1
00:00:03,189 --> 00:00:00,630
[Applause]

2
00:00:05,910 --> 00:00:03,199
before docking today

3
00:00:07,909 --> 00:00:05,920
this is a great view sort of overlooking

4
00:00:11,740 --> 00:00:07,919
all the different modules as part of the

5
00:00:16,950 --> 00:00:15,110
[Applause]

6
00:00:20,240 --> 00:00:16,960
an orbiting lab

7
00:00:39,030 --> 00:00:20,250
the only one of its kind

8
00:00:45,190 --> 00:00:40,790
we're getting a view now from a camera

9
00:00:47,110 --> 00:00:45,200
on the port truss segment of the station

10
00:00:49,190 --> 00:00:47,120
you're seeing the japanese robotic arm

11
00:00:51,430 --> 00:00:49,200
in the center of your screen

12
00:00:55,029 --> 00:00:51,440
in the japanese logistics module on the

13
00:00:58,310 --> 00:00:56,709

that houses some of the experiments

14
00:01:16,060 --> 00:00:58,320
conducted aboard the station on the

15
00:01:16,070 --> 00:01:24,710
[Music]

16
00:01:28,550 --> 00:01:26,630
i believe

17
00:01:31,670 --> 00:01:28,560
that is dragon pretty much dead center

18
00:01:34,550 --> 00:01:32,710
again

19
00:01:36,630 --> 00:01:34,560
making its approach to the international

20
00:01:38,370 --> 00:01:36,640
space station

21
00:01:39,749 --> 00:01:38,380
what a view

22
00:01:41,510 --> 00:01:39,759
[Applause]

23
00:01:43,190 --> 00:01:41,520
and this view really showing you that it

24
00:01:45,270 --> 00:01:43,200
is coming to the front of the

25
00:01:47,109 --> 00:01:45,280
international space station

26
00:01:50,740 --> 00:01:47,119
to that waypoint one

27
00:01:54,789 --> 00:01:53,350
[Applause]

28
00:02:02,130 --> 00:01:54,799
dragon and the international space

29
00:02:25,990 --> 00:02:13,410
[Applause]

30
00:02:26,000 --> 00:02:36,949
so

31
00:02:41,110 --> 00:02:39,509
yeah this is for this capsule it is its

32
00:02:43,190 --> 00:02:41,120
first flight

33
00:02:44,869 --> 00:02:43,200
and subsequently its first docking to

34
00:02:46,350 --> 00:02:44,879
the international space station it's

35
00:02:51,350 --> 00:02:46,360
named endurance

36
00:02:59,020 --> 00:02:53,830
about seven minutes away

37
00:02:59,030 --> 00:03:13,830
[Applause]

38
00:03:17,930 --> 00:03:16,149

dragon now just 300 meters away from the

39
00:03:37,990 --> 00:03:17,940
international space station

40
00:03:42,630 --> 00:03:40,149
and dragon spacex on the big loop expect

41
00:03:49,110 --> 00:03:42,640
reconfiguration of the c2v2 return

42
00:03:49,120 --> 00:04:08,550
reconfiguration of c232 shortly

43
00:04:12,229 --> 00:04:09,589
so a couple of things are going to

44
00:04:13,190 --> 00:04:12,239
happen as we reach waypoint one

45
00:04:16,629 --> 00:04:13,200
the

46
00:04:19,509 --> 00:04:16,639
sensors on dragon will work to get uh

47
00:04:23,030 --> 00:04:19,519
basically a lock on the forward docking

48
00:04:24,469 --> 00:04:23,040
port um that it's it's targeting once it

49
00:04:27,030 --> 00:04:24,479
has a lock

50
00:04:29,510 --> 00:04:27,040
it will automatically deploy the soft

51
00:04:31,270 --> 00:04:29,520
capture ring and again that ring is

52
00:04:33,909 --> 00:04:31,280
composed

53
00:04:36,150 --> 00:04:33,919
of a ring and three petals that will

54
00:04:37,749 --> 00:04:36,160
help with soft capture and what that

55
00:04:40,150 --> 00:04:37,759
means is initial contact with the

56
00:04:44,230 --> 00:04:40,160
international space station it sort of

57
00:04:46,870 --> 00:04:44,240
inserts itself into the docking port and

58
00:04:48,310 --> 00:04:46,880
is effectively locked into place uh so

59
00:04:50,950 --> 00:04:48,320
that way the

60
00:04:54,070 --> 00:04:50,960
uh 12 hard capture hooks can do their

61
00:04:58,230 --> 00:04:54,080
job and um and sort of seal and tighten

62
00:05:02,469 --> 00:05:00,790
and c2 v2 that you heard a little while

63
00:05:04,710 --> 00:05:02,479

ago that's the common communications for

64
00:05:06,230 --> 00:05:04,720
visiting vehicles there is a link

65
00:05:08,230 --> 00:05:06,240
between the international space station

66
00:05:10,710 --> 00:05:08,240
and cargo dragon or crew dragon

67
00:05:12,550 --> 00:05:10,720
providing data and telemetry

68
00:05:14,469 --> 00:05:12,560
a lot of that telemetry is what mark

69
00:05:16,150 --> 00:05:14,479
vanda high will be using to monitor the

70
00:05:20,640 --> 00:05:16,160
approach from inside of the

71
00:05:20,650 --> 00:05:26,070
[Applause]

72
00:05:31,510 --> 00:05:28,629
dragon now just under 280 meters from

73
00:05:34,550 --> 00:05:31,520
the international space station

74
00:05:39,670 --> 00:05:34,560
coming up on waypoint one at 220 meters

75
00:05:43,029 --> 00:05:41,350
that milestone will

76
00:05:53,840 --> 00:05:43,039
put it right in line with the docking

77
00:05:53,850 --> 00:06:00,790
[Applause]

78
00:06:18,790 --> 00:06:02,440
cheerful

79
00:06:23,670 --> 00:06:21,189
once dragon reaches that docking axis it

80
00:06:26,230 --> 00:06:23,680
has about 20 hours of power so it could

81
00:06:27,990 --> 00:06:26,240
actually hold there for quite some time

82
00:06:30,150 --> 00:06:28,000
and could re-attempt to dock if

83
00:06:36,480 --> 00:06:30,160
necessary but everything is proceeding

84
00:07:17,270 --> 00:06:51,640
[Applause]

85
00:07:21,350 --> 00:07:20,550
again this is a live view of dragon

86
00:07:23,430 --> 00:07:21,360
uh

87
00:07:25,189 --> 00:07:23,440
the darkness of space and the position

88
00:07:26,950 --> 00:07:25,199

of dragon right now it almost makes it

89
00:07:29,270 --> 00:07:26,960
look like it's a loading screen this is

90
00:07:30,790 --> 00:07:29,280
live the dragon is approaching the

91
00:07:34,710 --> 00:07:30,800
international space station you can see

92
00:07:37,510 --> 00:07:34,720
that its navigation lights are blinking

93
00:07:39,670 --> 00:07:37,520
and it's making its way to waypoint one

94
00:07:58,390 --> 00:07:39,680
again just under two minutes

95
00:08:02,070 --> 00:08:00,390
this is a different angle dragon at the

96
00:08:03,589 --> 00:08:02,080
center of your screen

97
00:08:05,510 --> 00:08:03,599
and parts of the international space

98
00:08:06,950 --> 00:08:05,520
station its destination

99
00:08:08,070 --> 00:08:06,960
is at the bottom right hand side of your

100
00:08:09,430 --> 00:08:08,080
screen

101
00:08:11,110 --> 00:08:09,440
yeah that's right this is a view from

102
00:08:12,050 --> 00:08:11,120
the camera on the fortress segment of

103
00:08:12,280 --> 00:08:12,060
the station

104
00:08:14,469 --> 00:08:12,290
[Applause]

105
00:08:17,830 --> 00:08:14,479
[Music]

106
00:08:20,629 --> 00:08:17,840
you can see that japanese robotic arm

107
00:08:22,390 --> 00:08:20,639
dragon spacex on the big loop approach 1

108
00:08:24,469 --> 00:08:22,400
and soft capture ring extension will

109
00:08:29,510 --> 00:08:24,479
begin shortly dragon will continue its

110
00:08:33,350 --> 00:08:31,510
the big loop inverse copies will compete

111
00:08:34,949 --> 00:08:33,360
at waypoint two and expecting soft

112
00:08:48,310 --> 00:08:34,959
capturing expensive watching transition

113
00:08:53,350 --> 00:08:51,350

[Applause]

114
00:08:56,310 --> 00:08:53,360
all right so we just heard that they

115
00:08:58,870 --> 00:08:56,320
will proceed past wave point

116
00:09:01,670 --> 00:08:58,880
wave point one on to waypoint two

117
00:09:03,110 --> 00:09:01,680
waypoint one being 220 meters in front

118
00:09:05,750 --> 00:09:03,120
of the station

119
00:09:07,509 --> 00:09:05,760
again in line with the docking axis

120
00:09:09,910 --> 00:09:07,519
when it starts to move in it'll pass the

121
00:09:12,949 --> 00:09:09,920
keep out sphere which is that imaginary

122
00:09:15,190 --> 00:09:12,959
line that extends 180 meters directly in

123
00:09:16,710 --> 00:09:15,200
front of the station when that happens

124
00:09:19,269 --> 00:09:16,720
there's a new set of flight rules that

125
00:09:21,269 --> 00:09:19,279
come into play when dragon makes its way

126
00:09:23,190 --> 00:09:21,279
into the keep out sphere mark vanda high

127
00:09:25,509 --> 00:09:23,200
who's monitoring from the station side

128
00:09:27,110 --> 00:09:25,519
if he sees any issues on his end he

129
00:09:28,949 --> 00:09:27,120
would have the ability to command an

130
00:09:30,870 --> 00:09:28,959
abort from the station side but of

131
00:09:33,990 --> 00:09:30,880
course an abort can be issued in from

132
00:09:35,990 --> 00:09:34,000
inside dragon or from the ground

133
00:09:37,910 --> 00:09:36,000
yeah the journey from way zero to

134
00:09:40,470 --> 00:09:37,920
waypoint one which the dragon vehicle

135
00:09:42,230 --> 00:09:40,480
just passed took about 20 minutes from

136
00:09:44,389 --> 00:09:42,240
waypoint one to waypoint two it's going

137
00:09:45,190 --> 00:09:44,399
to take about 14 minutes

138
00:09:47,670 --> 00:09:45,200

um

139
00:09:49,990 --> 00:09:47,680
again uh courtney we are hearing great

140
00:09:51,590 --> 00:09:50,000
news um you had mentioned that dragon

141
00:09:54,070 --> 00:09:51,600
has enough power to

142
00:09:57,030 --> 00:09:54,080
really uh stay on orbit for about 20

143
00:09:58,710 --> 00:09:57,040
hours but um you know we are not needing

144
00:10:00,790 --> 00:09:58,720
any of these hold positions at either

145
00:10:02,870 --> 00:10:00,800
the waypoint so far and so we're just

146
00:10:04,470 --> 00:10:02,880
kind of cruising on through and dragon

147
00:10:06,150 --> 00:10:04,480
continues to make a

148
00:10:26,870 --> 00:10:06,160
great nominal approach towards the

149
00:10:50,150 --> 00:10:28,710
c2v2 link

150
00:11:27,430 --> 00:11:20,550
so

151
00:11:27,440 --> 00:11:33,430
of you now of mission control hawthorne

152
00:11:38,310 --> 00:11:35,350
and as we continue to make our approach

153
00:11:40,310 --> 00:11:38,320
from waypoint one to waypoint two and uh

154
00:11:42,870 --> 00:11:40,320
make our final approach a couple things

155
00:11:45,829 --> 00:11:42,880
also need to happen the visors um on all

156
00:11:48,550 --> 00:11:45,839
the spacesuits will come down and then

157
00:11:50,470 --> 00:11:48,560
um really the the

158
00:11:52,870 --> 00:11:50,480
uh the dragon vehicle will sort of take

159
00:11:54,870 --> 00:11:52,880
over from there it's been doing most of

160
00:11:57,590 --> 00:11:54,880
the bulk work in terms of navigation but

161
00:11:59,590 --> 00:11:57,600
there's a period known as chop a crew

162
00:12:02,310 --> 00:11:59,600
hands-off point where

163
00:12:04,550 --> 00:12:02,320

if we needed to back off or attempt

164
00:12:06,069 --> 00:12:04,560
re-docking at some other phase or abort

165
00:12:09,750 --> 00:12:06,079
that the vehicle has to make that

166
00:12:11,829 --> 00:12:09,760
decision and make that call

167
00:12:13,269 --> 00:12:11,839
we'll be getting our views back of

168
00:12:15,269 --> 00:12:13,279
dragon and the international space

169
00:12:17,269 --> 00:12:15,279
station but we're in a short handover

170
00:12:19,670 --> 00:12:17,279
period right now between satellites so

171
00:12:21,990 --> 00:12:19,680
until then we'll still get views of our

172
00:12:24,629 --> 00:12:22,000
um control rooms here in hawthorne as

173
00:12:27,269 --> 00:12:24,639
well as in houston

174
00:12:30,550 --> 00:12:27,279
yeah we are expecting uh docking to

175
00:12:31,670 --> 00:12:30,560
happen at 3 32 pm pacific time so

176
00:12:35,350 --> 00:12:31,680
just

177
00:12:38,470 --> 00:12:35,360
about 20 minutes from now it's been

178
00:12:41,910 --> 00:12:38,480
about a 21 hour journey that the crew's

179
00:12:44,069 --> 00:12:41,920
been in space for a little over 21 hours

180
00:12:45,590 --> 00:12:44,079
since their liftoff yesterday so

181
00:12:48,389 --> 00:12:45,600
i'm sure they are very excited to be

182
00:12:49,829 --> 00:12:48,399
just 20 minutes away from docking there

183
00:12:51,990 --> 00:12:49,839
are a couple of procedures that need to

184
00:12:53,910 --> 00:12:52,000
happen after docking to get the hatch

185
00:12:55,590 --> 00:12:53,920
open and for the crews to

186
00:12:57,430 --> 00:12:55,600
the cruise at the

187
00:12:59,829 --> 00:12:57,440
international space station and the crew

188
00:13:01,269 --> 00:12:59,839

inside dragon right now to uh say hi and

189
00:13:03,430 --> 00:13:01,279
meet each other but

190
00:13:06,710 --> 00:13:03,440
you know so far things have gone really

191
00:13:08,310 --> 00:13:06,720
smoothly and um even even at the

192
00:13:10,389 --> 00:13:08,320
beginning of this broadcast we knew that

193
00:13:14,470 --> 00:13:10,399
we were going to be slightly ahead of

194
00:13:18,470 --> 00:13:16,310
while they did go through waypoint one

195
00:13:20,310 --> 00:13:18,480
they will stop at waypoint two twenty

196
00:13:22,949 --> 00:13:20,320
meters away from the international space

197
00:13:25,430 --> 00:13:22,959
station before they can get that final

198
00:13:26,629 --> 00:13:25,440
go no-go to go in for their final

199
00:13:36,470 --> 00:13:26,639
approach and docking to the

200
00:13:42,310 --> 00:13:39,189
so again um we are going from waypoint

201
00:13:44,629 --> 00:13:42,320
one to waypoint two there is a

202
00:13:47,910 --> 00:13:44,639
the keep out sphere on screen right now

203
00:13:50,790 --> 00:13:47,920
this is an imaginary sphere it's uh 200

204
00:13:53,430 --> 00:13:50,800
meters in in radius and and

205
00:13:55,670 --> 00:13:53,440
what the sphere means is uh

206
00:13:58,710 --> 00:13:55,680
if dragon were to somehow lose control

207
00:14:01,910 --> 00:13:58,720
of its thrusters it would be at least

208
00:14:03,829 --> 00:14:01,920
four orbits or six hours until it it

209
00:14:06,230 --> 00:14:03,839
goes inside that keypad sphere and so we

210
00:14:08,230 --> 00:14:06,240
do checks along the way uh not just that

211
00:14:10,710 --> 00:14:08,240
the keypad sphere but a there's a larger

212
00:14:13,430 --> 00:14:10,720
approach ellipsoid that measures four

213
00:14:15,189 --> 00:14:13,440

kilometers by two by two

214
00:14:16,790 --> 00:14:15,199
that also needed a pole to make sure

215
00:14:30,220 --> 00:14:16,800
that things were

216
00:14:51,590 --> 00:14:32,870
[Music]

217
00:14:51,600 --> 00:14:59,750
few

218
00:15:05,189 --> 00:15:01,430
spacex endurance on the dragon the

219
00:15:08,790 --> 00:15:07,509
and disregard tom uh jump the gun a

220
00:15:21,350 --> 00:15:08,800
little bit on the soft capture ring

221
00:15:25,750 --> 00:15:23,910
so again the soft capturing extension is

222
00:15:28,310 --> 00:15:25,760
underway we are expecting to hear the

223
00:15:30,629 --> 00:15:28,320
callout that it is

224
00:15:33,110 --> 00:15:30,639
basically fully deployed

225
00:15:34,950 --> 00:15:33,120
this is what will first make contact

226
00:15:36,870 --> 00:15:34,960
with the international space station

227
00:15:39,189 --> 00:15:36,880
[Applause]

228
00:15:40,949 --> 00:15:39,199
here in uh

229
00:15:43,030 --> 00:15:40,959
about 17 minutes

230
00:15:44,629 --> 00:15:43,040
and dragon is actually now inside of the

231
00:15:46,870 --> 00:15:44,639
keep out sphere

232
00:15:51,749 --> 00:15:46,880
they're about 120 meters away from the

233
00:15:55,990 --> 00:15:54,150
that next milestone coming at waypoint 2

234
00:16:03,830 --> 00:15:56,000
about 20 meters away from the space

235
00:16:03,840 --> 00:16:21,590
[Applause]

