
MECO1
MECO2
MA
CCAM
FDM
INSIGHT
TIMELINE
LAUNCH
MES2
SV
MR
BLOWDOWN
LIVE TLM DATA
NASA
5326.95

1
00:00:16,189 --> 00:00:12,879
we now have the Neko 2+3 second open

2
00:00:18,529 --> 00:00:16,199
once again the free flight predictions

3
00:00:20,689 --> 00:00:18,539
compared to actual show

4
00:01:14,469 --> 00:00:20,699
very good agreements and an excellent

5
00:01:36,450 --> 00:01:17,240
slanter has completed its turn to the

6
00:01:51,210 --> 00:01:40,020
Center has begun to ramp from a 50% duty

7
00:01:53,520 --> 00:01:51,220
cycle paid 10% cycle and from Dormition

8
00:01:55,440 --> 00:01:53,530
director center weren't about a nine

9
00:01:57,780 --> 00:01:55,450
minute coast phase before a spacecraft

10
00:01:58,980 --> 00:01:57,790
separation and I'm joined right now by

11
00:02:01,410 --> 00:01:58,990
Bruce Bennett of NASA's Jet Propulsion

12
00:02:03,000 --> 00:02:01,420
Laboratory and Bruce can you tell me a

13
00:02:05,520 --> 00:02:03,010

little bit about the insight mission and

14
00:02:06,930 --> 00:02:05,530
what your role is with this well I'm the

15
00:02:09,410 --> 00:02:06,940
principal investigator of the mission

16
00:02:12,300 --> 00:02:09,420
and sort of in charge of the overall

17
00:02:14,910 --> 00:02:12,310
success the scientific success of the

18
00:02:16,740 --> 00:02:14,920
mission and so I have to kind of oversee

19
00:02:19,650 --> 00:02:16,750
all the different aspects of it with an

20
00:02:21,990 --> 00:02:19,660
eye towards making sure that it's going

21
00:02:22,920 --> 00:02:22,000
to do the science that that we propose

22
00:02:26,040 --> 00:02:22,930
to do that

23
00:02:28,680 --> 00:02:26,050
that we've basically been tasked by NASA

24
00:02:30,270 --> 00:02:28,690
to provide from this mission and what is

25
00:02:33,000 --> 00:02:30,280
what is the primary science objective

26
00:02:35,910 --> 00:02:33,010
for for the insight well the insight is

27
00:02:38,460 --> 00:02:35,920
going to go to Mars to look beneath the

28
00:02:40,650 --> 00:02:38,470
surface and make the first map of the

29
00:02:42,750 --> 00:02:40,660
inside of Mars we're going to delineate

30
00:02:45,390 --> 00:02:42,760
the the thickness of the crust the size

31
00:02:48,600 --> 00:02:45,400
of the core the internal composition and

32
00:02:51,390 --> 00:02:48,610
use those those measurements to inform

33
00:02:54,930 --> 00:02:51,400
our models of planetary formation and

34
00:02:57,780 --> 00:02:54,940
planetary differentiation and and how

35
00:03:00,720 --> 00:02:57,790
the planets the rocky planets start out

36
00:03:04,280 --> 00:03:00,730
and perhaps understand how why some

37
00:03:06,270 --> 00:03:04,290
planets take a path that becomes a

38
00:03:09,600 --> 00:03:06,280

habitable planet like the earth and

39
00:03:12,690 --> 00:03:09,610
others take a path that becomes a not

40
00:03:14,850 --> 00:03:12,700
have a Venus or Mars so we're gonna

41
00:03:16,500 --> 00:03:14,860
learn about by studying Mars we can also

42
00:03:18,840 --> 00:03:16,510
learn about our own home planet that's

43
00:03:20,850 --> 00:03:18,850
that's exactly what exactly what we're

44
00:03:22,680 --> 00:03:20,860
trying to do yes and so how long does it

45
00:03:25,620 --> 00:03:22,690
take for the spacecraft it to get to the

46
00:03:27,270 --> 00:03:25,630
surface of Mars well we have about a six

47
00:03:31,110 --> 00:03:27,280
and a half month cruise from from here

48
00:03:33,360 --> 00:03:31,120
and then once we get to Mars we when we

49
00:03:35,070 --> 00:03:33,370
enter the atmosphere of Mars from there

50
00:03:37,110 --> 00:03:35,080
it takes about six and a half minutes to

51
00:03:39,930 --> 00:03:37,120
get to the bottom of yeah and land on

52
00:03:41,550 --> 00:03:39,940
the surface so it's it's they're both

53
00:03:43,800 --> 00:03:41,560
