



1  
00:00:04,150 --> 00:00:01,990  
professionals and dragon technicians to

2  
00:00:05,749 --> 00:00:04,160  
secure the capsule and get the crew out

3  
00:00:08,150 --> 00:00:05,759  
quickly and safely

4  
00:00:10,070 --> 00:00:08,160  
and our fun fist history fact for this

5  
00:00:12,070 --> 00:00:10,080  
return this will be the first night

6  
00:00:14,310 --> 00:00:12,080  
splashdown of a u.s crude spacecraft

7  
00:00:17,750 --> 00:00:14,320  
since apollo 8's pre-dawn return in the

8  
00:00:20,310 --> 00:00:17,760  
pacific ocean on december 27 1968 with

9  
00:00:22,950 --> 00:00:20,320  
nasa astronauts frank gorman gem level

10  
00:00:24,950 --> 00:00:22,960  
and bill anders

11  
00:00:27,509 --> 00:00:24,960  
so in the next phase of the mission

12  
00:00:29,990 --> 00:00:27,519  
dragon has a series of steps to complete

13  
00:00:32,549 --> 00:00:30,000

before returning mike victor shannon and

14

00:00:33,750 --> 00:00:32,559

soichi home first dragon will maneuver

15

00:00:35,030 --> 00:00:33,760

to the correct

16

00:00:37,350 --> 00:00:35,040

attitude

17

00:00:39,750 --> 00:00:37,360

and then start to separate its claw then

18

00:00:41,910 --> 00:00:39,760

the jettison is trunk which is the

19

00:00:44,229 --> 00:00:41,920

cylindrical unpressurized part of the

20

00:00:46,470 --> 00:00:44,239

spacecraft the trunk is currently

21

00:00:48,310 --> 00:00:46,480

connected to the aft or bottom section

22

00:00:51,029 --> 00:00:48,320

of the dragon capsule where the heat

23

00:00:52,630 --> 00:00:51,039

shield is located so in order to expose

24

00:00:54,549 --> 00:00:52,640

the heat shield and get the vehicle

25

00:00:56,069 --> 00:00:54,559

ready for atmospheric re-entry we'll

26

00:00:57,510 --> 00:00:56,079

jettison the trunk

27

00:00:59,349 --> 00:00:57,520

from there the spacecraft will use its

28

00:01:00,869 --> 00:00:59,359

forward thrusters to perform a deorbit

29

00:01:03,590 --> 00:01:00,879

burn which will put dragon on a

30

00:01:05,910 --> 00:01:03,600

trajectory to return to earth the burn

31

00:01:08,469 --> 00:01:05,920

will last more than 16 minutes once it

32

00:01:10,310 --> 00:01:08,479

starts and to prepare for these upcoming

33

00:01:12,870 --> 00:01:10,320

events right now the dragon capsule is

34

00:01:14,710 --> 00:01:12,880

doing a number of things autonomously

35

00:01:16,870 --> 00:01:14,720

it's isolating the thermal control

36

00:01:18,710 --> 00:01:16,880

system fluid loops from the radiator

37

00:01:21,270 --> 00:01:18,720

this system is what will help keep the

38

00:01:23,910 --> 00:01:21,280

internal temperature of dragon uh for uh

39

00:01:26,630 --> 00:01:23,920

for mike victor shannon and suici

40

00:01:28,390 --> 00:01:26,640

nice and cool during re-entry a dragon

41

00:01:30,789 --> 00:01:28,400

is also initiating separation of the

42

00:01:32,789 --> 00:01:30,799

claw mechanism which will terminate data

43

00:01:35,510 --> 00:01:32,799

power and fluid connections between the

44

00:01:37,429 --> 00:01:35,520

capsule and the trunk

45

00:01:40,550 --> 00:01:37,439

and i'm receiving information that claw

46

00:01:43,190 --> 00:01:40,560

separation is currently occurring

47

00:01:45,830 --> 00:01:43,200

right on time and that was scheduled for

48

00:01:47,910 --> 00:01:45,840

10 57 pacific so

49

00:01:50,389 --> 00:01:47,920

right on time for that claw separation

50

00:01:57,350 --> 00:01:50,399

coming up next will be trunk separation

51  
00:02:01,429 --> 00:01:59,350  
and i'm sure we will hear a clock call

52  
00:02:07,190 --> 00:02:01,439  
out to the crew shortly about our claw

53  
00:02:10,710 --> 00:02:08,949  
yeah over the next hour

54  
00:02:12,869 --> 00:02:10,720  
um there's going to be a lot of events

55  
00:02:15,190 --> 00:02:12,879  
happening in order to get the dragon

56  
00:02:20,470 --> 00:02:15,200  
spacecraft in spacex we showed nominal

57  
00:02:26,710 --> 00:02:24,229  
and spacex uh from resilience we see the

58  
00:02:28,710 --> 00:02:26,720  
same and

59  
00:02:30,309 --> 00:02:28,720  
you could definitely feel the claw step

60  
00:02:31,990 --> 00:02:30,319  
as well as hear it and the same for

61  
00:02:34,070 --> 00:02:32,000  
trunk jettison uh

62  
00:02:35,509 --> 00:02:34,080  
was very obvious

63  
00:02:37,430 --> 00:02:35,519

and through the centerline cameras you

64

00:02:40,869 --> 00:02:37,440

could definitely see a lot of the debris

65

00:02:47,430 --> 00:02:42,309

hey thanks resilience for that thorough

66

00:02:52,070 --> 00:02:48,949

cool so there's some report outs from

67

00:02:54,390 --> 00:02:52,080

the crew about what they felt when the

68

00:02:56,309 --> 00:02:54,400

claw had separated as well as the trunk

69

00:02:57,830 --> 00:02:56,319

as it was jettisoned and we did get

70

00:03:00,070 --> 00:02:57,840

confirmation that both occurred

71

00:03:02,949 --> 00:03:00,080

nominally meaning that telemetry is

72

00:03:05,350 --> 00:03:02,959

looking good the nitrox system is primed

73

00:03:07,589 --> 00:03:05,360

for cabin and suit cooling and the heat

74

00:03:08,790 --> 00:03:07,599

shield is exposed ready for atmospheric

75

00:03:10,470 --> 00:03:08,800

re-entry

76

00:03:11,990 --> 00:03:10,480

up next we have the final steps that

77

00:03:14,949 --> 00:03:12,000

dragon will perform

78

00:03:17,589 --> 00:03:14,959

prior to re-entry the slew or maneuver

79

00:03:19,270 --> 00:03:17,599

to de-orbit burn attitude and a deep

80

00:03:21,589 --> 00:03:19,280

orbit burn itself

81

00:03:23,910 --> 00:03:21,599

this is again the last time that the

82

00:03:26,149 --> 00:03:23,920

four dracos which are the four thrusters

83

00:03:28,229 --> 00:03:26,159

located at the top of the vehicle uh the

84

00:03:29,830 --> 00:03:28,239

last time that they will ignite the dew

85

00:03:31,910 --> 00:03:29,840

orbit burn will place dragon on a

86

00:03:33,830 --> 00:03:31,920

precise trajectory to return to the

87

00:03:36,070 --> 00:03:33,840

splashdown zone off the coast of panama

88

00:03:38,550 --> 00:03:36,080

city florida and will last a bit more

89

00:03:39,750 --> 00:03:38,560

than 66. it looks like we're on to

90

00:03:44,869 --> 00:03:39,760

nominal comms for the rest of the

91

00:03:44,879 --> 00:03:52,630

that's good news uh thanks for watching

92

00:03:56,309 --> 00:03:54,630

and good news indeed as we were

93

00:03:57,990 --> 00:03:56,319

mentioning we're tracking some issues

94

00:04:00,710 --> 00:03:58,000

with one of the tdrs tracking data and

95

00:04:02,070 --> 00:04:00,720

relay satellite system satellites that

96

00:04:04,229 --> 00:04:02,080

was preventing us from getting some

97

00:04:06,390 --> 00:04:04,239

communication from the vehicle at

98

00:04:08,229 --> 00:04:06,400

certain points in their orbit however

99

00:04:10,869 --> 00:04:08,239

that seems to have cleared up and next

100

00:04:13,110 --> 00:04:10,879

we are looking for deorbit burn to begin

101  
00:04:15,990 --> 00:04:13,120  
in just about three minutes as we

102  
00:04:17,670 --> 00:04:16,000  
mentioned that should last almost 16 and

103  
00:04:20,550 --> 00:04:17,680  
a half minutes and that is the breaking

104  
00:04:22,469 --> 00:04:20,560  
maneuver that's going to drop dragon out

105  
00:04:24,070 --> 00:04:22,479  
of earth orbit and bring them back into

106  
00:04:26,950 --> 00:04:24,080  
the atmosphere so things are really

107  
00:04:29,590 --> 00:04:26,960  
speeding up with that nominal claw

108  
00:04:31,030 --> 00:04:29,600  
separation and trunk jettison

109  
00:04:32,950 --> 00:04:31,040  
and they reported some similar things

110  
00:04:35,030 --> 00:04:32,960  
that we heard from bob bankin and doug

111  
00:04:36,870 --> 00:04:35,040  
hurley mentioning that it was something

112  
00:04:37,990 --> 00:04:36,880  
you could definitely feel jettisoning

113  
00:04:41,030 --> 00:04:38,000

that trunk

114

00:04:44,629 --> 00:04:41,040

so very interesting and uh and good news

115

00:04:46,950 --> 00:04:44,639

that everything still continues to uh

116

00:04:48,950 --> 00:04:46,960

to look well and things look pretty good

117

00:04:51,110 --> 00:04:48,960

on earth here too this is a view from

118

00:04:54,150 --> 00:04:51,120

the go navigator recovery ship and off

119

00:04:56,629 --> 00:04:54,160

to the left that is indeed a dolphin who

120

00:04:59,749 --> 00:04:56,639

is checking out the operations as go

121

00:05:02,710 --> 00:04:59,759

navigator begins to move into place uh

122

00:05:05,029 --> 00:05:02,720

to recover crude or crew dragon once

123

00:05:07,110 --> 00:05:05,039

they splash down tonight so

124

00:05:08,629 --> 00:05:07,120

uh beautiful things in space and on

125

00:05:11,350 --> 00:05:08,639

earth it seems like we're not the only

126  
00:05:14,310 --> 00:05:11,360  
ones interested in the astronauts return

127  
00:05:16,230 --> 00:05:14,320  
maybe aside from medical staff they

128  
00:05:18,070 --> 00:05:16,240  
might get a greeting from some marine

129  
00:05:20,230 --> 00:05:18,080  
animals as well that is

130  
00:05:21,830 --> 00:05:20,240  
a very very cool picture of those

131  
00:05:24,310 --> 00:05:21,840  
dolphins

132  
00:05:28,790 --> 00:05:24,320  
again just a few minutes away from the

133  
00:05:31,029 --> 00:05:28,800  
beginning of that 16 minute deorbit burn

134  
00:05:32,469 --> 00:05:31,039  
we just had trunk separation and a

135  
00:05:35,510 --> 00:05:32,479  
couple of things about the trunk

136  
00:05:39,189 --> 00:05:35,520  
separation earlier in the night we

137  
00:05:41,430 --> 00:05:39,199  
formed a prop wasting burn to get rid of

138  
00:05:44,550 --> 00:05:41,440

unneded propellants we shed about

139

00:05:49,029 --> 00:05:44,560

80 to 90 kilograms worth of propellant

140

00:05:50,950 --> 00:05:49,039

and to lighten the load that dragon will

141

00:05:53,189 --> 00:05:50,960

be experiencing when it comes back to

142

00:05:55,590 --> 00:05:53,199

earth and this is

143

00:05:58,629 --> 00:05:55,600

an incredible shot right now we have of

144

00:06:02,309 --> 00:05:58,639

the separation uh that is crew dragon

145

00:06:04,390 --> 00:06:02,319

and it's trunk now separate flying free

146

00:06:06,790 --> 00:06:04,400

and we are just moments away from

147

00:06:09,749 --> 00:06:06,800

hearing the beginning of the deorbit

148

00:06:14,469 --> 00:06:12,390

and as as i was talking the um

149

00:06:16,710 --> 00:06:14,479

the trunk itself and as well as the

150

00:06:18,870 --> 00:06:16,720

propellant used in this deorbit burn

151  
00:06:21,430 --> 00:06:18,880  
once all is said and done we'll be

152  
00:06:23,830 --> 00:06:21,440  
shedding about 6 000 pounds

153  
00:06:26,790 --> 00:06:23,840  
of mass from the dragon spacecraft so

154  
00:06:29,749 --> 00:06:26,800  
starting off at around 27 000 pounds all

155  
00:06:32,469 --> 00:06:29,759  
going down to about 21 000 pounds so

156  
00:06:35,990 --> 00:06:32,479  
those help to again lessen the load that

157  
00:06:38,150 --> 00:06:36,000  
the parachutes will have to

158  
00:06:41,189 --> 00:06:38,160  
sort of carry when they deploy and

159  
00:06:42,790 --> 00:06:41,199  
eventually slow down the spacecraft

160  
00:06:44,629 --> 00:06:42,800  
this is just absolutely an incredible

161  
00:06:46,870 --> 00:06:44,639  
view and this is coming to us from the

162  
00:06:48,550 --> 00:06:46,880  
international space station so they do

163  
00:06:49,589 --> 00:06:48,560

still have a little bit of an eye on

164

00:06:53,589 --> 00:06:49,599

dragon

165

00:06:56,950 --> 00:06:53,599

period following the deorbit burn

166

00:07:00,230 --> 00:06:56,960

completion we hope to have

167

00:07:01,430 --> 00:07:00,240

infrared imagery thanks to the wv57

168

00:07:03,350 --> 00:07:01,440

aircraft

169

00:07:05,430 --> 00:07:03,360

that has departed from ellington and is

170

00:07:07,749 --> 00:07:05,440

in the proper location and they have

171

00:07:09,110 --> 00:07:07,759

thermal imagery

172

00:07:11,749 --> 00:07:09,120

systems aboard

173

00:07:13,350 --> 00:07:11,759

fingers crossed we get some visuals of

174

00:07:14,710 --> 00:07:13,360

crude dragon re-entering the earth's

175

00:07:16,870 --> 00:07:14,720

atmosphere

176  
00:07:18,870 --> 00:07:16,880  
and right on time we also have the start

177  
00:07:22,469 --> 00:07:18,880  
of the deorbit burn as we mentioned this

178  
00:07:25,990 --> 00:07:22,479  
should last 16 minutes 26 seconds so

179  
00:07:28,309 --> 00:07:26,000  
this has fully committed a crew dragon

180  
00:07:30,469 --> 00:07:28,319  
to coming home so just within the last

181  
00:07:32,870 --> 00:07:30,479  
10 minutes crew dragon jettisoned its

182  
00:07:35,430 --> 00:07:32,880  
trunk and initiated this deorbit burn

183  
00:07:37,029 --> 00:07:35,440  
just a minute ago

184  
00:07:40,230 --> 00:07:37,039  
and like we mentioned earlier this

185  
00:07:43,189 --> 00:07:40,240  
deorbit burn is the last time those four

186  
00:07:44,869 --> 00:07:43,199  
forward draco thrusters will fire dragon

187  
00:07:47,270 --> 00:07:44,879  
resilience has not yet entered the

188  
00:07:49,670 --> 00:07:47,280

earth's atmosphere this deorbit burn is

189

00:07:52,230 --> 00:07:49,680

what will line the vehicle up and put it

190

00:07:54,550 --> 00:07:52,240

on a final trajectory to the landing

191

00:07:57,189 --> 00:07:54,560

site in the gulf of mexico just off the

192

00:07:59,110 --> 00:07:57,199

coast of panama city florida there is a

193

00:08:02,390 --> 00:07:59,120

beautiful shot of the crew inside that

194

00:08:05,430 --> 00:08:02,400

is commander mike hopkins closes closest

195

00:08:06,869 --> 00:08:05,440

to your screen and next to him is

196

00:08:10,950 --> 00:08:06,879

victor glover

197

00:08:15,270 --> 00:08:12,710

and on the screens that those are the

198

00:08:16,790 --> 00:08:15,280

thrusters firing uh as we mentioned we

199

00:08:19,270 --> 00:08:16,800

are in the midst of the de-orbit burn

200

00:08:21,589 --> 00:08:19,280

right now and they are monitoring so

201  
00:08:23,189 --> 00:08:21,599  
this is an amazing opportunity to get to

202  
00:08:25,110 --> 00:08:23,199  
see the inside of the cabin at this

203  
00:08:26,790 --> 00:08:25,120  
point we just had that view from the

204  
00:08:28,869 --> 00:08:26,800  
international space station of crew

205  
00:08:31,350 --> 00:08:28,879  
dragon in the trunk having recently

206  
00:08:33,269 --> 00:08:31,360  
separated and this is uh these are the

207  
00:08:35,909 --> 00:08:33,279  
four crew members who are currently

208  
00:08:38,149 --> 00:08:35,919  
inside and they're committed to coming

209  
00:08:39,670 --> 00:08:38,159  
home

210  
00:08:41,909 --> 00:08:39,680  
they're using the screens to keep tabs

211  
00:08:43,829 --> 00:08:41,919  
on the burn duration uh the draco

212  
00:08:46,949 --> 00:08:43,839  
thrusters firing and trajectory details

213  
00:08:48,870 --> 00:08:46,959

like entry angle capsule perigee and how

214

00:08:51,990 --> 00:08:48,880

much distance remaining until de-orbit

215

00:08:53,829 --> 00:08:52,000

burn termination a dragon is flying

216

00:08:55,430 --> 00:08:53,839

itself so all the crew has to do is stay

217

00:08:57,430 --> 00:08:55,440

strapped in their seats

218

00:08:59,110 --> 00:08:57,440

and enjoy the flight

219

00:09:00,470 --> 00:08:59,120

and they're just keeping tabs on things

220

00:09:10,949 --> 00:09:00,480

using those

221

00:09:15,590 --> 00:09:12,630

so it's been about two minutes since the

222

00:09:19,509 --> 00:09:15,600

burn began we are in the entry descent

223

00:09:23,829 --> 00:09:22,230

this is the largest burn of the evening

224

00:09:25,910 --> 00:09:23,839

and as we mentioned this really commits

225

00:09:29,350 --> 00:09:25,920

us to splashing down

226

00:09:32,310 --> 00:09:29,360

specifically at that panama city

227

00:09:34,470 --> 00:09:32,320

location just off the coast

228

00:09:37,030 --> 00:09:34,480

and we were monitoring weather

229

00:09:39,350 --> 00:09:37,040

all the way until the point of deorbit

230

00:09:41,110 --> 00:09:39,360

burn because uh you know

231

00:09:42,949 --> 00:09:41,120

in the event that the weather shifted or

232

00:09:45,030 --> 00:09:42,959

we needed to potentially target a

233

00:09:47,430 --> 00:09:45,040

different site uh this d orbit burn

234

00:09:49,509 --> 00:09:47,440

wouldn't have begun but now uh likely

235

00:09:50,470 --> 00:09:49,519

mentioned we are committed and we'll be

236

00:09:52,710 --> 00:09:50,480

um

237

00:09:54,389 --> 00:09:52,720

looking forward to the splashdown of not

238

00:09:57,430 --> 00:09:54,399

only the capsule but the crew members as

239

00:10:04,069 --> 00:10:00,310

and that deorbit burn should end at 11

240

00:10:06,470 --> 00:10:04,079

19 p.m pacific time uh following that we

241

00:10:08,230 --> 00:10:06,480

will close the nose cone a few minutes

242

00:10:10,630 --> 00:10:08,240

later the nose cone is open right now

243

00:10:12,630 --> 00:10:10,640

because as you can see in those uh

244

00:10:14,470 --> 00:10:12,640

screens those four

245

00:10:15,990 --> 00:10:14,480

thrusters firing are the four bulkhead

246

00:10:17,829 --> 00:10:16,000

thrusters and they are located

247

00:10:19,670 --> 00:10:17,839

underneath the nose cone so we leave the

248

00:10:22,230 --> 00:10:19,680

nose cone open right now

249

00:10:32,389 --> 00:10:22,240

for the 16 and a half minute burn and we

250

00:10:37,269 --> 00:10:34,870

three and a half minutes into the burn

251  
00:10:39,110 --> 00:10:37,279  
continuing to monitor the data and

252  
00:10:42,630 --> 00:10:39,120  
continuing to get these great views from

253  
00:10:47,269 --> 00:10:44,870  
we won't keep these views for the entire

254  
00:10:49,269 --> 00:10:47,279  
return home as we mentioned once crew

255  
00:10:51,190 --> 00:10:49,279  
dragon really begins its entry into the

256  
00:10:53,350 --> 00:10:51,200  
earth's atmosphere we anticipate a loss

257  
00:10:55,829 --> 00:10:53,360  
of signal for about seven minutes where

258  
00:10:59,030 --> 00:10:55,839  
we won't be able to receive telemetry or

259  
00:11:01,750 --> 00:10:59,040  
data or video audio from the

260  
00:11:04,389 --> 00:11:01,760  
crew dragon vehicle however crew dragon

261  
00:11:06,069 --> 00:11:04,399  
is entirely autonomous flying itself uh

262  
00:11:08,470 --> 00:11:06,079  
knows exactly what it needs and where it

263  
00:11:10,310 --> 00:11:08,480

needs to go and so hopefully at that

264

00:11:11,430 --> 00:11:10,320

point the astronauts are just monitoring

265

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

as well

266

00:11:15,750 --> 00:11:13,279

and the really the reason for that calms

267

00:11:18,710 --> 00:11:15,760

blackout is because plasma builds up on

268

00:11:21,110 --> 00:11:18,720

the outside of the capsule due to the uh

269

00:11:23,430 --> 00:11:21,120

the speed at which the vehicle is

270

00:11:25,269 --> 00:11:23,440

re-entering the earth's atmosphere and

271

00:11:28,230 --> 00:11:25,279

building up that heat to

272

00:11:29,509 --> 00:11:28,240

around 3500 degrees fahrenheit outside

273

00:11:30,949 --> 00:11:29,519

the capsule

274

00:11:32,790 --> 00:11:30,959

so a very

275

00:11:34,470 --> 00:11:32,800

very cool view right now on the left

276  
00:11:37,430 --> 00:11:34,480  
you've got from the international space

277  
00:11:39,590 --> 00:11:37,440  
station crew dragon and its trunk and on

278  
00:11:41,190 --> 00:11:39,600  
the right hand side the four astronauts

279  
00:11:44,550 --> 00:11:41,200  
who are inside

280  
00:11:46,949 --> 00:11:44,560  
that small white dot preparing to return

281  
00:11:49,190 --> 00:11:46,959  
to earth

282  
00:11:51,110 --> 00:11:49,200  
yeah the distance from the

283  
00:11:55,509 --> 00:11:51,120  
trunk and

284  
00:11:57,829 --> 00:11:55,519  
the crew dragon vehicle is continuing to

285  
00:11:59,590 --> 00:11:57,839  
get larger and larger and the deep orbit

286  
00:12:01,750 --> 00:11:59,600  
burn um

287  
00:12:03,990 --> 00:12:01,760  
does effectively what his name says um

288  
00:12:05,350 --> 00:12:04,000

we're taking the vehicle out of orbit

289

00:12:06,550 --> 00:12:05,360

and lowering its

290

00:12:08,550 --> 00:12:06,560

altitude

291

00:12:15,509 --> 00:12:08,560

until eventually you know we make its

292

00:12:18,870 --> 00:12:17,670

we're now five minutes into the orbit

293

00:12:22,629 --> 00:12:18,880

burn

294

00:12:26,550 --> 00:12:25,110

crew still monitoring and teams here in

295

00:12:56,389 --> 00:12:26,560

mission control hawthorne still

296

00:13:00,550 --> 00:12:58,150

this crew has been

297

00:13:01,990 --> 00:13:00,560

in space for about six months their

298

00:13:04,710 --> 00:13:02,000

journey started

299

00:13:06,790 --> 00:13:04,720

on november 15th of last year and now

300

00:13:09,590 --> 00:13:06,800

really they're on their last section

301  
00:13:11,030 --> 00:13:09,600  
before they can return back to earth

302  
00:13:28,069 --> 00:13:11,040  
and get

303  
00:13:32,230 --> 00:13:30,310  
now that the deorbit burn has started we

304  
00:13:34,629 --> 00:13:32,240  
really are less than an hour away from

305  
00:13:37,030 --> 00:13:34,639  
splashing down we are expecting

306  
00:13:44,069 --> 00:13:37,040  
splashdown to occur

307  
00:14:09,910 --> 00:13:44,079  
at 11 57 p.m pacific time 6 57 gmt so

308  
00:14:13,030 --> 00:14:11,670  
as we mentioned here on the earth side

309  
00:14:15,269 --> 00:14:13,040  
of things

310  
00:14:17,110 --> 00:14:15,279  
everyone is in place on the go navigator

311  
00:14:18,629 --> 00:14:17,120  
vessel that needs to be there when the

312  
00:14:20,550 --> 00:14:18,639  
crew arrives

313  
00:14:23,110 --> 00:14:20,560

two fast boats will approach the vehicle

314

00:14:25,750 --> 00:14:23,120

and ensure there are no toxic vapors

315

00:14:28,150 --> 00:14:25,760

from those hypergolic fumes that may be

316

00:14:30,310 --> 00:14:28,160

present after splashing down

317

00:14:32,310 --> 00:14:30,320

they will also uh begin rigging the

318

00:14:35,590 --> 00:14:32,320

vehicle and prepare it for

319

00:14:37,430 --> 00:14:35,600

to be hoisted into the nest on go

320

00:14:39,269 --> 00:14:37,440

navigator

321

00:14:41,910 --> 00:14:39,279

but ahead of all of that we also have

322

00:14:44,550 --> 00:14:41,920

the wb-57 aircraft from ellington field

323

00:14:47,829 --> 00:14:44,560

in houston texas that is

324

00:14:49,430 --> 00:14:47,839

in position and we will be awaiting

325

00:14:52,310 --> 00:14:49,440

views from

326

00:14:54,230 --> 00:14:52,320

the aircraft once uh crew dragon begins

327

00:14:57,350 --> 00:14:54,240

its re-entry into earth's atmosphere

328

00:14:59,990 --> 00:14:57,360

there's a thermal imaging camera

329

00:15:07,430 --> 00:15:00,000

on the aircraft that we hope to

330

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

and at the bottom of those touch screen

331

00:15:13,350 --> 00:15:11,440

displays you'll notice some buttons

332

00:15:16,389 --> 00:15:13,360

really important functions like

333

00:15:19,670 --> 00:15:16,399

shoot deploy or cutting the main shoots

334

00:15:21,829 --> 00:15:19,680

these have dedicated buttons for them

335

00:15:24,230 --> 00:15:21,839

otherwise the team can you know use a

336

00:15:30,870 --> 00:15:24,240

number of views to monitor the mission

337

00:15:35,509 --> 00:15:32,629

hypergolic fuels or hypergolic

338

00:15:38,389 --> 00:15:35,519

propellants are pretty common for

339

00:15:40,230 --> 00:15:38,399

space propellants they are one of their

340

00:15:42,470 --> 00:15:40,240

properties is they don't require an

341

00:15:44,230 --> 00:15:42,480

ignition source so once uh two

342

00:15:48,310 --> 00:15:44,240

components are combined typically a fuel

343

00:15:50,790 --> 00:15:48,320

an oxidizer they will ignite um just by

344

00:15:53,030 --> 00:15:50,800

being in contact with one another and it

345

00:15:54,550 --> 00:15:53,040

is great for you know

346

00:15:56,949 --> 00:15:54,560

use in space but you know one of the

347

00:15:59,030 --> 00:15:56,959

downsizes uh they can be

348

00:16:01,110 --> 00:15:59,040

pretty toxic um

349

00:16:03,670 --> 00:16:01,120

to humans so that's why it's super

350

00:16:06,230 --> 00:16:03,680

important that when the spacecraft does

351

00:16:08,150 --> 00:16:06,240

land the first fast boat the first thing

352

00:16:10,310 --> 00:16:08,160

one of the first things they do is

353

00:16:12,790 --> 00:16:10,320

perform a sniff test to make sure that

354

00:16:14,550 --> 00:16:12,800

none of that toxic vapor is still in the

355

00:16:17,110 --> 00:16:14,560

vicinity so that way the other personnel

356

00:16:20,870 --> 00:16:17,120

can approach and continue with the rest

357

00:16:24,870 --> 00:16:22,389

we're coming up on nine and a half

358

00:16:27,430 --> 00:16:24,880

minutes into this 16 and a half minute

359

00:16:29,590 --> 00:16:27,440

maneuver so approximately seven minutes

360

00:16:31,670 --> 00:16:29,600

left and everything is looking good

361

00:16:44,389 --> 00:16:31,680

crews still monitoring those thrusters

362

00:16:49,189 --> 00:16:47,110

this is the final burn of the day crew

363

00:16:51,350 --> 00:16:49,199

dragon as we said is now committed to

364

00:16:59,189 --> 00:16:51,360

splashing down off the coast of panama

365

00:17:02,790 --> 00:17:01,110

and a reminder of the astronauts that

366

00:17:04,390 --> 00:17:02,800

are coming home today

367

00:17:06,470 --> 00:17:04,400

they're closest to the screen is mike

368

00:17:09,189 --> 00:17:06,480

hawkins he's the commander and to his

369

00:17:11,270 --> 00:17:09,199

right is victor glover the pilot

370

00:17:13,750 --> 00:17:11,280

to victor glover's right is shannon

371

00:17:18,230 --> 00:17:15,990

and to mike hawkins left we have soichi

372

00:17:53,510 --> 00:17:18,240

naguchi an astronaut with the japan

373

00:17:57,990 --> 00:17:55,750

so close to your screen is crew dragon

374

00:17:59,430 --> 00:17:58,000

commander mike hopkins

375

00:18:01,430 --> 00:17:59,440

a little bit about him he was born in

376

00:18:03,430 --> 00:18:01,440

lebanon missouri but

377

00:18:05,830 --> 00:18:03,440

grew up outside of rich richland

378

00:18:08,470 --> 00:18:05,840

missouri he was selected as an astronaut

379

00:18:10,230 --> 00:18:08,480

by nasa in 2009.

