleman step up a

137

00:12:49,060 --> 00:12:47,510

hotelier in New York or Teague was his

138

00:12:51,370 --> 00:12:49,070

name and he created a prize they called

139

00:12:52,900 --> 00:12:51,380

it the Orteig prize and a guy named

140

00:12:54,070 --> 00:12:52,910

Charles Lindbergh stepped up to the

141

00:12:55,890 --> 00:12:54,080

plate and he said I want to win that

142

00:12:58,570 --> 00:12:55,900

prize I'm gonna fly across the Atlantic

143

00:13:02,470 --> 00:12:58,580

and all of a sudden you know Charles

144

00:13:04,060 --> 00:13:02,480

Lindbergh traveled the country this is

145

00:13:06,040 --> 00:13:04,070

another important statistic one out of

146

00:13:08,830 --> 00:13:06,050

four people on the in the United States

147

00:13:11,320 --> 00:13:08,840

of America saw Charles Lindbergh with

148

00:13:13,060 --> 00:13:11,330

their own eyes he traveled that much and

149

00:13:15,370 --> 00:13:13,070

he was that inspirational to all of

150

00:13:17,230 --> 00:13:15,380

America and what it began as it began

151
00:13:19,240 --> 00:13:17,240
really a dawn of the commercialization

152
00:13:21,610 --> 00:13:19,250
of aviation but remember it was still

153
00:13:23,530 --> 00:13:21,620
exceptionally expensive only the rich

154
00:13:26,740 --> 00:13:23,540
people could do it well look where we

155
00:13:28,540 --> 00:13:26,750
are right now in human spaceflight it is

156
00:13:30,490 --> 00:13:28,550
true it is still exceptionally expensive

157
00:13:32,890 --> 00:13:30,500
what we're doing though is we're driving

158
00:13:34,510 --> 00:13:32,900
down the costs and over the course of

159
00:13:36,550 --> 00:13:34,520
time we want it to become more

160
00:13:38,980 --> 00:13:36,560
normalized now is it going to be one of

161
00:13:41,590 --> 00:13:38,990
these things where for you know 150

162
00:13:44,170 --> 00:13:41,600
bucks you buy a ticket from from Dallas

163
00:13:46,930 --> 00:13:44,180

to Houston or whatever it is probably

164

00:13:48,490 --> 00:13:46,940

probably not in the near future but if

165

00:13:50,410 --> 00:13:48,500

we're going to achieve what we want to

166

00:13:52,240 --> 00:13:50,420

achieve in Space Exploration we have to

167

00:13:54,790 --> 00:13:52,250

drive down the cost we have to let

168

00:13:57,820 --> 00:13:54,800

people see the value of microgravity as

169

00:14:00,190 --> 00:13:57,830

a resource and that value of course is

170

00:14:03,400 --> 00:14:00,200

in pharmaceuticals immunizations

171

00:14:04,780 --> 00:14:03,410

advanced materials all of these

172

00:14:07,240 --> 00:14:04,790

different things that we're proving on

173

00:14:08,950 --> 00:14:07,250

the International Space Station so I

174

00:14:10,990 --> 00:14:08,960

really think we're at the dawn of a new

175

00:14:13,990 --> 00:14:11,000

era in spaceflight just like we were at

176

00:14:16,090 --> 00:14:14,000

the dawn of a new era in human flight

177

00:14:16,900 --> 00:14:16,100

within the atmosphere yeah and as we

178

00:14:18,460 --> 00:14:16,910

wait on that

179

00:14:20,950 --> 00:14:18,470

space flight ticket to get down to the

180

00:14:22,720 --> 00:14:20,960

hundred dollar range we have our heroes

181

00:14:24,220 --> 00:14:22,730

to help get us there and lead the way

182

00:14:26,590 --> 00:14:24,230

for us where drama two of you two this

183

00:14:29,200 --> 00:14:26,600

morning so thanks again Nicole question

184

00:14:31,390 --> 00:14:29,210

for you your your coming up on your

185

00:14:33,550 --> 00:14:31,400

rookie flight obviously that's got to be

186

00:14:35,410 --> 00:14:33,560

just energizing to see a couple other

187

00:14:38,800 --> 00:14:35,420

astronauts about to strap in to a brand

188

00:14:40,780 --> 00:14:38,810

new spacecraft on the Boeing Commercial

189

00:14:42,550 --> 00:14:40,790

Commercial Crew flight test excuse me

190

00:14:44,170 --> 00:14:42,560

you're gonna be on that flight for your

191

00:14:45,910 --> 00:14:44,180

rookie flight a brand new spacecraft

192

00:14:49,060 --> 00:14:45,920

what's that energy like to think about

193

00:14:50,260 --> 00:14:49,070

that moment in perspective of hey we're

194

00:14:51,490 --> 00:14:50,270

doing this tomorrow for the first time

195

00:14:53,860 --> 00:14:51,500

and you're gonna get that chance soon I

196

00:14:55,420 --> 00:14:53,870

tell you it's just incredibly exciting I

197

00:14:58,720 --> 00:14:55,430

mean honestly it makes me feel like a

198

00:15:01,060 --> 00:14:58,730

little kid you know I remember being in

199

00:15:02,920 --> 00:15:01,070

my test pilot tour and interested in

200

00:15:05,080 --> 00:15:02,930

becoming an astronaut and reading the

201
00:15:06,730 --> 00:15:05,090
bios of you know Colonel Hurley and Bob

202
00:15:07,960 --> 00:15:06,740
Behnken you know the two gentlemen that

203
00:15:10,060 --> 00:15:07,970
are going to be launching tomorrow and

204
00:15:12,010 --> 00:15:10,070
just and and really honestly viewing

205
00:15:13,450 --> 00:15:12,020
them as heroes and then getting to meet

206
00:15:15,130 --> 00:15:13,460
them for the first time when I came down

207
00:15:16,840 --> 00:15:15,140
at NASA as an interview and then having

208
00:15:18,640 --> 00:15:16,850
the opportunity to work with them over

209
00:15:20,890 --> 00:15:18,650
the past seven years you know they've

210
00:15:23,800 --> 00:15:20,900
been great mentors and it's really like

211
00:15:26,200 --> 00:15:23,810
a member of your family having a huge

212
00:15:28,990 --> 00:15:26,210
lifetime a success and reaching a goal

213
00:15:31,390 --> 00:15:29,000

and so I'm so incredibly proud of them

214

00:15:33,220 --> 00:15:31,400

and so happy and excited to watch them

215

00:15:35,410 --> 00:15:33,230

launch tomorrow and personally it's

216

00:15:36,910 --> 00:15:35,420

something I look at and say gosh I I

217

00:15:38,710 --> 00:15:36,920

can't wait to do that I'm gonna have the

