



1
00:00:20,480 --> 00:00:03,889
hi I'm mark Kelly commander of sts-134

2
00:00:24,630 --> 00:00:22,830
endeavor will also bring up to the

3
00:00:27,060 --> 00:00:24,640
station the Express logistics carrier

4
00:00:29,310 --> 00:00:27,070
three that external platform for the

5
00:00:30,810 --> 00:00:29,320
space station that holds large equipment

6
00:00:32,910 --> 00:00:30,820
that will carry spare parts and

7
00:00:35,610 --> 00:00:32,920
equipment to sustain the space stations

8
00:00:37,549 --> 00:00:35,620
operation in space once the last space

9
00:00:41,370 --> 00:00:37,559
shuttle flight has occurred this summer

10
00:00:43,290 --> 00:00:41,380
there are four plan DBAs or spacewalks

11
00:00:46,049 --> 00:00:43,300
outside the International Space Station

12
00:01:02,860 --> 00:00:46,059
during the sts-134 mission to do

13
00:01:08,710 --> 00:01:06,130

and here is commander Mark Kelly r134

14

00:01:11,950 --> 00:01:08,720

mission commander making his fourth

15

00:01:14,800 --> 00:01:11,960

flight on the space shuttle he's logged

16

00:01:22,860 --> 00:01:14,810

a total of 38 days in space

17

00:01:29,130 --> 00:01:26,110

going over to our pilot now Greg Johnson

18

00:01:35,609 --> 00:01:29,140

he's making his second spaceflight

19

00:01:39,460 --> 00:01:35,619

previously also pilot on sts-123 in 2008

20

00:01:44,230 --> 00:01:39,470

he's logged over 4,000 hours in 40

21

00:01:45,940 --> 00:01:44,240

different type of aircraft this is Mike

22

00:01:49,000 --> 00:01:45,950

Fincke mission specialist number one

23

00:01:50,890 --> 00:01:49,010

this is his third spaceflight but his

24

00:01:53,560 --> 00:01:50,900

first space shuttle flight he was

25

00:01:56,590 --> 00:01:53,570

launched previously from Russia on so

26
00:01:59,170 --> 00:01:56,600
his spacecraft and he's locked 365 days

27
00:02:04,900 --> 00:01:59,180
in space with over 26 hours on six

28
00:02:13,210 --> 00:02:04,910
spacewalks mission specialists great

29
00:02:15,790 --> 00:02:13,220
shemitah' this is his second spaceflight

30
00:02:20,010 --> 00:02:15,800
but he's already logged 183 days in

31
00:02:29,730 --> 00:02:20,020
space aboard the space station he's

32
00:02:37,220 --> 00:02:31,500
drue foist ol mission specialist number

33
00:02:42,300 --> 00:02:37,230
three making his second trip into space

34
00:02:43,950 --> 00:02:42,310
he served as an astronaut for more than

35
00:02:46,380 --> 00:02:43,960
a decade of working on both the space

36
00:02:50,070 --> 00:02:46,390
shuttle and the space station branches

37
00:02:58,440 --> 00:02:50,080
in Houston he flew on the fifth and

38
00:03:05,880 --> 00:02:58,450

final HST servicing mission and Roberto

39

00:03:09,240 --> 00:03:05,890

Vittori he's mission specialist number

40

00:03:10,860 --> 00:03:09,250

two he was selected as an astronaut by

41

00:03:13,680 --> 00:03:10,870

the European Space Agency

42

00:03:30,500 --> 00:03:13,690

he's from Biturbo Italy and he has flown

43

00:03:36,770 --> 00:03:33,470

and here come our astronauts leaving the

44

00:03:39,410 --> 00:03:36,780

suit-up room bound for the elevator then

45

00:03:49,670 --> 00:03:39,420

we'll take them down to the astronaut

46

00:03:50,240 --> 00:03:49,680

fan the Astro van this is the same

47

00:03:52,340 --> 00:03:50,250

elevator

48

00:03:54,560 --> 00:03:52,350