six and a half but there's a little bit

54
00:03:45,870 --> 00:03:43,810
difference in in then scale there and

55
00:03:47,879 --> 00:03:45,880
how long will insight be doing it

56
00:03:49,289 --> 00:03:47,889
science on the surface of Mars well we

57
00:03:50,320 --> 00:03:49,299
plan to take about the first two or

58
00:03:52,150 --> 00:03:50,330
three months to

59
00:03:54,250 --> 00:03:52,160
get the instruments to deploy they're

60
00:03:55,690 --> 00:03:54,260
bolted to the top of the of the

61
00:03:56,380 --> 00:03:55,700
spacecraft and we want to get them down

62
00:03:58,990 --> 00:03:56,390
on the ground

63
00:04:00,490 --> 00:03:59,000

our main instruments a seismometer and a

64
00:04:02,470 --> 00:04:00,500
heat flow probe and those both need to

65
00:04:04,960 --> 00:04:02,480
be on the ground in order to do their

66
00:04:06,700 --> 00:04:04,970
job and so we have a whole process for

67
00:04:08,170 --> 00:04:06,710
in placing them on the ground and

68
00:04:11,050 --> 00:04:08,180
getting them ready to go and once

69
00:04:12,970 --> 00:04:11,060
they're operating we tend to make our

70
00:04:15,370 --> 00:04:12,980
measurements for about one Mars here

71
00:04:17,050 --> 00:04:15,380
which is equivalent to earth here's a

72
00:04:18,550 --> 00:04:17,060
key tell me a little bit more about in

73
00:04:20,680 --> 00:04:18,560
marsquakes and maybe what you expect to

74
00:04:22,690 --> 00:04:20,690
learn from those well Mars quakes are

75
00:04:24,070 --> 00:04:22,700
just the the Martian equivalent of

76
00:04:27,400 --> 00:04:24,080
earthquakes that we have on the earth

77
00:04:29,980 --> 00:04:27,410
and so when the forces build up in the

78
00:04:32,320 --> 00:04:29,990
crust it causes the crust to break or

79
00:04:34,330 --> 00:04:32,330
crack and when that snaps a little bit

80
00:04:36,370 --> 00:04:34,340
it sends vibrations through the planet

81
00:04:38,320 --> 00:04:36,380
and those on the earth you know

82
00:04:40,120 --> 00:04:38,330
especially those of us live in

83
00:04:42,550 --> 00:04:40,130
California we're very familiar with the

84
00:04:44,680 --> 00:04:42,560
shaking of the ground due to due to

85
00:04:47,170 --> 00:04:44,690
earthquakes but what a lot of people

86
00:04:48,550 --> 00:04:47,180
don't realize is that the very sensitive

87
00:04:51,060 --> 00:04:48,560
instruments that we have the

88
00:04:53,740 --> 00:04:51,070

seismometers that we have are measuring

89
00:04:55,750 --> 00:04:53,750
earthquakes all the time and in

90
00:04:58,150 --> 00:04:55,760
California not only do we measure the

91
00:05:00,700 --> 00:04:58,160
shake so that you might feel yourself

92
00:05:03,700 --> 00:05:00,710
that we're measuring vibrations from

93
00:05:06,490 --> 00:05:03,710
quakes in across the ocean in Japan in

94
00:05:09,070 --> 00:05:06,500
Europe all over the world and for

95
00:05:11,110 --> 00:05:09,080
scientists those quakes are there like

96
00:05:12,940 --> 00:05:11,120
flashbulbs there they're lighting up the

97
00:05:15,130 --> 00:05:12,950
inside in the sense that as those waves

98
00:05:16,540 --> 00:05:15,140
go through the planet they're picking up

99
00:05:18,940 --> 00:05:16,550
information they're affected by the

100
00:05:20,470 --> 00:05:18,950
material that they move through and when

101
00:05:22,540 --> 00:05:20,480
they come back up and we measure them

102
00:05:24,610 --> 00:05:22,550
with our seismometers we're able to

103
00:05:26,800 --> 00:05:24,620
analyze those ways and pull out that

104
00:05:28,120 --> 00:05:26,810
information that the waves have picked

105
00:05:32,290 --> 00:05:28,130
up along the path and we can put

106
00:05:34,300 --> 00:05:32,300
together a 3d image basically a 3d look

107
00:05:35,890 --> 00:05:34,310
at the inside of the planet and we hope

108
