1
00:00:04,870 --> 00:00:02,869
from now to send the unpiloted cygnus

2
00:00:07,190 --> 00:00:04,880
cargo craft into orbit on a three-day

3
00:00:09,750 --> 00:00:07,200
journey to deliver some four tons of

4
00:00:11,910 --> 00:00:09,760
supplies and scientific experiments to

5
00:00:15,110 --> 00:00:11,920
the international space station

6
00:00:18,950 --> 00:00:15,120
launch is set for 8 38 and 44 seconds

7
00:00:21,029 --> 00:00:18,960
p.m central time 9 38 and 44 seconds pm

8
00:00:22,870 --> 00:00:21,039
eastern time at the start of a

9
00:00:24,550 --> 00:00:22,880
five-minute launch window

10
00:00:26,950 --> 00:00:24,560
weather for tonight's launch is

11
00:00:30,470 --> 00:00:26,960
excellent the forecast calls for just a

12
00:00:32,709 --> 00:00:30,480
few clouds at 5 000 feet and 25 000 feet

13
00:00:35,190 --> 00:00:32,719

winds out of the southwest at four knots

14
00:00:36,870 --> 00:00:35,200
a launch time temperature of 67 degrees

15
00:00:38,869 --> 00:00:36,880
fahrenheit overall

16
00:00:40,790 --> 00:00:38,879
the weather officer at wallops says we

17
00:00:42,950 --> 00:00:40,800
are 90 percent go

18
00:00:44,549 --> 00:00:42,960
for launch this evening

19
00:00:46,310 --> 00:00:44,559
good evening from our anchor post at

20
00:00:47,750 --> 00:00:46,320
mission control here in houston in the

21
00:00:50,229 --> 00:00:47,760
international space station flight

22
00:00:52,229 --> 00:00:50,239
control room at the johnson space center

23
00:00:54,549 --> 00:00:52,239
flight controllers here are monitoring

24
00:00:56,709 --> 00:00:54,559
their consoles watching over the station

25
00:00:59,750 --> 00:00:56,719
its systems and the three crew members

26
00:01:02,229 --> 00:00:59,760
comprising the expedition 63 crew

27
00:01:03,910 --> 00:01:02,239
more on them in a moment

28
00:01:05,990 --> 00:01:03,920
back at the wallops flight facility in

29
00:01:07,670 --> 00:01:06,000
virginia northrop grumman engineers are

30
00:01:09,270 --> 00:01:07,680
monitoring the countdown of this hour

31
00:01:11,510 --> 00:01:09,280
from the range control center that you

32
00:01:13,510 --> 00:01:11,520
see there and will be in control of the

33
00:01:16,469 --> 00:01:13,520
nine-minute climb to orbit for the

34
00:01:18,710 --> 00:01:16,479
two-stage antares rocket from liftoff to

35
00:01:20,870 --> 00:01:18,720
cygnus's spacecraft separation from the

36
00:01:22,789 --> 00:01:20,880
vehicle's second stage

37
00:01:25,109 --> 00:01:22,799
up the road from wallops in dulles

38
00:01:27,350 --> 00:01:25,119

virginia another team of northrop

39
00:01:29,190 --> 00:01:27,360
grumman engineers are on duty as well

40
00:01:31,109 --> 00:01:29,200
ready to take over the flight of cygnus

41
00:01:33,190 --> 00:01:31,119
after spacecraft separation they are

42
00:01:35,910 --> 00:01:33,200
under the lead tonight of mission

43
00:01:37,590 --> 00:01:35,920
director zach dwyer

44
00:01:39,590 --> 00:01:37,600
here at mission control in houston the

45
00:01:41,429 --> 00:01:39,600
orbit 3 team of flight controllers is on

46
00:01:43,670 --> 00:01:41,439
duty with the station crew members well

47
00:01:45,990 --> 00:01:43,680
into their sleep period for the night

48
00:01:47,910 --> 00:01:46,000
flight director and former astronaut tj

49
00:01:50,230 --> 00:01:47,920
creamer is presiding over the orbit 3

50
00:01:52,550 --> 00:01:50,240
team this evening

51
00:01:55,270 --> 00:01:52,560
this past sunday the antares rocket and

52
00:01:57,270 --> 00:01:55,280
the encapsulated cygnus cargo craft

53
00:01:59,910 --> 00:01:57,280
rolled out from its integration building

54
00:02:02,550 --> 00:01:59,920
at wallops to the oceanside launch pad

55
00:02:04,789 --> 00:02:02,560
to receive late cargo loading and to be

56
00:02:06,069 --> 00:02:04,799
rotated vertically for final pre-launch

57
00:02:08,070 --> 00:02:06,079
processing

58
00:02:10,150 --> 00:02:08,080
as you probably know by now the launch

59
00:02:12,309 --> 00:02:10,160
was originally scheduled for tuesday

60
00:02:14,070 --> 00:02:12,319
night but a forecast of inclement

61
00:02:16,070 --> 00:02:14,080
weather at wallops for both tuesday and

62
00:02:17,990 --> 00:02:16,080
wednesday pushed this initial launch

63
00:02:21,030 --> 00:02:18,000

attempt to this evening

64
00:02:24,390 --> 00:02:21,040
now we're sitting at t minus 35 minutes

65
00:02:27,030 --> 00:02:24,400
55 seconds and counting all systems are

66
00:02:29,589 --> 00:02:27,040
go for launch no issues being worked by

67
00:02:50,710 --> 00:02:29,599
the flight control teams and the launch

68
00:02:55,350 --> 00:02:53,030
as has become the custom for northrop

69
00:02:58,309 --> 00:02:55,360
grumman each cygnus resupply craft is

70
00:03:00,470 --> 00:02:58,319
named after a noted space explorer who

71
00:03:01,750 --> 00:03:00,480
contributed to the cause of human space

72
00:03:03,350 --> 00:03:01,760
exploration

73
00:03:05,910 --> 00:03:03,360
the cygnus being launched tonight is

74
00:03:09,110 --> 00:03:05,920
named for nasa astronaut kalpana chavla

75
00:03:10,390 --> 00:03:09,120
who twice flew into space on the sts-87

76
00:03:12,949 --> 00:03:10,400
mission aboard the space shuttle

77
00:03:15,750 --> 00:03:12,959
columbia in 1997

78
00:03:19,430 --> 00:03:15,760
and then on the ill-fated sts-107

79
00:03:21,350 --> 00:03:19,440
mission aboard colombia in 2003 in which

80
00:03:23,030 --> 00:03:21,360
she and her six crewmates lost their

81
00:03:25,270 --> 00:03:23,040
lives during entry

82
00:03:27,430 --> 00:03:25,280
colt nachovla honored on this mission of

83
00:03:31,990 --> 00:03:27,440
cygnus to the international space

84
00:03:37,589 --> 00:03:35,030
apps one launch enabled and illuminated

85
00:03:39,190 --> 00:03:37,599
and gso step 348 enable your local

86
00:03:41,030 --> 00:03:39,200
launch enable button at the failsafe

87
00:03:43,509 --> 00:03:41,040
panel verify local indicator is

88
00:03:48,630 --> 00:03:43,519

illuminated

89
00:03:50,470 --> 00:03:48,640
that we'll check steps 347.

