1
00:00:10,230 --> 00:00:06,950
good afternoon everyone this is the

2
00:00:11,509 --> 00:00:10,240
pre-launch news conference for npp to be

3
00:00:13,669 --> 00:00:11,519
launched aboard

4
00:00:16,630 --> 00:00:13,679
a delta ii rocket from nasa space launch

5
00:00:18,790 --> 00:00:16,640
complex 2 on friday morning our first

6
00:00:21,269 --> 00:00:18,800
briefing will discuss the countdown and

7
00:00:22,950 --> 00:00:21,279
the flight of the delta ii

8
00:00:25,429 --> 00:00:22,960
and then we will have a second briefing

9
00:00:28,230 --> 00:00:25,439
that will discuss the objectives of the

10
00:00:30,790 --> 00:00:28,240
npp spacecraft that will immediately be

11
00:00:35,990 --> 00:00:30,800
followed by briefing on our cubesat

12
00:00:39,270 --> 00:00:38,069
participating in our briefing today will

13
00:00:42,229 --> 00:00:39,280

be first

14
00:00:44,549 --> 00:00:42,239
andrew carson the npp pro program

15
00:00:46,950 --> 00:00:44,559
executive from nasa headquarters in

16
00:00:49,590 --> 00:00:46,960
washington

17
00:00:53,510 --> 00:00:49,600
tim dunn the nasa launch director from

18
00:00:58,869 --> 00:00:56,069
vernon thorpe program manager for nasa

19
00:01:01,270 --> 00:00:58,879
missions for united launch alliance in

20
00:01:04,390 --> 00:01:01,280
denver

21
00:01:06,070 --> 00:01:04,400
ken schwer the npp project manager from

22
00:01:08,950 --> 00:01:06,080
the goddard space flight center in

23
00:01:10,870 --> 00:01:08,960
greenbelt maryland

24
00:01:13,270 --> 00:01:10,880
and lieutenant lisa cochran the launch

25
00:01:15,910 --> 00:01:13,280
weather officer from the 30th operation

26
00:01:18,310 --> 00:01:15,920
support squadron at vandenberg

27
00:01:21,109 --> 00:01:18,320
and we'll begin first with andrew carson

28
00:01:22,390 --> 00:01:21,119
our npp program executive andrew thank

29
00:01:24,310 --> 00:01:22,400
you george

30
00:01:27,749 --> 00:01:24,320
we're very excited about the upcoming

31
00:01:29,990 --> 00:01:27,759
launch of mpp mpp is a bridge the next

32
00:01:31,510 --> 00:01:30,000
generation of earth observing satellites

33
00:01:33,670 --> 00:01:31,520
and will provide measurements that are

34
00:01:35,510 --> 00:01:33,680
critical to nasa's earth science

35
00:01:37,350 --> 00:01:35,520
research

36
00:01:39,030 --> 00:01:37,360
mpp will help us understand what

37
00:01:40,950 --> 00:01:39,040
tomorrow will bring

38
00:01:43,109 --> 00:01:40,960

whether by tomorrow we mean tomorrow's

39
00:01:45,830 --> 00:01:43,119
forecast or whether we mean years or

40
00:01:48,870 --> 00:01:45,840
decades down the road

41
00:01:51,109 --> 00:01:48,880
could i have the first video please

42
00:01:53,429 --> 00:01:51,119
nasa is currently operating 14 earth

43
00:01:55,429 --> 00:01:53,439
observing missions including a series of

44
00:01:57,749 --> 00:01:55,439
satellites known as the earth observing

45
00:02:00,469 --> 00:01:57,759
system or eos

46
00:02:02,469 --> 00:02:00,479
these satellites terra aqua and ara

47
00:02:04,950 --> 00:02:02,479
provide key measurements about our land

48
00:02:07,190 --> 00:02:04,960
oceans and atmosphere

49
00:02:08,790 --> 00:02:07,200
npp will continue these measurements

50
00:02:11,110 --> 00:02:08,800
which are critical for understanding the

51
00:02:14,790 --> 00:02:11,120
health of our planet now as well as how

52
00:02:18,869 --> 00:02:16,470
nasa is taking what we learned with the

53
00:02:20,390 --> 00:02:18,879
eos program and mpp

54
00:02:22,630 --> 00:02:20,400
and helping noaa create the next

55
00:02:24,869 --> 00:02:22,640
generation of satellites to extend these

56
00:02:26,309 --> 00:02:24,879
measurements into the future

57
00:02:29,750 --> 00:02:26,319
and that program is called the joint

58
00:02:32,949 --> 00:02:29,760
polar satellite system or jpss

59
00:02:35,350 --> 00:02:32,959
can i have the next video please

60
00:02:37,509 --> 00:02:35,360
npp will lay the groundwork for the jpss

61
00:02:39,589 --> 00:02:37,519
system by proving out the capabilities

62
00:02:41,830 --> 00:02:39,599
and technologies of both the instruments

63
00:02:44,150 --> 00:02:41,840

and the ground system

64
00:02:47,110 --> 00:02:44,160
the mpp data will also be incorporated

65
00:02:49,190 --> 00:02:47,120
into operational weather forecast models

66
00:02:50,550 --> 00:02:49,200
providing higher resolution data and

67
00:02:52,470 --> 00:02:50,560
improving our weather forecast

68
00:02:55,190 --> 00:02:52,480
capability

69
00:02:57,509 --> 00:02:55,200
so npp is a critical first step in

70
00:02:59,430 --> 00:02:57,519
creating a climate capable operational