380

00:18:12,230 --> 00:18:10,240

hopkins is a colonel in the united

381

00:18:14,710 --> 00:18:12,240

states air force and holds degrees in

382

00:18:16,630 --> 00:18:14,720

aerospace engineering he also flew on

383

00:18:21,190 --> 00:18:16,640

the russian soyuz as a member of the

384

00:18:24,390 --> 00:18:21,200

expedition 38 and 37 and 38 crew logging

385

00:18:26,710 --> 00:18:24,400

at the time 166 days in space he

386

00:18:28,789 --> 00:18:26,720

performed two spacewalks totaling almost

387

00:18:30,870 --> 00:18:28,799

13 hours

388

00:18:32,710 --> 00:18:30,880

to change out a degraded pump module on

389

00:18:35,190 --> 00:18:32,720

the space station uh he also has

390

00:18:39,029 --> 00:18:35,200

military experience including testing

391

00:18:41,430 --> 00:18:39,039

the c17 and c130 aircraft

392

00:18:43,750 --> 00:18:41,440

and those two spacewalks were from his

393

00:18:45,029 --> 00:18:43,760

previous mission he added to those while

394

00:18:46,789 --> 00:18:45,039

he was on the international space

395

00:18:48,630 --> 00:18:46,799

station during this flight added a

396

00:18:51,190 --> 00:18:48,640

couple more actually

397

00:18:52,789 --> 00:18:51,200

and the deorbit burn we are just about

398

00:18:54,950 --> 00:18:52,799

four and a half minutes away from that

399

00:18:56,310 --> 00:18:54,960

being complete things are still looking

400

00:18:58,230 --> 00:18:56,320

good and as a reminder this is a

401  
00:19:00,390 --> 00:18:58,240  
breaking maneuver so crew dragon is

402  
00:19:02,630 --> 00:19:00,400  
firing those thrusters into the same

403  
00:19:04,710 --> 00:19:02,640  
direction that it was traveling uh this

404  
00:19:48,070 --> 00:19:04,720  
should slow crew dragon down enough to

405  
00:19:52,789 --> 00:19:51,350  
so we are waiting on the deorbit burn to

406  
00:19:54,549 --> 00:19:52,799  
end and that should happen at

407  
00:19:57,270 --> 00:19:54,559  
approximately 11

408  
00:19:58,230 --> 00:19:57,280  
19 p.m pacific time just a few minutes

409  
00:20:00,070 --> 00:19:58,240  
from now

410  
00:20:01,190 --> 00:20:00,080  
the astronauts on board are continuing

411  
00:20:04,470 --> 00:20:01,200  
to monitor

412  
00:20:12,950 --> 00:20:04,480  
the burns of the four ford

413  
00:20:16,630 --> 00:20:14,710

things have really picked up in the last

414

00:20:17,830 --> 00:20:16,640

15 minutes or so

415

00:20:20,950 --> 00:20:17,840

the crew

416

00:20:22,950 --> 00:20:20,960

we had claw separation from the

417

00:20:24,789 --> 00:20:22,960

trunk and the

418

00:20:27,110 --> 00:20:24,799

capsule itself

419

00:20:29,270 --> 00:20:27,120

the claw connecting those

420

00:20:31,110 --> 00:20:29,280

thermal control or the thermal and

421

00:20:33,110 --> 00:20:31,120

avionics and

422

00:20:35,669 --> 00:20:33,120

data telemetry information between the

423

00:20:37,750 --> 00:20:35,679

crew capsule and the trunk and we had

424

00:20:38,950 --> 00:20:37,760

trunk jettison and some amazing shots

425

00:20:41,590 --> 00:20:38,960

there for a moment from the

426  
00:20:44,470 --> 00:20:41,600  
international speed station of both the

427  
00:20:46,789 --> 00:20:44,480  
trunk and crew dragon flying separately

428  
00:20:49,990 --> 00:20:46,799  
of one another

429  
00:20:52,070 --> 00:20:50,000  
and now we are in this deorbit burn

430  
00:20:53,270 --> 00:20:52,080  
now 14 minutes in

431  
00:20:55,909 --> 00:20:53,280  
meaning we only have about two and a

432  
00:20:57,510 --> 00:20:55,919  
half minutes left

433  
00:20:59,430 --> 00:20:57,520  
on this deorbit burn committing them to

434  
00:21:02,230 --> 00:20:59,440  
coming home to panama city or off the

435  
00:21:04,549 --> 00:21:02,240  
coast of panama city florida

436  
00:21:06,230 --> 00:21:04,559  
we are looking at splashdown

437  
00:21:11,669 --> 00:21:06,240  
at about

438  
00:21:13,909 --> 00:21:11,679

uh 11 57 p.m pacific time so 40 minutes

439

00:21:20,230 --> 00:21:13,919

from now we will have these crew one

440

00:21:24,149 --> 00:21:21,830

and since that

441

00:21:26,070 --> 00:21:24,159

claw separation and jettison of the

442

00:21:28,149 --> 00:21:26,080

trunk the dragon spacecraft is running

443

00:21:29,750 --> 00:21:28,159

on internal battery power so everything

444

00:21:31,590 --> 00:21:29,760

that you see on screen

445

00:21:33,830 --> 00:21:31,600

is powered by

446

00:21:36,070 --> 00:21:33,840

batteries on the capsule itself

447

00:21:41,110 --> 00:21:36,080

and it's no longer drawing power from

448

00:21:45,669 --> 00:21:42,870

as you can see the astronauts still have

449

00:21:47,350 --> 00:21:45,679

their visors up on their suits

450

00:21:49,510 --> 00:21:47,360

that is fine for right now and they will

451  
00:21:51,029 --> 00:21:49,520  
need to lower those visors once it comes

452  
00:21:52,950 --> 00:21:51,039  
time for the

453  
00:21:54,630 --> 00:21:52,960  
re-entry of the capsule into the

454  
00:21:56,870 --> 00:21:54,640  
atmosphere so this deorbit burn is not

455  
00:21:58,390 --> 00:21:56,880  
the reentry itself we don't have those

456  
00:22:00,230 --> 00:21:58,400  
extreme temperatures building up on the

457  
00:22:01,990 --> 00:22:00,240  
outside of the vehicle right now that's

458  
00:22:06,149 --> 00:22:02,000  
why we still have telemetry and

459  
00:22:07,750 --> 00:22:06,159  
communications with the spacecraft

460  
00:22:12,549 --> 00:22:07,760  
but once we begin that re-entry they

461  
00:22:17,830 --> 00:22:15,590  
we're still tracking this deorbit burn

462  
00:22:21,590 --> 00:22:17,840  
getting reports that the flight path

463  
00:22:21,600 --> 00:22:26,870

everything looking nominal for this burn

464

00:22:26,880 --> 00:22:49,430

we should have about one minute left

465

00:22:55,830 --> 00:22:52,070

and this the orbit burn is a breaking

466

00:22:58,710 --> 00:22:55,840

maneuver um after this we're sort of

467

00:23:00,710 --> 00:22:58,720

done with um any major burns uh the

468

00:23:02,710 --> 00:23:00,720

majority of speed reduction will be done

469

00:23:04,310 --> 00:23:02,720

by the atmosphere of the earth and then

470

00:23:07,909 --> 00:23:04,320

after that the parachutes that will

471

00:23:09,669 --> 00:23:07,919

deploy on the dragon spacecraft so

472

00:23:11,830 --> 00:23:09,679

again just a few seconds away from

473

00:23:13,669 --> 00:23:11,840

completing this you know long duration

474

00:23:16,870 --> 00:23:13,679

16-minute burn

475

00:23:20,789 --> 00:23:18,950

be answering the earth's atmosphere

476

00:23:22,710 --> 00:23:20,799

very shortly after that

477

00:23:24,870 --> 00:23:22,720

and we are seconds away from that call

478

00:23:27,430 --> 00:23:24,880

out as you saw we lost video with the

479

00:23:30,230 --> 00:23:27,440

crew uh that was one of those tracked

480

00:23:31,590 --> 00:23:30,240

loss of certain spacex we show the orbit

481

00:23:38,710 --> 00:23:31,600

burn is complete with nominal

482

00:23:43,669 --> 00:23:41,430

and spacex from resilience we copy all

483

00:23:51,669 --> 00:23:43,679

that's great news and we're following

484

00:23:56,230 --> 00:23:54,070

and that is great news the d-orbit burn

485

00:23:59,029 --> 00:23:56,240

completed successfully and now we're

486

00:24:00,870 --> 00:23:59,039

moving on to nose cone closure in the

487

00:24:03,430 --> 00:24:00,880

background right now dragon is currently

488

00:24:04,789 --> 00:24:03,440

inhibiting those ford bulkhead thrusters

489

00:24:07,269 --> 00:24:04,799

that we just used to complete the

490

00:24:10,070 --> 00:24:07,279

deorbit burn ensuring it's safe to latch

491

00:24:12,549 --> 00:24:10,080

the nose cone shut for re-entry also the

492

00:24:14,870 --> 00:24:12,559

vehicle has initiated the nitrox suit

493

00:24:17,110 --> 00:24:14,880

purge this will help keep mike victor

494

00:24:18,950 --> 00:24:17,120

shannon and soichi cool and comfortable

495

00:24:21,350 --> 00:24:18,960

during the re-entry which is coming up

496

00:24:23,909 --> 00:24:21,360

in about 20 minutes and at this point

497

00:24:26,070 --> 00:24:23,919

the nose cone is closing and protecting

498

00:24:27,909 --> 00:24:26,080

the forward hatch for re-entry again the

499

00:24:30,470 --> 00:24:27,919

our astronauts are using their screens

500

00:24:36,470 --> 00:24:30,480

to monitor the locking of the nose cone

501  
00:24:41,269 --> 00:24:38,950  
so we are standing by for confirmation

502  
00:24:42,870 --> 00:24:41,279  
of nose cone closure we needed to wait

503  
00:24:45,430 --> 00:24:42,880  
until this point because we were using

504  
00:24:46,789 --> 00:24:45,440  
those forward bulkhead draco thrusters

505  
00:24:49,269 --> 00:24:46,799  
underneath the nose cone to complete

506  
00:24:51,110 --> 00:24:49,279  
that deorbit burn we did hear nominal

507  
00:24:53,190 --> 00:24:51,120  
deorbit burns so things continue to move

508  
00:24:54,549 --> 00:24:53,200  
very smoothly for crew dragon resilience

509  
00:24:57,669 --> 00:24:54,559  
on its way home

510  
00:24:59,669 --> 00:24:57,679  
from the international space station so

511  
00:25:09,269 --> 00:24:59,679  
anticipated nose cone closure should

512  
00:25:12,870 --> 00:25:11,029  
so this view here is

513  
00:25:16,390 --> 00:25:12,880

mission control in

514

00:25:19,029 --> 00:25:16,400

hawthorne in california

515

00:25:21,430 --> 00:25:19,039

i have a whole team of folks supporting

516

00:25:23,990 --> 00:25:21,440

the astronauts return

517

00:25:25,750 --> 00:25:24,000

we are expecting a planned communication

518

00:25:29,350 --> 00:25:25,760

blackout period

519

00:25:31,590 --> 00:25:29,360

at 11 43 p.m pacific time again that is

520

00:25:33,350 --> 00:25:31,600

when we have a ton of plasma buildup at

521

00:25:34,470 --> 00:25:33,360

the bottom of the capsule it's going to

522

00:25:37,510 --> 00:25:34,480

start to interfere with some of the

523

00:25:39,430 --> 00:25:37,520

communications but that is planned and

524

00:25:41,510 --> 00:25:39,440

should last for about seven and a half

525

00:25:43,990 --> 00:25:41,520

minutes at that time

526  
00:25:46,310 --> 00:25:44,000  
the dragon spacecraft will continue to

527  
00:25:48,470 --> 00:25:46,320  
steer and pilot itself towards the

528  
00:25:50,390 --> 00:25:48,480  
targeted landing site of off the coast

529  
00:25:52,710 --> 00:25:50,400  
of panama city until we get those

530  
00:25:54,789 --> 00:25:52,720  
communications back and once again can

531  
00:25:56,630 --> 00:25:54,799  
talk to the astronauts and we just heard

532  
00:25:59,990 --> 00:25:56,640  
a call that nose cone closure is about

533  
00:26:01,909 --> 00:26:00,000  
50 complete so that continues and we are

534  
00:26:04,789 --> 00:26:01,919  
tracking for that to be complete

535  
00:26:07,269 --> 00:26:04,799  
momentarily that nose cone protects the

536  
00:26:10,549 --> 00:26:07,279  
forward hatch that the astronauts use to

537  
00:26:12,470 --> 00:26:10,559  
ingress or enter and egress or exit the

538  
00:26:13,990 --> 00:26:12,480

international space station

539

00:26:16,789 --> 00:26:14,000

and so it's important that we are able

540

00:26:20,230 --> 00:26:16,799

to protect that area for potential

541

00:26:22,630 --> 00:26:20,240

future reuse of this capsule

542

00:26:24,950 --> 00:26:22,640

so we are standing by for confirmation

543

00:26:25,990 --> 00:26:24,960

that knows the nose cone has fully

544

00:26:27,830 --> 00:26:26,000

closed

545

00:26:30,950 --> 00:26:27,840

the next major milestone we'll be

546

00:26:33,269 --> 00:26:30,960

looking for is the entry of the vehicle

547

00:26:35,590 --> 00:26:33,279

and and that anticipated loss of signal

548

00:26:38,630 --> 00:26:35,600

with the spacecraft entry of the vehicle

549

00:26:40,950 --> 00:26:38,640

should begin around 11 45 so about 23

550

00:26:43,990 --> 00:26:40,960

minutes from now and

551  
00:26:45,510 --> 00:26:44,000  
we will be tracking the vehicle its

552  
00:26:52,549 --> 00:26:45,520  
entire way back even though we don't

553  
00:26:56,549 --> 00:26:54,950  
and as those vehicles uh the vehicle

554  
00:26:58,470 --> 00:26:56,559  
starts to make its way back to earth the

555  
00:27:01,510 --> 00:26:58,480  
astronauts on board should experience um

556  
00:27:03,430 --> 00:27:01,520  
a max a peak of three to five g's

557  
00:27:12,070 --> 00:27:03,440  
um similar to what they would experience

558  
00:27:16,390 --> 00:27:14,230  
and then the drone shoots will deploy

559  
00:27:18,149 --> 00:27:16,400  
and the main shoots will also deploy

560  
00:27:19,830 --> 00:27:18,159  
after that and then we can start to

561  
00:27:25,750 --> 00:27:19,840  
begin recovery operations in this

562  
00:27:36,950 --> 00:27:27,590  
we are standing by for information about

563  
00:27:36,960 --> 00:27:42,230

and the nose cone is closed

564

00:27:45,990 --> 00:27:43,990

the forward hatch now being protected

565

00:27:51,669 --> 00:27:46,000

and those four forward bulkhead draco

566

00:27:57,990 --> 00:27:55,029

so as we begin the second half of entry

567

00:28:00,149 --> 00:27:58,000

dragon is now beginning to flush nitrox

568

00:28:02,789 --> 00:28:00,159

into the cabin and continuing to top off

569

00:28:05,029 --> 00:28:02,799

mike victor shannon and soichi's suit

570

00:28:06,789 --> 00:28:05,039

with cold air again this is what will

571

00:28:08,950 --> 00:28:06,799

allow the cabin temperature to remain

572

00:28:12,389 --> 00:28:08,960

comfortable while external temperatures

573

00:28:14,870 --> 00:28:12,399

reach over 3500 degrees fahrenheit the

574

00:28:17,269 --> 00:28:14,880

heat shield is pointing forward

575

00:28:19,430 --> 00:28:17,279

the bottom so to speak of the capsule

576

00:28:22,870 --> 00:28:19,440

leading the capsule into the landing

577

00:28:25,029 --> 00:28:22,880

site and the suits themselves can detect

578

00:28:26,870 --> 00:28:25,039

if they start to get too warm and will

579

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

automatically start drawing in that

580

00:28:31,029 --> 00:28:28,960

nitrox again to keep the astronauts nice

581

00:28:33,510 --> 00:28:31,039

and cool all the way down until

582

00:28:35,190 --> 00:28:33,520

splashdown

583

00:28:37,830 --> 00:28:35,200

so we have some time until that next

584

00:28:39,669 --> 00:28:37,840

major milestone as we discussed with the

585

00:28:42,070 --> 00:28:39,679

nosecone closed we'll be looking for

586

00:28:45,830 --> 00:28:42,080

that loss of signal that could come as

587

00:28:48,710 --> 00:28:45,840

early as 11 43 with our re-entry in

588

00:28:50,549 --> 00:28:48,720

earth's atmosphere at about 11 45 so 20

589

00:28:53,350 --> 00:28:50,559

minutes from now

590

00:28:55,909 --> 00:28:53,360

mike victor shannon and soichi as we

591

00:28:58,470 --> 00:28:55,919

noticed they are monitoring the actions

592

00:29:01,190 --> 00:28:58,480

throughout this uh this procedure and

593

00:29:03,350 --> 00:29:01,200

they should be able to continue to do so

594

00:29:05,510 --> 00:29:03,360

throughout the splashdown of crude

595

00:29:07,669 --> 00:29:05,520

dragon they they shouldn't have to take

596

00:29:10,549 --> 00:29:07,679

any action dragon is a fully autonomous

597

00:29:13,190 --> 00:29:10,559

vehicle and so it can fly itself

598

00:29:15,510 --> 00:29:13,200

the crew can step in if necessary and

599

00:29:19,190 --> 00:29:15,520

command some movements of the vehicle

600

00:29:20,630 --> 00:29:19,200

and some other actions but um things

601  
00:29:22,870 --> 00:29:20,640  
have moved very smoothly throughout the

602  
00:29:27,029 --> 00:29:22,880  
day so far so we are looking at an

603  
00:29:28,950 --> 00:29:27,039  
on-time splashdown at 11 57 pm gm or 11

604  
00:29:31,269 --> 00:29:28,960  
57 pm pacific time off the coast of

605  
00:29:32,870 --> 00:29:31,279  
panama city florida and hopefully along

606  
00:29:34,870 --> 00:29:32,880  
the way the astronauts will simply be

607  
00:29:37,430 --> 00:29:34,880  
able to monitor

608  
00:29:39,669 --> 00:29:37,440  
and we did get a weather report

609  
00:29:42,230 --> 00:29:39,679  
just a few minutes ago and weather

610  
00:29:43,510 --> 00:29:42,240  
continues to look great excellent if i

611  
00:29:46,310 --> 00:29:43,520  
may say

612  
00:29:47,990 --> 00:29:46,320  
wind speeds are very low and the height

613  
00:29:50,710 --> 00:29:48,000

of the waves are also very low there's

614

00:29:52,870 --> 00:29:50,720

no rain in the area so really ideal

615

00:29:54,470 --> 00:29:52,880

conditions for splash down and recovery

616

00:29:56,230 --> 00:29:54,480

of the crew

617

00:29:58,070 --> 00:29:56,240

once they splash down there are a couple

618

00:29:59,269 --> 00:29:58,080

of boats that will

619

00:30:02,230 --> 00:29:59,279

step in

620

00:30:03,909 --> 00:30:02,240

to make sure that the area is safe there

621

00:30:06,549 --> 00:30:03,919

they'll collect the shoots and then

622

00:30:07,909 --> 00:30:06,559

there is a larger recovery vessel the

623

00:30:09,909 --> 00:30:07,919

same vessel that sort of took the

624

00:30:11,990 --> 00:30:09,919

picture of the dolphin earlier that will

625

00:30:14,389 --> 00:30:12,000

come up and scoop dragon out of the

626  
00:30:15,750 --> 00:30:14,399  
water hoist it using a crane on the back

627  
00:30:18,789 --> 00:30:15,760  
of the boat

628  
00:30:20,950 --> 00:30:18,799  
onto the deck and then we have a couple

629  
00:30:23,190 --> 00:30:20,960  
of checkout procedures to get through

630  
00:30:25,750 --> 00:30:23,200  
before we open up the hatch and medical

631  
00:30:28,470 --> 00:30:25,760  
staff can start to attend and evaluate

632  
00:30:29,990 --> 00:30:28,480  
how the astronauts are doing

633  
00:30:31,269 --> 00:30:30,000  
before they you know eventually get into

634  
00:30:34,950 --> 00:30:31,279  
the helicopter and start to make their

635  
00:30:37,909 --> 00:30:36,470  
and uh we

636  
00:30:40,070 --> 00:30:37,919  
as we've mentioned we were initially

637  
00:30:41,909 --> 00:30:40,080  
looking at returning these astronauts on

638  
00:30:43,190 --> 00:30:41,919

the wednesday the 28th having them

639

00:30:44,950 --> 00:30:43,200

undock from

640

00:30:47,029 --> 00:30:44,960

the international space station and then

641

00:30:49,430 --> 00:30:47,039

we looked at friday uh

642

00:30:51,430 --> 00:30:49,440

april 30th so just yesterday

643

00:30:52,870 --> 00:30:51,440

and we were really waiting on perfect

644

00:30:55,350 --> 00:30:52,880

weather conditions which is what we're

645

00:30:57,590 --> 00:30:55,360

seeing tonight and so just a little bit

646

00:30:59,269 --> 00:30:57,600

more about exactly what that means and

647

00:31:00,630 --> 00:30:59,279

what those parameters are like for us

648

00:31:02,789 --> 00:31:00,640

when we're considering splashdown

649

00:31:05,029 --> 00:31:02,799

locations we want the wind to be no

650

00:31:08,310 --> 00:31:05,039

greater than 10 and a half knots which

651  
00:31:10,070 --> 00:31:08,320  
is about 17 and .7 feet per second and

652  
00:31:12,950 --> 00:31:10,080  
the latest report that we have the wind

653  
00:31:14,149 --> 00:31:12,960  
is around two knots so very much within

654  
00:31:16,870 --> 00:31:14,159  
that range

655  
00:31:19,750 --> 00:31:16,880  
we'll need no lightning within or no

656  
00:31:21,990 --> 00:31:19,760  
less than 10 miles away or no more

657  
00:31:26,389 --> 00:31:22,000  
dragon spacex we show nose cones secure

658  
00:31:34,950 --> 00:31:28,310  
and spacex from resilience we see the

659  
00:31:39,750 --> 00:31:36,950  
and good news being relayed to the crew

660  
00:31:41,110 --> 00:31:39,760  
dragon crew that nose cone is closed uh

661  
00:31:43,350 --> 00:31:41,120  
but a little bit more about that

662  
00:31:46,070 --> 00:31:43,360  
recovery criteria we were talking about

663  
00:31:48,789 --> 00:31:46,080

lightning we don't want that within the

664

00:31:52,549 --> 00:31:48,799

10 mile radius and

665

00:31:57,110 --> 00:31:52,559

away or within the vehicle area as well

666

00:31:59,990 --> 00:31:57,120

as no more than 25 chance of rain

667

00:32:02,549 --> 00:32:00,000

we don't want any clouds lower than a

668

00:32:04,149 --> 00:32:02,559

500 feet which means that's the cloud

669

00:32:06,070 --> 00:32:04,159

ceiling we don't want that any lower

670

00:32:07,990 --> 00:32:06,080

