

Google+



1  
00:00:05,269 --> 00:00:02,869  
hi thanks for joining us for today's

2  
00:00:07,030 --> 00:00:05,279  
google plus hangout i'm nicole creator

3  
00:00:09,350 --> 00:00:07,040  
masters for johnson space for public

4  
00:00:11,669 --> 00:00:09,360  
affairs and today i think the entire

5  
00:00:13,509 --> 00:00:11,679  
space agency is abuzz with the news that

6  
00:00:18,790 --> 00:00:13,519  
we've selected eight new individuals as

7  
00:00:21,590 --> 00:00:19,830  
as you can imagine this has been

8  
00:00:23,509 --> 00:00:21,600  
dramatic news for them as well so they

9  
00:00:25,509 --> 00:00:23,519  
are busy sharing this news with their

10  
00:00:27,269 --> 00:00:25,519  
friends and family and likely their

11  
00:00:28,870 --> 00:00:27,279  
employers as well and making some

12  
00:00:30,870 --> 00:00:28,880  
adjustments and transitions there so

13  
00:00:32,310 --> 00:00:30,880

we'll continue to keep you posted on

14

00:00:34,150 --> 00:00:32,320

their progress as they near for their

15

00:00:36,470 --> 00:00:34,160

arrival here in houston but in the

16

00:00:38,630 --> 00:00:36,480

meantime we have four people with us who

17

00:00:40,630 --> 00:00:38,640

have been in their shoes so joining us

18

00:00:43,430 --> 00:00:40,640

here at the johnson space center studio

19

00:00:45,510 --> 00:00:43,440

our two veteran astronauts dr ellen

20

00:00:47,029 --> 00:00:45,520

ochoa who is a veteran of four space

21

00:00:48,630 --> 00:00:47,039

flights and is now the director for

22

00:00:51,830 --> 00:00:48,640

johnson space center

23

00:00:53,670 --> 00:00:51,840

and also dr janet cavandi who likewise

24

00:00:55,350 --> 00:00:53,680

is a veteran of three space flights and

25

00:00:57,910 --> 00:00:55,360

now is the director for flight crew

26

00:01:00,150 --> 00:00:57,920

operations also joining us elsewhere

27

00:01:02,150 --> 00:01:00,160

here at the jsc is astronauts mike

28

00:01:03,910 --> 00:01:02,160

foreman and kate rubin so we'll be

29

00:01:06,630 --> 00:01:03,920

talking to them a little bit later um

30

00:01:08,230 --> 00:01:06,640

but for now let's uh turn it over to dr

31

00:01:09,109 --> 00:01:08,240

ochoa to tell us a little bit about what

32

00:01:10,830 --> 00:01:09,119

this is

33

00:01:13,590 --> 00:01:10,840

what this

34

00:01:15,190 --> 00:01:13,600

means it's an exciting day for nasa and

35

00:01:16,870 --> 00:01:15,200

particularly here at johnson space

36

00:01:19,990 --> 00:01:16,880

center which is the home of the

37

00:01:22,230 --> 00:01:20,000

astronaut corps and of mission control

38

00:01:24,950 --> 00:01:22,240

we work with a team all across nasa a

39

00:01:26,789 --> 00:01:24,960

really talented team who help advance

40

00:01:29,109 --> 00:01:26,799

space exploration

41

00:01:32,310 --> 00:01:29,119

and astronauts are often the most public

42

00:01:33,749 --> 00:01:32,320

face of that and so in addition to

43

00:01:36,469 --> 00:01:33,759

looking for people who have the

44

00:01:38,870 --> 00:01:36,479

technical and the operations expertise

45

00:01:40,630 --> 00:01:38,880

to carry out activities in space

46

00:01:42,550 --> 00:01:40,640

we also ask those people to really

47

00:01:43,990 --> 00:01:42,560

represent the whole team to be nasa's

48

00:01:46,230 --> 00:01:44,000

ambassadors

49

00:01:47,670 --> 00:01:46,240

and i think when you hear a little bit

50

00:01:49,590 --> 00:01:47,680

more about the people that we've

51  
00:01:51,830 --> 00:01:49,600  
selected you'll see that not only do

52  
00:01:54,149 --> 00:01:51,840  
they have you know the incredible talent

53  
00:01:55,990 --> 00:01:54,159  
and some really interesting experiences

54  
00:01:57,670 --> 00:01:56,000  
but they have a real passion for the job

55  
00:01:59,749 --> 00:01:57,680  
and and we think they'll be wonderful

56  
00:02:02,069 --> 00:01:59,759  
ambassadors for us

57  
00:02:04,230 --> 00:02:02,079  
it definitely does take me back um

58  
00:02:06,149 --> 00:02:04,240  
actually not only to when i was selected

59  
00:02:07,030 --> 00:02:06,159  
to but really to the day i first stepped

60  
00:02:08,869 --> 00:02:07,040  
foot

61  
00:02:10,630 --> 00:02:08,879  
on johnson space center which was a few

62  
00:02:12,790 --> 00:02:10,640  
years before that when i first came to

63  
00:02:14,309 --> 00:02:12,800

interview for the astronaut corps

64

00:02:16,390 --> 00:02:14,319

and i can remember just being here

65

00:02:18,229 --> 00:02:16,400

thinking wow this is like hallowed

66

00:02:19,430 --> 00:02:18,239

ground it's you know it's just a special

67

00:02:21,830 --> 00:02:19,440

place to be

68

00:02:23,750 --> 00:02:21,840

and when i was selected and it was so

69

00:02:25,430 --> 00:02:23,760

exciting to think i was joining the

70

00:02:27,670 --> 00:02:25,440

talented team here

71

00:02:30,470 --> 00:02:27,680

and we have continued to

72

00:02:33,030 --> 00:02:30,480

make really difficult things happen in

73

00:02:35,190 --> 00:02:33,040

space over the years that i've been here

74

00:02:37,430 --> 00:02:35,200

we're doing amazing things on board the

75

00:02:39,030 --> 00:02:37,440

international space station right now

76

00:02:41,509 --> 00:02:39,040

and we're involved in developing the

77

00:02:44,070 --> 00:02:41,519

systems the technologies and the plans

78

00:02:46,229 --> 00:02:44,080

for exploring beyond low earth orbit so

79

00:02:49,589 --> 00:02:46,239

we're really excited to welcome eight

80

00:02:51,990 --> 00:02:49,599

new people to this enterprise

81

00:02:53,750 --> 00:02:52,000

thanks ellen and there with you is janet

82

00:02:55,509 --> 00:02:53,760

who as the chair of the astronaut

83

00:02:57,509 --> 00:02:55,519

selection board at this point probably

84

00:02:58,550 --> 00:02:57,519

knows these people as good as anybody

85

00:03:00,790 --> 00:02:58,560

janet why don't you just go ahead and

86

00:03:01,990 --> 00:03:00,800

take a moment to to introduce introduce

87

00:03:03,350 --> 00:03:02,000

us to this class and tell us a little

88

00:03:05,750 --> 00:03:03,360

bit about them

89

00:03:07,589 --> 00:03:05,760

yeah we're really really proud of this

90

00:03:09,350 --> 00:03:07,599

class and we're really excited to bring

91

00:03:11,430 --> 00:03:09,360

them here i think when you hear about

92

00:03:13,589 --> 00:03:11,440

them just a little bit and as i go over

93

00:03:15,350 --> 00:03:13,599

each one i think you'll get a sense of

94

00:03:16,790 --> 00:03:15,360

the type of quality of individuals that

95

00:03:18,790 --> 00:03:16,800

we've selected

96

00:03:20,550 --> 00:03:18,800

so let's go ahead and i'll show you a

97

00:03:22,390 --> 00:03:20,560

few pictures of these individuals as i

98

00:03:26,149 --> 00:03:22,400

tell you a little bit about them

99

00:03:27,830 --> 00:03:26,159

so first up we have dr josh casada

100

00:03:30,070 --> 00:03:27,840

he's a civilian

101  
00:03:33,190 --> 00:03:30,080  
former navy pilot

102  
00:03:35,670 --> 00:03:33,200  
he was born in san diego california

103  
00:03:37,190 --> 00:03:35,680  
but considers white bear lake minnesota

104  
00:03:39,990 --> 00:03:37,200  
his hometown

105  
00:03:42,949 --> 00:03:40,000  
he's currently living in michigan

106  
00:03:45,190 --> 00:03:42,959  
his education he has a physics degree a

107  
00:03:46,869 --> 00:03:45,200  
bachelor of physics from albion college

108  
00:03:49,750 --> 00:03:46,879  
a master's in physics from the

109  
00:03:52,229 --> 00:03:49,760  
university of rochester and a phd in

110  
00:03:53,350 --> 00:03:52,239  
physics from the university of rochester

111  
00:03:55,509 --> 00:03:53,360  
and his

112  
00:03:58,149 --> 00:03:55,519  
thesis that was about subatomic

113  
00:04:00,630 --> 00:03:58,159

particles specifically top quarks and

114

00:04:04,149 --> 00:04:00,640

anti-top quarks

115

00:04:06,789 --> 00:04:04,159

he and the navy he was a

116

00:04:12,949 --> 00:04:06,799

test he attended test pilot school

117

00:04:15,830 --> 00:04:12,959

uh he flew p3s p8s and he was a p38n

118

00:04:18,949 --> 00:04:15,840

t6 instructor pilot

119

00:04:20,789 --> 00:04:18,959

he was chief of flight operations for p8

120

00:04:23,430 --> 00:04:20,799

acceptance at

121

00:04:26,390 --> 00:04:23,440

the for the u.s navy for the defense

122

00:04:27,350 --> 00:04:26,400

contract management agency in seattle

123

00:04:29,990 --> 00:04:27,360

and he

124

00:04:32,310 --> 00:04:30,000

is currently chief technology officer

125

00:04:33,430 --> 00:04:32,320

for a startup company called quantum

126  
00:04:35,909 --> 00:04:33,440  
opus

127  
00:04:38,710 --> 00:04:35,919  
and he just recently did that in april

128  
00:04:41,749 --> 00:04:38,720  
2013. so he's going undergoing some

129  
00:04:44,950 --> 00:04:41,759  
changes in multiple ways

130  
00:04:46,469 --> 00:04:44,960  
he and one in the navy he was part of 23

131  
00:04:47,749 --> 00:04:46,479  
combat missions

132  
00:04:50,469 --> 00:04:47,759  
he also

133  
00:04:52,550 --> 00:04:50,479  
received a humanitarian award for relief

134  
00:04:55,350 --> 00:04:52,560  
work in sumatra

135  
00:04:58,150 --> 00:04:55,360  
he enjoys scuba diving running and

136  
00:05:01,110 --> 00:04:58,160  
skiing he's got over 24 hundreds

137  
00:05:03,749 --> 00:05:01,120  
2400 hours of flying

138  
00:05:07,110 --> 00:05:03,759

okay we'll move on to the next candidate

139

00:05:09,189 --> 00:05:07,120

now this is lieutenant commander victor

140

00:05:12,150 --> 00:05:09,199

j glover

141

00:05:15,350 --> 00:05:12,160

he was born in pomona california

142

00:05:18,390 --> 00:05:15,360

considers prosper texas his hometown

143

00:05:20,469 --> 00:05:18,400

currently lives in washington dc

144

00:05:21,950 --> 00:05:20,479

he received a bachelor of science in

145

00:05:24,629 --> 00:05:21,960

engineering from the california

146

00:05:26,950 --> 00:05:24,639

polytechnic state university

147

00:05:29,510 --> 00:05:26,960

a master's in flight test engineering

148

00:05:31,590 --> 00:05:29,520

from the air university a master's in

149

00:05:33,430 --> 00:05:31,600

systems engineering from naval

150

00:05:35,110 --> 00:05:33,440

postgraduate school and a master's in

151  
00:05:37,830 --> 00:05:35,120  
military and operational arts and

152  
00:05:39,990 --> 00:05:37,840  
sciences from the area

153  
00:05:43,909 --> 00:05:40,000  
he was a combat pilot

154  
00:05:45,990 --> 00:05:43,919  
on strike strike fighter squadron 3-4

155  
00:05:47,510 --> 00:05:46,000  
he also attended u.s air force test

156  
00:05:50,230 --> 00:05:47,520  
pilot school

157  
00:05:51,510 --> 00:05:50,240  
he was an f-18 test pilot and project

158  
00:05:53,830 --> 00:05:51,520  
officer

159  
00:05:56,230 --> 00:05:53,840  
and department head at the strike

160  
00:05:58,790 --> 00:05:56,240  
fighters squadron in japan

161  
00:06:00,870 --> 00:05:58,800  
currently he's a continuing u.s naval

162  
00:06:04,070 --> 00:06:00,880  
officer and a legislative fellow for the

163  
00:06:06,710 --> 00:06:04,080

united states congress he flew 24 combat

164

00:06:09,670 --> 00:06:06,720

missions he's a scuba diver

165

00:06:12,150 --> 00:06:09,680

and he enjoys education outreach he has

166

00:06:15,510 --> 00:06:12,160

over 2 000 hours

167

00:06:18,150 --> 00:06:15,520

of flying experience

168

00:06:21,430 --> 00:06:18,160

next we have lieutenant colonel

169

00:06:23,749 --> 00:06:21,440

and the us air force nick hague is born

170

00:06:26,870 --> 00:06:23,759

in velvet belleville kansas but

171

00:06:28,629 --> 00:06:26,880

considers hoxie kansas's hometown

172

00:06:30,550 --> 00:06:28,639

he currently lives in alexandria

173

00:06:33,270 --> 00:06:30,560

virginia

174

00:06:35,189 --> 00:06:33,280

uh nick received a bachelor's degree in

175

00:06:37,590 --> 00:06:35,199

aeros aeronautical engineering from the

176

00:06:39,909 --> 00:06:37,600

us air force academy and a master's

177

00:06:41,749 --> 00:06:39,919

degree in aeronautics and aeronautics at

178

00:06:43,189 --> 00:06:41,759

mit

179

00:06:54,230 --> 00:06:43,199

he

180

00:06:57,110 --> 00:06:54,240

is f-15 an f-16 flight test engineer and

181

00:06:59,350 --> 00:06:57,120

also a t-38 pilot

182

00:07:01,909 --> 00:06:59,360

he was also a u.s air force legislative

183

00:07:04,469 --> 00:07:01,919

fellow and a congressional liaison

184

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

currently he's the r d deputy chief at

185

00:07:08,629 --> 00:07:06,560

the joint improvised explosive advice

186

00:07:11,430 --> 00:07:08,639

and defeat organization

187

00:07:14,550 --> 00:07:11,440

he's got 139 combat missions he's a

188

00:07:19,270 --> 00:07:14,560

scuba dive master and a private pilot

189

00:07:20,950 --> 00:07:19,280

it's 523 hours of flight time

190

00:07:24,309 --> 00:07:20,960

moving on

191

00:07:26,230 --> 00:07:24,319

christina hammock civilian born in grand

192

00:07:30,309 --> 00:07:26,240

rapids michigan

193

00:07:32,710 --> 00:07:30,319

hometown of jacksonville north carolina

194

00:07:34,870 --> 00:07:32,720

her education she received a bachelor's

195

00:07:37,909 --> 00:07:34,880

degree in electrical engineering

196

00:07:39,909 --> 00:07:37,919

a second bachelor's degree in physics

197

00:07:41,510 --> 00:07:39,919

and a master master's degree in

198

00:07:44,230 --> 00:07:41,520

electrical engineering from north

199

00:07:46,550 --> 00:07:44,240

carolina state university

200

00:07:48,070 --> 00:07:46,560

she was an electrical engineer

201  
00:07:50,710 --> 00:07:48,080  
worked on x-ray

202  
00:07:52,790 --> 00:07:50,720  
detection at nasa goddard

203  