that all astronauts s Apollo have used

49

00:04:46,689 --> 00:03:54,570

to leave the crew quarters and go out to

50

00:04:50,909 --> 00:04:48,760

it's about a 20-minute ride from the

51
00:04:57,580 --> 00:04:50,919
astronaut quarters out to the launch pad

52
00:05:04,570 --> 00:04:59,860
they allow another 10 minutes or so for

53
00:05:06,970 --> 00:05:04,580
the crew to get off the Astro van and

54
00:05:09,690 --> 00:05:06,980
looking around a little bit and head up

55
00:05:14,440 --> 00:05:09,700
the fixed service structure and and

56
00:05:16,720 --> 00:05:14,450
begin boarding the space shuttle so that

57
00:05:18,970 --> 00:05:16,730
allows for about a half an hour for the

58
00:05:21,670 --> 00:05:18,980
entire process from the time they leave

59
00:05:33,310 --> 00:05:21,680
the astronaut quarters until they start

60
00:05:46,890 --> 00:05:33,320
boarding and there they go down the path

61
00:05:51,450 --> 00:05:50,010
who taking a moment to look at Space

62
00:05:55,260 --> 00:05:51,460
Shuttle Endeavor there's nothing that

63
00:06:32,730 --> 00:05:55,270

most crews like to do before they head

64

00:06:32,740 --> 00:06:40,120

you

65

00:06:47,890 --> 00:06:45,880

and OTC ovcc so pcc OTC go my crew has

66

00:07:19,890 --> 00:06:47,900

arrived at the orbiter crew ingress and

67

00:07:29,820 --> 00:07:23,530

true foist Elizabeth specialist number

68

00:07:36,310 --> 00:07:34,510

he's served more than a decade as a NASA

69

00:07:46,920 --> 00:07:36,320

astronaut working on both our space

70

00:07:57,760 --> 00:07:56,200

and Rick Johnson he's about to board ms

71

00:08:08,440 --> 00:07:57,770

three on board at this time

72

00:08:15,340 --> 00:08:08,450

zero at nine forty she's a live shot

73

00:08:25,220 --> 00:08:15,350

from the

74

00:08:44,510 --> 00:08:33,279

you

75

00:08:57,870 --> 00:08:47,310

this is mission specialist number four

76

00:08:59,760 --> 00:08:57,880

great shemitah' sts-134 is his second

77

00:09:01,140 --> 00:08:59,770

spaceflight but he's already logged a

78

00:09:24,200 --> 00:09:01,150

hundred and eighty three days in space

79

00:09:37,740 --> 00:09:28,260

Tory and Mike Fincke waiting to enter

80

00:09:39,930 --> 00:09:37,750

the white room yes sir I can do step

81

00:09:41,940 --> 00:09:39,940

five nineteen thirty five ninety two

82

00:09:53,490 --> 00:09:41,950

through five ninety days we've completed

83

00:09:57,030 --> 00:09:53,500

implementation of step 90 to break

84

00:10:01,640 --> 00:09:57,040

shamit off now on board he's going to be

85

00:10:18,380 --> 00:10:01,650

sitting in the mid-deck center seat

86

00:10:22,830 --> 00:10:20,370

this is astronaut mike

87

00:10:28,200 --> 00:10:22,840

thank you he's mission specialist number

88

00:10:33,120 --> 00:10:28,210

one this is his third spaceflight but

89

00:10:38,190 --> 00:10:33,130

his first space shuttle flight he's

90

00:10:41,640 --> 00:10:38,200

logged over 365 days in space with over

91

00:10:43,050 --> 00:10:41,650

26 hours owns six spacewalks on the

92

00:10:58,860 --> 00:10:43,060

International Space Station on

93

00:11:02,570 --> 00:10:58,870

expeditions nine and 18 th T Co have you

94

00:11:23,739 --> 00:11:02,580

loud and clear good morning Bob

95

00:11:42,280 --> 00:11:29,329

after that I think you see 696 92 is

96

00:11:53,179 --> 00:11:42,290