71
00:03:01,270 --> 00:02:59,440
system

72
00:03:02,869 --> 00:03:01,280
this mission was developed

73
00:03:05,589 --> 00:03:02,879
in collaboration with our partners at

74
00:03:07,910 --> 00:03:05,599
noaa and the department of defense

75
00:03:11,750 --> 00:03:07,920
as well as our industry partners in ball

76
00:03:13,750 --> 00:03:11,760
north of grumman raytheon and itt

77
00:03:15,190 --> 00:03:13,760
so as we finish up the the last launch

78
00:03:17,430 --> 00:03:15,200
preparations we look forward to the

79
00:03:19,430 --> 00:03:17,440
launch of mpp we know it'll become a

80
00:03:21,750 --> 00:03:19,440
significant part of our nation's climate

81
00:03:23,750 --> 00:03:21,760
and weather monitoring system

82
00:03:25,830 --> 00:03:23,760
george thank you andrew

83
00:03:28,789 --> 00:03:25,840
and now to tim dunn the nasa launch

84
00:03:30,949 --> 00:03:28,799
director for flight on friday morning

85
00:03:32,390 --> 00:03:30,959
tim is from the kennedy space center

86
00:03:33,830 --> 00:03:32,400
tim

87
00:03:35,830 --> 00:03:33,840
thank you george

88
00:03:37,750 --> 00:03:35,840

i'm proud to be here today representing

89
00:03:39,589 --> 00:03:37,760
the men and women of nasa's launch

90
00:03:43,190 --> 00:03:39,599
services program

91
00:03:46,309 --> 00:03:43,200
the impose preparatory project or npp is

92
00:03:48,149 --> 00:03:46,319
my second mission as nasa launch manager

93
00:03:50,710 --> 00:03:48,159
and i'm thrilled to continue my launch

94
00:03:52,869 --> 00:03:50,720
director duties with a delta ii launch

95
00:03:54,789 --> 00:03:52,879
spacecraft that will serve as the first

96
00:03:56,949 --> 00:03:54,799
step in building the next generation of

97
00:03:58,710 --> 00:03:56,959
earth observing satellites

98
00:04:00,390 --> 00:03:58,720
in addition to npp

99
00:04:02,789 --> 00:04:00,400
nasa is pleased to launch

100
00:04:04,869 --> 00:04:02,799
six small satellites called cubesats on

101
00:04:07,630 --> 00:04:04,879
this mission

102
00:04:11,589 --> 00:04:07,640
npp will launch on a delta ii

103
00:04:14,470 --> 00:04:11,599
7920 vehicle from space launch complex 2

104
00:04:15,509 --> 00:04:14,480
affectionately called slick 2.

105
00:04:17,830 --> 00:04:15,519
npp

106
00:04:19,909 --> 00:04:17,840
will be the 357th

107
00:04:21,509 --> 00:04:19,919
delta rocket to launch since may of

108
00:04:24,070 --> 00:04:21,519
1960.

109
00:04:26,950 --> 00:04:24,080
slick 2 is proud to have hosted 80 of

110
00:04:29,270 --> 00:04:26,960
those delta launches to date

111
00:04:31,670 --> 00:04:29,280
over the past week the delta ii team has

112
00:04:34,790 --> 00:04:31,680
been busy with launch preparations

113
00:04:36,950 --> 00:04:34,800

last friday the combined nasa and ula

114
00:04:39,030 --> 00:04:36,960
launch team held the flight readiness

115
00:04:41,189 --> 00:04:39,040
review where we assess the preparations

116
00:04:43,270 --> 00:04:41,199
of the delta ii launch vehicle

117
00:04:46,310 --> 00:04:43,280
range and facility assets and the

118
00:04:48,710 --> 00:04:46,320
readiness of the npp spacecraft

119
00:04:50,950 --> 00:04:48,720
on monday we performed performed a

120
00:04:53,030 --> 00:04:50,960
successful mission dress rehearsal

121
00:04:55,110 --> 00:04:53,040
and loaded the hypergolic propellants

122
00:04:56,710 --> 00:04:55,120
onto the second stage on monday and

123
00:04:58,629 --> 00:04:56,720
tuesday

124
00:05:00,310 --> 00:04:58,639
now i'd like to show a video of the ula

125
00:05:04,230 --> 00:05:00,320
crew building up the delta ii launch

126
00:05:06,070 --> 00:05:04,240
vehicle at slick 2. please roll the tape

127
00:05:08,390 --> 00:05:06,080
here you see the arrival of the first

128
00:05:11,350 --> 00:05:08,400
stage being offloaded here at vandenberg

129
00:05:13,909 --> 00:05:11,360
air force base back in june of this year

130
00:05:15,830 --> 00:05:13,919
the first stage is manufactured by ula

131
00:05:17,189 --> 00:05:15,840
in decatur alabama and then shipped

132
00:05:18,950 --> 00:05:17,199
cross country

133
00:05:20,710 --> 00:05:18,960
here's the second stage arriving about a

134
00:05:23,110 --> 00:05:20,720
month later in july

135
00:05:25,029 --> 00:05:23,120
again being offloaded and set on its

136
00:05:28,150 --> 00:05:25,039
over the road trailer will be

137
00:05:30,790 --> 00:05:28,160
transported to slick 2.

138
00:05:32,550 --> 00:05:30,800

this is a video showing fairing erection

139
00:05:34,870 --> 00:05:32,560
into the mobile service tower at the

140
00:05:37,510 --> 00:05:34,880
launch pad at slick 2.