00:07:56,070 --> 00:07:52,800  
she also was an electrical engineer at

204  
00:07:58,390 --> 00:07:56,080  
john hopkins applied research lab

205  
00:08:00,629 --> 00:07:58,400  
excuse me applied physics lab

206  
00:08:03,589 --> 00:08:00,639  
she was a research associate for a

207  
00:08:06,070 --> 00:08:03,599  
cryogenics techno and technician

208  
00:08:08,070 --> 00:08:06,080  
cryogenics technician for raytheon

209  
00:08:10,390 --> 00:08:08,080  
and a science technician polar field

210  
00:08:13,270 --> 00:08:10,400  
services company she did two winter

211  
00:08:15,749 --> 00:08:13,280  
seasons in greenland and she did a

212  
00:08:16,869 --> 00:08:15,759  
season in antarctica as part of her

213  
00:08:19,589 --> 00:08:16,879

research

214

00:08:23,110 --> 00:08:19,599

she's a scuba diver a rock climber and

215

00:08:26,469 --> 00:08:25,510

nicole mann is a major in the marine

216

00:08:28,950 --> 00:08:26,479

corps

217

00:08:31,510 --> 00:08:28,960

she born in padaluma california

218

00:08:33,029 --> 00:08:31,520

considers penn grove california her

219

00:08:34,230 --> 00:08:33,039

hometown

220

00:08:35,909 --> 00:08:34,240

she has a bachelor's degree in

221

00:08:38,389 --> 00:08:35,919

mechanical engineering from the u.s

222

00:08:41,589 --> 00:08:38,399

naval academy and a master's degree in

223

00:08:44,550 --> 00:08:41,599

mechanical engineering from stanford

224

00:08:47,110 --> 00:08:44,560

she was an f-18 or currently is an f-18

225

00:08:48,630 --> 00:08:47,120

pilot for the marine corps she served in

226

00:08:51,829 --> 00:08:48,640

iraq

227

00:08:54,949 --> 00:08:51,839

she went to u.s navy test pilot school

228

00:08:57,509 --> 00:08:54,959

and she's currently an f-18 test pilot's

229

00:09:00,630 --> 00:08:57,519

an operations officer and integrated

230

00:09:02,790 --> 00:09:00,640

product team lead at patuxent river

231

00:09:05,110 --> 00:09:02,800

she's also a scuba diver

232

00:09:06,310 --> 00:09:05,120

she was a naval academy soccer team

233

00:09:07,990 --> 00:09:06,320

captain

234

00:09:09,590 --> 00:09:08,000

and she is interested and has

235

00:09:11,350 --> 00:09:09,600

participated in triathlons and

236

00:09:16,790 --> 00:09:11,360

backcountry camping

237

00:09:21,269 --> 00:09:18,790

and mclean

238

00:09:23,430 --> 00:09:21,279

is a major in the us army

239

00:09:25,990 --> 00:09:23,440

she was born and considers her hometown

240

00:09:27,350 --> 00:09:26,000

spokane washington

241

00:09:30,870 --> 00:09:27,360

she has a bachelor's degree in

242

00:09:34,710 --> 00:09:30,880

mechanical engineering from west point

243

00:09:37,829 --> 00:09:34,720

and an ms or sorry a master's in public

244

00:09:39,269 --> 00:09:37,839

health from the university of bath

245

00:09:40,710 --> 00:09:39,279

and a master's degree in an

246

00:09:43,269 --> 00:09:40,720

international security from the

247

00:09:45,910 --> 00:09:43,279

university of bristol

248

00:09:48,150 --> 00:09:45,920

she is a rotary wing pilot and command

249

00:09:49,990 --> 00:09:48,160

squadron intelligence officer from

250

00:09:52,870 --> 00:09:50,000

maintenance detachment commander and

251  
00:09:55,910 --> 00:09:52,880  
maintenance detachment commander

252  
00:09:57,829 --> 00:09:55,920  
she served in iraqi freedom she had 230

253  
00:10:00,150 --> 00:09:57,839  
combat missions

254  
00:10:03,030 --> 00:10:00,160  
she's also a rotary wing instructor

255  
00:10:07,590 --> 00:10:03,040  
pilot and operations officer

256  
00:10:09,910 --> 00:10:07,600  
she flies oh 58 delta kiowa warriors and

257  
00:10:12,070 --> 00:10:09,920  
she just recently as of last friday

258  
00:10:15,190 --> 00:10:12,080  
graduated from test pilot school the u.s

259  
00:10:17,590 --> 00:10:15,200  
naval test pilot school

260  
00:10:20,630 --> 00:10:17,600  
she's also has been selected and played

261  
00:10:23,750 --> 00:10:20,640  
on the us women's national rugby team

262  
00:10:25,509 --> 00:10:23,760  
she's also scuba open water diver and

263  
00:10:29,269 --> 00:10:25,519

has her commercial

264

00:10:31,829 --> 00:10:29,279

rating she has over 1600 hours of flight

265

00:10:35,910 --> 00:10:33,110

next we have

266

00:10:38,230 --> 00:10:35,920

dr jessica muir

267

00:10:40,710 --> 00:10:38,240

she was born in caribou maine and

268

00:10:44,470 --> 00:10:40,720

considers that her hometown

269

00:10:47,269 --> 00:10:44,480

her education is a ba in biology from

270

00:10:48,949 --> 00:10:47,279

brown university a master's degree in

271

00:10:50,710 --> 00:10:48,959

space studies from the international

272

00:10:53,750 --> 00:10:50,720

space university

273

00:10:56,470 --> 00:10:53,760

and a phd in marine biology from scripps

274

00:10:58,310 --> 00:10:56,480

institution of oceanography

275

00:11:00,949 --> 00:10:58,320

she's got a broad

276

00:11:03,590 --> 00:11:00,959

work experience including uh field work

277

00:11:05,670 --> 00:11:03,600

in antarctica she's done four field

278

00:11:06,710 --> 00:11:05,680

deployments of two and a half months

279

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

each

280

00:11:11,509 --> 00:11:09,440

at penguin ranch where she studied

281

00:11:14,069 --> 00:11:11,519

penguins did research on them in

282

00:11:16,710 --> 00:11:14,079

antarctica she's also a technical scuba

283

00:11:19,110 --> 00:11:16,720

diver she's done ice diving

284

00:11:21,030 --> 00:11:19,120

and she's done principal investigation

285

00:11:23,030 --> 00:11:21,040

project management at the university of

286

00:11:24,870 --> 00:11:23,040

british columbia where she studied

287

00:11:26,949 --> 00:11:24,880

bar-headed geese

288

00:11:29,430 --> 00:11:26,959

and she's also has experience in

289

00:11:31,750 --> 00:11:29,440

mongolia she's currently assistant

290

00:11:34,550 --> 00:11:31,760

professor at harvard medical school and

291

00:11:37,110 --> 00:11:34,560

the massachusetts general hospital

292

00:11:39,910 --> 00:11:37,120

she's also a scuba diver an under ice

293

00:11:42,710 --> 00:11:39,920

diver a floutist and a private pilot

294

00:11:46,870 --> 00:11:42,720

instrument rated pilot

295

00:11:49,430 --> 00:11:46,880

she's got 180 hours of flying time

296

00:11:50,310 --> 00:11:49,440

and last but certainly not least we have

297

00:11:57,670 --> 00:11:50,320

dr

298

00:11:58,790 --> 00:11:57,680

army he was born in morgantown west

299

00:12:00,949 --> 00:11:58,800

virginia

300

00:12:02,230 --> 00:12:00,959

considers newcastle pennsylvania his

301  
00:12:05,030 --> 00:12:02,240  
hometown

302  
00:12:06,629 --> 00:12:05,040  
currently lives in in fort belvoir

303  
00:12:08,069 --> 00:12:06,639  
virginia

304  
00:12:10,069 --> 00:12:08,079  
he has his bachelor's degree in

305  
00:12:11,030 --> 00:12:10,079  
environmental engineering from west

306  
00:12:14,230 --> 00:12:11,040  
point

307  
00:12:16,710 --> 00:12:14,240  
and his doctorate degree md and from the

308  
00:12:19,110 --> 00:12:16,720  
uniformed services university of the

309  
00:12:20,550 --> 00:12:19,120  
health sciences

310  
00:12:23,509 --> 00:12:20,560  
he

311  
00:12:26,550 --> 00:12:23,519  
was a staff emergency physician at wilma

312  
00:12:29,190 --> 00:12:26,560  
army medical center operational medical

313  
00:12:32,710 --> 00:12:29,200

officer at joint special operations

314

00:12:36,230 --> 00:12:32,720

command he's been deployed to iraq to

315

00:12:38,629 --> 00:12:36,240

afghanistan and to africa he is also a

316

00:12:41,190 --> 00:12:38,639

team physician for the golden knights

317

00:12:44,710 --> 00:12:41,200

and he also jumped with the golden

318

00:12:45,750 --> 00:12:44,720

knights and has about 380 hour parachute

319

00:12:47,030 --> 00:12:45,760

jumps

320

00:12:48,310 --> 00:12:47,040

he is currently

321

00:12:51,430 --> 00:12:48,320

medical element

322

00:12:54,949 --> 00:12:51,440

commander senior medical officer

323

00:12:57,030 --> 00:12:54,959

and is on his way to move down here with

324

00:13:00,389 --> 00:12:57,040

with us he attended the army rangers

325

00:13:01,910 --> 00:13:00,399

school also scuba diver and rescue diver

326

00:13:03,509 --> 00:13:01,920

and has run the u.s marine corps

327

00:13:07,430 --> 00:13:03,519

marathon and participated in

328

00:13:09,110 --> 00:13:07,440

ultramarathons he has 356 hours of

329

00:13:11,110 --> 00:13:09,120

flight time

330

00:13:13,430 --> 00:13:11,120

so as you can tell

331

00:13:16,150 --> 00:13:13,440

it's quite an amazing group of people

332

00:13:18,069 --> 00:13:16,160

we've selected with you know a smaller

333

00:13:20,470 --> 00:13:18,079

astronaut core fewer people in the

334

00:13:23,750 --> 00:13:20,480

office now each person needs to have as

335

00:13:25,670 --> 00:13:23,760

diverse a background as possible so we

336

00:13:28,230 --> 00:13:25,680

tried to work hard to make sure that

337

00:13:30,470 --> 00:13:28,240

eight people we got had a broad spectrum

338

00:13:32,829 --> 00:13:30,480

of experiences and i think you can tell

339

00:13:35,509 --> 00:13:32,839

that from from their

340

00:13:36,550 --> 00:13:35,519

qualifications thanks janet absolutely

341

00:13:38,310 --> 00:13:36,560

it definitely

342

00:13:40,470 --> 00:13:38,320

like you said crosses the broad spectrum

343

00:13:43,509 --> 00:13:40,480

i think almost every area of expertise

344

00:13:45,509 --> 00:13:43,519

seems covered there well we have a next

345

00:13:47,430 --> 00:13:45,519

video which is some special words from

346

00:13:49,350 --> 00:13:47,440

nasa administrator charles bolden

347

00:13:54,550 --> 00:13:49,360

congratulating this selection so we'll

348

00:13:57,670 --> 00:13:55,509

hello

349

00:13:59,269 --> 00:13:57,680

i'm nasa administrator charlie bolden

350

00:14:01,509 --> 00:13:59,279

and i'm excited to be a part of this

351  
00:14:03,750 --> 00:14:01,519  
google plus hangout where you'll learn

352  
00:14:05,030 --> 00:14:03,760  
more about the 21st class of nasa

353  
00:14:07,189 --> 00:14:05,040  
astronauts

354  
00:14:09,189 --> 00:14:07,199  
we're very proud of this select group

355  
00:14:10,389 --> 00:14:09,199  
and look forward to helping you get to

356  
00:14:13,269 --> 00:14:10,399  
know them

357  
00:14:15,110 --> 00:14:13,279  
the astronaut candidates of 2013 come

358  
00:14:17,430 --> 00:14:15,120  
from the second largest pool of

359  
00:14:19,430 --> 00:14:17,440  
applications we've ever received more

360  
00:14:21,910 --> 00:14:19,440  
than 6300

361  
00:14:24,790 --> 00:14:21,920  
these new space explorers asked to join

362  
00:14:27,269 --> 00:14:24,800  
nasa because they know we're doing big

363  
00:14:29,430 --> 00:14:27,279

bold things here developing missions to

364

00:14:31,110 --> 00:14:29,440

go farther than ever before

365

00:14:33,269 --> 00:14:31,120

they're excited about the science we're

366

00:14:35,509 --> 00:14:33,279

doing on the international space station

367

00:14:38,150 --> 00:14:35,519

and our plan to launch from u.s soil on

368

00:14:40,150 --> 00:14:38,160

spacecraft built by american companies

369

00:14:43,030 --> 00:14:40,160

and they're ready to help lead the first

370

00:14:45,910 --> 00:14:43,040

human mission to an asteroid and then on

371

00:14:47,750 --> 00:14:45,920

to mars to these new members of the nasa

372

00:14:50,550 --> 00:14:47,760

family i offer my heartiest

373

00:14:53,189 --> 00:14:50,560

congratulations and welcome each of you

374

00:14:55,269 --> 00:14:53,199

on behalf of the nation space program

375

00:14:57,590 --> 00:14:55,279

i'm personally awed by your individual

376

00:14:59,750 --> 00:14:57,600

achievements and we're all inspired by

377

00:15:02,949 --> 00:14:59,760

your commitment to exploration and

378

00:15:04,870 --> 00:15:02,959

taking america to new heights in space

379

00:15:06,389 --> 00:15:04,880

i remember when i got the call that i

380

00:15:07,189 --> 00:15:06,399

had been selected for the astronaut

381

00:15:09,829 --> 00:15:07,199

corps

382

00:15:11,590 --> 00:15:09,839

it was a once-in-a-lifetime feeling

383

00:15:13,350 --> 00:15:11,600

i know all of our new astronauts will

384

00:15:15,990 --> 00:15:13,360

make us proud and lead us to new

385

00:15:18,470 --> 00:15:16,000

frontiers they're very important to our

386

00:15:25,590 --> 00:15:18,480

future and believe me

387

00:15:25,600 --> 00:15:30,069

okay so um even in that video

388

00:15:34,550 --> 00:15:32,629

acknowledged that we had more than 6 300

389

00:15:35,750 --> 00:15:34,560

applicants for this class so janet why

390

00:15:37,430 --> 00:15:35,760

don't you just start by telling us a

391

00:15:39,030 --> 00:15:37,440

little bit about how does the selection

392

00:15:41,030 --> 00:15:39,040

board even approach something like that

393

00:15:42,870 --> 00:15:41,040

when you have so few spots but so many

394

00:15:45,269 --> 00:15:42,880

qualified applicants

395

00:15:46,470 --> 00:15:45,279

yeah it's quite a tremendous uh

396

00:15:48,870 --> 00:15:46,480

undertaking

397

00:15:51,430 --> 00:15:48,880

we started out like you said advertising

398

00:15:53,430 --> 00:15:51,440

to a broad range of individuals all

399

00:15:56,310 --> 00:15:53,440

across america

400

00:15:59,110 --> 00:15:56,320

we went through the 6300 applications

401  
00:16:01,509 --> 00:15:59,120  
individually one by one and we had

402  
00:16:03,829 --> 00:16:01,519  
people like hands and eyes on each

403  
00:16:06,470 --> 00:16:03,839  
individual application the daunting test

404  
00:16:08,550 --> 00:16:06,480  
was to try to get from that 6300 down to

405  
00:16:10,790 --> 00:16:08,560  