complete as well says Roberto Vittori

97

00:11:56,059 --> 00:11:53,189

mission specialist number two he was

98

00:11:58,970 --> 00:11:56,069

selected as an astronaut by the European

99

00:12:02,210 --> 00:11:58,980

Space Agency and is from a turbo Italy

100

00:12:17,269 --> 00:12:02,220

and he is flown to the International

101
00:12:31,030 --> 00:12:17,279
Space Station on two past occasions OTC

102
00:12:46,030 --> 00:12:34,450
and Roberto Vittori now bobbing on board

103
00:12:58,510 --> 00:12:46,040
and never said specialist number two so

104
00:13:00,370 --> 00:12:58,520
all the crew members are now on board an

105
00:13:02,260 --> 00:13:00,380
entity or your polls goes that

106
00:13:03,520 --> 00:13:02,270
affirmative is affirmative we all go

107
00:13:06,670 --> 00:13:03,530
okay copy that

108
00:13:08,980 --> 00:13:06,680
a CG processing engineer verify no

109
00:13:09,430 --> 00:13:08,990
constraints launch no constraint thank

110
00:13:11,590 --> 00:13:09,440
you Steve

111
00:13:13,750 --> 00:13:11,600
Casey safety mission assurance KSC

112
00:13:16,150 --> 00:13:13,760
safety and mission assurance is go thank

113
00:13:18,640 --> 00:13:16,160

you Dave Dave Aude launch manager I like

114

00:13:20,620 --> 00:13:18,650

to go thank you Bill

115

00:13:22,630 --> 00:13:20,630

range weather weather has no constraints

116

00:13:25,120 --> 00:13:22,640

much thank you Kevin

117

00:13:26,860 --> 00:13:25,130

an ops manager Mike things look real

118

00:13:29,260 --> 00:13:26,870

good today thank you can forget it back

119

00:13:31,480 --> 00:13:29,270

here your good luck endeavour good thank

120

00:13:36,760 --> 00:13:31,490

you sir endeavour launch director

121

00:13:39,460 --> 00:13:36,770

air-to-ground one okay okay mark looks

122

00:13:41,470 --> 00:13:39,470

like great day to launch endeavour for

123

00:13:42,970 --> 00:13:41,480

the final time so on behalf of thousands

124

00:13:45,250 --> 00:13:42,980

of proud Americans who have been part of

125

00:13:47,910 --> 00:13:45,260

her journey good luck Godspeed we'll be

126

00:13:53,260 --> 00:13:47,920

back here June 1st

127

00:13:55,150 --> 00:13:53,270

thank you for endeavour we want thank

128

00:13:58,660 --> 00:13:55,160

all the tens of thousands of dedicated

129

00:14:00,250 --> 00:13:58,670

employees at their hands this incredible

130

00:14:02,590 --> 00:14:00,260

ship and dedicated their lives of the

131

00:14:04,000 --> 00:14:02,600

space shuttle program of Americans we

132

00:14:06,190 --> 00:14:04,010

endeavor to build a better life the

133

00:14:08,680 --> 00:14:06,200

generation before and we endeavor to be

134

00:14:11,170 --> 00:14:08,690

a united nation in these efforts we are

135

00:14:12,670 --> 00:14:11,180

often tested this mission represents the

136

00:14:14,890 --> 00:14:12,680

power of teamwork commitment and

137

00:14:16,540 --> 00:14:14,900

exploration it is in the DNA of our

138

00:14:19,630 --> 00:14:16,550

great country to reach for the stars and

139

00:14:21,430 --> 00:14:19,640

explore we must not stop to all the

140

00:14:24,610 --> 00:14:21,440

millions warranty today including our

141

00:14:27,250 --> 00:14:24,620

spouses children family and friends we

142

00:14:28,960 --> 00:14:27,260

thank you for your support and Devereux

143

00:14:31,210 --> 00:14:28,970