00:05:37,570 --> 00:05:35,900
to do that same sort of thing at Mars

109
00:05:39,850 --> 00:05:37,580
we've been doing on the earth for about

110
00:05:41,110 --> 00:05:39,860
a hundred and twenty-five years now and

111
00:05:43,750 --> 00:05:41,120
so on Mars

112
00:05:46,090 --> 00:05:43,760
the inside of Mars is basically

113
00:05:48,040 --> 00:05:46,100

completely unknown we know that it has

114
00:05:51,250 --> 00:05:48,050
an iron core we know that it has a crust

115
00:05:53,650 --> 00:05:51,260
we have some fuzzy idea from theoretical

116
00:05:55,090 --> 00:05:53,660
measurements or theoretical models about

117
00:05:56,950 --> 00:05:55,100
how big those things are but they've

118
00:05:58,930 --> 00:05:56,960
never been measured and insight will

119
00:06:01,300 --> 00:05:58,940
actually measure those quantities for

120
00:06:02,890 --> 00:06:01,310
the very first time and so being here

121
00:06:03,290 --> 00:06:02,900
on launch day and now having it having

122
00:06:05,499 --> 00:06:03,300
it

123
00:06:08,270 --> 00:06:05,509
launched how do you feel at this point

124
00:06:10,219 --> 00:06:08,280
right now I feel a little bit drained

125
00:06:12,230 --> 00:06:10,229
because it's been so exciting all day

126
00:06:15,050 --> 00:06:12,240
long it's the the anticipations been

127
00:06:17,270 --> 00:06:15,060
been building up we rolled the tower

128
00:06:19,520 --> 00:06:17,280
back from the the spacecraft about four

129
00:06:21,260 --> 00:06:19,530
hours before launch and and and suddenly

130
00:06:23,420 --> 00:06:21,270
you know this beautiful rocket within

131
00:06:25,460 --> 00:06:23,430
sight standing on top was exposed and

132
00:06:29,149 --> 00:06:25,470
and lit up in the nights and in the

133
00:06:30,830 --> 00:06:29,159
night sky and that was that was a quite

134
00:06:32,600 --> 00:06:30,840
a moment then we came back here and the

135
00:06:35,270 --> 00:06:32,610
countdown comes down and as you get

136
00:06:36,170 --> 00:06:35,280
closer and closer to the liftoff you

137
00:06:38,230 --> 00:06:36,180
know there's there's more and more

138
00:06:40,999 --> 00:06:38,240

activity more and more things are

139
00:06:44,089 --> 00:06:41,009
happening and well you know pals are

140
00:06:47,149 --> 00:06:44,099
closing and tanks are pressurizing and

141
00:06:49,249 --> 00:06:47,159
then you get down to two to zero the

142
00:06:52,129 --> 00:06:49,259
thing goes off and it's just so exciting

143
00:06:53,930 --> 00:06:52,139
so intensely exciting and now we're

144
00:06:55,459 --> 00:06:53,940
waiting to sort of finish our launch

145
00:06:57,920 --> 00:06:55,469
we're not actually done with launch

146
00:06:59,510 --> 00:06:57,930
until we separate from from the Centaur

147
00:07:02,300 --> 00:06:59,520
and separation coming up here very

148
00:07:07,610 --> 00:07:02,310
shortly mm-hmm so we can uh we can get a

149
00:07:11,209 --> 00:07:07,620
hold for that okay and we have

150
00:07:13,089 --> 00:07:11,219
indications spacecraft so that's

151
00:07:17,029 --> 00:07:13,099
confirmation of spacecraft separation

152
00:07:19,580 --> 00:07:17,039
behind us that robot a lot of excited

153
00:07:23,209 --> 00:07:19,590
people now a short coast of

154
00:07:25,999 --> 00:07:23,219
approximately 34 seconds or we elaborate

155
00:07:28,519 --> 00:07:26,009
has a launch perfect I'm done this will

156
00:07:32,420 --> 00:07:28,529
be the first error of kube sets to go to

157
00:07:35,600 --> 00:07:32,430
deep space they carry radio I gain

158
00:07:39,619 --> 00:07:35,610
antenna and propulsion system with the

159
00:07:42,019 --> 00:07:39,629
goal to cry data relay to the earth from

160
00:07:48,200 --> 00:07:42,029
the entry descent and landing phase of

161
00:07:53,240 --> 00:07:50,779
and just moments away from the first two

162