than 500 feet

671

00:32:10,710 --> 00:32:08,000

and we need at least a mile of

672

00:32:12,789 --> 00:32:10,720

visibility for a night splashdown so

673

00:32:14,950 --> 00:32:12,799

everything is really lining up perfectly

674

00:32:17,830 --> 00:32:14,960

for splashdown tonight and we are we are

675

00:32:20,870 --> 00:32:17,840

continuing to watch crew dragon execute

676  
00:32:22,710 --> 00:32:20,880  
all of the pre-programmed maneuvers uh

677  
00:32:24,710 --> 00:32:22,720  
the next major one now with the nose

678  
00:32:28,389 --> 00:32:24,720  
cone secured and all of those hooks

679  
00:32:31,509 --> 00:32:28,399  
secured uh we'll be looking for really

680  
00:32:36,710 --> 00:32:34,549  
and once the dragon spacecraft

681  
00:32:38,789 --> 00:32:36,720  
splashes down where we typically try to

682  
00:32:41,110 --> 00:32:38,799  
target about an hour before we can you

683  
00:32:42,870 --> 00:32:41,120  
know get in there recover the vessel and

684  
00:32:45,269 --> 00:32:42,880  
open up that hatch

685  
00:32:47,750 --> 00:32:45,279  
but it'll depend it'll depend on you

686  
00:32:49,830 --> 00:32:47,760  
know if there's any hypergolic vapors in

687  
00:32:51,430 --> 00:32:49,840  
the air how fast the boats can get to

688  
00:32:54,070 --> 00:32:51,440

the capsule but

689

00:32:55,509 --> 00:32:54,080

you know certainly expediency is of the

690

00:32:57,190 --> 00:32:55,519

utmo utmost

691

00:32:59,430 --> 00:32:57,200

urgency for us so

692

00:33:01,350 --> 00:32:59,440

you know the the recovery team will

693

00:33:03,190 --> 00:33:01,360

certainly try their best to make sure

694

00:33:04,630 --> 00:33:03,200

the astronauts are in good

695

00:33:06,549 --> 00:33:04,640

safe hands and on the boat eventually

696

00:33:09,750 --> 00:33:06,559

the helicopter as soon as

697

00:33:12,149 --> 00:33:09,760

we can do so safely

698

00:33:14,870 --> 00:33:12,159

yeah and we hope to see the crew egress

699

00:33:16,310 --> 00:33:14,880

or exit dragon within an hour after

700

00:33:18,230 --> 00:33:16,320

splashing down

701  
00:33:21,110 --> 00:33:18,240  
which is really an impressive timeline

702  
00:33:23,590 --> 00:33:21,120  
and so um as soon as splashdown occurs

703  
00:33:25,430 --> 00:33:23,600  
those two fast boats will begin

704  
00:33:27,830 --> 00:33:25,440  
proceeding toward the vehicle they'll be

705  
00:33:29,750 --> 00:33:27,840  
sniffing for those hypergolic fuels

706  
00:33:32,470 --> 00:33:29,760  
we don't want any of those toxic fumes

707  
00:33:34,470 --> 00:33:32,480  
within the vicinity of the capsule and

708  
00:33:36,789 --> 00:33:34,480  
we will have one person

709  
00:33:38,549 --> 00:33:36,799  
go onto the capsule and begin to rig it

710  
00:33:41,430 --> 00:33:38,559  
or prepare it to be lifted out of the

711  
00:33:43,590 --> 00:33:41,440  
water and once the recovery ship backs

712  
00:33:46,310 --> 00:33:43,600  
up to the vehicle they can connect that

713  
00:33:48,630 --> 00:33:46,320

to the ship and lift it onto the ship so

714

00:33:50,950 --> 00:33:48,640

and that all can happen within about a

715

00:33:52,470 --> 00:33:50,960

30 minute time frame

716

00:33:54,149 --> 00:33:52,480

and uh

717

00:33:56,470 --> 00:33:54,159

it's things are really moving quickly

718

00:33:58,470 --> 00:33:56,480

now with the the start of entry descent

719

00:33:59,909 --> 00:33:58,480

and landing a lot of milestones

720

00:34:10,550 --> 00:33:59,919

happening so we hope that you'll stay

721

00:34:14,790 --> 00:34:13,190

so the dragon spacecraft itself is uh

722

00:34:17,030 --> 00:34:14,800

now that it's completed it's deorbit

723

00:34:18,629 --> 00:34:17,040

burn its altitude it's starting to

724

00:34:20,069 --> 00:34:18,639

decrease and decrease and decrease where

725

00:34:21,990 --> 00:34:20,079

eventually it will start to meet the

726  
00:34:24,790 --> 00:34:22,000  
earth's atmosphere

727  
00:34:27,829 --> 00:34:24,800  
and once it does it's moving

728  
00:34:30,149 --> 00:34:27,839  
it was moving at over 17

729  
00:34:32,230 --> 00:34:30,159  
500 miles an hour and so we'll start to

730  
00:34:34,550 --> 00:34:32,240  
eventually slow it down all the way to

731  
00:34:37,030 --> 00:34:34,560  
16 miles an hour and that's generally

732  
00:34:37,990 --> 00:34:37,040  
the the rate at which the speed at which

733  
00:34:39,349 --> 00:34:38,000  
it will

734  
00:34:40,950 --> 00:34:39,359  
splash down

735  
00:34:41,909 --> 00:34:40,960  
in the ocean so

736  
00:34:48,710 --> 00:34:41,919  
much

737  
00:34:51,190 --> 00:34:48,720  
hit the water at 17 500 miles an hour

738  
00:34:53,829 --> 00:34:51,200

now if you look closely in this picture

739

00:34:55,990 --> 00:34:53,839

that is still crew dragon that view from

740

00:34:57,829 --> 00:34:56,000

the international space station as we

741

00:34:59,990 --> 00:34:57,839

mentioned crew dragon has just completed

742

00:35:02,710 --> 00:35:00,000

its deorbit burn but that doesn't mean

743

00:35:05,829 --> 00:35:02,720

that it's out of space yet so pre-dragon

744

00:35:09,109 --> 00:35:05,839

is still in a microgravity environment

745

00:35:11,270 --> 00:35:09,119

and and continues to slow and drop into

746

00:35:13,910 --> 00:35:11,280

earth's atmosphere that's when our

747

00:35:15,510 --> 00:35:13,920

reentry period will really begin

748

00:35:17,270 --> 00:35:15,520

when we expect to

749

00:35:19,510 --> 00:35:17,280

also have that loss of communications

750

00:35:20,790 --> 00:35:19,520

andy was just discussing

751

00:35:22,870 --> 00:35:20,800

but right now

752

00:35:25,109 --> 00:35:22,880

still very exciting to be able to have

753

00:35:27,190 --> 00:35:25,119

this view from the international space

754

00:35:29,750 --> 00:35:27,200

station of crude dragon which just

755

00:35:31,750 --> 00:35:29,760

departed that command being sent six

756

00:35:34,150 --> 00:35:31,760

hours ago for those hooks to open on the

757

00:35:35,589 --> 00:35:34,160

nose cone uh and there's two short

758

00:35:38,150 --> 00:35:35,599

bursts to separate it from the

759

00:35:41,109 --> 00:35:38,160

international space station so a lot can

760

00:35:42,870 --> 00:35:41,119

happen in six hours as we've seen and a

761

00:35:45,589 --> 00:35:42,880

lot can also happen in 30 minutes

762

00:35:47,990 --> 00:35:45,599

because in that amount of time uh crew

763

00:35:49,190 --> 00:35:48,000

dragon will be back on earth

764

00:35:51,430 --> 00:35:49,200

and those uh

765

00:35:53,190 --> 00:35:51,440

sort of quick movements that is not crew

766

00:35:55,829 --> 00:35:53,200

dragon there it is that is not crew

767

00:35:58,550 --> 00:35:55,839

dragon moving in space that is uh the

768

00:35:59,990 --> 00:35:58,560

camera repositioning itself so uh crew

769

00:36:02,710 --> 00:36:00,000

dragon right now is really on a

770

00:36:04,150 --> 00:36:02,720

controlled sort of slow descent back

771

00:36:05,349 --> 00:36:04,160

towards earth

772

00:36:07,109 --> 00:36:05,359

but it is

773

00:36:09,510 --> 00:36:07,119

quite cool that the international space

774

00:36:11,270 --> 00:36:09,520

station can still and has been tracking

775

00:36:19,109 --> 00:36:11,280

crew dragon all the way since it

776

00:36:22,790 --> 00:36:21,270

i'm taking a look at what the

777

00:36:25,030 --> 00:36:22,800

crew aboard the international space

778

00:36:27,190 --> 00:36:25,040

station is doing

779

00:36:28,470 --> 00:36:27,200

some of them are actually in their sleep

780

00:36:29,750 --> 00:36:28,480

period

781

00:36:32,150 --> 00:36:29,760

so

782

00:36:35,109 --> 00:36:32,160

they may be asleep right now and they

783

00:36:36,870 --> 00:36:35,119

they also maybe uh

784

00:36:38,470 --> 00:36:36,880

who knows up in the middle of the night

785

00:36:41,109 --> 00:36:38,480

and

786

00:36:42,790 --> 00:36:41,119

i'm sure some of them are very eager to

787

00:36:44,390 --> 00:36:42,800

make sure that they're um

788

00:36:51,589 --> 00:36:44,400

you know uh

789

00:36:57,109 --> 00:36:55,030

and go for injury

790

00:36:59,109 --> 00:36:57,119

everything continues to look awesome so

791

00:37:01,589 --> 00:36:59,119

no updates to timing no updates for

792

00:37:04,150 --> 00:37:01,599

systems weather is uh winds at three

793

00:37:07,670 --> 00:37:04,160

knots wave height remains less than one

794

00:37:09,750 --> 00:37:07,680

foot a wave period still at five seconds

795

00:37:15,750 --> 00:37:09,760

recovery team reports in position ready

796

00:37:21,349 --> 00:37:18,069

okay no changes to timeline everything

797

00:37:23,510 --> 00:37:21,359

is looking good three knots on the wind

798

00:37:26,230 --> 00:37:23,520

less than a foot in five seconds on the

799

00:37:27,589 --> 00:37:26,240

period we're currently showing 220

800

00:37:29,990 --> 00:37:27,599

and we're working through our entry

801  
00:37:33,349 --> 00:37:30,000  
brief and we'll give you a uh

802  
00:37:39,270 --> 00:37:37,190  
okay spacex copies thank you

803  
00:37:41,270 --> 00:37:39,280  
you know as the

804  
00:37:43,270 --> 00:37:41,280  
folks on the crew capsule itself when

805  
00:37:46,470 --> 00:37:43,280  
your core calls you and says

806  
00:37:48,390 --> 00:37:46,480  
everything continues to look awesome uh

807  
00:37:51,349 --> 00:37:48,400  
that is probably the greatest of great

808  
00:37:53,750 --> 00:37:51,359  
news as the capsule is gearing up for

809  
00:37:57,349 --> 00:37:53,760  
re-entry into the earth's atmosphere and

810  
00:37:59,030 --> 00:37:57,359  
eventual splashdown here within the hour

811  
00:38:00,310 --> 00:37:59,040  
as i was mentioning earlier the crew on

812  
00:38:01,750 --> 00:38:00,320  
the international space station they

813  
00:38:03,670 --> 00:38:01,760

might be up right now i'm sure they're

814

00:38:05,109 --> 00:38:03,680

very eager to see that

815

00:38:06,950 --> 00:38:05,119

see

816

00:38:07,990 --> 00:38:06,960

to make sure that their fellow crew

817

00:38:10,710 --> 00:38:08,000

members

818

00:38:12,150 --> 00:38:10,720

are safely back home on earth so

819

00:38:13,510 --> 00:38:12,160

you know they might be tuning in to make

820

00:38:15,349 --> 00:38:13,520

sure that you know everything goes

821

00:38:17,990 --> 00:38:15,359

smoothly before they you know head off

822

00:38:20,790 --> 00:38:18,000

to bed

823

00:38:22,390 --> 00:38:20,800

and uh meanwhile on earth this is the

824

00:38:24,310 --> 00:38:22,400

view that we had earlier from go

825

00:38:26,630 --> 00:38:24,320

navigator the recovery vessel that we'll

826

00:38:30,069 --> 00:38:26,640

see lift crew dragon out of the water

827

00:38:31,990 --> 00:38:30,079

later on they had another visitor uh you

828

00:38:33,589 --> 00:38:32,000

know outer space is a pretty amazing

829

00:38:36,069 --> 00:38:33,599

place to explore and i think the ocean

830

00:38:38,550 --> 00:38:36,079

is as well and so this is one of the

831

00:38:41,030 --> 00:38:38,560

local residents in the area of go

832

00:38:43,990 --> 00:38:41,040

navigator at the time go navigator has

833

00:38:46,390 --> 00:38:44,000

now moved closer to the location of

834

00:38:48,230 --> 00:38:46,400

splashdown and they will then move in

835

00:38:50,550 --> 00:38:48,240

once the vehicle has

836

00:38:53,670 --> 00:38:50,560

made contact with the water to then

837

00:38:58,230 --> 00:38:55,910

yeah maybe that's a foreshadowing of the

838

00:38:59,829 --> 00:38:58,240

future zero g indicator we haven't had a

839

00:39:01,270 --> 00:38:59,839

marine animal

840

00:39:05,349 --> 00:39:01,280

find space yet so maybe the next one

841

00:39:08,150 --> 00:39:05,359

will be a dolphin that's not a bad idea

842

00:39:10,069 --> 00:39:08,160

this view right this view right now is

843

00:39:12,550 --> 00:39:10,079

again from the international space

844

00:39:14,470 --> 00:39:12,560

station that white dot in the center of

845

00:39:17,109 --> 00:39:14,480

your screen is the dragon

846

00:39:18,950 --> 00:39:17,119

capsule the um and the crew is inside

847

00:39:20,310 --> 00:39:18,960

there and uh we're continuing to adjust

848

00:39:21,829 --> 00:39:20,320

the cameras

849

00:39:23,670 --> 00:39:21,839

but it continues to make its way back

850

00:39:25,430 --> 00:39:23,680

towards earth

851  
00:39:27,030 --> 00:39:25,440  
and those cameras can be adjusted by

852  
00:39:29,510 --> 00:39:27,040  
teams on the ground in mission control

853  
00:39:31,109 --> 00:39:29,520  
houston so as you mentioned the the

854  
00:39:33,190 --> 00:39:31,119  
astronauts still on the international

855  
00:39:35,109 --> 00:39:33,200  
space station have the opportunity to be

856  
00:39:37,430 --> 00:39:35,119  
getting some sleep now they very well

857  
00:39:40,230 --> 00:39:37,440  
might be watching the coverage and we uh

858  
00:39:43,109 --> 00:39:40,240  
thank them as well for tuning in but um

859  
00:39:45,589 --> 00:39:43,119  
but yes just an amazing view for

860  
00:39:48,790 --> 00:39:45,599  
for us to get to see this

861  
00:39:51,270 --> 00:39:48,800  
image of crew dragon still in space

862  
00:39:54,230 --> 00:39:51,280  
counting down to that uh beginning of

863  
00:39:56,150 --> 00:39:54,240

reentry it all happens very fast once

864

00:39:59,109 --> 00:39:56,160

that begins

865

00:40:00,470 --> 00:39:59,119

and we are looking for re-entry to begin

866

00:40:03,910 --> 00:40:00,480

at uh

867

00:40:06,710 --> 00:40:03,920

11 45 so less than 10 minutes from now

868

00:40:08,309 --> 00:40:06,720

and spacex from resilience tablets are

869

00:40:13,030 --> 00:40:08,319

secured on the satchels restraints are

870

00:40:30,630 --> 00:40:15,270

spacex copies on tablets restraints and

871

00:40:35,190 --> 00:40:32,790

the crew reporting to the core here that

872

00:40:36,829 --> 00:40:35,200

uh they are in the proper configuration

873

00:40:39,670 --> 00:40:36,839

for their

874

00:40:42,069 --> 00:40:39,680

deorbit their their re-entry essentially

875

00:40:43,910 --> 00:40:42,079

so their visors on their suits are now

876  
00:40:45,510 --> 00:40:43,920  
down and locked in place we saw them

877  
00:40:47,349 --> 00:40:45,520  
earlier during that orbit burn the

878  
00:40:49,670 --> 00:40:47,359  
visors were still up

879  
00:40:51,750 --> 00:40:49,680  
and they needed to be closed prior to

880  
00:40:53,349 --> 00:40:51,760  
the re-entry and so it sounds like

881  
00:40:55,190 --> 00:40:53,359  
everything is properly secured and

882  
00:40:56,470 --> 00:40:55,200  
stowed for that re-entry into earth's

883  
00:40:58,390 --> 00:40:56,480  
atmosphere

884  
00:41:00,069 --> 00:40:58,400  
as we mentioned we can expect the

885  
00:41:02,550 --> 00:41:00,079  
astronauts to feel

886  
00:41:08,470 --> 00:41:02,560  
about anywhere between three and five

887  
00:41:12,790 --> 00:41:10,550  
all right we are under 20 minutes away

888  
00:41:15,430 --> 00:41:12,800

from splashdown here's uh the rundown

889

00:41:18,790 --> 00:41:15,440

again of what to expect here in a in the

890

00:41:20,150 --> 00:41:18,800

next 20 minutes at 11 43 p.m pacific

891

00:41:21,910 --> 00:41:20,160

time we're going to enter that

892

00:41:24,069 --> 00:41:21,920

communications blackout period that will

893

00:41:25,750 --> 00:41:24,079

last for approximately seven and a half

894

00:41:29,430 --> 00:41:25,760

minutes um

895

00:41:31,109 --> 00:41:29,440

at 11 45 pm uh entry will begin that is

896

00:41:34,550 --> 00:41:31,119

where the capsule will

897

00:41:36,710 --> 00:41:34,560

enter the earth's atmosphere 11 52 pm

898

00:41:39,430 --> 00:41:36,720

the drogue shoots will deploy then less

899

00:41:42,550 --> 00:41:39,440

than a minute after that

900

00:41:45,750 --> 00:41:42,560

the main shoots will deploy slowing the

901  
00:41:49,190 --> 00:41:45,760  
dragon spacecraft down to 16 miles an

902  
00:41:52,309 --> 00:41:49,200  
hour then 11 57 pm pacific time we have

903  
00:41:56,870 --> 00:41:52,319  
splashdown of the crew one resilience

904  
00:42:01,670 --> 00:41:59,349  
dragon spacex we show five minutes until

905  
00:42:09,430 --> 00:42:01,680  
predicted calm blackout we will see you

906  
00:42:17,349 --> 00:42:11,670  
and spacex resilience copies we'll talk

907  
00:42:21,430 --> 00:42:19,829  
and there was that

908  
00:42:23,349 --> 00:42:21,440  
blackout period

909  
00:42:24,150 --> 00:42:23,359  
that i had mentioned earlier that is the

910  
00:42:27,109 --> 00:42:24,160  
core

911  
00:42:29,030 --> 00:42:27,119  
just confirming again the time

912  
00:42:32,069 --> 00:42:29,040  
and the expectation that there will be a

913  
00:42:33,750 --> 00:42:32,079

hole period at approximately 11 43 p.m

914

00:42:35,829 --> 00:42:33,760  
pacific time for seven and a half

915

00:42:37,270 --> 00:42:35,839  
minutes

916

00:42:39,030 --> 00:42:37,280  
again the dragon

917

00:42:42,390 --> 00:42:39,040  
vehicle is

918

00:42:44,550 --> 00:42:42,400  
autonomous and uh really steering itself

919

00:42:45,829 --> 00:42:44,560  
at this point so even though

920

00:42:47,750 --> 00:42:45,839  
communications can't be sent back and

921

00:42:50,470 --> 00:42:47,760  
forth between dragon and ground

922

00:42:51,910 --> 00:42:50,480  
the vehicle is uh really

923

00:42:52,870 --> 00:42:51,920  
you know doing its own thing and making

924

00:42:55,030 --> 00:42:52,880  
sure that

925

00:42:58,710 --> 00:42:55,040  
it reaches the targeted landing site as

926

00:43:02,790 --> 00:43:00,710

we are four minutes away from that

927

00:43:04,390 --> 00:43:02,800

predicted loss of signal and this is

928

00:43:06,950 --> 00:43:04,400

something that occurs whenever we bring

929

00:43:09,990 --> 00:43:06,960

home crude spacecraft whether it be a

930

00:43:11,910 --> 00:43:10,000

crew dragon or a soyuz spacecraft their

931

00:43:14,069 --> 00:43:11,920

their re-entry into the earth's

932

00:43:16,150 --> 00:43:14,079

atmosphere looks very similar uh they

933

00:43:18,150 --> 00:43:16,160

both have a deorbit burn and they both

934

00:43:20,230 --> 00:43:18,160

slow down significantly upon re-entry

935

00:43:22,390 --> 00:43:20,240

into earth's atmosphere and that plasma

936

00:43:24,470 --> 00:43:22,400

buildup outside of the vehicle

937

00:43:25,829 --> 00:43:24,480

along with that heat that prevents us

938

00:43:27,750 --> 00:43:25,839

from having communications with the

939

00:43:29,910 --> 00:43:27,760

vehicle for several minutes this time

940

00:43:32,550 --> 00:43:29,920

we're looking at about seven minutes so

941

00:43:35,190 --> 00:43:32,560

it's something that we're very

942

00:43:36,790 --> 00:43:35,200

aware of and experienced with

943

00:43:39,829 --> 00:43:36,800

and something else we are just learning

944

00:43:43,270 --> 00:43:39,839

is crew dragon is about 140 kilometers

945

00:43:46,790 --> 00:43:43,280

in altitude so we continue to

946

00:43:48,630 --> 00:43:46,800

track its journey back to earth

947

00:43:57,430 --> 00:43:48,640

we are now what it looks like three

948

00:44:02,150 --> 00:43:59,829

so elia and i will continue to be with

949

00:44:04,069 --> 00:44:02,160

you live not just uh until splashdown

950

00:44:06,309 --> 00:44:04,079

but afterwards as part of the recovery

951  
00:44:09,430 --> 00:44:06,319  
operations as well uh we want to make

952  
00:44:13,109 --> 00:44:09,440  
sure that the team is picked up out of

953  
00:44:16,069 --> 00:44:13,119  
the water and safe and sound on the

954  
00:44:18,309 --> 00:44:16,079  
go navigator boat before we sign off so

955  
00:44:20,630 --> 00:44:18,319  
we still got a bit of time here but we

956  
00:44:23,190 --> 00:44:20,640  
do have quite a bit of events coming up

957  
00:44:26,230 --> 00:44:23,200  
in the next hour and a half

958  
00:44:27,910 --> 00:44:26,240  
until the crew is you know safely back

959  
00:44:29,910 --> 00:44:27,920  
on earth

960  
00:44:32,230 --> 00:44:29,920  
and speaking of recovery that uh that

961  
00:44:34,710 --> 00:44:32,240  
leads into an ask or a launch america

962  
00:44:36,790 --> 00:44:34,720  
question that we have

963  
00:44:39,510 --> 00:44:36,800

do any medical checkups happen after the

964

00:44:40,790 --> 00:44:39,520

return of crew one back on earth uh yes

965

00:44:42,630 --> 00:44:40,800

that's actually the first thing that

966

00:44:45,109 --> 00:44:42,640

happens once crew one returns and is