t th your final voyage

144

00:14:33,340 --> 00:14:31,220

this is oh they sat in proud moment for

145

00:14:35,560 --> 00:14:33,350

your launch team and for America that

146

00:14:37,360 --> 00:14:35,570

your legacy will live on they can

147

00:14:39,550 --> 00:14:37,370

success what they invest a truly

148

00:14:43,670 --> 00:14:39,560

international effort Godspeed and see

149

00:14:43,680 --> 00:14:54,960

therefore the words appreciated

150

00:14:59,949 --> 00:14:57,970

PLT incontinent warning memory is clear

151
00:15:04,420 --> 00:14:59,959
no unexpected error

152
00:15:12,490 --> 00:15:04,430
I'll be back together OTC close and lock

153
00:15:23,350 --> 00:15:12,500
your visors at 8802 plus over me start

154
00:15:26,199 --> 00:15:23,360
eight seven six zero and liftoff for the

155
00:15:42,290 --> 00:15:26,209
final launch of Endeavour expanding our

156
00:15:46,990 --> 00:15:45,010
onto its back

157
00:15:51,430 --> 00:15:47,000
as endeavour begins the heads-down

158
00:16:08,500 --> 00:15:51,440
position on course for a 51.6 degree 136

159
00:16:11,800 --> 00:16:08,510
by 36 statute mile orbit three engines

160
00:16:13,150 --> 00:16:11,810
now throttling down as endeavour passes

161
00:16:15,040 --> 00:16:13,160
through the area of maximum dynamic

162
00:16:19,390 --> 00:16:15,050
pressure on the vehicle in the lower

163
00:16:28,590 --> 00:16:19,400

atmosphere approaching one minute into

164

00:16:33,760 --> 00:16:31,240

endeavours three main engines now back

165

00:16:37,120 --> 00:16:33,770

at full throttle all three engines in

166

00:16:41,470 --> 00:16:37,130

good shape endeavours already traveling

167

00:16:43,150 --> 00:16:41,480

1,300 miles per hour at an altitude of

168

00:16:50,570 --> 00:16:43,160

11 miles downrange from the Kennedy

169

00:16:57,120 --> 00:16:55,710

at liftoff endeavour fully fueled wait

170

00:16:59,100 --> 00:16:57,130

four and a half million pounds it's

171

00:17:01,949 --> 00:16:59,110

already lost half that weight in

172

00:17:03,810 --> 00:17:01,959

propellant now burned that weight next

173

00:17:06,510 --> 00:17:03,820

event is burnout in separation of the

174

00:17:08,880 --> 00:17:06,520

twin solid rocket boosters that upcoming

175

00:17:10,949 --> 00:17:08,890

here shortly at the two-minute

176
00:17:20,240 --> 00:17:10,959
three-second point those boosters are

177
00:17:38,140 --> 00:17:23,790
as standing by for separation of the

178
00:17:43,040 --> 00:17:40,880
the onboard guidance system has done its

179
00:17:46,270 --> 00:17:43,050
job of settling out any dispersions

180
00:17:49,520 --> 00:17:46,280
introduced at booster separation the

181
00:17:52,880 --> 00:17:49,530
orbiter is now traveling 3,200 miles per

182
00:17:56,600 --> 00:17:52,890
hour downrange 50 miles altitude 37

183
00:17:59,090 --> 00:17:56,610
miles all systems in good shape three

184
00:18:01,010 --> 00:17:59,100
good hydraulic systems auxiliary power

185
00:18:02,900 --> 00:18:01,020
units and fuel cells the fuel cells

186
00:18:13,250 --> 00:18:02,910
providing electrical power to all of the

187
00:18:14,960 --> 00:18:13,260
systems endeavour can reach at a site in

188
00:18:16,360 --> 00:18:14,970

the event of a single engine failure

189

00:18:18,740 --> 00:18:16,370

however all three are in good shape

190

00:18:21,460 --> 00:18:18,750