90
00:03:52,309 --> 00:03:50,480
as mentioned earlier the antares rocket

91
00:03:54,710 --> 00:03:52,319
being launched tonight is a two-stage

92
00:03:57,030 --> 00:03:54,720
rocket to propel the cygnus cargo craft

93
00:03:58,710 --> 00:03:57,040
to its preliminary orbit beginning the

94
00:04:01,830 --> 00:03:58,720
chase to reach the international space

95
00:04:04,149 --> 00:04:01,840
station in the wee hours sunday morning

96
00:04:06,229 --> 00:04:04,159
with us this evening by phone to discuss

97
00:04:09,030 --> 00:04:06,239
antares and its nine-minute ride from

98
00:04:10,869 --> 00:04:09,040
the launch pad is christina hellona the

99
00:04:13,350 --> 00:04:10,879
northrop grumman antares systems

100
00:04:15,350 --> 00:04:13,360
engineering program manager christina

101
00:04:17,189 --> 00:04:15,360
thanks for joining us tonight good to be

102
00:04:18,949 --> 00:04:17,199
with you

103
00:04:20,390 --> 00:04:18,959
thank you for having me rob i'm excited

104
00:04:22,550 --> 00:04:20,400
to be here and welcome to all the

105
00:04:24,070 --> 00:04:22,560
viewers watching looking forward to a

106
00:04:25,909 --> 00:04:24,080
successful terrier launch and a

107
00:04:27,430 --> 00:04:25,919
significant mission to the international

108
00:04:30,230 --> 00:04:27,440
space station

109
00:04:32,710 --> 00:04:30,240
inside 34 minutes until liftoff and uh

110
00:04:34,230 --> 00:04:32,720
if you would christina walk us through

111
00:04:37,430 --> 00:04:34,240
and terry's launch

112
00:04:41,030 --> 00:04:37,440
and it's climbed to orbit step by step

113
00:04:42,390 --> 00:04:41,040

sure so after a post launch from

114
00:04:44,469 --> 00:04:42,400
from wallops there

115
00:04:46,790 --> 00:04:44,479
cygnus will separate from the interior

116
00:04:47,909 --> 00:04:46,800
rocket approximately nine minutes after

117
00:04:49,510 --> 00:04:47,919
launch

118
00:04:52,710 --> 00:04:49,520
the spacecraft will then begin

119
00:04:55,270 --> 00:04:52,720
initializing the propulsion system and

120
00:04:57,030 --> 00:04:55,280
various avionics components

121
00:04:59,510 --> 00:04:57,040
the solar array deployment will start

122
00:05:01,990 --> 00:04:59,520
approximately two hours after separation

123
00:05:02,710 --> 00:05:02,000
and then once that is complete uh cygnus

124
00:05:04,230 --> 00:05:02,720
will

125
00:05:05,590 --> 00:05:04,240
continue catching up to the

126
00:05:07,270 --> 00:05:05,600
international space station in

127
00:05:09,830 --> 00:05:07,280
preparation for birthing on saturday

128
00:05:12,790 --> 00:05:09,840
morning around 5 15 a.m eastern standard

129
00:05:18,230 --> 00:05:16,230
christina um this is called a 230 plus

130
00:05:19,909 --> 00:05:18,240
model of the antares rocket tell us a

131
00:05:22,150 --> 00:05:19,919
little bit about its capability and what

132
00:05:26,390 --> 00:05:22,160
northrop grumman envisions for antares

133
00:05:30,790 --> 00:05:27,749
sure rob

134
00:05:32,710 --> 00:05:30,800
prior to ng-12 that was

135
00:05:34,790 --> 00:05:32,720
we had 230

136
00:05:35,590 --> 00:05:34,800
configuration and that it was a little

137
00:05:38,230 --> 00:05:35,600
bit

138
00:05:39,830 --> 00:05:38,240

um we had to go with it lighter and took

139
00:05:43,350 --> 00:05:39,840
some things off and improved a lot of

140
00:05:46,390 --> 00:05:43,360
our mass issues um so 230 plus is we can

141
00:05:48,150 --> 00:05:46,400
carry more cargo and um we're also

142
00:05:49,510 --> 00:05:48,160
getting very light as far as the things

143
00:05:50,469 --> 00:05:49,520
that we're we're building onto the

144
00:05:52,950 --> 00:05:50,479
rocket

145
00:05:55,189 --> 00:05:52,960
and we're looking forward to have 230

146
00:05:58,070 --> 00:05:55,199
plus through ng17

147
00:05:59,510 --> 00:05:58,080
and um and looking forward to taking

148
00:06:03,749 --> 00:05:59,520
more cargo to the international space

149
00:06:07,430 --> 00:06:05,510
christina hallona of northrop grumman

150
00:06:10,150 --> 00:06:07,440
with us this evening by phone as the

151
00:06:13,670 --> 00:06:10,160
countdown for cygnus's launch now stands

152
00:06:15,830 --> 00:06:13,680
at t minus 32 minutes and counting at

153
00:06:19,270 --> 00:06:15,840
the time of launch at 8 38 and 44

154
00:06:21,590 --> 00:06:19,280
seconds pm central time 9 38 44 eastern

155
00:06:24,230 --> 00:06:21,600
time the international space station and

156
00:06:26,070 --> 00:06:24,240
its three residents will be flying 258

157
00:06:28,150 --> 00:06:26,080
miles over the atlantic off the

158
00:06:29,350 --> 00:06:28,160
northeast coast of brazil

159
00:06:30,150 --> 00:06:29,360
atlantis

160
00:06:32,469 --> 00:06:30,160
or

161
00:06:34,870 --> 00:06:32,479
antares i should say and cygnus will

162
00:06:36,790 --> 00:06:34,880
follow a familiar flight path launching

163
00:06:38,629 --> 00:06:36,800

to the southeast from wallops to start

164
00:06:41,110 --> 00:06:38,639
the rendezvous that will lead to its

165
00:06:43,909 --> 00:06:41,120
robotic capture on sunday morning

166
00:06:47,029 --> 00:06:43,919
the two robotic astronauts who will be

167
00:06:49,270 --> 00:06:47,039
in charge of capturing cygnus uh after

168
00:06:51,909 --> 00:06:49,280
its three-day journey from the launch

169
00:06:54,790 --> 00:06:51,919
pad our station commander chris cassidy

170
00:06:57,430 --> 00:06:54,800
of nasa he will be backed up by russian

171
00:06:59,749 --> 00:06:57,440
cosmonaut yvonne wagner

172
00:07:01,990 --> 00:06:59,759
cassidy wagner and russian cosmonaut

173
00:07:04,309 --> 00:07:02,000
anatoly ivanishin are asleep at this

174
00:07:06,390 --> 00:07:04,319
hour beginning the final three weeks of

175
00:07:09,270 --> 00:07:06,400
their six and a half month mission on

176
00:07:11,350 --> 00:07:09,280
the orbital outpost

177
00:07:14,550 --> 00:07:11,360
they are planning to return to earth on

178
00:07:17,909 --> 00:07:14,560
october 21st u.s time october 22nd

179
00:07:20,070 --> 00:07:17,919
kazakhstan time on their soyuz ms-16

180
00:07:21,029 --> 00:07:20,080
spacecraft heading for a parachute

181
00:07:23,270 --> 00:07:21,039
assisted

182
00:07:25,350 --> 00:07:23,280
landing on the step of kazakhstan to

183
00:07:27,189 --> 00:07:25,360
wrap up a mission of six and a half

184
00:07:29,350 --> 00:07:27,199
months aboard the international space

185
00:07:32,550 --> 00:07:29,360
station that will come after an

186
00:07:34,870 --> 00:07:32,560
eight-day handover from the next trio of

187
00:07:36,710 --> 00:07:34,880
residents to launch from the baikonur

188
00:07:38,870 --> 00:07:36,720

cosmodrome in kazakhstan to the

189
00:07:41,430 --> 00:07:38,880
international space station including

190
00:07:44,309 --> 00:07:41,440
nasa astronaut kate rubins and russian

191
00:07:46,629 --> 00:07:44,319
cosmonauts sergey rizhikov and sergey

192
00:07:48,550 --> 00:07:46,639
kud sverchkov who are in the final

193
00:07:50,869 --> 00:07:48,560
stages of training down at the baikonur

194
00:07:53,510 --> 00:07:50,879
cosmodrome their launch is scheduled

195
00:07:58,629 --> 00:07:53,520
just after midnight central time on

196
00:08:02,869 --> 00:08:01,110
30 minutes now until liftoff

197
00:08:05,189 --> 00:08:02,879
and teres is in great shape on the

198
00:08:15,909 --> 00:08:05,199
launch pad no issues being worked by the

199
00:08:21,670 --> 00:08:18,390
lost team lc countdown one we're at t

200
00:08:24,869 --> 00:08:21,680
minus 30 minutes to our target t0

201
00:08:27,270 --> 00:08:24,879
step 353 pull for final fts power on and

202
00:08:29,670 --> 00:08:27,280
arm command test safety

203
00:08:33,509 --> 00:08:29,680
safety scope fso

204
00:08:34,310 --> 00:08:33,519
fso scope house one option is go select

205
00:08:39,750 --> 00:08:34,320
two

206
00:08:42,469 --> 00:08:39,760
power on and arm command test

207
00:08:44,070 --> 00:08:42,479
fso step 354 bring up command

208
00:08:45,110 --> 00:08:44,080
transmitter transmitter with check

209
00:08:49,030 --> 00:08:45,120
channel on

210
00:08:55,509 --> 00:08:52,150
the launch conductor at wallops uh with

211
00:08:57,829 --> 00:08:55,519
an intermediate pole of his team in the

212
00:09:00,389 --> 00:08:57,839
range control center all positions

213
00:09:02,230 --> 00:09:00,399

polling go the flight control team here

214
00:09:05,269 --> 00:09:02,240
at mission control in houston also has

215
00:09:07,590 --> 00:09:05,279
been polled and has relayed their go

216
00:09:10,310 --> 00:09:07,600
status to the

217
00:09:11,990 --> 00:09:10,320
teams both at wallops and at dulles

218
00:09:14,790 --> 00:09:12,000
virginia which again will take over

219
00:09:17,110 --> 00:09:14,800
control of the flight of cygnus uh once

220
00:09:25,670 --> 00:09:17,120
uh it separates from the second or upper

221
00:09:29,910 --> 00:09:28,150
lcfso waltz command site is on check

222
00:09:34,230 --> 00:09:29,920
channel radiating

223
00:09:38,070 --> 00:09:34,240
copy that fso and ops 1 step 355

224
00:09:41,509 --> 00:09:38,080
apply external power to ftsa and ftsb

225
00:09:48,710 --> 00:09:41,519
lc ops 1 ftsa external power on

226
00:09:53,269 --> 00:09:51,430
amongst the supplies being carried as

227
00:09:54,710 --> 00:09:53,279
part of the four tons of supplies and

228
00:09:57,509 --> 00:09:54,720
scientific experiments to the

229
00:10:00,070 --> 00:09:57,519
international space station is a variety

230
00:10:02,470 --> 00:10:00,080
of food for the expedition crew members

231
00:10:06,550 --> 00:10:02,480
not only the departing expedition 63

232
00:10:08,710 --> 00:10:06,560
crew but the oncoming expedition 64 crew

233
00:10:11,910 --> 00:10:08,720
some of the goodies being carried up

234
00:10:14,470 --> 00:10:11,920
aboard the ss kultner chavla to the

235
00:10:17,509 --> 00:10:14,480
international space station include brie

236
00:10:18,949 --> 00:10:17,519
cheese several varieties of smoked gouda

237
00:10:21,430 --> 00:10:18,959
and provolone

238
00:10:24,389 --> 00:10:21,440

prosciutto corritzo dark chocolate

239
00:10:26,230 --> 00:10:24,399
covered cranberries genoa salami and

240
00:10:29,910 --> 00:10:26,240
summer sausage

241
00:10:31,430 --> 00:10:29,920
some of that requested specifically by

242
00:10:33,829 --> 00:10:31,440
the

243
00:10:38,310 --> 00:10:33,839
expedition 64 crew kate rubin sergey

244
00:10:40,790 --> 00:10:38,320
rizhikov sergey kud sverchkoff and the

245
00:10:43,030 --> 00:10:40,800
next crew to launch on spacex's crew

246
00:10:45,670 --> 00:10:43,040
dragon currently scheduled for the early

247
00:10:48,949 --> 00:10:45,680
morning hours of october 31st

248
00:10:52,069 --> 00:10:48,959
that crew will be launching on a 25-hour

249
00:10:53,990 --> 00:10:52,079
trajectory from launch pad 39a at the

250
00:10:55,910 --> 00:10:54,000
kennedy space center to reach the

251
00:10:59,269 --> 00:10:55,920
international space station in the early

252
00:11:03,509 --> 00:11:01,829
armed 1st indication received fps

253
00:11:07,509 --> 00:11:03,519
currently indicate safe

254
00:11:15,590 --> 00:11:07,519
and fso verify fts arm indication

255
00:11:20,310 --> 00:11:19,110
lc i like 2 fps safe and arm and fdlu

256
00:11:22,630 --> 00:11:20,320
safe

257
00:11:24,069 --> 00:11:22,640
and i copy all and that

258
00:11:30,790 --> 00:11:24,079
complete steps

259
00:11:35,509 --> 00:11:33,190
for the flight profile of

260
00:11:37,509 --> 00:11:35,519
antares as it heads up hill

261
00:11:40,150 --> 00:11:37,519
uh to the uh

262
00:11:42,310 --> 00:11:40,160
point of its preliminary orbit uh

263
00:11:44,630 --> 00:11:42,320

dropping off cygnus in its preliminary

264
00:11:46,630 --> 00:11:44,640
orbit some nine minutes after launch

265
00:11:49,590 --> 00:11:46,640
uh we'll be hearing uh these performance

266
00:11:52,629 --> 00:11:49,600
calls from uh the range control center

267
00:11:55,829 --> 00:11:52,639
at wallops island virginia uh the main

268
00:11:57,990 --> 00:11:55,839
engine cut off for the first stage of

269
00:12:01,030 --> 00:11:58,000
antares will come at about the 3 minute

270
00:12:03,750 --> 00:12:01,040
18 second mark followed about 6 seconds

271
00:12:06,310 --> 00:12:03,760
later by stage 1 separation and 30

272
00:12:08,949 --> 00:12:06,320
seconds after that by fairing separation

273
00:12:11,670 --> 00:12:08,959
which will expose the cygnus resupply

274
00:12:13,350 --> 00:12:11,680
craft to the environment heading uphill

275
00:12:15,990 --> 00:12:13,360
for the remainder of the nine-minute

276
00:12:17,990 --> 00:12:16,000
ride to its preliminary orbit

277
00:12:20,310 --> 00:12:18,000
stage two ignition is scheduled at about

278
00:12:22,310 --> 00:12:20,320
the four-minute seven second mark into

279
00:12:26,230 --> 00:12:22,320
the flight that will be about a

280
00:12:27,590 --> 00:12:26,240
two-minute 44 second burn of the stage 2

281
00:12:31,030 --> 00:12:27,600
engine

282
00:12:33,430 --> 00:12:31,040
following that at the 6 minute 51 second

283
00:12:36,629 --> 00:12:33,440
mark we'll have stage 2 burnout and

284
00:12:39,190 --> 00:12:36,639
orbital insertion followed 2 minutes and

285
00:12:41,670 --> 00:12:39,200
18 seconds later by

286
00:12:43,269 --> 00:12:41,680
cygnus's separation from the second

287
00:12:46,150 --> 00:12:43,279
stage and as you heard from christina

288
00:12:47,030 --> 00:12:46,160

hallona earlier in our interview with

289
00:12:49,350 --> 00:12:47,040
her

290
00:12:51,269 --> 00:12:49,360
it will be about two hours or so after

291
00:12:54,230 --> 00:12:51,279
launch where the commands will be given

292
00:12:57,269 --> 00:12:54,240
to begin the deployment of cygnus's

293
00:12:59,430 --> 00:12:57,279
ultraflex solar arrays that's about a 30

294
00:13:01,750 --> 00:12:59,440
minute procedure we will not be on the

295
00:13:04,230 --> 00:13:01,760
air for solar array deploy we will be

296
00:13:06,150 --> 00:13:04,240
standing by to monitor it however and

297
00:13:13,269 --> 00:13:06,160
we'll report the results of solar array

298
00:13:17,030 --> 00:13:15,430
25 minutes until launch everything going

299
00:13:21,430 --> 00:13:17,040
smoothly

300
00:13:23,269 --> 00:13:21,440
25 minutes to our target t0 step 364

301
00:13:26,470 --> 00:13:23,279
report readiness for recalibration of

302
00:13:28,629 --> 00:13:26,480
engine pressure sensors mes2

303
00:13:30,949 --> 00:13:28,639
lcm s2 ready for engine pressure sensor

304
00:13:33,269 --> 00:13:30,959
recall ahs1

305
00:13:35,990 --> 00:13:33,279
ehl spawners go and we're ready for

306
00:13:38,470 --> 00:13:36,000
engine pressure sensor recal ops one

307
00:13:50,230 --> 00:13:38,480
recalibrate engine pressure sensors

308
00:13:55,110 --> 00:13:52,629
lc ops one engine pressure sensor is

309
00:13:58,629 --> 00:13:55,120
recalibrated and ready for flight

310
00:14:02,710 --> 00:13:58,639
copy that option check 365.