967

00:44:47,190 --> 00:44:45,119

hoisted onto the ship the first person

968

00:44:50,470 --> 00:44:47,200

inside the hatch will be a medical

969

00:44:52,950 --> 00:44:50,480

doctor that speaks with the crew and

970

00:44:55,030 --> 00:44:52,960

allows them to uh to let them know how

971

00:44:57,109 --> 00:44:55,040

they're feeling ahead of egress or being

972

00:44:58,790 --> 00:44:57,119

taken out of the vehicle and as soon as

973

00:45:00,550 --> 00:44:58,800

that happens they'll be moved in so for

974

00:45:03,109 --> 00:45:00,560

some further medical checks ahead of

975

00:45:05,589 --> 00:45:03,119

being flown back on a helicopter to

976

00:45:07,829 --> 00:45:05,599

shore in florida so

977

00:45:09,910 --> 00:45:07,839

that'll be the the first thing that

978

00:45:11,670 --> 00:45:09,920

happens safety of our crew and their

979

00:45:13,750 --> 00:45:11,680

health is our priority

980

00:45:16,230 --> 00:45:13,760

yeah and you know part of landing

981

00:45:17,910 --> 00:45:16,240

selection slides one of the

982

00:45:19,430 --> 00:45:17,920

criteria is we have to be close to

983

00:45:21,109 --> 00:45:19,440

medical facilities so you know

984

00:45:23,990 --> 00:45:21,119

everything is really planned around the

985

00:45:26,230 --> 00:45:24,000

safe uh the safety uh of the astronauts

986

00:45:28,390 --> 00:45:26,240

and make sure that they come back uh you

987

00:45:30,710 --> 00:45:28,400

know nice and healthy uh because they've

988

00:45:33,990 --> 00:45:30,720

had you know such um

989

00:45:36,069 --> 00:45:34,000

uh rigorous sort of time up in space you

990

00:45:37,589 --> 00:45:36,079

know being in microgravity and now

991

00:45:39,589 --> 00:45:37,599

returning back to earth and having to

992

00:45:40,309 --> 00:45:39,599

deal with the gravity uh down here and

993

00:45:42,470 --> 00:45:40,319

so

994

00:45:43,750 --> 00:45:42,480

likely i mentioned um you know medical

995

00:45:45,510 --> 00:45:43,760

staff will be one of the first people

996

00:45:46,390 --> 00:45:45,520

that speak to the astronauts as soon as

997

00:45:48,630 --> 00:45:46,400

they

998

00:45:50,470 --> 00:45:48,640

land here on earth

999

00:45:51,910 --> 00:45:50,480

we just heard that dragon is an entry

1000

00:45:54,550 --> 00:45:51,920

attitude

1001

00:45:56,630 --> 00:45:54,560

exactly where they need to be

1002

00:45:58,710 --> 00:45:56,640

and for this targeted splash down off

1003

00:46:00,630 --> 00:45:58,720

the coast of panama city florida we have

1004

00:46:04,470 --> 00:46:00,640

that loss of signal that we predict to

1005

00:46:07,190 --> 00:46:04,480

occur coming up in about one minute

1006

00:46:08,950 --> 00:46:07,200

and we expect to see that last for about

1007

00:46:11,030 --> 00:46:08,960

seven minutes

1008

00:46:28,870 --> 00:46:11,040

hearing our attitude is approximately

1009

00:46:33,430 --> 00:46:31,270

and as a reminder our four crew members

1010

00:46:35,829 --> 00:46:33,440

mike hopkins victor glover shannon

1011

00:46:37,990 --> 00:46:35,839

walker and suici all on board crew

1012

00:46:40,710 --> 00:46:38,000

dragon returning home today they are

1013

00:46:42,470 --> 00:46:40,720

monitoring this process and so they are

1014

00:46:44,230 --> 00:46:42,480

well aware that we may lose

1015

00:46:46,309 --> 00:46:44,240

communications with them as soon as

1016

00:46:48,790 --> 00:46:46,319

within 30 seconds

1017

00:46:51,190 --> 00:46:48,800

and we will speak with them once we are

1018

00:47:04,150 --> 00:46:51,200

out of that comms blackout period again

1019

00:47:11,030 --> 00:47:06,950

we're standing by for that loss

1020

00:47:12,870 --> 00:47:11,040

under 100 kilometers in altitude

1021

00:47:15,910 --> 00:47:12,880

and shortly after we begin that uh

1022

00:47:17,190 --> 00:47:15,920

communications blackout period 11 45 pm

1023

00:47:19,349 --> 00:47:17,200

pacific time

1024

00:47:21,270 --> 00:47:19,359

that is when the spacecraft will enter

1025

00:47:23,349 --> 00:47:21,280

the earth's atmosphere and begin you

1026

00:47:46,470 --> 00:47:23,359

know sort of its final descent

1027

00:47:50,309 --> 00:47:48,470

altitude of crew dragon now at 90

1028

00:47:51,589 --> 00:47:50,319

kilometers and this view on the right

1029

00:47:53,510 --> 00:47:51,599

hand side of your screen and mission

1030

00:47:56,150 --> 00:47:53,520

control hawthorne here

1031

00:47:57,430 --> 00:47:56,160

in california teams monitoring the

1032

00:48:00,069 --> 00:47:57,440

vehicle

1033

00:48:02,230 --> 00:48:00,079

and during this loss of signal point

1034

00:48:03,750 --> 00:48:02,240

uh this communications blackout they

1035

00:48:05,910 --> 00:48:03,760

they won't be able to get telemetry on

1036

00:48:16,870 --> 00:48:05,920

the vehicle but crew dragon is totally

1037

00:48:21,030 --> 00:48:18,710

so at this point we are entering that

1038

00:48:23,190 --> 00:48:21,040

communications blackout period

1039

00:48:25,829 --> 00:48:23,200

this will last approximately seven and a

1040

00:48:27,990 --> 00:48:25,839

half minutes due to plasma formation

1041

00:48:30,069 --> 00:48:28,000

around the spacecraft during this time

1042

00:48:32,230 --> 00:48:30,079

no vehicle telemetry is received by

1043

00:48:34,470 --> 00:48:32,240

mission control or the recovery team and

1044

00:48:36,710 --> 00:48:34,480

no external commanding of the vehicle or

1045

00:48:38,790 --> 00:48:36,720

voice communication is possible and just

1046

00:48:41,030 --> 00:48:38,800

as a reminder dragon is designed to fly

1047

00:48:43,430 --> 00:48:41,040

itself and continues to autonomously use

1048

00:48:49,030 --> 00:48:43,440

draco thrusters to orient itself during

1049

00:48:52,870 --> 00:48:50,790

during re-entry the vehicle will be

1050

00:48:55,990 --> 00:48:52,880

slowing down from orbital velocity which

1051  
00:48:59,829 --> 00:48:56,000  
is approximately 17

1052  
00:49:01,910 --> 00:48:59,839  
17 500 miles per hour and

1053  
00:49:04,230 --> 00:49:01,920  
the top temperature around dragon that

1054  
00:49:06,390 --> 00:49:04,240  
dragon will experience upon re-entry is

1055  
00:49:08,790 --> 00:49:06,400  
about 3 500

1056  
00:49:10,470 --> 00:49:08,800  
degrees fahrenheit

1057  
00:49:12,230 --> 00:49:10,480  
and of course inside the capsule will

1058  
00:49:15,109 --> 00:49:12,240  
not get near that hot we expect the

1059  
00:49:17,670 --> 00:49:15,119  
temperature to raise to about 85 degrees

1060  
00:49:19,670 --> 00:49:17,680  
and the astronauts have cool air inside

1061  
00:49:23,030 --> 00:49:19,680  
the vehicle as well as inside their

1062  
00:49:25,750 --> 00:49:23,040  
suits uh and so we have just

1063  
00:49:28,790 --> 00:49:25,760

entered the time of entry interface so

1064

00:49:30,549 --> 00:49:28,800

dragon is now experiencing uh the

1065

00:49:32,870 --> 00:49:30,559

earth's atmosphere the for the first

1066

00:49:34,710 --> 00:49:32,880

time in almost six

1067

00:49:37,030 --> 00:49:34,720

months

1068

00:49:39,190 --> 00:49:37,040

so we are continuing to uh be in this

1069

00:49:41,030 --> 00:49:39,200

los period as we mentioned it should

1070

00:49:44,150 --> 00:49:41,040

last about seven minutes and that began

1071

00:49:47,190 --> 00:49:44,160

at 11 43 p.m pacific time so we have

1072

00:49:49,030 --> 00:49:47,200

about four minutes left of that los

1073

00:49:51,670 --> 00:49:49,040

period uh and the crew knows that we

1074

00:49:53,990 --> 00:49:51,680

will be in communication with them on

1075

00:49:56,230 --> 00:49:54,000

the other side

1076

00:49:57,190 --> 00:49:56,240

and this has got to be the the period

1077

00:49:59,589 --> 00:49:57,200

where

1078

00:50:01,670 --> 00:49:59,599

if you followed bob and doug's re-entry

1079

00:50:03,270 --> 00:50:01,680

they describe dragon as sort of coming

1080

00:50:05,430 --> 00:50:03,280

back to life when it re-enters the

1081

00:50:07,109 --> 00:50:05,440

atmosphere so again

1082

00:50:10,069 --> 00:50:07,119

those temperatures are caused by

1083

00:50:12,069 --> 00:50:10,079

friction so um you know the the

1084

00:50:13,990 --> 00:50:12,079

spacecraft itself is moving at such a

1085

00:50:15,829 --> 00:50:14,000

high rate of speed that it's it's

1086

00:50:17,190 --> 00:50:15,839

hitting all these air particles and so

1087

00:50:19,589 --> 00:50:17,200

um it's got to be

1088

00:50:21,910 --> 00:50:19,599

you know the vibration levels and uh the

1089

00:50:24,150 --> 00:50:21,920

sound has got to be sort of elevated at

1090

00:50:26,390 --> 00:50:24,160

this point as it continues to go through

1091

00:50:27,990 --> 00:50:26,400

the earth's atmosphere and as we

1092

00:50:29,829 --> 00:50:28,000

mentioned this is the first time that

1093

00:50:32,230 --> 00:50:29,839

the vehicle has felt this lift and this

1094

00:50:33,990 --> 00:50:32,240

drag since launch um

1095

00:50:37,030 --> 00:50:34,000

the atmosphere in space that doesn't

1096

00:50:38,790 --> 00:50:37,040

exist and so it's a vacuum and

1097

00:50:41,109 --> 00:50:38,800

haven't been feeling this and been able

1098

00:50:43,990 --> 00:50:41,119

to hear those sounds that uh you were

1099

00:50:45,990 --> 00:50:44,000

discussing so um it's quite a different

1100

00:50:48,309 --> 00:50:46,000

moment after having six months in

1101  
00:50:50,309 --> 00:50:48,319  
microgravity they will begin to start

1102  
00:50:53,510 --> 00:50:50,319  
feeling some g's as we mentioned between

1103  
00:50:55,750 --> 00:50:53,520  
three and five g's upon their re-entry

1104  
00:50:57,910 --> 00:50:55,760  
and we are standing by it's been about

1105  
00:51:00,309 --> 00:50:57,920  
four minutes now since that loss of

1106  
00:51:02,390 --> 00:51:00,319  
signal began that's an estimated seven

1107  
00:51:04,790 --> 00:51:02,400  
minutes the plasma is building up on the

1108  
00:51:06,230 --> 00:51:04,800  
outside of the capsule as it continues

1109  
00:51:07,910 --> 00:51:06,240  
entering the earth's atmosphere the

1110  
00:51:09,270 --> 00:51:07,920  
temperatures around the capsule building

1111  
00:51:12,390 --> 00:51:09,280  
up to 3

1112  
00:51:15,910 --> 00:51:12,400  
500 degrees fahrenheit

1113  
00:51:16,630 --> 00:51:15,920

and this view from our wb-57 aircraft

1114

00:51:18,630 --> 00:51:16,640

with

1115

00:51:21,030 --> 00:51:18,640

thermal imaging cameras we will be

1116

00:51:22,710 --> 00:51:21,040

looking for

1117

00:51:30,390 --> 00:51:22,720

the

1118

00:51:33,190 --> 00:51:30,400

atmosphere crew dragon continuing its

1119

00:51:36,549 --> 00:51:35,430

so there's a material on the bottom of

1120

00:51:39,030 --> 00:51:36,559

the capsule

1121

00:51:41,589 --> 00:51:39,040

pica 3.0 stands for

1122

00:51:44,230 --> 00:51:41,599

phenolic impregnated

1123

00:51:47,109 --> 00:51:44,240

carbon ablator that is the material that

1124

00:51:49,349 --> 00:51:47,119

is really shielding the capsule from all

1125

00:51:51,349 --> 00:51:49,359

of that extreme temperature and so the

1126  
00:51:53,910 --> 00:51:51,359  
capsule itself goes in sort of bottom

1127  
00:51:56,950 --> 00:51:53,920  
first and

1128  
00:52:01,910 --> 00:51:56,960  
that lightweight material oh and that is

1129  
00:52:06,870 --> 00:52:04,790  
re-entering the earth's atmosphere as it

1130  
00:52:08,950 --> 00:52:06,880  
leaves that trail behind

1131  
00:52:12,630 --> 00:52:08,960  
and then again that that

1132  
00:52:14,870 --> 00:52:12,640  
the illuminations from all that heat um

1133  
00:52:17,510 --> 00:52:14,880  
that is building up uh due to friction

1134  
00:52:19,750 --> 00:52:17,520  
of just the re-entry speeds of dragon

1135  
00:52:22,150 --> 00:52:19,760  
when it meets the earth's atmosphere and

1136  
00:52:23,589 --> 00:52:22,160  
that view coming from the boat go

1137  
00:52:26,710 --> 00:52:23,599  
navigator

1138  
00:52:29,829 --> 00:52:26,720

crew dragon continuing as you said into

1139

00:52:32,309 --> 00:52:29,839

to enter earth's atmosphere so uh

1140

00:52:33,510 --> 00:52:32,319

having these two views right now with it

1141

00:52:36,549 --> 00:52:33,520

being

1142

00:52:39,109 --> 00:52:36,559

a a nighttime splashdown

1143

00:52:41,750 --> 00:52:39,119

pretty exciting that we're getting

1144

00:52:47,190 --> 00:52:41,760

uh two good views upon re-entry into

1145

00:52:51,270 --> 00:52:49,349

so again a lot of things are happening

1146

00:52:53,750 --> 00:52:51,280

uh pretty rapidly here in about three

1147

00:52:55,829 --> 00:52:53,760

minutes the first set of parachutes will

1148

00:52:58,710 --> 00:52:55,839

deploy they are drogue shoots they are

1149

00:53:02,069 --> 00:52:58,720

conical in nature and their job is to

1150

00:53:05,030 --> 00:53:02,079

stabilize and begin sort of the initial

1151  
00:53:07,030 --> 00:53:05,040  
deceleration of the vehicle followed

1152  
00:53:08,790 --> 00:53:07,040  
very shortly after by the main

1153  
00:53:17,030 --> 00:53:08,800  
parachutes there are four of them dragon

1154  
00:53:23,109 --> 00:53:20,390  
and spacex this is dragon over 4g is 42

1155  
00:53:26,309 --> 00:53:23,119  
kilometers

1156  
00:53:32,150 --> 00:53:26,319  
spacex we have you loud and clear expect

1157  
00:53:42,309 --> 00:53:34,230  
and resilience copies we are at flight

1158  
00:53:46,630 --> 00:53:44,309  
that's commander mike hopkins reporting

1159  
00:53:48,549 --> 00:53:46,640  
the g's that they experienced upon

1160  
00:53:50,549 --> 00:53:48,559  
re-entry and as you heard we are now out

1161  
00:53:53,349 --> 00:53:50,559  
of that loss of signal portion meaning

1162  
00:53:54,829 --> 00:53:53,359  
the plasma has eroded away enough from

1163  
00:53:56,950 --> 00:53:54,839

the

1164

00:53:58,950 --> 00:53:56,960

spacecraft i think my heart skipped a

1165

00:53:59,990 --> 00:53:58,960

beat as soon as i heard

1166

00:54:02,069 --> 00:54:00,000

the crew

1167

00:54:04,390 --> 00:54:02,079

uh responding back and you know one

1168

00:54:06,870 --> 00:54:04,400

thing i did note as soon as mike uh

1169

00:54:09,109 --> 00:54:06,880

turned on his comms there was a lot of

1170

00:54:11,829 --> 00:54:09,119

background noise and that is sort of uh

1171

00:54:15,829 --> 00:54:11,839

you know the the um after effects of

1172

00:54:20,470 --> 00:54:18,390

so this view again from the wb-57

1173

00:54:23,430 --> 00:54:20,480

aircraft

1174

00:54:28,630 --> 00:54:23,440

dragon spacex a gps is converged expect

1175

00:54:35,349 --> 00:54:31,109

resilience copies

1176  
00:54:40,150 --> 00:54:37,510  
crew dragon resilience now 30 kilometers

1177  
00:54:42,069 --> 00:54:40,160  
over earth it's quite a quick drop over

1178  
00:54:43,510 --> 00:54:42,079  
that a 100 that we saw just a few

1179  
00:54:44,789 --> 00:54:43,520  
minutes ago

1180  
00:54:46,870 --> 00:54:44,799  
and now we'll be looking for drug

1181  
00:54:51,589 --> 00:54:46,880  
parachute deploy within the next minute

1182  
00:54:53,589 --> 00:54:51,599  
or so at 11 52 p.m pacific time 6 52 gmt

1183  
00:54:56,630 --> 00:54:53,599  
those two drogue shoots should deploy at

1184  
00:54:59,349 --> 00:54:56,640  
18 000 feet and at an altitude crew

1185  
00:55:01,990 --> 00:54:59,359  
dragon will be moving approximately 350

1186  
00:55:06,390 --> 00:55:02,000  
miles per hour dragon spacex recovery

1187  
00:55:14,710 --> 00:55:09,270  
good news we're at 20 kilometers seats

1188  
00:55:14,720 --> 00:55:19,990

spacex copies on the seat rotation

1189

00:55:25,030 --> 00:55:22,549

the seats are rotating into the proper

1190

00:55:26,789 --> 00:55:25,040

landing position

1191

00:55:30,309 --> 00:55:26,799

we saw them a little bit more reclined

1192

00:55:32,870 --> 00:55:30,319

earlier facing the top of the capsule

1193

00:55:34,710 --> 00:55:32,880

and now they are

1194

00:55:35,670 --> 00:55:34,720

more forward facing towards that side

1195

00:55:37,750 --> 00:55:35,680

hatch

1196

00:55:41,030 --> 00:55:37,760

we also got confirmation that the

1197

00:55:42,069 --> 00:55:41,040

recovery teams can also now see dragon

1198

00:55:43,829 --> 00:55:42,079

coming back

1199

00:56:18,150 --> 00:55:43,839

for jokes

1200

00:56:22,150 --> 00:56:19,910

so we are waiting for confirmation that

1201  
00:56:24,870 --> 00:56:22,160  
the drogue chutes have deployed we are

1202  
00:56:29,190 --> 00:56:24,880  
expecting them to deploy uh any minute

1203  
00:56:34,309 --> 00:56:30,870  
and it looks like

1204  
00:56:43,190 --> 00:56:34,319  
those might be our drogue shoots

1205  
00:56:47,990 --> 00:56:44,710  
spacex from resilience we shall give

1206  
00:56:53,349 --> 00:56:49,990  
spacex copies and concurs nominal

1207  
00:56:55,190 --> 00:56:53,359  
descent right on two drugs

1208  
00:56:56,950 --> 00:56:55,200  
uh continuing to hear good news after

1209  
00:56:59,030 --> 00:56:56,960  
good news uh two drug shoots have

1210  
00:57:01,510 --> 00:56:59,040  
deployed everything looks nominal and

1211  
00:57:03,510 --> 00:57:01,520  
we're slowing the dragon vehicle down we

1212  
00:57:15,670 --> 00:57:03,520  
are expecting the four main shoots to

1213  
00:57:22,470 --> 00:57:17,910

and those four drogue shoots oh you can

1214

00:57:22,480 --> 00:57:29,510

visual on four mains

1215

00:57:33,910 --> 00:57:31,750

in resilience copies and we see a

1216

00:57:36,309 --> 00:57:33,920

nominal descent rate

1217

00:57:40,309 --> 00:57:36,319

spacex copies and concern concurs

1218

00:57:45,589 --> 00:57:43,510

and this view coming from the wb-57 very

1219

00:57:48,470 --> 00:57:45,599

clear image of those four

1220

00:57:50,789 --> 00:57:48,480

main parachutes slowing the vehicle down

1221

00:57:53,190 --> 00:57:50,799

to what will be about 16 miles per hour

1222

00:57:55,990 --> 00:57:53,200

prior to splashdown just off the coast

1223

00:57:57,349 --> 00:57:56,000

of panama city florida

1224

00:57:59,270 --> 00:57:57,359

if it were daylight we would have an

1225

00:58:01,430 --> 00:57:59,280

image of those four

1226  
00:58:04,470 --> 00:58:01,440  
beautiful parachutes being orange and

1227  
00:58:08,309 --> 00:58:06,789  
and still getting these incredible views

1228  
00:58:11,910 --> 00:58:08,319  
even though we are in a nighttime

1229  
00:58:17,589 --> 00:58:14,549  
so we are waiting for visuals of

1230  
00:58:21,990 --> 00:58:19,990  
the dragon one program had great success

1231  
00:58:23,829 --> 00:58:22,000  
with water landing with 20 successful

1232  
00:58:25,990 --> 00:58:23,839  
splashdowns over the course of that

1233  
00:58:32,309 --> 00:58:26,000  
program nine of which were carried out

1234  
00:58:36,150 --> 00:58:34,069  
in space had you broken but we show you

1235  
00:58:40,870 --> 00:58:36,160  
just under 800 meters still good decent

1236  
00:58:45,349 --> 00:58:42,789  
just under 800 meters from the earth

1237  
00:58:50,630 --> 00:58:45,359  
that's about half of a mile

1238  
00:58:56,150 --> 00:58:54,230

and 600 meters and we're showing

1239

00:58:57,210 --> 00:58:56,160

centimeters per second on the decent

1240

00:59:00,870 --> 00:58:57,220

rate a little higher than that

1241

00:59:05,750 --> 00:59:03,670

spacex copies

1242

00:59:08,630 --> 00:59:05,760

and what a view we have here even though

1243

00:59:09,829 --> 00:59:08,640

it's nighttime uh we have some great

1244

00:59:12,549 --> 00:59:09,839

visuals

1245

00:59:16,069 --> 00:59:12,559

uh of dragon there with his four main

1246

00:59:17,670 --> 00:59:16,079

shoots deployed uh slowly coming back to

1247

00:59:19,910 --> 00:59:17,680

earth

1248

00:59:22,789 --> 00:59:19,920

splashdown is scheduled for just a few

1249

00:59:27,430 --> 00:59:24,789

now just a quarter mile away from

1250

00:59:44,870 --> 00:59:27,440

splashdown and that splashdown time

1251

00:59:51,349 --> 00:59:47,750

and spacex we show nominal decent rates

1252

01:00:08,549 --> 00:59:51,359

200 meters breaks for splashdown

1253

01:00:12,789 --> 01:00:10,630

seconds away from splashdown everything

1254

01:00:18,549 --> 01:00:12,799

nominal aboard crew dragon resilience

1255

01:00:23,510 --> 01:00:19,990

and there are the boats starting to

1256

01:00:35,050 --> 01:00:25,270

to begin their recovery operations as

1257

01:00:39,190 --> 01:00:37,670

[Applause]

1258

01:00:41,010 --> 01:00:39,200

and i don't know if you can hear the

1259

01:00:42,390 --> 01:00:41,020

applause

1260

01:00:44,710 --> 01:00:42,400

[Applause]