space shuttle Endeavour sailing into

191

00:18:24,470 --> 00:18:21,470

Fairwinds on its final historic voyage

192

00:18:27,010 --> 00:18:24,480

this view looking down the external fuel

193

00:18:29,450 --> 00:18:27,020

tank the orbiter there on the top as

194

00:18:32,360 --> 00:18:29,460

endeavour continues to power its way

195

00:18:35,390 --> 00:18:32,370

into orbit traveling 4,000 miles per

196

00:18:38,240 --> 00:18:35,400

hour downrange 90 miles altitude 50

197

00:19:03,520 --> 00:18:38,250

miles 3 minutes 15 seconds into the

198

00:19:09,160 --> 00:19:06,460

all three main engines still looking in

199

00:19:17,730 --> 00:19:09,170

in good shape hydraulic systems and

200

00:19:27,490 --> 00:19:25,840

Endeavour negative return endeavour can

201
00:19:29,440 --> 00:19:27,500
no longer return to the Kennedy Space

202
00:19:31,270 --> 00:19:29,450
Center in the event of an engine failure

203
00:19:33,490 --> 00:19:31,280
now but all three are still in good

204
00:19:35,680 --> 00:19:33,500
shape as are all of the other systems

205
00:19:37,060 --> 00:19:35,690
aboard the orbiter quiet here in Mission

206
00:19:39,370 --> 00:19:37,070
Control as a team of flight controllers

207
00:19:42,160 --> 00:19:39,380
watch as it watches over all of the

208
00:19:44,470 --> 00:19:42,170
systems for minutes 20 seconds into the

209
00:19:48,070 --> 00:19:44,480
flight endeavour is traveling 5500 miles

210
00:19:49,140 --> 00:19:48,080
per hour altitude now 63 miles traveling

211
00:19:53,050 --> 00:19:49,150
downrange

212
00:20:01,120 --> 00:19:53,060
186 miles or about 335 thousand feet in

213
00:20:03,370 --> 00:20:01,130

altitude environmental and control

214

00:20:05,440 --> 00:20:03,380

systems officer here reporting a good

215

00:20:07,540 --> 00:20:05,450

flash evaporator system providing

216

00:20:10,630 --> 00:20:07,550

cooling to all of the avionics equipment

217

00:20:12,610 --> 00:20:10,640

aboard the vehicle traveling into space

218

00:20:14,430 --> 00:20:12,620

on the forward flight deck is commander

219

00:20:16,480 --> 00:20:14,440

Mark Kelly and pilot Greg Johnson

220

00:20:18,010 --> 00:20:16,490

between and behind them as flight

221

00:20:20,170 --> 00:20:18,020

engineer Roberto Vittori

222

00:20:27,700 --> 00:20:20,180

and rounding out the flight deck crew is

223

00:20:29,590 --> 00:20:27,710

Mike Fink to ATO endeavour can reach

224

00:20:31,360 --> 00:20:29,600

orbit on two engines should one fail at

225

00:20:34,870 --> 00:20:31,370

this point however all three are still

226

00:20:36,940 --> 00:20:34,880

and performing as planned down on the

227

00:20:39,520 --> 00:20:36,950

mid-deck of endeavour drew Feustel

228

00:20:41,140 --> 00:20:39,530

and Greg Chema Tov hoist all headed to

229

00:20:44,140 --> 00:20:41,150

the International Space Station for the

230

00:20:45,580 --> 00:20:44,150

first time Vittoria and Fink making

231

00:20:48,130 --> 00:20:45,590

their first voyage on the space shuttle

232

00:20:51,120 --> 00:20:48,140

after flying to the International Space

233

00:21:03,810 --> 00:20:51,130

Station aboard soyuz spacecraft

234

00:21:08,530 --> 00:21:06,310

that call indicates that endeavour could

235

00:21:10,870 --> 00:21:08,540

reach a transatlantic abort site on one

236

00:21:12,460 --> 00:21:10,880

engine if it lost two of the three