120 people that we wanted to bring in an

406  
00:16:12,870 --> 00:16:10,800  
interview personally but we were able to

407  
00:16:14,550 --> 00:16:12,880  
achieve that over a few months and we

408  
00:16:16,150 --> 00:16:14,560  
selected 120 people to bring to the

409  
00:16:17,670 --> 00:16:16,160  
johnson space center where they

410  
00:16:20,629 --> 00:16:17,680  
underwent some initial medical

411  
00:16:23,030 --> 00:16:20,639  
evaluations and a one-hour

412  
00:16:24,629 --> 00:16:23,040  
interview process with a select

413  
00:16:28,310 --> 00:16:24,639

selection board

414

00:16:30,389 --> 00:16:28,320

um and once we did that we got some

415

00:16:33,590 --> 00:16:30,399

eliminations for the medical process and

416

00:16:35,110 --> 00:16:33,600

we brought back our top 50 candidates

417

00:16:39,030 --> 00:16:35,120

who we believe demonstrated the most

418

00:16:42,230 --> 00:16:39,040

potential for succeeding in this career

419

00:16:44,710 --> 00:16:42,240

of those actually we brought back 49 not

420

00:16:47,829 --> 00:16:44,720

quite 50 we brought back 49 individuals

421

00:16:50,069 --> 00:16:47,839

and those 49 individuals underwent a

422

00:16:52,870 --> 00:16:50,079

vast array of medical evaluations and

423

00:16:55,670 --> 00:16:52,880

tests psychological evaluations they did

424

00:16:58,230 --> 00:16:55,680

language aptitude evaluations they did

425

00:16:59,269 --> 00:16:58,240

mechanical skills evaluations and had

426  
00:17:00,870 --> 00:16:59,279  
another

427  
00:17:03,110 --> 00:17:00,880  
hour-long interview with the selection

428  
00:17:05,909 --> 00:17:03,120  
board and after undergoing all that

429  
00:17:08,710 --> 00:17:05,919  
growing process we came out with the

430  
00:17:11,510 --> 00:17:08,720  
eight most qualified people that we feel

431  
00:17:12,789 --> 00:17:11,520  
have the best chance of passing all the

432  
00:17:15,110 --> 00:17:12,799  
you know rigorous requirements of

433  
00:17:17,270 --> 00:17:15,120  
becoming an astronaut

434  
00:17:18,549 --> 00:17:17,280  
it looks like a great class and i'm sure

435  
00:17:20,789 --> 00:17:18,559  
it was really star

436  
00:17:21,909 --> 00:17:20,799  
really difficult that whole process

437  
00:17:23,350 --> 00:17:21,919  
next we want to go ahead and start by

438  
00:17:25,590 --> 00:17:23,360

taking some questions we've gotten some

439

00:17:27,990 --> 00:17:25,600

reporters who've called in so we'll

440

00:17:31,110 --> 00:17:28,000

start by taking questions from bill

441

00:17:35,029 --> 00:17:32,549

hey thank you very much jack can you

442

00:17:37,510 --> 00:17:35,039

refresh my memory on what the current

443

00:17:39,270 --> 00:17:37,520

size of the astronaut core is before

444

00:17:40,789 --> 00:17:39,280

these eight uh

445

00:17:43,990 --> 00:17:40,799

join thanks

446

00:17:46,070 --> 00:17:44,000

yeah we have about 48 active astronauts

447

00:17:47,190 --> 00:17:46,080

in the quarter day

448

00:17:49,190 --> 00:17:47,200

and

449

00:17:51,270 --> 00:17:49,200

those people have been leaving you know

450

00:17:54,230 --> 00:17:51,280

at a peak we were 150 people about a

451

00:17:56,230 --> 00:17:54,240

decade ago after the end of the uh

452

00:17:59,990 --> 00:17:56,240

or the retirement of the shuttle program

453

00:18:01,110 --> 00:18:00,000

we reduced down to about 50 and we had

454

00:18:02,310 --> 00:18:01,120

an nrc

455

00:18:05,270 --> 00:18:02,320

commission that came in and looked at

456

00:18:08,870 --> 00:18:05,280

our office and determined that a 45 to

457

00:18:11,029 --> 00:18:08,880

55 person range was appropriate for the

458

00:18:13,750 --> 00:18:11,039

missions that we do today considering

459

00:18:15,830 --> 00:18:13,760

attrition and medical disqualifications

460

00:18:17,029 --> 00:18:15,840

and and other types of disqualifications

461

00:18:18,789 --> 00:18:17,039

that people may

462

00:18:22,390 --> 00:18:18,799

run into as a

463

00:18:24,310 --> 00:18:22,400

train for missions so this 45 to 55

464

00:18:25,590 --> 00:18:24,320

seems to be the appropriate size of the

465

00:18:26,830 --> 00:18:25,600

office so that's what we're trying to

466

00:18:29,750 --> 00:18:26,840

maintain right

467

00:18:32,549 --> 00:18:29,760

now okay next we'll take a question from

468

00:18:34,070 --> 00:18:32,559

mark caro with aviation week

469

00:18:35,830 --> 00:18:34,080

okay

470

00:18:37,510 --> 00:18:35,840

oh thank you um

471

00:18:40,549 --> 00:18:37,520

were you ready for me i thought i heard

472

00:18:48,630 --> 00:18:40,559

a follow-up from bill harwood

473

00:18:54,549 --> 00:18:51,350

okay bill go ahead with your follow-up

474

00:18:56,230 --> 00:18:54,559

thanks um can you give us a sense of uh

475

00:18:57,590 --> 00:18:56,240

you know the the timing of this with

476  
00:18:59,669 --> 00:18:57,600  
these eight candidates and of course the

477  
00:19:02,070 --> 00:18:59,679  
news release talks about mars and you

478  
00:19:02,870 --> 00:19:02,080  
know asteroids and things like that

479  
00:19:06,630 --> 00:19:02,880  
um

480  
00:19:08,870 --> 00:19:06,640  
their training period and their

481  
00:19:10,789 --> 00:19:08,880  
qualified astronauts would be around

482  
00:19:12,630 --> 00:19:10,799  
and ready to fly anyway when when a

483  
00:19:13,830 --> 00:19:12,640  
commercial vehicle presumably would come

484  
00:19:15,909 --> 00:19:13,840  
online or

485  
00:19:17,190 --> 00:19:15,919  
or you know the sls system comes online

486  
00:19:18,390 --> 00:19:17,200  
later could you just talk about the

487  
00:19:20,710 --> 00:19:18,400  
missions

488  
00:19:22,549 --> 00:19:20,720

these guys potentially could fly that's

489

00:19:24,390 --> 00:19:22,559

it for me thanks

490

00:19:26,230 --> 00:19:24,400

okay you want to take that one yeah i'll

491

00:19:27,669 --> 00:19:26,240

take that one um

492

00:19:29,830 --> 00:19:27,679

we do have a lot of things that are

493

00:19:32,230 --> 00:19:29,840

either going on right now or are coming

494

00:19:33,510 --> 00:19:32,240

in the future and of course the the main

495

00:19:35,029 --> 00:19:33,520

operational program that we're

496

00:19:36,630 --> 00:19:35,039

supporting is the international space

497

00:19:39,190 --> 00:19:36,640

station and we have

498

00:19:40,950 --> 00:19:39,200

um one or two nasa astronauts on board

499

00:19:42,549 --> 00:19:40,960

at all times

500

00:19:45,190 --> 00:19:42,559

and we're right now we're going to be

501  
00:19:46,470 --> 00:19:45,200  
operating it at least through 2020 and

502  
00:19:48,870 --> 00:19:46,480  
when you look at all the things we

503  
00:19:50,789 --> 00:19:48,880  
really need to understand about human

504  
00:19:52,630 --> 00:19:50,799  
space exploration

505  
00:19:54,390 --> 00:19:52,640  
we really like to operate it longer in

506  
00:19:56,390 --> 00:19:54,400  
order to get a lot of the information

507  
00:19:58,630 --> 00:19:56,400  
particularly about human body and human

508  
00:20:00,070 --> 00:19:58,640  
systems and life support systems that

509  
00:20:02,390 --> 00:20:00,080  
we'll need to

510  
00:20:04,150 --> 00:20:02,400  
explore beyond low earth orbit so

511  
00:20:05,430 --> 00:20:04,160  
certainly supporting the international

512  
00:20:07,590 --> 00:20:05,440  
space station

513  
00:20:09,430 --> 00:20:07,600

and as you know we are

514

00:20:11,830 --> 00:20:09,440

in the midst of working with commercial

515

00:20:13,590 --> 00:20:11,840

companies to develop a commercial crew

516

00:20:15,510 --> 00:20:13,600

transportation system

517

00:20:17,669 --> 00:20:15,520

uh we're hoping that later this decade

518

00:20:19,350 --> 00:20:17,679

maybe around 2017

519

00:20:21,510 --> 00:20:19,360

that that first system might be

520

00:20:23,430 --> 00:20:21,520

available and so certainly this is

521

00:20:24,390 --> 00:20:23,440

something that crew could look forward

522

00:20:26,470 --> 00:20:24,400

to

523

00:20:28,230 --> 00:20:26,480

we're also developing the orion

524

00:20:30,310 --> 00:20:28,240

multi-purpose crew vehicle and that's

525

00:20:32,950 --> 00:20:30,320

designed specifically to go beyond low

526

00:20:35,510 --> 00:20:32,960

earth orbit and the marshall space

527

00:20:36,870 --> 00:20:35,520

flight center is developing the space

528

00:20:38,070 --> 00:20:36,880

launch system the rocket that will

529

00:20:41,110 --> 00:20:38,080

launch it

530

00:20:43,590 --> 00:20:41,120

and so we do plan to have missions that

531

00:20:46,950 --> 00:20:43,600

will start to demonstrate the capability

532

00:20:49,830 --> 00:20:46,960

to live beyond low earth orbit

533

00:20:51,750 --> 00:20:49,840

and be able to take us eventually to go

534

00:20:53,510 --> 00:20:51,760

to mars and so we do expect that class

535

00:20:55,669 --> 00:20:53,520

to be involved uh both in the

536

00:20:57,909 --> 00:20:55,679

development and and flying on orion as

537

00:20:59,990 --> 00:20:57,919

well

538

00:21:01,750 --> 00:21:00,000

okay now we'll switch back to mark caro

539

00:21:04,230 --> 00:21:01,760

again with aviation

540

00:21:05,510 --> 00:21:04,240

thank you very much um could you talk a

541

00:21:07,190 --> 00:21:05,520

little bit

542

00:21:10,470 --> 00:21:07,200

as best you know

543

00:21:12,070 --> 00:21:10,480

about your plans for future recruiting

544

00:21:14,390 --> 00:21:12,080

and hiring

545

00:21:15,350 --> 00:21:14,400

also in connection with that i'd like

546

00:21:17,909 --> 00:21:15,360

your

547

00:21:20,710 --> 00:21:17,919

thoughts on the tremendous number of

548

00:21:22,630 --> 00:21:20,720

people who applied for just a few

549

00:21:24,789 --> 00:21:22,640

openings really

550

00:21:26,710 --> 00:21:24,799

and again i

551  
00:21:28,390 --> 00:21:26,720  
i share your observation how talented

552  
00:21:30,630 --> 00:21:28,400  
they are do you think you'll have

553  
00:21:33,270 --> 00:21:30,640  
trouble in the future getting

554  
00:21:34,870 --> 00:21:33,280  
as many people to apply

555  
00:21:36,950 --> 00:21:34,880  
with the kinds of

556  
00:21:39,430 --> 00:21:36,960  
qualifications and background that you

557  
00:21:40,950 --> 00:21:39,440  
got this time thank you

558  
00:21:43,350 --> 00:21:40,960  
well mark i think

559  
00:21:45,430 --> 00:21:43,360  
we were extremely pleased to see that so

560  
00:21:47,270 --> 00:21:45,440  
many people still had such an incredible

561  
00:21:50,470 --> 00:21:47,280  
interest in the space program and in

562  
00:21:52,950 --> 00:21:50,480  
being a part of it as far as flying

563  
00:21:55,590 --> 00:21:52,960

on whatever vehicles that we will come

564

00:21:58,470 --> 00:21:55,600

up with in the future commercial and sls

565

00:22:00,950 --> 00:21:58,480

and orion and all future potential

566

00:22:03,270 --> 00:22:00,960

missions so i don't see any of that

567

00:22:04,870 --> 00:22:03,280

enthusiasm decreasing at all so i'm

568

00:22:06,630 --> 00:22:04,880

really not worried at all about the

569

00:22:08,549 --> 00:22:06,640

quantities of people that are interested

570

00:22:10,230 --> 00:22:08,559

and want to apply and as you've seen and

571

00:22:12,710 --> 00:22:10,240

heard all the qualifications that we had

572

00:22:13,990 --> 00:22:12,720

in in these eight individuals there are

573

00:22:16,710 --> 00:22:14,000

some people out there that have done

574

00:22:18,390 --> 00:22:16,720

just incredible and amazing things with

575

00:22:20,149 --> 00:22:18,400

their careers so far in a short number

576

00:22:22,390 --> 00:22:20,159  
of years so we want to take full

577

00:22:24,870 --> 00:22:22,400  
advantage of those people and bring them

578

00:22:27,510 --> 00:22:24,880  
here to nasa and apply that expertise

579

00:22:29,430 --> 00:22:27,520  
and education to help us make human

580

00:22:31,110 --> 00:22:29,440  
space flight go even further than it

581

00:22:32,950 --> 00:22:31,120  
ever has before

582

00:22:35,590 --> 00:22:32,960  
i as far as when we might select again

583

00:22:37,669 --> 00:22:35,600  
we're not real sure we we used to select

584

00:22:39,510 --> 00:22:37,679  
every two to three years and i think it

585

00:22:41,830 --> 00:22:39,520  
all depends on the attrition rate of the

586

00:22:44,230 --> 00:22:41,840  
current of the size of the office like i

587

00:22:48,310 --> 00:22:44,240  
said we want to try to maintain a 45 to

588

00:22:50,230 --> 00:22:48,320

55 person range so as we deem necessary

589

00:22:52,230 --> 00:22:50,240

we'll advertise again in the future i

590

00:22:53,430 --> 00:22:52,240

would guess two to four years from now

591

00:22:55,430 --> 00:22:53,440

and we'll go out with another

592

00:22:58,390 --> 00:22:55,440

announcement at that point and start the

593

00:23:01,909 --> 00:22:59,590

okay with that we're going to take a

594

00:23:03,590 --> 00:23:01,919

quick break from the questions and as we

595

00:23:05,270 --> 00:23:03,600

mentioned we weren't able to have the

596

00:23:07,430 --> 00:23:05,280

candidates themselves participate in

597

00:23:09,029 --> 00:23:07,440

this hangout but they were able to send

598

00:23:10,950 --> 00:23:09,039

us some short videos

599

00:23:23,190 --> 00:23:10,960

a little bit of a few remarks in their

600

00:23:26,870 --> 00:23:25,669

hi i'm josh casada 2013 astronaut

601  
00:23:29,270 --> 00:23:26,880  
candidate

602  
00:23:30,710 --> 00:23:29,280  
i'm really excited about

603  
00:23:32,230 --> 00:23:30,720  
being part of something that's much

604  
00:23:34,789 --> 00:23:32,240  
bigger than me

605  
00:23:37,350 --> 00:23:34,799  
and working alongside some of the

606  
00:23:39,590 --> 00:23:37,360  