311
00:14:05,990 --> 00:14:02,720
prop 2 lc countdown 1 step 366 plus

312
00:14:08,949 --> 00:14:06,000
place occs in the sac mode and pause hss

313
00:14:08,959 --> 00:14:18,389

lc prop 2 in work

314
00:14:25,990 --> 00:14:22,550
and lc prop 2 hsf asc is paused and your

315
00:14:27,990 --> 00:14:26,000
go uh to configure ehs rp valve for

316
00:14:31,269 --> 00:14:28,000
final countdown

317
00:14:42,829 --> 00:14:31,279
and copy that opening valve 80 21 on my

318
00:14:48,550 --> 00:14:46,230
mark and i'll see prop lead ehs rp

319
00:14:51,030 --> 00:14:48,560
configured for final countdown copy that

320
00:14:54,550 --> 00:14:51,040
properly we'll check 368 complete prop 2

321
00:14:58,310 --> 00:14:56,470
there will be one final poll for

322
00:15:01,269 --> 00:14:58,320
readiness to proceed with the terminal

323
00:15:05,110 --> 00:15:01,279
countdown that will be coming up shortly

324
00:15:07,189 --> 00:15:05,120
at the t-minus 3-minute 30-second mark

325
00:15:09,269 --> 00:15:07,199
the range control center engineers will

326
00:15:11,590 --> 00:15:09,279
be initiating an auto-sequence hand-off

327
00:15:13,590 --> 00:15:11,600
that will initiate the terminal count

328
00:15:17,110 --> 00:15:13,600
for antares leading to a launch once

329
00:15:19,990 --> 00:15:17,120
again at 8 38 and 44 seconds pm

330
00:15:21,389 --> 00:15:20,000
central time 9 38 44

331
00:15:26,150 --> 00:15:21,399
eastern

332
00:15:31,749 --> 00:15:28,230
lc site control tel arm for rapid

333
00:15:36,230 --> 00:15:33,829
the tel is the uh acronym for

334
00:15:37,829 --> 00:15:36,240
transporter erector launcher that's

335
00:15:40,790 --> 00:15:37,839
basically the gantry that you see

336
00:15:44,310 --> 00:15:40,800
buttressed up against the side of

337
00:15:46,790 --> 00:15:44,320
antares as it stands on launchpad 0a at

338
00:15:49,829 --> 00:15:46,800

the mid-atlantic regional spaceport at

339
00:15:53,430 --> 00:15:49,839
wallops island virginia

340
00:16:01,430 --> 00:15:57,430
lctel go ahead yeah step 373

341
00:16:02,790 --> 00:16:01,440
uh rapid free protect army is in work

342
00:16:04,310 --> 00:16:02,800
okay copy that i'll wait for your call

343
00:16:07,350 --> 00:16:04,320
on that

344
00:16:10,629 --> 00:16:07,360
gnc one lc step 374 provides status of

345
00:16:17,509 --> 00:16:12,870
upper level

346
00:16:18,629 --> 00:16:17,519
step 374 complete one interesting note

347
00:16:21,590 --> 00:16:18,639
uh

348
00:16:23,430 --> 00:16:21,600
about this particular mission of cygnus

349
00:16:25,350 --> 00:16:23,440
to the international space station as we

350
00:16:27,030 --> 00:16:25,360
mentioned uh this vehicle named by

351
00:16:29,030 --> 00:16:27,040
northrop grumman

352
00:16:31,590 --> 00:16:29,040
after uh the late uh

353
00:16:33,189 --> 00:16:31,600
nasa astronaut cult nachovla who lost

354
00:16:35,430 --> 00:16:33,199
her life in the columbia accident on

355
00:16:37,670 --> 00:16:35,440
february 1st 2003

356
00:16:40,230 --> 00:16:37,680
she was the first nasa astronaut of

357
00:16:42,230 --> 00:16:40,240
south asian and indian descent

358
00:16:44,710 --> 00:16:42,240
the lead nasa flight director for this

359
00:16:46,629 --> 00:16:44,720
mission puja jasrani who will be on

360
00:16:49,269 --> 00:16:46,639
council sunday morning for the

361
00:16:51,030 --> 00:16:49,279
rendezvous and capture of

362
00:16:52,949 --> 00:16:51,040
cygnus also

363
00:16:55,430 --> 00:16:52,959

of indian descent and south asian

364
00:16:58,550 --> 00:16:55,440
descent so the symmetry of history

365
00:17:00,870 --> 00:16:58,560
coming into focus uh with uh puja

366
00:17:03,030 --> 00:17:00,880
gesrani who will be

367
00:17:04,710 --> 00:17:03,040
in mission control here in houston

368
00:17:10,630 --> 00:17:04,720
presiding over

369
00:17:17,110 --> 00:17:14,069
once uh cygnus reaches orbit a series of

370
00:17:18,390 --> 00:17:17,120
pre-programmed engine firings uh on the

371
00:17:19,189 --> 00:17:18,400
vehicle

372
00:17:21,990 --> 00:17:19,199
will

373
00:17:25,189 --> 00:17:22,000
begin the three-day rendezvous to catch

374
00:17:25,990 --> 00:17:25,199
up to the international space station

375
00:17:28,950 --> 00:17:26,000
the

376
00:17:30,870 --> 00:17:28,960
cygnus will arrive at a point

377
00:17:32,390 --> 00:17:30,880
just directly underneath the station

378
00:17:34,630 --> 00:17:32,400
early sunday morning

379
00:17:36,470 --> 00:17:34,640
and then will inch its way

380
00:17:38,870 --> 00:17:36,480
up what is called the r bar or the

381
00:17:40,549 --> 00:17:38,880
radial vector the imaginary line drawn

382
00:17:42,070 --> 00:17:40,559
between the international space station

383
00:17:44,950 --> 00:17:42,080
and the earth

384
00:17:47,270 --> 00:17:44,960
to a point at which chris cassidy

385
00:17:49,590 --> 00:17:47,280
backed up by russian cosmonaut yvonne

386
00:17:51,510 --> 00:17:49,600
wagner working from the cupola

387
00:17:54,070 --> 00:17:51,520
workstation the robotics workstation in

388
00:17:57,430 --> 00:17:54,080

the cupola will extend the canadian

389
00:18:00,230 --> 00:17:57,440
built canadarm2 robotic arm to grapple

390
00:18:01,270 --> 00:18:00,240
the grapple fixture on cygnus at which

391
00:18:03,029 --> 00:18:01,280
point

392
00:18:04,549 --> 00:18:03,039
the operations will be turned over to

393
00:18:07,110 --> 00:18:04,559
ground controllers here in mission

394
00:18:09,430 --> 00:18:07,120
control who will maneuver cygnus to its

395
00:18:11,830 --> 00:18:09,440
installation point on the earth-facing

396
00:18:14,230 --> 00:18:11,840
port of the unity module where it will

397
00:18:28,150 --> 00:18:14,240
be bolted into place and will remain at

398
00:18:32,150 --> 00:18:30,470
coming up on the t-minus 19-minute mark

399
00:18:34,150 --> 00:18:32,160
into the countdown no issues being

400
00:18:36,310 --> 00:18:34,160
worked right now by the

401
00:19:47,190 --> 00:18:36,320
launch control team at the wallops

402
00:19:52,150 --> 00:19:48,950
the countdown at wallops continues to

403
00:19:54,150 --> 00:19:52,160
proceed without any issues being worked

404
00:19:57,909 --> 00:19:54,160
as we approach the 17 and a half minute

405
00:20:02,230 --> 00:20:00,630
once again at the time of liftoff of the

406
00:20:03,590 --> 00:20:02,240
international space station and its

407
00:20:05,350 --> 00:20:03,600
three residents

408
00:20:07,990 --> 00:20:05,360
stationed commander chris cassidy of

409
00:20:10,549 --> 00:20:08,000
nasa and russian cosmonauts anatoly

410
00:20:12,470 --> 00:20:10,559
ivanishin and yvonne wagner will be

411
00:20:15,029 --> 00:20:12,480
flying 258

412
00:20:17,190 --> 00:20:15,039
miles over the atlantic ocean off the

413
00:20:19,350 --> 00:20:17,200

northeast coast of brazil

414
00:20:21,350 --> 00:20:19,360
they have been aboard the international

415
00:20:23,510 --> 00:20:21,360
space station since april

416
00:20:24,870 --> 00:20:23,520
just three weeks away from completing a

417
00:21:03,990 --> 00:20:24,880
six and a half month mission on the

418
00:21:07,909 --> 00:21:06,390
antares is fully fueled ready to take

419
00:21:10,710 --> 00:21:07,919
flight

420
00:21:12,710 --> 00:21:10,720
no issues being worked

421
00:21:14,789 --> 00:21:12,720
everything very quiet on the loops right

422
00:21:17,990 --> 00:21:14,799
now

423
00:21:51,590 --> 00:21:18,000
yeah lc this is prop lead actual f1n

424
00:21:59,909 --> 00:21:55,350
and lc this is prop lead step 381 actual

425
00:21:59,919 --> 00:22:04,149
okay copy that 12 12

426
00:22:19,430 --> 00:22:06,789
core 1 lc step 382

427
00:22:24,390 --> 00:22:22,470
core one lc countdown one

428
00:22:26,630 --> 00:22:24,400
uh llc core wanna on countdown one can

429
00:22:36,470 --> 00:22:26,640
you stand by

430
00:22:36,480 --> 00:22:46,710
cmdlc countdown one

431
00:22:46,720 --> 00:22:50,470
cmd lc countdown one

432
00:22:54,549 --> 00:22:52,070
i'll see this cmd

433
00:22:57,190 --> 00:22:54,559
yeah cmd you go for step 385 transfer

434
00:22:59,750 --> 00:22:57,200
sickness to launch mode

435
00:23:02,149 --> 00:22:59,760
oh is this going to be in work

436
00:23:04,149 --> 00:23:02,159
llc uh core one on countdown one go

437
00:23:05,830 --> 00:23:04,159
ahead quarter one uh fuel level

438
00:23:07,909 --> 00:23:05,840

adjustment is not required

439
00:23:09,590 --> 00:23:07,919
copy that fuel level does not require

440
00:23:11,270 --> 00:23:09,600
adjustment

441
00:23:13,830 --> 00:23:11,280
and prop 2

442
00:23:15,430 --> 00:23:13,840
configure occs for no adjustment to fuel

443
00:23:19,270 --> 00:23:15,440
level

444
00:23:22,630 --> 00:23:21,510
and properly bfi step 384 is not

445
00:23:24,549 --> 00:23:22,640
required

446
00:23:25,750 --> 00:23:24,559
launch engineers monitoring the fuel

447
00:23:28,630 --> 00:23:25,760
levels uh

448
00:23:30,870 --> 00:23:28,640
on the antares rocket everything

449
00:23:32,789 --> 00:23:30,880
seems to be in excellent shape as we

450
00:23:35,350 --> 00:23:32,799
approach the 14 minute mark until

451
00:23:38,549 --> 00:23:35,360
liftoff the international space station

452
00:23:40,950 --> 00:23:38,559
currently uh traveling on a northwest to

453
00:23:43,789 --> 00:23:40,960
southeast trajectory having just passed

454
00:23:45,990 --> 00:23:43,799
over washington dc in an orbit inclined

455
00:23:48,149 --> 00:23:46,000
51.6 degrees to either side of the

456
00:23:51,750 --> 00:23:48,159
equator to implement

457
00:23:53,830 --> 00:23:51,760
a hold at t minus 11 minutes

458
00:23:55,990 --> 00:23:53,840
uh again we're going to go ahead and

459
00:23:59,590 --> 00:23:56,000
implement a hold

460
00:24:02,149 --> 00:23:59,600
at t minus 11 minutes that will be cdt

461
00:24:05,190 --> 00:24:02,159
hold time of 0 1 2 7

462
00:24:15,510 --> 00:24:05,200
4 5. td you copy

463
00:24:23,590 --> 00:24:19,190

correct hold number one on your matrix

464
00:24:33,510 --> 00:24:25,590
and prop two can i get status on step

465
00:24:38,549 --> 00:24:35,750
and i'll see this is prop two on

466
00:24:40,470 --> 00:24:38,559
countdown one uh we are working an issue

467
00:24:43,830 --> 00:24:40,480
the wrong button was selected

468
00:24:48,070 --> 00:24:43,840
um we are in talks with admin currently

469
00:24:53,590 --> 00:24:51,350
lc td on countdown one ranges green for

470
00:24:54,710 --> 00:24:53,600
wind drifted debris and toxic for the

471
00:24:56,789 --> 00:24:54,720
whole window

472
00:24:58,470 --> 00:24:56,799
all right copy that td we're going to go

473
00:25:02,310 --> 00:24:58,480
ahead and implement our hole to t minus

474
00:25:03,590 --> 00:25:02,320
11 regardless city copies off

475
00:25:04,710 --> 00:25:03,600
please advise with the pick up time for

476
00:25:06,149 --> 00:25:04,720
the clock

477
00:25:08,789 --> 00:25:06,159
yeah wilco

478
00:25:11,909 --> 00:25:08,799
our resume time will be zero one three

479
00:25:13,909 --> 00:25:11,919
two four four i'll copy

480
00:25:19,269 --> 00:25:13,919
td copy zero one three two four four