236
00:16:21,600 --> 00:16:43,030
you

237
00:16:47,430 --> 00:16:45,030
and dragon is

238
00:16:50,150 --> 00:16:47,440

going to soon be crossing that 100 meter

239
00:16:52,550 --> 00:16:50,160
threshold from the international space

240
00:16:55,189 --> 00:16:52,560
station we started off with just a

241
00:16:56,069 --> 00:16:55,199
blurry dot of dragon a few hours ago and

242
00:16:59,189 --> 00:16:56,079
now

243
00:16:59,199 --> 00:17:11,350
soft capture ring extension complete

244
00:17:15,909 --> 00:17:14,069
okay so that soft capture ring extension

245
00:17:17,029 --> 00:17:15,919
is complete as you were saying we can

246
00:17:18,710 --> 00:17:17,039
really start to make out some of the

247
00:17:21,189 --> 00:17:18,720
features on dragon

248
00:17:23,750 --> 00:17:21,199
yes if you look very closely underneath

249
00:17:28,309 --> 00:17:23,760
the nose cone right on the the front of

250
00:17:30,789 --> 00:17:28,319
dragon there are four um holes those are

251
00:17:33,430 --> 00:17:30,799
where the four forward bulkhead draco

252
00:17:35,110 --> 00:17:33,440
engines are mounted and

253
00:17:37,029 --> 00:17:35,120
if you look between those holes there's

254
00:17:38,549 --> 00:17:37,039
another there's another dot those are

255
00:17:40,390 --> 00:17:38,559
the umbilicals that we were mentioning

256
00:17:54,470 --> 00:17:40,400
earlier earlier that is what will plug

257
00:17:57,510 --> 00:17:56,549
at this point dragon is pretty much

258
00:17:59,110 --> 00:17:57,520
locked

259
00:18:00,870 --> 00:17:59,120
onto the

260
00:18:03,110 --> 00:18:00,880
docking target of the international

261
00:18:04,390 --> 00:18:03,120
space station with lidar and some of its

262
00:18:07,430 --> 00:18:04,400
other sensors

263
00:18:09,029 --> 00:18:07,440

so again it knows where it's at in space

264
00:18:12,310 --> 00:18:09,039
it knows where the international space

265
00:18:14,150 --> 00:18:12,320
station is at and the crew inside we saw

266
00:18:15,110 --> 00:18:14,160
them navigating through their screens

267
00:18:16,630 --> 00:18:15,120
and getting

268
00:18:18,630 --> 00:18:16,640
some great information

269
00:18:22,630 --> 00:18:18,640
but they really can just sit back and

270
00:18:24,630 --> 00:18:22,640
relax the dragon is really navigating

271
00:18:34,710 --> 00:18:24,640
pretty much everything at this point

272
00:18:38,310 --> 00:18:36,630
104 crew dragon approach and retreat

273
00:18:54,390 --> 00:18:38,320
monitoring let us know when your review

274
00:18:57,669 --> 00:18:55,430
we saw

275
00:19:00,150 --> 00:18:57,679
an object look like a knurled knob

276
00:19:02,789 --> 00:19:00,160
although difficult to tell with distance

277
00:19:05,590 --> 00:19:02,799
in our centerline camera view from upper

278
00:19:12,549 --> 00:19:05,600
left and lower right from our view

279
00:19:17,990 --> 00:19:15,590
and copy that tom you saw a gnarled knob

280
00:19:19,830 --> 00:19:18,000
in your centerline view going from the

281
00:19:26,789 --> 00:19:19,840
upper left to the lower right but uh

282
00:19:30,390 --> 00:19:28,070
good read back it could have been a

283
00:19:32,870 --> 00:19:30,400
small nut um as hard to tell the

284
00:19:46,950 --> 00:19:32,880
distance from the camera just won't let

285
00:19:46,960 --> 00:20:03,750
so

286
00:20:07,669 --> 00:20:05,669
and spacex copies all

287
00:20:09,029 --> 00:20:07,679
we are not concerned with continuing our

288
00:20:10,950 --> 00:20:09,039

approach here and i will give you some

289
00:20:16,950 --> 00:20:10,960
calls up on the

290
00:20:16,960 --> 00:20:21,110
appearance copies

291
00:20:25,350 --> 00:20:23,190
spacex it turns on the big loop crew

292
00:20:26,710 --> 00:20:25,360
visors are down and looks like a good

293
00:20:32,830 --> 00:20:26,720
alignment you've got our stack of

294
00:20:37,110 --> 00:20:34,789
and

295
00:20:39,110 --> 00:20:37,120
dragon spacex on the big loop we are

296
00:20:42,390 --> 00:20:39,120
anticipating that we are going to enter

297
00:20:44,549 --> 00:20:42,400
a hold here at waypoint 2 for some more

298
00:20:46,549 --> 00:20:44,559
favorable lighting conditions

299
00:20:48,870 --> 00:20:46,559
right now we're expecting approximately

300
00:20:50,789 --> 00:20:48,880
10 to 12 minutes for that hold and we'll

301
00:20:53,110 --> 00:20:50,799
keep you posted as we watch those

302
00:20:59,350 --> 00:20:53,120
lighting conditions improve for this

303
00:21:04,070 --> 00:21:02,310
endurance copies of a big loop we can go

304
00:21:05,350 --> 00:21:04,080
virgins back up then if that's the plan

305
00:21:06,950 --> 00:21:05,360
otherwise we're happy with lighting if

306
00:21:08,390 --> 00:21:06,960
you guys obviously have a better essay

307
00:21:10,310 --> 00:21:08,400
of what's going to look like in a few

308
00:21:16,710 --> 00:21:10,320
minutes we'll go advisors up until you

309
00:21:20,710 --> 00:21:18,950
and we can occur with that you do not

310
00:21:23,029 --> 00:21:20,720
need to have your visors down until we

311
00:21:34,070 --> 00:21:23,039
have entered the approach to prep when

312
00:22:08,310 --> 00:22:04,630
so

313
00:22:10,630 --> 00:22:08,320

two here

314
00:22:12,310 --> 00:22:10,640
in a few minutes uh that means it's at

315
00:22:14,470 --> 00:22:12,320
20 meters away from the international

316
00:22:17,990 --> 00:22:14,480
space station we did hear from the corps

317
00:22:19,510 --> 00:22:18,000
that they are going to pause here for um

318
00:22:21,430 --> 00:22:19,520
10 to 12 minutes

319
00:22:23,750 --> 00:22:21,440
for more favorable lighting conditions

320
00:22:26,789 --> 00:22:23,760
so this is necessary for docking so

321
00:22:28,549 --> 00:22:26,799
with the orbital sunrises and sunsets

322
00:22:30,710 --> 00:22:28,559
if we wait a few minutes we're going to

323
00:22:33,590 --> 00:22:30,720
have better lighting for the sensors and

324
00:22:35,110 --> 00:22:33,600
cameras on dragon so the crews have

325
00:22:37,110 --> 00:22:35,120
opted to

326
00:22:39,270 --> 00:22:37,120
put their visors up for the time being

327
00:22:40,470 --> 00:22:39,280
and wait for that final approach call

328
00:23:28,630 --> 00:22:40,480
before they have to

329
00:23:28,640 --> 00:23:37,510
okay

330
00:23:51,510 --> 00:23:39,510
all right and we have confirmation that

331
00:23:51,520 --> 00:24:22,230
and stand by one dragon

332
00:24:22,240 --> 00:24:42,870
so

333
00:24:46,789 --> 00:24:44,230
as i was saying we have confirmation

334
00:24:48,470 --> 00:24:46,799
that dragon has arrived at waypoint 2 20

335
00:24:49,590 --> 00:24:48,480
meters away from the international space

336
00:24:51,669 --> 00:24:49,600
station

337
00:24:55,669 --> 00:24:51,679
they'll hold here and conduct a final go

338
00:24:58,549 --> 00:24:57,029

you can see on screen that dragon is

339
00:25:00,310 --> 00:24:58,559
pretty much parked

340
00:25:02,230 --> 00:25:00,320
uh

341
00:25:03,830 --> 00:25:02,240
right outside the front door of the

342
00:25:05,669 --> 00:25:03,840
international space station again we are

343
00:25:21,570 --> 00:25:05,679
waiting for more favorable lighting

344
00:25:24,400 --> 00:25:23,220
[Applause]

345
00:26:19,830 --> 00:25:24,410
[Music]

346
00:26:25,590 --> 00:26:22,870
this is a great view here of dragon and

347
00:26:26,710 --> 00:26:25,600
looking at what's underneath the nose

348
00:26:30,310 --> 00:26:26,720
cone

349
00:26:32,149 --> 00:26:30,320
if you look closely there is a

350
00:26:34,310 --> 00:26:32,159
dragon 36 on dragon to ground no

351
00:26:35,990 --> 00:26:34,320
response required we're just uh talking

352
00:26:37,510 --> 00:26:36,000
here on the ground about the thought

353
00:26:47,990 --> 00:26:37,520
that you called down about before we

354
00:26:50,789 --> 00:26:49,990
again that was the core checking in on

355
00:26:58,470 --> 00:26:50,799
the

356
00:27:01,669 --> 00:26:58,480
knurled

357
00:27:05,080 --> 00:27:03,029
so again just make sure everything is

358
00:27:07,269 --> 00:27:05,090
clear before final approach

359
00:27:09,350 --> 00:27:07,279
[Applause]

360
00:27:10,390 --> 00:27:09,360
again on screen right now is the view of

361
00:27:12,789 --> 00:27:10,400
dragon

362
00:27:14,950 --> 00:27:12,799
there is a gray ring with three petals

363
00:27:17,510 --> 00:27:14,960

on it that is the soft capture ring that

364
00:27:20,149 --> 00:27:17,520
has been deployed

365
00:27:22,149 --> 00:27:20,159
this will make initial contact with the

366
00:27:23,510 --> 00:27:22,159
international space station attach

367
00:27:25,510 --> 00:27:23,520
itself to the international space

368
00:27:26,710 --> 00:27:25,520
station and

369
00:27:29,590 --> 00:27:26,720
on the big loop

370
00:27:31,669 --> 00:27:29,600
brown has hold go to resume the approach

371
00:27:33,350 --> 00:27:31,679
please confirm that your readiness for

372
00:27:35,110 --> 00:27:33,360
the final approach and that your visors

373
00:27:38,149 --> 00:27:35,120
are down

374
00:27:39,430 --> 00:27:38,159
if so ground will be commanding resume

375
00:27:40,950 --> 00:27:39,440
shortly

376
00:27:42,950 --> 00:27:40,960
as a reminder

377
00:27:44,950 --> 00:27:42,960
once dragon is inside the crew hands off

378
00:27:45,990 --> 00:27:44,960
point retreat and breakout are not

379
00:27:49,990 --> 00:27:46,000
permitted

380
00:27:52,310 --> 00:27:50,000
and one final item of note is that we

381
00:27:53,909 --> 00:27:52,320
do anticipate that we may have some less

382
00:27:57,430 --> 00:27:53,919
than favorable lighting conditions until

383
00:27:58,870 --> 00:27:57,440
approximately three meters away from the

384
00:28:03,430 --> 00:27:58,880
docking adapter

385
00:28:07,830 --> 00:28:05,909
and durbs copies all we've got the crew

386
00:28:09,750 --> 00:28:07,840
advisors down we're expecting a lot of

387
00:28:11,510 --> 00:28:09,760
these issues may not be perfect and

388
00:28:12,630 --> 00:28:11,520

build off revenues but uh i don't think

389
00:28:14,630 --> 00:28:12,640
we're happy with what you can see

390
00:28:18,389 --> 00:28:14,640
currently and we'll avoid actions inside

391
00:28:28,549 --> 00:28:20,149
and spacex copies we will be commanding

392
00:28:33,510 --> 00:28:29,909
so it does look like we are going to

393
00:28:36,549 --> 00:28:33,520
resume uh approach for uh final docking

394
00:28:38,950 --> 00:28:36,559
the cruise visors are uh now

395
00:28:40,710 --> 00:28:38,960
uh closed

396
00:28:43,269 --> 00:28:40,720
and it does look like at about three

397
00:28:44,710 --> 00:28:43,279
meters they are going to get a bit more

398
00:28:49,190 --> 00:28:44,720
favorable lighting conditions which is

399
00:28:53,190 --> 00:28:50,950
and chop as you heard that crew hands

400
00:28:54,710 --> 00:28:53,200
off point meaning if there were an abort

401
00:28:59,590 --> 00:28:54,720
scenario it would need to be done

402
00:29:03,029 --> 00:29:01,029
yeah so i was mentioning earlier those

403
00:29:05,190 --> 00:29:03,039
that that soft capture ring makes

404
00:29:08,389 --> 00:29:05,200
initial contact uh once it does make

405
00:29:10,549 --> 00:29:08,399
initial contact uh it effectively pulls

406
00:29:13,269 --> 00:29:10,559
the dragon into place for the hard

407
00:29:15,830 --> 00:29:13,279
capture hooks to drive into place there

408
00:29:18,310 --> 00:29:15,840
are 12 of them in total and they are

409
00:29:22,149 --> 00:29:18,320
actually faceted around

410
00:29:26,950 --> 00:29:25,190
circle a little bit wider than the soft

411
00:29:29,110 --> 00:29:26,960
capture rings that we just saw on screen

412
00:29:34,549 --> 00:29:29,120
but those 12 hooks will

413
00:29:38,470 --> 00:29:36,470

hey firm station houston on the big loop

414
00:29:59,350 --> 00:29:38,480
you can commence monitoring steps two

415
00:30:03,510 --> 00:30:00,789
so it does look like we're in an orbital

416
00:30:05,510 --> 00:30:03,520
night time now uh you can see the firing

417
00:30:06,950 --> 00:30:05,520
of the draco

418
00:30:08,389 --> 00:30:06,960
engines

419
00:30:10,310 --> 00:30:08,399
this is again

420
00:30:12,870 --> 00:30:10,320
there are 16 of them

421
00:30:14,149 --> 00:30:12,880
on the dragon and they will continue to

422
00:30:15,909 --> 00:30:14,159
fire

423
00:30:17,430 --> 00:30:15,919
for any type of micro adjustments that

424
00:30:19,750 --> 00:30:17,440
are necessary

425
00:30:21,669 --> 00:30:19,760
there are green and red

426
00:30:23,669 --> 00:30:21,679
navigation lights

427
00:30:26,230 --> 00:30:23,679
on the outside of dragon as well

428
00:30:29,110 --> 00:30:26,240
then also that center line camera in the

429
00:30:31,190 --> 00:30:29,120
middle again all these sensors help for

430
00:30:33,029 --> 00:30:31,200
dragon to autonomously dock with the

431
00:30:35,350 --> 00:30:33,039
international space station

432
00:30:41,590 --> 00:30:35,360
dragon now just under 14 meters from the

433
00:31:01,509 --> 00:30:44,310
making that slow and methodical approach

434
00:31:01,519 --> 00:31:16,549
this

435
00:31:36,950 --> 00:31:19,269
and meters

436
00:31:36,960 --> 00:31:46,950
so

437
00:31:54,789 --> 00:31:48,630
now just under eight meters from the

438
00:31:58,389 --> 00:31:57,430

this is the this is what dragon is

439
00:32:03,750 --> 00:31:58,399
seeing

440
00:32:04,800 --> 00:32:03,760
international space station and the ford

441
00:32:07,909 --> 00:32:04,810
node 2 port

442
00:32:11,430 --> 00:32:07,919
[Applause]

443
00:32:13,350 --> 00:32:11,440
you can see there are a bunch of lines

444
00:32:14,789 --> 00:32:13,360
around that front most ring that is

445
00:32:15,830 --> 00:32:14,799
where the hard

446
00:32:17,770 --> 00:32:15,840
capture

447
00:32:20,230 --> 00:32:17,780
hooks will drive into place

448
00:32:22,070 --> 00:32:20,240
[Applause]

449
00:32:29,430 --> 00:32:22,080
and right in the center of that is the

450
00:32:33,909 --> 00:32:31,750
the docking targets what dragon is using

451
00:32:35,190 --> 00:32:33,919
to again uh help navigate it towards the

452
00:32:37,029 --> 00:32:35,200
international space station we just

453
00:32:38,940 --> 00:32:37,039
heard the call out that we are

454
00:33:00,389 --> 00:32:38,950
five meters away

455
00:33:00,399 --> 00:33:10,340
i'll be chopped

456
00:33:28,789 --> 00:33:11,830
[Applause]

457
00:33:28,799 --> 00:33:35,190
soft capture confirmed

458
00:33:43,830 --> 00:33:36,310
for the big ones we see the same

459
00:33:56,470 --> 00:33:49,750
and contact

460
00:33:59,149 --> 00:33:56,480
pacific time as the international space

461
00:34:02,230 --> 00:33:59,159
station and endurance were flying

462
00:34:04,070 --> 00:34:02,240
263 statute miles over the eastern

463
00:34:05,750 --> 00:34:04,080

caribbean

464
00:34:07,509 --> 00:34:05,760
now we still have a few steps to

465
00:34:12,379 --> 00:34:07,519
complete before dragon is securely

466
00:34:16,550 --> 00:34:14,710
[Applause]

467
00:34:19,109 --> 00:34:16,560
and we're hearing call-outs of soft

468
00:34:21,430 --> 00:34:19,119
capture ring retraction that should

469
00:34:23,270 --> 00:34:21,440
complete in about four minutes and then

470
00:34:25,349 --> 00:34:23,280
about two minutes after that the hard

471
00:34:27,750 --> 00:34:25,359
capture sequence will start this is

472
00:34:30,069 --> 00:34:27,760
where the 12 hooks around the outer ring

473
00:34:31,669 --> 00:34:30,079
will drive themselves into place and a

474
00:34:33,349 --> 00:34:31,679
really secure dragon to the

475
00:34:35,669 --> 00:34:33,359
international space station

476
00:34:37,829 --> 00:34:35,679
and then hard docking should be complete

477
00:34:39,750 --> 00:34:37,839
in about 10 minutes from now

478
00:34:42,550 --> 00:34:39,760
that's right those 12 hooks will drive

479
00:34:45,190 --> 00:34:42,560
six at a time in two parts to form that

480
00:34:48,389 --> 00:34:45,200
hard mate between dragon and the

481
00:34:49,829 --> 00:34:48,399
international space station

482
00:34:52,149 --> 00:34:49,839
so what's happening right now with the

483
00:34:54,310 --> 00:34:52,159
soft capture ring retraction is

484
00:34:55,510 --> 00:34:54,320
those pedals as part of the soft capture

485
00:34:58,390 --> 00:34:55,520
ring

486
00:34:59,910 --> 00:34:58,400
they were extended and again that's what

487
00:35:02,230 --> 00:34:59,920
made contact with the international

488
00:35:04,710 --> 00:35:02,240

space station they're effectively being

489
00:35:06,470 --> 00:35:04,720
pulled back into the dragon and because

490
00:35:08,390 --> 00:35:06,480
it's attached the dragon is now getting

491
00:35:10,710 --> 00:35:08,400
closer and closer with the international

492
00:35:12,550 --> 00:35:10,720
space station again so those 12 hard

493
00:35:15,510 --> 00:35:12,560
capture hooks can set themselves in

494
00:35:20,550 --> 00:35:15,520
place and then we have a nice uh docking

495
00:35:24,230 --> 00:35:21,990
it does look like we're over a handover

496
00:35:26,550 --> 00:35:24,240
period we can't uh get bring you guys

497
00:35:28,310 --> 00:35:26,560
the views the amazing views of dragon

498
00:35:30,390 --> 00:35:28,320
and the international space station at

499
00:35:32,790 --> 00:35:30,400
this time but uh trust me we're gonna

500
00:35:34,630 --> 00:35:32,800
get him back uh very soon uh for now

501
00:35:36,470 --> 00:35:34,640
this is a view of mission control and

502
00:35:38,710 --> 00:35:36,480
hawthorne um

503
00:35:41,430 --> 00:35:38,720
we're working in tandem with uh johnson

504
00:35:43,190 --> 00:35:41,440
space center uh in houston to make sure

505
00:35:45,750 --> 00:35:43,200
that again these sequences we're

506
00:35:49,190 --> 00:35:45,760
bringing the crew safely to the

507
00:35:54,550 --> 00:35:50,790
that's right and again if you're just

508
00:35:56,550 --> 00:35:54,560
joining us contact was confirmed at 3 32

509
00:35:59,790 --> 00:35:56,560
pm pacific time as the international

510
00:36:03,030 --> 00:35:59,800
space station and endurance we're flying

511
00:36:04,550 --> 00:36:03,040
263 statute miles above the eastern

512
00:36:07,910 --> 00:36:04,560
caribbean

513
00:36:09,990 --> 00:36:07,920

once hard capture is completed

514
00:36:12,630 --> 00:36:10,000
dragon is firmly affixed to the

515
00:36:15,190 --> 00:36:12,640
international space station but um not

516
00:36:16,950 --> 00:36:15,200
quite able to exit the dragon quite yet

517
00:36:18,150 --> 00:36:16,960
there are still a couple of things that

518
00:36:20,630 --> 00:36:18,160
need to happen

519
00:36:22,630 --> 00:36:20,640
the space between where dragon's hatch

520
00:36:24,630 --> 00:36:22,640
is and the international space station

521
00:36:26,870 --> 00:36:24,640
hatch is known as the best view

522
00:36:29,349 --> 00:36:26,880
vestibule it is unpressurized right now

523
00:36:31,589 --> 00:36:29,359
so we got to make sure that uh we put

524
00:36:32,710 --> 00:36:31,599
air into it pressurize it that way it's

525
00:36:35,510 --> 00:36:32,720
safe for

526
00:36:37,589 --> 00:36:35,520
both the folks inside dragon and folks

527
00:36:39,349 --> 00:36:37,599
on the international space station and

528
00:36:41,349 --> 00:36:39,359
there are a couple of procedural things

529
00:36:43,430 --> 00:36:41,359
that need to happen before we can open

530
00:36:45,190 --> 00:36:43,440
up the hatches on both the dragon and

531
00:36:46,550 --> 00:36:45,200
the international space station side

532
00:36:48,390 --> 00:36:46,560
that's right so right now we have what's

533
00:36:51,109 --> 00:36:48,400
called a soft capture again we won't

534
00:36:53,990 --> 00:36:51,119
have hard capture until those 12 hooks

535
00:36:59,510 --> 00:36:54,000
are fully driven in those two parts six

536
00:37:05,510 --> 00:37:02,470
i'm sure that the crew is um

537
00:37:06,630 --> 00:37:05,520
super eager to get out of dragon and

538
00:37:08,230 --> 00:37:06,640

uh

539
00:37:10,470 --> 00:37:08,240
enjoy the international space station

540
00:37:13,510 --> 00:37:10,480
and start their work they've been in

541
00:37:14,310 --> 00:37:13,520
in space for about 21 and a half hours

542
00:37:16,550 --> 00:37:14,320
so

543
00:37:19,750 --> 00:37:16,560
they separated from falcon 9

544
00:37:21,990 --> 00:37:19,760
yesterday night but have been in orbit

545
00:37:23,990 --> 00:37:22,000
and going through a number of phasing

546
00:37:25,670 --> 00:37:24,000
burns to make sure that they can

547
00:37:27,190 --> 00:37:25,680
rendezvous

548
00:37:29,829 --> 00:37:27,200
safely with the international space

549
00:37:31,990 --> 00:37:29,839
station um the the folks in the

550
00:37:33,670 --> 00:37:32,000
international space station themselves

551
00:37:42,630 --> 00:37:33,680
docking sequence is holding for mcs

552
00:37:42,640 --> 00:37:47,910
[Applause]