218

00:15:40,270 --> 00:15:38,720

opportunity to do that next year so I

219

00:15:41,740 --> 00:15:40,280

pay very close attention to everything

220

00:15:44,290 --> 00:15:41,750

they do hopefully I can pick up some

221

00:15:46,930 --> 00:15:44,300

some tips along the way but it's just

222

00:15:52,300 --> 00:15:46,940

such an exciting time for us to be

223

00:15:54,310 --> 00:15:52,310

launching from American soil again as

224

00:15:57,010 --> 00:15:54,320

they talk about their training is the

225

00:15:58,180 --> 00:15:57,020

the fact that they are learners I think

226

00:15:59,830 --> 00:15:58,190

at the core of every astronaut that I've

227

00:16:00,790 --> 00:15:59,840

seen it's they like to learn they want

228

00:16:02,920 --> 00:16:00,800

to learn they want to gather knowledge

229

00:16:04,930 --> 00:16:02,930

and learn from those things always

230

00:16:06,430 --> 00:16:04,940

picking up new things so appreciate you

231

00:16:08,170 --> 00:16:06,440

again shell for you

232

00:16:10,180 --> 00:16:08,180

you were here a little over a year ago

233

00:16:11,740 --> 00:16:10,190

with the demo1 NASA social group

234

00:16:13,180 --> 00:16:11,750

speaking with them obviously I'm sure

235

00:16:14,590 --> 00:16:13,190

there's a part of every astronaut if

236

00:16:16,420 --> 00:16:14,600

you're not strapping in that you want to

237

00:16:18,160 --> 00:16:16,430

be the one strapping in you've flown

238

00:16:19,870 --> 00:16:18,170

once you got to harvest the first veggie

239

00:16:22,840 --> 00:16:19,880

harvest which is amazing so as you think

240

00:16:24,280 --> 00:16:22,850

about your hopeful next flight what's

241

00:16:26,530 --> 00:16:24,290

that what's the energy flight for you

242

00:16:27,310 --> 00:16:26,540

and kind of thinking to the future yeah

243

00:16:29,230 --> 00:16:27,320

absolutely

244

00:16:30,930 --> 00:16:29,240

you know it's such a privilege to be

245

00:16:34,420 --> 00:16:30,940

here and so exciting to be

246

00:16:36,610 --> 00:16:34,430

just a day away from the launch of this

247

00:16:38,410 --> 00:16:36,620

new vehicle and I do think back to that

248

00:16:40,570 --> 00:16:38,420

NASA social just a little over a year

249

00:16:43,000 --> 00:16:40,580

ago with demo one and just the

250

00:16:45,730 --> 00:16:43,010

enthusiasm and excitement in that in

251
00:16:48,190 --> 00:16:45,740
that crowd and getting to share a little

252
00:16:50,170 --> 00:16:48,200
bit of the insights from getting to live

253
00:16:52,150 --> 00:16:50,180
and work in space and the idea of

254
00:16:53,620 --> 00:16:52,160
launching on a rocket getting to share

255
00:16:55,930 --> 00:16:53,630
that with that group and knowing that

256
00:16:58,000 --> 00:16:55,940
that that NASA social group is

257
00:17:00,610 --> 00:16:58,010
replicated all over our country and all

258
00:17:03,970 --> 00:17:00,620
over the world the interest in what

259
00:17:06,699 --> 00:17:03,980
we're doing here and what we're aiming

260
00:17:10,480 --> 00:17:06,709
to do tomorrow really cannot be

261
00:17:13,600 --> 00:17:10,490
overstated it's a this is such a hard

262
00:17:16,020 --> 00:17:13,610
thing to do and to watch how the

263
00:17:18,069 --> 00:17:16,030

partnership between NASA and the

264

00:17:21,280 --> 00:17:18,079

commercial companies has just matured

265

00:17:24,130 --> 00:17:21,290

over the past few years and to be a part

266

00:17:26,500 --> 00:17:24,140

of that you know I have gotten to

267

00:17:28,360 --> 00:17:26,510

service the backup for both Bob and Doug

268

00:17:31,330 --> 00:17:28,370

and for the crew one crews that are in

269

00:17:34,000 --> 00:17:31,340

training with SpaceX and to have gone

270

00:17:38,860 --> 00:17:34,010

through that training to see Bob and

271

00:17:41,290 --> 00:17:38,870

Doug have given their inputs and into

272

00:17:42,850 --> 00:17:41,300

the test and development and for this

273

00:17:48,250 --> 00:17:42,860

whole team to have gotten to where we

274

00:17:49,600 --> 00:17:48,260

are today is has really just been it's

275

00:17:53,710 --> 00:17:49,610

hard to describe what that experience

276

00:17:55,150 --> 00:17:53,720

has been like to see them have gone

277

00:17:57,340 --> 00:17:55,160

through the dry dress and to put those

278

00:17:58,210 --> 00:17:57,350

suits on and go out to the pad and get

279

00:17:59,919 --> 00:17:58,220

into the vehicle

280

00:18:02,440 --> 00:17:59,929

and to know that we're doing that for

281

00:18:04,600 --> 00:18:02,450

real tomorrow is just absolutely

282

00:18:07,000 --> 00:18:04,610

spectacular and so I am incredibly

283

00:18:09,220 --> 00:18:07,010

excited for them for their families for

284

00:18:13,419 --> 00:18:09,230

the NASA and SpaceX family and for the

285

00:18:16,570 --> 00:18:13,429

for our country as we as we start this

286

00:18:18,220 --> 00:18:16,580

new adventure tomorrow yeah some amazing

287

00:18:19,480 --> 00:18:18,230

points there obviously Doug and Bob I

288

00:18:21,100 --> 00:18:19,490

know it was mentioned during the media

289

00:18:23,620 --> 00:18:21,110

briefing we had just before this program

290

00:18:25,540 --> 00:18:23,630

that these two gentlemen that are flying

291

00:18:27,640 --> 00:18:25,550

tomorrow their dads they're they're

292

00:18:30,100 --> 00:18:27,650

humans they're men just like the rest of

293

00:18:31,540 --> 00:18:30,110

us and ultimately we are grateful for

294

00:18:34,360 --> 00:18:31,550

their service and for what their family

295

00:18:36,010 --> 00:18:34,370

is giving up as well and so heroes and

296

00:18:37,030 --> 00:18:36,020

men alike we're gonna jump right now to

297

00:18:38,890 --> 00:18:37,040

the social questions so if you have

298

00:18:40,060 --> 00:18:38,900

questions add those on the chat window

299

00:18:41,740 --> 00:18:40,070

and we're just gonna kind of rapid-fire