141
00:05:39,189 --> 00:05:37,520
this occurred on july 19th

142
00:05:41,029 --> 00:05:39,199
you can see the fairing

143
00:05:44,150 --> 00:05:41,039
going up the side of the tower and be

144
00:05:46,230 --> 00:05:44,160
positioned inside the clean room

145
00:05:49,749 --> 00:05:46,240
awaiting the launch vehicle erection and

146
00:05:55,110 --> 00:05:51,990
on the next day we brought the first

147
00:05:57,510 --> 00:05:55,120
stage out to slick 2 and did erection

148
00:06:00,469 --> 00:05:57,520
onto the launch mount you see connection

149
00:06:02,950 --> 00:06:00,479
here to the overhead bridge crane

150
00:06:05,670 --> 00:06:02,960
erecting the first stage

151
00:06:07,350 --> 00:06:05,680
there's the rs 27 first stage engine a

152
00:06:10,150 --> 00:06:07,360
nice shot of that

153
00:06:12,309 --> 00:06:10,160
you'll see the first stage being

154
00:06:15,430 --> 00:06:12,319
brought into the mobile service tower

155
00:06:18,469 --> 00:06:15,440
and then used as a mobile server moving

156
00:06:20,150 --> 00:06:18,479
crane the mst will then be rolled back

157
00:06:21,909 --> 00:06:20,160
over the launch mount and you can see

158
00:06:23,909 --> 00:06:21,919
the first stage being lowered onto the

159
00:06:26,070 --> 00:06:23,919
launch mount here there are six launch

160
00:06:27,990 --> 00:06:26,080
legs that we precisely set the first

161
00:06:29,670 --> 00:06:28,000
stage down on

162
00:06:32,950 --> 00:06:29,680
beginning about a week later we brought

163
00:06:35,510 --> 00:06:32,960

out the solid rocket motors npp is the

164
00:06:36,870 --> 00:06:35,520
7900 configuration of delta ii so

165
00:06:40,469 --> 00:06:36,880
there'll be nine

166
00:06:42,309 --> 00:06:40,479
of the gem 40s graphite epoxy motor 40

167
00:06:44,309 --> 00:06:42,319
inch diameter

168
00:06:46,150 --> 00:06:44,319
and you can see using the same overhead

169
00:06:48,870 --> 00:06:46,160
crane from the mst

170
00:06:51,909 --> 00:06:48,880
bringing that into the mst

171
00:06:54,390 --> 00:06:51,919
and attaching to the first stage

172
00:06:57,830 --> 00:06:54,400
here's second stage hoist inmate and

173
00:06:58,710 --> 00:06:57,840
that occurred on august 2nd of this year

174
00:07:00,230 --> 00:06:58,720
the

175
00:07:03,430 --> 00:07:00,240
second stage

176
00:07:05,029 --> 00:07:03,440
again manufactured in decatur alabama

177
00:07:06,230 --> 00:07:05,039
you see the

178
00:07:08,150 --> 00:07:06,240
aerojet

179
00:07:10,070 --> 00:07:08,160
aj-10 engine

180
00:07:11,909 --> 00:07:10,080
on the bottom half of the second stage

181
00:07:17,029 --> 00:07:11,919
and here is the stage being lowered and

182
00:07:22,550 --> 00:07:19,749
and here is the spacecraft coming out on

183
00:07:24,150 --> 00:07:22,560
the morning of october 13th a little

184
00:07:26,150 --> 00:07:24,160
under two weeks ago

185
00:07:28,870 --> 00:07:26,160
the spacecraft the mpp was brought out

186
00:07:31,189 --> 00:07:28,880
in its transportation can we waited an

187
00:07:33,350 --> 00:07:31,199
extra day due to high winds on the 12th

188
00:07:35,350 --> 00:07:33,360

of this month but on the 13th it was a

189
00:07:37,670 --> 00:07:35,360
beautiful day and light winds

190
00:07:39,270 --> 00:07:37,680
brought the transportation can up into

191
00:07:41,510 --> 00:07:39,280
the clean room

192
00:07:45,110 --> 00:07:41,520
and gently lowered it down and made it

193
00:07:46,629 --> 00:07:45,120
here to the top of the second stage

194
00:07:48,790 --> 00:07:46,639
and then this is fairing insulation

195
00:07:50,869 --> 00:07:48,800
beautiful shot of the satellite there

196
00:07:52,790 --> 00:07:50,879
and the fairing halves are brought in

197
00:07:55,110 --> 00:07:52,800
and around the spacecraft this occurred

198
00:07:57,830 --> 00:07:55,120
last thursday

199
00:07:59,909 --> 00:07:57,840
a nice shot of one of the sectors in

200
00:08:03,990 --> 00:07:59,919
place for the fairing and the second

201
00:08:06,309 --> 00:08:04,000
bisector coming in for mate

202
00:08:09,510 --> 00:08:06,319
and we had an incredibly smooth payload

203
00:08:11,909 --> 00:08:09,520
fairing mate last week

204
00:08:14,150 --> 00:08:11,919
this morning we held a successful launch

205
00:08:17,510 --> 00:08:14,160
readiness review and received approval

206
00:08:20,150 --> 00:08:17,520
from senior nasa and ula management as

207
00:08:21,990 --> 00:08:20,160
well as spacecraft and range agencies to

208
00:08:25,029 --> 00:08:22,000
proceed with initiating our launch

209
00:08:27,189 --> 00:08:25,039
countdown beginning tomorrow evening

210
00:08:29,670 --> 00:08:27,199
at slick 2 today we performed range

211
00:08:31,990 --> 00:08:29,680
safety and beacon checks along with

212
00:08:34,790 --> 00:08:32,000
first and second stage engine slewing

213
00:08:36,870 --> 00:08:34,800

checkout and the final azimuth update

214
00:08:39,110 --> 00:08:36,880
and loading that update into the flight

215
00:08:41,350 --> 00:08:39,120
computer

216
00:08:43,110 --> 00:08:41,360
on thursday afternoon we will begin

217
00:08:45,829 --> 00:08:43,120
final launch pad preparations at

218
00:08:48,070 --> 00:08:45,839
approximately 3 p.m pacific time

219
00:08:49,350 --> 00:08:48,080
when we will load the rp-1 fuel onto the

220
00:08:51,269 --> 00:08:49,360
first stage

221
00:08:53,990 --> 00:08:51,279
and we will then move the mobile service

222
00:08:56,310 --> 00:08:54,000
tower into the launch position

223
00:08:59,350 --> 00:08:56,320
the launch team will arrive on console

224
00:09:01,110 --> 00:08:59,360
approximately 10 pm tomorrow evening and

225
00:09:03,670 --> 00:09:01,120
we will then perform final launch

226
00:09:06,630 --> 00:09:03,680
preparations of vehicle power on and

227
00:09:09,509 --> 00:09:06,640
pressurization right before midnight

228
00:09:11,750 --> 00:09:09,519
followed by first stage liquid oxygen

229