481
00:25:23,190 --> 00:25:21,269
okay launch team we are

482
00:25:26,390 --> 00:25:23,200
going to go ahead and hold the clock at

483
00:25:28,310 --> 00:25:26,400
the t minus 11 minutes uh we have not

484
00:25:29,909 --> 00:25:28,320
proceeded with our poll with the final

485
00:25:31,350 --> 00:25:29,919
countdown working a couple of late

486
00:25:32,630 --> 00:25:31,360
issues here

487
00:25:34,549 --> 00:25:32,640
we have

488
00:25:35,909 --> 00:25:34,559

directed cygnus to put themselves in

489
00:25:37,590 --> 00:25:35,919
launch mode

490
00:25:40,630 --> 00:25:37,600
so they'll report back on that we're

491
00:25:43,190 --> 00:25:40,640
also in our helium topping at this time

492
00:25:49,590 --> 00:25:43,200
and we'll get additional status out here

493
00:25:54,070 --> 00:25:51,909
and as you heard from the launch control

494
00:25:57,269 --> 00:25:54,080
team at the range control center in

495
00:25:59,590 --> 00:25:57,279
wallops we're going to go into a hold at

496
00:26:01,430 --> 00:25:59,600
t minus 11 minutes just about 40 seconds

497
00:26:05,190 --> 00:26:01,440
from now

498
00:26:06,950 --> 00:26:05,200
as they evaluate wind direction

499
00:26:09,029 --> 00:26:06,960
that would come into play in the

500
00:26:10,789 --> 00:26:09,039
unlikely event of a launch accident that

501
00:26:12,230 --> 00:26:10,799
would take toxic fuel into the wrong

502
00:26:14,310 --> 00:26:12,240
direction

503
00:26:18,230 --> 00:26:14,320
of personnel working at the wallops

504
00:26:23,350 --> 00:26:21,029
if everything goes as planned we expect

505
00:26:25,110 --> 00:26:23,360
to be able to pick up the count to reach

506
00:26:36,149 --> 00:26:25,120
the end of this five-minute launch

507
00:26:40,149 --> 00:26:37,909
there is only a five-minute launch

508
00:26:43,510 --> 00:26:40,159
window available for any launch attempt

509
00:26:46,070 --> 00:26:43,520
for antares and the cygnus spacecraft

510
00:26:48,070 --> 00:26:46,080
we're currently in our four-minute 59

511
00:26:49,510 --> 00:26:48,080
second hold trying to resolve a couple

512
00:26:53,990 --> 00:26:49,520
of issues here

513
00:26:58,549 --> 00:26:56,630

the launch window expires at

514
00:27:01,430 --> 00:26:58,559
8 43

515
00:27:05,269 --> 00:27:01,440
and 44 seconds p.m

516
00:27:06,789 --> 00:27:05,279
9 43 44 p.m eastern time

517
00:27:08,549 --> 00:27:06,799
so we'll be standing by for further

518
00:27:50,630 --> 00:27:08,559
words from the launch conductor at

519
00:27:55,269 --> 00:27:52,789
once again

520
00:27:58,149 --> 00:27:55,279
we are standing by for further word from

521
00:28:00,710 --> 00:27:58,159
the range control center at wallops

522
00:28:02,389 --> 00:28:00,720
on picking up the count

523
00:28:04,070 --> 00:28:02,399
to reach the end of this five minute

524
00:28:08,389 --> 00:28:04,080
launch window

525
00:28:34,389 --> 00:28:08,399
which uh would expire at 8 43 44 p.m

526
00:28:37,830 --> 00:28:36,310
i'll see this cmd

527
00:28:39,590 --> 00:28:37,840
go ahead cmd

528
00:28:41,990 --> 00:28:39,600
yes say this is in launch mode and

529
00:28:55,990 --> 00:28:42,000
nominal okay copy that we'll go ahead

530
00:29:00,710 --> 00:28:58,789
okay launch team lc countdown one i do

531
00:29:02,950 --> 00:29:00,720
want to go ahead and get our poll to

532
00:29:04,789 --> 00:29:02,960
proceed with our final countdown

533
00:29:06,230 --> 00:29:04,799
started here i understand we might get

534
00:29:08,950 --> 00:29:06,240
some go pendings

535
00:29:11,430 --> 00:29:08,960
and i know that both prop lead

536
00:29:13,269 --> 00:29:11,440
and gce are off working some issues

537
00:29:15,269 --> 00:29:13,279
right now but i want to get goes or go

538
00:29:16,710 --> 00:29:15,279

pendings on our poll to proceed with

539
00:29:18,789 --> 00:29:16,720
final countdown

540
00:29:20,470 --> 00:29:18,799
our plan pickup time is at zero one

541
00:29:23,750 --> 00:29:20,480
three two four four

542
00:29:25,750 --> 00:29:23,760
and that's in just over two minutes

543
00:29:26,710 --> 00:29:25,760
gso

544
00:29:27,830 --> 00:29:26,720
go

545
00:29:30,230 --> 00:29:27,840
rso

546
00:29:35,990 --> 00:29:30,240
td

547
00:29:41,029 --> 00:29:38,070
uh spin by lc

548
00:29:42,389 --> 00:29:41,039
mes1 mes1 is go

549
00:29:45,430 --> 00:29:42,399
ace

550
00:29:46,710 --> 00:29:45,440
and mars

551
00:29:55,430 --> 00:29:46,720
largest go

552
00:29:59,750 --> 00:29:57,510
just under two minutes left before the

553
00:30:01,430 --> 00:29:59,760
countdown would need to resume to reach

554
00:30:02,389 --> 00:30:01,440
the end of tonight's five minute launch

555
00:30:03,909 --> 00:30:02,399
window

556
00:30:11,990 --> 00:30:03,919
standing by for further word from

557
00:30:15,750 --> 00:30:13,510
okay launch team we're going to be

558
00:30:18,470 --> 00:30:15,760
picking up the count in just uh over a

559
00:30:21,029 --> 00:30:18,480
minute here again our new target t0 time

560
00:30:24,070 --> 00:30:21,039
will occur at zero one four three four

561
00:30:26,149 --> 00:30:24,080
four utc that's zero one

562
00:30:28,389 --> 00:30:26,159
four three four four

563
00:30:31,510 --> 00:30:28,399

utc

564
00:30:35,510 --> 00:30:33,430
go ahead elsie yeah be advised we're

565
00:30:37,590 --> 00:30:35,520
gonna delay start of engine evac until i

566
00:30:51,909 --> 00:30:37,600
give you direction to do so

567
00:30:51,919 --> 00:30:55,190
lc stage one this guy

568
00:30:55,200 --> 00:31:02,230
okay copy i've got stage one go

569
00:31:05,750 --> 00:31:03,750
standing by for the resumption of the

570
00:31:06,950 --> 00:31:05,760
countdown to reach the end of the launch

571
00:31:09,750 --> 00:31:06,960
window

572
00:31:22,310 --> 00:31:09,760
with the new t-zero time for liftoff at

573
00:31:27,430 --> 00:31:24,149
now we're hearing that there the reason

574
00:31:30,230 --> 00:31:27,440
for this brief delay is a boat out in

575
00:31:31,110 --> 00:31:30,240
the range the range believes it will be

576
00:31:42,789 --> 00:31:31,120
clear

577
00:31:46,870 --> 00:31:44,630
okay i want to complete our poll to

578
00:31:50,470 --> 00:31:46,880
proceed with final countdown prop lead

579
00:31:54,710 --> 00:31:53,509
prop please go pending uh 1914 reading

580
00:31:59,669 --> 00:31:54,720
dry

581
00:32:05,350 --> 00:32:03,909
copy that cmd cmds go

582
00:32:10,070 --> 00:32:05,360
ld

583
00:32:11,830 --> 00:32:10,080
in honor of kaufman chavla who inspired

584
00:32:13,590 --> 00:32:11,840
millions of people as the first woman of

585
00:32:15,430 --> 00:32:13,600
indian descent to fly into space

586
00:32:17,190 --> 00:32:15,440
northrop grumman is go

587
00:32:19,110 --> 00:32:17,200
copy that we are going to proceed with

588
00:32:21,590 --> 00:32:19,120

final countdown

589
00:32:23,669 --> 00:32:21,600
ops 2 you go for step 389 start engine

590
00:32:25,750 --> 00:32:23,679
evac

591
00:32:28,389 --> 00:32:25,760
lc office 2

592
00:32:30,310 --> 00:32:28,399
engine evacation started the range now

593
00:32:31,590 --> 00:32:30,320
clear at wallops everything in good

594
00:32:32,789 --> 00:32:31,600
shape

595
00:32:35,269 --> 00:32:32,799
at the uh

596
00:32:38,230 --> 00:32:35,279
t-minus 10-minute mark

597
00:32:41,669 --> 00:32:38,240
liftoff now scheduled at 8 43 and 44

598
00:33:29,590 --> 00:32:41,679
seconds p.m eastern time 9 43 44 eastern

599
00:33:35,430 --> 00:33:32,310
ops one lc countdown one

600
00:33:37,830 --> 00:33:35,440
go ahead lc yeah step 391 enable acs

601
00:33:40,470 --> 00:33:37,840
vdms

602
00:33:42,630 --> 00:33:40,480
uh underway t-minus nine minutes and

603
00:33:44,630 --> 00:33:42,640
counting

604
00:33:46,549 --> 00:33:44,640
the range is clear at wallops and

605
00:33:47,509 --> 00:33:46,559
terry's in great shape cygnus ready to

606
00:33:49,669 --> 00:33:47,519
fly

607
00:33:52,149 --> 00:33:49,679
enabled voltage nominal odm commands

608
00:33:54,630 --> 00:33:52,159
clear copy that electron check 392

609
00:33:59,190 --> 00:33:54,640
launch team b advise step 393 is not

610
00:33:59,200 --> 00:34:11,510
site control wait for your call on 394.

611
00:34:36,790 --> 00:34:14,950
lc mes1 step 390 vacuum verified

612
00:34:36,800 --> 00:34:43,589
t-minus eight minutes and counting

613
00:34:58,050 --> 00:34:45,350

celsius

614
00:35:10,230 --> 00:35:00,390
[Music]

615
00:35:13,829 --> 00:35:11,829
as the international space station

616
00:35:15,349 --> 00:35:13,839
approaches the northeast coast of south

617
00:35:17,349 --> 00:35:15,359
america

618
00:35:25,660 --> 00:35:17,359
we're coming up on the seven minute

619
00:36:10,829 --> 00:35:32,400
[Music]

620
00:36:15,510 --> 00:36:14,710
so lc this is top three on countdown one

621
00:36:18,710 --> 00:36:15,520
go

622
00:36:21,750 --> 00:36:18,720
i can confirm 395 btso activation

623
00:36:24,829 --> 00:36:21,760
verified copy that check 395 ops 2 step

624
00:36:27,430 --> 00:36:24,839
396 initialize ground or against power

625
00:36:28,950 --> 00:36:27,440
supply lc obstacles

626
00:36:31,030 --> 00:36:28,960
ground ordinance power supply is

627
00:36:33,990 --> 00:36:31,040
initialized

628
00:36:37,670 --> 00:36:34,000
grab an ordinance power supplies nominal

629
00:36:39,270 --> 00:36:37,680
capital check 396 and 397. t-minus six

630
00:36:41,670 --> 00:36:39,280
minutes and counting

631
00:36:43,589 --> 00:36:41,680
in about two and a half minutes uh the

632
00:36:46,950 --> 00:36:43,599
ground sequencer will initiate the auto

633
00:36:48,630 --> 00:36:46,960
sequence handoff of the terminal count

634
00:37:37,109 --> 00:36:48,640
roger that side control will check step

635
00:37:41,670 --> 00:37:39,109
and ops 2 lc

636
00:37:44,710 --> 00:37:41,680
countdown 1 step 399

637
00:37:48,310 --> 00:37:44,720
here you go to initiate engine priming

638
00:37:50,470 --> 00:37:48,320

lc office 2 in the engine primal started

639
00:37:51,990 --> 00:37:50,480
ops 1 you go to transfer avionics to

640
00:38:00,470 --> 00:37:52,000
internal power

641
00:38:04,870 --> 00:38:03,109
once again uh cygnus uh once it reaches

642
00:38:06,150 --> 00:38:04,880
its preliminary orbit

643
00:38:08,230 --> 00:38:06,160
will uh

644
00:38:10,550 --> 00:38:08,240
undergo a series of pre-programmed uh

645
00:38:11,990 --> 00:38:10,560
engine burns in the rendezvous profile

646
00:38:14,630 --> 00:38:12,000
that will take it to the international

647
00:38:17,589 --> 00:38:14,640
space station for its capture early

648
00:38:20,630 --> 00:38:17,599
sunday morning capture scheduled at 5 10

649
00:38:22,710 --> 00:38:20,640
a.m central time 6 10 a.m eastern time

650
00:38:25,670 --> 00:38:22,720
chris cassidy using the canadarm2

651
00:38:27,990 --> 00:38:25,680
robotic arm to grapple on to the cygnus

652
00:38:30,150 --> 00:38:28,000
cargo craft for its

653
00:38:31,829 --> 00:38:30,160
ground-controlled robotic installation

654
00:38:34,430 --> 00:38:31,839
on the earth-facing port of the unity

655
00:38:39,589 --> 00:38:36,550
[Music]