00:08:00,249 --> 00:07:53,250
cube sets to deployed and we have the

163
00:08:23,880 --> 00:08:03,499

sensor is now spinning up first after

164
00:08:30,720 --> 00:08:28,380
centaur has completed the turn now and

165
00:08:33,120 --> 00:08:30,730
an attitude hole for spacecraft

166
00:08:41,550 --> 00:08:33,130
separation and we have indication of our

167
00:08:54,430 --> 00:08:41,560
Kobe in deployed and the second of two

168
00:08:54,440 --> 00:09:07,630
centaur has begun the custom SECAM turn

169
00:09:12,910 --> 00:09:09,340
and a lot of handshaking going on and

170
00:09:15,010 --> 00:09:12,920
half this launch control as the inside

171
00:09:17,380 --> 00:09:15,020
spacecraft is separated along with the

172
00:09:40,819 --> 00:09:17,390
to mark your CubeSat also bound from

173
00:09:50,500 --> 00:09:43,220
we can get a live view inside NASA's Jet

174
00:09:59,350 --> 00:09:54,009
and we now have the insight separation

175
00:10:00,280 --> 00:09:59,360
open and as all the other opens were the

176
00:10:02,439 --> 00:10:00,290
actuals

177
00:10:04,389 --> 00:10:02,449
are very close to the pre-flight

178
00:10:10,960 --> 00:10:04,399
predictions and excellent orbit or the

179
00:10:13,389 --> 00:10:10,970
insight spacecraft with that this

180
00:11:33,379 --> 00:10:13,399
completes the bus count commentary for

181
00:11:39,739 --> 00:11:36,229
and attention all stations on countdown

182
00:11:41,929 --> 00:11:39,749
to the NASA Administrator will be coming

183
00:11:58,560 --> 00:11:41,939
online shortly for a few comments for

184
00:11:58,570 --> 00:12:27,790
sir you're active on countdown to

185
00:12:32,900 --> 00:12:30,200
best can you hear me

186
00:12:34,940 --> 00:12:32,910
yes mr. Bryton Stein this is if I'm done

187
00:12:36,490 --> 00:12:34,950
with the insight launch team at

188
00:12:39,650 --> 00:12:36,500

Vandenberg Air Force Base

189
00:12:43,340 --> 00:12:39,660
well hello Jim how are you I'm doing

190
00:12:46,370 --> 00:12:43,350
just fine sir well in my life for the

191
00:12:48,560 --> 00:12:46,380
audience you are live and we've got the

192
00:12:51,230 --> 00:12:48,570
entire launch team dialed in listening

193
00:12:53,570 --> 00:12:51,240
to you on our countdown Channel oh well

194
00:12:56,030 --> 00:12:53,580
thank you so much Jim it's it's an honor

195
00:12:59,750 --> 00:12:56,040
to be able to talk to the whole team

196
00:13:02,000 --> 00:12:59,760
I want to start by thanking everybody

197
00:13:04,610 --> 00:13:02,010
who's worked on this for such a a long

198
00:13:06,710 --> 00:13:04,620
time I know this isn't something that

199
00:13:09,410 --> 00:13:06,720
you put together on a on a Saturday

200
00:13:11,210 --> 00:13:09,420
morning but this has been years of work

201
00:13:14,090 --> 00:13:11,220
by a whole host of people for a very

202
00:13:16,550 --> 00:13:14,100
long time including JPL and of course

203
00:13:19,610 --> 00:13:16,560
the launch crew at Vandenberg I want to

204
00:13:23,740 --> 00:13:19,620
give a special thanks to ula and

205
00:13:26,990 --> 00:13:23,750
congratulate them on 128 total

206
00:13:29,570 --> 00:13:27,000
successful launches in a row 78

207
00:13:31,850 --> 00:13:29,580
specifically for the Atlas 5 I want to

208
00:13:35,570 --> 00:13:31,860
thank our international partners kanessa

209
00:13:37,250 --> 00:13:35,580
and DLR for their hard work this is this

210
00:13:39,800 --> 00:13:37,260
is a big day we're going back to Mars

211
00:13:43,010 --> 00:13:39,810
where we did it from the west coast

212
00:13:44,840 --> 00:13:43,020
which is a first-ever we're going to

213
00:13:46,850 --> 00:13:44,850

look deep inside the interior of Mars

214
00:13:49,460 --> 00:13:46,860
we're going to create a 3d image of

215
00:13:51,800 --> 00:13:49,470
what's going on inside of Mars and of

216