553
00:37:51,270 --> 00:37:48,870
so

554
00:37:52,870 --> 00:37:51,280
the international space station crew

555
00:37:56,069 --> 00:37:52,880
has also been helping on their end as

556
00:37:57,829 --> 00:37:56,079
well um monitoring dragon's approach and

557
00:37:59,990 --> 00:37:57,839
making sure they are doing any type of

558
00:38:02,310 --> 00:38:00,000
prep work necessary again to get that

559
00:38:03,510 --> 00:38:02,320
apas hatch open and welcome the new

560
00:38:05,750 --> 00:38:03,520
members

561
00:38:08,870 --> 00:38:05,760
to the international space station

562
00:38:11,510 --> 00:38:08,880
so now that the ring retraction is

563
00:38:13,750 --> 00:38:11,520

complete they will begin driving those

564
00:38:17,030 --> 00:38:13,760
hooks again those are 12 hooks that will

565
00:38:19,349 --> 00:38:17,040
drive in two parts six at a time to form

566
00:38:21,829 --> 00:38:19,359
that hard mate between dragon and the

567
00:38:23,990 --> 00:38:21,839
international space station

568
00:38:26,150 --> 00:38:24,000
yeah dragons will also be powered by

569
00:38:27,510 --> 00:38:26,160
umbilicals via the international space

570
00:38:30,150 --> 00:38:27,520
station so

571
00:38:32,310 --> 00:38:30,160
as part of that hard capture sequence

572
00:38:34,310 --> 00:38:32,320
we'll also be plugging in umbilicals to

573
00:38:35,670 --> 00:38:34,320
the dragon to make sure it has power

574
00:38:39,270 --> 00:38:35,680
again from the international space

575
00:38:43,430 --> 00:38:41,270
station and endurance houston on the big

576
00:38:51,030 --> 00:38:43,440
loop mcs is configured we're proceeding

577
00:38:55,190 --> 00:38:52,950
okay so proceeding with hook driving now

578
00:38:57,349 --> 00:38:55,200
again 12 hooks

579
00:38:59,670 --> 00:38:57,359
six will drive and then the second six

580
00:39:02,310 --> 00:38:59,680
will drive and we will officially have a

581
00:39:04,950 --> 00:39:02,320
hard mate between endurance and the

582
00:39:07,190 --> 00:39:04,960
international space station

583
00:39:09,910 --> 00:39:07,200
yeah this procedure takes about four

584
00:39:11,109 --> 00:39:09,920
minutes uh and so um it's underway right

585
00:39:12,790 --> 00:39:11,119
now we just heard the call which is

586
00:39:15,510 --> 00:39:12,800
super exciting

587
00:39:17,990 --> 00:39:15,520
and then from there uh we'll have to uh

588
00:39:19,910 --> 00:39:18,000

move on to pressurization of the

589
00:39:21,430 --> 00:39:19,920
vestibule and then opening up the

590
00:39:23,910 --> 00:39:21,440
hatches and then we'll get a welcome

591
00:39:26,710 --> 00:39:23,920
ceremony and so i'm sure there'll be

592
00:39:28,630 --> 00:39:26,720
lots of smiles and hugs as the uh the

593
00:39:30,630 --> 00:39:28,640
crew enters the international space

594
00:39:33,109 --> 00:39:30,640
station and three of them for the first

595
00:39:35,510 --> 00:39:33,119
time um so uh we have three folks that

596
00:39:36,950 --> 00:39:35,520
again um have been uh have flown for the

597
00:39:38,310 --> 00:39:36,960
first time today and this is their first

598
00:39:39,430 --> 00:39:38,320
time in space

599
00:39:40,870 --> 00:39:39,440
and of course they still have those

600
00:39:43,349 --> 00:39:40,880
suits on right now but they'll be able

601
00:39:45,750 --> 00:39:43,359
to take those off before they float

602
00:39:48,870 --> 00:39:45,760
through the hatch to say hello to their

603
00:39:53,190 --> 00:39:48,880
crew members and get welcomed aboard

604
00:39:56,950 --> 00:39:55,030
yeah it's been

605
00:39:59,030 --> 00:39:56,960
super smooth um

606
00:40:01,670 --> 00:39:59,040
uh we really uh

607
00:40:04,069 --> 00:40:01,680
have beat the timeline in a sense um the

608
00:40:06,150 --> 00:40:04,079
crew woke up a little early and uh we

609
00:40:07,990 --> 00:40:06,160
didn't really have any holds at uh

610
00:40:09,589 --> 00:40:08,000
almost any of the waypoints and so we

611
00:40:12,710 --> 00:40:09,599
went from

612
00:40:15,510 --> 00:40:12,720
you know their approach initiation burn

613
00:40:17,829 --> 00:40:15,520

to uh waypoint zero from waypoint zero

614
00:40:19,829 --> 00:40:17,839
straight to waypoint one from 1.1

615
00:40:21,430 --> 00:40:19,839
straight to waypoint two had a small

616
00:40:23,349 --> 00:40:21,440
hold at waypoint two to make sure that

617
00:40:25,030 --> 00:40:23,359
we had favorable lighting conditions for

618
00:40:27,910 --> 00:40:25,040
that soft capture but

619
00:40:29,990 --> 00:40:27,920
all in all it's been a really great and

620
00:40:35,109 --> 00:40:30,000
really smooth operations as part of this

621
00:40:39,750 --> 00:40:37,190
again we're standing by as that hard

622
00:40:42,230 --> 00:40:39,760
capture sequence is underway

623
00:40:44,390 --> 00:40:42,240
the first set of those hooks are driving

624
00:40:58,870 --> 00:40:44,400
right now again that's six of the 12

625
00:41:03,030 --> 00:41:01,270
yeah part of the reason why the docking

626
00:41:06,069 --> 00:41:03,040
sequence is

627
00:41:08,309 --> 00:41:06,079
split up into two phases is with the the

628
00:41:11,030 --> 00:41:08,319
design of the soft capture ring

629
00:41:13,030 --> 00:41:11,040
those pedals really allow you a little

630
00:41:14,950 --> 00:41:13,040
bit of more margin when you're when

631
00:41:16,790 --> 00:41:14,960
you're docking and so

632
00:41:18,630 --> 00:41:16,800
it allows the the

633
00:41:21,430 --> 00:41:18,640
the spacecraft basically just to get

634
00:41:23,510 --> 00:41:21,440
close and then we have some mechanical

635
00:41:25,190 --> 00:41:23,520
features that will really allow it to

636
00:41:26,150 --> 00:41:25,200
get that hard mate that we're looking

637
00:41:28,230 --> 00:41:26,160
for

638
00:41:30,550 --> 00:41:28,240

again we are expecting that to be

639
00:41:33,430 --> 00:41:30,560
complete in just a few minutes here so

640
00:41:58,230 --> 00:41:33,440
we'll be listening on the big loop with

641
00:42:02,390 --> 00:42:00,790
okay the first set of six hooks have

642
00:42:05,349 --> 00:42:02,400
driven

643
00:42:07,670 --> 00:42:05,359
that second set will start now

644
00:42:08,710 --> 00:42:07,680
once those 12 have all driven we will

645
00:42:11,829 --> 00:42:08,720
have a

646
00:42:22,050 --> 00:42:14,790
so again those those first set of six

647
00:42:22,060 --> 00:42:42,069
[Applause]