world's best minds who who thankfully

607  
00:23:41,669 --> 00:23:39,600  
for us uh feel the same about being part

608  
00:23:43,350 --> 00:23:41,679  
of something much bigger than them

609  
00:23:45,590 --> 00:23:43,360  
you know from my perspective exploration

610  
00:23:47,909 --> 00:23:45,600  
is the foundation of uh of the human

611  
00:23:50,390 --> 00:23:47,919  
spirit um and whether that exploration

612  
00:23:53,029 --> 00:23:50,400  
is you know at the subatomic level or on

613  
00:23:54,549 --> 00:23:53,039

the nano scale or even the cosmic scale

614

00:23:56,549 --> 00:23:54,559

um

615

00:23:57,669 --> 00:23:56,559

you know i think if society isn't

616

00:24:00,070 --> 00:23:57,679

exploring we're really just kind of

617

00:24:02,070 --> 00:24:00,080

sustaining and uh to

618

00:24:03,990 --> 00:24:02,080

be able to contribute today contribute

619

00:24:07,350 --> 00:24:04,000

to that and that exploration in any

620

00:24:09,190 --> 00:24:07,360

small way is really exciting

621

00:24:13,510 --> 00:24:09,200

i'm lieutenant commander victor glover

622

00:24:15,350 --> 00:24:13,520

and i'm a 2013 nasa astronaut candidate

623

00:24:16,830 --> 00:24:15,360

the thing that really

624

00:24:20,070 --> 00:24:16,840

draws me and

625

00:24:22,149 --> 00:24:20,080

and excites me about the future is the

626

00:24:24,149 --> 00:24:22,159

opportunity to be a part

627

00:24:27,029 --> 00:24:24,159

of

628

00:24:28,870 --> 00:24:27,039

kindling america's passion for aerospace

629

00:24:30,789 --> 00:24:28,880

in space i think there's something

630

00:24:33,590 --> 00:24:30,799

special about flying and

631

00:24:36,470 --> 00:24:33,600

especially flying in space that it just

632

00:24:38,149 --> 00:24:36,480

draws people's fascination and passions

633

00:24:40,630 --> 00:24:38,159

and being a part of that is the thing

634

00:24:42,870 --> 00:24:40,640

that i think excites me the most

635

00:24:45,350 --> 00:24:42,880

the first person that i told was my wife

636

00:24:47,909 --> 00:24:45,360

uh as soon as i got off the phone with

637

00:24:49,990 --> 00:24:47,919

janet and pinched myself a couple of

638

00:24:52,549 --> 00:24:50,000

times i called my wife

639

00:24:54,630 --> 00:24:52,559

we are actually in the process of

640

00:24:56,070 --> 00:24:54,640

negotiating orders so i'm in the process

641

00:24:58,230 --> 00:24:56,080

of working with the navy to determine

642

00:25:00,390 --> 00:24:58,240

where i would go next uh if the

643

00:25:02,870 --> 00:25:00,400

astronaut program didn't work out and so

644

00:25:05,110 --> 00:25:02,880

my wife is very aware and she's very

645

00:25:07,510 --> 00:25:05,120

keen to find out where we're going next

646

00:25:09,269 --> 00:25:07,520

and so i called her and i was able to

647

00:25:11,190 --> 00:25:09,279

tell her that now we know where we're

648

00:25:13,669 --> 00:25:11,200

going we're moving to houston and she

649

00:25:15,750 --> 00:25:13,679

was ecstatic

650

00:25:19,350 --> 00:25:15,760

hi i'm lieutenant colonel nick hague

651  
00:25:20,870 --> 00:25:19,360  
2013 nasa astronaut candidate

652  
00:25:23,190 --> 00:25:20,880  
my parents are going to be excited they

653  
00:25:25,990 --> 00:25:23,200  
know that this has been a lifelong goal

654  
00:25:27,269 --> 00:25:26,000  
uh trying to become part of the program

655  
00:25:28,630 --> 00:25:27,279  
my brothers

656  
00:25:31,909 --> 00:25:28,640  
as they always do will give me a hard

657  
00:25:34,310 --> 00:25:31,919  
time and uh you know tell me the the

658  
00:25:37,510 --> 00:25:34,320  
challenges ahead of the training program

659  
00:25:39,190 --> 00:25:37,520  
but um everybody's gonna be excited

660  
00:25:41,269 --> 00:25:39,200  
i've wanted to become an astronaut for

661  
00:25:43,909 --> 00:25:41,279  
for a long time uh this is my third

662  
00:25:46,149 --> 00:25:43,919  
third attempt at applying

663  
00:25:48,310 --> 00:25:46,159

and uh

664

00:25:50,390 --> 00:25:48,320

what really solidified my interest in

665

00:25:52,230 --> 00:25:50,400

getting involved with the uh the space

666

00:25:53,990 --> 00:25:52,240

program uh

667

00:25:55,909 --> 00:25:54,000

was when i got involved with flight

668

00:25:58,470 --> 00:25:55,919

tests out at edwards air force base

669

00:26:00,549 --> 00:25:58,480

going through test pilot school

670

00:26:02,549 --> 00:26:00,559

the idea of

671

00:26:04,149 --> 00:26:02,559

getting to

672

00:26:06,710 --> 00:26:04,159

discover new things

673

00:26:09,669 --> 00:26:06,720

test out very complicated systems is

674

00:26:12,630 --> 00:26:09,679

something that i gravitated towards

675

00:26:14,710 --> 00:26:12,640

hi i'm christina hammack and i'm a 2013

676

00:26:17,350 --> 00:26:14,720

astronaut candidate

677

00:26:20,230 --> 00:26:17,360

what actually inspired me to make the

678

00:26:22,549 --> 00:26:20,240

move to to actually do the application

679

00:26:25,190 --> 00:26:22,559

was just reflecting on my career and

680

00:26:28,310 --> 00:26:25,200

realizing that through following my own

681

00:26:30,710 --> 00:26:28,320

personal dreams i had accumulated a set

682

00:26:33,029 --> 00:26:30,720

of skills that i thought could really be

683

00:26:35,190 --> 00:26:33,039

useful in contributing to human space

684

00:26:37,190 --> 00:26:35,200

flight the big picture is that i really

685

00:26:39,029 --> 00:26:37,200

look forward to being able to directly

686

00:26:41,510 --> 00:26:39,039

contribute to the human space flight

687

00:26:43,590 --> 00:26:41,520

program i really strongly believe

688

00:26:46,630 --> 00:26:43,600

in both the practical aspects of the

689

00:26:49,190 --> 00:26:46,640

research being conducted as well as the

690

00:26:50,630 --> 00:26:49,200

larger picture of the human space flight

691

00:26:52,390 --> 00:26:50,640

program

692

00:26:54,710 --> 00:26:52,400

bringing us forward

693

00:26:56,950 --> 00:26:54,720

as a human race and uniting us and

694

00:26:58,870 --> 00:26:56,960

exploring the universe

695

00:27:01,350 --> 00:26:58,880

hi i'm major nicole mann united states

696

00:27:02,549 --> 00:27:01,360

marine corps nasa 2013 astronaut

697

00:27:04,149 --> 00:27:02,559

candidate

698

00:27:06,710 --> 00:27:04,159

the astronaut

699

00:27:09,190 --> 00:27:06,720

selection announcement came out um in

700

00:27:11,350 --> 00:27:09,200

january of last year i couldn't believe

701  
00:27:13,269 --> 00:27:11,360  
it i was you know incredibly excited and

702  
00:27:15,510 --> 00:27:13,279  
i kind of took a look at my career and

703  
00:27:17,750 --> 00:27:15,520  
and i had met all those uh benchmarks or

704  
00:27:19,830 --> 00:27:17,760  
those requirements and so i figured well

705  
00:27:20,710 --> 00:27:19,840  
i'll put my name in the hat um you know

706  
00:27:23,110 --> 00:27:20,720  
i thought you know i thought it was a

707  
00:27:24,789 --> 00:27:23,120  
long shot because they don't select you

708  
00:27:27,029 --> 00:27:24,799  
know very many people

709  
00:27:29,350 --> 00:27:27,039  
i'm really looking forward to

710  
00:27:31,110 --> 00:27:29,360  
the people down at nasa and working for

711  
00:27:32,870 --> 00:27:31,120  
that great organization i've had the

712  
00:27:35,029 --> 00:27:32,880  
opportunity to go down a couple times to

713  
00:27:38,630 --> 00:27:35,039

a visit and really it's just the uh the

714

00:27:39,909 --> 00:27:38,640

energy and the excitement the um

715

00:27:41,590 --> 00:27:39,919

professionals down there and our

716

00:27:44,149 --> 00:27:41,600

international partners everybody you

717

00:27:46,789 --> 00:27:44,159

know working towards a common mission

718

00:27:49,190 --> 00:27:46,799

towards science exploration

719

00:27:51,110 --> 00:27:49,200

and really that big goal of all of

720

00:27:54,389 --> 00:27:51,120

humankind so i'm looking forward to

721

00:27:58,230 --> 00:27:54,399

being a part of that very important team

722

00:28:00,389 --> 00:27:58,240

hi i am major ann mclean nasa 2013

723

00:28:03,430 --> 00:28:00,399

astronaut candidate

724

00:28:05,190 --> 00:28:03,440

i have been as excited to tell my mother

725

00:28:08,070 --> 00:28:05,200

that i was selected as i was to be

726

00:28:10,070 --> 00:28:08,080

selected myself um so i called her and i

727

00:28:11,990 --> 00:28:10,080

i s the first thing i said and i asked

728

00:28:14,389 --> 00:28:12,000

her what she was doing and she was out

729

00:28:16,710 --> 00:28:14,399

in the front gardening her roses

730

00:28:18,630 --> 00:28:16,720

and i said uh well you'll never forget

731

00:28:20,870 --> 00:28:18,640

this moment and i said i've been

732

00:28:22,630 --> 00:28:20,880

selected as an astronaut candidate and

733

00:28:24,149 --> 00:28:22,640

she screamed she screamed so loud that

734

00:28:24,870 --> 00:28:24,159

my stepfather ran out of the house i

735

00:28:26,630 --> 00:28:24,880

think

736

00:28:29,029 --> 00:28:26,640

he thought that she had injured herself

737

00:28:30,470 --> 00:28:29,039

uh it was certainly exciting she uh she

738

00:28:32,310 --> 00:28:30,480

had the she sounded like she had the

739

00:28:33,590 --> 00:28:32,320

same reaction that i did

740

00:28:35,029 --> 00:28:33,600

i've been blessed with amazing

741

00:28:36,789 --> 00:28:35,039

opportunities and amazing people that

742

00:28:38,950 --> 00:28:36,799

have helped me along the way i've been

743

00:28:40,470 --> 00:28:38,960

humbled by the amount of uh

744

00:28:42,630 --> 00:28:40,480

by how much i've had to rely on

745

00:28:45,190 --> 00:28:42,640

everybody else um to kind of get to the

746

00:28:46,710 --> 00:28:45,200

point that i'm at i truly don't remember

747

00:28:48,789 --> 00:28:46,720

being when i ever wanted to be something

748

00:28:51,269 --> 00:28:48,799

else and it's just so surreal that this

749

00:28:54,149 --> 00:28:51,279

moment's arrived

750

00:28:57,990 --> 00:28:54,159

hello my name is dr jessica meer and i'm

751

00:28:59,190 --> 00:28:58,000

in 2013 astronaut candidate

752

00:29:01,909 --> 00:28:59,200

of course what i'm looking forward to

753

00:29:04,149 --> 00:29:01,919

most the big one would be eventually

754

00:29:05,990 --> 00:29:04,159

hopefully flying in space since that has

755

00:29:08,389 --> 00:29:06,000

been my dream since i was about five

756

00:29:10,070 --> 00:29:08,399

years old but i'm also really excited

757

00:29:11,029 --> 00:29:10,080

about becoming part of the nasa team

758

00:29:12,470 --> 00:29:11,039

again

759

00:29:14,549 --> 00:29:12,480

astronauts are of course fortunate

760

00:29:17,590 --> 00:29:14,559

enough to be the office to often be the

761

00:29:19,190 --> 00:29:17,600

face of nasa uh and to actually fly the

762

00:29:20,310 --> 00:29:19,200

missions but of course it takes a whole

763

00:29:22,310 --> 00:29:20,320

group of

764

00:29:24,070 --> 00:29:22,320

of individuals to make those missions

765

00:29:26,870 --> 00:29:24,080

happen i'm also looking forward to

766

00:29:28,549 --> 00:29:26,880

various aspects of the training itself i

767

00:29:30,389 --> 00:29:28,559

have my private pilot's license but i'm

768

00:29:32,230 --> 00:29:30,399

really excited about going to pensacola

769

00:29:34,389 --> 00:29:32,240

for real flight training and jets that's

770

00:29:35,830 --> 00:29:34,399

something that will be really really uh

771

00:29:37,510 --> 00:29:35,840

incredible for me

772

00:29:39,190 --> 00:29:37,520

and i'm also really looking forward to

773

00:29:40,789 --> 00:29:39,200

the international component i really

774

00:29:43,430 --> 00:29:40,799

enjoy studying foreign languages and

775

00:29:45,029 --> 00:29:43,440

cultures and so the immersion in the

776

00:29:47,029 --> 00:29:45,039

russian culture and society that we'll

777

00:29:49,269 --> 00:29:47,039

have as part of the international space

778

00:29:51,029 --> 00:29:49,279

station and the other

779

00:29:53,990 --> 00:29:51,039

the other international partners as well

780

00:29:57,110 --> 00:29:54,000

i'm really looking forward to that

781

00:29:59,909 --> 00:29:57,120

hi my name is andrew morgan i'm a major

782

00:30:02,549 --> 00:29:59,919

in the united states army and i'm a 2013

783

00:30:04,870 --> 00:30:02,559

nasa astronaut candidate

784

00:30:07,750 --> 00:30:04,880

i definitely felt drawn to being

785

00:30:10,470 --> 00:30:07,760

surrounded by the people that i had

786

00:30:12,310 --> 00:30:10,480

encountered at nasa and being

787

00:30:13,269 --> 00:30:12,320

part of the astronaut office being part

788

00:30:16,630 --> 00:30:13,279

of the

789

00:30:17,669 --> 00:30:16,640

um the astronaut corps was

790

00:30:19,669 --> 00:30:17,679

just

791

00:30:22,149 --> 00:30:19,679

an incredibly talented group of people

792

00:30:23,350 --> 00:30:22,159

and to be a part of that it would just i

793

00:30:24,789 --> 00:30:23,360

knew that that would be something

794

00:30:27,350 --> 00:30:24,799

special

795

00:30:29,190 --> 00:30:27,360

uh without a doubt that i'm really

796

00:30:31,830 --> 00:30:29,200

looking forward to meeting my classmates

797

00:30:33,510 --> 00:30:31,840

that's kind of my my near-term goal

798

00:30:36,230 --> 00:30:33,520

right now is to get to know them right

799

00:30:38,630 --> 00:30:36,240

away we've we've had some sporadic

800

00:30:40,070 --> 00:30:38,640

initial contact here by email and i know

801  
00:30:42,310 --> 00:30:40,080  
about half of them from the interview

802  
00:30:43,750 --> 00:30:42,320  
process but i'm really eager to get

803  
00:30:44,630 --> 00:30:43,760  
together with them and to meet the other

804  
00:30:46,870 --> 00:30:44,640  
half

805  
00:30:47,909 --> 00:30:46,880  