00:09:13,509 --> 00:09:11,760
loading at 1 am

230
00:09:16,230 --> 00:09:13,519
final engine slews will be performed

231
00:09:19,750 --> 00:09:16,240
approximately 2 am friday morning and

232
00:09:21,590 --> 00:09:19,760
then we will be ready for our t 0 at 0 2

233
00:09:23,509 --> 00:09:21,600
48 0 1

234
00:09:26,790 --> 00:09:23,519
a.m pacific time

235
00:09:28,870 --> 00:09:26,800
we have a 9 minute and 10 second window

236
00:09:33,829 --> 00:09:28,880
and are looking forward to a successful

237
00:09:37,990 --> 00:09:35,670
we're going out to vernon thorpe the

238
00:09:40,389 --> 00:09:38,000

program manager for nasa missions from

239
00:09:41,990 --> 00:09:40,399
united launch alliance vern

240
00:09:44,070 --> 00:09:42,000
hey thank you george

241
00:09:47,430 --> 00:09:44,080
on behalf of michael gass our president

242
00:09:49,590 --> 00:09:47,440
and ceo and the 3 700 men and women of

243
00:09:51,750 --> 00:09:49,600
ula i'd like to say that we're proud to

244
00:09:52,790 --> 00:09:51,760
support nasa and the launch of the npp

245
00:09:55,990 --> 00:09:52,800
mission

246
00:09:57,750 --> 00:09:56,000
this will be the 50th delta ii that

247
00:10:00,070 --> 00:09:57,760
we've flown for nasa

248
00:10:03,269 --> 00:10:00,080
this will also be ula's 10th launch this

249
00:10:05,110 --> 00:10:03,279
year and it will be ula's 55th launch

250
00:10:07,590 --> 00:10:05,120
overall

251
00:10:09,509 --> 00:10:07,600
in addition this is the fourth of five

252
00:10:11,110 --> 00:10:09,519
missions that we are launching for nasa

253
00:10:12,310 --> 00:10:11,120
this year in just under a six-month

254
00:10:13,829 --> 00:10:12,320
period

255
00:10:15,750 --> 00:10:13,839
we've worked closely with the npp

256
00:10:17,750 --> 00:10:15,760
spacecraft team and with our partners in

257
00:10:20,150 --> 00:10:17,760
ksc's launch services program for

258
00:10:22,550 --> 00:10:20,160
several years preparing for this launch

259
00:10:24,470 --> 00:10:22,560
the integration work is complete

260
00:10:26,310 --> 00:10:24,480
the launch processing is in its final

261
00:10:29,269 --> 00:10:26,320
stages and we are ready to launch the

262
00:10:30,790 --> 00:10:29,279
npp spacecraft into a polar earth orbit

263
00:10:32,630 --> 00:10:30,800

this launch will be a critical step in

264
00:10:35,030 --> 00:10:32,640
developing our country's next generation

265
00:10:37,110 --> 00:10:35,040
earth observing satellite system

266
00:10:39,590 --> 00:10:37,120
it's also worth noting as tim pointed

267
00:10:41,990 --> 00:10:39,600
out that we have a few cubesats on board

268
00:10:44,310 --> 00:10:42,000
as well we actually have three what we

269
00:10:47,190 --> 00:10:44,320
call p-pod dispensers on the front end

270
00:10:49,030 --> 00:10:47,200
of the upper stage and distributed among

271
00:10:52,069 --> 00:10:49,040
those three peapod dispensers we have

272
00:10:53,670 --> 00:10:52,079
six cubesats that we'll be deploying and

273
00:10:55,350 --> 00:10:53,680
we'll be doing that after completion of

274
00:10:56,550 --> 00:10:55,360
the primary mission about 40 minutes

275
00:10:58,069 --> 00:10:56,560
later

276
00:11:00,069 --> 00:10:58,079
these cubesats were provided by the

277
00:11:04,230 --> 00:11:00,079
university of michigan the university of

278
00:11:05,910 --> 00:11:04,240
montana auburn university and utah state

279
00:11:08,870 --> 00:11:05,920
the npp mission will be launched aboard

280
00:11:11,110 --> 00:11:08,880
a delta ii 7920-10

281
00:11:13,509 --> 00:11:11,120
vehicle featuring a ula first stage

282
00:11:15,590 --> 00:11:13,519
powered by a pratt whitney rocketdyne rs

283
00:11:18,230 --> 00:11:15,600
27a main engine

284
00:11:21,030 --> 00:11:18,240
and nine alliant tech system uh solid

285
00:11:22,949 --> 00:11:21,040
rocket motors an aerojet aj10 engine

286
00:11:24,870 --> 00:11:22,959
will power the second stage and the

287
00:11:26,870 --> 00:11:24,880
payload will be protected by a 10-foot

288
00:11:28,710 --> 00:11:26,880

diameter composite fairing during the

289
00:11:30,949 --> 00:11:28,720
first few minutes of flight

290
00:11:33,350 --> 00:11:30,959
tim showed us a video of the processing

291
00:11:35,430 --> 00:11:33,360
and activities that led us up to where

292
00:11:37,829 --> 00:11:35,440
we are today i'd like to show you a

293
00:11:39,110 --> 00:11:37,839
video of what we plan to see on launch

294
00:11:41,509 --> 00:11:39,120
morning if we could go ahead and roll

295
00:11:46,230 --> 00:11:43,509
okay when this vehicle lifts off it will

296
00:11:49,350 --> 00:11:46,240
weigh about 500 000 pounds we'll lift

297
00:11:51,190 --> 00:11:49,360
off with a thrust of 650 000 pounds and

298
00:11:53,509 --> 00:11:51,200
the first major event you see will be

299
00:11:55,509 --> 00:11:53,519
the burnout and jettison of the six

300
00:11:57,269 --> 00:11:55,519
ground lit srbs

301
00:11:59,350 --> 00:11:57,279
those will burn out about 65 seconds

302
00:12:00,949 --> 00:11:59,360
into flight we'll jettison them about 86

303
00:12:02,629 --> 00:12:00,959
seconds into flight

304
00:12:05,269 --> 00:12:02,639
before we jettison those we'll light the

305
00:12:07,509 --> 00:12:05,279
three air lit srbs those again will burn

306
00:12:09,269 --> 00:12:07,519
for 65 seconds we'll jettison them about

307
00:12:15,910 --> 00:12:09,279
a

308
00:12:17,750 --> 00:12:15,920
will continue to burn until we deplete

309
00:12:19,750 --> 00:12:17,760
all the propellants that will happen

310
00:12:21,509 --> 00:12:19,760
about four minutes and 20 seconds in the

311
00:12:23,190 --> 00:12:21,519
flight at that point we'll shut down the

312
00:12:25,590 --> 00:12:23,200
engines we'll separate from the upper

313
00:12:28,150 --> 00:12:25,600

stage and we'll begin the first of

314
00:12:30,710 --> 00:12:28,160
several upper stage engine burns

315
00:12:33,110 --> 00:12:30,720