300

00:18:42,430 --> 00:18:41,750

through these for as much time as we've

301

00:18:44,810 --> 00:18:42,440

got this morning

302

00:18:46,310 --> 00:18:44,820

so mr. brian stein question for you

303

00:18:48,520 --> 00:18:46,320

do you have an interest in being an

304

00:18:52,130 --> 00:18:48,530

astronaut oh how are you kidding you got

305

00:18:53,960 --> 00:18:52,140

look I would love to unfortunately I got

306

00:18:59,030 --> 00:18:53,970

to do everything vicariously these days

307

00:19:01,490 --> 00:18:59,040

but but no I I certainly I said it just

308

00:19:03,200 --> 00:19:01,500

a few days ago when Bob and Doug arrived

309

00:19:05,659 --> 00:19:03,210

here at the Kennedy Space Center I said

310

00:19:08,600 --> 00:19:05,669

when I grow up one day I want to be like

311

00:19:11,180 --> 00:19:08,610

Bob and Doug I think all children grow

312

00:19:14,030 --> 00:19:11,190

up wanting to to fly higher and faster

313

00:19:17,180 --> 00:19:14,040

than anyone else and I was in that in

314

00:19:18,669 --> 00:19:17,190

that mix myself so yeah I would I would

315

00:19:21,289 --> 00:19:18,679

love to fly one day and you know what

316

00:19:23,690 --> 00:19:21,299

given how rapidly space is being

317

00:19:26,210 --> 00:19:23,700

commercialized there might be that

318

00:19:28,370 --> 00:19:26,220

opportunity yeah hopefully fingers

319

00:19:29,570 --> 00:19:28,380

crossed for all of us let's another

320

00:19:31,130 --> 00:19:29,580

question run down the line here where

321

00:19:32,120 --> 00:19:31,140

will you be on launch day so we're you

322

00:19:33,950 --> 00:19:32,130

actually watch and launch from I'll

323

00:19:35,510 --> 00:19:33,960

start with you mr. Bryton Stein OSB -

324

00:19:37,280 --> 00:19:35,520

okay so that's actually for those who

325

00:19:38,510 --> 00:19:37,290

don't know it's a balcony it's a really

326

00:19:40,120 --> 00:19:38,520

nice viewing spot you can see the

327

00:19:42,230 --> 00:19:40,130

landscape and most of the launch pads

328

00:19:44,840 --> 00:19:42,240

ain't hard to beat that view it's

329

00:19:47,799 --> 00:19:44,850

beautiful yes I'm not a hundred percent

330

00:19:50,330 --> 00:19:47,809

sure yet wherever they had told me to go

331

00:19:52,220 --> 00:19:50,340

chill and I think I'm in the same but I

332

00:19:59,090 --> 00:19:52,230

believe that I'll be an OS b2 as well

333

00:20:00,400 --> 00:19:59,100

okay great hey listen we're making

334

00:20:02,870 --> 00:20:00,410

things happen here on the NASA social

335

00:20:04,760 --> 00:20:02,880

mr. cabana I would be supporting the

336

00:20:06,980 --> 00:20:04,770

administrator or no SP - awesome yeah a

337

00:20:08,780 --> 00:20:06,990

lot of a lot of very important folks

338

00:20:10,430 --> 00:20:08,790

like these up there watching again they

339

00:20:11,570 --> 00:20:10,440

get they get the amazing view but

340

00:20:13,250 --> 00:20:11,580

there's lots of great views anywhere

341

00:20:15,740 --> 00:20:13,260

around the Space Coast is a great spot

342

00:20:17,480 --> 00:20:15,750

to view from all right other quick view

343

00:20:20,120 --> 00:20:17,490

it from somewhere where I can't mess it

344

00:20:24,740 --> 00:20:20,130

up that's my goal there's no random

345

00:20:26,090 --> 00:20:24,750

buttons around lean on something I there

346

00:20:27,049 --> 00:20:26,100

was a question about astronauts and

347

00:20:29,570 --> 00:20:27,059

there's a number of cautions coming in

348

00:20:33,049 --> 00:20:29,580

about astronauts so what does it take to

349

00:20:34,730 --> 00:20:33,059

become an astronaut so Nicole I'll start

350

00:20:36,500 --> 00:20:34,740

with you and then she'll have you answer

351

00:20:38,150 --> 00:20:36,510

as well you know that's a very common

352

00:20:40,640 --> 00:20:38,160

question and I wish there was you know

353

00:20:42,680 --> 00:20:40,650

it would be a a recipe or a formula for

354

00:20:44,480 --> 00:20:42,690

that but I think the one thing that all

355

00:20:46,430 --> 00:20:44,490

astronauts that I know have in common is

356

00:20:49,280 --> 00:20:46,440

that they were they're very passionate

357

00:20:51,350 --> 00:20:49,290

about whatever specialty they chose in

358

00:20:53,120 --> 00:20:51,360

life so whether it's a military pilot or

359

00:20:55,399 --> 00:20:53,130

they're a doctor or scientist or an

360

00:20:57,350 --> 00:20:55,409

engineer but it's not really the end

361

00:20:58,649 --> 00:20:57,360

goal of becoming an astronaut I think

362

00:21:00,299 --> 00:20:58,659

that you should focus on

363

00:21:02,460 --> 00:21:00,309

the goal of doing something that

364

00:21:03,930 --> 00:21:02,470

inspires you something that you love and

365

00:21:05,909 --> 00:21:03,940

then do that the best that you can

366

00:21:07,889 --> 00:21:05,919

possibly do and you as you go through

367

00:21:09,629 --> 00:21:07,899

that process and life and and you get

368

00:21:11,669 --> 00:21:09,639

more experiences you'll see a lot of

369

00:21:13,529 --> 00:21:11,679

different doors open up and if becoming

370

00:21:15,269 --> 00:21:13,539

an astronaut happens to be one of those

371

00:21:17,339 --> 00:21:15,279

doors as well then you can go forward

372

00:21:18,779 --> 00:21:17,349

into that path but it starts early in

373

00:21:20,549 --> 00:21:18,789

the beginning by you know just doing

374

00:21:22,409 --> 00:21:20,559

well in school taking care of your body

375

00:21:24,180 --> 00:21:22,419

and finding that love and passion in

376

00:21:25,469 --> 00:21:24,190

life so I want to put you on the spot

377

00:21:27,690 --> 00:21:25,479

for a second and ask you if that's what

378

00:21:29,729 --> 00:21:27,700

you did and if that is what you did what

379

00:21:32,639 --> 00:21:29,739

were you pursuing that astronaut became

380

00:21:34,979 --> 00:21:32,649

the option yes so so actually I had no