because we really want to build the

806  
00:30:49,909 --> 00:30:47,919  
um

807  
00:30:53,350 --> 00:30:49,919  
build that atmosphere of an extended

808  
00:31:05,510 --> 00:30:53,360  
family early on and so the sooner the

809  
00:31:09,510 --> 00:31:07,750  
okay so that's some words um directly

810  
00:31:11,750 --> 00:31:09,520  
from the astronaut candidates themselves

811  
00:31:14,230 --> 00:31:11,760  
as you heard there um the excitement

812  
00:31:15,750 --> 00:31:14,240  
just to be arriving here in houston and

813  
00:31:17,909 --> 00:31:15,760

uh looking forward to starting their

814

00:31:19,350 --> 00:31:17,919

work with the space agency and it's hard

815

00:31:21,190 --> 00:31:19,360

for some of us to imagine what that must

816

00:31:22,789 --> 00:31:21,200

be like when you've

817

00:31:23,909 --> 00:31:22,799

are finally realizing a dream that

818

00:31:25,830 --> 00:31:23,919

something maybe you've worked on your

819

00:31:27,590 --> 00:31:25,840

whole life or your whole career has been

820

00:31:28,950 --> 00:31:27,600

dedicated to pursuing so this is really

821

00:31:31,029 --> 00:31:28,960

exciting and

822

00:31:32,310 --> 00:31:31,039

for all of you but especially mike and

823

00:31:33,909 --> 00:31:32,320

kate i want to turn it over to you this

824

00:31:35,750 --> 00:31:33,919

must be bringing back a lot of memories

825

00:31:37,830 --> 00:31:35,760

for you as well i think mike you were

826

00:31:40,149 --> 00:31:37,840

selected back in 1998 and you've since

827

00:31:41,590 --> 00:31:40,159

flown uh two space shuttle missions and

828

00:31:43,750 --> 00:31:41,600

kate you were actually selected in our

829

00:31:45,350 --> 00:31:43,760

most recent astronaut class

830

00:31:46,630 --> 00:31:45,360

can you both tell us a little bit about

831

00:31:48,870 --> 00:31:46,640

what it was like and take us back to

832

00:31:50,870 --> 00:31:48,880

when you got the call

833

00:31:52,710 --> 00:31:50,880

well nicole first let me say i'm just

834

00:31:55,269 --> 00:31:52,720

glad that i'm not competing for an

835

00:31:56,870 --> 00:31:55,279

astronaut slot today you know the

836

00:31:59,990 --> 00:31:56,880

incredible individuals that they've

837

00:32:02,389 --> 00:32:00,000

selected are just uh far far away they

838

00:32:05,509 --> 00:32:02,399

seem like super human people to me you

839

00:32:07,990 --> 00:32:05,519

know and so i'm glad that uh after

840

00:32:12,149 --> 00:32:08,000

applying for about eight times uh i was

841

00:32:14,470 --> 00:32:12,159

selected in 1998 and uh so i i always

842

00:32:17,029 --> 00:32:14,480

thought you know my career would be just

843

00:32:20,950 --> 00:32:17,039

applying to be an astronaut i was

844

00:32:23,350 --> 00:32:20,960

hopeful but but not very uh

845

00:32:26,070 --> 00:32:23,360

sure that i would ever get selected so

846

00:32:27,669 --> 00:32:26,080

after uh many rejections uh actually

847

00:32:29,669 --> 00:32:27,679

making it down here was just the thrill

848

00:32:31,190 --> 00:32:29,679

of the life you know you can hear it in

849

00:32:33,430 --> 00:32:31,200

their voices when they're talking about

850

00:32:35,350 --> 00:32:33,440

getting that call it's just so thrilling

851

00:32:36,870 --> 00:32:35,360

you know i'm a little bit envious of

852

00:32:38,470 --> 00:32:36,880

them to be you know at the starting

853

00:32:40,549 --> 00:32:38,480

point again because those are some great

854

00:32:43,430 --> 00:32:40,559

times you know with

855

00:32:46,149 --> 00:32:43,440

me and my classmates coming together in

856

00:32:48,789 --> 00:32:46,159

1998 and uh going through the initial

857

00:32:50,950 --> 00:32:48,799

training just just a thrill but uh kate

858

00:32:52,789 --> 00:32:50,960

you probably have some thoughts

859

00:32:54,230 --> 00:32:52,799

yeah so when you when you uh are going

860

00:32:55,590 --> 00:32:54,240

through the interview process you meet

861

00:32:57,750 --> 00:32:55,600

all these incredible folks and so you're

862

00:32:59,990 --> 00:32:57,760

about 99.5 sure that you're never going

863

00:33:01,190 --> 00:33:00,000

to get the call and and so it's actually

864

00:33:02,630 --> 00:33:01,200

a little bit relaxing because you figure

865

00:33:04,470 --> 00:33:02,640

everybody else is so fantastic they're

866

00:33:06,789 --> 00:33:04,480

never going to take you so there's that

867

00:33:08,389 --> 00:33:06,799

0.5 that says hey what if this actually

868

00:33:10,549 --> 00:33:08,399

happens you know how am i going to

869

00:33:12,870 --> 00:33:10,559

figure out my whole life and so

870

00:33:15,269 --> 00:33:12,880

it's incredibly exciting um to be

871

00:33:16,470 --> 00:33:15,279

notified that you've been selected but

872

00:33:19,029 --> 00:33:16,480

then there's also this kind of

873

00:33:21,269 --> 00:33:19,039

overwhelming feeling of everybody's got

874

00:33:22,789 --> 00:33:21,279

a career and a life and and something

875

00:33:24,549 --> 00:33:22,799

that they're very very passionate about

876

00:33:26,389 --> 00:33:24,559

what they've been doing to this point so

877

00:33:28,310 --> 00:33:26,399

you have to wrap that up in short order

878

00:33:29,990 --> 00:33:28,320

and get down to houston and start an

879

00:33:31,909 --> 00:33:30,000

entirely new adventure one that's

880

00:33:33,269 --> 00:33:31,919

incredibly exciting

881

00:33:35,350 --> 00:33:33,279

i think that's another part that's kind

882

00:33:37,350 --> 00:33:35,360

of interesting to this is just like you

883

00:33:38,870 --> 00:33:37,360

said the transition that's happening now

884

00:33:40,149 --> 00:33:38,880

tell us what that was like and maybe

885

00:33:42,549 --> 00:33:40,159

kate especially you since you did it

886

00:33:44,230 --> 00:33:42,559

more recently what does that all entail

887

00:33:45,590 --> 00:33:44,240

and how you know

888

00:33:47,909 --> 00:33:45,600

were you giving a lot of help or how did

889

00:33:49,110 --> 00:33:47,919

you even go about a relocation like that

890

00:33:50,789 --> 00:33:49,120

in short timeframe because i think

891

00:33:52,789 --> 00:33:50,799

they're starting here literally on

892

00:33:53,990 --> 00:33:52,799

august 1st or thereafter so

893

00:33:55,509 --> 00:33:54,000

they don't have a whole lot of time to

894

00:33:56,789 --> 00:33:55,519

make that swap

895

00:33:58,870 --> 00:33:56,799

there's not a lot of time but at the

896

00:34:00,549 --> 00:33:58,880

same time uh you're you're really

897

00:34:02,710 --> 00:34:00,559

excited to jump in and start your

898

00:34:04,310 --> 00:34:02,720

training and there's so many aspects of

899

00:34:05,909 --> 00:34:04,320

the training that are so exciting you

900

00:34:07,669 --> 00:34:05,919

won't want this to be six months out you

901  
00:34:09,030 --> 00:34:07,679  
gotta you gotta wrap step up and you

902  
00:34:11,030 --> 00:34:09,040  
gotta move down to houston so there's

903  
00:34:12,470 --> 00:34:11,040  
obviously you know the logistics of

904  
00:34:14,230 --> 00:34:12,480  
getting here and nasa's really good

905  
00:34:16,389 --> 00:34:14,240  
about helping folks out i think the

906  
00:34:17,430 --> 00:34:16,399  
biggest thing is to make sure um

907  
00:34:18,470 --> 00:34:17,440  
whatever they were doing in their

908  
00:34:20,710 --> 00:34:18,480  
previous career you know if they're

909  
00:34:22,389 --> 00:34:20,720  
military if they're in a squadron if

910  
00:34:24,629 --> 00:34:22,399  
they're at a university make sure all

911  
00:34:27,190 --> 00:34:24,639  
that that stuff is tied up and for me um

912  
00:34:29,270 --> 00:34:27,200  
i was running a research lab at mit and

913  
00:34:30,550 --> 00:34:29,280

so i i had a whole bunch of people that

914

00:34:31,750 --> 00:34:30,560

were working for me so it was really

915

00:34:33,909 --> 00:34:31,760

important to me to make sure that they

916

00:34:35,270 --> 00:34:33,919

all had good jobs that the research

917

00:34:37,510 --> 00:34:35,280

could continue

918

00:34:39,909 --> 00:34:37,520

they went to other universities we had

919

00:34:41,589 --> 00:34:39,919

to move the grant funding along so these

920

00:34:43,510 --> 00:34:41,599

are processes that can take months or

921

00:34:45,430 --> 00:34:43,520

years when a principal investigator

922

00:34:47,430 --> 00:34:45,440

changes institution and get about six

923

00:34:49,990 --> 00:34:47,440

weeks to get it all done and luckily

924

00:34:51,909 --> 00:34:50,000

folks landed in a good place so um

925

00:34:53,510 --> 00:34:51,919

they're focused right now on on wrapping

926  
00:34:55,990 --> 00:34:53,520  
up the lives that they're currently

927  
00:34:57,589 --> 00:34:56,000  
leading and as you move into getting

928  
00:34:59,030 --> 00:34:57,599  
ready to come to houston they'll start

929  
00:35:01,270 --> 00:34:59,040  
looking forward to all the training that

930  
00:35:03,030 --> 00:35:01,280  
they're going to do here

931  
00:35:05,030 --> 00:35:03,040  
gotcha we want to go ahead and start

932  
00:35:07,190 --> 00:35:05,040  
taking some questions um folks by social

933  
00:35:08,150 --> 00:35:07,200  
media and um people watching we still

934  
00:35:10,550 --> 00:35:08,160  
want to encourage you to submit

935  
00:35:12,230 --> 00:35:10,560  
questions using the hashtag asknasa so

936  
00:35:14,710 --> 00:35:12,240  
one of the first questions we got was

937  
00:35:17,190 --> 00:35:14,720  
from at women in the air and their

938  
00:35:19,030 --> 00:35:17,200

question was was it a deliberate

939

00:35:21,030 --> 00:35:19,040

decision to have half of the 13

940

00:35:23,190 --> 00:35:21,040

astronaut class be women or was it by

941

00:35:24,470 --> 00:35:23,200

happenstance and maybe um janet that

942

00:35:26,150 --> 00:35:24,480

might be a question better for you since

943

00:35:29,030 --> 00:35:26,160

you were on the board

944

00:35:30,710 --> 00:35:29,040

yeah that that was not by choice or by

945

00:35:32,630 --> 00:35:30,720

you know determination we never

946

00:35:34,230 --> 00:35:32,640

determine how many people of each gender

947

00:35:36,950 --> 00:35:34,240

we're going to take

948

00:35:38,950 --> 00:35:36,960

but these were the most qualified people

949

00:35:41,589 --> 00:35:38,960

of the ones that we interviewed and they

950

00:35:43,270 --> 00:35:41,599

earned every bit the right to be there

951  
00:35:45,430 --> 00:35:43,280  
it turned out that they happen to be

952  
00:35:47,670 --> 00:35:45,440  
half men and half women in the end

953  
00:35:49,910 --> 00:35:47,680  
which i think is a great tribute to

954  
00:35:51,349 --> 00:35:49,920  
women today they've achieved and are

955  
00:35:54,310 --> 00:35:51,359  
going into fields that are much more

956  
00:35:56,630 --> 00:35:54,320  
demanding and make them on equal footing

957  
00:35:58,870 --> 00:35:56,640  
as the male candidates so in the end

958  
00:36:00,710 --> 00:35:58,880  
when we selected

959  
00:36:02,390 --> 00:36:00,720  
all the women candidates as you heard

960  
00:36:03,670 --> 00:36:02,400  
have tremendous qualifications and

961  
00:36:06,630 --> 00:36:03,680  
certainly earned the right to be there

962  
00:36:08,470 --> 00:36:06,640  
so i'm glad i'm happy that it turned out

963  
00:36:11,589 --> 00:36:08,480

that way but we didn't intentionally go

964

00:36:13,510 --> 00:36:11,599

out seeking that when we started out

965

00:36:16,069 --> 00:36:13,520

okay and one other question we've gotten

966

00:36:18,550 --> 00:36:16,079

by via twitter

967

00:36:20,390 --> 00:36:18,560

from at project did you know

968

00:36:23,750 --> 00:36:20,400

what are the physical qualities required

969

00:36:26,150 --> 00:36:23,760

to get selected as an astronaut

970

00:36:28,550 --> 00:36:26,160

physical qualifications uh well there

971

00:36:30,310 --> 00:36:28,560

are many physical qualifications i'm not

972

00:36:32,230 --> 00:36:30,320

a medical doctor and i did not do the

973

00:36:34,390 --> 00:36:32,240

medical screening so there's those those

974

00:36:36,550 --> 00:36:34,400

types of medical qualifications which

975

00:36:39,190 --> 00:36:36,560

are physical and then there's a certain

976

00:36:40,950 --> 00:36:39,200

amount of anthropometric physical

977

00:36:43,190 --> 00:36:40,960

qualifications and limitations were

978

00:36:45,030 --> 00:36:43,200

limited by the the size of the

979

00:36:47,430 --> 00:36:45,040

spacecraft and the size of the space

980

00:36:50,069 --> 00:36:47,440

suits so that's also sort of a physical

981

00:36:52,069 --> 00:36:50,079

limitation we didn't actually do any

982

00:36:53,990 --> 00:36:52,079

sort of endurance testing or anything

983

00:36:55,349 --> 00:36:54,000

like that but by virtue of these

984

00:36:57,510 --> 00:36:55,359

people's careers you can and what

985

00:36:59,430 --> 00:36:57,520

they've done we know that they're in

986

00:37:00,950 --> 00:36:59,440

very good shape just because of you

987

00:37:02,790 --> 00:37:00,960

can't really do what these people do and

988

00:37:05,109 --> 00:37:02,800

not be in really good physical shape a

989

00:37:07,910 --> 00:37:05,119

lot of run marathons and things like

990

00:37:10,790 --> 00:37:07,920

that in addition to to their careers so

991

00:37:13,109 --> 00:37:10,800

they're just very nice special physical

992

00:37:16,470 --> 00:37:13,119

specimens as well as their academic

993

00:37:17,910 --> 00:37:16,480

skills are just unparalleled

994

00:37:19,349 --> 00:37:17,920

great um

995

00:37:21,349 --> 00:37:19,359

just taking a break from the questions

996

00:37:23,270 --> 00:37:21,359

the word of this exciting announcement