the first burn that we see on friday

316
00:12:35,990 --> 00:12:33,120
morning will last about almost six

317
00:12:37,509 --> 00:12:36,000
minutes five minutes 47 seconds

318
00:12:38,949 --> 00:12:37,519
and that will take us into an

319
00:12:40,389 --> 00:12:38,959
intermediate orbit

320
00:12:43,670 --> 00:12:40,399
we'll have a

321
00:12:46,069 --> 00:12:43,680
42 minute coast in between

322
00:12:48,389 --> 00:12:46,079
and then we'll do the uh

323
00:12:51,269 --> 00:12:48,399
the second engine burn that will put npp

324
00:12:52,710 --> 00:12:51,279
into its uh desired orbit for separation

325
00:12:54,230 --> 00:12:52,720
you saw the payload fairing jettison

326
00:12:56,550 --> 00:12:54,240
there a few seconds ago that jettison

327
00:12:59,910 --> 00:12:56,560
will happen shortly after the first

328
00:13:03,350 --> 00:12:59,920
upper stage engine burn begins

329
00:13:05,590 --> 00:13:03,360
so the the second burn will complete

330
00:13:07,430 --> 00:13:05,600
about 52 and a half minutes into flight

331
00:13:08,949 --> 00:13:07,440
we'll take a few minutes to reorient the

332
00:13:11,110 --> 00:13:08,959
upper stage

333
00:13:13,829 --> 00:13:11,120
and then we'll separate

334
00:13:15,990 --> 00:13:13,839
the npp spacecraft separation is

335
00:13:18,470 --> 00:13:16,000
nominally scheduled to happen about 58

336
00:13:20,949 --> 00:13:18,480
minutes and 45 seconds into flight so

337
00:13:22,150 --> 00:13:20,959
slightly less than an hour after liftoff

338
00:13:23,990 --> 00:13:22,160

now after

339
00:13:27,030 --> 00:13:24,000
we complete what we refer to as our

340
00:13:29,430 --> 00:13:27,040
primary mission uh we then do a second

341
00:13:30,949 --> 00:13:29,440
or i should say a third engine burn

342
00:13:33,509 --> 00:13:30,959
and after that third burn that's when

343
00:13:34,949 --> 00:13:33,519
we'll jettison the uh the p pods the the

344
00:13:36,069 --> 00:13:34,959
six cubesats that we're carrying in the

345
00:13:37,190 --> 00:13:36,079
peapod

346
00:13:39,269 --> 00:13:37,200
deployers

347
00:13:41,350 --> 00:13:39,279
and that will occur about an hour and 40

348
00:13:43,189 --> 00:13:41,360
minutes into flight and then finally

349
00:13:46,790 --> 00:13:43,199
we'll uh do a depletion burn of the

350
00:13:50,310 --> 00:13:48,790
we're proud to serve

351
00:13:52,710 --> 00:13:50,320
a critical role in delivering

352
00:13:55,350 --> 00:13:52,720
one-of-a-kind nasa payloads to orbit in

353
00:13:57,430 --> 00:13:55,360
support of the global science community

354
00:14:00,069 --> 00:13:57,440
and uh we're focused ula is focused on

355
00:14:03,110 --> 00:14:00,079
perfect product delivery that means

356
00:14:04,790 --> 00:14:03,120
uh for every mission we focus on one

357
00:14:06,710 --> 00:14:04,800
launch at a time

358
00:14:08,550 --> 00:14:06,720
and we work on continuous improvement in

359
00:14:10,870 --> 00:14:08,560
meeting the needs of all of all of our

360
00:14:12,870 --> 00:14:10,880
customers nasa and our other customers

361
00:14:14,949 --> 00:14:12,880
npp represents the culmination of years

362
00:14:16,550 --> 00:14:14,959
of hard work by the nasa and ula launch

363
00:14:18,949 --> 00:14:16,560

teams and we anticipate that our

364
00:14:20,870 --> 00:14:18,959
reliable delta ii will safely deliver

365
00:14:22,230 --> 00:14:20,880
the spacecraft into its desired orbit

366
00:14:24,230 --> 00:14:22,240
and we look forward to the important

367
00:14:25,189 --> 00:14:24,240
earth observation data that npp will

368
00:14:27,030 --> 00:14:25,199
provide

369
00:14:28,790 --> 00:14:27,040
so once again i'd like to thank all of

370
00:14:31,670 --> 00:14:28,800
our mission partners who worked with us

371
00:14:33,430 --> 00:14:31,680
tirelessly to make this launch a success

372
00:14:35,030 --> 00:14:33,440
and i'll turn it back to you george

373
00:14:37,509 --> 00:14:35,040
right thank you vern

374
00:14:39,670 --> 00:14:37,519
and now to ken schwer the npp project

375
00:14:42,230 --> 00:14:39,680
manager from nasa's goddard space flight

376
00:14:45,189 --> 00:14:42,240
center ken thank you george

377
00:14:47,189 --> 00:14:45,199
just a few miles from here sets the npp

378
00:14:48,470 --> 00:14:47,199
satellite on top of the delta ii launch

379
00:14:50,629 --> 00:14:48,480
vehicle

380
00:14:53,910 --> 00:14:50,639
as we complete all our preparations for

381
00:14:59,269 --> 00:14:53,920
our launch on friday october 28th can i

382
00:15:03,430 --> 00:15:01,030
once the mpp satellite separates from

383
00:15:05,110 --> 00:15:03,440
the delta ii launch vehicle

384
00:15:06,470 --> 00:15:05,120
the satellite starts an automated

385
00:15:08,389 --> 00:15:06,480
sequence

386
00:15:13,030 --> 00:15:08,399
where the control system maneuvers the

387
00:15:15,110 --> 00:15:13,040
satellite for solar ray deployment

388
00:15:17,189 --> 00:15:15,120

this makes sure we get the proper power

389
00:15:18,710 --> 00:15:17,199
into the system so we can have the

390
00:15:20,389 --> 00:15:18,720
health and safety of the satellite where

391
00:15:22,550 --> 00:15:20,399
we need it

392
00:15:24,550 --> 00:15:22,560
after deployment the communication

393
00:15:26,949 --> 00:15:24,560
systems on the satellite is configured

394
00:15:29,189 --> 00:15:26,959
for ground contact this is when my

395
00:15:32,230 --> 00:15:29,199
mission operations team has the first

396
00:15:34,629 --> 00:15:32,240
opportunity to verify and ensure the

397
00:15:37,269 --> 00:15:34,639
safety and health of the satellite

398
00:15:40,470 --> 00:15:37,279
this all happens in about 30 minutes

399
00:15:43,670 --> 00:15:40,480
after separation

400
00:15:45,269 --> 00:15:43,680
the npp satellite will orbit 512 miles

401
00:15:46,790 --> 00:15:45,279
above our homes

402
00:15:48,949 --> 00:15:46,800
and will be controlled from noaa's

403