381

00:21:37,109 --> 00:21:34,989

idea when I was young exactly what I

382

00:21:39,599 --> 00:21:37,119

wanted to do I went to the Naval Academy

383

00:21:41,519 --> 00:21:39,609

and I knew that I wanted to serve in the

384

00:21:43,710 --> 00:21:41,529

military and I knew early on that I

385

00:21:46,229 --> 00:21:43,720

wanted to be a Marine the summer before

386

00:21:48,450 --> 00:21:46,239

my senior year I got a ride in FA Teen

387

00:21:50,549 --> 00:21:48,460

and that was the first time I realized

388

00:21:52,859 --> 00:21:50,559

wait a minute I can be a marine and an

389

00:21:55,229 --> 00:21:52,869

f-18 pilot at the same time like best of

390

00:21:57,960 --> 00:21:55,239

both worlds let's do this and and so it

391

00:22:00,029 --> 00:21:57,970

was really just that service to my

392

00:22:01,560 --> 00:22:00,039

country which got me involved at the

393

00:22:03,839 --> 00:22:01,570

same time I was an engineer and I kind

394

00:22:06,389 --> 00:22:03,849

of missed the nerd side of of everything

395

00:22:08,580 --> 00:22:06,399

so I went to test pilot school and flew

396

00:22:10,739 --> 00:22:08,590

the f-18 and was able to do engineering

397

00:22:12,690 --> 00:22:10,749

as well so again kind of best of both

398

00:22:15,180 --> 00:22:12,700

worlds and it was really during my time

399

00:22:17,310 --> 00:22:15,190

there at test pilot school that NASA was

400

00:22:18,719 --> 00:22:17,320

accepting applications and I started to

401
00:22:20,789 --> 00:22:18,729
learn more about the process and and

402
00:22:22,589 --> 00:22:20,799
read some of those bios of these other

403
00:22:24,960 --> 00:22:22,599
folks that serve in the military and

404
00:22:27,210 --> 00:22:24,970
were also astronauts and so it was a

405
00:22:29,399 --> 00:22:27,220
really an evolution a process that got

406
00:22:31,469 --> 00:22:29,409
me to to this amazing place that I am

407
00:22:34,080 --> 00:22:31,479
today with these awesome opportunities

408
00:22:35,249 --> 00:22:34,090
cool thanks for that question to you

409
00:22:36,539 --> 00:22:35,259
what's it take to be an astronaut and

410
00:22:39,330 --> 00:22:36,549
specifically what advice would you give

411
00:22:41,700 --> 00:22:39,340
to students sure you know I I would

412
00:22:43,830 --> 00:22:41,710
second everything that nicole has said

413
00:22:44,789 --> 00:22:43,840

I've wanted to be an astronaut for as

414

00:22:47,969 --> 00:22:44,799

long as I can remember

415

00:22:50,070 --> 00:22:47,979

and I was inspired by the books and

416

00:22:53,940 --> 00:22:50,080

movies that I saw when I was young but

417

00:22:55,919 --> 00:22:53,950

it was second grade when the teacher

418

00:22:57,479 --> 00:22:55,929

brought out the television rolled the

419

00:22:59,789 --> 00:22:57,489

television into our classroom and we

420

00:23:02,639 --> 00:22:59,799

watched that first launch of the space

421

00:23:04,139 --> 00:23:02,649

shuttle in 1981 that gave me this

422

00:23:06,210 --> 00:23:04,149

insight that this was something that was

423

00:23:10,349 --> 00:23:06,220

possible it was actually possible to do

424

00:23:12,419 --> 00:23:10,359

and and so growing up I read every book

425

00:23:14,700 --> 00:23:12,429

about astronauts and NASA

426
00:23:17,970 --> 00:23:14,710
to get my hands on and there was no

427
00:23:19,320 --> 00:23:17,980
internet back in that day so so I had to

428
00:23:23,340 --> 00:23:19,330
figure out what that path looked like

429
00:23:25,409 --> 00:23:23,350
and hourly astronauts all came from a

430
00:23:27,779 --> 00:23:25,419
flying background test pilot background

431
00:23:29,159 --> 00:23:27,789
and so I decided that that that is what

432
00:23:31,799 --> 00:23:29,169
I wanted to do my dad was in the Air

433
00:23:34,710 --> 00:23:31,809
Force and I had like like Nicole I had a

434
00:23:37,200 --> 00:23:34,720
desire to serve and so I I went to the

435
00:23:38,850 --> 00:23:37,210
Air Force Academy but it's the air that

436
00:23:41,879 --> 00:23:38,860
I actually discovered a passion for

437
00:23:45,239 --> 00:23:41,889
biology and that desire to serve to

438
00:23:48,419 --> 00:23:45,249

serve ultimately led for me to pursue

439

00:23:50,310 --> 00:23:48,429

medicine and so I went to University of

440

00:23:53,930 --> 00:23:50,320

Colorado for medical school and pursued

441

00:23:56,970 --> 00:23:53,940

emergency medicine up in Minnesota and

442

00:23:59,460 --> 00:23:56,980

and I was very passionate about that and

443

00:24:01,320 --> 00:23:59,470

but I still had this desire to to be a

444

00:24:04,230 --> 00:24:01,330

part of NASA's human space flight

445

00:24:05,700 --> 00:24:04,240

mission so I did a second residency in

446

00:24:07,619 --> 00:24:05,710

aerospace medicine and had the great

447

00:24:10,230 --> 00:24:07,629

fortune to get a job at Johnson Space

448

00:24:12,239 --> 00:24:10,240

Center as a flight surgeon so I I really

449

00:24:14,730 --> 00:24:12,249

want to underscore this idea that there

450

00:24:17,039 --> 00:24:14,740

is no one path to becoming an astronaut

451
00:24:19,019 --> 00:24:17,049
you really it is about following this

452
00:24:20,249 --> 00:24:19,029
passion and right now it's in those

453
00:24:22,409 --> 00:24:20,259
disciplines of science technology

454
00:24:25,350 --> 00:24:22,419
engineering math those that is the the

455
00:24:27,149 --> 00:24:25,360
language of Space Flight right now but

456
00:24:29,129 --> 00:24:27,159
we have the opportunity to we just

457
00:24:31,080 --> 00:24:29,139
finished a we're in the middle of a

458
00:24:33,600 --> 00:24:31,090
selection cycle of selecting new

459
00:24:36,570 --> 00:24:33,610
astronauts and we have this incredible

460
00:24:38,869 --> 00:24:36,580
privilege of getting to choose from the

461
00:24:41,369 --> 00:24:38,879
very best that America has to offer and

462
00:24:42,840 --> 00:24:41,379