656
00:38:42,710 --> 00:38:39,599
t-minus four minutes and counting

657
00:38:44,790 --> 00:38:42,720
that's td step 406 report range status

658
00:38:59,430 --> 00:38:44,800
lc td range is green

659
00:39:04,230 --> 00:39:01,430
lcd priming verified

660
00:39:11,430 --> 00:39:04,240
copy we have priming verified check step

661
00:39:15,829 --> 00:39:13,510
and terry's soon

662
00:39:17,750 --> 00:39:15,839
to create a uh

663
00:39:19,430 --> 00:39:17,760

artificial dawn

664
00:39:21,109 --> 00:39:19,440
on a night in which there's a full moon

665
00:39:23,349 --> 00:39:21,119
overhead

666
00:39:26,069 --> 00:39:23,359
about to arc out to the southeast from

667
00:39:28,550 --> 00:39:26,079
the wallops flight facility on its path

668
00:39:31,030 --> 00:39:28,560
to deliver sickness to its preliminary

669
00:39:40,790 --> 00:39:33,430
fc commanded to fight mode

670
00:39:44,390 --> 00:39:43,270
auto sequence start

671
00:39:46,950 --> 00:39:44,400
rdm

672
00:39:49,670 --> 00:39:46,960
voltages and currents nominal

673
00:39:53,349 --> 00:39:49,680
tnc one verifier ready for nav mode

674
00:40:09,589 --> 00:39:53,359
terminal count underway ready

675
00:40:14,390 --> 00:40:10,710
one

676
00:40:16,510 --> 00:40:14,400
abort abort we will be proceeding with

677
00:40:26,790 --> 00:40:16,520
abort safing

678
00:40:31,190 --> 00:40:28,790
and as you heard we have an abort no

679
00:40:32,870 --> 00:40:31,200
launch tonight

680
00:40:46,309 --> 00:40:32,880
standing by for further words from

681
00:40:50,829 --> 00:40:48,870
the launch was scrubbed at the t-minus

682
00:40:52,550 --> 00:40:50,839
two minute 21 second

683
00:40:57,270 --> 00:40:52,560
mark here go to disable on alpha 3

684
00:41:01,109 --> 00:40:59,510
and data stream is suspended

685
00:41:02,790 --> 00:41:01,119
and core 1 direct use know you to

686
00:41:04,710 --> 00:41:02,800
restart their ms session report when

687
00:41:07,030 --> 00:41:04,720
complete

688
00:41:11,430 --> 00:41:07,040

and work

689
00:41:14,309 --> 00:41:11,440
is that proceeding let's press with a

690
00:41:16,150 --> 00:41:14,319
board safing seven step alpha six ops

691
00:41:23,750 --> 00:41:16,160
one disable your local launch enable

692
00:41:28,069 --> 00:41:25,510
lc apps one

693
00:41:30,470 --> 00:41:28,079
launch enable removed

694
00:41:32,230 --> 00:41:30,480
and gso step alpha seven disable your

695
00:41:33,910 --> 00:41:32,240
local launch enable button at failsafe

696
00:41:37,829 --> 00:41:33,920
panel and verify local indicator

697
00:41:43,510 --> 00:41:41,510
gso gs3 launch enable removed

698
00:41:45,270 --> 00:41:43,520
copy that ops one step alpha eight

699
00:41:46,870 --> 00:41:45,280
verify removal of master global launch

700
00:41:50,390 --> 00:41:46,880
enable

701
00:41:52,630 --> 00:41:50,400
verified

702
00:41:54,950 --> 00:41:52,640
copy that ops 1 and alpha 9 deactivate

703
00:41:57,349 --> 00:41:54,960
your arm enabled to fail safe panel

704
00:41:59,990 --> 00:41:57,359
arm enable key rotated and arm enable no

705
00:42:03,349 --> 00:42:00,000
longer illuminated

706
00:42:05,589 --> 00:42:03,359
okay roger that to recap

707
00:42:06,550 --> 00:42:05,599
step alpha 10 report engine priming

708
00:42:08,470 --> 00:42:06,560
status

709
00:42:10,069 --> 00:42:08,480
the antares rocket is in the process of

710
00:42:12,390 --> 00:42:10,079
being saved after the launch was

711
00:42:14,150 --> 00:42:12,400
scrubbed at the t-minus two-minute 21

712
00:42:16,069 --> 00:42:14,160
second mark

713
00:42:18,230 --> 00:42:16,079

for reasons uh that we're standing by to

714
00:42:19,750 --> 00:42:18,240
find out from the range control center

715
00:42:22,470 --> 00:42:19,760
at wallops

716
00:42:25,910 --> 00:42:22,480
this came after a brief uh hold in the

717
00:42:28,710 --> 00:42:25,920
countdown to allow a boat to clear from

718
00:42:33,190 --> 00:42:30,790
the countdown had been proceeding

719
00:42:35,270 --> 00:42:33,200
normally otherwise so we're standing by

720
00:42:40,309 --> 00:42:35,280
for further words from wallops

721
00:42:52,390 --> 00:42:43,030
steps a 11 and 12 are not required

722
00:42:58,950 --> 00:42:55,430
okay mes2 i copy that and

723
00:43:00,790 --> 00:42:58,960
specific to alpha 10 we have

724
00:43:18,710 --> 00:43:00,800
priming initiated can you verify if

725
00:43:22,470 --> 00:43:21,270
assuming a 24-hour recycle for another

726
00:43:24,950 --> 00:43:22,480
launch attempt

727
00:43:27,109 --> 00:43:24,960
tomorrow night friday night

728
00:43:30,710 --> 00:43:27,119
launch time tomorrow

729
00:43:34,069 --> 00:43:30,720
would be 8 16 and 12 seconds p.m central

730
00:43:36,790 --> 00:43:34,079
time 9 16 and 12 seconds p.m eastern

731
00:43:38,470 --> 00:43:36,800
assuming a 24-hour recycle of course

732
00:43:41,030 --> 00:43:38,480
we're standing by for further official

733
00:43:43,190 --> 00:43:41,040
word from wallops

734
00:43:44,630 --> 00:43:43,200
can you give me the specific priming

735
00:43:46,230 --> 00:43:44,640
status where we're at on one of those

736
00:43:47,829 --> 00:43:46,240
four step uh

737
00:43:51,589 --> 00:43:47,839
check marks there

738
00:44:01,910 --> 00:43:51,599

yes priming complete fyv closed

739
00:44:07,349 --> 00:44:05,030
and ops one lc countdown one

740
00:44:09,030 --> 00:44:07,359
go ahead lc yeah let's go ahead and save

741
00:44:14,550 --> 00:44:09,040
our vehicle smas and the vehicle and

742
00:44:14,560 --> 00:44:24,870
and work

743
00:44:29,430 --> 00:44:26,950
once again we're standing by for further

744
00:44:30,470 --> 00:44:29,440
word from wallops the countdown was

745
00:44:32,710 --> 00:44:30,480
halted

746
00:44:34,069 --> 00:44:32,720
safe at arms and vehicle and ground

747
00:44:36,230 --> 00:44:34,079
odium safe

748
00:44:38,630 --> 00:44:36,240
copy that option the countdown was

749
00:44:41,670 --> 00:44:38,640
halted at the t-minus two-minute 21

750
00:44:44,309 --> 00:44:41,680
second mark by the auto sequencer at uh

751
00:44:46,870 --> 00:44:44,319
wallops on launch pad 0a at the

752
00:44:48,710 --> 00:44:46,880
mid-atlantic regional spaceport

753
00:44:51,109 --> 00:44:48,720
we're standing by for further word as to

754
00:44:54,870 --> 00:44:51,119
what uh triggered the

755
00:44:54,880 --> 00:45:00,390
and elect one lc

756
00:45:05,750 --> 00:45:03,829
yeah h2 ignition or

757
00:45:07,670 --> 00:45:05,760
black computer odm safe

758
00:45:10,390 --> 00:45:07,680
stage run controller odm safe ground

759
00:45:12,309 --> 00:45:10,400
audios are safe

760
00:45:13,990 --> 00:45:12,319
happy y'all there like one check alpha

761
00:45:16,710 --> 00:45:14,000
14 complete

762
00:45:19,910 --> 00:45:16,720
ops one step alpha 15 close your fts

763
00:45:22,870 --> 00:45:19,920

envy loop and verify red indication

764
00:45:24,550 --> 00:45:22,880
fts zombie loop closed and red

765
00:45:25,910 --> 00:45:24,560
stop that ops one

766
00:45:28,230 --> 00:45:25,920
ops two you're going to reset your

767
00:45:35,030 --> 00:45:28,240
ground odm power supply

768
00:45:40,790 --> 00:45:38,230
if this is safe

769
00:45:45,270 --> 00:45:40,800
copy electron will check alpha 16 and

770
00:46:03,990 --> 00:45:46,870
inside control wait for your call in

771
00:46:11,589 --> 00:46:08,550
lcd side control fb gn2 flow stop

772
00:46:13,349 --> 00:46:11,599
fa airflow resumed

773
00:46:30,150 --> 00:46:13,359
okay so i control copy that we'll go

774
00:46:30,160 --> 00:46:43,990
and core one lcd countdown one

775
00:46:44,000 --> 00:46:51,430
and core one lc countdown one

776
00:46:57,990 --> 00:46:54,230
lc uh core ones tied up with use now

777
00:47:02,470 --> 00:47:00,150
okay launch team moving into abort

778
00:47:05,430 --> 00:47:02,480
safing six uh we've already performed uh

779
00:47:08,710 --> 00:47:05,440
step uh alpha 19

780
00:47:11,750 --> 00:47:08,720
uh we've performed step alpha 20

781
00:47:14,390 --> 00:47:11,760
alpha 21

782
00:47:23,190 --> 00:47:14,400
site control lc step alpha 22 you go to

783
00:47:29,270 --> 00:47:26,069
lsu side control tell rapid retract

784
00:47:32,740 --> 00:47:31,030
copy that side control

785
00:47:33,910 --> 00:47:32,750
lc core on a countdown one

786
00:47:35,990 --> 00:47:33,920
[Music]