1261

01:00:46,549 --> 01:00:44,720

but we have visual confirmation of the

1262

01:00:47,589 --> 01:00:46,559

crew one resilience capsule from a

1263

01:00:49,510 --> 01:00:47,599

rebellion

1264

01:00:50,549 --> 01:00:49,520

that is excellent news we are splashed

1265

01:00:55,430 --> 01:00:50,559

down we've

1266

01:01:06,390 --> 01:00:58,549

spacex copies and concurs we do she main

1267

01:01:11,750 --> 01:01:08,870

so again you heard the applause uh

1268

01:01:13,670 --> 01:01:11,760

the crew one capsule has returned um and

1269

01:01:16,069 --> 01:01:13,680

we have successful splashdown the main

1270

01:01:18,069 --> 01:01:16,079

shoots have also cut as well the fast

1271

01:01:19,990 --> 01:01:18,079

boats are now making their way towards

1272

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

the capsule to begin the recovery

1273

01:01:23,589 --> 01:01:22,240

operations again that first boat is

1274

01:01:25,510 --> 01:01:23,599

going to

1275

01:01:27,829 --> 01:01:25,520

start to inspect the capsule and make

1276

01:01:29,670 --> 01:01:27,839

sure that there isn't any residual

1277

01:01:31,750 --> 01:01:29,680

toxic fumes in the air dragon on behalf

1278

01:01:33,190 --> 01:01:31,760

of nasa and the spacex teams we welcome

1279

01:01:35,349 --> 01:01:33,200

you back to planet earth and thanks for

1280

01:01:36,870 --> 01:01:35,359

flying spacex for those of you enrolled

1281

01:01:45,750 --> 01:01:36,880

in our frequent flyer program you have

1282

01:01:49,030 --> 01:01:47,430

at spacex

1283

01:01:51,190 --> 01:01:49,040

resilience it is

1284

01:01:53,109 --> 01:01:51,200

back on planet earth

1285

01:01:58,150 --> 01:01:53,119

and we'll take those miles

1286

01:02:06,710 --> 01:01:59,990

and dragon will have to refer you to our

1287

01:02:16,950 --> 01:02:08,789

and we are in

1288

01:02:25,670 --> 01:02:19,430

and uh resilience please repeat last

1289

01:02:31,190 --> 01:02:29,190

okay we are at three and we show stable

1290

01:02:37,670 --> 01:02:31,200

one

1291

01:02:40,870 --> 01:02:39,910

so a bit of levity from the crew and the

1292

01:02:44,309 --> 01:02:40,880

core

1293

01:02:46,630 --> 01:02:44,319

about the transformer transferable

1294

01:02:50,069 --> 01:02:46,640

mileage

1295

01:02:53,750 --> 01:02:50,079

and that splashdown coming at 11 56 p.m

1296

01:02:55,589 --> 01:02:53,760

pacific time 6 56 gmt

1297

01:02:57,750 --> 01:02:55,599

we're hearing reports that the capsule

1298

01:02:58,950 --> 01:02:57,760

is in stable one position meaning it is

1299

01:03:01,109 --> 01:02:58,960

upright

1300

01:03:03,349 --> 01:03:01,119

as we heard those four main parachutes

1301

01:03:05,510 --> 01:03:03,359

were cut and those two fast boats will

1302

01:03:07,109 --> 01:03:05,520

soon approach the vehicle they will be

1303

01:03:08,789 --> 01:03:07,119

able to as we mentioned sniff for those

1304

01:03:10,710 --> 01:03:08,799

hyper golf fuels

1305

01:03:13,349 --> 01:03:10,720

as well as attach buoys to the

1306

01:03:15,510 --> 01:03:13,359

parachutes and make sure they are

1307

01:03:17,510 --> 01:03:15,520

recovered the teams have been ready and

1308

01:03:19,270 --> 01:03:17,520

waiting about three nautical miles away

1309

01:03:21,190 --> 01:03:19,280

so it's going to take them around 20

1310

01:03:24,069 --> 01:03:21,200

minutes to make their way to mike victor

1311

01:03:26,549 --> 01:03:24,079

shannon and suici inside crew dragon and

1312

01:03:30,230 --> 01:03:26,559

while the teams move in we are

1313

01:03:32,390 --> 01:03:30,240

continuing to watch

1314

01:03:33,750 --> 01:03:32,400

the scene unfold in this view coming

1315

01:03:36,309 --> 01:03:33,760

from

1316

01:03:54,789 --> 01:03:36,319

go navigator the recovery vessel on

1317

01:03:59,910 --> 01:03:57,270

and that was just so cool to see

1318

01:04:02,230 --> 01:03:59,920

we the teams had visual of dragon with

1319

01:04:04,630 --> 01:04:02,240

the shoots deployed coming back down to

1320

01:04:06,069 --> 01:04:04,640

earth and then you saw the fast boats

1321

01:04:08,069 --> 01:04:06,079

sort of just

1322

01:04:10,230 --> 01:04:08,079

as fast as they could uh you know

1323

01:04:11,670 --> 01:04:10,240

heading over to dragon i just make sure

1324

01:04:13,349 --> 01:04:11,680

that everything

1325

01:04:25,750 --> 01:04:13,359

can happen as quickly as possible and

1326

01:04:31,670 --> 01:04:28,549

and good news

1327

01:04:34,390 --> 01:04:31,680

the uh recovery vehicle has a go to

1328

01:04:36,230 --> 01:04:34,400

approach the spacecraft in spacex we are

1329

01:04:38,069 --> 01:04:36,240

go for recovery personnel to approach

1330

01:04:43,270 --> 01:04:38,079

expect personnel alongside in about one

1331

01:04:49,029 --> 01:04:46,069

and spacex from dragon that is straight

1332

01:04:52,549 --> 01:04:50,630

and that comes right on time as well

1333

01:04:54,230 --> 01:04:52,559

just five minutes after splashdown those

1334

01:04:55,990 --> 01:04:54,240

fast boats are going to be able to

1335

01:04:58,630 --> 01:04:56,000

approach the capsule

1336

01:05:02,309 --> 01:04:58,640

and put buoys on those parachutes

1337

01:05:04,710 --> 01:05:02,319

and the hypergal checks will continue

1338

01:05:08,630 --> 01:05:04,720

and eventually someone will help rig up

1339

01:05:11,750 --> 01:05:08,640

the capsule to be picked up by the

1340

01:05:29,430 --> 01:05:11,760

uh the go navigator once it has to go to

1341

01:05:33,589 --> 01:05:31,910

and all of this action coming after

1342

01:05:36,789 --> 01:05:33,599

undocking from the international space

1343

01:05:39,670 --> 01:05:36,799

station at 5 30 5 p.m

1344

01:05:43,510 --> 01:05:39,680

pacific time today just six and a half

1345

01:05:45,990 --> 01:05:43,520

hours from them to board the uh crew

1346

01:05:48,470 --> 01:05:46,000

dragon or to depart on crew dragon and

1347

01:05:54,870 --> 01:05:48,480

splash down back on earth after almost

1348

01:05:58,950 --> 01:05:57,510

and here's a aerial shot of those fast

1349

01:06:05,029 --> 01:05:58,960

boats approaching

1350

01:06:08,789 --> 01:06:06,870

and spacex from resilience we're still

1351

01:06:10,309 --> 01:06:08,799

reading it loud and clear

1352

01:06:15,589 --> 01:06:10,319

loud and clear as well we just completed

1353

01:06:22,390 --> 01:06:17,910

you bet 10 we do some lights outside

1354

01:06:30,230 --> 01:06:24,630

affirmative uh quite the welcome home

1355

01:06:33,910 --> 01:06:31,750

so it looks like that first boat has

1356

01:06:36,390 --> 01:06:33,920

already made it to the capsule there are

1357

01:06:39,670 --> 01:06:36,400

a number of other boats and recovery

1358

01:06:41,910 --> 01:06:39,680

vessels um standing by and once we clear

1359

01:06:43,750 --> 01:06:41,920

the area of um you know from any

1360

01:06:44,950 --> 01:06:43,760

hypergolic

1361

01:06:46,789 --> 01:06:44,960

vapors

1362

01:06:49,109 --> 01:06:46,799

they'll you know move on to the next

1363

01:06:50,710 --> 01:06:49,119

phases of recovery

1364

01:06:52,390 --> 01:06:50,720

and some of those darker spaces you see

1365

01:06:55,349 --> 01:06:52,400

there in the water are the parachutes

1366

01:06:57,910 --> 01:06:55,359

that will be uh collected later on but

1367

01:06:59,750 --> 01:06:57,920

this view yes from the wb-57 aircraft

1368

01:07:02,549 --> 01:06:59,760

that provided us with those infrared

1369

01:07:04,309 --> 01:07:02,559

images uh as the dragon was still

1370

01:07:05,750 --> 01:07:04,319

reentering the earth's atmosphere and

1371

01:07:08,150 --> 01:07:05,760

then all the way through splashdown as

1372

01:07:11,829 --> 01:07:09,430

so you can see that second boat

1373

01:07:22,150 --> 01:07:11,839

approaching those uh

1374

01:07:26,829 --> 01:07:23,589

it really could not have been a more

1375

01:07:30,150 --> 01:07:26,839

flawless journey home for crew dragon

1376

01:07:32,470 --> 01:07:30,160

resilience yeah we we continue to see

1377

01:07:34,950 --> 01:07:32,480

um you know nominal call after nominal

1378

01:07:36,950 --> 01:07:34,960

call from the dragon spacex we show

1379

01:07:39,190 --> 01:07:36,960

hyper goal sweeps and unfor fired

1380

01:07:42,069 --> 01:07:39,200

ordinance checks uh nominal rigor should

1381

01:07:45,029 --> 01:07:42,079

come aboard momentarily expect about two

1382

01:07:50,390 --> 01:07:45,039

five minutes until capsule lift standby

1383

01:07:56,549 --> 01:07:51,990

okay resilience copies all we're

1384

01:08:01,910 --> 01:07:59,190

the cordless just said um we are clear

1385

01:08:04,069 --> 01:08:01,920

of any hyper goals uh in the area so we

1386

01:08:06,710 --> 01:08:04,079

are starting to send the recovery vessel

1387

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

and we'll start to hoist up dragon in

1388

01:08:10,950 --> 01:08:08,720

about 25 minutes and then shortly after

1389

01:08:12,789 --> 01:08:10,960

that he mentioned pmc which is the

1390

01:08:14,950 --> 01:08:12,799

private medical conference

1391

01:08:16,550 --> 01:08:14,960

again the medical staff

1392

01:08:19,349 --> 01:08:16,560

or one of the first people to talk to

1393

01:08:22,149 --> 01:08:19,359

the folks inside the dragon capsule so

1394

01:08:24,709 --> 01:08:22,159

um you know in about 30 minutes here

1395

01:08:27,590 --> 01:08:24,719

we should be

1396

01:08:33,669 --> 01:08:29,990

hopefully the astronauts egress from the

1397

01:08:35,829 --> 01:08:33,679

side hatch of the dragon capsule

1398

01:08:38,390 --> 01:08:35,839

we also heard that mentioned the rigger

1399

01:08:39,829 --> 01:08:38,400

will be online or will be on the capsule

1400

01:08:41,430 --> 01:08:39,839

shortly that's the

1401

01:08:43,510 --> 01:08:41,440

one crew member we were discussing

1402

01:08:45,510 --> 01:08:43,520

earlier or one team member i should say

1403

01:08:48,070 --> 01:08:45,520

that will climb on the capsule and begin

1404

01:08:51,110 --> 01:08:48,080

rigging it for uh

1405

01:08:53,430 --> 01:08:51,120

for to be hoisted by the

1406

01:08:54,789 --> 01:08:53,440

uh go navigator vessel it will help

1407

01:08:58,309 --> 01:08:54,799

place

1408

01:09:00,470 --> 01:08:58,319

crew dragon into the dragon nest aboard

1409

01:09:03,110 --> 01:09:00,480

go navigator

1410

01:09:05,510 --> 01:09:03,120

everything's still moving on timeline

1411

01:09:09,430 --> 01:09:05,520

with this recovery tonight the first

1412

01:09:10,470 --> 01:09:09,440

splashdown of a nasa uh and spacex crew

1413

01:09:12,870 --> 01:09:10,480

capsule

1414

01:09:15,430 --> 01:09:12,880

and the first blast down for nasa since

1415

01:09:17,510 --> 01:09:15,440

1968 with the return of the apollo 8

1416

01:09:18,870 --> 01:09:17,520

astronauts

1417

01:09:22,149 --> 01:09:18,880

and one thing to note you can see the

1418

01:09:24,950 --> 01:09:22,159

sheen of the ocean uh with those lights

1419

01:09:26,390 --> 01:09:24,960

there and the sea itself uh you know

1420

01:09:27,829 --> 01:09:26,400

that could have been mistaken for a

1421

01:09:30,229 --> 01:09:27,839

beach but we are in the middle of the

1422

01:09:32,390 --> 01:09:30,239

ocean and the seas are just as calm as

1423

01:09:35,269 --> 01:09:32,400

they can be again weather was something

1424

01:09:37,910 --> 01:09:35,279

we were tracking and we waved off

1425

01:09:40,309 --> 01:09:37,920

splashdown a couple times this past week

1426

01:09:42,630 --> 01:09:40,319

but today's conditions seemed absolutely

1427

01:09:44,630 --> 01:09:42,640

serene there it is um

1428

01:09:46,630 --> 01:09:44,640

for landing and you know recovery

1429

01:09:47,430 --> 01:09:46,640

operations so it's just a great thing to

1430

01:09:49,189 --> 01:09:47,440

see

1431

01:09:50,789 --> 01:09:49,199

that you know they don't have to combat

1432

01:09:52,470 --> 01:09:50,799

any type of inclement weather while

1433

01:10:20,709 --> 01:09:52,480

they're already doing such important

1434

01:10:24,709 --> 01:10:22,390

so you can see some of those recovery

1435

01:10:35,910 --> 01:10:24,719

vessels surrounding the

1436

01:10:40,709 --> 01:10:37,830

and the crew members on board still just

1437

01:10:42,390 --> 01:10:40,719

monitoring the status of the recovery

1438

01:10:43,910 --> 01:10:42,400

and as andy mentioned

1439

01:10:45,910 --> 01:10:43,920

will participate in a private medical

1440

01:10:48,390 --> 01:10:45,920

conference to report back on how they

1441

01:10:49,910 --> 01:10:48,400

are feeling

1442

01:10:51,270 --> 01:10:49,920

and once they are brought on board

1443

01:11:15,030 --> 01:10:51,280

they'll have an opportunity to be

1444

01:11:20,070 --> 01:11:17,990

see some activity of that that fast boat

1445

01:11:21,990 --> 01:11:20,080

around crew dragon and that's what's in

1446

01:11:25,030 --> 01:11:22,000

the middle of the screen right now

1447

01:11:29,110 --> 01:11:25,040

there is a much larger recovery vessel

1448

01:11:34,709 --> 01:11:31,669

that will hoist up dragon onto

1449

01:11:36,390 --> 01:11:34,719

the back end of the ship

1450

01:11:55,750 --> 01:11:36,400

we're expecting that to happen in

1451

01:11:59,430 --> 01:11:57,510

and i can't tell exactly but we may

1452

01:12:02,950 --> 01:11:59,440

already have that person

1453

01:12:05,590 --> 01:12:02,960

on crew dragon uh beginning to rig it in

1454

01:12:07,590 --> 01:12:05,600

preparation for when go navigator can

1455

01:12:11,189 --> 01:12:07,600

approach and

1456

01:12:11,199 --> 01:12:35,350

to the ship and brought on board

1457

01:12:39,189 --> 01:12:37,590

so this was the primary site that we

1458

01:12:41,110 --> 01:12:39,199

landed on

1459

01:12:43,110 --> 01:12:41,120

off the coast of panama city in florida

1460

01:12:45,350 --> 01:12:43,120

we did have an alternate site off the

1461

01:12:47,669 --> 01:12:45,360

coast of tampa

1462

01:12:49,350 --> 01:12:47,679

there was an equivalent amount of

1463

01:12:51,750 --> 01:12:49,360

personnel and

1464

01:12:53,590 --> 01:12:51,760

hardware and ships ready to

1465

01:12:56,070 --> 01:12:53,600

perform the same type of recovery

1466

01:13:01,430 --> 01:12:56,080

operations in the event that dragon had

1467

01:13:01,440 --> 01:13:06,070

but things continuing to go smooth

1468

01:13:10,470 --> 01:13:08,310

and we did get a report that the crew is

1469

01:13:12,310 --> 01:13:10,480

feeling well inside the capsule just

1470

01:13:13,750 --> 01:13:12,320

what we wanted to hear of course they

1471

01:13:15,669 --> 01:13:13,760

will still have that private medical

1472

01:13:17,990 --> 01:13:15,679

conference and they will still receive

1473

01:13:20,709 --> 01:13:18,000

medical checkouts once they arrive on go

1474

01:13:23,030 --> 01:13:20,719

navigator but um amazing preliminary

1475

01:13:25,189 --> 01:13:23,040

news uh that the crew reports that they

1476

01:13:27,350 --> 01:13:25,199

are feeling well and and that's quite a

1477

01:13:30,229 --> 01:13:27,360

feat in itself to be feeling well after

1478

01:13:31,910 --> 01:13:30,239

six months in microgravity and to return

1479

01:13:33,990 --> 01:13:31,920

to gravity so

1480

01:14:02,870 --> 01:13:34,000

great news all around tonight with the

1481

01:14:08,070 --> 01:14:05,110

coming up on just about 15 minutes since

1482

01:14:10,229 --> 01:14:08,080

we had splashdown today

1483

01:14:15,669 --> 01:14:10,239

this evening that splashdown coming at 6

1484

01:14:17,830 --> 01:14:15,679

50 or 11 56 p.m pacific time 6 56 gmt

1485

01:14:19,669 --> 01:14:17,840

and now you can a little more clearly on

1486

01:14:21,990 --> 01:14:19,679

the right hand side of the capsule see

1487

01:14:25,270 --> 01:14:22,000

the person who is preparing it

1488

01:14:26,709 --> 01:14:25,280

for their uh to be picked up by go

1489

01:14:29,350 --> 01:14:26,719

navigator

1490

01:14:34,149 --> 01:14:29,360

with that rigging system

1491

01:14:38,950 --> 01:14:36,229

so this is the

1492

01:14:40,709 --> 01:14:38,960

resilience capsule it flew for the first

1493

01:14:42,229 --> 01:14:40,719

time

1494

01:14:43,110 --> 01:14:42,239

in november of last year and when it

1495

01:14:45,750 --> 01:14:43,120

flew

1496

01:14:48,390 --> 01:14:45,760

uh it was pristine and white and now

1497

01:14:50,709 --> 01:14:48,400

we've got a little bit of a toastiness

1498

01:14:53,669 --> 01:14:50,719

on its side and some people have uh

1499

01:14:55,270 --> 01:14:53,679

described the re-entered capsule as a

1500

01:14:57,669 --> 01:14:55,280

sort of a toasted marshmallow and again

1501

01:14:59,110 --> 01:14:57,679

that is just from all the heat on

1502

01:15:01,910 --> 01:14:59,120

re-entry

1503

01:15:03,350 --> 01:15:01,920

it is continuing to stay buoyant in the

1504

01:15:05,430 --> 01:15:03,360

gulf of mexico

1505

01:15:07,350 --> 01:15:05,440

the dragon vehicle itself is designed to

1506

01:15:08,790 --> 01:15:07,360

be waterproof

1507

01:15:10,950 --> 01:15:08,800

and in the

1508

01:15:13,910 --> 01:15:10,960

event that there is a breach we do have

1509

01:15:15,590 --> 01:15:13,920

some abilities to pump water into some

1510

01:15:17,430 --> 01:15:15,600

bladders in the capsule to make sure

1511

01:15:19,590 --> 01:15:17,440

that it stays buoyant for as long as

1512

01:15:22,630 --> 01:15:19,600

possible but everything continues to go

1513

01:15:24,470 --> 01:15:22,640

well we are now seeing a uh even better

1514

01:15:26,870 --> 01:15:24,480

view of the rigor

1515

01:15:29,750 --> 01:15:26,880

on top of the dragon capsule preparing

1516

01:15:33,430 --> 01:15:29,760

preparing it for hoisting later on uh in

1517

01:15:37,110 --> 01:15:35,110

and that's a great picture you can see

1518

01:15:39,270 --> 01:15:37,120

just how calm the

1519

01:15:42,550 --> 01:15:39,280

the sea really is that is the gulf of

1520

01:15:43,270 --> 01:15:42,560

mexico yeah uh it's pretty amazing that

1521

01:15:45,590 --> 01:15:43,280

it's

1522

01:15:51,830 --> 01:15:45,600

that truly glassy as we heard described