00:13:55,040 --> 00:13:51,810
course the launch of our first cube

217
00:13:56,750 --> 00:13:55,050
stats into deep space these this is this

218
00:13:59,150 --> 00:13:56,760
is an extraordinary mission with a whole

219
00:14:01,550 --> 00:13:59,160
host of first it's important for our

220
00:14:04,670 --> 00:14:01,560
country it's also important for the

221
00:14:06,650 --> 00:14:04,680
world and it really establishes American

222
00:14:09,290 --> 00:14:06,660
leadership in you know in a lot of ways

223
00:14:11,480 --> 00:14:09,300
and I just wanted Jim to make sure

224
00:14:14,240 --> 00:14:11,490
everybody knew how grateful we are here

225
00:14:16,040 --> 00:14:14,250
at the headquarters and especially me

226
00:14:19,040 --> 00:14:16,050
since this was my first launch as the

227
00:14:21,830 --> 00:14:19,050
NASA Administrator that everything went

228
00:14:25,490 --> 00:14:21,840
so well and congratulations to everybody

229
00:14:28,850 --> 00:14:25,500
involved if it's okay I'd also like to

230
00:14:31,180 --> 00:14:28,860
to introduce the team there to Thomas

231
00:14:34,010 --> 00:14:31,190
Dorr Buchan whom I know many of you know

232
00:14:35,570 --> 00:14:34,020
he's the associate administrator of the

233
00:14:37,970 --> 00:14:35,580
science Mission Directorate here in the

234
00:14:40,040 --> 00:14:37,980
headquarters and I'll let him address

235
00:14:41,780 --> 00:14:40,050
you as well well thanks so much

236
00:14:44,150 --> 00:14:41,790
our Chairman just really excited just

237
00:14:45,889 --> 00:14:44,160
like you enjoying a great morning

238
00:14:48,350 --> 00:14:45,899

you know crossing fingers and living

239
00:14:50,119 --> 00:14:48,360
through everything all the animations

240
00:14:52,550 --> 00:14:50,129
are of course also the explanations that

241
00:14:54,530 --> 00:14:52,560
we got from the team both on camera and

242
00:14:56,600 --> 00:14:54,540
in the room and I just wanted to thank

243
00:14:59,420 --> 00:14:56,610
the whole team this is a team effort

244
00:15:00,889 --> 00:14:59,430
like you just said but also I wanted to

245
00:15:02,660 --> 00:15:00,899
tell you how much we're looking forward

246
00:15:04,790 --> 00:15:02,670
to doing the science and doing all this

247
00:15:06,350 --> 00:15:04,800
harvesting of everything we've been

248
00:15:09,019 --> 00:15:06,360
dreaming about in the last few years

249
00:15:10,730 --> 00:15:09,029
through all these sometimes eye candy

250
00:15:12,290 --> 00:15:10,740
putting these things together like these

251
00:15:13,730 --> 00:15:12,300
space missions are they're hard that's

252
00:15:16,400 --> 00:15:13,740
why we do enough because they're easy

253
00:15:18,079 --> 00:15:16,410
and I just look forward to what we're

254
00:15:20,480 --> 00:15:18,089
going to learn from this amazing mission

255
00:15:22,939 --> 00:15:20,490
once we arrive on the other side of this

256
00:15:25,189 --> 00:15:22,949
journey thanks Jim that is awesome well

257
00:15:27,199 --> 00:15:25,199
well Thank You Thomas and Jim I

258
00:15:30,290 --> 00:15:27,209
appreciate you giving me the opportunity

259
00:15:32,360 --> 00:15:30,300
to address everybody there and and it's

260
00:15:35,540 --> 00:15:32,370
a again congratulations on a very

261
00:15:37,429 --> 00:15:35,550
successful launch well thank you so much

262
00:15:39,350 --> 00:15:37,439
sir for taking time to speak to the team

263
00:15:40,910 --> 00:15:39,360

it means a lot to us if you were

264
00:15:43,699 --> 00:15:40,920
watching the video you probably saw the

265
00:15:45,679 --> 00:15:43,709
level of excitement out here we are

266
00:15:47,480 --> 00:15:45,689
thrilled to be part of a first ever

267
00:15:50,449 --> 00:15:47,490
launch from the west coast going

268
00:15:52,460 --> 00:15:50,459
interplanetary and thank you and mr.