648
00:42:47,030 --> 00:42:43,990
and this is a great view this is a live

649
00:42:49,190 --> 00:42:47,040
view inside the dragon that is uh

650
00:42:52,470 --> 00:42:49,200
has been soft captured and about halfway

651
00:42:54,550 --> 00:42:52,480
through um its hard capture sequences uh

652
00:42:56,950 --> 00:42:54,560
on the left-hand side of the screen is

653
00:43:00,309 --> 00:42:56,960
raja char he is the

654
00:43:02,309 --> 00:43:00,319
commander and um on to his right is

655
00:43:05,270 --> 00:43:02,319
thomas marsh marshburn

656
00:43:07,109 --> 00:43:05,280
who is the pilot of this mission not on

657
00:43:09,670 --> 00:43:07,119
screen we didn't get too many views of

658
00:43:12,470 --> 00:43:09,680
them but to raja char's left i believe

659
00:43:13,750 --> 00:43:12,480
is kayla kayla baron who is the mission

660
00:43:15,510 --> 00:43:13,760
specialist and the other mission

661
00:43:17,829 --> 00:43:15,520
specialist um

662
00:43:19,190 --> 00:43:17,839
is uh matthias maurer

663
00:43:21,510 --> 00:43:19,200

so um

664
00:43:23,190 --> 00:43:21,520
everyone but thomas marshburn again this

665
00:43:24,870 --> 00:43:23,200
is their first

666
00:43:26,390 --> 00:43:24,880
space flight

667
00:43:28,069 --> 00:43:26,400
first time at the international space

668
00:43:30,710 --> 00:43:28,079
station their first time riding the

669
00:43:31,910 --> 00:43:30,720
dragon and so it's all super exciting

670
00:43:33,349 --> 00:43:31,920
and um

671
00:43:36,630 --> 00:43:33,359
we got some video footage of them

672
00:43:39,670 --> 00:43:36,640
earlier uh they were um

673
00:43:40,870 --> 00:43:39,680
playing a game uh of of who could spend

674
00:43:49,589 --> 00:43:40,880
the most

675
00:43:52,630 --> 00:43:50,950
and there's other big ones happening

676
00:44:00,309 --> 00:43:52,640
it's hard to complete supervisors are up

677
00:44:00,319 --> 00:44:06,630
spacex copies

678
00:44:11,990 --> 00:44:08,390
all right and we have confirmation that

679
00:44:13,990 --> 00:44:12,000
that hard capture is complete

680
00:44:15,670 --> 00:44:14,000
crew dragon endurance

681
00:44:17,190 --> 00:44:15,680
officially made it to the international

682
00:44:19,109 --> 00:44:17,200
space station

683
00:44:20,870 --> 00:44:19,119
so now that dragon has completed the

684
00:44:23,270 --> 00:44:20,880
docking sequence the spacecraft must

685
00:44:25,510 --> 00:44:23,280
undergo a handful of checks before we

686
00:44:27,670 --> 00:44:25,520
are able to open the hatch the crew on

687
00:44:29,430 --> 00:44:27,680
board dragon will now get a chance to

688
00:44:31,430 --> 00:44:29,440

get out of their suits before moving on

689
00:44:32,630 --> 00:44:31,440
to hatch operations

690
00:44:35,589 --> 00:44:32,640
yeah that's right and things will be

691
00:44:37,829 --> 00:44:35,599
picking up inside the station too as

692
00:44:39,990 --> 00:44:37,839
nasa's mark vande high gets the hatch on

693
00:44:41,990 --> 00:44:40,000
the station side ready to be opened and

694
00:44:44,150 --> 00:44:42,000
starts pressurizing that area known as

695
00:44:46,230 --> 00:44:44,160
the vestibule between the dragon and

696
00:44:48,630 --> 00:44:46,240
station hatches

697
00:44:50,550 --> 00:44:48,640
so for now let's go to sandra jones for

698
00:44:58,790 --> 00:44:50,560
a refresher on what's ahead now that

699
00:45:02,230 --> 00:45:00,550
thanks courtney it's a very exciting

700
00:45:04,870 --> 00:45:02,240
moment for all of us here in mission

701
00:45:07,510 --> 00:45:04,880
control following dragon's docking at 5

702
00:45:10,550 --> 00:45:07,520
32 pm central time while the space

703
00:45:13,910 --> 00:45:10,560
station was flying 216 statute miles

704
00:45:17,030 --> 00:45:15,670
nasa flight director rebecca winfield

705
00:45:19,190 --> 00:45:17,040
led the team here in mission control

706
00:45:21,190 --> 00:45:19,200
houston for dragons approach and docking

707
00:45:23,750 --> 00:45:21,200
today

708
00:45:26,069 --> 00:45:23,760
and to their right is capcom joshua

709
00:45:28,550 --> 00:45:26,079
kootrick who will be communicating with

710
00:45:32,150 --> 00:45:28,560
the crew aboard station to step through

711
00:45:34,069 --> 00:45:32,160
procedures in preparation

712
00:45:36,390 --> 00:45:34,079
right now there are three astronauts and

713
00:45:38,950 --> 00:45:36,400

cosmonauts aboard the space station

714
00:45:41,030 --> 00:45:38,960
that includes nasa's mark vanda high as

715
00:45:43,589 --> 00:45:41,040
well as rose cosmos cosmonauts piotr

716
00:45:49,670 --> 00:45:43,599
dubrov and anton shkaplerov who is the

717
00:45:53,910 --> 00:45:51,750
now that endurance is docked to the

718
00:45:55,990 --> 00:45:53,920
space station mark vande high will

719
00:45:58,230 --> 00:45:56,000
secure some hardware and will move right

720
00:46:00,550 --> 00:45:58,240
into hatch operations

721
00:46:02,710 --> 00:46:00,560
first he'll open the large hatch at node

722
00:46:04,950 --> 00:46:02,720
2 forward giving him access inside the

723
00:46:06,710 --> 00:46:04,960
pressurized mating adapter

724
00:46:08,150 --> 00:46:06,720
then he'll pressurize the vestibule

725
00:46:10,870 --> 00:46:08,160
which is a small space between the

726
00:46:12,870 --> 00:46:10,880
hatches on dragon and the space station

727
00:46:15,349 --> 00:46:12,880
because this was exposed to the vacuum

728
00:46:16,790 --> 00:46:15,359
of space prior to docking he'll need to

729
00:46:18,790 --> 00:46:16,800
fill it with air to make sure the

730
00:46:20,790 --> 00:46:18,800
pressure is nearly equal to that of the

731
00:46:22,230 --> 00:46:20,800
international space station and the

732
00:46:24,309 --> 00:46:22,240
dragon

733
00:46:26,390 --> 00:46:24,319
he'll use a small valve on the station

734
00:46:28,470 --> 00:46:26,400
to introduce air into the vestibule

735
00:46:30,790 --> 00:46:28,480
spacex on the big loop

736
00:46:42,230 --> 00:46:30,800
docking sequence is complete welcome to

737
00:46:52,870 --> 00:46:44,309
copies and docking completes and happy

738
00:46:56,390 --> 00:46:54,550

ground will be enabling hardline power

739
00:46:58,230 --> 00:46:56,400
and com connections shortly

740
00:47:01,109 --> 00:46:58,240
you have a go to dolph your suits per

741
00:47:06,550 --> 00:47:01,119
procedure for decimal zero one two we

742
00:47:10,470 --> 00:47:08,309
we've got to go to start suit drop in

743
00:47:12,710 --> 00:47:10,480
for 4.012 and you're taking the cameras

744
00:47:21,109 --> 00:47:12,720
external

745
00:47:24,710 --> 00:47:23,670
and you could see that excitement by the

746
00:47:26,790 --> 00:47:24,720
crew

747
00:47:29,109 --> 00:47:26,800
inside endurance as they are officially

748
00:47:33,270 --> 00:47:29,119
welcomed to their home in space for the

749
00:47:40,470 --> 00:47:35,430
shortly they will doff or take off their

750
00:47:44,309 --> 00:47:41,990
however before we get to that point

751
00:47:46,150 --> 00:47:44,319
there are a few steps that need to be

752
00:47:49,270 --> 00:47:46,160
worked through both on the international

753
00:47:54,630 --> 00:47:49,280
space station side as well as on the

754
00:48:11,430 --> 00:47:57,589
inside space station

755
00:48:23,270 --> 00:48:13,750
and dragon spacex on

756
00:48:23,280 --> 00:48:37,910
m

757
00:48:47,030 --> 00:48:40,630
and spacex dragon on dragging the ground

758
00:48:52,470 --> 00:48:48,790
and dragon we have you good for the

759
00:48:57,030 --> 00:48:54,549
and you want to leave the cabin audio

760
00:49:06,069 --> 00:48:57,040
set to listen to both spacex and big

761
00:49:28,870 --> 00:49:07,910
and that is affirmative leave them both

762
00:49:33,990 --> 00:49:31,589
uh and station it's houston on the big

763
00:49:36,549 --> 00:49:34,000

loop for mark uh we're ready your go go

764
00:49:38,069 --> 00:49:36,559
for the ingress procedure part one

765
00:49:43,190 --> 00:49:38,079
that's going to be your steps one and

766
00:49:48,230 --> 00:49:46,710
all right pick it up in step 1.2

767
00:50:03,109 --> 00:49:48,240
thanks

768
00:50:06,790 --> 00:50:05,430
and those words between nasa astronaut

769
00:50:09,349 --> 00:50:06,800
mark vanda high on board the

770
00:50:11,829 --> 00:50:09,359
international space station and capcom

771
00:50:13,670 --> 00:50:11,839
joshua

772
00:50:15,670 --> 00:50:13,680
vanda high is going to use a small valve

773
00:50:17,990 --> 00:50:15,680
on the station to introduce air into the

774
00:50:19,510 --> 00:50:18,000
vestibule and teams on the ground and

775
00:50:21,109 --> 00:50:19,520
mission control will monitor the

776
00:50:23,270 --> 00:50:21,119
pressure and temperature to make sure

777
00:50:25,510 --> 00:50:23,280
everything is leak free before we get

778
00:50:28,230 --> 00:50:25,520
ready to open up the hatches

779
00:50:29,990 --> 00:50:28,240
we expect it to take about two hours to

780
00:50:35,349 --> 00:50:30,000
get everything pressurized and check out

781
00:50:39,829 --> 00:50:37,589
bandhai has also already deployed

782
00:50:42,069 --> 00:50:39,839
umbilicals to connect power and data

783
00:51:44,390 --> 00:50:42,079
between the spacecraft in anticipation

784
00:51:48,150 --> 00:51:46,230
that view that you see

785
00:51:49,829 --> 00:51:48,160
on the center of your screen here in

786
00:51:52,870 --> 00:51:49,839
mission control houston is on the

787
00:51:54,549 --> 00:51:52,880
international space station side

788
00:51:55,829 --> 00:51:54,559

in a short time we'll see that hatch

789
00:51:58,630 --> 00:51:55,839
open up

790
00:51:59,990 --> 00:51:58,640
and we'll see the crew of crew 3 float

791
00:52:01,510 --> 00:52:00,000
through however there are some

792
00:53:28,630 --> 00:52:01,520
procedures that need to be stepped

793
00:53:32,950 --> 00:53:31,109
and if you're just joining us the crew 3

794
00:53:35,349 --> 00:53:32,960
astronauts have successfully docked to

795
00:53:37,750 --> 00:53:35,359
the international space station after

796
00:53:40,630 --> 00:53:37,760
launching at 803 pm central time

797
00:53:42,790 --> 00:53:40,640
yesterday from launch pad 39a at nasa's

798
00:53:45,750 --> 00:53:42,800
kennedy space center in florida

799
00:53:47,990 --> 00:53:45,760
the crew of raja chari kayla baron tom

800
00:53:50,470 --> 00:53:48,000
marshburn and european space agency

801
00:53:53,589 --> 00:53:50,480
astronaut matthias maurer docked to the

802
00:53:58,790 --> 00:53:53,599
orbital outpost today at 5 32 pm central

803
00:54:04,230 --> 00:54:01,109
we're tracking a hatch opening to begin

804
00:54:06,710 --> 00:54:04,240
shortly after 7 pm central time with a

805
00:54:25,349 --> 00:54:06,720
welcoming ceremony approximately 35

806
00:54:29,910 --> 00:54:27,750
this view now of nasa astronaut mark

807
00:55:11,030 --> 00:54:29,920
vande high as he begins to work through

808
00:55:24,390 --> 00:55:13,430
and we did just see nasa astronaut mark

809
00:55:35,349 --> 00:55:27,589
station on 2 and step 1.4 the node 2

810
00:55:39,750 --> 00:55:37,750
now we copy node two forward hatch open

811
00:55:42,309 --> 00:55:39,760
and mark your go to continue go to

812
00:55:46,150 --> 00:55:42,319
continuous step two and your go at 2.2

813
00:55:46,160 --> 00:56:04,789

fantastic thanks

814
00:56:11,109 --> 00:56:07,829
and endurance spacex on the big loop

815
00:56:33,109 --> 00:56:11,119
you can monitor the steps on the iss

816
00:56:35,589 --> 00:56:34,309
if you cut out halfway through the

817
00:56:39,750 --> 00:56:35,599
transition you wanted to mod or

818
00:56:44,150 --> 00:56:42,470
and repeating my call but for if desired

819
00:56:46,230 --> 00:56:44,160
you can monitor some of the vestibule

820
00:56:47,430 --> 00:56:46,240
pressurization actions that mark is

821
00:56:55,270 --> 00:56:47,440
performing on the other side of the

822
00:56:55,280 --> 00:57:47,670
we will follow along with 4.4

823
00:57:51,829 --> 00:57:49,510
and on the right hand side of your

824
00:57:53,829 --> 00:57:51,839
screen is a view of mission control in

825
00:57:56,390 --> 00:57:53,839
hawthorne where flight controllers will

826
00:57:57,349 --> 00:57:56,400
look after the endurance dragons and its

827
00:57:59,430 --> 00:57:57,359
system

828
00:58:01,589 --> 00:57:59,440
dragon will be configured for a long

829
00:58:03,829 --> 00:58:01,599
duration stay aboard the space station

830
00:58:05,190 --> 00:58:03,839
now that it has successfully docked

831
00:58:07,670 --> 00:58:05,200
eventually being configured for

832
00:59:15,510 --> 00:58:07,680
acquiescent mode and will remain there

833
00:59:23,589 --> 00:59:18,870
station on two and step 2 decimal 4 the

834
00:59:40,710 --> 00:59:26,230
15 copies 1 1 colon 5 8 thanks we'll

835
00:59:45,589 --> 00:59:42,789
vanda high has successfully opened up

836
00:59:47,829 --> 00:59:45,599
the large hatch at node 2 forward giving

837
00:59:49,349 --> 00:59:47,839
him access inside the pressurized mating

838
00:59:51,270 --> 00:59:49,359

adapter which you see on the right hand

839
00:59:53,670 --> 00:59:51,280
side of your screen there

840
00:59:55,270 --> 00:59:53,680
he's working to pressurize the vestibule

841
00:59:58,150 --> 00:59:55,280
which is the small space between the

842
00:59:59,670 --> 00:59:58,160
hatches on dragon and the space station

843
01:00:01,829 --> 00:59:59,680
because this was exposed to the vacuum

844
01:00:03,510 --> 01:00:01,839
of space prior to docking he'll need to

845
01:00:06,069 --> 01:00:03,520
fill it with air to make sure the

846
01:00:07,750 --> 01:00:06,079
pressure is nearly equal to that of the

847
01:00:11,349 --> 01:00:07,760
international space station and the

848
01:00:15,349 --> 01:00:13,349
he's using a small valve on the station

849
01:00:17,109 --> 01:00:15,359
introduce air into the vestibule and

850
01:00:18,390 --> 01:00:17,119
teams on the ground in mission control

851
01:00:20,710 --> 01:00:18,400
will monitor the pressure and

852
01:00:23,190 --> 01:00:20,720
temperature just to make sure everything

853
01:00:28,710 --> 01:00:23,200
is leak free before we get ready to open

854
01:00:32,789 --> 01:00:30,789
we'll likely hear some of those calls

855
01:00:33,990 --> 01:00:32,799
from the ground to the space station as

856
01:01:20,390 --> 01:00:34,000
vestibule

857
01:01:24,630 --> 01:01:22,390
suits connected to the umbilicals and

858
01:01:26,630 --> 01:01:24,640
our timer start for drying we're still

859
01:01:30,230 --> 01:01:26,640
working on cleaning them up and changing

860
01:01:34,230 --> 01:01:32,470
and copy that i have started a one-hour

861
01:01:36,309 --> 01:01:34,240
timer myself

862
01:01:40,069 --> 01:01:36,319
one request while we are in this

863
01:01:42,069 --> 01:01:40,079

configuration for tom and c3

864
01:01:44,870 --> 01:01:42,079
tom if you're able to inspect your

865
01:01:48,069 --> 01:01:44,880
umbilical the side that mates to your

866
01:01:50,470 --> 01:01:48,079
suit as well as the suit umbilical qd

867
01:01:53,990 --> 01:01:50,480
and just see if there's anything

868
01:01:54,950 --> 01:01:54,000
off nominal from the pins or the o-rings

869
01:01:56,470 --> 01:01:54,960
just trying to do a little more

870
01:01:57,510 --> 01:01:56,480
troubleshooting from the wind noise

871
01:02:10,710 --> 01:01:57,520
earlier

872
01:02:10,720 --> 01:03:20,789
thanks

873
01:03:24,710 --> 01:03:22,630
vanda high has completed thermal

874
01:03:26,470 --> 01:03:24,720
equalization on the vestibule between

875
01:03:28,150 --> 01:03:26,480
dragon and station

876
01:03:30,069 --> 01:03:28,160
and the vestibule pressure was brought

877
01:03:31,430 --> 01:03:30,079
up to five pounds per square inch where

878
01:04:13,750 --> 01:03:31,440
a leak check is currently being

879
01:04:17,190 --> 01:04:15,109
we've been pretty lucky with our

880
01:04:19,349 --> 01:04:17,200
external camera views so far this view

881
01:04:21,109 --> 01:04:19,359
is from the japanese exposed facility

882
01:04:23,349 --> 01:04:21,119
pointing at the forward end of the

883
01:04:25,829 --> 01:04:23,359
international space station where dragon

884
01:05:49,990 --> 01:04:25,839
is currently docked with the crew 3

885
01:05:53,510 --> 01:05:52,549
spacex endurance on the dragon and

886
01:05:56,069 --> 01:05:53,520
ground

887
01:05:58,150 --> 01:05:56,079
we've inspected uh both inside in the

888
01:06:01,270 --> 01:05:58,160

suit side and also the other ports as

889
01:06:03,670 --> 01:06:01,280
well every o-ring is intact there are no

890
01:06:06,069 --> 01:06:03,680
cuts there's no fod

891
01:06:09,029 --> 01:06:06,079
and the electrical pins as well we don't

892
01:06:10,230 --> 01:06:09,039
see any damage to those

893
01:06:12,069 --> 01:06:10,240
and

894
01:06:13,589 --> 01:06:12,079
so to describe a little bit better what

895
01:06:21,349 --> 01:06:13,599
i

896
01:06:23,990 --> 01:06:21,359
the sound cut out

897
01:06:26,390 --> 01:06:24,000
so i pressed down on the umbilical mate

898
01:06:29,029 --> 01:06:26,400
on my right thigh and that went away i

899
01:06:30,630 --> 01:06:29,039
did not feel a click or any change

900
01:06:34,950 --> 01:06:30,640
however but it did go away at that

901
01:06:39,750 --> 01:06:37,750
okay copy tom so you inspected all the

902
01:06:42,470 --> 01:06:39,760
umbilicals pins and o rings and

903
01:06:44,470 --> 01:06:42,480
identified nothing off nominal and from

904
01:06:46,549 --> 01:06:44,480
the event itself when it did occur when

905
01:06:49,750 --> 01:06:46,559
you leaned forward to

906
01:06:51,589 --> 01:06:49,760
press your umbilical to your suit qd

907
01:06:53,670 --> 01:06:51,599
that's when the noise went away and then

908
01:06:55,750 --> 01:06:53,680
when you got back it did not

909
01:07:03,029 --> 01:06:55,760
the noise was confirmed to go away said

910
01:07:07,190 --> 01:07:04,870
uh yes i leaned forward it cut out for

911
01:07:09,589 --> 01:07:07,200
just a second which clued me into the

912
01:07:11,910 --> 01:07:09,599
potential area of the problem and then

913
01:07:14,230 --> 01:07:11,920

when i pressed on it it went away and no

914
01:07:14,520 --> 01:07:14,240
one else could hear either hear the wind

915
01:07:17,829 --> 01:07:14,530
either

916
01:07:21,430 --> 01:07:19,990
okay copy tom thank you for that uh that

917
01:07:23,430 --> 01:07:21,440
is all the troubleshooting that we have

918
01:07:30,950 --> 01:07:23,440
you doing from right now i will let you

919
01:07:30,960 --> 01:07:35,270
thanks

920
01:07:40,950 --> 01:07:37,670
and dragon for awareness since the suits

921
01:07:44,230 --> 01:07:40,960
are drying you do have a go for steps

922
01:07:46,950 --> 01:07:44,240
sorry sections one through three of four

923
01:07:48,150 --> 01:07:46,960
decimal four zero zero

924
01:07:50,069 --> 01:07:48,160
i do have a request that while

925
01:07:50,950 --> 01:07:50,079
performing that inventory in section

926
01:07:53,430 --> 01:07:50,960
three

927
01:07:55,910 --> 01:07:53,440
provide as many details about the

928
01:07:58,309 --> 01:07:55,920
remaining water bottles and meals in

929
01:07:59,910 --> 01:07:58,319
each bag at your discretion but just

930
01:08:01,829 --> 01:07:59,920
want to make sure i have a really good

931
01:08:15,589 --> 01:08:01,839
count of that before we have you guys

932
01:08:20,070 --> 01:08:18,789
can we copy gopher 133 of 4.400 and

933
01:08:24,309 --> 01:08:20,080
we'll give you a detailed inventory of

934
01:08:24,319 --> 01:08:34,709
and thank you endurance

935
01:08:38,390 --> 01:08:36,390
and with that call we may be getting

936
01:08:40,630 --> 01:08:38,400
some views back inside the crew dragon

937
01:08:42,870 --> 01:08:40,640
endurance as the crew has removed their

938
01:08:44,789 --> 01:08:42,880

spacesuits following docking and has

939
01:08:51,189 --> 01:08:44,799
them in a drying configuration as they

940
01:08:56,070 --> 01:08:53,510
still tracking hatch opening about an

941
01:08:58,630 --> 01:08:56,080
hour from now with a welcoming ceremony

942
01:10:37,830 --> 01:08:58,640
approximately 35 minutes after hatch

943
01:10:40,790 --> 01:10:39,350
we just had a great shot of nasa

944
01:10:42,950 --> 01:10:40,800
astronaut mark vande high as he

945
01:10:52,950 --> 01:10:42,960
continues to step through procedures

946
01:10:57,110 --> 01:10:55,270
directly in the center of your screen

947
01:10:58,950 --> 01:10:57,120
below some of those cargo bags is the

948
01:11:01,750 --> 01:10:58,960
hatch that we will eventually see the

949
01:11:03,750 --> 01:11:01,760
crew 3 astronauts float through as they

950
01:11:05,590 --> 01:11:03,760
come aboard their home

951
01:12:04,870 --> 01:11:05,600
aboard the international space station

952
01:12:09,669 --> 01:12:07,510
work continues to pressurize the

953
01:12:11,669 --> 01:12:09,679
vestibule which is the small space

954
01:12:15,669 --> 01:12:11,679
between the hatches on the dragon and

955
01:12:20,149 --> 01:12:17,830
because this was exposed to the vacuum

956
01:12:21,830 --> 01:12:20,159
of space prior to docking the crew needs

957
01:12:23,430 --> 01:12:21,840
to fill it with air and make sure its

958
01:12:25,590 --> 01:12:23,440
pressure is nearly equal with the

959
01:12:27,030 --> 01:12:25,600
atmospheric pressure on dragon and the

960
01:12:28,790 --> 01:12:27,040
space station

961
01:12:30,870 --> 01:12:28,800
vanda high is using a small valve on the

962
01:12:32,870 --> 01:12:30,880
station's hatch to slowly introduce air

963
01:12:34,550 --> 01:12:32,880

into the station's vestibule

964
01:12:36,630 --> 01:12:34,560
and on the ground flight controllers

965
01:12:38,390 --> 01:12:36,640
here in houston are monitoring and

966
01:12:40,870 --> 01:12:38,400
verifying the pressure readings to make

967
01:13:45,830 --> 01:12:40,880
sure everything is leak free before we

968
01:13:50,149 --> 01:13:48,229
following vestibule

969
01:13:53,990 --> 01:13:50,159
pressurization leak checks will be

970
01:13:55,990 --> 01:13:54,000
performed and if all checks out smoothly

971
01:13:58,310 --> 01:13:56,000
vanda high will be given a go to open up

972
01:13:59,430 --> 01:13:58,320
the station side hatch the eight pass

973
01:14:01,030 --> 01:13:59,440
hatch

974