from a whole number of disciplines and

463
00:24:44,700 --> 00:24:42,850

so within our astronaut office we have

464

00:24:48,269 --> 00:24:44,710

engineers we have pilots we have

465

00:24:51,060 --> 00:24:48,279

physicians and research scientists so it

466

00:24:52,799 --> 00:24:51,070

really is about identifying what it is

467

00:24:54,899 --> 00:24:52,809

that that gets you excited about

468

00:24:56,519 --> 00:24:54,909

learning and becoming the best at that

469

00:25:00,029 --> 00:24:56,529

if possible so there's that passion

470

00:25:02,700 --> 00:25:00,039

element but that is really supported by

471

00:25:05,879 --> 00:25:02,710

a hard work element it takes an

472

00:25:07,739 --> 00:25:05,889

incredible amount of hard work to become

473

00:25:11,460 --> 00:25:07,749

the best at what you do

474

00:25:14,430 --> 00:25:11,470

and and so the the the joining of that

475

00:25:16,139 --> 00:25:14,440

passion with hard work I think is what

476
00:25:18,149 --> 00:25:16,149
has helped get most of us that have this

477
00:25:21,810 --> 00:25:18,159
privilege of working in human

478
00:25:23,099 --> 00:25:21,820
spaceflight here at NASA awesome thanks

479
00:25:25,649 --> 00:25:23,109
Joe mr. green I don't wanna forget about

480
00:25:26,070 --> 00:25:25,659
you you are an astronaut so any advice

481
00:25:31,500 --> 00:25:26,080
you

482
00:25:34,680 --> 00:25:31,510
just echo everything they said I had a

483
00:25:36,799 --> 00:25:34,690
path very similar to Nicole's and I

484
00:25:39,570 --> 00:25:36,809
think the other thing I would add is

485
00:25:42,180 --> 00:25:39,580
persistence you know don't give up

486
00:25:44,399 --> 00:25:42,190
very few astronauts got selected on the

487
00:25:47,190 --> 00:25:44,409
on the first try and if it's something

488
00:25:49,380 --> 00:25:47,200

you really believe in and it's your

489

00:25:51,060 --> 00:25:49,390

passion you know be persistent don't

490

00:25:53,130 --> 00:25:51,070

give up but do something that you're

491

00:25:54,990 --> 00:25:53,140

passionate about so that you excel at it

492

00:25:56,940 --> 00:25:55,000

and you enjoy it and if you don't make

493

00:25:58,320 --> 00:25:56,950

that next path at least you're still

494

00:26:00,930 --> 00:25:58,330

contributing and doing something you

495

00:26:02,549 --> 00:26:00,940

enjoy yeah and I might get my facts here

496

00:26:04,500 --> 00:26:02,559

so correct me if I'm wrong I think that

497

00:26:07,320 --> 00:26:04,510

I heard from Leland Melvin yesterday

498

00:26:09,389 --> 00:26:07,330

that Peggy Whitson applied 13 times

499

00:26:11,639 --> 00:26:09,399

before she got into the astronaut corps

500

00:26:12,990 --> 00:26:11,649

is it anybody confirm that number I am I

501
00:26:15,149 --> 00:26:13,000
know I think that's the number I heard

502
00:26:16,560 --> 00:26:15,159
so again if at first you don't succeed

503
00:26:19,230 --> 00:26:16,570
that doesn't mean it's a closed door

504
00:26:20,549 --> 00:26:19,240
forever very cool I think this question

505
00:26:21,889 --> 00:26:20,559
it's really interesting I think I'm

506
00:26:24,240 --> 00:26:21,899
gonna throw this to you mr. bridenstine

507
00:26:26,700 --> 00:26:24,250
obviously excited for this achievement

508
00:26:29,100 --> 00:26:26,710
for America tomorrow but the question

509
00:26:32,029 --> 00:26:29,110
was how does the rest of the world

510
00:26:34,200 --> 00:26:32,039
benefit from this moment for for us

511
00:26:35,940 --> 00:26:34,210
what's the benefit for other astronauts

512
00:26:37,830 --> 00:26:35,950
for other nations to have America

513
00:26:39,990 --> 00:26:37,840

getting back to human spaceflight yeah

514

00:26:43,169 --> 00:26:40,000

so what this represents is a whole lot

515

00:26:44,940 --> 00:26:43,179

more seats going to space so you know

516

00:26:47,100 --> 00:26:44,950

we've had we've had one launch provider

517

00:26:50,430 --> 00:26:47,110

for the last nine years and that was a

518

00:26:53,159 --> 00:26:50,440

Soyuz rocket and and now we're gonna

519

00:26:55,409 --> 00:26:53,169

we're gonna go with a as Bob said

520

00:26:58,139 --> 00:26:55,419

earlier dissimilar redundancy so we've

521

00:27:00,810 --> 00:26:58,149

got a new rocket a new vehicle and when

522

00:27:03,169 --> 00:27:00,820

we get Boeing off the ground we'll have

523

00:27:05,460 --> 00:27:03,179

yet another rocket another vehicle so

524

00:27:07,200 --> 00:27:05,470

we're going to be able to maximize the

525

00:27:09,509 --> 00:27:07,210

utility of the international space

526
00:27:11,700 --> 00:27:09,519
station and of course the international

527
00:27:15,000 --> 00:27:11,710
space station I guess the point to the

528
00:27:17,389 --> 00:27:15,010
question is we have 15 nations that

529
00:27:20,159 --> 00:27:17,399
operate the international space station

530
00:27:23,250 --> 00:27:20,169
11 member states of the European Space

531
00:27:26,789 --> 00:27:23,260
Agency Canada Japan Russia the United

532
00:27:28,830 --> 00:27:26,799
States and there's room for more and

533
00:27:30,539 --> 00:27:28,840
when we go to the moon we want to go to

534
00:27:31,710 --> 00:27:30,549
the moon with even more partners we

535
00:27:33,509 --> 00:27:31,720
don't want to limit it just to the

536
00:27:37,740 --> 00:27:33,519
partners on the international space

537
00:27:39,360 --> 00:27:37,750
station so so with more seats means more

538
00:27:41,790 --> 00:27:39,370

partnership opportunities

539

00:27:44,700 --> 00:27:41,800

it means that we can put more more

540

00:27:47,790 --> 00:27:44,710

astronauts from other countries on the

541

00:27:49,440 --> 00:27:47,800

spacecraft and of course there's costs

542

00:27:51,120 --> 00:27:49,450

associated with that but remember what

543

00:27:54,180 --> 00:27:51,130

we're trying to do if if we can have

544

00:27:56,130 --> 00:27:54,190

other countries buy seats on these