1523

01:15:55,750 --> 01:15:53,750

a great view of the capsule now and the

1524

01:16:07,830 --> 01:15:55,760

person preparing it to be hoisted on to

1525

01:16:12,070 --> 01:16:09,750

and as a reminder we're going to remain

1526  
01:16:14,550 --> 01:16:12,080  
live with you throughout this coverage

1527  
01:16:16,630 --> 01:16:14,560  
uh up until

1528  
01:16:17,830 --> 01:16:16,640  
the crew has been extracted from the

1529  
01:16:20,229 --> 01:16:17,840  
vehicle

1530  
01:16:21,750 --> 01:16:20,239  
and that's a view another view from go

1531  
01:16:24,550 --> 01:16:21,760  
navigator

1532  
01:16:25,750 --> 01:16:24,560  
you can see uh the nest right there

1533  
01:16:27,990 --> 01:16:25,760  
that's where

1534  
01:17:03,430 --> 01:16:28,000  
crew dragon will be placed once it has

1535  
01:17:06,390 --> 01:17:04,790  
and we have some people stepping in on

1536  
01:17:09,270 --> 01:17:06,400  
the nest and you can just see

1537  
01:17:12,870 --> 01:17:09,280  
sort of the scale uh of that nest and

1538  
01:17:13,910 --> 01:17:12,880

really the boat um the dragon capsule is

1539

01:17:16,070 --> 01:17:13,920

um

1540

01:17:17,750 --> 01:17:16,080

you know we throughout today we've seen

1541

01:17:19,510 --> 01:17:17,760

it from a distance resilient spacex

1542

01:17:22,310 --> 01:17:19,520

recovery is proceeding nominally at this

1543

01:17:24,950 --> 01:17:22,320

time the recovery vessel uh is backing

1544

01:17:39,189 --> 01:17:24,960

up towards uh the spacecraft and

1545

01:17:45,030 --> 01:17:42,070

and you can see crew dragon resilience

1546

01:17:48,709 --> 01:17:45,040

within the frame of uh

1547

01:17:50,229 --> 01:17:48,719

that hoist mechanism on go navigator

1548

01:17:52,630 --> 01:17:50,239

the report going out to the crew that

1549

01:17:54,870 --> 01:17:52,640

things continue to proceed nominally and

1550

01:18:00,070 --> 01:17:54,880

we can see that for ourselves as well

1551  
01:18:04,870 --> 01:18:02,709  
go navigator will continue backing up to

1552  
01:18:07,669 --> 01:18:04,880  
crew dragon until it's close enough to

1553  
01:18:09,510 --> 01:18:07,679  
attach those lines and hoist the

1554  
01:18:13,430 --> 01:18:09,520  
spacecraft onto the nest there at the

1555  
01:18:17,270 --> 01:18:15,110  
yeah as we're saying earlier the

1556  
01:18:19,030 --> 01:18:17,280  
um the scale really doesn't really put

1557  
01:18:21,350 --> 01:18:19,040  
into perspective until you you know

1558  
01:18:23,590 --> 01:18:21,360  
start to put people around um the

1559  
01:18:27,910 --> 01:18:23,600  
capsule itself is you know over 20 000

1560  
01:18:30,390 --> 01:18:27,920  
pounds and so uh in the dragon spacex uh

1561  
01:18:31,910 --> 01:18:30,400  
repeat call we have a we are proceeding

1562  
01:18:33,990 --> 01:18:31,920  
normally looks like the recovery vessel

1563  
01:18:38,229 --> 01:18:34,000

is about one boat length away backing up

1564

01:19:06,790 --> 01:18:40,709

that is great news spacex looking

1565

01:19:10,390 --> 01:19:08,870

continuing to proceed nominally go

1566

01:19:12,790 --> 01:19:10,400

navigator is

1567

01:19:15,910 --> 01:19:12,800

backing up towards the resilience

1568

01:19:22,390 --> 01:19:18,149

as the uh

1569

01:19:27,990 --> 01:19:24,630

get dragon on top of the nest there that

1570

01:19:32,870 --> 01:19:30,149

and once crude dragon is lifted onto the

1571

01:19:35,189 --> 01:19:32,880

nest uh it will shortly afterward be

1572

01:19:38,550 --> 01:19:35,199

pulled toward the egress platform or the

1573

01:19:42,310 --> 01:19:38,560

platform that allows them to exit

1574

01:19:44,790 --> 01:19:42,320

that uh platform is built up

1575

01:19:46,790 --> 01:19:44,800

towards near the uh

1576  
01:20:01,189 --> 01:19:46,800  
that forward hatch and it should allow

1577  
01:20:06,070 --> 01:20:03,030  
now been 20 minutes since tonight's

1578  
01:20:12,790 --> 01:20:10,310  
6 56 gmt 11 56 pm

1579  
01:20:14,629 --> 01:20:12,800  
pacific time

1580  
01:20:17,430 --> 01:20:14,639  
mike hopkins victor glover shannon

1581  
01:20:19,510 --> 01:20:17,440  
walker and suicina gucci

1582  
01:20:21,350 --> 01:20:19,520  
all inside crew dragon

1583  
01:20:23,669 --> 01:20:21,360  
and recovery operations proceed

1584  
01:20:26,629 --> 01:20:23,679  
nominally

1585  
01:20:28,709 --> 01:20:26,639  
so we are now waiting excitedly for the

1586  
01:20:31,350 --> 01:20:28,719  
recovery of our dragon spacecraft with

1587  
01:20:34,550 --> 01:20:31,360  
nasa astronauts mike hopkins victor

1588  
01:20:38,310 --> 01:20:34,560

glover shannon walker and jaxa astronaut

1589

01:20:40,790 --> 01:20:38,320

so ichinoguchi inside dragon has already

1590

01:20:42,070 --> 01:20:40,800

autonomously completed several steps to

1591

01:20:43,910 --> 01:20:42,080

safe itself

1592

01:20:45,910 --> 01:20:43,920

following splashdown

1593

01:20:47,669 --> 01:20:45,920

for the for those of you just joining us

1594

01:20:50,310 --> 01:20:47,679

the mission has gone smoothly so far

1595

01:20:51,990 --> 01:20:50,320

dragon uh successfully splashed down in

1596

01:20:54,709 --> 01:20:52,000

the gulf of mexico off the coast of

1597

01:20:58,550 --> 01:20:54,719

panama city florida at approximately 11

1598

01:21:03,669 --> 01:20:58,560

56 a.m or p.m pacific time

1599

01:21:08,390 --> 01:21:05,910

the dragon spacex rigging is complete

1600

01:21:11,750 --> 01:21:08,400

approximately five minutes until capsule

1601

01:21:20,310 --> 01:21:13,270

resilience got these five minutes to

1602

01:21:24,629 --> 01:21:21,910

and that's good news they will continue

1603

01:21:26,790 --> 01:21:24,639

to get closer to the spacecraft

1604

01:21:29,030 --> 01:21:26,800

with rigging complete meaning it will be

1605

01:21:31,030 --> 01:21:29,040

able to be hoisted in five minutes from

1606

01:21:34,070 --> 01:21:31,040

now but approximately six and a half

1607

01:21:35,830 --> 01:21:34,080

hours ago a dragon autonomously undocked

1608

01:21:37,830 --> 01:21:35,840

from the international space station

1609

01:21:39,830 --> 01:21:37,840

completed a series of departure burns

1610

01:21:41,910 --> 01:21:39,840

jettisoned its trunk section and

1611

01:21:43,990 --> 01:21:41,920

performed its final burn the do orbit

1612

01:21:46,149 --> 01:21:44,000

burn she placed itself on a trajectory

1613

01:21:47,990 --> 01:21:46,159

toward the gulf of mexico

1614

01:21:49,350 --> 01:21:48,000

the dragon successfully reentered the

1615

01:21:51,270 --> 01:21:49,360

earth's atmosphere followed by

1616

01:21:53,990 --> 01:21:51,280

deployment of its parachutes to slow the

1617

01:21:56,470 --> 01:21:54,000

spacecraft down to a gentle splashdown

1618

01:21:58,229 --> 01:21:56,480

at just about 16 miles per hour and

1619

01:22:00,550 --> 01:21:58,239

we're now following the final part of

1620

01:22:02,790 --> 01:22:00,560

mike victor shannon and suici's journey

1621

01:22:06,229 --> 01:22:02,800

as dragon is lifted out of the water and

1622

01:22:09,590 --> 01:22:08,070

upon detection of landing dragon

1623

01:22:12,390 --> 01:22:09,600

automatically releases the main

1624

01:22:14,870 --> 01:22:12,400

parachutes to prevent wind from pulling

1625

01:22:17,030 --> 01:22:14,880

the spacecraft dragon then automatically

1626  
01:22:18,870 --> 01:22:17,040  
saves any pyrotechnics still present on

1627  
01:22:20,870 --> 01:22:18,880  
the vehicle and may automatically

1628  
01:22:23,430 --> 01:22:20,880  
perform additional minor system

1629  
01:22:26,149 --> 01:22:23,440  
reconfigurations the astronauts do

1630  
01:22:28,070 --> 01:22:26,159  
remain seated and in their suits at this

1631  
01:22:30,470 --> 01:22:28,080  
point but the on-board air conditioning

1632  
01:22:32,470 --> 01:22:30,480  
keeps temperatures in check inside of

1633  
01:22:34,790 --> 01:22:32,480  
the spacecraft and the communication

1634  
01:22:36,709 --> 01:22:34,800  
systems on board remain powered so the

1635  
01:22:39,750 --> 01:22:36,719  
crew can continue to communicate with

1636  
01:22:41,669 --> 01:22:39,760  
ground spacex has two fast boats in the

1637  
01:22:44,550 --> 01:22:41,679  
recovery fleet which moved quickly to

1638  
01:22:46,390 --> 01:22:44,560

the splashdown point and they have been

1639

01:22:48,870 --> 01:22:46,400

joined by go navigator which is the main

1640

01:22:50,950 --> 01:22:48,880

recovery vessel in your screen now and

1641

01:22:53,270 --> 01:22:50,960

that has moved into position near the

1642

01:22:55,990 --> 01:22:53,280

spacecraft those two fast boats have

1643

01:22:58,070 --> 01:22:56,000

very specific roles on first approach

1644

01:23:00,149 --> 01:22:58,080

it's immediately focused on safety

1645

01:23:01,510 --> 01:23:00,159

inspection of the capsule integrity and

1646

01:23:03,189 --> 01:23:01,520

checking for any presence of those

1647

01:23:05,350 --> 01:23:03,199

hypergolic propellant vapors we've been

1648

01:23:07,430 --> 01:23:05,360

talking about ensuring that it is safe

1649

01:23:09,750 --> 01:23:07,440

for go navigator to approach the dragon

1650

01:23:11,510 --> 01:23:09,760

spacecraft once the capsule is cleared

1651  
01:23:13,430 --> 01:23:11,520  
for full approach the team begins

1652  
01:23:15,750 --> 01:23:13,440  
rigging the capsule for water recovery

1653  
01:23:18,229 --> 01:23:15,760  
by the recovery ship which we recently

1654  
01:23:20,070 --> 01:23:18,239  
heard was completed and the second fast

1655  
01:23:22,550 --> 01:23:20,080  
boat is responsible for parachute

1656  
01:23:25,270 --> 01:23:22,560  
recovery and also serves as a redundant

1657  
01:23:26,229 --> 01:23:25,280  
boat to the first and we saw that team

1658  
01:23:28,629 --> 01:23:26,239  
member

1659  
01:23:33,270 --> 01:23:28,639  
or on a jet ski helping to gather up the

1660  
01:23:37,030 --> 01:23:35,030  
so it took about 10 minutes for the

1661  
01:23:38,870 --> 01:23:37,040  
recovery crew to complete their safety

1662  
01:23:40,709 --> 01:23:38,880  
checks um

1663  
01:23:43,270 --> 01:23:40,719

once complete the team will

1664

01:23:45,270 --> 01:23:43,280

begin preparing dragon to be lifted into

1665

01:23:47,350 --> 01:23:45,280

the recovery vessel and as part of this

1666

01:23:49,910 --> 01:23:47,360

preparation one member of the recovery

1667

01:23:51,750 --> 01:23:49,920

team will climb up on top of the capsule

1668

01:23:53,990 --> 01:23:51,760

and rig the

1669

01:23:55,830 --> 01:23:54,000

dragon spacecraft as they just did a few

1670

01:23:58,470 --> 01:23:55,840

moments ago and then from there it will

1671

01:24:00,070 --> 01:23:58,480

take less than an hour to raise dragon

1672

01:24:02,390 --> 01:24:00,080

to the recovery

1673

01:24:03,830 --> 01:24:02,400

boat and remove the crew from the

1674

01:24:05,350 --> 01:24:03,840

spacecraft

1675

01:24:07,189 --> 01:24:05,360

and then after that after medical

1676

01:24:09,590 --> 01:24:07,199

checkouts the crew will return to land

1677

01:24:11,990 --> 01:24:09,600

within four hours either by boat or

1678

01:24:14,550 --> 01:24:12,000

helicopter depending on the landing site

1679

01:24:18,070 --> 01:24:14,560

so um if no medical assistance is needed

1680

01:24:19,990 --> 01:24:18,080

the crew will depart for houston

1681

01:24:20,709 --> 01:24:20,000

and now if you look very closely you can

1682

01:24:22,149 --> 01:24:20,719

see

1683

01:24:25,110 --> 01:24:22,159

uh down to the bottom right of the

1684

01:24:27,030 --> 01:24:25,120

capsule there is one attachment

1685

01:24:29,189 --> 01:24:27,040

on crew dragon there will be multiple to

1686

01:24:30,790 --> 01:24:29,199

keep the and there's another on the left

1687

01:24:33,270 --> 01:24:30,800

there will be multiple to keep the the

1688

01:24:35,669 --> 01:24:33,280

spacecraft from swinging when it once it

1689

01:24:37,750 --> 01:24:35,679

is hoisted out of the water

1690

01:24:41,030 --> 01:24:37,760

and it'll very very quickly be placed on

1691

01:25:38,229 --> 01:24:41,040

that dragon nest waiting just below

1692

01:25:42,950 --> 01:25:40,390

and as you can see crew dragon now at

1693

01:25:45,350 --> 01:25:42,960

multiple attachment points uh to that

1694

01:25:50,709 --> 01:25:45,360

system on go navigator again spacex

1695

01:25:50,719 --> 01:25:56,310

copy 90 seconds thanks

1696

01:26:00,870 --> 01:25:58,149

so about a minute and a half until we

1697

01:26:02,390 --> 01:26:00,880

see crew dragon removed from the water

1698

01:26:04,229 --> 01:26:02,400

and there's still a team member up on

1699

01:26:06,629 --> 01:26:04,239

the front of it that's likely the same

1700

01:26:09,030 --> 01:26:06,639

team member who helped rig the system

1701

01:26:18,790 --> 01:26:09,040

and prepare it for attachment to

1702

01:26:23,270 --> 01:26:20,229

and as we mentioned earlier this

1703

01:26:26,310 --> 01:26:23,280

splashdown a new record

1704

01:26:29,430 --> 01:26:26,320

breaking the old record for the longest

1705

01:26:32,709 --> 01:26:29,440

crude capsule in orbit from america

1706

01:26:35,510 --> 01:26:32,719

previously held by the final skylab crew

1707

01:26:38,629 --> 01:26:35,520

at 84 days one hour and 15 minutes

1708

01:26:40,870 --> 01:26:38,639

and this crew returning with 168 days in

1709

01:26:55,030 --> 01:26:40,880

space and doubling

1710

01:26:55,040 --> 01:27:00,149

dragon spacex brace for capsule lift

1711

01:27:00,159 --> 01:27:26,229

okay so we're here at the lift

1712

01:27:31,270 --> 01:27:28,149

free dragon resilience

1713

01:27:33,189 --> 01:27:31,280

now out of the water

1714

01:27:35,350 --> 01:27:33,199

being prepared to

1715

01:27:44,229 --> 01:27:35,360

be placed on that dragon nest in the

1716

01:27:48,550 --> 01:27:46,470

and just an hour ago this capsule had

1717

01:27:50,470 --> 01:27:48,560

just completed the deorbit burn and was

1718

01:27:54,310 --> 01:27:50,480

still in space

1719

01:27:58,149 --> 01:27:56,470

to go navigator

1720

01:28:20,470 --> 01:27:58,159

the first time for these crew members to

1721

01:28:23,110 --> 01:28:21,750

pretty much on

1722

01:28:24,790 --> 01:28:23,120

the center of the screen you can see the

1723

01:28:26,629 --> 01:28:24,800

side hatch

1724

01:28:27,830 --> 01:28:26,639

of the dragon capsules

1725

01:28:31,189 --> 01:28:27,840

later on today that's where the

1726

01:28:32,070 --> 01:28:31,199

astronauts will be egressing from

1727

01:28:33,590 --> 01:28:32,080

when they were attached to the

1728

01:28:35,590 --> 01:28:33,600

international space station they exited

1729

01:28:42,229 --> 01:28:35,600

from the top hatch where the nose cone

1730

01:28:45,990 --> 01:28:43,830

and those two

1731

01:28:48,629 --> 01:28:46,000

holes essentially that you see up toward

1732

01:28:50,550 --> 01:28:48,639

the top of the nose cone above the

1733

01:28:52,709 --> 01:28:50,560

resilience welcome aboard the recovery

1734

01:28:54,950 --> 01:28:52,719

vessel recovery personnel are completing

1735

01:28:56,550 --> 01:28:54,960

final checks standby for transition

1736

01:29:00,229 --> 01:28:56,560

translation of the egress platform in a

1737

01:29:00,239 --> 01:29:05,430

brazilians copy

1738

01:29:10,790 --> 01:29:09,030

those those two holes aboard the uh

1739

01:29:13,350 --> 01:29:10,800

aboard the crew dragon above the hatch

1740

01:29:15,110 --> 01:29:13,360

and close to the nose cone those are

1741

01:29:17,430 --> 01:29:15,120

uh where the drogue parachutes were

1742

01:29:19,990 --> 01:29:17,440

stored in that upper bulkhead

1743

01:29:22,310 --> 01:29:20,000

and there's near a deployable panel so

1744

01:29:24,229 --> 01:29:22,320

they're deployed by two drogue mortars

1745

01:29:26,790 --> 01:29:24,239

which are pyrotechnics fire to deploy

1746

01:29:28,629 --> 01:29:26,800

the chutes

1747

01:29:30,390 --> 01:29:28,639

and those four main parachutes are also

1748

01:29:32,390 --> 01:29:30,400

stored under deployable panels but those

1749

01:29:34,550 --> 01:29:32,400

are near the base of the spacecraft so

1750

01:29:36,070 --> 01:29:34,560

below that side hatch panel

1751

01:29:38,229 --> 01:29:36,080

and those were drawn out by the drogue

1752

01:29:40,950 --> 01:29:38,239

chutes everything just absolutely

1753

01:29:42,790 --> 01:29:40,960

flawless tonight

1754

01:29:45,510 --> 01:29:42,800

with the recovery of crew dragon

1755

01:29:49,430 --> 01:29:47,189

so before opening the hatch the

1756

01:29:51,990 --> 01:29:49,440

spacecraft's cabin pressure must be

1757

01:29:53,910 --> 01:29:52,000

equalized with the outside environment

1758

01:29:56,470 --> 01:29:53,920

so once the hatch is open that will be

1759

01:29:58,950 --> 01:29:56,480

mike victor shannon and soichi's first

1760

01:30:01,110 --> 01:29:58,960

breath of fresh air since boarding

1761

01:30:06,629 --> 01:30:01,120

falcon 9 at the start of their mission

1762

01:30:10,870 --> 01:30:08,950

the next visual we are looking for is

1763

01:30:14,390 --> 01:30:10,880

for dragon to be pulled toward the

1764

01:30:16,709 --> 01:30:14,400

egress platform uh on the dragon nest so

1765

01:30:18,310 --> 01:30:16,719

they will move toward the platform that

1766

01:30:19,590 --> 01:30:18,320

is

1767

01:30:21,990 --> 01:30:19,600

up toward the

1768

01:30:24,629 --> 01:30:22,000

side hatch that'll allow for

1769

01:30:31,510 --> 01:30:24,639

easier extraction removal of the crew

1770

01:30:34,950 --> 01:30:33,510

it's important to note that mike victor

1771

01:30:36,790 --> 01:30:34,960

shannon and suici will be getting

1772

01:30:38,950 --> 01:30:36,800

assistance from the recovery teams while

1773

01:30:41,510 --> 01:30:38,960

exiting the capsule this is the same

1774

01:30:43,270 --> 01:30:41,520

process for any returning long duration

1775

01:30:44,709 --> 01:30:43,280

crew members as returning to a gravity

1776

01:30:46,390 --> 01:30:44,719

environment can

1777

01:30:48,550 --> 01:30:46,400

essentially wreak havoc with our

1778

01:30:50,950 --> 01:30:48,560

vestibular system which is responsible