01:14:03,750 --> 01:14:01,040
once that's open he'll be able to see

975
01:14:05,510 --> 01:14:03,760
the crew inside endurance and there's a

976
01:14:07,110 --> 01:14:05,520
small window on dragon where he'll be

977
01:14:08,950 --> 01:14:07,120
able to see them from

978
01:14:10,630 --> 01:14:08,960
his main job then will be to configure

979
01:14:13,189 --> 01:14:10,640
the station side hatch which is

980
01:14:15,990 --> 01:14:13,199
currently configured with a docking

981
01:14:17,990 --> 01:14:16,000
target which is essentially a small rod

982
01:14:19,750 --> 01:14:18,000
with an x on the end that provided

983
01:14:22,070 --> 01:14:19,760
guidance for the dragon during its

984
01:14:23,669 --> 01:14:22,080
approach to dock with station

985
01:14:25,750 --> 01:14:23,679
he'll remove that target and provide

986
01:14:27,910 --> 01:14:25,760
some padding to allow safe entry for the

987
01:15:28,149 --> 01:14:27,920
crew 3 astronauts into the international

988
01:15:41,510 --> 01:15:30,310

vanda high now working to configure some

989
01:15:45,669 --> 01:15:43,669
and endurance and station houston on the

990
01:15:47,430 --> 01:15:45,679
big loop no reply needed but just be

991
01:15:49,350 --> 01:15:47,440
advised we're configuring hardline so

992
01:15:50,790 --> 01:15:49,360
we'll be down big loop audio just for a

993
01:18:31,910 --> 01:15:50,800
few minutes here as we get hardline in

994
01:18:36,870 --> 01:18:35,189
work continuing in anticipation of hatch

995
01:18:39,270 --> 01:18:36,880
opening it looks like nasa astronaut

996
01:18:41,910 --> 01:18:39,280
mark vande high was configuring some

997
01:18:44,550 --> 01:18:41,920
lights in anticipation of a welcoming

998
01:20:21,910 --> 01:18:44,560
ceremony that we'll have once the crew 3

999
01:20:26,149 --> 01:20:23,990
if you're just tuning in with us this

1000
01:20:28,310 --> 01:20:26,159
afternoon the crew 3 astronauts have

1001
01:20:31,030 --> 01:20:28,320
successfully docked to the space station

1002
01:20:34,310 --> 01:20:31,040
after launching yesterday 803 pm central

1003
01:20:35,750 --> 01:20:34,320
time from launch pad 39a kennedy's space

1004
01:20:38,470 --> 01:20:35,760
center in florida

1005
01:20:40,870 --> 01:20:38,480
the crew of raj achari kayla baron tom

1006
01:20:43,350 --> 01:20:40,880
marshburn and european space agency

1007
01:20:45,189 --> 01:20:43,360
astronaut matthias maurer are docked to

1008
01:20:48,390 --> 01:20:45,199
the orbital outpost

1009
01:20:53,590 --> 01:20:48,400
which happened a short time ago at 5 32

1010
01:20:57,750 --> 01:20:55,669
inside the space station nasa astronaut

1011
01:21:00,790 --> 01:20:57,760
mark vande high is making incremental

1012
01:21:14,390 --> 01:21:00,800
steps toward hatch opening now slated

1013
01:21:19,830 --> 01:21:16,390

as part of those procedures he's going

1014
01:21:21,510 --> 01:21:19,840
to install some padding around the hatch

1015
01:21:23,030 --> 01:21:21,520
looks like there's some floating there

1016
01:23:52,870 --> 01:21:23,040
that he's going to work to install

1017
01:23:57,110 --> 01:23:55,430
endurance and station houston on the big

1018
01:23:59,030 --> 01:23:57,120
loop we've reconfigured for hardline

1019
01:24:17,110 --> 01:23:59,040
audio requesting a comm check let's go

1020
01:24:21,350 --> 01:24:18,790
endurance has you loud and clear on the

1021
01:24:26,390 --> 01:24:23,669
and endurance houston has evolved as

1022
01:24:30,950 --> 01:24:27,990
station we hear you loud and clear

1023
01:24:35,750 --> 01:24:30,960
everyone's 5x5 on the hardline big loop

1024
01:26:10,470 --> 01:24:38,550
and spacex has station and endurance 5x5

1025
01:26:15,750 --> 01:26:12,950
work continues to pressurize the

1026
01:26:18,470 --> 01:26:15,760
vestibule which is currently at vacuum

1027
01:26:20,709 --> 01:26:18,480
it was exposed to the vacuum of space

1028
01:26:23,189 --> 01:26:20,719
and needs to be repressed pressurized

1029
01:26:30,229 --> 01:26:23,199
before the crew aboard

1030
01:26:35,270 --> 01:26:32,950
you can see the a pass hatch which is

1031
01:26:37,669 --> 01:26:35,280
the androgynous peripheral assembly

1032
01:26:41,030 --> 01:26:37,679
system in your screen there it's

1033
01:26:43,110 --> 01:26:41,040
surrounded by some cargo bags

1034
01:26:45,270 --> 01:26:43,120
pretty much dead center

1035
01:26:47,750 --> 01:26:45,280
maybe a little below on your screen

1036
01:26:50,149 --> 01:26:47,760
there eventually we will see that open

1037
01:27:06,310 --> 01:26:50,159
and the crew of crew 3 float aboard the

1038
01:27:17,189 --> 01:27:08,550

there is also a hatch on the dragon

1039
01:27:21,350 --> 01:27:19,350
and here shortly we may be getting some

1040
01:27:48,310 --> 01:27:21,360
video back inside

1041
01:27:52,470 --> 01:27:50,790
dragon spacex on dragon to ground

1042
01:28:05,030 --> 01:27:52,480
permission to come back on board with

1043
01:28:09,510 --> 01:28:06,550
just stand by for a few more minutes

1044
01:28:37,510 --> 01:28:11,669
and no rush kayla just wanted to check

1045
01:28:41,590 --> 01:28:39,430
throughout our coverage we'll be taking

1046
01:28:43,510 --> 01:28:41,600
your questions live and answering them

1047
01:28:44,310 --> 01:28:43,520
on air if you have a question for us use

1048
01:28:46,390 --> 01:28:44,320
the

1049
01:28:48,709 --> 01:28:46,400
ask nasa to submit it

1050
01:28:50,950 --> 01:28:48,719
we did get a question from steve who

1051
01:28:52,950 --> 01:28:50,960
wants to know over which area of the

1052
01:28:54,950 --> 01:28:52,960
earth will docking take place well as

1053
01:28:57,189 --> 01:28:54,960
you can see endurance is already docked

1054
01:28:59,910 --> 01:28:57,199
to the international space station that

1055
01:29:00,790 --> 01:28:59,920
docking took place at 5 32 pm central

1056
01:29:02,390 --> 01:29:00,800
time

1057
01:29:05,430 --> 01:29:02,400
while the international space station

1058
01:29:44,709 --> 01:29:05,440
was flying 260 statute miles over the

1059
01:29:48,070 --> 01:29:45,990
and if you're wondering where the

1060
01:29:50,790 --> 01:29:48,080
international space station is currently

1061
01:29:52,110 --> 01:29:50,800
flying it is flying off the southern tip

1062
01:29:56,070 --> 01:29:52,120
of australia

1063
01:30:00,709 --> 01:29:56,080

269 statute miles high at

1064
01:30:02,629 --> 01:30:00,719
a velocity of 17 500 miles per hour

1065
01:30:04,790 --> 01:30:02,639
that means the space station orbits the

1066
01:31:08,790 --> 01:30:04,800
earth every 90 minutes and sees a

1067
01:31:12,390 --> 01:31:10,790
station of houston on the big loop we

1068
01:31:13,910 --> 01:31:12,400
have a good leak check and we're ready

1069
01:31:16,550 --> 01:31:13,920
for you to pick up in dragon

1070
01:31:26,229 --> 01:31:16,560
pressurization ingress part 2 your go at

1071
01:31:29,830 --> 01:31:28,310
okay that's in work

1072
01:31:31,669 --> 01:31:29,840
that's good words and uh just while i

1073
01:31:34,390 --> 01:31:31,679
have you near an atu we're also getting

1074
01:31:36,390 --> 01:31:34,400
ready for uh dragon hatch open of course

1075
01:31:38,870 --> 01:31:36,400
and the pao event and just looking at

1076
01:31:41,430 --> 01:31:38,880
our down link um if you could zoom in

1077
01:31:54,709 --> 01:31:41,440
just slightly a touch of zoom on

1078
01:31:54,719 --> 01:32:00,470
taking a look

1079
01:32:10,870 --> 01:32:02,709
and words backers that that's perfect

1080
01:32:14,950 --> 01:32:12,629
and with those words we did just get

1081
01:32:17,590 --> 01:32:14,960
confirmation that there was a good leak

1082
01:32:19,430 --> 01:32:17,600
check so next up the pressure will be

1083
01:32:29,750 --> 01:32:19,440
brought up and equalized to that of the

1084
01:32:34,070 --> 01:32:31,990
additionally we heard some words about

1085
01:32:35,830 --> 01:32:34,080
some slight camera adjustments for an

1086
01:32:37,990 --> 01:32:35,840
upcoming welcome ceremony that we'll

1087
01:33:15,430 --> 01:32:38,000
have about 35 minutes after hatch

1088
01:33:18,310 --> 01:33:16,950

and copy that thanks kayla we'll put

1089
01:34:39,110 --> 01:33:18,320
that in work and let you know when we're

1090
01:34:43,830 --> 01:34:41,590
again nasa astronaut mark vanda high has

1091
01:34:46,149 --> 01:34:43,840
completed thermal equalization on the

1092
01:34:47,910 --> 01:34:46,159
vestibule between dragon and station

1093
01:34:49,990 --> 01:34:47,920
following this the vestibule's pressure

1094
01:34:51,910 --> 01:34:50,000
was bought brought up to about five

1095
01:34:53,590 --> 01:34:51,920
pounds per square inch where a leak

1096
01:34:55,030 --> 01:34:53,600
check was performed

1097
01:34:56,950 --> 01:34:55,040
everything checked out smoothly with

1098
01:35:00,390 --> 01:34:56,960
that leak check so the pressure is now

1099
01:35:06,629 --> 01:35:00,400
being brought up to equalize it between

1100
01:35:10,229 --> 01:35:08,629
once pressure is equalized and after a

1101
01:35:12,550 --> 01:35:10,239
couple more checks vanda high will be

1102
01:35:14,870 --> 01:35:12,560
given a go to open up the station side

1103
01:35:16,470 --> 01:35:14,880
hatch the a-pass hatch

1104
01:35:20,870 --> 01:35:16,480
once that's open he'll be able to see

1105
01:35:24,470 --> 01:35:22,790
his main job then will be to configure

1106
01:35:26,229 --> 01:35:24,480
the station side hatch which is

1107
01:35:28,629 --> 01:35:26,239
currently configured with a docking

1108
01:35:30,629 --> 01:35:28,639
target which is just a small rod with an

1109
01:35:32,310 --> 01:35:30,639
x on the end that provides guidance for

1110
01:35:33,990 --> 01:35:32,320
the dragon during its approach to dock

1111
01:35:35,669 --> 01:35:34,000
with space station

1112
01:35:37,830 --> 01:35:35,679
he'll remove that target and provide

1113
01:35:42,070 --> 01:35:37,840

padding to allow safe entry for the crew

1114
01:35:44,390 --> 01:35:42,080
3 astronauts into the space station

1115
01:35:47,669 --> 01:35:44,400
we're still targeting a hatch opening

1116
01:35:49,830 --> 01:35:47,679
shortly after 7pm central time as well

1117
01:35:52,070 --> 01:35:49,840
as a welcoming ceremony to begin

1118
01:37:50,790 --> 01:35:52,080
approximately 35 minutes after hatch

1119
01:37:54,950 --> 01:37:52,870
we're in a brief expected handover

1120
01:38:02,149 --> 01:37:54,960
between our satellites but we'll regain

1121
01:38:06,550 --> 01:38:04,470
and as a reminder we are taking your ask

1122
01:38:08,229 --> 01:38:06,560
nasa questions throughout the broadcast

1123
01:38:10,629 --> 01:38:08,239
today so if you have one send it our way

1124
01:38:12,790 --> 01:38:10,639
using the hashtag asknasa

1125
01:38:14,470 --> 01:38:12,800
our next question comes from carrie who

1126
01:38:16,790 --> 01:38:14,480
wants to know do they get to watch any

1127
01:38:18,390 --> 01:38:16,800
tv shows or movies

1128
01:38:20,310 --> 01:38:18,400
on their downtime aboard the space

1129
01:38:22,870 --> 01:38:20,320
station this is a great question carrie

1130
01:38:26,229 --> 01:38:22,880
and yes indeed the crew members do get

1131
01:38:28,629 --> 01:38:26,239
to watch tv and movies they can be sent

1132
01:38:30,870 --> 01:38:28,639
up from teams on the ground

1133
01:38:32,629 --> 01:38:30,880
in fact last night nasa astronaut mark

1134
01:38:34,550 --> 01:38:32,639
vande high stayed up a little bit past

1135
01:38:37,350 --> 01:38:34,560
his bedtime so that he could watch his

1136
01:38:39,030 --> 01:38:37,360
crewmates launch to the space station

1137
01:38:40,790 --> 01:38:39,040
so if you watched our broadcast last

1138
01:38:43,109 --> 01:38:40,800

night you were watching it alongside an

1139
01:38:44,390 --> 01:38:43,119
astronaut now those crew members have

1140
01:38:46,550 --> 01:38:44,400
successfully arrived to the

1141
01:38:49,189 --> 01:38:46,560
international space station and we're

1142
01:41:07,669 --> 01:38:49,199
looking forward to hatch open in less

1143
01:41:18,390 --> 01:41:09,590
and dragon no response required but

1144
01:41:18,400 --> 01:41:49,590
happens

1145
01:41:53,830 --> 01:41:51,430
again with that call we may be getting

1146
01:41:55,430 --> 01:41:53,840
some internal views inside endurance

1147
01:41:57,669 --> 01:41:55,440
here shortly

1148
01:42:00,070 --> 01:41:57,679
the crew has doffed or taken off their

1149
01:42:01,830 --> 01:42:00,080
spacesuits as they are no longer needed

1150
01:42:22,629 --> 01:42:01,840
for this portion since they've arrived

1151
01:42:25,990 --> 01:42:24,550
next for tracking purposes endurance

1152
01:42:27,510 --> 01:42:26,000
we're on

1153
01:42:32,149 --> 01:42:27,520
through

1154
01:42:33,750 --> 01:42:32,159
sorry four dot zero one two for the

1155
01:42:35,590 --> 01:42:33,760
dotting and then in four dot four

1156
01:42:35,880 --> 01:42:35,600
hundred we're working on section three

1157
01:42:40,790 --> 01:42:35,890
now

1158
01:42:45,750 --> 01:42:43,590
and copy that endurance i have you the

1159
01:42:47,750 --> 01:42:45,760
same as waiting i see about 18 minutes

1160
01:42:49,109 --> 01:42:47,760
left on my suit drying timer and then

1161
01:42:55,990 --> 01:42:49,119
you guys are working through section

1162
01:43:00,470 --> 01:42:58,790
to confirm for uh 3.2 you want to take

1163
01:43:02,550 --> 01:43:00,480

out all the bottles and everything like

1164
01:43:04,149 --> 01:43:02,560
that consolidated and everything

1165
01:43:06,070 --> 01:43:04,159
but when it talks about the packing plan

1166
01:43:09,189 --> 01:43:06,080
then 3.1 you're still talking about the

1167
01:43:48,709 --> 01:43:11,350
affirmative that is the ascent packing

1168
01:43:52,790 --> 01:43:50,709
on board the international space station

1169
01:43:54,870 --> 01:43:52,800
nasa astronaut mark vande high continues

1170
01:43:58,149 --> 01:43:54,880
to work through procedures in

1171
01:44:00,790 --> 01:43:58,159
anticipation of hatch opening

1172
01:45:29,510 --> 01:44:00,800
he's configuring cargo bags in order to

1173
01:45:34,070 --> 01:45:31,669
if you're just joining us this evening

1174
01:45:36,470 --> 01:45:34,080
the crew 3 astronauts have successfully

1175
01:45:39,030 --> 01:45:36,480
docked the international space station

1176
01:45:42,229 --> 01:45:39,040
after launching at 803 pm central time

1177
01:45:44,470 --> 01:45:42,239
yesterday from launch pad 39a at nasa's

1178
01:45:47,030 --> 01:45:44,480
kennedy space center in florida

1179
01:45:49,430 --> 01:45:47,040
the crew of raja chari kayla baron tom

1180
01:45:52,149 --> 01:45:49,440
marshburn and european space agency

1181
01:45:55,510 --> 01:45:52,159
astronaut matthias maurer docked to the

1182
01:45:57,510 --> 01:45:55,520
orbital outpost at 5 32 pm central time

1183
01:45:59,350 --> 01:45:57,520
this evening

1184
01:46:00,790 --> 01:45:59,360
inside the international space station

1185
01:46:01,830 --> 01:46:00,800
now set

1186
01:46:02,950 --> 01:46:01,840
one

1187
01:46:05,350 --> 01:46:02,960
the eighth

1188
01:46:06,470 --> 01:46:05,360

hatch is open and there was no comment

1189
01:46:10,310 --> 01:46:06,480
set

1190
01:46:32,870 --> 01:46:11,750
every copy had hatch open no

1191
01:46:37,590 --> 01:46:35,350
great news now that the apas hatch is

1192
01:46:39,270 --> 01:46:37,600
open we're one step closer to welcoming

1193
01:46:54,229 --> 01:46:39,280
the crew on board the international

1194
01:46:58,390 --> 01:46:56,070
nasa astronaut mark vande high should

1195
01:47:13,510 --> 01:46:58,400
now be able to see his new crewmates

1196
01:47:21,590 --> 01:47:15,669
and you can see their spacesuits in that

1197
01:47:25,590 --> 01:47:23,750
towards the middle of your screen is

1198
01:47:28,070 --> 01:47:25,600
nasa astronaut and commander of

1199
01:47:37,750 --> 01:47:28,080
endurance raja chari first time space

1200
01:47:42,629 --> 01:47:39,990
and to the right of your screen is

1201
01:47:49,750 --> 01:47:42,639
european space agency astronaut matthias

1202
01:47:53,590 --> 01:47:51,669
along with their crewmates kayla baron

1203
01:47:55,750 --> 01:47:53,600
and tom marshburn they're continuing to

1204
01:48:07,510 --> 01:47:55,760
step through procedures ahead of hatch

1205
01:48:12,070 --> 01:48:10,149
and we are in a brief expected handover

1206
01:48:13,109 --> 01:48:12,080
period between our satellites but we'll

1207
01:48:32,310 --> 01:48:13,119
regain

1208
01:48:36,550 --> 01:48:34,790
as those preparations on both sides

1209
01:48:38,550 --> 01:48:36,560
continue the crew 3 astronauts are

1210
01:48:41,109 --> 01:48:38,560
getting things configured on their end

1211
01:48:43,669 --> 01:48:41,119
and will join the three-person crew

1212
01:48:45,750 --> 01:48:43,679
onboard station that's nasa astronaut

1213
01:48:48,310 --> 01:48:45,760

mark vande high as well as rose cosmos

1214
01:48:50,229 --> 01:48:48,320
cosmonauts piotr dubrov and anton

1215
01:48:52,149 --> 01:48:50,239
shkaplerov the current space station

1216
01:48:56,070 --> 01:48:52,159
commander and that will bring the total

1217
01:48:58,149 --> 01:48:56,080
crew members on station to seven

1218
01:49:01,189 --> 01:48:58,159
upon hatch opening we'll see some hugs

1219
01:49:03,750 --> 01:49:01,199
and shared camaraderie and then we'll

1220
01:49:06,629 --> 01:49:03,760
all be really looking forward to seeing

1221
01:49:09,109 --> 01:49:06,639
the welcome ceremony which is slated to

1222
01:49:10,470 --> 01:49:09,119
begin approximately 35 minutes after

1223
01:49:30,629 --> 01:49:10,480
hatch opening

1224
01:49:33,990 --> 01:49:32,470
it looks like nasa astronaut mark vande

1225
01:49:35,990 --> 01:49:34,000
high is

1226
01:49:37,750 --> 01:49:36,000
getting cargo bags ready possibly

1227
01:50:19,990 --> 01:49:37,760
working to get some of that padding

1228
01:50:27,830 --> 01:50:21,830
and endurance i have you

1229
01:50:32,310 --> 01:50:31,030
i are you loud and clear i have some

1230
01:50:41,589 --> 01:50:32,320
inventory notes for you when you're

1231
01:50:41,599 --> 01:50:47,830
and i am ready to copy kayla

1232
01:50:51,669 --> 01:50:50,470
uh we worked on replenishing the daily

1233
01:50:58,950 --> 01:50:51,679
bag

1234
01:51:01,669 --> 01:50:58,960
one one zero

1235
01:51:04,229 --> 01:51:01,679
we also took one large outer bag pack

1236
01:51:13,189 --> 01:51:04,239
from bag one zero eight and moved it to

1237
01:51:22,390 --> 01:51:15,510
okay the disinfectant right from 107 to

1238
01:51:22,400 --> 01:51:44,870

second copy mike

1239
01:51:49,589 --> 01:51:47,669
those words between the ground and nasa

1240
01:51:51,189 --> 01:51:49,599
astronaut kayla baron as they work to

1241
01:51:53,350 --> 01:51:51,199
make sure everything is configured

1242
01:51:56,310 --> 01:51:53,360
properly before hatch opening

1243
01:51:58,310 --> 01:51:56,320
and on your screen now to the left lower

1244
01:51:59,750 --> 01:51:58,320
portion of your screen is rust cosmos

1245
01:52:03,350 --> 01:51:59,760
cosmonaut anton

1246
01:52:05,430 --> 01:52:03,360
anton shkaplerov who is working to

1247
01:52:07,830 --> 01:52:05,440
assist nasa astronaut mark vande high in

1248
01:54:30,790 --> 01:52:07,840
some procedures as they prepare for

1249
01:54:36,390 --> 01:54:33,430
as we continue to move towards a hatch

1250
01:54:38,470 --> 01:54:36,400
opening shortly after 7 pm let's look at

1251
01:54:40,310 --> 01:54:38,480
some of the milestones that nasa

1252
01:54:42,550 --> 01:54:40,320
astronaut mark vanderheist already

1253
01:54:43,750 --> 01:54:42,560
worked through in preparation for hatch

1254
01:54:45,350 --> 01:54:43,760
opening

1255
01:54:47,030 --> 01:54:45,360
mark van dyke completed thermal

1256
01:54:48,790 --> 01:54:47,040
equalization on the vestibule between

1257
01:54:50,550 --> 01:54:48,800
dragon and station

1258
01:54:52,950 --> 01:54:50,560
following this the pressure was brought

1259
01:54:55,350 --> 01:54:52,960
up to about five pounds per square inch

1260
01:54:56,870 --> 01:54:55,360
where a leak check was performed

1261
01:54:58,950 --> 01:54:56,880
everything checked out smoothly with

1262
01:55:00,629 --> 01:54:58,960
that link check so the pressure was

1263
01:55:03,750 --> 01:55:00,639

brought up and equalized to that of the

1264
01:55:06,070 --> 01:55:03,760
pressure inside the space station

1265
01:55:08,629 --> 01:55:06,080
with pressure equalize and after checks

1266
01:55:11,750 --> 01:55:08,639
vanda high was given the go to open the

1267
01:55:13,350 --> 01:55:11,760
station side hatch the a pass hatch

1268
01:55:15,990 --> 01:55:13,360
now that that's open he should be able

1269
01:55:18,070 --> 01:55:16,000
to see the crew inside endurance there's

1270
01:55:20,470 --> 01:55:18,080
a small window on the dragon where he

1271
01:55:22,709 --> 01:55:20,480
can see them from

1272
01:55:24,390 --> 01:55:22,719
his main job now is to be configuring

1273
01:55:26,149 --> 01:55:24,400
the station side hatch which is

1274
01:55:27,109 --> 01:55:26,159
currently configured with a docking

1275
01:55:29,189 --> 01:55:27,119
target

1276
01:55:31,030 --> 01:55:29,199
it's a small rod with an x on the end

1277
01:55:32,550 --> 01:55:31,040
that provided guidance for the dragon

1278
01:55:34,629 --> 01:55:32,560
during its approach

1279
01:55:36,229 --> 01:55:34,639
to dock to the space station

1280
01:55:38,310 --> 01:55:36,239
he'll remove that and provide some

1281
01:55:40,550 --> 01:55:38,320
padding to allow for safe entry for the

1282
01:56:52,470 --> 01:55:40,560
crew 3 astronauts to the international

1283
01:56:57,109 --> 01:56:54,709
as nasa astronaut mark vande high

1284
01:56:58,550 --> 01:56:57,119
continues to configure the hatch for

1285
01:57:00,149 --> 01:56:58,560
hatch opening

1286
01:57:01,510 --> 01:57:00,159
we'll likely see him taking some

1287
01:57:03,750 --> 01:57:01,520
photographs

1288
01:57:05,589 --> 01:57:03,760

part of that is a procedure to survey

1289
01:57:20,229 --> 01:57:05,599
the hatch itself and inspect for any

1290
01:57:20,239 --> 01:57:27,030
and matthias i am ready for inventory

1291
01:57:32,390 --> 01:57:29,910
yes so we have an update on location 11

1292
01:57:37,030 --> 01:57:32,400
and location 12.