545

00:27:59,220 --> 00:27:56,140

Rockets it drives down the cost for the

546

00:28:01,560 --> 00:27:59,230

United States of America taxpayer so I

547

00:28:03,510 --> 00:28:01,570

think what it does is it really opens up

548

00:28:06,799 --> 00:28:03,520

a lot more opportunity than than we

549

00:28:09,570 --> 00:28:06,809

currently have and so I think I think

550

00:28:10,920 --> 00:28:09,580

the model is also something we need to

551
00:28:12,840 --> 00:28:10,930
talk about what is the business model

552
00:28:14,669 --> 00:28:12,850
the public-private partnership and how

553
00:28:16,950 --> 00:28:14,679
we go to the moon with international

554
00:28:19,110 --> 00:28:16,960
partners so I think there's a lot of

555
00:28:20,460 --> 00:28:19,120
opportunity here yeah not as easy as

556
00:28:22,049 --> 00:28:20,470
just saying hey let's work together

557
00:28:23,850 --> 00:28:22,059
yeah there's a lot more details that go

558
00:28:25,740 --> 00:28:23,860
into it than that a little bit this

559
00:28:27,630 --> 00:28:25,750
question came to me I'm gonna read it as

560
00:28:29,370 --> 00:28:27,640
is mr. cabana this one's for you it's

561
00:28:30,450 --> 00:28:29,380
it's a pretty broad question so I'll let

562
00:28:32,790 --> 00:28:30,460
you take it whatever direction you want

563
00:28:34,860 --> 00:28:32,800

to the question is just what makes KSC

564

00:28:38,549 --> 00:28:34,870

so special oh gosh

565

00:28:42,990 --> 00:28:38,559

well first off this is where you know

566

00:28:46,230 --> 00:28:43,000

America goes to space with humans it's

567

00:28:48,620 --> 00:28:46,240

just absolutely it's the location but I

568

00:28:51,600 --> 00:28:48,630

think more than anything it's the people

569

00:28:55,500 --> 00:28:51,610

the dedicated workforce that's here the

570

00:28:57,419 --> 00:28:55,510

it's just I have never been part of such

571

00:28:59,040 --> 00:28:57,429

an amazing team as I am here at the

572

00:29:01,169 --> 00:28:59,050

Kennedy Space Center I just can't say

573

00:29:04,230 --> 00:29:01,179

enough good things about the people that

574

00:29:05,820 --> 00:29:04,240

work here you know NASA's been number

575

00:29:09,510 --> 00:29:05,830

one on the federal employee viewpoint

576
00:29:13,440 --> 00:29:09,520
survey for what eight years in a row now

577
00:29:15,900 --> 00:29:13,450
and KSC was number one the ten NASA

578
00:29:17,630 --> 00:29:15,910
centers this last time around and it's

579
00:29:21,299 --> 00:29:17,640
just it's that kind of motivation

580
00:29:23,310 --> 00:29:21,309
everybody just comes to work with the

581
00:29:25,919 --> 00:29:23,320
goal in mind of making America's space

582
00:29:29,100 --> 00:29:25,929
program successful and it's a positive

583
00:29:31,710 --> 00:29:29,110
attitude it's a desire to excel at what

584
00:29:33,720 --> 00:29:31,720
you do it's just I think that's probably

585
00:29:37,020 --> 00:29:33,730
the most special thing about KSC it's

586
00:29:38,730 --> 00:29:37,030
it's the people in the hardware and I

587
00:29:40,680 --> 00:29:38,740
tell you I've had the opportunity to

588
00:29:42,930 --> 00:29:40,690

work at a lot of NASA centers I trained

589

00:29:44,460 --> 00:29:42,940

all over as an astronaut I love my time

590

00:29:46,799 --> 00:29:44,470

at JSC I loved working in Mission

591

00:29:48,900 --> 00:29:46,809

Control but here's where the hardware is

592

00:29:50,430 --> 00:29:48,910

you can study things in books all you

593

00:29:52,470 --> 00:29:50,440

want you can look at all the PowerPoint

594

00:29:53,100 --> 00:29:52,480

charts and pictures and diagrams in a

595

00:29:54,780 --> 00:29:53,110

book

596

00:29:56,610 --> 00:29:54,790

until you climb in and see the real

597

00:29:58,980 --> 00:29:56,620

hardware that's when you really get to

598

00:30:01,140 --> 00:29:58,990

know it and and this is where the the

599

00:30:02,250 --> 00:30:01,150

hardware is and that's pretty cool yeah

600

00:30:04,080 --> 00:30:02,260

absolutely

601
00:30:06,060 --> 00:30:04,090
every time Space Flight hardware shows

602
00:30:07,620 --> 00:30:06,070
up it's an exciting day all right

603
00:30:09,330 --> 00:30:07,630
question for our astronauts I'll start

604
00:30:10,740 --> 00:30:09,340
with you Chell and I'll make it a

605
00:30:14,070 --> 00:30:10,750
two-part question and it might be the

606
00:30:16,049 --> 00:30:14,080
same answer what's your what's the best

607
00:30:17,250 --> 00:30:16,059
part of being an astronaut and what's

608
00:30:20,730 --> 00:30:17,260
your favorite memory of being an

609
00:30:26,490 --> 00:30:20,740
astronaut so far oh wow and the best

610
00:30:30,240 --> 00:30:26,500
part of being an astronaut you know this

611
00:30:32,280 --> 00:30:30,250
is gonna echo director cabanas sediments

612
00:30:35,400 --> 00:30:32,290
a little bit I think when we think about

613
00:30:37,380 --> 00:30:35,410

spaceflight and getting to having this

614

00:30:39,210 --> 00:30:37,390

privilege of getting to work and serve

615

00:30:41,130 --> 00:30:39,220

as an astronaut a lot of people will

616

00:30:45,860 --> 00:30:41,140

think about the Rockets and the space

617

00:30:49,169 --> 00:30:45,870

station this the iconic spacesuit and

618

00:30:52,049 --> 00:30:49,179

and all of those things are great it is

619

00:30:54,770 --> 00:30:52,059

absolutely amazing to to get to interact

620

00:30:56,820 --> 00:30:54,780

and utilize that hardware but

621

00:31:00,150 --> 00:30:56,830

fundamentally it is the people you know

622

00:31:03,570 --> 00:31:00,160

NASA draws the the best and brightest

623

00:31:05,220 --> 00:31:03,580

that our country has to offer and and

624

00:31:06,960 --> 00:31:05,230

draws people from all over the world you

625

00:31:10,470 --> 00:31:06,970

know the opportunity to work with NASA

626

00:31:13,980 --> 00:31:10,480

and to participate in this this unifying

627