00:15:50,790 --> 00:15:48,959
satellite operations facility in

404
00:15:52,710 --> 00:15:50,800
suitland maryland

405
00:15:55,189 --> 00:15:52,720
the npp satellite will send down about

406
00:15:57,829 --> 00:15:55,199
four terabytes of data a day

407
00:16:00,230 --> 00:15:57,839
to svalbard norway which is an antenna

408
00:16:02,790 --> 00:16:00,240
site inside the arctic circle

409
00:16:07,590 --> 00:16:02,800
four terabytes of data is approximately

410
00:16:11,670 --> 00:16:09,110
this is what makes the aerospace

411
00:16:12,949 --> 00:16:11,680
industry so exciting

412
00:16:14,710 --> 00:16:12,959
one day

413
00:16:16,870 --> 00:16:14,720

a person has a concept to meet our

414
00:16:19,590 --> 00:16:16,880
nation's needs

415
00:16:22,629 --> 00:16:19,600
next that concept is put to paper

416
00:16:24,710 --> 00:16:22,639
where many dedicated people work as a

417
00:16:26,069 --> 00:16:24,720
team throughout the development

418
00:16:28,870 --> 00:16:26,079
until one day

419
00:16:32,230 --> 00:16:28,880
a satellite like npp

420
00:16:36,230 --> 00:16:34,230
the challenges triumphs and

421
00:16:37,749 --> 00:16:36,240
relationships

422
00:16:40,629 --> 00:16:37,759
during npp

423
00:16:44,069 --> 00:16:40,639
will last a lifetime

424
00:16:46,550 --> 00:16:44,079
and support and help future endeavors

425
00:16:48,069 --> 00:16:46,560
during my npp team's journey we

426
00:16:50,710 --> 00:16:48,079
successfully maintained schedule the

427
00:16:53,030 --> 00:16:50,720
past two years while completing a

428
00:16:55,189 --> 00:16:53,040
satellite comprehensive environmental

429
00:16:56,949 --> 00:16:55,199
program and ensuring the readiness of

430
00:16:59,269 --> 00:16:56,959
the ground system and the mission

431
00:17:01,110 --> 00:16:59,279
operations team

432
00:17:03,590 --> 00:17:01,120
the npp satellite was built by ball

433
00:17:05,270 --> 00:17:03,600
aerospace in boulder colorado where all

434
00:17:07,750 --> 00:17:05,280
five instruments were delivered and

435
00:17:10,390 --> 00:17:07,760
integrated to the spacecraft

436
00:17:12,230 --> 00:17:10,400
after integration the npp satellite is

437
00:17:14,309 --> 00:17:12,240
about thirteen and a half feet long and

438
00:17:16,630 --> 00:17:14,319

weighs about forty five hundred pounds

439
00:17:22,230 --> 00:17:16,640
it's a pretty nice size suv

440
00:17:25,590 --> 00:17:23,909
the mvp saddle was shipped from boulder

441
00:17:27,829 --> 00:17:25,600
colorado and arrived to vandenberg air

442
00:17:29,270 --> 00:17:27,839
force base on august 30th

443
00:17:30,310 --> 00:17:29,280
the environmentally controlled shipping

444
00:17:32,470 --> 00:17:30,320
container

445
00:17:35,110 --> 00:17:32,480
here you can see the team carefully

446
00:17:37,590 --> 00:17:35,120
removing npp from the shipping container

447
00:17:39,270 --> 00:17:37,600
and installing it on our mechanical

448
00:17:43,510 --> 00:17:39,280
support structure

449
00:17:46,230 --> 00:17:43,520
because it can elevate and rotate the

450
00:17:47,510 --> 00:17:46,240
spacecraft to any position so our

451
00:17:49,110 --> 00:17:47,520
engineers

452
00:17:51,270 --> 00:17:49,120
can prepare

453
00:17:53,510 --> 00:17:51,280
mpp for launch

454
00:17:55,990 --> 00:17:53,520
after we complete all the preparations a

455
00:17:58,390 --> 00:17:56,000
protective canister is installed over

456
00:17:59,990 --> 00:17:58,400
npp

457
00:18:09,990 --> 00:18:00,000
here you can see them building up and

458
00:18:15,190 --> 00:18:11,190
once they're complete with those

459
00:18:19,590 --> 00:18:18,150
we carefully and slowly of course

460
00:18:21,029 --> 00:18:19,600
in the wee hours of the morning when it

461
00:18:23,190 --> 00:18:21,039
was dark

462
00:18:26,310 --> 00:18:23,200
take this two-mile trip out to the delta

463
00:18:30,630 --> 00:18:28,630

this is where tim has showed you

464
00:18:32,549 --> 00:18:30,640
that the canister is lifted and we're

465
00:18:34,870 --> 00:18:32,559
finally mated

466
00:18:38,150 --> 00:18:34,880
to the delta ii which we've been working

467
00:18:42,950 --> 00:18:39,350
this week

468
00:18:45,270 --> 00:18:42,960
the npp and delta teams completed all

469
00:18:46,310 --> 00:18:45,280
readiness reviews and the mission dress

470
00:18:48,630 --> 00:18:46,320
rehearsal

471
00:18:51,190 --> 00:18:48,640
which prepares the launch team

472
00:18:52,549 --> 00:18:51,200
with simulated anomalies

473
00:18:55,270 --> 00:18:52,559
npp

474
00:18:56,950 --> 00:18:55,280
is ready for launch

475
00:18:59,430 --> 00:18:56,960
the nasa goddard space flight center

476
00:19:01,350 --> 00:18:59,440
role on npp is to manage the entire

477
00:19:02,549 --> 00:19:01,360
mission for nasa's earth science

478
00:19:05,350 --> 00:19:02,559
division

479
00:19:07,270 --> 00:19:05,360
this included acquiring the spacecraft

480
00:19:09,029 --> 00:19:07,280
two of the five instruments

481
00:19:11,110 --> 00:19:09,039
working with the kennedy space center

482
00:19:13,430 --> 00:19:11,120
for the delta ii launch vehicle

483
00:19:16,950 --> 00:19:13,440
and overall mission systems engineering

484
00:19:21,909 --> 00:19:19,510
over the past five decades the nasa

485
00:19:24,789 --> 00:19:21,919
goddard space flight center has managed

486
00:19:27,909 --> 00:19:24,799
and launched over 260

487
00:19:31,350 --> 00:19:27,919
successful missions in the space

488
00:19:34,549 --> 00:19:31,360

npp has touched so many lives already

489
00:19:36,870 --> 00:19:34,559
and my team is so excited for npp to

490
00:19:39,190 --> 00:19:36,880
touch the rest of the world

491
00:19:40,789 --> 00:19:39,200
with climate studies enhanced weather

492
00:19:42,070 --> 00:19:40,799
forecasting

493
00:19:44,230 --> 00:19:42,080
and monitoring

494
00:19:46,470 --> 00:19:44,240
of critical events

495
00:19:50,310 --> 00:19:46,480
npp's bumper sticker could read

496