997

00:37:25,270 --> 00:37:23,280

has traveled far and fast and we

998

00:37:26,630 --> 00:37:25,280

actually have a special message from the

999

00:37:28,470 --> 00:37:26,640

astronauts who are actually working on

1000

00:37:30,710 --> 00:37:28,480

the international space station now this

1001

00:37:32,390 --> 00:37:30,720

was a message that was recorded by chris

1002

00:37:35,870 --> 00:37:32,400

cassidy and karen nyberg up on the space

1003

00:37:41,670 --> 00:37:39,190

2013 ask hans welcome to the astronaut

1004

00:37:43,270 --> 00:37:41,680

office i'm chris cassidy and

1005

00:37:44,710 --> 00:37:43,280

and i'm karen nyberg we're here up here

1006

00:37:46,390 --> 00:37:44,720

on the international space station and

1007

00:37:49,190 --> 00:37:46,400

we're very excited to be able to welcome

1008

00:37:53,589 --> 00:37:51,829

and uh we were thinking back to when we

1009

00:37:55,750 --> 00:37:53,599

got the initial calls ourselves so we

1010

00:37:57,670 --> 00:37:55,760

thought it'd be fun to to share our

1011

00:37:59,349 --> 00:37:57,680

thoughts about where were we and who we

1012

00:38:01,510 --> 00:37:59,359

called and the whole our experience with

1013

00:38:04,550 --> 00:38:01,520

this particular exciting day for me i

1014

00:38:06,150 --> 00:38:04,560

had just gotten back from a military six

1015

00:38:07,670 --> 00:38:06,160

month deployment kind of like this trip

1016

00:38:09,589 --> 00:38:07,680

here to the space station

1017

00:38:11,510 --> 00:38:09,599

literally that weekend and i had gotten

1018

00:38:13,190 --> 00:38:11,520

a message to call the astronaut office

1019

00:38:14,470 --> 00:38:13,200

on on monday

1020

00:38:17,510 --> 00:38:14,480

and uh

1021

00:38:19,190 --> 00:38:17,520

and at noon for i think it was and just

1022

00:38:20,950 --> 00:38:19,200

a handful of minutes before the time i

1023

00:38:22,550 --> 00:38:20,960

was supposed to call there the phone

1024

00:38:24,950 --> 00:38:22,560

rang in our house

1025

00:38:26,950 --> 00:38:24,960

and uh it was kent rominger who was the

1026

00:38:29,430 --> 00:38:26,960

chief astronaut at the time

1027

00:38:30,870 --> 00:38:29,440

he said chris uh just wondering if

1028

00:38:34,069 --> 00:38:30,880

you're still interested in working for

1029

00:38:36,069 --> 00:38:34,079

us and i was so excited and my wife and

1030

00:38:38,470 --> 00:38:36,079

three small kids at the time

1031

00:38:40,069 --> 00:38:38,480

were there and my kids were excited i

1032

00:38:41,829 --> 00:38:40,079

think not because i understood what was

1033

00:38:44,150 --> 00:38:41,839

going on but because they saw me and my

1034

00:38:46,630 --> 00:38:44,160

wife very happy and excited and

1035

00:38:48,230 --> 00:38:46,640

so that was my first experience so my

1036

00:38:49,990 --> 00:38:48,240

family was the first people that found

1037

00:38:51,510 --> 00:38:50,000

out my wife and three kids

1038

00:38:53,109 --> 00:38:51,520

and then we had to kind of keep it a

1039

00:38:57,510 --> 00:38:53,119

secret for a while but i did tell my mom

1040

00:39:02,069 --> 00:38:59,990

gosh it was almost 13 years ago now and

1041

00:39:03,430 --> 00:39:02,079

i was working as a engineer at the

1042

00:39:05,910 --> 00:39:03,440

johnson space center and i remember i

1043

00:39:08,390 --> 00:39:05,920

was sitting at my desk in building seven

1044

00:39:10,150 --> 00:39:08,400

and i got the call from charlie precourt

1045

00:39:11,670 --> 00:39:10,160

and again same thing he asked just

1046

00:39:13,349 --> 00:39:11,680

wondering if you're still interested in

1047

00:39:14,630 --> 00:39:13,359

coming to work for us and

1048

00:39:15,829 --> 00:39:14,640

and uh

1049

00:39:17,750 --> 00:39:15,839

i didn't really know what to do with

1050

00:39:19,750 --> 00:39:17,760

myself we were also told to to keep it

1051

00:39:22,710 --> 00:39:19,760

quiet and so i didn't want to

1052

00:39:24,790 --> 00:39:22,720

uh screen too much or go around

1053

00:39:26,230 --> 00:39:24,800

telling everybody at work because you

1054

00:39:28,390 --> 00:39:26,240

know being at the johnson space center

1055

00:39:30,310 --> 00:39:28,400

and i was afraid of get letting it out

1056

00:39:31,910 --> 00:39:30,320

when i wasn't supposed to so i went home

1057

00:39:33,190 --> 00:39:31,920

it was around lunch time and i went home

1058

00:39:36,550 --> 00:39:33,200

and i don't think i went back to work

1059

00:39:38,790 --> 00:39:36,560

that day i was just too excited

1060

00:39:41,109 --> 00:39:38,800

so that's our our stories and probably

1061

00:39:43,349 --> 00:39:41,119

very similar to yours the the excitement

1062

00:39:45,829 --> 00:39:43,359

that you feel that day is just hard to

1063

00:39:47,510 --> 00:39:45,839

to describe to anybody but we know what

1064

00:39:49,910 --> 00:39:47,520

you're going through so congratulations

1065

00:39:51,829 --> 00:39:49,920

it's really exciting um

1066

00:39:53,190 --> 00:39:51,839

just kind of thinking about what i would

1067

00:39:54,870 --> 00:39:53,200

have liked to know

1068

00:39:57,430 --> 00:39:54,880

in this period of time from you from

1069

00:39:59,990 --> 00:39:57,440

this phone call until you show up

1070

00:40:02,710 --> 00:40:00,000

and then in your first few first few

1071

00:40:04,069 --> 00:40:02,720

weeks or months here at the space center

1072

00:40:06,470 --> 00:40:04,079

really nothing it's a great place to

1073

00:40:07,990 --> 00:40:06,480

work it's a really family oriented place

1074

00:40:09,750 --> 00:40:08,000

to work

1075

00:40:12,470 --> 00:40:09,760

take care of all your personal things

1076

00:40:13,349 --> 00:40:12,480

right now make sure your your uh got

1077

00:40:18,390 --> 00:40:13,359

your

1078

00:40:19,670 --> 00:40:18,400

stuff in order to make the transition to

1079

00:40:21,750 --> 00:40:19,680

houston if you're not already living

1080

00:40:24,069 --> 00:40:21,760

here uh because you're going to be busy

1081

00:40:26,230 --> 00:40:24,079

in the next year so you want to take

1082

00:40:28,790 --> 00:40:26,240

this time from now

1083

00:40:30,950 --> 00:40:28,800

it'll happen fast but this next month or

1084

00:40:33,349 --> 00:40:30,960

so a couple months to to get your plan

1085

00:40:34,790 --> 00:40:33,359

ready to go and then and have a smooth

1086

00:40:36,550 --> 00:40:34,800

transition

1087

00:40:38,710 --> 00:40:36,560

so you're ready to work and be and learn

1088

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

all the things you need to learn

1089

00:40:43,589 --> 00:40:40,480

to come up here and join us on the space

1090

00:40:45,190 --> 00:40:43,599

station karen what do you think

1091

00:40:46,550 --> 00:40:45,200

well i was actually living in houston

1092

00:40:48,870 --> 00:40:46,560

when it happened so i didn't have to do

1093

00:40:50,390 --> 00:40:48,880

all the the moving but um just hearing

1094

00:40:52,069 --> 00:40:50,400

from my classmates i know you guys are

1095

00:40:53,829 --> 00:40:52,079

going to be going through a lot getting

1096

00:40:55,750 --> 00:40:53,839

getting your families uprooted and

1097

00:40:57,750 --> 00:40:55,760

coming to houston but

1098

00:40:59,030 --> 00:40:57,760

just know that this the astronaut office

1099

00:41:01,270 --> 00:40:59,040

is a big family and there are lots of

1100

00:41:02,630 --> 00:41:01,280

people to help you so if you need to

1101  
00:41:04,550 --> 00:41:02,640  
reach out to somebody to help you as

1102  
00:41:06,630 --> 00:41:04,560  
you're moving into town i'm sure there

1103  
00:41:11,349 --> 00:41:06,640  
are plenty of people i'm willing to help

1104  
00:41:14,950 --> 00:41:13,589  
and it probably seems like a long ways

1105  
00:41:16,630 --> 00:41:14,960  
away when they scare you and tell you

1106  
00:41:19,270 --> 00:41:16,640  
how how long it's going to be until you

1107  
00:41:20,710 --> 00:41:19,280  
fly in space but trust us it is so worth

1108  
00:41:22,470 --> 00:41:20,720  
it right now it's we're having just a

1109  
00:41:24,230 --> 00:41:22,480  
great time floating around

1110  
00:41:26,069 --> 00:41:24,240  
and uh

1111  
00:41:28,309 --> 00:41:26,079  
getting to be here on the space station

1112  
00:41:30,069 --> 00:41:28,319  
looking out the window looking at our

1113  
00:41:32,309 --> 00:41:30,079

uh sharing meals with our russian

1114

00:41:34,309 --> 00:41:32,319

cosmonaut crewmates it's just it's just

1115

00:41:37,349 --> 00:41:34,319

a blast so all the training all the hard

1116

00:41:39,510 --> 00:41:37,359

work uh is worth it and like we said

1117

00:41:42,390 --> 00:41:39,520

it's a fantastic place to work at nasa

1118

00:41:44,710 --> 00:41:42,400

so welcome to the nasa family the

1119

00:41:47,190 --> 00:41:44,720

astronaut office family uh to you and

1120

00:41:50,309 --> 00:41:47,200

your families we're really happy to have

1121

00:41:50,319 --> 00:41:55,670

welcome aboard

1122

00:41:59,349 --> 00:41:57,430

okay that again some special words from

1123

00:42:01,270 --> 00:41:59,359

the on-orbit crew two of our crewmates

1124

00:42:02,950 --> 00:42:01,280

that are living there and working on the

1125

00:42:04,390 --> 00:42:02,960

international space station i think we

1126

00:42:07,030 --> 00:42:04,400

probably all want to apply after

1127

00:42:08,790 --> 00:42:07,040

watching that um very exciting so we're

1128

00:42:10,230 --> 00:42:08,800

going to switch back now to the phone

1129

00:42:11,829 --> 00:42:10,240

bridge with some more questions from

1130

00:42:13,670 --> 00:42:11,839

some of the media representatives who've

1131

00:42:15,510 --> 00:42:13,680

likewise been interested in this

1132

00:42:17,910 --> 00:42:15,520

we'll start with pete spots with the

1133

00:42:19,109 --> 00:42:17,920

christian science monitor

1134

00:42:21,670 --> 00:42:19,119

well thank you very much and i think

1135

00:42:23,910 --> 00:42:21,680

this may be for uh for janet

1136

00:42:26,069 --> 00:42:23,920

lots of scuba experience here

1137

00:42:27,990 --> 00:42:26,079

no small amount of experience in

1138

00:42:29,910 --> 00:42:28,000

isolated places for fairly long periods

1139

00:42:32,790 --> 00:42:29,920

of time i wonder if you could just kind

1140

00:42:34,950 --> 00:42:32,800

of go over a bit of how the needs of the

1141

00:42:36,069 --> 00:42:34,960

astronaut core have changed over the

1142

00:42:37,910 --> 00:42:36,079

years

1143

00:42:40,150 --> 00:42:37,920

and i also noticed a fair bit of test

1144

00:42:41,910 --> 00:42:40,160

pilot experience i wonder if this is

1145

00:42:43,589 --> 00:42:41,920

kind of a bit like the

1146

00:42:45,829 --> 00:42:43,599

in a sense like the days back you know

1147

00:42:48,230 --> 00:42:45,839

mercury in germany and so forth where

1148

00:42:50,630 --> 00:42:48,240

there was active uh capsule development

1149

00:42:52,630 --> 00:42:50,640

going on and so there might be a higher

1150

00:42:54,150 --> 00:42:52,640

a slightly higher premium on those skill

1151

00:42:56,630 --> 00:42:54,160

sets than there might have been you know

1152

00:42:58,710 --> 00:42:56,640

five ten years ago

1153

00:42:59,829 --> 00:42:58,720

oh yeah you're right there some of that

1154

00:43:01,349 --> 00:42:59,839

is true

1155

00:43:03,990 --> 00:43:01,359

part of it is what i mentioned earlier

1156

00:43:05,510 --> 00:43:04,000

we have just four americans flying to

1157

00:43:07,589 --> 00:43:05,520

the international space station per year

1158

00:43:09,589 --> 00:43:07,599

right now so when we have smaller

1159

00:43:11,990 --> 00:43:09,599

classes each individual really needs to

1160

00:43:13,910 --> 00:43:12,000

have a huge amount of skill set they can

1161

00:43:16,470 --> 00:43:13,920

bring forward just you don't have the

1162

00:43:18,790 --> 00:43:16,480

luxury of taking too many people so each

1163

00:43:21,670 --> 00:43:18,800

person is just actually chock full of

1164

00:43:23,190 --> 00:43:21,680

talent um so yeah they the people that

1165

00:43:25,510 --> 00:43:23,200

we've looked at and the people that tend

1166

00:43:27,829 --> 00:43:25,520

to be the most successful are people

1167

00:43:30,870 --> 00:43:27,839

that have shown a lot of experience in

1168

00:43:33,270 --> 00:43:30,880

remote operations who are very hands-on

1169

00:43:35,510 --> 00:43:33,280

type people are familiar with tools and

1170

00:43:37,829 --> 00:43:35,520

operations with tools who are

1171

00:43:39,349 --> 00:43:37,839

comfortable in different cultures and

1172

00:43:40,870 --> 00:43:39,359

different countries

1173

00:43:42,950 --> 00:43:40,880

and as you as you saw in these

1174

00:43:44,550 --> 00:43:42,960

candidates if they weren't military who

1175

00:43:47,109 --> 00:43:44,560

by default you know a lot of hands-on

1176

00:43:48,870 --> 00:43:47,119

operations in all parts of the world

1177

00:43:50,390 --> 00:43:48,880

then there are research scientists who

1178

00:43:52,710 --> 00:43:50,400

have also deployed to remote

1179

00:43:54,550 --> 00:43:52,720

environments and they're used to not

1180

00:43:57,030 --> 00:43:54,560

being comfortable they work in some

1181

00:43:58,870 --> 00:43:57,040

pretty extreme environments like space

1182

00:44:01,349 --> 00:43:58,880

only not quite space

1183

00:44:03,190 --> 00:44:01,359

but it's it's just easier transition for

1184

00:44:05,349 --> 00:44:03,200

people when they've experienced those

1185

00:44:07,190 --> 00:44:05,359

kinds of hardships and and uncomfortable

1186

00:44:08,630 --> 00:44:07,200

physical environments and have had a lot

1187

00:44:10,790 --> 00:44:08,640

of hands-on enviro

1188

00:44:12,069 --> 00:44:10,800