787
00:47:38,309 --> 00:47:36,000
yeah core one looking for status on the

788
00:47:39,589 --> 00:47:38,319

restart of the ms session ms session is

789
00:47:41,829 --> 00:47:39,599
restarted

790
00:47:44,069 --> 00:47:41,839
copy that core we'll check alpha 4 and

791
00:47:45,670 --> 00:47:44,079
tlm you go for alpha 5 enable using

792
00:47:47,349 --> 00:47:45,680
audio data stream

793
00:47:49,829 --> 00:47:47,359
turn on usually embedded stream output

794
00:47:50,829 --> 00:47:49,839
cms data recording workstation

795
00:47:52,470 --> 00:47:50,839
data stream

796
00:47:54,549 --> 00:47:52,480
enabled

797
00:47:57,829 --> 00:47:54,559
copy all there we'll check out the alpha

798
00:48:03,349 --> 00:47:59,910
okay launch team resuming with the board

799
00:48:06,950 --> 00:48:03,359
safing six uh tlm step alpha 23 you go

800
00:48:09,349 --> 00:48:06,960
to stop and restart telemetry archiving

801
00:48:11,190 --> 00:48:09,359
top of that lc archiving stopped and

802
00:48:13,910 --> 00:48:11,200
restarted

803
00:48:15,430 --> 00:48:13,920
copy that tlm check alpha 23 complete

804
00:48:17,750 --> 00:48:15,440
ops one

805
00:48:22,390 --> 00:48:17,760
step alpha 24

806
00:48:25,030 --> 00:48:22,400
transfer ftsa and ftsb to external power

807
00:48:27,829 --> 00:48:25,040
lc ops 1

808
00:48:30,790 --> 00:48:27,839
fts a and b external power on

809
00:48:32,470 --> 00:48:30,800
fts amb internal power off

810
00:48:34,230 --> 00:48:32,480
roger that will check out the 24

811
00:48:36,630 --> 00:48:34,240
complete

812
00:48:40,150 --> 00:48:36,640
and ops 1 step alpha 25 transfer

813
00:48:40,160 --> 00:49:02,790

didn't work

814
00:49:06,790 --> 00:49:04,309
lc ops one

815
00:49:10,309 --> 00:49:06,800
avionics external power on

816
00:49:17,670 --> 00:49:10,319
avionics internal power off

817
00:49:21,750 --> 00:49:19,990
yeah step alpha 26 so your team's going

818
00:49:23,589 --> 00:49:21,760
to proceed with transferring cygnus back

819
00:49:24,710 --> 00:49:23,599
to external power and if you'll report

820
00:49:26,630 --> 00:49:24,720
when complete

821
00:49:29,990 --> 00:49:26,640
now i'll save cmb

822
00:49:35,910 --> 00:49:30,000
copy and work ops 1 step out for 27.