00:19:53,430 --> 00:19:50,320
npp our planet's lifeguard

497
00:19:55,510 --> 00:19:53,440
thank you back to you george thanks ken

498
00:19:57,350 --> 00:19:55,520
now the weather forecast for friday

499
00:19:59,110 --> 00:19:57,360
morning lieutenant lisa cochran the

500
00:20:01,270 --> 00:19:59,120
launch weather officer from the 30th

501
00:20:02,390 --> 00:20:01,280
operation support squadron lisa thank

502
00:20:04,070 --> 00:20:02,400
you george

503
00:20:05,909 --> 00:20:04,080
the month of october is part of a

504
00:20:08,390 --> 00:20:05,919
transitional weather season for the

505
00:20:10,470 --> 00:20:08,400
central coast of california it's marked

506
00:20:12,470 --> 00:20:10,480
by the disruption of

507
00:20:14,870 --> 00:20:12,480
the marine layer and the associated fog

508
00:20:17,270 --> 00:20:14,880
we see with that by low pressure systems

509
00:20:18,830 --> 00:20:17,280
moving down the coast

510
00:20:21,350 --> 00:20:18,840
if you'll turn to the current satellite

511
00:20:23,110 --> 00:20:21,360
loop one of those low pressure systems

512
00:20:25,750 --> 00:20:23,120
made its way in from the northwest just

513
00:20:28,149 --> 00:20:25,760

a few days ago and we

514
00:20:29,110 --> 00:20:28,159
received cold frontal passage this

515
00:20:31,029 --> 00:20:29,120
morning

516
00:20:33,110 --> 00:20:31,039
you can see as it continues to push off

517
00:20:35,350 --> 00:20:33,120
to the east the clouds associated with

518
00:20:37,029 --> 00:20:35,360
it as it does continue to move off to

519
00:20:39,270 --> 00:20:37,039
the east high pressure is going to start

520
00:20:41,430 --> 00:20:39,280
to build back in behind that which is

521
00:20:43,029 --> 00:20:41,440
going to create an offshore flow for us

522
00:20:44,870 --> 00:20:43,039
here at vandenberg

523
00:20:47,190 --> 00:20:44,880
with this wind pattern it will keep that

524
00:20:49,270 --> 00:20:47,200
marine layer well off the coast

525
00:20:51,830 --> 00:20:49,280
and it will give us unrestricted

526
00:20:53,830 --> 00:20:51,840
visibility and favorable sky conditions

527
00:20:56,149 --> 00:20:53,840
for launch day

528
00:20:58,710 --> 00:20:56,159
so the forecast for the launch window

529
00:21:01,510 --> 00:20:58,720
for october 28th you can expect upper

530
00:21:04,710 --> 00:21:01,520
level clouds few coverage from

531
00:21:07,430 --> 00:21:04,720
25 000 feet to 27 000 feet with

532
00:21:09,110 --> 00:21:07,440
unrestricted visibility and no weather

533
00:21:11,110 --> 00:21:09,120
our winds will be out of the east around

534
00:21:14,310 --> 00:21:11,120
8 to 12 knots and temperatures will

535
00:21:16,230 --> 00:21:14,320
range in the upper 40s to low 50s

536
00:21:18,950 --> 00:21:16,240
and finally for the 24 hour scrub

537
00:21:21,430 --> 00:21:18,960
forecast on the 29th expect very similar

538
00:21:23,909 --> 00:21:21,440

conditions as the previous day just

539
00:21:27,350 --> 00:21:23,919
increasing upper-level clouds around 5 8

540
00:21:29,029 --> 00:21:27,360
coverage from 24 000 to 28 000 feet

541
00:21:30,630 --> 00:21:29,039
still unrestricted visibility and no

542
00:21:32,789 --> 00:21:30,640
significant weather and our winds will

543
00:21:34,630 --> 00:21:32,799
still be out of the east around 8 to 12

544
00:21:37,110 --> 00:21:34,640
knots and temperatures still the same as

545
00:21:41,990 --> 00:21:37,120
well this gives us an over pro overall

546
00:21:44,870 --> 00:21:42,000
probability of zero percent for both t0

547
00:21:46,070 --> 00:21:44,880
and for the scrub day as well

548
00:21:48,470 --> 00:21:46,080
our launch weather team is going to

549
00:21:50,470 --> 00:21:48,480
continue to monitor the weather up

550
00:21:52,230 --> 00:21:50,480
through the launch window and it will

551
00:21:53,830 --> 00:21:52,240
make any updates as needed but it's

552
00:21:55,750 --> 00:21:53,840
going to look like it's looking to be a

553
00:21:58,390 --> 00:21:55,760
very favorable weather conditions for

554
00:21:59,510 --> 00:21:58,400
launch day

555
00:22:01,750 --> 00:21:59,520
thank you

556
00:22:03,669 --> 00:22:01,760
and we're ready now to take questions

557
00:22:06,390 --> 00:22:03,679
please give your name an affiliation

558
00:22:09,830 --> 00:22:06,400
when the microphone comes to you

559
00:22:15,510 --> 00:22:09,840
so we can start here in the front and

560
00:22:19,029 --> 00:22:17,029
all right no

561
00:22:21,270 --> 00:22:19,039
questions for our media here

562
00:22:23,990 --> 00:22:21,280
and any questions from the media at the

563
00:22:25,510 --> 00:22:24,000

other nasa centers

564
00:22:27,590 --> 00:22:25,520
all right no questions at the other

565
00:22:28,630 --> 00:22:27,600
centers well we do have a question uh

566
00:22:30,149 --> 00:22:28,640
from

567
00:22:32,390 --> 00:22:30,159
justin ray

568
00:22:33,669 --> 00:22:32,400
i just write with uh spaceflightnow.com

569
00:22:36,710 --> 00:22:33,679
i guess for ken i was wondering if you

570
00:22:38,950 --> 00:22:36,720
could compare mpp to the previous

571
00:22:41,270 --> 00:22:38,960
uh polar orbiter weather satellites and

572
00:22:43,990 --> 00:22:41,280
so forth how big of a leap npp

573
00:22:46,390 --> 00:22:44,000
represents from from previous

574
00:22:48,390 --> 00:22:46,400
missions of this sort

575
00:22:50,310 --> 00:22:48,400
um i could address that somewhat i do

576
00:22:52,870 --> 00:22:50,320
encourage you to stick around for the

577
00:22:54,549 --> 00:22:52,880
next briefing where my project scientist

578
00:22:55,750 --> 00:22:54,559
jim gleason could give a more thorough

579
00:22:57,190 --> 00:22:55,760
answer

580
00:22:59,029 --> 00:22:57,200
but one of the things with our

581
00:23:01,430 --> 00:22:59,039
partnership with noaa that we've had in

582
00:23:02,950 --> 00:23:01,440
over excess of 40 years on our research

583
00:23:04,549 --> 00:23:02,960