1779

01:30:52,870 --> 01:30:50,960

for maintaining our balance and motion

1780

01:30:54,790 --> 01:30:52,880

and safety is our number one priority

1781

01:30:56,229 --> 01:30:54,800

with this operation as you've seen

1782

01:30:59,350 --> 01:30:56,239

throughout not just today but this

1783

01:31:01,270 --> 01:30:59,360

entire mission so you'll see all uh mike

1784

01:31:03,350 --> 01:31:01,280

victor shannon and suici helped out of

1785

01:31:08,390 --> 01:31:03,360

the capsule

1786

01:31:10,070 --> 01:31:08,400

today but they will be assisted a few

1787

01:31:12,149 --> 01:31:10,080

feet to the medical quarters aboard the

1788

01:31:14,310 --> 01:31:12,159

boat and we discussed earlier if you've

1789

01:31:15,990 --> 01:31:14,320

seen crews return on a soyuz it's the

1790

01:31:17,590 --> 01:31:16,000

same process as when astronauts are

1791

01:31:20,229 --> 01:31:17,600

carried from the capsule to waiting

1792

01:31:21,510 --> 01:31:20,239

chairs and then carried into the nearby

1793

01:31:23,110 --> 01:31:21,520

medical tent

1794

01:31:24,950 --> 01:31:23,120

this is also the period where any time

1795

01:31:27,030 --> 01:31:24,960

critical cargo can be removed from the

1796

01:31:29,590 --> 01:31:27,040

spacecraft with the remainder waiting

1797

01:31:31,110 --> 01:31:29,600

until the ship is back in port

1798

01:31:32,950 --> 01:31:31,120

once the ship and capsule return the

1799

01:31:35,510 --> 01:31:32,960

recovery team will perform additional

1800

01:31:37,750 --> 01:31:35,520

inspections before loading dragon onto a

1801

01:31:40,470 --> 01:31:37,760

flat flatbed truck at the spacex

1802

01:32:09,189 --> 01:31:40,480

facility in cape canaveral for post

1803

01:32:15,350 --> 01:32:12,550

so the crew just secured a dragon

1804

01:32:17,510 --> 01:32:15,360

onto the recovery vessel and now it's

1805

01:32:18,950 --> 01:32:17,520

moving

1806

01:32:23,110 --> 01:32:18,960

towards the platform where eventually

1807

01:32:31,030 --> 01:32:24,870

more personnel assisting with the

1808

01:32:36,550 --> 01:32:33,669

and that platform coming right below

1809

01:32:38,470 --> 01:32:36,560

the side hatch making it much easier for

1810

01:32:39,669 --> 01:32:38,480

teams to help the crew egress or exit

1811

01:32:41,430 --> 01:32:39,679

the vehicle

1812

01:32:43,270 --> 01:32:41,440

and this is the first time that this

1813

01:32:46,310 --> 01:32:43,280

side hatch will be opened

1814

01:32:47,590 --> 01:32:46,320

since launch day november 15th

1815

01:32:49,750 --> 01:32:47,600

the the hatch that's used on the

1816

01:32:51,590 --> 01:32:49,760

international space station is that

1817

01:32:53,270 --> 01:32:51,600

forward hatch underneath the nose cone

1818

01:32:55,430 --> 01:32:53,280

which is currently closed at the top of

1819

01:32:58,070 --> 01:32:55,440

the vehicle so as soon as this was

1820

01:33:00,709 --> 01:32:58,080

sealed by spacex teams back in november

1821

01:33:02,790 --> 01:33:00,719

it has not been reopened since

1822

01:33:18,950 --> 01:33:02,800

and we see teams still preparing the

1823

01:33:23,590 --> 01:33:21,669

so to still be a few minutes before

1824

01:33:25,270 --> 01:33:23,600

we have hatch opening again we need to

1825

01:33:26,870 --> 01:33:25,280

make sure that the cabin pressure is

1826

01:33:29,189 --> 01:33:26,880

equalized to

1827

01:33:31,189 --> 01:33:29,199

the ambient pressure outside the team

1828

01:33:34,070 --> 01:33:31,199

also performs a few checks to make sure

1829

01:33:37,750 --> 01:33:34,080

that everything is a go before we um

1830

01:33:40,390 --> 01:33:37,760

open up that side hatch

1831

01:33:41,350 --> 01:33:40,400

it's been about 35 minutes

1832

01:33:43,510 --> 01:33:41,360

since

1833

01:33:45,750 --> 01:33:43,520

crew one splashed down so you can see

1834

01:33:46,629 --> 01:33:45,760

just how exponent this process already

1835

01:33:48,790 --> 01:33:46,639

is

1836

01:34:06,550 --> 01:33:48,800

uh having the capsule on board and

1837

01:34:11,110 --> 01:34:08,790

and all of the parachutes both the drugs

1838

01:34:22,950 --> 01:34:11,120

and the main chutes have been located

1839

01:34:29,350 --> 01:34:25,510

spacex residents

1840

01:34:34,870 --> 01:34:31,270

hey solo you guys are welcome to come on

1841

01:34:34,880 --> 01:34:39,750

spacex copies and work

1842

01:34:44,390 --> 01:34:41,990

and solo you got uh one more call before

1843

01:34:46,470 --> 01:34:44,400

we wrap things up is that correct

1844

01:34:47,990 --> 01:34:46,480

affirmative we have a few uh technicians

1845

01:34:50,310 --> 01:34:48,000

just uh doing some work on the exterior

1846

01:35:01,750 --> 01:34:50,320

of the hatch we should be uh ready to

1847

01:35:06,310 --> 01:35:03,669

now the crew members will

1848

01:35:09,510 --> 01:35:06,320

not ride this boat all the way back to

1849

01:35:11,750 --> 01:35:09,520

shore they will board a helicopter

1850

01:35:14,070 --> 01:35:11,760

and that helicopter will

1851

01:35:17,109 --> 01:35:14,080

take them um

1852

01:35:19,430 --> 01:35:17,119

back to pensacola

1853

01:35:28,149 --> 01:35:19,440

and waiting there will be a nasa plane

1854

01:35:30,629 --> 01:35:29,750

it's quite surreal

1855

01:35:33,189 --> 01:35:30,639

that

1856

01:35:35,669 --> 01:35:33,199

about seven hours ago this capsule uh

1857

01:35:41,109 --> 01:35:35,679

was traveling at over a dragon stand by

1858

01:35:47,350 --> 01:35:44,870

okay solo we are standing by

1859

01:35:50,709 --> 01:35:47,360

and uh while i'm thinking about it uh

1860

01:35:53,750 --> 01:35:50,719

solo for spacex and the nasa teams

1861

01:35:55,750 --> 01:35:53,760

on behalf of uh crew one and

1862

01:35:58,070 --> 01:35:55,760

and our families we just want to say

1863

01:36:00,870 --> 01:35:58,080

thank you we want to say thank you for

1864

01:36:03,910 --> 01:36:00,880

this amazing vehicle resilience

1865

01:36:05,109 --> 01:36:03,920

um i we said it before the mission and

1866

01:36:06,950 --> 01:36:05,119

and i'm going to say it again here

1867

01:36:08,310 --> 01:36:06,960

afterwards it's amazing what can be

1868

01:36:10,709 --> 01:36:08,320

accomplished

1869

01:36:13,030 --> 01:36:10,719

when uh when people come together

1870

01:36:14,709 --> 01:36:13,040

um so finally i'd just like to say quite

1871

01:36:16,870 --> 01:36:14,719

frankly uh you all are changing the

1872

01:36:25,270 --> 01:36:16,880

world congratulations it's great to be

1873

01:36:28,390 --> 01:36:26,870

and hopper thanks so much you've got a

1874

01:36:29,590 --> 01:36:28,400

round of applause here at mission

1875

01:36:31,430 --> 01:36:29,600

control

1876

01:36:33,750 --> 01:36:31,440

and uh from all of us it's truly been

1877

01:36:35,830 --> 01:36:33,760

epic working with your team uh from

1878

01:36:37,510 --> 01:36:35,840

early development through splashdown

1879

01:36:40,870 --> 01:36:37,520

uh of the world's first long duration

1880

01:36:43,430 --> 01:36:40,880

spaceflight uh human spaceflight uh your

1881

01:36:45,590 --> 01:36:43,440

crew is really a tribute to resilience's

1882

01:36:47,350 --> 01:36:45,600

name we wish you all happy reunions with

1883

01:36:50,830 --> 01:36:47,360

your families and loved ones and thanks

1884

01:36:50,840 --> 01:36:57,750

spacex you solo thank you all

1885

01:37:03,270 --> 01:37:00,470

so we had some kind words exchanged

1886

01:37:06,790 --> 01:37:03,280

from the core and my copy mike hopkins

1887

01:37:08,310 --> 01:37:06,800

the commander the hatch is now open uh

1888

01:37:09,750 --> 01:37:08,320

we also heard some applause and mission

1889

01:37:11,189 --> 01:37:09,760

control here in

1890

01:37:13,590 --> 01:37:11,199

spacex just a tremendous amount of

1891

01:37:15,030 --> 01:37:13,600

dedication that has gone into this

1892

01:37:17,030 --> 01:37:15,040

particular mission over the last couple

1893

01:37:19,189 --> 01:37:17,040

of years and so we're really seeing the

1894

01:37:21,350 --> 01:37:19,199

fruits of the labor now uh really ending

1895

01:37:23,030 --> 01:37:21,360

the mission and uh you know

1896

01:37:25,910 --> 01:37:23,040

just seven hours ago this this capsule

1897

01:37:27,430 --> 01:37:25,920

was traveling over 17 000 miles an hour

1898

01:37:29,510 --> 01:37:27,440

in space docked to the international

1899

01:37:32,709 --> 01:37:29,520

space station and now it's safely

1900

01:37:37,590 --> 01:37:32,719

secured um back on earth and we have the

1901

01:37:41,910 --> 01:37:39,669

and that hatch open for the first time

1902

01:37:44,870 --> 01:37:41,920

as we mentioned since launch day

1903

01:37:46,709 --> 01:37:44,880

november 15 2020 these astronauts

1904

01:37:49,189 --> 01:37:46,719

completing the first

1905

01:37:51,430 --> 01:37:49,199

long-duration commercial crew mission

1906

01:37:52,470 --> 01:37:51,440

and now holding the record for the

1907

01:37:55,270 --> 01:37:52,480

longest

1908

01:38:12,390 --> 01:37:55,280

uh time in space by an american crewed

1909

01:38:16,149 --> 01:38:14,229

and with that side hatch being open as

1910

01:38:19,350 --> 01:38:16,159

we discussed the first people to speak

1911

01:38:21,590 --> 01:38:19,360

with uh mike victor shannon and suici

1912

01:38:23,109 --> 01:38:21,600

are the medical team and as we heard

1913

01:38:24,629 --> 01:38:23,119

earlier the crew did report that they

1914

01:38:26,310 --> 01:38:24,639

were feeling well

1915

01:38:28,870 --> 01:38:26,320

but still important to get checked out

1916

01:38:30,709 --> 01:38:28,880

after spending six months in space

1917

01:38:32,550 --> 01:38:30,719

they will eventually be

1918

01:38:35,510 --> 01:38:32,560

removed from the castle and put on

1919

01:39:01,109 --> 01:38:35,520

stretchers to take and taken to

1920

01:39:07,990 --> 01:39:03,830

we're coming up on 40 40 minutes since

1921

01:39:16,629 --> 01:39:11,830

that capsule splashing down at 656 gmt

1922

01:39:21,750 --> 01:39:18,629

returning crew one aboard crew dragon

1923

01:39:23,030 --> 01:39:21,760

resilience that side hatch now open crew

1924

01:39:25,669 --> 01:39:23,040

members

1925

01:40:12,629 --> 01:39:25,679

speaking with medical personnel

1926

01:40:16,229 --> 01:40:14,550

everything was on the timeline for crew

1927

01:40:19,590 --> 01:40:16,239

dragon today

1928

01:40:22,390 --> 01:40:19,600

undocking at 5 35 p.m pacific time

1929

01:40:24,310 --> 01:40:22,400

completing those four departure burns as

1930

01:40:27,830 --> 01:40:24,320

well as

1931

01:40:30,149 --> 01:40:27,840

nose cone or as cloth separation and

1932

01:40:31,750 --> 01:40:30,159

trunk jettison we had some amazing views

1933

01:40:35,590 --> 01:40:31,760

from the international space station

1934

01:40:40,790 --> 01:40:38,310

that deorbit burn lasting the scheduled

1935

01:40:43,669 --> 01:40:40,800

16 and a half minutes

1936

01:40:46,390 --> 01:40:43,679

slowing down crew dragon just enough to

1937

01:40:48,629 --> 01:40:46,400

drop them out of earth's orbit begin

1938

01:40:51,030 --> 01:40:48,639

their re-entry into the atmosphere we

1939

01:40:52,790 --> 01:40:51,040

saw both drogue parachutes deployed

1940

01:40:55,910 --> 01:40:52,800

nominally followed by

1941

01:40:58,870 --> 01:40:55,920

four good main parachutes and a soft

1942

01:41:01,030 --> 01:40:58,880

splashdown as scheduled in the gulf of

1943

01:41:02,550 --> 01:41:01,040

mexico off the coast of panama city

1944

01:41:08,870 --> 01:41:02,560

florida

1945

01:41:11,430 --> 01:41:08,880

at 11 56 p.m pacific time 6 56 gmt

1946

01:41:13,350 --> 01:41:11,440

and after splashdown we

1947

01:41:14,310 --> 01:41:13,360

saw the two fast boats approaching the

1948

01:41:15,510 --> 01:41:14,320

vehicle

1949

01:41:17,750 --> 01:41:15,520

the first one

1950

01:41:20,070 --> 01:41:17,760

made sure the area was safe for approach

1951

01:41:21,990 --> 01:41:20,080

and then one of the riggers climbed on

1952

01:41:23,830 --> 01:41:22,000

top of the capsule and started preparing

1953

01:41:26,390 --> 01:41:23,840

it for

1954

01:41:28,390 --> 01:41:26,400

the eventual hoist and lift onto

1955

01:41:30,790 --> 01:41:28,400

the boat that is on screen right now go

1956

01:41:33,750 --> 01:41:30,800

navigator

1957

01:41:35,430 --> 01:41:33,760

really the as soon as we got visuals of

1958

01:41:37,430 --> 01:41:35,440

dragon those boats

1959

01:41:40,229 --> 01:41:37,440

really headed over there as fast as they

1960

01:41:43,109 --> 01:41:40,239

could and tried to expedite the process

1961

01:41:46,629 --> 01:41:43,119

and now we're here the the capsule is on

1962

01:41:48,470 --> 01:41:46,639

the boat it's secured uh hatch is open

1963

01:41:50,790 --> 01:41:48,480

and we have some personnel tending to

1964

01:41:53,750 --> 01:41:50,800

the astronauts right now and make sure

1965

01:41:56,470 --> 01:41:53,760

everything is a-ok after what really has

1966

01:41:58,709 --> 01:41:56,480

been a picture-perfect mission

1967

01:42:00,629 --> 01:41:58,719

so far

1968

01:42:03,830 --> 01:42:00,639

the crew remains on the timeline to

1969

01:42:07,510 --> 01:42:03,840

egress or exit dragon uh in under an

1970

01:42:09,189 --> 01:42:07,520

hour after splashdown so

1971

01:42:11,350 --> 01:42:09,199

they still have um

1972

01:42:13,669 --> 01:42:11,360

about 20 minutes until we reach or 18

1973

01:42:15,030 --> 01:42:13,679

minutes until we reach that hour mark

1974

01:42:17,510 --> 01:42:15,040

and we are

1975

01:42:19,910 --> 01:42:17,520

perfectly on scheduled for

1976

01:42:22,229 --> 01:42:19,920

the hatch to have been opened at its

1977

01:42:24,310 --> 01:42:22,239

time and we just saw one of those

1978

01:42:26,070 --> 01:42:24,320

tablets being removed that the crew

1979

01:42:33,669 --> 01:42:26,080

members were using to

1980

01:42:38,550 --> 01:42:36,070

just as it takes a little while to get

1981

01:42:42,070 --> 01:42:38,560

crew members strapped in properly

1982

01:42:45,669 --> 01:42:43,990

preparing for launch we we see the same

1983

01:42:47,510 --> 01:42:45,679

thing whenever they come home we want to

1984

01:42:49,750 --> 01:42:47,520

make sure that everything is done in an

1985

01:43:22,470 --> 01:42:49,760

orderly fashion and

1986

01:43:30,870 --> 01:43:24,870

seems removing a few parts to make room

1987

01:43:30,880 --> 01:43:35,910

and that looked like those

1988

01:43:39,830 --> 01:43:38,149

foot foot rests essentially i'm not sure

1989

01:44:05,350 --> 01:43:39,840

the best thing to call them i can't

1990

01:44:11,510 --> 01:44:07,510

you can see those two windows on either

1991

01:44:15,030 --> 01:44:13,590

gave the astronauts a view

1992

01:44:17,030 --> 01:44:15,040

earlier they said they had a great view

1993

01:44:18,870 --> 01:44:17,040

of the international space station and

1994

01:44:20,709 --> 01:44:18,880

even upon launch day they gave us some

1995

01:44:22,709 --> 01:44:20,719

views as they were

1996

01:44:24,470 --> 01:44:22,719

heading to the space station so those

1997

01:44:26,229 --> 01:44:24,480

are their their two windows that they've

1998

01:44:27,590 --> 01:44:26,239

been able to look at

1999

01:44:28,870 --> 01:44:27,600

look out

2000

01:45:30,950 --> 01:44:28,880

during their journey aboard this

2001  
01:45:35,990 --> 01:45:33,590  
for those just joining us um on screen

2002  
01:45:37,910 --> 01:45:36,000  
right now is the crew

2003  
01:45:39,350 --> 01:45:37,920  
one capsule resilience

2004  
01:45:41,270 --> 01:45:39,360  
has returned

2005  
01:45:42,950 --> 01:45:41,280  
from space

2006  
01:45:44,390 --> 01:45:42,960  
um

2007  
01:45:47,030 --> 01:45:44,400  
we are on

2008  
01:45:48,070 --> 01:45:47,040  
sort of the back end of the recovery

2009  
01:45:52,070 --> 01:45:48,080  
vessel

2010  
01:45:53,910 --> 01:45:52,080  
uh go navigator and here is uh

2011  
01:45:55,350 --> 01:45:53,920  
i think that's mike hopkins the

2012  
01:45:58,310 --> 01:45:55,360  
commander

2013  
01:46:01,510 --> 01:45:58,320

uh he's very excited feeling pretty good

2014

01:46:03,910 --> 01:46:01,520

after six months in space

2015

01:46:07,350 --> 01:46:03,920

this is just excellent to see

2016

01:46:13,189 --> 01:46:11,030

coming out of the dragon vehicle

2017

01:46:14,550 --> 01:46:13,199

so just off the coast of panama city

2018

01:46:16,629 --> 01:46:14,560

florida

2019

01:46:18,149 --> 01:46:16,639

and the hatch has been opened there was

2020

01:46:20,629 --> 01:46:18,159

some materials that removed looks like

2021

01:46:22,310 --> 01:46:20,639

the seat rests were removed or the

2022

01:46:24,470 --> 01:46:22,320

um

2023

01:46:27,590 --> 01:46:24,480

the footrests were removed and now we

2024

01:46:29,990 --> 01:46:27,600

just saw the commander mike hopkins

2025

01:46:41,109 --> 01:46:30,000

exit the vehicle

2026

01:46:45,109 --> 01:46:43,030

as we mentioned these crew will be crew

2027

01:46:47,669 --> 01:46:45,119

members will be making their way over to

2028

01:46:49,510 --> 01:46:47,679

some medical checks uh standard

2029

01:46:51,109 --> 01:46:49,520

procedure for us when we have crew

2030

01:46:53,590 --> 01:46:51,119

members returning from long-duration

2031

01:46:55,189 --> 01:46:53,600

space flight or any space flight really

2032

01:46:57,990 --> 01:46:55,199

when we are

2033

01:47:00,229 --> 01:46:58,000

having crew members return on a soyuz

2034

01:47:03,030 --> 01:47:00,239

spacecraft in kazakhstan there is a

2035

01:47:05,030 --> 01:47:03,040

medical tent nearby and we carry those

2036

01:47:07,189 --> 01:47:05,040

crew members from the spacecraft to the

2037

01:47:08,310 --> 01:47:07,199

medical tent for their checkouts so even

2038

01:47:09,990 --> 01:47:08,320

though the crew has reported they're

2039

01:47:12,629 --> 01:47:10,000

feeling good and it certainly looked

2040

01:47:14,149 --> 01:47:12,639

like mike hopkins was feeling good

2041

01:47:17,590 --> 01:47:14,159

they will still get those standard

2042

01:47:21,669 --> 01:47:17,600