269
00:15:55,069 --> 00:15:52,470
zerkin for taking time to speak to us

270
00:16:03,769 --> 00:15:55,079
this morning awesome congratulations you

271
00:16:05,629 --> 00:16:03,779
guys have a great day we will and as you

272
00:16:07,999 --> 00:16:05,639
just heard that was our new NASA

273
00:16:10,129 --> 00:16:08,009
Administrator talking to the launch team

274
00:16:12,470 --> 00:16:10,139
after a successful acquisition of signal

275
00:16:13,670 --> 00:16:12,480
from the insight spacecraft great to

276
00:16:15,679 --> 00:16:13,680
hear from our new administrator and you

277
00:16:21,139 --> 00:16:15,689
can follow him on Twitter at Jim

278
00:16:23,360 --> 00:16:21,149
bridenstine tonight's launch of the

279
00:16:26,990 --> 00:16:23,370
Atlas 5 with insight happened at 4:05

280
00:16:28,910 --> 00:16:27,000
a.m. Pacific time the inside spacecraft

281
00:16:32,090 --> 00:16:28,920
and the to Marco spacecraft were

282
00:16:34,160 --> 00:16:32,100
separated it's been a great night here

283
00:16:37,100 --> 00:16:34,170
from the mission director center at

284
00:16:38,929 --> 00:16:37,110
Vandenberg Air Force Base and with that

285
00:16:44,449 --> 00:16:38,939
we'll now go back to Stephanie Martin

286
00:16:46,970 --> 00:16:44,459
Stephanie thanks Josh

287
00:16:48,860 --> 00:16:46,980
it was a beautiful launch tonight and I

288
00:16:50,900 --> 00:16:48,870

believe that we have a recap of

289
00:16:54,600 --> 00:16:50,910
tonight's launch with Josh and Blair

290
00:16:58,799 --> 00:16:57,059
hey thanks Stephanie I tell you what it

291
00:17:01,859 --> 00:16:58,809
was it's been a it's been a great day

292
00:17:04,289 --> 00:17:01,869
yes great launched it was great to hear

293
00:17:05,490 --> 00:17:04,299
from from the NASA Administrator from

294
00:17:07,110 --> 00:17:05,500
the associate administrator for science

295
00:17:09,840 --> 00:17:07,120
Mission Directorate and from Tim Dunn

296
00:17:12,240 --> 00:17:09,850
the launch director on a job well done

297
00:17:13,980 --> 00:17:12,250
to the insight team and to the marketing

298
00:17:15,689 --> 00:17:13,990
well and of course we've also heard for

299
00:17:17,279 --> 00:17:15,699
a lot from the the principal

300
00:17:20,159 --> 00:17:17,289
investigators a deputy principal

301
00:17:22,500 --> 00:17:20,169
investigator very exciting stuff going

302
00:17:24,449 --> 00:17:22,510
on and as you heard mentioned several

303
00:17:26,340 --> 00:17:24,459
times a lot of enthusiasm

304
00:17:28,529 --> 00:17:26,350
I mean look people have been out here

305
00:17:31,680 --> 00:17:28,539
for hours into the wee hours of the

306
00:17:33,690 --> 00:17:31,690
early morning and the enthusiasm is

307
00:17:36,060 --> 00:17:33,700
keeping everybody on point no for us

308
00:17:39,419 --> 00:17:36,070
Stephanie it's it for us Stephanie it's

309
00:17:43,560 --> 00:17:39,429
been you know from the roll out roll