237

00:21:13,090 --> 00:21:12,470

although all three are still in good

238

00:21:21,719 --> 00:21:13,100

shape

239

00:21:34,810 --> 00:21:24,849

endeavor press to Meco and single-engine

240

00:21:36,729 --> 00:21:34,820

Zaragoza 104 several calls their

241

00:21:38,889 --> 00:21:36,739

endeavor can reach a safe orbit on two

242

00:21:40,239 --> 00:21:38,899

engines now the guidance system is

243

00:21:42,759 --> 00:21:40,249

controlling the engines to roll

244

00:21:43,749 --> 00:21:42,769

endeavour to a heads-up position to

245

00:21:45,430 --> 00:21:43,759

optimize the air to ground

246

00:21:53,619 --> 00:21:45,440

communications through the satellite

247

00:21:55,180 --> 00:21:53,629

network like controllers reporting to

248

00:22:03,039 --> 00:21:55,190

flight director Richard Jones are in

249

00:22:17,580 --> 00:22:03,049

good shape plan is nominal so mark

250

00:22:17,590 --> 00:22:24,659

endeavour single-engine press 104

251
00:22:28,989 --> 00:22:26,979
endeavour can reach orbit on one engine

252
00:22:30,639 --> 00:22:28,999
should to fail however all three are

253
00:22:33,719 --> 00:22:30,649
still in good shape the three main

254
00:22:36,999 --> 00:22:33,729
engines are flowing fuel through their

255
00:22:38,680 --> 00:22:37,009
power systems at a rate equivalent to

256
00:22:44,229 --> 00:22:38,690
draining an average backyard swimming

257
00:22:47,349 --> 00:22:44,239
pool in 25 seconds seven minutes 20

258
00:22:49,060 --> 00:22:47,359
seconds into the flight altitude 64

259
00:22:52,919 --> 00:22:49,070
miles downrange from the Kennedy Space

260
00:22:56,519 --> 00:22:52,929
Center 630 miles endeavours traveling

261
00:22:58,839 --> 00:22:56,529
13,500 miles per hour we're now seeing

262
00:23:02,109 --> 00:22:58,849
throttling on the three main engines to

263
00:23:19,370 --> 00:23:02,119

maintain the 3G or three times gravity

264

00:23:25,909 --> 00:23:23,340

engines at 82% of rated thrust eight

265

00:23:29,010 --> 00:23:25,919

minutes into the flight the next

266

00:23:51,540 --> 00:23:29,020

activity is a main engine cutoff that's

267

00:23:59,640 --> 00:23:53,370

and main engine cutoff has been

268

00:24:06,870 --> 00:23:59,650

confirmed flight dynamics reporting a

269

00:24:17,330 --> 00:24:06,880

nominal main engine cutoff and

270

00:24:22,680 --> 00:24:19,790

endeavors commander Mark Kelly now

271

00:24:25,170 --> 00:24:22,690

firing the thruster jets to position the

272

00:24:28,290 --> 00:24:25,180

orbiter for photography of the external

273

00:24:40,110 --> 00:24:28,300

tank see a nominal Mako homes one is not

274

00:24:42,180 --> 00:24:40,120

required and Mike it's Greg

275

00:24:50,520 --> 00:24:42,190

good to hear your voice and ready to

276
00:24:52,440 --> 00:24:50,530
downlink MPC Greg we're ready for that

277
00:24:53,430 --> 00:24:52,450
we've about four minutes left and it's

278
00:24:58,220 --> 00:24:53,440
good to use your voice as well

279
00:25:02,640 --> 00:24:59,670
thanks man

280
00:25:05,520 --> 00:25:02,650
okay it's coming now hi I see four

281
00:25:07,800 --> 00:25:05,530
lights on my mp3 player so hopefully

282
00:25:09,690 --> 00:25:07,810
you're getting it pilot Greg Johnson

283
00:25:11,490 --> 00:25:09,700
reporting that you're about to begin

284
00:25:14,220 --> 00:25:11,500
sitting down some of the videos we