1293
01:57:39,589 --> 01:57:37,040
in location 11 in bag 301 we have two

1294
01:57:41,430 --> 01:57:39,599
primary accent lunches

1295
01:57:47,030 --> 01:57:41,440
two utensils

1296
01:57:51,370 --> 01:57:49,430
pack 302

1297
01:57:57,350 --> 01:57:51,380
is empty

1298
01:57:57,360 --> 01:58:00,550
309

1299
01:58:04,830 --> 01:58:02,950
both empty

1300
01:58:08,870 --> 01:58:04,840
back three one

1301
01:58:10,390 --> 01:58:08,880
zero two ascent primary lens

1302
01:58:12,149 --> 01:58:10,400
two breakfast

1303
01:58:18,390 --> 01:58:12,159
and two utensils

1304
01:58:22,790 --> 01:58:20,790
okay with here so i copied that bag 301

1305
01:58:26,629 --> 01:58:22,800
has two lunches two utensils and a bag

1306
01:58:30,229 --> 01:58:26,639
of huggies bag 302 is empty bag 309 and

1307
01:58:32,310 --> 01:58:30,239
311 are empty and in bag 310 you have

1308
01:58:36,709 --> 01:58:32,320
two lunches two breakfasts and two

1309
01:58:36,719 --> 01:58:41,030
that's a great pack thank you

1310
01:58:46,390 --> 01:58:43,109
if you're not content after one when we

1311
01:58:49,189 --> 01:58:47,990
no worries i know that space can get a

1312
01:59:24,870 --> 01:58:49,199
little bit crowded with the suits in

1313
01:59:29,589 --> 01:59:26,870

as a reminder we continue to take your

1314
01:59:31,270 --> 01:59:29,599
ask nasa questions and we'll answer them

1315
01:59:33,350 --> 01:59:31,280
live on air if you have a question for

1316
01:59:35,109 --> 01:59:33,360
us send it our way using the hashtag

1317
01:59:36,870 --> 01:59:35,119
asknasa

1318
01:59:39,270 --> 01:59:36,880
we got a great question asking if you

1319
01:59:40,709 --> 01:59:39,280
can see the international space station

1320
01:59:42,310 --> 01:59:40,719
when you look up

1321
01:59:44,950 --> 01:59:42,320
you can in fact see the international

1322
01:59:47,470 --> 01:59:44,960
space station when you look up if you

1323
01:59:49,189 --> 01:59:47,480
check out the website

1324
01:59:50,790 --> 01:59:49,199
spottthestation.nasa.gov you can enter

1325
01:59:52,870 --> 01:59:50,800
in your location and see when the

1326
01:59:54,070 --> 01:59:52,880
international space station is flying

1327
01:59:56,070 --> 01:59:54,080
over you

1328
01:59:57,910 --> 01:59:56,080
it's pretty neat to see it fly overhead

1329
02:00:19,109 --> 01:59:57,920
and i recommend checking it out if you

1330
02:00:22,629 --> 02:00:21,270
hey dragon we're showing an hour on our

1331
02:00:25,030 --> 02:00:22,639
suitcase so we're starting to get the

1332
02:00:32,709 --> 02:00:25,040
bags out and work on stowing the suits

1333
02:01:34,470 --> 02:00:34,950
and copy that dragon i'm with you in 5

1334
02:01:37,910 --> 02:01:36,149
again if you're just now joining us

1335
02:01:39,750 --> 02:01:37,920
you're watching the live broadcast of

1336
02:01:43,350 --> 02:01:39,760
the crew 3 mission which launched

1337
02:01:45,830 --> 02:01:43,360
yesterday at 803 pm central time

1338
02:01:48,629 --> 02:01:45,840

from the kennedy space center in florida

1339
02:01:51,430 --> 02:01:48,639
and docked just a couple hours ago at 5

1340
02:01:53,350 --> 02:01:51,440
32 pm central time

1341
02:01:56,470 --> 02:01:53,360
now we're just waiting for the hatch to

1342
02:01:58,950 --> 02:01:56,480
open up between the endurance spacecraft

1343
02:02:05,350 --> 02:01:58,960
and the international space station

1344
02:02:10,709 --> 02:02:07,830
following that we'll have a welcoming

1345
02:02:11,910 --> 02:02:10,719
ceremony about 35 minutes after hatch

1346
02:03:41,030 --> 02:02:11,920
opening

1347
02:03:44,229 --> 02:03:42,470
and endurance on the big loop the

1348
02:03:49,510 --> 02:03:44,239
station is ready for dragon hatch

1349
02:03:49,520 --> 02:04:09,589
he is

1350
02:04:36,229 --> 02:04:11,750
endurance station on the big loop did

1351
02:04:39,430 --> 02:04:37,270
and uh

1352
02:04:41,430 --> 02:04:39,440
station and endurance standby for

1353
02:05:01,990 --> 02:04:41,440
equalization we expect it to take about

1354
02:05:06,950 --> 02:05:04,830
and the equalization process has

1355
02:05:09,030 --> 02:05:06,960
started station maybe a little more

1356
02:05:10,629 --> 02:05:09,040
detail on that timing so we're

1357
02:05:12,229 --> 02:05:10,639
reconfiguring some caution warning

1358
02:05:14,229 --> 02:05:12,239
that's going to take about five minutes

1359
02:05:15,990 --> 02:05:14,239
then we'll start the equalization and

1360
02:05:22,709 --> 02:05:16,000
that will take three so we're about

1361
02:05:22,719 --> 02:05:33,350
station copies

1362
02:05:37,030 --> 02:05:35,270
and those words stating that it will

1363
02:06:56,550 --> 02:05:37,040

take about eight minutes for that

1364
02:07:01,270 --> 02:06:59,030
preparations continue to go smoothly on

1365
02:07:03,350 --> 02:07:01,280
both the endurance side as well as the

1366
02:07:24,470 --> 02:07:03,360
international space station side for

1367
02:07:30,149 --> 02:07:27,510
once the hatch is open the crew members

1368
02:07:32,229 --> 02:07:30,159
inside endurance won't immediately

1369
02:07:33,589 --> 02:07:32,239
ingress or come aboard the space station

1370
02:07:53,270 --> 02:07:33,599
they'll have to work through a couple

1371
02:07:57,030 --> 02:07:55,189
latex endurance on dragon to ground

1372
02:08:02,390 --> 02:07:57,040
we're complete with six staff correction

1373
02:08:02,400 --> 02:08:10,310
and carpet russia we see the same

1374
02:08:14,550 --> 02:08:12,470
for water bottles we haven't uh opened

1375
02:08:15,669 --> 02:08:14,560
any new bags other than ones we reported

1376
02:08:17,589 --> 02:08:15,679
before we're just currently

1377
02:08:20,310 --> 02:08:17,599
consolidating the empty stick and the

1378
02:09:50,310 --> 02:08:22,470
and copy that no deltas to the previous

1379
02:09:55,030 --> 02:09:52,870
and spacex endurance can you go external

1380
02:09:56,470 --> 02:09:55,040
with the cameras for about uh

1381
02:09:57,830 --> 02:09:56,480
well just totally let you know where

1382
02:10:00,310 --> 02:09:57,840
it's gonna make sure the weight system

1383
02:10:02,149 --> 02:10:00,320
is ready before we shut it down

1384
02:10:03,430 --> 02:10:02,159
and copy that endurance we're with you

1385
02:10:26,870 --> 02:10:03,440
in section five we'll let you know when

1386
02:10:26,880 --> 02:11:59,990
cameras are external

1387
02:12:04,229 --> 02:12:02,069
if you're just joining us this evening

1388
02:12:05,750 --> 02:12:04,239

the crew 3 astronauts have successfully

1389
02:12:06,709 --> 02:12:05,760
docked to the international space

1390
02:12:09,350 --> 02:12:06,719
station

1391
02:12:12,310 --> 02:12:09,360
after launching at 803 pm central time

1392
02:12:14,069 --> 02:12:12,320
from launch pad 39a at nasa's kennedy

1393
02:12:16,870 --> 02:12:14,079
space center in florida

1394
02:12:19,350 --> 02:12:16,880
the crew of rajachary kayla baron tom

1395
02:12:22,229 --> 02:12:19,360
marshburn and european space agency

1396
02:12:24,069 --> 02:12:22,239
astronaut matthias maurer successfully

1397
02:12:27,109 --> 02:12:24,079
docked to the international space

1398
02:12:30,310 --> 02:12:27,119
station at 5 32 pm central time this

1399
02:12:35,510 --> 02:12:32,870
at this hour we are awaiting the hatch

1400
02:12:37,589 --> 02:12:35,520
to open so that those four crew members

1401
02:12:39,350 --> 02:12:37,599
can join the other three crew members

1402
02:12:41,430 --> 02:12:39,360
currently on board the international

1403
02:12:43,830 --> 02:12:41,440
space station which includes nasa

1404
02:12:47,109 --> 02:12:43,840
astronaut mark vande high and ross

1405
02:12:49,669 --> 02:12:47,119
cosmos cosmonaut cosmonauts piotr dubrov

1406
02:12:55,270 --> 02:12:49,679
and anton shkaplerov who is the current

1407
02:13:00,870 --> 02:12:58,149
about 35 minutes after hatch opening

1408
02:13:04,709 --> 02:13:00,880
we'll have a welcome ceremony where all

1409
02:13:07,750 --> 02:13:04,719
seven of the expedition 66 crewmates

1410
02:13:13,350 --> 02:13:07,760
will be able to hug and welcome their

1411
02:13:17,910 --> 02:13:15,430
additionally we'll hear some comments

1412
02:15:47,350 --> 02:13:17,920
and welcome wishes from leaders from

1413
02:15:51,350 --> 02:15:49,589

as a reminder we are taking your ask

1414
02:15:52,870 --> 02:15:51,360
nasa questions all throughout the

1415
02:15:55,109 --> 02:15:52,880
broadcast this evening if you have a

1416
02:15:59,189 --> 02:15:55,119
question for us send it our way using

1417
02:16:03,589 --> 02:16:01,350
we've received a question asking what

1418
02:16:05,990 --> 02:16:03,599
are the objectives for the dragon crew

1419
02:16:08,629 --> 02:16:06,000
during the next six months well this is

1420
02:16:11,109 --> 02:16:08,639
a very good question and over the last

1421
02:16:14,629 --> 02:16:11,119
21 years crews aboard the space station

1422
02:16:17,430 --> 02:16:14,639
have completed over 3 000 scientific and

1423
02:16:20,069 --> 02:16:17,440
educational experiments and crew 3 is

1424
02:16:22,950 --> 02:16:20,079
prepared to add to that growing number

1425
02:16:24,470 --> 02:16:22,960
once crew 3 arrives to the space station

1426
02:16:27,109 --> 02:16:24,480
they'll spend the next six months

1427
02:16:28,950 --> 02:16:27,119
working in our orbital laboratory

1428
02:16:30,950 --> 02:16:28,960
and having more crew members on board

1429
02:16:33,669 --> 02:16:30,960
significantly expands the amount of

1430
02:16:35,349 --> 02:16:33,679
research that can be conducted

1431
02:16:37,509 --> 02:16:35,359
not only will the crew be contributing

1432
02:16:39,669 --> 02:16:37,519
to hundreds of experiments they'll also

1433
02:16:41,509 --> 02:16:39,679
be bringing some with them on the crew

1434
02:16:44,070 --> 02:16:41,519
dragon which is now successfully docked

1435
02:16:45,910 --> 02:16:44,080
to the international space station

1436
02:16:47,669 --> 02:16:45,920
one of those is the food physiology

1437
02:16:49,990 --> 02:16:47,679
investigation which documents if the

1438
02:16:52,629 --> 02:16:50,000

effects of dietary improvements will

1439
02:16:55,110 --> 02:16:52,639
also improve immune function and the gut

1440
02:17:01,190 --> 02:16:55,120
microbiome and if those improvements can

1441
02:17:04,950 --> 02:17:02,870
an enhanced understanding of food's

1442
02:17:07,030 --> 02:17:04,960
effects on physiology in microgravity

1443
02:17:13,589 --> 02:17:07,040
can help scientists continue to improve

1444
02:17:15,830 --> 02:17:15,030
additionally

1445
02:17:18,389 --> 02:17:15,840
in

1446
02:17:20,309 --> 02:17:18,399
addition to hardware to support new

1447
02:17:22,629 --> 02:17:20,319
science onboard station crew dragon is

1448
02:17:25,349 --> 02:17:22,639
carrying more than 400 pounds of nasa

1449
02:17:27,270 --> 02:17:25,359
cargo this includes crew supplies space

1450
02:17:51,190 --> 02:17:27,280
walking equipment and equipment for

1451
02:17:54,389 --> 02:17:53,030
spacex endurance on the big loop how did

1452
02:17:58,309 --> 02:17:54,399
you hear we weren't getting a response

1453
02:18:01,270 --> 02:18:00,230
and that is expected as we are just

1454
02:18:02,790 --> 02:18:01,280
getting through some of the steps to

1455
02:18:11,830 --> 02:18:02,800
deactivate s-pen but we have you loud

1456
02:18:14,309 --> 02:18:13,030
you're welcome to come back internal and

1457
02:18:15,669 --> 02:18:14,319
just let us know when you're ready for

1458
02:18:37,669 --> 02:18:15,679
uh dragging the ground we can give you

1459
02:18:42,389 --> 02:18:40,070
another experiment flying aboard crew 3

1460
02:18:44,309 --> 02:18:42,399
is the smartphone video guidance system

1461
02:18:46,230 --> 02:18:44,319
or svgs

1462
02:18:48,389 --> 02:18:46,240
this was created as a collaboration

1463
02:18:50,469 --> 02:18:48,399

between nasa's marshall space flight

1464
02:18:52,469 --> 02:18:50,479
center in huntsville alabama and the

1465
02:18:54,150 --> 02:18:52,479
florida institute of technology in

1466
02:18:56,389 --> 02:18:54,160
melbourne

1467
02:19:00,549 --> 02:18:56,399
svgs is a low-cost commercial

1468
02:19:04,549 --> 02:19:02,790
and dragon this is spacex on the big

1469
02:19:06,870 --> 02:19:04,559
loop

1470
02:19:08,790 --> 02:19:06,880
the s-band has been deconfigured on

1471
02:19:11,589 --> 02:19:08,800
dragon so we can continue our calls here

1472
02:19:15,030 --> 02:19:11,599
on the big loop for the inventory

1473
02:19:16,950 --> 02:19:15,040
i'm with you with uh section 3 of 4.400

1474
02:19:46,709 --> 02:19:16,960
and that section 5 has been completed in

1475
02:19:51,270 --> 02:19:49,030
again svgs is a low-cost commercial

1476
02:19:53,030 --> 02:19:51,280
off-the-shelf implementation of advanced

1477
02:19:55,510 --> 02:19:53,040
sensors designed for automated

1478
02:19:58,230 --> 02:19:55,520
rendezvous and capture of spacecraft

1479
02:20:01,590 --> 02:19:58,240
spacex endurance for location 10 bags

1480
02:20:05,110 --> 02:20:01,600
206 and 207 are completely empty we're

1481
02:20:07,670 --> 02:20:05,120
complete with 5.1 of 4.400 and we're

1482
02:20:12,550 --> 02:20:07,680
working on location 9 water inventory

1483
02:20:17,990 --> 02:20:15,190
copy 206 and 207 empty

1484
02:20:20,150 --> 02:20:18,000
through in the all the steps in

1485
02:20:32,309 --> 02:20:20,160
4.400 and then working through the

1486
02:20:35,990 --> 02:20:34,389
to learn more about these and thousands

1487
02:20:38,150 --> 02:20:36,000
of research projects that have taken

1488
02:20:39,510 --> 02:20:38,160

place aboard the space station go to

1489
02:21:30,150 --> 02:20:39,520
nasa.gov

1490
02:21:35,750 --> 02:21:32,630
and on the big loop endurance for uh

1491
02:21:45,429 --> 02:21:35,760
spacex out of location 9 bags 202 and

1492
02:21:45,439 --> 02:21:59,910
and copy that raja 202 and 203 are empty

1493
02:22:04,469 --> 02:22:01,990
we will uh button up the panels here and

1494
02:22:35,429 --> 02:22:04,479
we show ourselves uh right then for

1495
02:22:38,710 --> 02:22:37,030
and endurance this is spacex on the big

1496
02:22:42,389 --> 02:22:38,720
loop you can follow along with us in

1497
02:22:49,670 --> 02:22:42,399
step 6.2 or 4.400 as we configure dragon

1498
02:24:45,110 --> 02:22:52,309
we were flying along on six central

1499
02:25:15,830 --> 02:24:48,230
preparations continue

1500
02:25:21,590 --> 02:25:18,630
endurance spacex on the big loop you

1501
02:25:23,750 --> 02:25:21,600
have a go for hatch opening per the

1502
02:25:26,309 --> 02:25:23,760
decal followed by the remaining actions

1503
02:25:30,630 --> 02:25:26,319
in procedure four decimal four zero zero

1504
02:25:34,389 --> 02:25:32,230
well big loop and there is copies go for

1505
02:25:38,389 --> 02:25:34,399
hatchimals and the remainder of section

1506
02:25:52,389 --> 02:25:40,150
good read back we're monitoring here on

1507
02:25:59,429 --> 02:25:54,630
and great news with that go for hatch

1508
02:26:03,270 --> 02:26:01,510
we should be seeing the crew float

1509
02:26:07,429 --> 02:26:03,280
aboard the international space station

1510
02:26:32,389 --> 02:26:09,030
we're working to open up the hatch on

1511
02:26:32,399 --> 02:26:40,389
copy we see the same

1512
02:26:40,399 --> 02:26:47,750
dragon hatch is now open

1513
02:27:02,150 --> 02:26:49,830

and we can start to see

1514
02:27:06,950 --> 02:27:03,910
that hatch that we've been waiting for

1515
02:27:08,389 --> 02:27:06,960
to open since 5 32 pm central time is

1516
02:27:10,710 --> 02:27:08,399
now open

1517
02:27:19,110 --> 02:27:10,720
hatch opening taking place just a couple

1518
02:27:22,389 --> 02:27:20,950
the hatch is open but the crew 3

1519
02:27:23,910 --> 02:27:22,399
astronauts will need to work through a

1520
02:27:25,270 --> 02:27:23,920
few more steps

1521
02:27:28,950 --> 02:27:25,280
before they can

1522
02:27:31,110 --> 02:27:28,960
ingress the international space

1523
02:27:47,270 --> 02:27:31,120
at 400 station the big loop ready for

1524
02:28:00,469 --> 02:27:50,389
that hatch opening occurring at 7 25 pm

1525
02:28:17,910 --> 02:28:02,790
and endurance this is spacex on the big

1526
02:28:22,389 --> 02:28:19,670
and first through the hatch is going to

1527
02:28:23,270 --> 02:28:22,399
be nasa astronaut kayla baron some hugs

1528
02:28:24,870 --> 02:28:23,280
there

1529
02:28:27,349 --> 02:28:24,880
and you can hear the claps inside

1530
02:28:29,429 --> 02:28:27,359
mission control

1531
02:28:42,870 --> 02:28:29,439
next up is european space agency

1532
02:28:53,990 --> 02:28:45,349
and now we have nasa astronaut tom

1533
02:28:54,000 --> 02:29:08,630
and nasa astronaut raja chary

1534
02:29:08,640 --> 02:29:17,910
lots of hugs and smiles here

1535
02:29:36,550 --> 02:29:20,150
seven crew members now a part of

1536
02:29:40,389 --> 02:29:38,389
and you can really see and feel the

1537
02:29:41,429 --> 02:29:40,399
excitement by the looks on the crew's

1538
02:29:42,790 --> 02:29:41,439

faces

1539
02:29:59,270 --> 02:29:42,800
looks like they're posing for some

1540
02:30:27,590 --> 02:30:01,030
welcome to station crew 3 you guys look

1541
02:30:32,550 --> 02:30:29,670
and if you're just now joining us the

1542
02:30:34,790 --> 02:30:32,560
crew 3 astronauts have successfully

1543
02:30:37,110 --> 02:30:34,800
docked and entered aboard the

1544
02:30:40,309 --> 02:30:37,120
international space station they

1545
02:30:41,349 --> 02:30:40,319
launched yesterday at 8 03 pm central

1546
02:30:43,030 --> 02:30:41,359
time

1547
02:30:45,270 --> 02:30:43,040
and completed a

1548
02:30:47,429 --> 02:30:45,280
22-hour launch to docking to the

1549
02:30:50,230 --> 02:30:47,439
international space station docking

1550
02:30:52,710 --> 02:30:50,240
occurred this evening at 5 32 pm central

1551
02:31:00,309 --> 02:30:52,720
time and the hatch was opened just a few

1552
02:31:05,990 --> 02:31:03,750
nasa astronaut raja chari kayla baron

1553
02:31:09,270 --> 02:31:06,000
and tom marshburn as well as european

1554
02:31:10,790 --> 02:31:09,280
space agency astronaut matthias maurer

1555
02:31:12,870 --> 02:31:10,800
have now successfully reached the

1556
02:31:14,790 --> 02:31:12,880
international space station and we see a

1557
02:31:17,270 --> 02:31:14,800
pretty special moment happening right

1558
02:31:19,830 --> 02:31:17,280
now for caleb baron first time space

1559
02:31:47,110 --> 02:31:19,840
flier as she's being pinned as an

1560
02:31:51,830 --> 02:31:49,349
next up is european space agency

1561
02:31:54,469 --> 02:31:51,840
astronaut tom marshburn also a

1562
02:31:57,110 --> 02:31:54,479
first-time flyer

1563
02:31:59,349 --> 02:31:57,120

excuse me that is nasa that is european

1564
02:32:01,030 --> 02:31:59,359
space agency astronaut matthias maurer

1565
02:32:15,190 --> 02:32:01,040
being pinned by

1566
02:32:34,070 --> 02:32:17,830
lots of smiles and thumbs up an exciting

1567
02:32:39,670 --> 02:32:36,469
and the third first time

1568
02:32:42,230 --> 02:32:39,680
space flyer commander of the spacex

1569
02:33:12,309 --> 02:32:42,240
endurance vehicle rajachary

1570
02:33:18,950 --> 02:33:13,910
station on two checking for the timing

1571
02:34:36,150 --> 02:33:20,630
just about to hand over mark i'll catch

1572
02:34:40,150 --> 02:34:38,309
and we're in a brief expected handover

1573
02:34:43,030 --> 02:34:40,160
between our satellites but we'll regain

1574
02:34:45,510 --> 02:34:43,040
communications here shortly

1575
02:34:47,030 --> 02:34:45,520
crew 3 has successfully arrived to the

1576
02:34:50,230 --> 02:34:47,040
international space station after

1577
02:34:53,190 --> 02:34:50,240
docking at 5 32 pm central time and

1578
02:34:58,550 --> 02:34:53,200
floated inside the space station at 7 25

1579
02:35:01,590 --> 02:35:00,389
jason houston on two other side of that

1580
02:35:03,910 --> 02:35:01,600
handover looks like we're going to

1581
02:35:06,309 --> 02:35:03,920
target top of the hour for the pao event

1582
02:35:08,070 --> 02:35:06,319
top of the hour and for mark uh we'll go

1583
02:35:13,990 --> 02:35:08,080
for the scene and voice check at your

1584
02:35:18,230 --> 02:35:16,469
okay i'll call you back i'm copy ko that

1585
02:35:20,710 --> 02:35:18,240
about 26 minutes and i'll do the scene

1586
02:35:35,429 --> 02:35:20,720
and voice check shortly

1587
02:35:54,070 --> 02:35:38,070
and endurance crew comp check with uh

1588
02:35:59,750 --> 02:35:57,830

spacex has you loud and clear on you

1589
02:36:01,349 --> 02:35:59,760
hey rajwa i just want to say that uh

1590
02:36:02,790 --> 02:36:01,359
everyone here was clapping pretty hard

1591
02:36:04,389 --> 02:36:02,800
as soon as we saw everybody cross the

1592
02:36:07,270 --> 02:36:04,399
threshold there a lot of smiles on our

1593
02:36:09,990 --> 02:36:07,280
faces but we do have a few more steps in

1594
02:36:11,910 --> 02:36:10,000
procedure 2.102 if you're

1595
02:36:14,150 --> 02:36:11,920
able to do that

1596
02:36:15,910 --> 02:36:14,160
jump back into section six our our main

1597
02:36:18,150 --> 02:36:15,920
one is going to be uh sealing up that

1598
02:36:20,790 --> 02:36:18,160
biocube in section

1599
02:36:20,800 --> 02:36:26,550
in that 2.102.