00:31:15,780 --> 00:31:13,990

mission of exploration of lower early

628

00:31:18,150 --> 00:31:15,790

Earth low Earth orbit and beyond

629

00:31:20,520 --> 00:31:18,160

and now the mission the artists of the

630

00:31:22,500 --> 00:31:20,530

Artemis program to go back to the moon

631

00:31:25,980 --> 00:31:22,510

with the first woman and the next man

632

00:31:27,840 --> 00:31:25,990

and and make that a permanent permanent

633

00:31:30,570 --> 00:31:27,850

mission those are absolutely

634

00:31:33,710 --> 00:31:30,580

inspirational and so to get to work with

635

00:31:36,090 --> 00:31:33,720

this workforce that is innovative in

636

00:31:40,110 --> 00:31:36,100

enthusiastic and so incredibly

637

00:31:42,210 --> 00:31:40,120

hard-working I mean that is it makes me

638

00:31:44,460 --> 00:31:42,220

it inspires me and it makes me want to

639

00:31:47,070 --> 00:31:44,470

come to work every day and do my very

640

00:31:50,310 --> 00:31:47,080

best so that that I'm not letting this

641

00:31:51,900 --> 00:31:50,320

team down so it's a really the best part

642

00:31:53,850 --> 00:31:51,910

about being an astronaut is getting to

643

00:31:58,950 --> 00:31:53,860

work with this incredible team my

644

00:32:04,409 --> 00:31:58,960

favorite memory there's so many so many

645

00:32:06,990 --> 00:32:04,419

you know I think this the spacewalk the

646

00:32:10,100 --> 00:32:07,000

view from outside the space station

647

00:32:12,150 --> 00:32:10,110

the first that first view of the earth

648

00:32:13,970 --> 00:32:12,160

when I was launching on that Soyuz

649

00:32:16,140 --> 00:32:13,980

rocket and looking out the window and

650

00:32:19,740 --> 00:32:16,150

you know we've all seen the picture of

651
00:32:22,470 --> 00:32:19,750
that the general Earth's arc the horizon

652
00:32:25,410 --> 00:32:22,480
but to see that with my own eyes

653
00:32:27,270 --> 00:32:25,420
the bright light of the Sun that's

654
00:32:29,370 --> 00:32:27,280
something that I always remember and

655
00:32:33,120 --> 00:32:29,380
then after a successful mission I have

656
00:32:35,310 --> 00:32:33,130
to say my return home you know coming

657
00:32:37,860 --> 00:32:35,320
back to the earth safely and and

658
00:32:39,330 --> 00:32:37,870
reuniting with my family those are those

659
00:32:42,750 --> 00:32:39,340
are all very special memories for me

660
00:32:44,760 --> 00:32:42,760
awesome Nicole to you for me I think

661
00:32:46,470 --> 00:32:44,770
it's you know it's really being the best

662
00:32:48,660 --> 00:32:46,480
part about being an astronaut is just

663
00:32:50,670 --> 00:32:48,670

having the opportunity to give back to

664

00:32:53,760 --> 00:32:50,680

the legacy right like Bob talked about

665

00:32:55,890 --> 00:32:53,770

walking around KSC there has been so

666

00:32:58,200 --> 00:32:55,900

many launches from KSC from you know

667

00:33:01,050 --> 00:32:58,210

Apollo an early Gemini mercury shuttle

668

00:33:02,790 --> 00:33:01,060

everything it's amazing to walk in the

669

00:33:04,890 --> 00:33:02,800

footsteps of the men and women who have

670

00:33:06,780 --> 00:33:04,900

built this space program there would be

671

00:33:09,720 --> 00:33:06,790

the astronauts here or the folks that

672

00:33:12,540 --> 00:33:09,730

work at KSC and and sometimes that is a

673

00:33:14,430 --> 00:33:12,550

heavy weight on your shoulders but it's

674

00:33:16,650 --> 00:33:14,440

the best feeling it's the best feeling

675

00:33:18,420 --> 00:33:16,660

because you know you're in a position to

676
00:33:20,280 --> 00:33:18,430
carry on that legacy and make a

677
00:33:22,800 --> 00:33:20,290
difference and so you know as we look

678
00:33:25,560 --> 00:33:22,810
forward to this Commercial Crew launch

679
00:33:27,930 --> 00:33:25,570
and launch America it's really that next

680
00:33:31,140 --> 00:33:27,940
step on that roadmap to the moon and the

681
00:33:33,540 --> 00:33:31,150
Artemis program and to be able to be a

682
00:33:35,850 --> 00:33:33,550
part of that and to look at my son and

683
00:33:37,740 --> 00:33:35,860
the younger generation and say you know

684
00:33:39,870 --> 00:33:37,750
what we are we are gonna lay the

685
00:33:42,360 --> 00:33:39,880
foundation for you to continue this

686
00:33:44,190 --> 00:33:42,370
exploration into space beyond my

687
00:33:47,130 --> 00:33:44,200
lifetime and that's just really a

688
00:33:49,200 --> 00:33:47,140

privilege you know as far as my my

689

00:33:51,240 --> 00:33:49,210

proudest moment being an astronaut I say

690

00:33:54,330 --> 00:33:51,250

so far it's being selected to be an

691

00:33:58,110 --> 00:33:54,340

astronaut certainly being selected to

692

00:34:00,810 --> 00:33:58,120

fly the Commercial Crew program and I

693

00:34:03,090 --> 00:34:00,820

think I think come tomorrow when I watch

694

00:34:06,060 --> 00:34:03,100

SpaceX launch that's probably gonna be

695

00:34:07,470 --> 00:34:06,070

one of my proudest days as well awesome

696

00:34:09,240 --> 00:34:07,480

let me we're just about at a time but I

697

00:34:11,040 --> 00:34:09,250

want to ask just for real brief last

698

00:34:12,510 --> 00:34:11,050

comments from you all just what what's

699

00:34:16,220 --> 00:34:12,520

the one thing you're just really excited

700

00:34:19,170 --> 00:34:16,230

about tomorrow I'm really excited about

701
00:34:20,980 --> 00:34:19,180
Bob and Doug being safely placed into

702
00:34:23,409 --> 00:34:20,990
orbit

703
00:34:27,399 --> 00:34:23,419
I think once once they are safely in

704
00:34:29,500 --> 00:34:27,409
orbit and the nose cone is open I think

705
00:34:32,950 --> 00:34:29,510
we're going to breathe a sigh of relief

706
00:34:35,440 --> 00:34:32,960
I think the next day when they docked to

707
00:34:37,060 --> 00:34:35,450
the International Space Station we're

708
00:34:40,389 --> 00:34:37,070
gonna breathe another sigh of relief and

709