823
00:49:43,349 --> 00:49:37,670
lc ops 1

824
00:49:47,990 --> 00:49:45,910
this is mission control houston um

825
00:49:50,470 --> 00:49:48,000
standing by for uh

826
00:49:51,990 --> 00:49:50,480
more details on what triggered the

827
00:49:55,190 --> 00:49:52,000
countdown abort

828
00:50:02,150 --> 00:49:55,200
at the t-minus two-minute 21-second mark

829
00:50:07,030 --> 00:50:05,670
the preliminary indication is that the

830
00:50:08,870 --> 00:50:07,040
problem

831
00:50:11,030 --> 00:50:08,880
uh was attributed to a piece of ground

832
00:50:13,670 --> 00:50:11,040
support equipment not the rocket itself

833
00:50:15,430 --> 00:50:13,680
not antares not cygnus but a piece of

834
00:50:17,990 --> 00:50:15,440
ground support equipment

835
00:50:21,109 --> 00:50:18,000
engineers at wallops are working to

836
00:50:23,430 --> 00:50:21,119
verify as they look at the data and

837
00:50:25,670 --> 00:50:23,440
determine whether or not we in fact will

838
00:50:28,710 --> 00:50:25,680

make another attempt tomorrow night as

839
00:50:28,720 --> 00:50:39,990
copy that i'll see him work

840
00:50:52,630 --> 00:50:41,750
and dcom is configured for closed loop

841
00:50:59,030 --> 00:50:56,549
and tlm a copy that uh at this time a

842
00:51:00,549 --> 00:50:59,040
launch team i want to pull for fts power

843
00:51:05,030 --> 00:51:00,559
off elect to

844
00:51:07,750 --> 00:51:06,630
and fso

845
00:51:10,069 --> 00:51:07,760
fsr

846
00:51:13,670 --> 00:51:10,079
we'll go for fts power off

847
00:51:16,230 --> 00:51:13,680
ops one remove fts power

848
00:51:21,030 --> 00:51:16,240
ftsa external power off

849
00:51:26,950 --> 00:51:23,190
fts power off

850
00:51:29,589 --> 00:51:26,960
okay copy all and step alpha 33 fso you

851
00:51:31,270 --> 00:51:29,599
go to secure ct site and verify rf

852
00:52:10,309 --> 00:51:31,280
silence

853
00:52:14,150 --> 00:52:12,630
lcso ct site keyed down or found

854
00:52:16,549 --> 00:52:14,160
verified

855
00:53:03,109 --> 00:52:16,559
okay fso i copy that we'll check step

856
00:53:06,549 --> 00:53:05,109
this is mission control houston uh to

857
00:53:08,630 --> 00:53:06,559
recap uh

858
00:53:10,790 --> 00:53:08,640
tonight's launch attempt for northrop

859
00:53:13,030 --> 00:53:10,800
grumman's and terry's rocket launch team

860
00:53:16,230 --> 00:53:13,040
lc we're at the step alpha 34 board

861
00:53:21,670 --> 00:53:16,240
safing six we did have an automated

862
00:53:32,870 --> 00:53:24,470
uh abort occurred approximately at the

863
00:53:37,750 --> 00:53:35,829

and we are currently investigating uh

864
00:53:40,230 --> 00:53:37,760
what the cause of that

865
00:53:42,870 --> 00:53:40,240
automated report is and we'll report out

866
00:53:45,589 --> 00:53:42,880
when that's available

867
00:53:50,309 --> 00:53:45,599
okay we'll proceed now with our post lo2

868
00:53:54,470 --> 00:53:52,630
and the tlm alpha 35 is not going to be

869
00:53:55,670 --> 00:53:54,480
required since we just went ahead and

870
00:53:58,309 --> 00:53:55,680
did a

871
00:53:59,349 --> 00:53:58,319
archiving restart

872
00:54:01,750 --> 00:53:59,359
concur

873
00:54:03,190 --> 00:54:01,760
and ops one step out for 36 you're going

874
00:54:06,309 --> 00:54:03,200
to remove external power from the

875
00:54:09,030 --> 00:54:06,319
transmitters and smi busses

876
00:54:11,109 --> 00:54:09,040
lc ops 1 stage 1 telemetry transmitter

877
00:54:13,430 --> 00:54:11,119
external power off

878
00:54:14,710 --> 00:54:13,440
motor cone transmitter external power

879
00:54:17,270 --> 00:54:14,720
off

880
00:54:19,270 --> 00:54:17,280
avionics telemetry transmitter external

881
00:54:20,950 --> 00:54:19,280
power off

882
00:54:22,069 --> 00:54:20,960
smi power

883
00:54:59,750 --> 00:54:22,079
a

884
00:55:00,870 --> 00:54:59,760
liftoff

885
00:55:01,910 --> 00:55:00,880
due to

886
00:55:03,109 --> 00:55:01,920
an

887
00:55:04,150 --> 00:55:03,119
unknown

888
00:55:06,549 --> 00:55:04,160

problem

889
00:55:08,549 --> 00:55:06,559
with what appears to be a a

890
00:55:10,549 --> 00:55:08,559
component of a ground support equipment

891
00:55:12,309 --> 00:55:10,559
not the rocket itself not the cygnus

892
00:55:13,910 --> 00:55:12,319
spacecraft itself but a piece of ground

893
00:55:16,150 --> 00:55:13,920
support equipment

894
00:55:17,829 --> 00:55:16,160
uh that is under investigation as the

895
00:55:19,670 --> 00:55:17,839
northrop grumman engineers at the range

896
00:55:20,870 --> 00:55:19,680
control center at wallops island

897
00:55:22,710 --> 00:55:20,880
virginia

898
00:55:24,710 --> 00:55:22,720
uh pour over the data

899
00:55:25,589 --> 00:55:24,720
and make a determination as to whether

900
00:55:27,829 --> 00:55:25,599
or not

901
00:55:31,589 --> 00:55:27,839
we can make another launch attempt

902
00:55:33,510 --> 00:55:31,599
tomorrow with a 24-hour recycle bottles

903
00:55:35,270 --> 00:55:33,520
copy that in work

904
00:55:38,470 --> 00:55:35,280
if in fact

905
00:55:41,109 --> 00:55:38,480
uh the problem is uh minor and can be

906
00:55:42,390 --> 00:55:41,119
corrected to permit a launch attempt on

907
00:55:44,549 --> 00:55:42,400
friday night

908
00:55:48,150 --> 00:55:44,559
and uh engine bottle charging the launch

909
00:55:51,589 --> 00:55:48,160
time uh on friday would be 8 16 p.m

910
00:55:53,349 --> 00:55:51,599
central time 9 16 pm eastern time

911
00:55:55,109 --> 00:55:53,359
resulting in cygnus arriving at the

912
00:56:01,990 --> 00:55:55,119
international space station in the early

913
00:56:02,000 --> 00:56:21,750

and work

914
00:56:27,510 --> 00:56:24,950
roger that admin and this is a handwrite

915
00:56:30,950 --> 00:56:27,520
step alpha 41 decimal one prop lead

916
00:56:33,270 --> 00:56:30,960
return oc ocs to automatic control occs

917
00:56:34,950 --> 00:56:33,280
this is an auto control mode okay copy

918
00:57:59,589 --> 00:56:34,960
that

919
00:58:05,990 --> 00:58:03,510
okay launch team lc on the countdown net

920
00:58:07,430 --> 00:58:06,000
so at this time in step alpha 42 the

921
00:58:09,109 --> 00:58:07,440
intention

922
00:58:11,750 --> 00:58:09,119
for our next launch attempt is to

923
00:58:13,829 --> 00:58:11,760
perform a recycle and come back and do

924
00:58:16,630 --> 00:58:13,839
this again in 24 hours

925
00:58:18,470 --> 00:58:16,640
that's all contingent on understanding

926
00:58:19,990 --> 00:58:18,480
what caused the abort

927
00:58:21,030 --> 00:58:20,000
but all of our

928
00:58:23,030 --> 00:58:21,040
pad

929
00:58:24,470 --> 00:58:23,040
recovery efforts will be based off of

930
00:58:25,829 --> 00:58:24,480
the assumption that we're coming back in

931
00:58:27,829 --> 00:58:25,839
24 hours

932
00:58:29,829 --> 00:58:27,839
there will be no cargo refresh that's

933
00:58:31,589 --> 00:58:29,839
required at this time

934
00:58:33,349 --> 00:58:31,599
and again so our pad recovery effort

935
00:58:35,349 --> 00:58:33,359
should be assuming that we do not have a

936
00:58:44,710 --> 00:58:35,359
cargo refresh at this time

937
00:58:48,870 --> 00:58:47,030
okay if i get ace uh gce

938
00:58:50,870 --> 00:58:48,880

mes1

939
00:58:53,510 --> 00:58:50,880
prop lead

940
00:58:55,990 --> 00:58:53,520
side control stage one system over to

941
00:58:57,829 --> 00:58:56,000
the anomaly onenet

942
00:59:00,950 --> 00:58:57,839
and i have to see if i get opm over

943
00:59:10,309 --> 00:59:00,960
there as well so stand by uh for elsi on

944
00:59:14,150 --> 00:59:11,990