1600
02:36:39,110 --> 02:36:28,790
yeah 2. we'll jump into section 6 and

1601
02:36:41,510 --> 02:36:40,309
and just for awareness we're just

1602
02:36:43,110 --> 02:36:41,520
looking to get that one done before the

1603
02:37:05,030 --> 02:36:43,120
pao event before we hop back in at the

1604
02:37:10,550 --> 02:37:07,429
we're now targeting a welcome ceremony

1605
02:38:17,270 --> 02:37:10,560
to begin at 8 pm central time this

1606
02:38:21,270 --> 02:38:19,190
if you're just joining us this evening

1607
02:38:23,110 --> 02:38:21,280
the crew 3 astronauts have not only

1608
02:38:25,590 --> 02:38:23,120
successfully docked to the international

1609
02:38:27,910 --> 02:38:25,600
space station after launching at 803 pm

1610
02:38:31,110 --> 02:38:27,920
central time yesterday from launch pad

1611
02:38:33,030 --> 02:38:31,120
39a at nace at nasa's kennedy space

1612
02:38:34,389 --> 02:38:33,040
center in florida but they've also

1613
02:38:36,790 --> 02:38:34,399

floated through

1614
02:38:40,230 --> 02:38:36,800
installation complete go for imv fan

1615
02:38:40,240 --> 02:38:47,510
houston copies thanks caleb

1616
02:38:52,950 --> 02:38:49,670
crew 3 successfully floated through the

1617
02:39:00,630 --> 02:38:52,960
space station hatch at 7 25 pm central

1618
02:39:06,790 --> 02:39:04,630
following a doc at 5 30 to p 5 32 p.m

1619
02:39:09,030 --> 02:39:06,800
central time

1620
02:39:12,150 --> 02:39:09,040
at this time we're waiting on a

1621
02:39:14,309 --> 02:39:12,160
welcoming ceremony to begin at 8 00 pm

1622
02:39:16,070 --> 02:39:14,319
central time

1623
02:39:18,309 --> 02:39:16,080
the crew on board the international

1624
02:39:19,990 --> 02:39:18,319
space station is going to complete a

1625
02:39:22,710 --> 02:39:20,000
scene and voice check to make sure

1626
02:39:24,790 --> 02:39:22,720
everything checks out on the ground

1627
02:39:39,190 --> 02:39:24,800
before the welcoming ceremony takes

1628
02:39:47,429 --> 02:39:40,710
and houston there's just waiting on your

1629
02:39:47,439 --> 02:41:25,750
wait copy it's down by one

1630
02:41:31,110 --> 02:41:27,670
station i'm ready for the senior horse

1631
02:41:34,710 --> 02:41:33,190
copy mark we're ready for the voice and

1632
02:41:36,389 --> 02:41:34,720
uh for the scene it looks like we're

1633
02:41:37,429 --> 02:41:36,399
going to zoom out just a little bit

1634
02:41:39,110 --> 02:41:37,439
please

1635
02:41:50,469 --> 02:41:39,120
zoom out a touch so we can get seven

1636
02:41:54,790 --> 02:41:52,469
and endurance this is houston on the big

1637
02:42:03,349 --> 02:41:54,800
loop by raja you go for

1638
02:42:06,870 --> 02:42:05,269

we copy we're going to open location 23

1639
02:42:12,469 --> 02:42:06,880
in the first

1640
02:42:16,389 --> 02:42:14,790
and then houston for mark

1641
02:42:34,950 --> 02:42:16,399
we're back with you and ready for the

1642
02:42:38,830 --> 02:42:37,670
uh this is the voice check one

1643
02:42:41,429 --> 02:42:38,840
two

1644
02:42:42,710 --> 02:42:41,439
three 4

1645
02:42:43,990 --> 02:42:42,720
5

1646
02:42:45,349 --> 02:42:44,000
6

1647
02:42:46,710 --> 02:42:45,359
7

1648
02:42:47,910 --> 02:42:46,720
8

1649
02:42:57,030 --> 02:42:47,920
9

1650
02:43:02,469 --> 02:42:59,830
and station for mark that good scene

1651
02:43:09,910 --> 02:43:02,479
good voice we're all set ready to go and

1652
02:43:09,920 --> 02:43:22,230
copy thumbs up

1653
02:43:25,429 --> 02:43:24,630
and we had a successful scene and voice

1654
02:43:27,269 --> 02:43:25,439
check

1655
02:43:30,230 --> 02:43:27,279
we're still targeting the welcoming

1656
02:43:58,389 --> 02:43:30,240
ceremony to begin at 8 pm central time

1657
02:44:03,110 --> 02:44:00,710
on your screen you can see in the bottom

1658
02:44:05,590 --> 02:44:03,120
right is nasa astronaut mark vanda high

1659
02:44:07,269 --> 02:44:05,600
he did a lot of preparations ahead of

1660
02:44:09,510 --> 02:44:07,279
hatch opening

1661
02:44:13,190 --> 02:44:09,520
to the left of him is

1662
02:44:16,790 --> 02:44:13,200
roscosmos cosmonaut piotr dubrov as well

1663
02:44:18,389 --> 02:44:16,800

as european space agency astronaut and

1664
02:44:19,910 --> 02:44:18,399
member of crew 3

1665
02:44:23,110 --> 02:44:19,920
who just arrived to the international

1666
02:44:25,110 --> 02:44:23,120
space station tom marshburn this is

1667
02:44:28,389 --> 02:44:25,120
excuse me matthias maurer this is his

1668
02:44:29,190 --> 02:44:28,399
first time in space and to the right of

1669
02:44:31,030 --> 02:44:29,200
him

1670
02:44:34,550 --> 02:44:31,040
is the current space station commander

1671
02:44:38,790 --> 02:44:34,560
rose cosmos cosmonaut anton shkaplerov

1672
02:44:38,800 --> 02:45:02,150
capital

1673
02:45:08,469 --> 02:45:05,269
decent station on two concerning uh t2

1674
02:45:08,479 --> 02:45:12,830
go ahead and

1675
02:45:18,790 --> 02:45:17,190
do i put the uh harnesses for the crew

1676
02:45:20,950 --> 02:45:18,800
three folks

1677
02:45:23,110 --> 02:45:20,960
next to t2 this morning except i did not

1678
02:45:28,389 --> 02:45:23,120
find the harness for marshburn is there

1679
02:45:31,910 --> 02:45:29,750
and we're checking on that now i'm not

1680
02:45:39,670 --> 02:45:31,920
sure we're going to have an answer

1681
02:45:43,670 --> 02:45:41,269
we got plenty of time just got to have

1682
02:46:19,830 --> 02:45:43,680
it before his first t2 session

1683
02:46:30,710 --> 02:46:23,030
we're now just 15 minutes away from a

1684
02:46:34,469 --> 02:46:33,349
on your screen you see veteran

1685
02:46:36,950 --> 02:46:34,479
astronaut

1686
02:46:39,429 --> 02:46:36,960
tom marshburn floating back through the

1687
02:46:40,870 --> 02:46:39,439
hatch from the endurance vehicle which

1688
02:46:43,110 --> 02:46:40,880

docked to the international space

1689
02:46:48,309 --> 02:46:43,120
station at 5 30 pm

1690
02:47:01,030 --> 02:46:49,830
and there's a view of it docked to the

1691
02:47:06,150 --> 02:47:03,750
the crew on board is working on some

1692
02:47:07,670 --> 02:47:06,160
final procedures to get everything

1693
02:47:09,990 --> 02:47:07,680
squared away before the welcoming

1694
02:49:32,790 --> 02:47:10,000
ceremony begins at 8pm central time this

1695
02:49:37,269 --> 02:49:34,950
we're about 12 minutes out from our

1696
02:49:39,750 --> 02:49:37,279
welcome ceremony to begin

1697
02:49:41,670 --> 02:49:39,760
if you do have any more ask and ask

1698
02:49:43,110 --> 02:49:41,680
questions be sure to send them our way

1699
02:50:19,750 --> 02:49:43,120
and we'll answer them before the

1700
02:50:23,990 --> 02:50:21,750
and if you are just joining us the crew

1701
02:50:26,150 --> 02:50:24,000
3 astronauts have successfully docked

1702
02:50:28,389 --> 02:50:26,160
the international space station after

1703
02:50:31,269 --> 02:50:28,399
launching at 803 pm central time

1704
02:50:33,349 --> 02:50:31,279
yesterday from launch pad 39a at nasa's

1705
02:50:35,750 --> 02:50:33,359
kennedy space center in florida

1706
02:50:38,070 --> 02:50:35,760
the crew of rajachary kayla baron tom

1707
02:50:40,469 --> 02:50:38,080
marshburn and european space agency

1708
02:50:43,590 --> 02:50:40,479
astronaut matthias maurer docked to the

1709
02:50:44,870 --> 02:50:43,600
orbital outpost at 5 32 pm central time

1710
02:50:47,030 --> 02:50:44,880
this evening

1711
02:50:48,070 --> 02:50:47,040
and following docking they floated

1712
02:50:50,710 --> 02:50:48,080
aboard

1713
02:50:53,190 --> 02:50:50,720

at 7 25 p.m central time officially

1714
02:50:56,469 --> 02:50:53,200
welcoming them as members of the

1715
02:50:58,309 --> 02:50:56,479
expedition 66 crew there's now seven

1716
02:50:59,910 --> 02:50:58,319
human beings living and working aboard

1717
02:51:02,389 --> 02:50:59,920
the international space station

1718
02:51:04,389 --> 02:51:02,399
including the four crew three astronauts

1719
02:51:06,710 --> 02:51:04,399
as well as nasa astronaut mark vande

1720
02:51:09,750 --> 02:51:06,720
high and rose cosmos cosmonauts p.o to

1721
02:54:17,510 --> 02:51:09,760
dubrov and anton shkaplerov who is the

1722
02:54:21,990 --> 02:54:19,910
and as a reminder we are taking your ask

1723
02:54:24,309 --> 02:54:22,000
nasa question so if you have one send it

1724
02:54:27,030 --> 02:54:24,319
our way we're just a few minutes away

1725
02:54:29,510 --> 02:54:27,040
from the hatch the welcoming ceremony to

1726
02:54:31,910 --> 02:54:29,520
begin at 8pm central time but we did get

1727
02:54:34,870 --> 02:54:31,920
a question about the zero g indicator

1728
02:54:35,670 --> 02:54:34,880
for endurance asking what the name of

1729
02:54:40,550 --> 02:54:35,680
the

1730
02:54:42,870 --> 02:54:40,560
indicator was it's become a tradition

1731
02:54:45,990 --> 02:54:42,880
for crew dragon vehicles and the crew

1732
02:54:47,429 --> 02:54:46,000
members to select a zero g indicator

1733
02:54:50,389 --> 02:54:47,439
for this

1734
02:54:53,670 --> 02:54:50,399
vehicle the crew 3 astronauts selected a

1735
02:54:55,910 --> 02:54:53,680
turtle as their zero g indicator which

1736
02:54:59,030 --> 02:54:55,920
they named fou which is german for

1737
02:55:01,590 --> 02:54:59,040
peacock that pays tribute to european

1738
02:55:03,830 --> 02:55:01,600

space agency astronaut matthias maurer

1739
02:55:07,110 --> 02:55:03,840
who is from germany as well as pays

1740
02:55:08,710 --> 02:55:07,120
tribute to the turtle class

1741
02:55:14,630 --> 02:55:08,720
at your convenience i have an answer on

1742
02:55:14,640 --> 02:55:18,870
go ahead on two

1743
02:55:22,070 --> 02:55:20,630
i'll get in uh

1744
02:55:23,349 --> 02:55:22,080
five seconds

1745
02:55:28,870 --> 02:55:23,359
20 seconds on the other side of the

1746
02:55:33,110 --> 02:55:31,190
and while there's a brief handover that

1747
02:55:35,269 --> 02:55:33,120
pays tribute to the turtle class each

1748
02:55:37,990 --> 02:55:35,279
astronaut class has a nickname from the

1749
02:55:39,830 --> 02:55:38,000
class above them this class has several

1750
02:55:42,389 --> 02:55:39,840
turtles flying on board the space

1751
02:55:44,950 --> 02:55:42,399
station so the zero g indicator is a

1752
02:56:10,830 --> 02:55:44,960
turtle named fou which is the german

1753
02:56:16,309 --> 02:56:13,510
okay and

1754
02:56:18,790 --> 02:56:16,319
station his time to uh mark we found an

1755
02:56:20,630 --> 02:56:18,800
answer his harness flew up on crew 3

1756
02:56:23,349 --> 02:56:20,640
it's in dragon it's going to be unpacked

1757
02:56:25,990 --> 02:56:23,359
on saturday um but if you need it before

1758
02:56:31,269 --> 02:56:26,000
that you could grab it it's step five in

1759
02:56:31,279 --> 02:56:54,230
okay thanks much

1760
02:56:58,469 --> 02:56:56,230
and we're just about five minutes away

1761
02:57:01,429 --> 02:56:58,479
from our welcoming ceremony where we'll

1762
02:57:03,110 --> 02:57:01,439
hear some remarks from nasa leadership

1763
02:57:05,750 --> 02:57:03,120

as well as the leadership from the

1764
02:57:08,070 --> 02:57:05,760
european space agency

1765
02:57:10,630 --> 02:57:08,080
still tracking a start time for the

1766
02:57:22,309 --> 02:57:10,640
welcoming ceremony at 8 pm central time

1767
02:57:26,469 --> 02:57:24,870
and station houston too no reply needed

1768
03:00:06,790 --> 02:57:26,479
but we're four minutes four minutes out

1769
03:00:11,030 --> 03:00:09,110
great shot of the crew four astronauts

1770
03:00:13,429 --> 03:00:11,040
there as they prepare for the welcoming

1771
03:00:40,550 --> 03:00:13,439
ceremony slated to begin just about a

1772
03:00:45,030 --> 03:00:42,630
from left to right of your crew 3

1773
03:00:47,590 --> 03:00:45,040
astronauts are nasa astronaut tom

1774
03:00:50,150 --> 03:00:47,600
marshburn nasa astronaut kayla barron

1775
03:00:54,070 --> 03:00:50,160
nasa astronaut raj achary and european

1776
03:00:55,990 --> 03:00:54,080
space agency astronaut matthias maurer

1777
03:01:14,230 --> 03:00:56,000
floating into the frame now is nasa

1778
03:01:26,230 --> 03:01:15,910
station this is houston are you ready

1779
03:01:29,110 --> 03:01:27,910
we are not quite ready for the event

1780
03:01:32,550 --> 03:01:29,120
we've got to get the space station

1781
03:01:32,560 --> 03:02:25,670
no problem standing by

1782
03:02:30,950 --> 03:02:27,750
houston this is station we are ready for

1783
03:02:35,110 --> 03:02:33,510
we copy station associate administrator

1784
03:02:36,790 --> 03:02:35,120
kathy leaders please call the

1785
03:02:38,870 --> 03:02:36,800
international space station for a voice

1786
03:02:44,230 --> 03:02:38,880
check

1787
03:02:47,750 --> 03:02:45,910
yes ma'am we can definitely hear you

1788
03:02:55,750 --> 03:02:47,760

greetings

1789
03:02:55,760 --> 03:03:00,309
are you ready to go

1790
03:03:02,710 --> 03:03:01,510
let's do it i'm not sure if we're

1791
03:03:05,110 --> 03:03:02,720
supposed to start talking first or

1792
03:03:06,710 --> 03:03:05,120
you're going to talk first okay

1793
03:03:08,230 --> 03:03:06,720
i'll get started and then you guys can

1794
03:03:10,710 --> 03:03:08,240
follow

1795
03:03:12,469 --> 03:03:10,720
okay hey you know tonight tonight

1796
03:03:14,950 --> 03:03:12,479
stalking

1797
03:03:17,349 --> 03:03:14,960
was a perfect way for us to finish up

1798
03:03:19,429 --> 03:03:17,359
what has been our 10-year anniversary

1799
03:03:20,790 --> 03:03:19,439
year for their for the commercial crew

1800
03:03:21,670 --> 03:03:20,800
program

1801
03:03:23,349 --> 03:03:21,680
and

1802
03:03:25,030 --> 03:03:23,359
i don't know about you guys but it feels

1803
03:03:26,630 --> 03:03:25,040
like the last two weeks have been pretty

1804
03:03:29,349 --> 03:03:26,640
crazy for me

1805
03:03:32,150 --> 03:03:29,359
and uh i know you guys are probably real

1806
03:03:33,269 --> 03:03:32,160
happy to be out of crew quarters i told

1807
03:03:35,349 --> 03:03:33,279
uh

1808
03:03:36,230 --> 03:03:35,359
norm knight last night we were rescuing

1809
03:03:38,309 --> 03:03:36,240
him

1810
03:03:40,870 --> 03:03:38,319
from crew quarters with this launch and

1811
03:03:43,510 --> 03:03:40,880
uh i know you guys i know mark you're

1812
03:03:45,990 --> 03:03:43,520
waiting patiently for them to come

1813
03:03:47,830 --> 03:03:46,000

enjoying a few days of a little bit of

1814
03:03:49,830 --> 03:03:47,840
quiet before the next round of folks

1815
03:03:52,950 --> 03:03:49,840
coming up

1816
03:03:54,469 --> 03:03:52,960
but boy is it good to see you

1817
03:03:57,110 --> 03:03:54,479
uh so

1818
03:03:58,870 --> 03:03:57,120
raja i i'm hearing you know you're here

1819
03:03:59,990 --> 03:03:58,880
leading the turtles

1820
03:04:03,269 --> 03:04:00,000
and uh

1821
03:04:04,630 --> 03:04:03,279
and and you have the turtle there and as

1822
03:04:06,790 --> 03:04:04,640
you know

1823
03:04:08,550 --> 03:04:06,800
i'm so happy to in in particular to see

1824
03:04:11,030 --> 03:04:08,560
you there after all your work doing the

1825
03:04:13,030 --> 03:04:11,040
joint test team so after you come back

1826
03:04:14,550 --> 03:04:13,040
it will be good to hear