satellites like earth observing

584
00:23:06,230 --> 00:23:04,559
satellites

585
00:23:08,070 --> 00:23:06,240
where we do the research that also gives

586
00:23:10,230 --> 00:23:08,080
us the opportunity to prove out those

587
00:23:12,149 --> 00:23:10,240
instruments and those capabilities

588
00:23:14,549 --> 00:23:12,159

so on the next generation weather

589
00:23:17,190 --> 00:23:14,559
satellites we can start to factor in

590
00:23:19,029 --> 00:23:17,200
that technology and that resolution

591
00:23:21,510 --> 00:23:19,039
into the weather community

592
00:23:25,029 --> 00:23:21,520
one aspect of npp npp is sending down

593
00:23:29,830 --> 00:23:25,039
about twice as much data as each of our

594
00:23:34,149 --> 00:23:31,350
all right we have one question that's

595
00:23:36,390 --> 00:23:34,159
come in online and steve cole from nasa

596
00:23:38,310 --> 00:23:36,400
headquarters will read that to us thank

597
00:23:41,430 --> 00:23:38,320
you george this is from steve rousseau

598
00:23:45,669 --> 00:23:41,440
at popular mechanics it's for ken

599
00:23:48,070 --> 00:23:45,679
how long will npp be operational

600
00:23:50,230 --> 00:23:48,080
the mpp instruments have a design life

601
00:23:52,390 --> 00:23:50,240
for seven years

602
00:23:53,990 --> 00:23:52,400
this mission npp was always envisioned

603
00:23:55,750 --> 00:23:54,000
to be

604
00:23:58,470 --> 00:23:55,760
a risk reduction mission

605
00:24:01,029 --> 00:23:58,480
for the overall operational system so

606
00:24:03,269 --> 00:24:01,039
the npp spacecraft is a five-year design

607
00:24:05,350 --> 00:24:03,279
spacecraft bus of course like all our

608
00:24:07,269 --> 00:24:05,360
satellites we want them to live as long

609
00:24:09,510 --> 00:24:07,279
as we can

610
00:24:12,149 --> 00:24:09,520
but during the development of of three

611
00:24:14,310 --> 00:24:12,159
of the instruments viirs chris and omps

612
00:24:16,149 --> 00:24:14,320
that was delivered by our partners

613
00:24:18,390 --> 00:24:16,159

there were significant development

614
00:24:20,070 --> 00:24:18,400
issues that arose throughout the years

615
00:24:21,430 --> 00:24:20,080
which leads residual risk in those

616
00:24:23,830 --> 00:24:21,440
instruments

617
00:24:25,669 --> 00:24:23,840
the teams did everything they could to

618
00:24:27,990 --> 00:24:25,679
make sure that as appropriate

619
00:24:29,430 --> 00:24:28,000
instrumentation for the npp risk

620
00:24:32,710 --> 00:24:29,440
reduction mission

621
00:24:34,310 --> 00:24:32,720
the follow-on program jpss has had an

622
00:24:35,909 --> 00:24:34,320
undertaking to go through all the

623
00:24:38,230 --> 00:24:35,919
requirements all the lessons learned

624
00:24:40,870 --> 00:24:38,240
from npp whether it's from a hardware

625
00:24:43,269 --> 00:24:40,880
design manufacturing sense and

626
00:24:45,269 --> 00:24:43,279
incorporate as much as they can to where

627
00:24:47,669 --> 00:24:45,279
we have a better feeling of those

628
00:24:50,470 --> 00:24:47,679
instruments from a longevity sense

629
00:24:52,310 --> 00:24:50,480
also the lessons learned from npp

630
00:24:54,390 --> 00:24:52,320
the noaa and the other scientific and

631
00:24:57,029 --> 00:24:54,400
operational users they get this gives

632
00:24:58,070 --> 00:24:57,039
them a time to update algorithm and data

633
00:25:00,549 --> 00:24:58,080
products

634
00:25:03,029 --> 00:25:00,559
so when the operational system comes on

635
00:25:05,029 --> 00:25:03,039
there's a much better sequence there see

636
00:25:07,110 --> 00:25:05,039
everything about npp is new the

637
00:25:09,510 --> 00:25:07,120
instruments are new the spacecraft's new

638
00:25:11,590 --> 00:25:09,520

the ground system is new so this gives

639
00:25:14,149 --> 00:25:11,600
us an opportunity which i like to call

640
00:25:15,909 --> 00:25:14,159
clean out the pipes for jpss make sure

641
00:25:20,230 --> 00:25:15,919
everything is working for when the

642
00:25:23,110 --> 00:25:20,240
operational system is is comes online

643
00:25:24,789 --> 00:25:23,120
uh additional questions uh how is npp

644
00:25:27,430 --> 00:25:24,799
going to help predict hurricanes and

645
00:25:30,710 --> 00:25:27,440
other major weather patterns and how

646
00:25:32,789 --> 00:25:30,720
important is this data to that effort

647
00:25:34,470 --> 00:25:32,799
well i i definitely encourage the person

648
00:25:36,470 --> 00:25:34,480
to ask that question is to listen to the

649
00:25:38,470 --> 00:25:36,480
next briefing

650
00:25:40,310 --> 00:25:38,480
okay great one last question uh this was

651
00:25:42,870 --> 00:25:40,320
directed to andy

652
00:25:46,070 --> 00:25:42,880
when will jpss the mission that you

653
00:25:48,870 --> 00:25:46,080
mentioned take over for npp and why was

654
00:25:55,350 --> 00:25:52,630
well the the jpss mission um yeah we can

655
00:25:56,549 --> 00:25:55,360
get you in touch with the jpss

656
00:25:57,990 --> 00:25:56,559
program

657
00:25:59,909 --> 00:25:58,000
later on but

658
00:26:02,310 --> 00:25:59,919
i can tell you right now the jpss

659
00:26:04,149 --> 00:26:02,320
mission jpss-1 is planned for launch in

660
00:26:05,510 --> 00:26:04,159
late 2016.

661
00:26:07,750 --> 00:26:05,520
and

662
00:26:10,710 --> 00:26:07,760
given the the five-year operational life

663
00:26:12,310 --> 00:26:10,720

that ken just spoke to that then

664
00:26:14,549 --> 00:26:12,320
that would that would be picking up

665
00:26:16,870 --> 00:26:14,559
right after the the end of mpp's

666
00:26:17,830 --> 00:26:16,880
operational life

667
00:26:19,909 --> 00:26:17,840
so

668
00:26:22,470 --> 00:26:19,919
all right any other questions from media

669
00:26:24,470 --> 00:26:22,480
here in the room

670
00:26:26,390 --> 00:26:24,480
all right in that event we will pause

671
00:26:29,510 --> 00:26:26,400
just long enough to change our players