this is mission control houston as you

945
00:59:15,510 --> 00:59:14,160
heard from the launch conductor at

946
00:59:16,710 --> 00:59:15,520
wallops

947
00:59:19,190 --> 00:59:16,720
the intent

948
00:59:21,829 --> 00:59:19,200
for the launch control team

949
00:59:24,630 --> 00:59:21,839
at wallops island virginia is to point

950
00:59:26,950 --> 00:59:24,640
toward a 24-hour recycle and another

951
00:59:28,950 --> 00:59:26,960
launch attempt on friday night pending

952
00:59:29,910 --> 00:59:28,960
an understanding of what caused the

953
00:59:31,510 --> 00:59:29,920
scrub

954
00:59:33,990 --> 00:59:31,520
of tonight's launch at about the two

955
00:59:36,150 --> 00:59:34,000
minute 40 second mark

956
00:59:37,430 --> 00:59:36,160
the launch control team is taking a look

957
00:59:39,589 --> 00:59:37,440
at the data

958
00:59:41,510 --> 00:59:39,599
of the systems down at wallops before

959
00:59:44,789 --> 00:59:41,520
they lock that in

960
00:59:46,549 --> 00:59:44,799
assuming a 24-hour recycle

961
00:59:48,309 --> 00:59:46,559
we would go on the air on nasa

962
00:59:52,630 --> 00:59:48,319
television with tomorrow night's launch

963
00:59:54,150 --> 00:59:52,640

attempt at 7 45 pm central time 8 45 pm

964
00:59:56,230 --> 00:59:54,160
eastern time

965
00:59:57,349 --> 00:59:56,240
for a launch

966
01:00:00,630 --> 00:59:57,359
at 9

967
01:00:03,190 --> 01:00:00,640
16 p.m eastern 8 16 pm central time that

968
01:00:05,190 --> 01:00:03,200
would result in cygnus arriving at the

969
01:00:08,950 --> 01:00:05,200
international space station

970
01:00:12,390 --> 01:00:08,960
on monday morning for a capture at 4 20

971
01:00:13,990 --> 01:00:12,400
a.m central 5 20 a.m eastern time again

972
01:00:17,430 --> 01:00:14,000
we'll be standing by for further

973
01:00:20,069 --> 01:00:17,440
information but again as you heard uh on

974
01:00:23,990 --> 01:00:20,079
the loop from the launch conductor the

975
01:00:25,910 --> 01:00:24,000
intent is uh to press ahead to prepare

976
01:00:28,630 --> 01:00:25,920
for another launch attempt on friday

977
01:00:32,309 --> 01:00:28,640
night pending a resolution of the

978
01:00:34,870 --> 01:00:32,319
problem uh which is still being analyzed

979
01:00:36,630 --> 01:00:34,880
through the data that's being studied by

980
01:00:39,349 --> 01:00:36,640
the launch control team at wallops to

981
01:00:41,270 --> 01:00:39,359
determine what caused tonight's abort

982
01:05:50,230 --> 01:00:41,280
and the scrub of tonight's launch at the

983
01:05:55,109 --> 01:05:52,789
this is mission control houston to recap

984
01:05:57,750 --> 01:05:55,119
tonight's launch attempt

985
01:06:01,270 --> 01:05:57,760
for northrop grumman's antares rocket to

986
01:06:03,430 --> 01:06:01,280
send the cygnus resupply craft with four

987
01:06:05,109 --> 01:06:03,440
tons of supplies and scientific

988
01:06:06,710 --> 01:06:05,119

experiments to the international space

989
01:06:09,190 --> 01:06:06,720
station was

990
01:06:12,309 --> 01:06:09,200
scrubbed at about the t minus two minute

991
01:06:17,270 --> 01:06:14,789
the countdown had been proceeding uh

992
01:06:19,430 --> 01:06:17,280
normally until uh we

993
01:06:20,950 --> 01:06:19,440
stopped the count earlier

994
01:06:23,270 --> 01:06:20,960
to allow a uh

995
01:06:25,829 --> 01:06:23,280
the range to uh clear

996
01:06:27,589 --> 01:06:25,839
around the wallops flight facility in

997
01:06:30,309 --> 01:06:27,599
virginia and the oceanside launch pad

998
01:06:33,589 --> 01:06:30,319
for the mid-atlantic regional spaceport

999
01:06:37,430 --> 01:06:33,599
once the countdown resumed everything uh

1000
01:06:43,910 --> 01:06:41,670
until uh the countdown was uh called off

1001
01:06:46,630 --> 01:06:43,920
engineers for northrop grumman at

1002
01:06:49,430 --> 01:06:46,640
wallops are looking at the data as to

1003
01:06:52,150 --> 01:06:49,440
what specifically caused tonight's uh

1004
01:06:54,069 --> 01:06:52,160
countdown to be halted

1005
01:06:55,270 --> 01:06:54,079
and the five-minute launch window

1006
01:06:56,950 --> 01:06:55,280
expired

1007
01:07:01,589 --> 01:06:56,960
with no attempt

1008
01:07:03,430 --> 01:07:01,599
tonight for cygnus to go skyward to send

1009
01:07:04,710 --> 01:07:03,440
itself to the international space

1010
01:07:07,190 --> 01:07:04,720
station so

1011
01:07:10,150 --> 01:07:07,200
the intent pending a resolution of the

1012
01:07:12,789 --> 01:07:10,160
problem that caused tonight's scrub

1013
01:07:17,750 --> 01:07:12,799

is to recycle for another launch attempt

1014
01:07:22,870 --> 01:07:20,309
we will begin our launch coverage uh on

1015
01:07:24,630 --> 01:07:22,880
friday night pending a resolution of the

1016
01:07:28,470 --> 01:07:24,640
problem at wallops

1017
01:07:29,910 --> 01:07:28,480
at 7 45 pm central time 8 45 pm eastern

1018
01:07:34,069 --> 01:07:29,920
time

1019
01:07:35,990 --> 01:07:34,079
for a launch at 8 16 p.m central 9 16

1020
01:07:38,549 --> 01:07:36,000
p.m eastern time

1021
01:07:40,390 --> 01:07:38,559
assuming a launch tomorrow night

1022
01:07:42,150 --> 01:07:40,400
that would result in sickness arriving

1023
01:07:44,230 --> 01:07:42,160
at the international space station a bit

1024
01:07:46,710 --> 01:07:44,240
earlier on monday morning than it would

1025
01:07:49,109 --> 01:07:46,720
have on sunday morning

1026
01:07:51,430 --> 01:07:49,119
the monday morning capture rendezvous

1027
01:07:56,150 --> 01:07:51,440
and capture coverage will begin at

1028
01:07:58,309 --> 01:07:56,160
2 45 a.m central 3 45 a.m eastern time

1029
01:08:01,589 --> 01:07:58,319
capture schedule now on monday morning

1030
01:08:02,549 --> 01:08:01,599
at 4 20 a.m central 5 20 a.m eastern

1031
01:08:04,710 --> 01:08:02,559
time

1032
01:08:05,910 --> 01:08:04,720
and we'll be back for installation

1033
01:08:09,670 --> 01:08:05,920
coverage

1034
01:08:13,029 --> 01:08:09,680
at 6 30 a.m central 7 30 a.m eastern

1035
01:08:15,589 --> 01:08:13,039
time on monday october 5th we would urge

1036
01:08:18,789 --> 01:08:15,599
you however to stay tuned

1037
01:08:21,430 --> 01:08:18,799
to nasa.gov and social media for further

1038
01:08:26,870 --> 01:08:21,440

updates uh from

1039
01:08:30,789 --> 01:08:28,309
as we

1040
01:08:33,110 --> 01:08:30,799
point towards a potential uh second

1041
01:08:35,430 --> 01:08:33,120
launch attempt on friday night for the

1042
01:08:36,470 --> 01:08:35,440
antares rocket and the cygnus resupply

1043
01:08:38,149 --> 01:08:36,480
vehicle

1044
01:08:40,309 --> 01:08:38,159
so that will wrap up our coverage for

1045
01:08:41,590 --> 01:08:40,319
this evening once again launch was

1046
01:08:43,590 --> 01:08:41,600
scrubbed

1047
01:08:46,229 --> 01:08:43,600
about 2 minutes and 40 seconds before

1048
01:08:48,789 --> 01:08:46,239
launch another launch attempt

1049
01:08:50,870 --> 01:08:48,799
is expected on friday night with our

1050
01:08:54,789 --> 01:08:50,880
coverage beginning tomorrow night at 7

1051
01:08:56,630 --> 01:08:54,799
45 pm central 8 45 pm eastern time

1052
01:08:59,110 --> 01:08:56,640
pending a resolution of the problem that

1053
01:09:00,630 --> 01:08:59,120
caused tonight's postponement

1054
01:09:02,550 --> 01:09:00,640
so we'll look for you tomorrow night

1055
01:09:05,510 --> 01:09:02,560
with all things being equal

1056
01:09:06,950 --> 01:09:05,520
for now we wish you a good

1057
01:09:10,550 --> 01:09:06,960
thursday night

1058
01:09:25,450 --> 01:09:13,910
uh station calling lc