310
00:17:46,350 --> 00:17:43,570
back of the the mobile service platform

311
00:17:49,590 --> 00:17:46,360
and in seeing you know the rocket out of

312
00:17:50,759 --> 00:17:49,600
the pad it was really cool and then to

313
00:17:52,470 --> 00:17:50,769

kind of wait you know there's three

314
00:17:55,620 --> 00:17:52,480
four-hour to get excited for the launch

315
00:17:58,379 --> 00:17:55,630
yeah absolutely and and to talk to

316
00:18:01,409 --> 00:17:58,389
5-hour Jim Green who is just full of

317
00:18:03,509 --> 00:18:01,419
energy and excitement and it just really

318
00:18:05,639 --> 00:18:03,519
makes you get really excited about

319
00:18:08,129 --> 00:18:05,649
planetary science and learning more

320
00:18:09,539 --> 00:18:08,139
about Mars is cool I mean we didn't

321
00:18:12,000 --> 00:18:09,549
actually see the launch because of the

322
00:18:15,299 --> 00:18:12,010
fog but you felt it right it was it was

323
00:18:17,750 --> 00:18:15,309
palpable it was tactile that's right and

324
00:18:20,250 --> 00:18:17,760
so now we have spacecraft separation

325
00:18:21,450 --> 00:18:20,260
Marco in sight it's on its way to Mars

326
00:18:23,779 --> 00:18:21,460
and now we just have to wait till

327
00:18:25,950 --> 00:18:23,789
November 26 that's right and of course

328
00:18:28,680 --> 00:18:25,960
Marco will be right there with them to

329
00:18:30,810 --> 00:18:28,690
get data from the from the ground can't

330
00:18:33,210 --> 00:18:30,820
wait that's right it's been a great day

331
00:18:35,850 --> 00:18:33,220
a great launch and we're looking forward

332
00:18:39,120 --> 00:18:35,860
to the landing of insight do you keep

333
00:18:41,100 --> 00:18:39,130
the energy going thank you both

334
00:18:43,320 --> 00:18:41,110
Torrey McClendon is standing by in the

335
00:18:47,370 --> 00:18:43,330
remote launch control center with a very

336
00:18:50,669 --> 00:18:47,380
excited launch director Tori there we go

337
00:18:52,740 --> 00:18:50,679
Thank You Stephanie all right Tim so I

338
00:18:55,259 --> 00:18:52,750

know how excited you and your team has

339
00:18:57,120 --> 00:18:55,269
been for this long-awaited day tell us

340
00:18:59,340 --> 00:18:57,130
how it went today Wow

341
00:19:00,659 --> 00:18:59,350
so we just had spacecraft separation I

342
00:19:02,870 --> 00:19:00,669
mean it's thrilling

343
00:19:06,060 --> 00:19:02,880
we got a spacecraft on its way to Mars

344
00:19:07,190 --> 00:19:06,070
it's been an incredible day night

345
00:19:08,340 --> 00:19:07,200
morning

346
00:19:11,400 --> 00:19:08,350
it's

347
00:19:14,580 --> 00:19:11,410
long long evening forests been up for a

348
00:19:17,700 --> 00:19:14,590
long time but it was a actually an

349
00:19:19,970 --> 00:19:17,710
incredibly smooth countdown weather here

350
00:19:24,049 --> 00:19:19,980
on the central California coast I know

351
00:19:26,940 --> 00:19:24,059