experience they just tend to do a lot

1189

00:44:14,470 --> 00:44:12,079

better and that's what we've learned

1190

00:44:16,309 --> 00:44:14,480

over all these decades of of human space

1191

00:44:18,309 --> 00:44:16,319

flight as the type of people that seem

1192

00:44:21,589 --> 00:44:18,319

to work best and those are the type of

1193

00:44:23,510 --> 00:44:21,599

people that we're seeking out now

1194

00:44:26,790 --> 00:44:23,520

okay and we want to switch to lisa

1195

00:44:28,550 --> 00:44:26,800

grossman with new scientists

1196

00:44:30,950 --> 00:44:28,560

hi thanks for taking my question

1197

00:44:32,710 --> 00:44:30,960

i was wondering if we don't know

1198

00:44:34,630 --> 00:44:32,720

precisely when or where the astronauts

1199

00:44:36,309 --> 00:44:34,640

are going um i saw that there's a bill

1200

00:44:38,230 --> 00:44:36,319

in the house right now that's being

1201

00:44:40,710 --> 00:44:38,240

debated this week about

1202

00:44:43,349 --> 00:44:40,720

maybe not going to an asteroid after all

1203

00:44:44,230 --> 00:44:43,359

but going back to the moon so without a

1204

00:44:47,430 --> 00:44:44,240

clear

1205

00:44:51,829 --> 00:44:47,440

destination how do has that changed how

1206

00:44:55,430 --> 00:44:54,230

well i'll take that question um

1207

00:44:57,670 --> 00:44:55,440

certainly a lot of their initial

1208

00:44:59,510 --> 00:44:57,680

training uh is going to be understanding

1209

00:45:01,270 --> 00:44:59,520

more about nasa more about the astronaut

1210

00:45:03,510 --> 00:45:01,280

core learning about the international

1211

00:45:05,190 --> 00:45:03,520

space station which as i mentioned

1212

00:45:06,150 --> 00:45:05,200

is going to be operating for a number of

1213

00:45:07,670 --> 00:45:06,160

years

1214

00:45:09,349 --> 00:45:07,680

we are looking at a number of different

1215

00:45:11,510 --> 00:45:09,359

mission concepts there is an exciting

1216

00:45:12,390 --> 00:45:11,520

one that we're exploring right now

1217

00:45:15,190 --> 00:45:12,400

to

1218

00:45:17,829 --> 00:45:15,200

explore an asteroid first with a robotic

1219

00:45:20,550 --> 00:45:17,839

mission which would push the envelope in

1220

00:45:21,589 --> 00:45:20,560

terms of solar electric propulsion

1221

00:45:27,990 --> 00:45:21,599

and

1222

00:45:29,430 --> 00:45:28,000

would redirect it into an orbit a stable

1223

00:45:31,589 --> 00:45:29,440

orbit around the moon actually send

1224

00:45:33,589 --> 00:45:31,599

people up on orion

1225

00:45:35,349 --> 00:45:33,599

and be able to take samples of that

1226  
00:45:36,390 --> 00:45:35,359  
asteroid which would be a very exciting

1227  
00:45:38,870 --> 00:45:36,400  
mission

1228  
00:45:41,270 --> 00:45:38,880  
all of this is really designed to say

1229  
00:45:43,349 --> 00:45:41,280  
how do we learn to live in space beyond

1230  
00:45:45,109 --> 00:45:43,359  
low earth orbit

1231  
00:45:46,790 --> 00:45:45,119  
and how are we developing those

1232  
00:45:48,950 --> 00:45:46,800  
capabilities that will eventually take

1233  
00:45:51,670 --> 00:45:48,960  
us to mars and a lot of those are the

1234  
00:45:53,990 --> 00:45:51,680  
same even if you look at a variety of

1235  
00:45:56,470 --> 00:45:54,000  
different destinations anywhere in the

1236  
00:45:59,109 --> 00:45:56,480  
you know earth moon vicinity

1237  
00:46:01,270 --> 00:45:59,119  
asteroids and beyond eventually moons of

1238  
00:46:04,390 --> 00:46:01,280

mars or mars

1239

00:46:05,589 --> 00:46:04,400

so a lot of the training you we will do

1240

00:46:07,910 --> 00:46:05,599

with them

1241

00:46:09,750 --> 00:46:07,920

will be needed for any of those and so

1242

00:46:12,230 --> 00:46:09,760

they've already got a training program

1243

00:46:14,710 --> 00:46:12,240

planned and and they'll learn about

1244

00:46:17,109 --> 00:46:14,720

systems and spacecraft and and they'll

1245

00:46:19,589 --> 00:46:17,119

learn about doing space walks

1246

00:46:21,670 --> 00:46:19,599

and uh quite a bit of other things that

1247

00:46:26,150 --> 00:46:21,680

will be applicable to

1248

00:46:27,750 --> 00:46:26,160

many different uh destinations in space

1249

00:46:29,910 --> 00:46:27,760

all right who is that speaking there was

1250

00:46:31,589 --> 00:46:29,920

both eleanor janet

1251

00:46:35,190 --> 00:46:31,599

that was ellen

1252

00:46:40,390 --> 00:46:37,750

and i wanted while we have mike and kate

1253

00:46:42,870 --> 00:46:40,400

um i wanted to switch a little bit to

1254

00:46:44,150 --> 00:46:42,880

back to kind of imagining these

1255

00:46:46,069 --> 00:46:44,160

astronaut candidates what they're doing

1256

00:46:47,349 --> 00:46:46,079

and preparing to come to houston they're

1257

00:46:48,630 --> 00:46:47,359

going to arrive they're going to get a

1258

00:46:50,309 --> 00:46:48,640

little bit of orientation at johnson

1259

00:46:52,470 --> 00:46:50,319

space center and meet their classmates

1260

00:46:54,550 --> 00:46:52,480

but pretty soon pretty quickly off the

1261

00:46:56,069 --> 00:46:54,560

bat i think you go into some special

1262

00:46:57,670 --> 00:46:56,079

training including land survival

1263

00:46:59,190 --> 00:46:57,680

training can you both tell us a little

1264

00:47:00,630 --> 00:46:59,200

bit about what that's like to be meeting

1265

00:47:02,790 --> 00:47:00,640

new people getting this new place and

1266

00:47:05,589 --> 00:47:02,800

then you're you know jumping right into

1267

00:47:07,750 --> 00:47:05,599

some really unique training situations

1268

00:47:10,150 --> 00:47:07,760

well it's a lot of fun actually land

1269

00:47:12,710 --> 00:47:10,160

survival we we all undertake land

1270

00:47:14,950 --> 00:47:12,720

survival training because we fly around

1271

00:47:16,950 --> 00:47:14,960

the country training in in t-38

1272

00:47:19,589 --> 00:47:16,960

high-performance aircraft that have

1273

00:47:21,030 --> 00:47:19,599

ejection seats and we could in extremis

1274

00:47:22,870 --> 00:47:21,040

have to jump out of that airplane

1275

00:47:25,349 --> 00:47:22,880

sometime and end up in a harsh

1276

00:47:27,910 --> 00:47:25,359

environment so we want to be prepared to

1277

00:47:31,349 --> 00:47:27,920

be able to survive until we're rescued

1278

00:47:33,430 --> 00:47:31,359

or or picked up so uh it's a fun fun

1279

00:47:34,870 --> 00:47:33,440

time because you're just coming together

1280

00:47:36,710 --> 00:47:34,880

with your class you're meeting these

1281

00:47:38,150 --> 00:47:36,720

people for the first time and you're

1282

00:47:40,630 --> 00:47:38,160

getting to experience something like

1283

00:47:43,109 --> 00:47:40,640

this together it's it's it's a way to

1284

00:47:44,870 --> 00:47:43,119

kind of bond as a class and for my class

1285

00:47:46,470 --> 00:47:44,880

in particular we had a lot of fun doing

1286

00:47:48,470 --> 00:47:46,480

that so

1287

00:47:50,309 --> 00:47:48,480

yeah i remember on the very first day we

1288

00:47:51,910 --> 00:47:50,319

actually all met at the badging office

1289

00:47:53,829 --> 00:47:51,920

of all places and you're sitting in this

1290

00:47:54,870 --> 00:47:53,839

very pedestrian looking building and

1291

00:47:56,550 --> 00:47:54,880

you're kind of looking around at all

1292

00:47:58,309 --> 00:47:56,560

these folks and you're sort of wondering

1293

00:47:59,510 --> 00:47:58,319

how you even got here in the first place

1294

00:48:00,870 --> 00:47:59,520

but second of all you're looking at

1295

00:48:02,630 --> 00:48:00,880

these folks and you're saying you know i

1296

00:48:03,829 --> 00:48:02,640

don't know them at all but in about five

1297

00:48:05,670 --> 00:48:03,839

six weeks they're going to be my best

1298

00:48:07,430 --> 00:48:05,680

friends and we're going to go through

1299

00:48:08,630 --> 00:48:07,440

an amazing two years together and and

1300

00:48:09,430 --> 00:48:08,640

these are going to be colleagues really

1301

00:48:11,349 --> 00:48:09,440

that you're going to have for the rest

1302

00:48:13,349 --> 00:48:11,359

of your life so it's a pretty neat time

1303

00:48:15,270 --> 00:48:13,359

getting to know everybody and um you

1304

00:48:18,069 --> 00:48:15,280

know the land survival is it's got some

1305

00:48:19,510 --> 00:48:18,079

real practical aspects too we um

1306

00:48:21,270 --> 00:48:19,520

you know all of the spacecraft that

1307

00:48:23,270 --> 00:48:21,280

we're developing are going to land back

1308

00:48:25,510 --> 00:48:23,280

on earth at some point in land or water

1309

00:48:27,349 --> 00:48:25,520

and so we need the survival training uh

1310

00:48:29,510 --> 00:48:27,359

both to get us ready for things like

1311

00:48:31,829 --> 00:48:29,520

russian winter survival training as well

1312

00:48:33,829 --> 00:48:31,839

as water survival training uh and all

1313

00:48:34,870 --> 00:48:33,839

the sort of um demanding training

1314

00:48:37,349 --> 00:48:34,880

programs that we're going to be asked to

1315

00:48:38,870 --> 00:48:37,359

do in the future so it's it's a neat way

1316

00:48:40,710 --> 00:48:38,880

to bond with the group and then it's

1317

00:48:42,470 --> 00:48:40,720

also some really good training that is

1318

00:48:43,670 --> 00:48:42,480

going to serve you well in your later

1319

00:48:45,270 --> 00:48:43,680

years

1320

00:48:46,790 --> 00:48:45,280

and you've kind of touched on some of

1321

00:48:48,630 --> 00:48:46,800

those unique training scenarios but

1322

00:48:49,829 --> 00:48:48,640

there's really a really broad spectrum

1323

00:48:51,750 --> 00:48:49,839

of things that you're going to do in

1324

00:48:53,750 --> 00:48:51,760

that first year and a half or so can you

1325

00:48:56,230 --> 00:48:53,760

each tell us like what was the most what

1326

00:48:57,829 --> 00:48:56,240

was your most favorite part

1327

00:49:00,390 --> 00:48:57,839

for me my favorite training was a

1328

00:49:02,390 --> 00:49:00,400

spacewalk training you know as a kid

1329

00:49:03,190 --> 00:49:02,400

growing up wanting to be an astronaut

1330

00:49:06,630 --> 00:49:03,200

i

1331

00:49:09,190 --> 00:49:06,640

to be able to do as an astronaut was to

1332

00:49:11,430 --> 00:49:09,200

uh to do a spacewalk so i enjoyed the

1333

00:49:13,990 --> 00:49:11,440

spacewalk training the most and uh i

1334

00:49:16,390 --> 00:49:14,000

know i got some robotic training to

1335

00:49:17,910 --> 00:49:16,400

operate the robotic arms but

1336

00:49:19,670 --> 00:49:17,920

it seemed like they didn't give me a

1337

00:49:21,430 --> 00:49:19,680

whole lot of that training maybe maybe

1338

00:49:23,430 --> 00:49:21,440

uh you know i just didn't do that well i

1339

00:49:25,270 --> 00:49:23,440

don't know what the problem was maybe i

1340

00:49:27,990 --> 00:49:25,280

didn't push for it hard enough but

1341

00:49:28,790 --> 00:49:28,000

but i was fine spending devoting my time

1342

00:49:30,790 --> 00:49:28,800

uh

1343

00:49:32,230 --> 00:49:30,800

developing those spacewalk skills that i

1344

00:49:34,150 --> 00:49:32,240

actually got to use

1345

00:49:37,030 --> 00:49:34,160

a few times in space so

1346

00:49:39,030 --> 00:49:37,040

that was my favorite training by far

1347

00:49:40,630 --> 00:49:39,040

um for mine i i didn't come from an

1348

00:49:42,950 --> 00:49:40,640

aviation background i was a scientific

1349

00:49:45,430 --> 00:49:42,960

researcher before so for me getting a

1350

00:49:47,910 --> 00:49:45,440

chance to go to pensacola and learn how

1351

00:49:49,270 --> 00:49:47,920

to fly was the most exciting thing um

1352

00:49:51,190 --> 00:49:49,280

you know a lot of folks say well why are

1353

00:49:52,790 --> 00:49:51,200

we flying we don't fly a winged vehicle

1354

00:49:54,950 --> 00:49:52,800

anymore and it's not the fact that

1355

00:49:57,829 --> 00:49:54,960

you're learning how to fly something in

1356

00:49:59,270 --> 00:49:57,839

space it's the kind of pressure that um

1357

00:50:01,109 --> 00:49:59,280

flying in a high performance aircraft

1358

00:50:03,190 --> 00:50:01,119

puts on you you have to make decisions

1359

00:50:05,430 --> 00:50:03,200

incredibly quickly you have to learn a

1360

00:50:07,190 --> 00:50:05,440

huge amount of information about systems

1361

00:50:09,589 --> 00:50:07,200

and be able to react in milliseconds to

1362

00:50:11,829 --> 00:50:09,599

an emergency and so practicing that is

1363

00:50:13,589 --> 00:50:11,839

an incredible model for for flying in

1364

00:50:15,670 --> 00:50:13,599

space and so that was some of the i

1365

00:50:18,630 --> 00:50:15,680

think the most intense and then also the

1366

00:50:20,470 --> 00:50:18,640

most valuable training that i've gotten

1367

00:50:21,990 --> 00:50:20,480

um you kind of alluded to the pressure

1368

00:50:23,750 --> 00:50:22,000

that's another thing i'm kind of curious

1369

00:50:26,230 --> 00:50:23,760

about for new arrivals you know they're

1370

00:50:27,829 --> 00:50:26,240

coming to nasa which is a new culture

1371

00:50:29,510 --> 00:50:27,839

but also going through this

1372

00:50:31,589 --> 00:50:29,520

extraordinary training there's a lot of

1373

00:50:33,270 --> 00:50:31,599

attention on them did you feel pressure

1374

00:50:34,950 --> 00:50:33,280

along those lines of just of just

1375

00:50:36,230 --> 00:50:34,960

performing even though you've you know

1376

00:50:37,990 --> 00:50:36,240

all the candidates obviously have been

1377

00:50:40,630 --> 00:50:38,000

high performers previously but is that

1378

00:50:42,630 --> 00:50:40,640

something that you experienced

1379

00:50:44,390 --> 00:50:42,640

you know i think uh the the type of