medical checks before boarding a

2043

01:47:24,790 --> 01:47:21,679

helicopter later this evening to

2044

01:47:26,470 --> 01:47:24,800

take them back to shore

2045

01:47:28,790 --> 01:47:26,480

and once they are

2046

01:47:30,470 --> 01:47:28,800

on land in florida they will board a

2047

01:47:31,910 --> 01:47:30,480

nasa plane to bring them back to

2048

01:47:33,750 --> 01:47:31,920

ellington field

2049

01:47:35,830 --> 01:47:33,760

in houston texas where they can be

2050

01:47:42,790 --> 01:47:35,840

reunited with friends and family for the

2051  
01:47:47,270 --> 01:47:45,270  
in the bottom left of your screen there

2052  
01:47:49,590 --> 01:47:47,280  
is a stretcher there

2053  
01:47:51,350 --> 01:47:49,600  
again that is standard

2054  
01:47:54,390 --> 01:47:51,360  
returning back to earth after such a

2055  
01:47:56,470 --> 01:47:54,400  
long duration in microgravity has

2056  
01:48:04,709 --> 01:47:56,480  
it can do things to your body

2057  
01:48:12,470 --> 01:48:06,790  
those two spacex team members preparing

2058  
01:48:18,310 --> 01:48:14,709  
and that is a nasa astronaut victor

2059  
01:48:23,189 --> 01:48:20,310  
and this is a view of mission control in

2060  
01:48:27,510 --> 01:48:25,350  
continuing to support the mission

2061  
01:48:30,310 --> 01:48:27,520  
um

2062  
01:48:33,030 --> 01:48:30,320  
yeah we just saw mike hopkins exit the

2063  
01:48:34,149 --> 01:48:33,040

vehicle again uh things are going pretty

2064

01:48:35,669 --> 01:48:34,159

nominally

2065

01:48:37,910 --> 01:48:35,679

the uh

2066

01:48:41,990 --> 01:48:37,920

crew the vehicle had a splashdown at

2067

01:48:44,550 --> 01:48:42,000

approximately 11 56 p.m pacific time

2068

01:48:46,870 --> 01:48:44,560

and shortly after that the recovery team

2069

01:48:48,790 --> 01:48:46,880

began their operations we sent fastballs

2070

01:48:50,629 --> 01:48:48,800

out there to start to sniff out the

2071

01:48:52,870 --> 01:48:50,639

hyper goals and make sure there wasn't

2072

01:48:55,109 --> 01:48:52,880

any toxic vapors in the air began

2073

01:48:58,390 --> 01:48:55,119

rigging the boat and eventually getting

2074

01:49:01,590 --> 01:48:58,400

the dragon capsule on top of the go

2075

01:49:05,270 --> 01:49:01,600

navigator recovery vessel

2076  
01:49:07,669 --> 01:49:05,280  
and we saw uh mike hawkins out of the

2077  
01:49:09,750 --> 01:49:07,679  
spacecraft first he did a little dance

2078  
01:49:11,910 --> 01:49:09,760  
for us to show us just how good he felt

2079  
01:49:13,589 --> 01:49:11,920  
and then followed by victor glover

2080  
01:49:15,350 --> 01:49:13,599  
victor glover returning from his first

2081  
01:49:17,669 --> 01:49:15,360  
space flight he's really the newbie on

2082  
01:49:20,550 --> 01:49:17,679  
this trip i guess you could say uh he

2083  
01:49:22,390 --> 01:49:20,560  
served as pilot of crew one crew dragon

2084  
01:49:24,870 --> 01:49:22,400  
resilience so he was the next out of the

2085  
01:49:27,430 --> 01:49:24,880  
capsule and uh we are still awaiting two

2086  
01:49:30,229 --> 01:49:27,440  
more crew members to be removed from the

2087  
01:49:32,390 --> 01:49:30,239  
capsule and they will be checked out by

2088  
01:49:33,990 --> 01:49:32,400

those medical teams on board the ship

2089

01:49:37,109 --> 01:49:34,000

but as we heard earlier they reported

2090

01:49:39,350 --> 01:49:37,119

that they were feeling well

2091

01:49:40,950 --> 01:49:39,360

yeah the two mission specialists that we

2092

01:49:43,430 --> 01:49:40,960

haven't seen yet are

2093

01:49:46,709 --> 01:49:43,440

shannon walker and soichi noguchi who

2094

01:49:50,229 --> 01:49:46,719

sat on sort of on the ends of the seats

2095

01:49:54,950 --> 01:49:52,470

yeah pretty stellar return home today

2096

01:49:56,629 --> 01:49:54,960

only taking about six and a half hours

2097

01:49:57,430 --> 01:49:56,639

from undocking

2098

01:49:58,870 --> 01:49:57,440

to

2099

01:49:59,910 --> 01:49:58,880

splashdown

2100

01:50:01,430 --> 01:49:59,920

and

2101

01:50:03,910 --> 01:50:01,440

you know throughout the

2102

01:50:05,750 --> 01:50:03,920

mission today we had a really great

2103

01:50:06,709 --> 01:50:05,760

feedback about some nominal departure

2104

01:50:07,830 --> 01:50:06,719

burns

2105

01:50:11,430 --> 01:50:07,840

we

2106

01:50:13,350 --> 01:50:11,440

some unnecessary

2107

01:50:15,990 --> 01:50:13,360

propellant from the vehicle to lighten

2108

01:50:17,830 --> 01:50:16,000

the load of the dragon spacecraft and

2109

01:50:21,189 --> 01:50:17,840

then we started to prepare for deorbit

2110

01:50:22,070 --> 01:50:21,199

so we had the

2111

01:50:24,070 --> 01:50:22,080

claw

2112

01:50:27,430 --> 01:50:24,080

retraction or

2113

01:50:30,470 --> 01:50:27,440

separation that is an umbilical that

2114

01:50:33,350 --> 01:50:30,480

ties telemetry data and power from the

2115

01:50:35,589 --> 01:50:33,360

capsule to the trunk so we separated

2116

01:50:37,350 --> 01:50:35,599

that then we also jettisoned the trunk

2117

01:50:39,589 --> 01:50:37,360

shedding a bit more weight and then

2118

01:50:42,310 --> 01:50:39,599

finally we had our deorbit burn which

2119

01:50:45,830 --> 01:50:42,320

took about 16 minutes um

2120

01:50:48,629 --> 01:50:45,840

and then we got some fantastic footage

2121

01:50:50,470 --> 01:50:48,639

of dragon returning back through the

2122

01:50:52,310 --> 01:50:50,480

atmosphere and then eventually when it

2123

01:50:54,070 --> 01:50:52,320

deployed its shoots it was definitely a

2124

01:50:56,390 --> 01:50:54,080

sight to see

2125

01:50:58,790 --> 01:50:56,400

and we saw all of those shoots deployed

2126  
01:51:01,830 --> 01:50:58,800  
nominally first two drogue shoots that

2127  
01:51:04,149 --> 01:51:01,840  
slowed the spacecraft down to about 119

2128  
01:51:05,990 --> 01:51:04,159  
miles per hour those four main shoots

2129  
01:51:09,270 --> 01:51:06,000  
following and slowing the spacecraft

2130  
01:51:11,189 --> 01:51:09,280  
down to about uh 16 miles per hour for a

2131  
01:51:13,430 --> 01:51:11,199  
much softer splashdown

2132  
01:51:19,189 --> 01:51:13,440  
and that splashdown coming right on time

2133  
01:51:22,310 --> 01:51:19,199  
at 11 56 p.m pacific time 6 56 gmt so

2134  
01:51:24,870 --> 01:51:22,320  
uh we have heard that shannon walker is

2135  
01:51:27,510 --> 01:51:24,880  
now outside of the crew dragon

2136  
01:51:29,189 --> 01:51:27,520  
resilience capsule leaving soichino

2137  
01:51:31,589 --> 01:51:29,199  
gucci to be the last crew member

2138  
01:51:34,709 --> 01:51:31,599

extracted today and as we mentioned they

2139

01:51:36,229 --> 01:51:34,719

will all get a medical checkouts

2140

01:51:43,510 --> 01:51:36,239

ahead of

2141

01:51:48,070 --> 01:51:45,350

and so quite a

2142

01:51:50,629 --> 01:51:48,080

speedy operations to you know

2143

01:51:52,310 --> 01:51:50,639

get the capsule back onto the boat and

2144

01:51:55,750 --> 01:51:52,320

open up the hatch

2145

01:51:57,270 --> 01:51:55,760

so again we uh mike victor and shannon

2146

01:51:59,510 --> 01:51:57,280

have exited the vehicle and we are

2147

01:52:01,109 --> 01:51:59,520

waiting on soichi confirmation that

2148

01:52:04,310 --> 01:52:01,119

suici is

2149

01:52:06,070 --> 01:52:04,320

also going to exit and again they uh

2150

01:52:08,070 --> 01:52:06,080

are you know going to be checked out to

2151  
01:52:09,750 --> 01:52:08,080  
make sure everything's okay and then

2152  
01:52:11,430 --> 01:52:09,760  
eventually make their way back towards

2153  
01:52:13,669 --> 01:52:11,440  
houston uh where hopefully they can

2154  
01:52:15,830 --> 01:52:13,679  
reunite with their family soon

2155  
01:52:17,990 --> 01:52:15,840  
and we expect them to be back in houston

2156  
01:52:19,350 --> 01:52:18,000  
by the early hours of tomorrow morning

2157  
01:52:21,510 --> 01:52:19,360  
hopefully

2158  
01:52:25,189 --> 01:52:21,520  
let's see here

2159  
01:52:27,189 --> 01:52:25,199  
they should return to houston

2160  
01:52:29,589 --> 01:52:27,199  
i can't find the exact timeline just at

2161  
01:52:31,750 --> 01:52:29,599  
this moment but

2162  
01:52:33,270 --> 01:52:31,760  
they will board a nasa jet once they

2163  
01:52:35,830 --> 01:52:33,280

return to

2164

01:52:38,390 --> 01:52:35,840

land in florida um that helicopter

2165

01:52:40,229 --> 01:52:38,400

taking them from go navigator to florida

2166

01:52:41,830 --> 01:52:40,239

and then the nasa plane taking them back

2167

01:52:44,470 --> 01:52:41,840

to ellington field so

2168

01:52:46,790 --> 01:52:44,480

it's quite a speedy recovery process

2169

01:52:49,510 --> 01:52:46,800

you know when we land crew members in

2170

01:52:51,270 --> 01:52:49,520

kazakhstan um we are able to get them

2171

01:52:53,750 --> 01:52:51,280

out of the vehicle very quickly as well

2172

01:52:56,629 --> 01:52:53,760

because it is on land so it's easier to

2173

01:52:59,430 --> 01:52:56,639

approach and to maneuver around

2174

01:53:02,310 --> 01:52:59,440

they get medical checks as well and uh

2175

01:53:03,910 --> 01:53:02,320

and then they board a nasa plane and or

2176  
01:53:05,990 --> 01:53:03,920  
the nasa astronauts i should say aboard

2177  
01:53:07,589 --> 01:53:06,000  
a nasa plane and return to houston but

2178  
01:53:09,109 --> 01:53:07,599  
that flight time is is just so much

2179  
01:53:11,109 --> 01:53:09,119  
longer simply because it's on the other

2180  
01:53:12,709 --> 01:53:11,119  
side of the world so quite different for

2181  
01:53:15,510 --> 01:53:12,719  
these astronauts to

2182  
01:53:18,390 --> 01:53:15,520  
be reunited with their families um just

2183  
01:53:20,070 --> 01:53:18,400  
very shortly after landing

2184  
01:53:21,270 --> 01:53:20,080  
yeah and uh one thing that certainly

2185  
01:53:23,030 --> 01:53:21,280  
helped the

2186  
01:53:23,990 --> 01:53:23,040  
speedy recovery options today was the

2187  
01:53:25,589 --> 01:53:24,000  
weather

2188  
01:53:28,070 --> 01:53:25,599

we got

2189

01:53:31,030 --> 01:53:28,080

you know uh good news that wind speed

2190

01:53:33,189 --> 01:53:31,040

was super low and the waves themselves

2191

01:53:33,910 --> 01:53:33,199

were also very very small

2192

01:53:35,830 --> 01:53:33,920

so

2193

01:53:37,910 --> 01:53:35,840

you know if you've been following along

2194

01:53:40,950 --> 01:53:37,920

the original departure date was supposed

2195

01:53:42,550 --> 01:53:40,960

to be on the 28th but we waived uh that

2196

01:53:45,430 --> 01:53:42,560

due to weather and then we also waived

2197

01:53:48,149 --> 01:53:45,440

the attempt on the 30th but

2198

01:53:50,870 --> 01:53:48,159

today conditions definitely seem ideal

2199

01:53:52,629 --> 01:53:50,880

and you know it it definitely paid today

2200

01:53:54,470 --> 01:53:52,639

as after the

2201

01:53:56,790 --> 01:53:54,480

capsule had landed

2202

01:53:57,750 --> 01:53:56,800

the seas were as calm as i've ever seen

2203

01:54:00,550 --> 01:53:57,760

them

2204

01:54:06,149 --> 01:54:00,560

making the trip for the fast boats to

2205

01:54:27,510 --> 01:54:21,750

and

2206

01:54:30,470 --> 01:54:27,520

egressed the vehicle as well so now that

2207

01:54:32,229 --> 01:54:30,480

mike victor shannon and suici are safely

2208

01:54:34,229 --> 01:54:32,239

back home on earth and getting checked

2209

01:54:36,390 --> 01:54:34,239

out by the nasa medical team we are

2210

01:54:38,790 --> 01:54:36,400

going to wrap up our live coverage of

2211

01:54:41,350 --> 01:54:38,800

their historic return this all kicked

2212

01:54:43,990 --> 01:54:41,360

off on november 15 2020 from historic

2213

01:54:46,070 --> 01:54:44,000

launch pad 39a at the kennedy space

2214

01:54:48,470 --> 01:54:46,080

center in florida after successful

2215

01:54:50,470 --> 01:54:48,480

liftoff and separation from falcon 9

2216

01:54:53,030 --> 01:54:50,480

mike victor shannon and suici made a

2217

01:54:55,030 --> 01:54:53,040

27-hour flight on board dragon to the

2218

01:54:56,629 --> 01:54:55,040

international space station

2219

01:54:59,510 --> 01:54:56,639

since arriving at the space station they

2220

01:55:02,310 --> 01:54:59,520

sent more they spent more than nearly

2221

01:55:05,750 --> 01:55:02,320

they spent almost six months as members

2222

01:55:08,470 --> 01:55:05,760

of expedition 6465 executing science

2223

01:55:10,629 --> 01:55:08,480

experiments spacewalks and repairs while

2224

01:55:12,550 --> 01:55:10,639

aboard the orbiting laboratory

2225

01:55:13,750 --> 01:55:12,560

their journey home today began just

2226

01:55:15,430 --> 01:55:13,760

hours ago

2227

01:55:18,149 --> 01:55:15,440

saturday may 1st when they closed the

2228

01:55:21,109 --> 01:55:18,159

hatch to dragon and undocked hours later

2229

01:55:23,270 --> 01:55:21,119

at 5 35 pm pacific time we then

2230

01:55:25,910 --> 01:55:23,280

jettisoned dragon's trunk and performed

2231

01:55:28,550 --> 01:55:25,920

our final on orbit maneuver the deorbit

2232

01:55:31,589 --> 01:55:28,560

burn at approximately 11 03 pm pacific

2233

01:55:33,270 --> 01:55:31,599

time to send dragon on the path home the

2234

01:55:35,589 --> 01:55:33,280

spacecraft re-entered the earth's

2235

01:55:38,070 --> 01:55:35,599

atmosphere and slowed its descent with

2236

01:55:40,629 --> 01:55:38,080

successful deployments of the two drogue

2237

01:55:42,709 --> 01:55:40,639

shoot drop parachutes and four main

2238

01:55:44,390 --> 01:55:42,719

shoots with the final splashdown

2239

01:55:47,910 --> 01:55:44,400

occurring at off the coast of panama

2240

01:55:49,750 --> 01:55:47,920

city florida at 11 57 pm pacific time

2241

01:55:52,390 --> 01:55:49,760

following that successful splashdown we

2242

01:55:54,550 --> 01:55:52,400

saw spacex recovery experts move in and

2243

01:55:57,030 --> 01:55:54,560

prepare dragon resilience for its lift

2244

01:55:58,470 --> 01:55:57,040

onto the recovery vessel and just a

2245

01:56:01,270 --> 01:55:58,480

little less than an hour following

2246

01:56:03,189 --> 01:56:01,280

splashdown we saw mike vic victor

2247

01:56:07,030 --> 01:56:03,199

shannon and soichi

2248

01:56:08,790 --> 01:56:07,040

you know safely exit the dragon capsule

2249

01:56:10,629 --> 01:56:08,800

next up they will catch a helicopter

2250

01:56:12,709 --> 01:56:10,639

flight back to shore where they will

2251

01:56:14,310 --> 01:56:12,719

transfer to the waiting nasa plane for

2252

01:56:16,070 --> 01:56:14,320

the short flight back to houston where

2253

01:56:18,310 --> 01:56:16,080

they will be reunited with families to

2254

01:56:20,229 --> 01:56:18,320

bring an end to this flight

2255

01:56:21,830 --> 01:56:20,239

we can't express what an honor and a

2256

01:56:23,990 --> 01:56:21,840

privilege it has been to share their

2257

01:56:26,790 --> 01:56:24,000

journey with all of you as we continue

2258

01:56:28,470 --> 01:56:26,800

this new era in human space flight in

2259

01:56:30,470 --> 01:56:28,480

just the last week we saw four

2260

01:56:32,790 --> 01:56:30,480

astronauts fly to station to begin their

2261

01:56:35,990 --> 01:56:32,800

mission and now four more return to

2262

01:56:38,229 --> 01:56:36,000

earth to successfully complete another

2263

01:56:40,790 --> 01:56:38,239

so spacex and nasa are already looking

2264

01:56:43,350 --> 01:56:40,800

forward to the next rotation when crew 2

2265

01:56:45,589 --> 01:56:43,360

comes home and crew 3 launches all of

2266

01:56:47,830 --> 01:56:45,599

which is currently targeted for october

2267

01:56:50,629 --> 01:56:47,840

of this year and at that time we'll once

2268

01:56:52,310 --> 01:56:50,639

again have a direct handover with 11

2269

01:56:54,470 --> 01:56:52,320

people on board the station for a short

2270

01:56:56,790 --> 01:56:54,480

duration as we continue this regular

2271

01:56:59,109 --> 01:56:56,800

cadence of flying astronauts on spacex

2272

01:57:00,070 --> 01:56:59,119

rockets from pad 39-8 at kennedy space

2273

01:57:01,910 --> 01:57:00,080

center

2274

01:57:04,709 --> 01:57:01,920

again thank you for tuning in for the

2275

01:57:06,149 --> 01:57:04,719

culmination of crew one a six-month

2276

01:57:07,030 --> 01:57:06,159

mission that has been years in the

2277

01:57:09,350 --> 01:57:07,040

making

2278

01:57:11,510 --> 01:57:09,360

all of us here at spacex and nasa are

2279

01:57:13,510 --> 01:57:11,520

excited to reunite these four astronauts

2280

01:57:14,790 --> 01:57:13,520

with their families we'll continue to

2281

01:57:17,189 --> 01:57:14,800

work hard

2282

01:57:18,149 --> 01:57:17,199

to ensure future astronauts safety and

2283

01:57:20,790 --> 01:57:18,159

mission

2284

01:57:22,229 --> 01:57:20,800

success so be sure to follow spacex and

2285

01:57:24,149 --> 01:57:22,239

nasa online

2286

01:57:26,629 --> 01:57:24,159

as well as the social media for updates

2287

01:57:29,669 --> 01:57:26,639

on crew and cargo flights to and from

2288

01:57:32,629 --> 01:57:29,679

the international space station

2289

01:57:35,270 --> 01:57:32,639

and we'll continue to share the progress

2290

01:57:37,990 --> 01:57:35,280

of mike victor shannon and suici's trip

2291

01:57:40,470 --> 01:57:38,000

back to houston on social media we are

2292

01:57:43,750 --> 01:57:40,480

also awaiting a briefing including nasa

2293

01:57:47,589 --> 01:57:43,760

spacex and jaxa leadership that's coming

2294

01:57:49,669 --> 01:57:47,599

up at 2 a.m pacific time 5 a.m eastern

2295

01:57:51,669 --> 01:57:49,679

time so we have to say thank you one

2296

01:57:53,750 --> 01:57:51,679

more time again for tuning in and

2297

01:57:56,070 --> 01:57:53,760

cheering on mike victor shannon and

2298

01:57:57,990 --> 01:57:56,080

suici as they return home and we'll see

2299

01:58:00,390 --> 01:57:58,000

you next time when we once again are

2300

01:58:02,709 --> 01:58:00,400

sending astronauts on american rockets

2301

01:58:12,840 --> 01:58:02,719

in american spacecraft from american