285
00:26:09,060 --> 00:25:14,230
recorded today we got it great we got it

286
00:26:15,330 --> 00:26:12,749
I think the next thing is a little bit

287
00:26:16,830 --> 00:26:15,340
ago I told mark that there was a

288
00:26:18,120 --> 00:26:16,840

manoeuvre planned while you guys were

289

00:26:20,009 --> 00:26:18,130

sleeping I was going to be controlled

290

00:26:23,519 --> 00:26:20,019

from the ground I told them we weren't

291

00:26:25,379 --> 00:26:23,529

going to do that and now apparently we

292

00:26:27,690 --> 00:26:25,389

might do that we're not really sure so

293

00:26:29,370 --> 00:26:27,700

you might be maneuvering this evening

294

00:26:30,659 --> 00:26:29,380

while you're sleeping we'll can control

295

00:26:33,060 --> 00:26:30,669

that from the ground there's no action

296

00:26:34,799 --> 00:26:33,070

for you but just if you saw something

297

00:26:37,139 --> 00:26:34,809

happen in that we don't need to be

298

00:26:38,789 --> 00:26:37,149

surprised so we're not sure you may or

299

00:26:43,860 --> 00:26:38,799

may not have a maneuver control from the

300

00:26:51,930 --> 00:26:43,870

ground this evening okay they forgot

301
00:26:54,659 --> 00:26:51,940
that and then finally we have some words

302
00:26:57,060 --> 00:26:54,669
from your families they wanted us to let

303
00:27:01,379 --> 00:26:57,070
you know that they'd a great time at the

304
00:27:03,119 --> 00:27:01,389
launch it was a great launch was very

305
00:27:04,710 --> 00:27:03,129
very nice today appreciating you did

306
00:27:07,019 --> 00:27:04,720
form and wish you all the best of luck

307
00:27:10,430 --> 00:27:07,029
in your flight at a great time and

308
00:27:13,950 --> 00:27:10,440
they'll be coming back home soon so

309
00:27:16,139 --> 00:27:13,960
that's fantastic man thanks for the kind

310
00:27:17,850 --> 00:27:16,149
and thoughtful words we all we wish them

311
00:27:19,350 --> 00:27:17,860
all the best as well and a safe return

312
00:27:20,940 --> 00:27:19,360
back and we're happy that friends and

313
00:27:25,440 --> 00:27:20,950

family we're all there to see it launch

314

00:27:34,999 --> 00:27:25,450

off into the sunrise that doctor will do

315

00:27:39,629 --> 00:27:38,039

you on the big screen and we've got

316

00:27:58,030 --> 00:27:39,639

about another minute and a half and then

317

00:28:05,770 --> 00:28:00,460

and that's good to be here just

318

00:28:05,780 --> 00:28:11,090

get busy alright now she cording

319

00:28:11,100 --> 00:28:19,880

you ready for the almost to burn tears

320

00:28:19,890 --> 00:28:31,549

okay homes burn starting in five seconds

321

00:28:36,720 --> 00:28:34,290

that's a real bird oh it's a long birdie

322

00:28:41,760 --> 00:28:36,730

oh yeah you're right

323

00:28:49,070 --> 00:28:41,770

yeah that's like tenth of the G let's

324

00:28:49,080 --> 00:29:04,820

that's a good swing around good work

325

00:29:12,330 --> 00:29:07,049

okay we're gonna open the payload bay

326
00:29:12,340 --> 00:29:21,440
and sack

327
00:29:40,080 --> 00:29:24,590
yes now we go

328
00:30:01,969 --> 00:29:42,990
I see good now the forward and aft

329
00:30:07,379 --> 00:30:05,249
yes I'm I have my eyeballs on it my

330
00:30:12,989 --> 00:30:07,389
fingers can get to it there we go start

331
00:30:47,370 --> 00:30:12,999