1380

00:50:46,309 --> 00:50:44,400

people that end up becoming astronauts

1381

00:50:48,950 --> 00:50:46,319

that nasa selects are

1382

00:50:51,030 --> 00:50:48,960

typically type a personalities and and

1383

00:50:53,030 --> 00:50:51,040

we all tend to put this pressure on

1384

00:50:55,430 --> 00:50:53,040

ourselves more than i don't think it was

1385

00:50:57,670 --> 00:50:55,440

nasa or the instructors here putting

1386

00:50:59,510 --> 00:50:57,680

pressure on us uh

1387

00:51:01,510 --> 00:50:59,520

generally all of the training is is

1388

00:51:03,990 --> 00:51:01,520

taught very well so that

1389

00:51:06,549 --> 00:51:04,000

it's easily understandable uh although

1390

00:51:09,190 --> 00:51:06,559

requires some work

1391

00:51:10,950 --> 00:51:09,200

there's no real pressure except that the

1392

00:51:12,950 --> 00:51:10,960

pressure that you put on yourself i

1393

00:51:13,990 --> 00:51:12,960

think to do well

1394

00:51:15,829 --> 00:51:14,000

yeah and one of the things that you

1395

00:51:17,349 --> 00:51:15,839

notice when you when you get to nasa and

1396

00:51:20,069 --> 00:51:17,359

particularly when you get to johnson

1397

00:51:21,510 --> 00:51:20,079

space center is you meet a huge number

1398

00:51:23,990 --> 00:51:21,520

of people who are extraordinarily

1399

00:51:25,829 --> 00:51:24,000

passionate and dedicated to what they do

1400

00:51:27,510 --> 00:51:25,839

and you know that your training is the

1401  
00:51:29,349 --> 00:51:27,520  
end result of everything that they're

1402  
00:51:31,030 --> 00:51:29,359  
putting into their job and so there's a

1403  
00:51:33,589 --> 00:51:31,040  
there's a pressure to do well for them

1404  
00:51:35,270 --> 00:51:33,599  
because you know they've done everything

1405  
00:51:37,030 --> 00:51:35,280  
from building the mock-up to designing

1406  
00:51:40,549 --> 00:51:37,040  
the engineering to designing your

1407  
00:51:42,309 --> 00:51:40,559  
training program and so um you're you're

1408  
00:51:44,390 --> 00:51:42,319  
at the very tip of the spear and you

1409  
00:51:45,990 --> 00:51:44,400  
want to make sure that you are doing the

1410  
00:51:47,510 --> 00:51:46,000  
best that you can for the space program

1411  
00:51:50,390 --> 00:51:47,520  
because it's an incredible honor and a

1412  
00:51:52,549 --> 00:51:50,400  
privilege to even be selected

1413  
00:51:53,750 --> 00:51:52,559

absolutely um while we have a few

1414

00:51:55,109 --> 00:51:53,760  
minutes left we're going to try to

1415

00:51:57,750 --> 00:51:55,119  
squeeze in a few more questions both

1416

00:51:59,190 --> 00:51:57,760  
from social media and traditional media

1417

00:52:01,829 --> 00:51:59,200  
with that we'll switch back over to the

1418

00:52:11,750 --> 00:52:01,839  
phone bridge for a question from theron

1419

00:52:14,710 --> 00:52:12,870  
okay

1420

00:52:18,230 --> 00:52:14,720  
we'll switch to todd halverson with

1421

00:52:23,589 --> 00:52:21,430  
todd halverson of uh florida today um

1422

00:52:24,950 --> 00:52:23,599  
mike touched on this a bit but i was

1423

00:52:27,589 --> 00:52:24,960  
wondering uh

1424

00:52:30,390 --> 00:52:27,599  
besides all these folks being type a

1425

00:52:33,670 --> 00:52:30,400  
personalities i'm wondering if there are

1426  
00:52:35,750 --> 00:52:33,680  
other common personality traits and all

1427  
00:52:38,150 --> 00:52:35,760  
eight of those selected and and for that

1428  
00:52:41,510 --> 00:52:38,160  
matter uh folks in the astronaut corps

1429  
00:52:45,829 --> 00:52:43,990  
i guess that's mine um

1430  
00:52:47,510 --> 00:52:45,839  
i don't know if there's one particular

1431  
00:52:49,270 --> 00:52:47,520  
personality trait that's in common to

1432  
00:52:50,710 --> 00:52:49,280  
everyone other than everyone has wanted

1433  
00:52:52,230 --> 00:52:50,720  
to do this for most of their lives and

1434  
00:52:54,549 --> 00:52:52,240  
are very very excited and passionate

1435  
00:52:57,829 --> 00:52:54,559  
about human space flight

1436  
00:52:59,349 --> 00:52:57,839  
they do all generally have a

1437  
00:53:00,870 --> 00:52:59,359  
type personalities that they're very

1438  
00:53:03,430 --> 00:53:00,880

high achievers

1439

00:53:04,710 --> 00:53:03,440

i think the the quality that probably

1440

00:53:07,349 --> 00:53:04,720

most of them have is that they don't

1441

00:53:09,750 --> 00:53:07,359

give up easily they're very persistent

1442

00:53:11,270 --> 00:53:09,760

which is a very important trait to have

1443

00:53:13,430 --> 00:53:11,280

when you come here because some of the

1444

00:53:15,670 --> 00:53:13,440

training is is quite challenging

1445

00:53:17,670 --> 00:53:15,680

especially the spacewalk training that

1446

00:53:20,470 --> 00:53:17,680

mike mentioned that's physically very

1447

00:53:22,470 --> 00:53:20,480

challenging the aviation training is is

1448

00:53:24,150 --> 00:53:22,480

challenging for people who've never had

1449

00:53:25,910 --> 00:53:24,160

a lot of aviation training in the past

1450

00:53:27,670 --> 00:53:25,920

robotics training can be quite

1451  
00:53:29,270 --> 00:53:27,680  
challenging because of the spatial

1452  
00:53:31,510 --> 00:53:29,280  
orientation of the

1453  
00:53:33,109 --> 00:53:31,520  
of the robotic arm and things like that

1454  
00:53:34,790 --> 00:53:33,119  
so there are challenges for everyone

1455  
00:53:36,390 --> 00:53:34,800  
once they get here and if you if your

1456  
00:53:37,910 --> 00:53:36,400  
person gives up easily well first of all

1457  
00:53:38,950 --> 00:53:37,920  
they wouldn't have applied and waited

1458  
00:53:40,710 --> 00:53:38,960  
for song

1459  
00:53:42,790 --> 00:53:40,720  
and gotten all the degrees that they got

1460  
00:53:44,470 --> 00:53:42,800  
but they they wouldn't make it through

1461  
00:53:47,030 --> 00:53:44,480  
their training here so i think that

1462  
00:53:49,190 --> 00:53:47,040  
persistence and that determination and

1463  
00:53:52,950 --> 00:53:49,200

that passion are the qualities that we

1464

00:53:58,069 --> 00:53:56,470

okay now switching back to social media

1465

00:54:00,589 --> 00:53:58,079

i believe this one was submitted by

1466

00:54:03,670 --> 00:54:00,599

twitter at

1467

00:54:05,990 --> 00:54:03,680

kathyr35 who asks how many times on

1468

00:54:07,510 --> 00:54:06,000

average did these candidates apply and

1469

00:54:09,030 --> 00:54:07,520

i'm not sure janet if you happen to

1470

00:54:10,790 --> 00:54:09,040

recall that but i know that

1471

00:54:13,190 --> 00:54:10,800

traditionally a lot of the current

1472

00:54:15,270 --> 00:54:13,200

astronauts are people who have reply um

1473

00:54:16,470 --> 00:54:15,280

applied multiple times so that's that's

1474

00:54:19,670 --> 00:54:16,480

kind of common do you know if that was

1475

00:54:21,270 --> 00:54:19,680

something yeah if i recall correctly i

1476  
00:54:22,790 --> 00:54:21,280  
think three of the candidates that were

1477  
00:54:24,710 --> 00:54:22,800  
selecting had been interviewed in

1478  
00:54:27,349 --> 00:54:24,720  
previous interviews and so we're

1479  
00:54:29,349 --> 00:54:27,359  
selected on their second or third try

1480  
00:54:31,030 --> 00:54:29,359  
and i believe that there are remaining

1481  
00:54:33,190 --> 00:54:31,040  
five candidates so it was all their

1482  
00:54:34,470 --> 00:54:33,200  
first time applying and being

1483  
00:54:36,309 --> 00:54:34,480  
interviewed i'm not sure about applying

1484  
00:54:37,109 --> 00:54:36,319  
but at least being interviewed

1485  
00:54:39,190 --> 00:54:37,119  
okay

1486  
00:54:41,349 --> 00:54:39,200  
and one other one from social media this

1487  
00:54:43,030 --> 00:54:41,359  
is from datachick who asks with

1488  
00:54:44,790 --> 00:54:43,040

commercial flight and other nations

1489

00:54:49,589 --> 00:54:44,800

starting their own space programs how

1490

00:54:52,870 --> 00:54:51,109

um well

1491

00:54:55,270 --> 00:54:52,880

the the main difference is what i

1492

00:54:56,470 --> 00:54:55,280

mentioned earlier that when we flew the

1493

00:54:58,790 --> 00:54:56,480

space shuttle

1494

00:55:00,390 --> 00:54:58,800

we had a lot of people flying into space

1495

00:55:02,230 --> 00:55:00,400

every year because we had six to seven

1496

00:55:05,190 --> 00:55:02,240

people on every space shuttle flight and

1497

00:55:08,710 --> 00:55:05,200

we flew five to six times a year so it

1498

00:55:10,470 --> 00:55:08,720

was between 30 35 people a year that

1499

00:55:12,790 --> 00:55:10,480

flew into space that were mostly

1500

00:55:14,870 --> 00:55:12,800

americans now that we're flying to the

1501  
00:55:16,470 --> 00:55:14,880  
space station on the soyuz there's only

1502  
00:55:18,790 --> 00:55:16,480  
three seats on each soyuz that launches

1503  
00:55:21,430 --> 00:55:18,800  
four times a year and generally we have

1504  
00:55:23,750 --> 00:55:21,440  
one american and one of those seats on

1505  
00:55:24,470 --> 00:55:23,760  
each soyuz so the number of people that

1506  
00:55:26,630 --> 00:55:24,480  
fly

1507  
00:55:28,390 --> 00:55:26,640  
from the united states is is definitely

1508  
00:55:31,349 --> 00:55:28,400  
a lot smaller

1509  
00:55:33,349 --> 00:55:31,359  
and a lot of times whenever we have

1510  
00:55:35,270 --> 00:55:33,359  
international partners they take up the

1511  
00:55:37,349 --> 00:55:35,280  
second seat whenever

1512  
00:55:39,910 --> 00:55:37,359  
the united states has more than one seat

1513  
00:55:42,470 --> 00:55:39,920

on the on a soyuz mission so it rotates

1514

00:55:46,069 --> 00:55:42,480

between two and one for americans or

1515

00:55:47,829 --> 00:55:46,079

usos united states uh team and so it's

1516

00:55:49,510 --> 00:55:47,839

usually one american and then one

1517

00:55:52,230 --> 00:55:49,520

international partner and a russian or

1518

00:55:53,829 --> 00:55:52,240

two russians and an american

1519

00:55:55,270 --> 00:55:53,839

okay and we're going to try to squeeze

1520

00:55:57,910 --> 00:55:55,280

in one more question before we wrap this

1521

00:56:01,030 --> 00:55:57,920

up from miriam kramer on the phone

1522

00:56:06,950 --> 00:56:02,870

hi there thanks for doing this um yeah

1523

00:56:09,589 --> 00:56:06,960

i'm actually curious so what sort of uh

1524

00:56:10,789 --> 00:56:09,599

uh denoted the class size so i guess

1525

00:56:12,630 --> 00:56:10,799

what i'm really asking is sort of what

1526  
00:56:15,589 --> 00:56:12,640  
is the difference between having eight

1527  
00:56:17,910 --> 00:56:15,599  
in a class versus having nine um how is

1528  
00:56:20,150 --> 00:56:17,920  
that decided

1529  
00:56:21,829 --> 00:56:20,160  
well and that's it's hard to say that

1530  
00:56:23,589 --> 00:56:21,839  
you know that we set out looking for

1531  
00:56:25,190 --> 00:56:23,599  
eight we look we knew we would need a

1532  
00:56:27,349 --> 00:56:25,200  
small number and again that's because

1533  
00:56:28,710 --> 00:56:27,359  
the size of the office is much smaller

1534  
00:56:30,789 --> 00:56:28,720  
now we just don't need the number of

1535  
00:56:32,950 --> 00:56:30,799  
people people that we needed a few years

1536  
00:56:34,950 --> 00:56:32,960  
ago and so

1537  
00:56:37,270 --> 00:56:34,960  
we looked at the attrition rate in the

1538  
00:56:38,710 --> 00:56:37,280

office we looked at medical attrition

1539

00:56:40,789 --> 00:56:38,720

as well as people who are leaving the

1540

00:56:42,630 --> 00:56:40,799

office voluntarily and going out and

1541

00:56:45,750 --> 00:56:42,640

seeking new careers

1542

00:56:47,670 --> 00:56:45,760

and then at the very end um i think

1543

00:56:52,150 --> 00:56:47,680

maybe two years ago i had asked for a

1544

00:56:53,670 --> 00:56:52,160

range of maybe 10 or 8 to 50 or up to 15

1545

00:56:56,789 --> 00:56:53,680

people depending on the size of the

1546

00:56:59,990 --> 00:56:56,799

office how big it would be today and we

1547

00:57:01,990 --> 00:57:00,000

had lost actually more than we thought

1548

00:57:04,230 --> 00:57:02,000

so actually not quite as many as i

1549

00:57:07,510 --> 00:57:04,240

thought so the number was smaller than

1550

00:57:09,270 --> 00:57:07,520

we had intentional had intentionally

1551  
00:57:09,990 --> 00:57:09,280  
determined it should be

1552  
00:57:11,829 --> 00:57:10,000  
so

1553  
00:57:13,829 --> 00:57:11,839  
with the number of flights per year for

1554  
00:57:15,750 --> 00:57:13,839  
americans and the chief of the astronaut

1555  
00:57:17,190 --> 00:57:15,760  
office has gone through and looked at

1556  
00:57:19,109 --> 00:57:17,200  
how many opportunities there are for

1557  
00:57:20,950 --> 00:57:19,119  
people in the office today we look at

1558  
00:57:22,549 --> 00:57:20,960  
the rate of people leaving and then we

1559  
00:57:24,630 --> 00:57:22,559  
determine that eight should be a

1560  
00:57:27,750 --> 00:57:24,640  
sufficient number of people to get us

1561  
00:57:29,270 --> 00:57:27,760  
through the next you know three to four

1562  
00:57:31,510 --> 00:57:29,280  
years before we would have an

1563  
00:57:34,309 --> 00:57:31,520

opportunity to select again we should

1564

00:57:36,470 --> 00:57:34,319

maintain that critical number of 45 to

1565

00:57:38,470 --> 00:57:36,480

55 people and be able to meet all the

1566

00:57:40,470 --> 00:57:38,480

manifest requirements for our different

1567

00:57:42,390 --> 00:57:40,480

programs

1568

00:57:44,230 --> 00:57:42,400

all right thank you all so very much and

1569

00:57:45,430 --> 00:57:44,240

thank you to all viewers and we

1570

00:57:47,430 --> 00:57:45,440

encourage you to follow along on