00:34:41,950 --> 00:34:40,399
then they're gonna get to work and then

710
00:34:44,919 --> 00:34:41,960
we're gonna we're gonna anxiously

711
00:34:47,079 --> 00:34:44,929
anticipate their return so I'm I'm most

712
00:34:49,389 --> 00:34:47,089
looking forward to them being safely

713
00:34:49,720 --> 00:34:49,399

placed into orbit and then I can breathe

714

00:34:52,690 --> 00:34:49,730

easy

715

00:34:55,210 --> 00:34:52,700

good Nicole absolutely I mean clear

716

00:34:56,829 --> 00:34:55,220

skies and and a smooth launch is is

717

00:34:59,500 --> 00:34:56,839

really what we're looking for safety is

718

00:35:01,630 --> 00:34:59,510

paramount and I know that NASA and

719

00:35:04,329 --> 00:35:01,640

SpaceX have done everything they can do

720

00:35:05,770 --> 00:35:04,339

to mitigate the risk and so we're

721

00:35:07,420 --> 00:35:05,780

looking forward to a successful launch

722

00:35:09,190 --> 00:35:07,430

tomorrow yeah we're all looking for to

723

00:35:10,569 --> 00:35:09,200

those clear skies mr. Brian Stein we

724

00:35:14,550 --> 00:35:10,579

need to work on like technology to like

725

00:35:18,609 --> 00:35:14,560

make the weather better that's we got it

726

00:35:21,790 --> 00:35:18,619

that's what I like to hear NASA chill

727

00:35:24,450 --> 00:35:21,800

you know it the safe launch absolutely

728

00:35:26,200 --> 00:35:24,460

seeing Bob and Doug safely in orbit

729

00:35:28,599 --> 00:35:26,210

watching them dock with the space

730

00:35:30,550 --> 00:35:28,609

station and watching them or unite with

731

00:35:32,890 --> 00:35:30,560

their good friends that are currently on

732

00:35:36,250 --> 00:35:32,900

the space station I am so excited for

733

00:35:38,410 --> 00:35:36,260

Bob and Doug for the long the many years

734

00:35:41,050 --> 00:35:38,420

that they have been involved in this

735

00:35:44,710 --> 00:35:41,060

program working hard to achieve this

736

00:35:48,880 --> 00:35:44,720

goal so excited for their family and and

737

00:35:51,010 --> 00:35:48,890

excited for SpaceX for the the

738

00:35:52,750 --> 00:35:51,020

incredible work that they have invested

739

00:35:54,790 --> 00:35:52,760

that whole workforce is invested in

740

00:35:56,920 --> 00:35:54,800

making this day possible for the NASA

741

00:35:57,880 --> 00:35:56,930

team that has partnered alongside with

742

00:36:01,059 --> 00:35:57,890

them

743

00:36:04,420 --> 00:36:01,069

and then for America you know to watch

744

00:36:06,730 --> 00:36:04,430

this beautiful rocket with our heroes on

745

00:36:08,470 --> 00:36:06,740

board flying into low Earth orbit from

746

00:36:09,510 --> 00:36:08,480

Kennedy Space Center it's going to be

747

00:36:13,630 --> 00:36:09,520

phenomenal

748

00:36:15,849 --> 00:36:13,640

mr. Cabana so I'm gonna echo all their

749

00:36:17,589 --> 00:36:15,859

comments and I'm gonna say I'm gonna

750

00:36:19,720 --> 00:36:17,599

really be excited for the Commercial

751
00:36:23,050 --> 00:36:19,730
Crew program for the team that has made

752
00:36:24,609 --> 00:36:23,060
this this possible this is a very

753
00:36:25,630 --> 00:36:24,619
critical test flight and we're gonna

754
00:36:28,900 --> 00:36:25,640
learn a lot from it

755
00:36:31,150 --> 00:36:28,910
but seeing Bob and Doug safely on orbit

756
00:36:32,930 --> 00:36:31,160
will bring a sigh of relief for me but

757
00:36:34,220 --> 00:36:32,940
as with the administrator

758
00:36:35,420 --> 00:36:34,230
not gonna feel totally good until

759
00:36:37,910 --> 00:36:35,430
they're back home safe on the ground

760
00:36:40,220 --> 00:36:37,920
after a fully successful mission start

761
00:36:41,780 --> 00:36:40,230
to finish but when I when I look at the

762
00:36:43,670 --> 00:36:41,790
partnership that we have across all the

763
00:36:45,980 --> 00:36:43,680

NASA centers I mean the commercial

764

00:36:47,990 --> 00:36:45,990

program its program it's here at KSC

765

00:36:50,270 --> 00:36:48,000

it's at JSC folks from Marshall Health

766

00:36:52,400 --> 00:36:50,280

Langley everybody has played a role the

767

00:36:54,770 --> 00:36:52,410

NASA engineering team that has worked

768

00:36:57,319 --> 00:36:54,780

with SpaceX a partnership that we have

769

00:36:59,569 --> 00:36:57,329

to get to where we are I'm really

770

00:37:01,339 --> 00:36:59,579

excited for that team to see the fruits

771

00:37:03,410 --> 00:37:01,349

of all their hard work these past many

772

00:37:05,990 --> 00:37:03,420

years to make to bring this to a

773

00:37:08,000 --> 00:37:06,000

successful flight tomorrow so we'll

774

00:37:10,849 --> 00:37:08,010

breathe a lot easier once they're safely

775

00:37:12,920 --> 00:37:10,859

on orbit yeah certainly a lot a lot of

776

00:37:14,329 --> 00:37:12,930

hard work a lot more hard work to go I

777

00:37:16,280 --> 00:37:14,339

want to thank the four of you especially

778

00:37:18,920 --> 00:37:16,290

for your time I know you're busy we got

779

00:37:20,660 --> 00:37:18,930

we got a rocket to fly so for those

780

00:37:22,640 --> 00:37:20,670

joining us online thank you appreciate

781

00:37:24,079 --> 00:37:22,650

all the questions please continue to

782

00:37:25,880 --> 00:37:24,089

engage with us online through social

783

00:37:28,339 --> 00:37:25,890

media make sure you tune in as we

784

00:37:29,720 --> 00:37:28,349

proceed through the next day or so

785

00:37:32,329 --> 00:37:29,730

getting ready for this flight and at

786

00:37:33,950 --> 00:37:32,339

12:15 tomorrow afternoon Eastern Time we

787

00:37:36,620 --> 00:37:33,960

will be kicking off our launch broadcast

788

00:37:37,970 --> 00:37:36,630

lots of coverage including the crew suit

789

00:37:40,069 --> 00:37:37,980

up and walk out all the way through

790

00:37:41,210 --> 00:37:40,079

flight and to orbit and beyond that's

791

00:37:43,819 --> 00:37:41,220

all for us here the Kennedy Space Center