a payload bay door opening it looks like

332
00:30:47,380 --> 00:30:55,240
there's the sunshine

333
00:31:03,220 --> 00:31:00,010
waiting for the door indication door is

334
00:31:11,820 --> 00:31:03,230
open the portside the forward and aft

335
00:31:21,240 --> 00:31:15,440
I see a small piece of pot it's a washer

336
00:31:23,970 --> 00:31:21,250
floating right above ELC three another

337
00:31:26,370 --> 00:31:23,980
another one in the back I see two two

338
00:31:28,730 --> 00:31:26,380

washers one's a washer I'm trying to get

339

00:31:36,659 --> 00:31:28,740

a good tally on it with the camera

340

00:31:36,669 --> 00:32:00,780

that a small other miscellaneous things

341

00:32:18,140 --> 00:32:03,330

payload bay door opening is looking very

342

00:32:18,150 --> 00:32:31,280

here's the washer

343

00:32:38,600 --> 00:32:33,680

by mark that's about a half inch washer

344

00:32:41,300 --> 00:32:38,610

alright I see them all open also and it

345

00:32:42,860 --> 00:32:41,310

looked good outside we're rolling

346

00:32:45,680 --> 00:32:42,870

alright here we are in the flight deck

347

00:32:48,350 --> 00:32:45,690

of Endeavour flight day one recently in

348

00:32:52,550 --> 00:32:48,360

space sorry about the cloud deck when we

349

00:32:55,670 --> 00:32:52,560

took off we're really excited it's great

350

00:32:57,530 --> 00:32:55,680

to be up here yeah it's a spectacular

351

00:32:59,480 --> 00:32:57,540

ride I couldn't see anything but the

352

00:33:02,300 --> 00:32:59,490

lockers but it was still a lot of fun

353

00:33:04,400 --> 00:33:02,310

no master alarms I'll have to say it was

354

00:33:08,090 --> 00:33:04,410

a lot different than enough and lying on

355

00:33:14,150 --> 00:33:08,100

this we move on for the left home and

356

00:33:18,140 --> 00:33:17,330

hey guys here we are Roberto and I we're

357

00:33:20,600 --> 00:33:18,150

on the mid-deck

358

00:33:25,670 --> 00:33:20,610

we're setting up gira which is our water

359

00:33:27,130 --> 00:33:25,680

purification system over here and we've

360

00:33:29,150 --> 00:33:27,140

been in space now for a win

361

00:33:31,310 --> 00:33:29,160

warehouse whatever hour or something

362

00:33:33,650 --> 00:33:31,320

like that and amazingly we're all

363

00:33:35,240 --> 00:33:33,660

feeling great it's this is awesome I

364

00:33:38,090 --> 00:33:35,250

just can't wait to get back to the space

365

00:33:40,610 --> 00:33:38,100

station and go on just awesome

366

00:33:45,590 --> 00:33:40,620

the world oh my first ride on the

367

00:33:49,310 --> 00:33:45,600

shuttle was amazing launch and then Miko

368

00:33:53,300 --> 00:33:49,320

I was a little afraid but completely

369

00:33:56,750 --> 00:33:53,310

adapted and it's very interesting to

370

00:34:02,600 --> 00:33:56,760

work with old systems and then you

371

00:34:07,610 --> 00:34:05,730

yesterday most of the keeping it here

372

00:34:11,360 --> 00:34:07,620

just make sense it's

373

00:34:13,010 --> 00:34:11,370

very intuitive and

374

00:34:16,850 --> 00:34:13,020

and it was a great write-up it was an

375

00:34:18,920 --> 00:34:16,860

awesome flight up as excited as we were

376

00:34:21,680 --> 00:34:18,930

being on on top of the rocket that was

377

00:34:22,250 --> 00:34:21,690

great the autumn camera you're upside

378

00:34:23,660 --> 00:34:22,260

down