1827
03:04:17,030 --> 03:04:14,560
how the vehicle

1828
03:04:18,309 --> 03:04:17,040
operated for you with all the work that

1829
03:04:22,230 --> 03:04:18,319
you did

1830
03:04:24,790 --> 03:04:22,240
and it's so fantastic to see matthias

1831
03:04:26,389 --> 03:04:24,800
kayla and tom there with you

1832
03:04:27,269 --> 03:04:26,399
safely

1833
03:04:29,190 --> 03:04:27,279
so

1834
03:04:31,030 --> 03:04:29,200
we can't wait to see all the work you

1835
03:04:32,950 --> 03:04:31,040
all are going to accomplish

1836
03:04:35,510 --> 03:04:32,960
and looking forward to

1837
03:04:37,910 --> 03:04:35,520
many many more amazing experiences to

1838
03:04:39,030 --> 03:04:37,920

come over the next six months while you

1839
03:04:41,190 --> 03:04:39,040
all are there

1840
03:04:44,230 --> 03:04:41,200
thank you again for your service

1841
03:04:46,389 --> 03:04:44,240
i loved roger what you said yesterday

1842
03:04:48,309 --> 03:04:46,399
when you're we're getting ready for

1843
03:04:50,950 --> 03:04:48,319
launch and you said you know we're

1844
03:04:52,309 --> 03:04:50,960
hoping for a halloween launch

1845
03:04:54,950 --> 03:04:52,319
but it's even

1846
03:04:58,150 --> 03:04:54,960
cooler right now to be able to launch

1847
03:05:00,469 --> 03:04:58,160
and dock on veterans day and it is a

1848
03:05:06,469 --> 03:05:00,479
great way for us to honor our veterans

1849
03:05:10,389 --> 03:05:08,389
thanks kathy and uh thanks to all the

1850
03:05:12,710 --> 03:05:10,399
spacex and nasa teams as you mentioned

1851
03:05:14,550 --> 03:05:12,720
uh it uh it was great to get to work on

1852
03:05:15,830 --> 03:05:14,560
the vehicle i think we all loved the

1853
03:05:17,510 --> 03:05:15,840
ride up there

1854
03:05:19,990 --> 03:05:17,520
it was way smoother than we could have

1855
03:05:21,830 --> 03:05:20,000
imagined and that feeling going from

1856
03:05:22,870 --> 03:05:21,840
miko to the second stage was just

1857
03:05:26,070 --> 03:05:22,880
awesome

1858
03:05:28,070 --> 03:05:26,080
and a beautiful ride it was neat to see

1859
03:05:30,550 --> 03:05:28,080
and feel the engines respond and then

1860
03:05:31,990 --> 03:05:30,560
see in the displays and as you mentioned

1861
03:05:33,349 --> 03:05:32,000
we wore tests before and it wouldn't

1862
03:05:34,389 --> 03:05:33,359
have been complete without testing out

1863
03:05:35,910 --> 03:05:34,399

the system

1864
03:05:38,389 --> 03:05:35,920
and seeing if we could go from landing

1865
03:05:40,710 --> 03:05:38,399
to launch in under 48 hours so kudos to

1866
03:05:42,550 --> 03:05:40,720
the entire team that pulled that off

1867
03:05:43,349 --> 03:05:42,560
we drove norm crazy and crew quarters

1868
03:05:45,990 --> 03:05:43,359
but

1869
03:05:48,309 --> 03:05:46,000
we had a pretty uh we got all gates of

1870
03:06:03,510 --> 03:05:48,319
weight there too but we're we're happy

1871
03:06:07,910 --> 03:06:04,870
hi colleagues

1872
03:06:09,269 --> 03:06:07,920
i'm very proud to be commander of this

1873
03:06:12,710 --> 03:06:09,279
great team

1874
03:06:14,710 --> 03:06:12,720
we are start to fly together and i know

1875
03:06:16,790 --> 03:06:14,720
in the future we'll have the

1876
03:06:18,710 --> 03:06:16,800
beautiful days on orbit

1877
03:06:26,150 --> 03:06:18,720
together we'll

1878
03:06:30,389 --> 03:06:28,469
and i can't tell you how happy i am to

1879
03:06:32,790 --> 03:06:30,399
see these smiling faces

1880
03:06:33,910 --> 03:06:32,800
every one of us all seven of us are our

1881
03:06:35,830 --> 03:06:33,920
friends and we're going to become even

1882
03:06:37,590 --> 03:06:35,840
better friends as time goes on and we've

1883
03:06:40,150 --> 03:06:37,600
got a lot of work to do to do all the

1884
03:06:42,150 --> 03:06:40,160
science experiments i learned over over

1885
03:06:44,550 --> 03:06:42,160
the course of last week that at this

1886
03:06:46,870 --> 03:06:44,560
moment we've got 60 in 60 experiments in

1887
03:06:48,790 --> 03:06:46,880
progress already and of course by the

1888
03:06:50,309 --> 03:06:48,800

time we finish our time up here we'll

1889
03:06:52,630 --> 03:06:50,319
participate in many more experiments

1890
03:06:54,150 --> 03:06:52,640
than that

1891
03:06:56,790 --> 03:06:54,160
we've got a lot of work to do a lot of

1892
03:06:58,469 --> 03:06:56,800
exciting times coming up and uh

1893
03:07:01,190 --> 03:06:58,479
it's really an honor to be up here at

1894
03:07:03,269 --> 03:07:01,200
the time when these folks arrived and

1895
03:07:05,110 --> 03:07:03,279
to be able to help out not just with

1896
03:07:05,830 --> 03:07:05,120
doing science that's going to help out

1897
03:07:07,910 --> 03:07:05,840
with

1898
03:07:09,670 --> 03:07:07,920
human humanity on the earth right now

1899
03:07:11,429 --> 03:07:09,680
but also to help the human race be

1900
03:07:36,790 --> 03:07:11,439
better to able to explore further and

1901
03:07:41,269 --> 03:07:38,950
thank you mrs leaders we now welcome esa

1902
03:07:43,990 --> 03:07:41,279
director general joseph oshbacher please

1903
03:07:46,150 --> 03:07:44,000
call station for a voice check

1904
03:07:49,990 --> 03:07:46,160
station this is joseph ashbracher how do

1905
03:07:53,750 --> 03:07:50,830
hello

1906
03:07:56,150 --> 03:07:53,760
joseph five by five

1907
03:07:57,670 --> 03:07:56,160
five five five fantastic uh

1908
03:08:00,469 --> 03:07:57,680
really happy uh

1909
03:08:01,910 --> 03:08:00,479
to see you matthias uh happy to see all

1910
03:08:02,790 --> 03:08:01,920
of you and

1911
03:08:05,590 --> 03:08:02,800
it is

1912
03:08:07,750 --> 03:08:05,600
just amazing to see these smiling faces

1913
03:08:10,389 --> 03:08:07,760

i think mathias it must be

1914
03:08:13,030 --> 03:08:10,399
a great feeling experiencing uh

1915
03:08:16,070 --> 03:08:13,040
weightlessness life and for the first

1916
03:08:18,630 --> 03:08:16,080
time for you and i think this is just

1917
03:08:20,950 --> 03:08:18,640
it's just fantastic i have to say that

1918
03:08:23,190 --> 03:08:20,960
for isa and for europe it is uh it's

1919
03:08:25,269 --> 03:08:23,200
fascinating to have you as our next

1920
03:08:28,469 --> 03:08:25,279
representative at the space station

1921
03:08:30,950 --> 03:08:28,479
while doma as you know has just returned

1922
03:08:34,150 --> 03:08:30,960
to your common home base european

1923
03:08:36,469 --> 03:08:34,160
astronaut center in cologne and both to

1924
03:08:38,790 --> 03:08:36,479
recover for him but also to engage in

1925
03:08:41,349 --> 03:08:38,800
post-mission scientific activities uh

1926
03:08:43,590 --> 03:08:41,359
the science that you will continue uh in

1927
03:08:45,910 --> 03:08:43,600
the next coming uh six months

1928
03:08:49,110 --> 03:08:45,920
uh matthias i can only tell you that we

1929
03:08:51,269 --> 03:08:49,120
all at esa we are so proud of you and uh

1930
03:08:53,429 --> 03:08:51,279
very excited to see you at the space

1931
03:08:55,830 --> 03:08:53,439
station of course we wish you all the

1932
03:08:58,389 --> 03:08:55,840
best of luck i know you have a lot of

1933
03:09:01,349 --> 03:08:58,399
science and a lot of experiments ahead

1934
03:09:03,830 --> 03:09:01,359
of you evas including work on the

1935
03:09:06,070 --> 03:09:03,840
european robotic arm we look forward to

1936
03:09:07,910 --> 03:09:06,080
seeing you working in the nasa and the

1937
03:09:10,550 --> 03:09:07,920
russian space suits

1938
03:09:13,670 --> 03:09:10,560

but also i hope that you you have some

1939
03:09:15,269 --> 03:09:13,680
time to enjoy the stunning views of

1940
03:09:17,750 --> 03:09:15,279
our beautiful planet earth from the

1941
03:09:20,389 --> 03:09:17,760
cupula and your messages

1942
03:09:23,110 --> 03:09:20,399
to planet earth to all of us down here

1943
03:09:25,750 --> 03:09:23,120
will certainly be exciting and helping

1944
03:09:28,950 --> 03:09:25,760
us all to preserve it and it's just uh

1945
03:09:31,990 --> 03:09:28,960
just beautiful so really from my side uh

1946
03:09:35,670 --> 03:09:32,000
matthias a very very warm welcome

1947
03:09:38,070 --> 03:09:35,680
to all of you also to raja to tom kayla

1948
03:09:40,070 --> 03:09:38,080
on behalf of the european space agency

1949
03:09:41,990 --> 03:09:40,080
and i'm just so excited and so happy to

1950
03:09:46,870 --> 03:09:42,000
see you up there smiling and in very

1951
03:09:51,110 --> 03:09:48,630
many thanks joseph many thanks to all

1952
03:09:53,590 --> 03:09:51,120
the esa colleagues who helped me to find

1953
03:09:56,229 --> 03:09:53,600
the way up here to into space it was a

1954
03:09:57,269 --> 03:09:56,239
very interesting ride exciting yesterday

1955
03:10:02,150 --> 03:09:57,279
on

1956
03:10:04,870 --> 03:10:02,160
just minutes before we started this po

1957
03:10:07,670 --> 03:10:04,880
event my colleagues here actually

1958
03:10:10,229 --> 03:10:07,680
gave me the honor and opening the cupola

1959
03:10:12,550 --> 03:10:10,239
shutters and just that's an amazing view

1960
03:10:14,630 --> 03:10:12,560
it's the view that i was dreaming about

1961
03:10:16,550 --> 03:10:14,640
for years and

1962
03:10:17,269 --> 03:10:16,560
i after this event i will go back and

1963
03:10:19,510 --> 03:10:17,279

just

1964
03:10:21,190 --> 03:10:19,520
indulge more in this view so yes you

1965
03:10:23,590 --> 03:10:21,200
said right we have a lot of science

1966
03:10:26,710 --> 03:10:23,600
experiments ahead and i'm very happy to

1967
03:10:28,469 --> 03:10:26,720
continue what tomorrow started and

1968
03:10:31,110 --> 03:10:28,479
then after six months i will hand over

1969
03:10:33,030 --> 03:10:31,120
to samantha and it will be the time of

1970
03:10:34,389 --> 03:10:33,040
longest european presence in space one

1971
03:10:38,229 --> 03:10:34,399
and a half years almost without

1972
03:10:41,429 --> 03:10:38,239
interruption if tomah hadn't left early

1973
03:10:43,830 --> 03:10:41,439
and yes we strive to uh to provide all

1974
03:10:45,429 --> 03:10:43,840
the science um experiments that all the

1975
03:10:47,269 --> 03:10:45,439
scientists on the ground are hoping for

1976
03:10:49,830 --> 03:10:47,279
thank you very much

1977
03:10:51,830 --> 03:10:49,840
oh thank you uh mathias and uh

1978
03:11:19,510 --> 03:10:51,840
and really a very warm greetings from

1979
03:11:26,070 --> 03:11:21,510
station this is houston acr that

1980
03:11:29,429 --> 03:11:27,670
thank you associate administrator

1981
03:11:31,190 --> 03:11:29,439
leaders and director general ashbacher

1982
03:11:33,510 --> 03:11:31,200
for your participation in the crew 3

1983
03:11:35,429 --> 03:11:33,520
welcome ceremony stationed we are now

1984
03:11:48,070 --> 03:11:35,439
resuming normal operational audio

1985
03:11:52,870 --> 03:11:50,630
wow what an incredible few hours it has

1986
03:11:55,030 --> 03:11:52,880
been it is so great to see the crew 3

1987
03:11:56,630 --> 03:11:55,040
astronauts on board they were just

1988
03:11:58,790 --> 03:11:56,640

welcomed by leaders from each of the

1989
03:12:01,429 --> 03:11:58,800
space space agencies that represent the

1990
03:12:03,190 --> 03:12:01,439
crew members of endurance first we heard

1991
03:12:05,590 --> 03:12:03,200
from kathy leaders the associate

1992
03:12:07,830 --> 03:12:05,600
administrator of space operations

1993
03:12:09,910 --> 03:12:07,840
mission directorate at nasa and then we

1994
03:12:12,070 --> 03:12:09,920
heard some remarks from joseph oshbacher

1995
03:12:14,150 --> 03:12:12,080
the european space agency director

1996
03:12:15,990 --> 03:12:14,160
general each of them talked about what

1997
03:12:17,750 --> 03:12:16,000
it took us to get to this moment to

1998
03:12:19,910 --> 03:12:17,760
welcome four new astronauts to the

1999
03:12:21,750 --> 03:12:19,920
international space station bringing the

2000
03:12:24,150 --> 03:12:21,760
current population of the space station

2001
03:12:26,710 --> 03:12:24,160
to seven human beings as part of the

2002
03:12:28,950 --> 03:12:26,720
expedition 66 mission

2003
03:12:30,950 --> 03:12:28,960
it's been an incredible 24 hours for

2004
03:12:32,950 --> 03:12:30,960
crew 3 and we are thrilled to see them

2005
03:12:34,070 --> 03:12:32,960
safely on board the international space

2006
03:12:35,590 --> 03:12:34,080
station

2007
03:12:37,349 --> 03:12:35,600
we've been with you from the very

2008
03:12:39,190 --> 03:12:37,359
beginning starting with the crew suiting

2009
03:12:41,190 --> 03:12:39,200
up in the suit-up room at the onc

2010
03:12:42,870 --> 03:12:41,200
building the crew then headed to the

2011
03:12:44,870 --> 03:12:42,880
launch pad and made their way up the

2012
03:12:47,349 --> 03:12:44,880
service fixed structure and ingressed

2013
03:12:50,550 --> 03:12:47,359

the crew dragon endurance we had an on

2014
03:12:53,429 --> 03:12:50,560
time liftoff yesterday at 803 pm central

2015
03:12:55,750 --> 03:12:53,439
time following liftoff the first stage

2016
03:12:57,590 --> 03:12:55,760
separated and came back to earth landing

2017
03:13:00,150 --> 03:12:57,600
on the recovery ship while dragon

2018
03:13:02,229 --> 03:13:00,160
separated from the second stage we had a

2019
03:13:04,309 --> 03:13:02,239
good nose cone deploy and five major

2020
03:13:06,150 --> 03:13:04,319
burns took place as dragon made its way

2021
03:13:08,229 --> 03:13:06,160
to the space station

2022
03:13:10,229 --> 03:13:08,239
finally endurance and its four-person

2023
03:13:13,349 --> 03:13:10,239
crew docked to the international space

2024
03:13:15,269 --> 03:13:13,359
station at 5 32 pm central time

2025
03:13:18,550 --> 03:13:15,279
and the crew members floated through the

2026
03:13:20,389 --> 03:13:18,560
hatch at 7 25 pm central time officially

2027
03:13:21,510 --> 03:13:20,399
bringing them to their new home for the

2028
03:13:23,429 --> 03:13:21,520
next six

2029
03:13:25,590 --> 03:13:23,439
six months in space

2030
03:13:28,150 --> 03:13:25,600
it's been an incredible 24 hours

2031
03:13:30,710 --> 03:13:28,160
watching this mission and on behalf of

2032
03:13:33,030 --> 03:13:30,720
spacex and nasa thank you for watching

2033
03:13:35,030 --> 03:13:33,040
it all unfold with us the third

2034
03:13:36,950 --> 03:13:35,040
rotational crew mission has reached the

2035
03:13:39,269 --> 03:13:36,960
international space station and will

2036
03:13:40,950 --> 03:13:39,279
spend approximately six months docked

2037
03:13:42,790 --> 03:13:40,960
the space station until it's time for

2038
03:13:44,950 --> 03:13:42,800

the crew to return home

2039
03:13:46,870 --> 03:13:44,960
now that crew 3 has successfully arrived

2040
03:13:49,590 --> 03:13:46,880
to the international space station be

2041
03:13:51,750 --> 03:13:49,600
sure to follow nasa and spacex on social

2042
03:13:52,870 --> 03:13:51,760
media for real-time updates throughout

2043
03:13:54,870 --> 03:13:52,880
their mission

2044
03:13:58,870 --> 03:13:54,880
thanks again for watching our coverage

2045
03:14:06,300 --> 03:13:58,880
go nasa go spacex and go crew 3. this is

2046
03:14:44,870 --> 03:14:27,990
[Music]