except for the fog it was incredible

352
00:19:29,580 --> 00:19:26,950
apologize for the visibility the low-vis

353
00:19:31,980 --> 00:19:29,590
of the viewers but I hear it put on

354
00:19:36,120 --> 00:19:31,990
quite a show for sound apparently did

355
00:19:39,240 --> 00:19:36,130
yes but so all the weather constraints

356
00:19:40,620 --> 00:19:39,250
were met even the visibility constraint

357
00:19:43,860 --> 00:19:40,630
that got a lot of discussion over the

358
00:19:45,779 --> 00:19:43,870
last couple of days the range assets

359
00:19:47,490 --> 00:19:45,789
here at the 30th Space Wing at

360
00:19:50,760 --> 00:19:47,500
Vandenberg Air Force Base performed

361
00:19:52,710 --> 00:19:50,770
exceptionally well no problems there we

362
00:19:56,220 --> 00:19:52,720
woke the spacecraft up about 45 minutes

363
00:19:58,770 --> 00:19:56,230

before launch it woke up on time and it

364
00:20:01,020 --> 00:19:58,780
was did not have one bit of problem from

365
00:20:04,770 --> 00:20:01,030
the spacecraft and then the launch

366
00:20:06,990 --> 00:20:04,780
vehicle the mighty Atlas performed yet

367
00:20:09,630 --> 00:20:07,000
again we had a little bit of discussion

368
00:20:12,570 --> 00:20:09,640
early in the count down about a ground

369
00:20:14,460 --> 00:20:12,580
system valve we worked through that no

370
00:20:18,060 --> 00:20:14,470
problems and then late in the count we

371
00:20:20,070 --> 00:20:18,070
had a few alarms that we needed to spend

372
00:20:22,289 --> 00:20:20,080
a little bit of time understood those

373
00:20:24,539 --> 00:20:22,299
they were not actual real alarms about

374
00:20:29,340 --> 00:20:24,549
the rocket so that took us right up to

375
00:20:31,260 --> 00:20:29,350
about L - so 6 minutes or so and and

376
00:20:34,169 --> 00:20:31,270
then from then on it was smooth sailing

377
00:20:37,140 --> 00:20:34,179
down to t0 right on time at the opening

378
00:20:39,510 --> 00:20:37,150
of the window the ula launch team

379
00:20:43,140 --> 00:20:39,520
demonstrated once again what an

380
00:20:46,440 --> 00:20:43,150
incredible team they are and the NASA

381
00:20:49,140 --> 00:20:46,450
team that came alongside ula I'm just a

382
00:20:50,850 --> 00:20:49,150
small part of that team and incredibly

383
00:20:53,820 --> 00:20:50,860
proud to work for the launch services

384
00:20:55,049 --> 00:20:53,830
program team and then certainly our

385
00:20:59,070 --> 00:20:55,059
customer from the Jet Propulsion

386
00:21:01,500 --> 00:20:59,080
Laboratory that actually did all of the

387
00:21:04,020 --> 00:21:01,510
hard heavy lifting with the inside

388
00:21:06,270 --> 00:21:04,030

spacecraft Lockheed Martin built the

389
00:21:08,940 --> 00:21:06,280
spacecraft in Denver JPL worked

390
00:21:11,520 --> 00:21:08,950
alongside them so just on all sides just

391
00:21:14,360 --> 00:21:11,530
an incredible team and if you saw any of

392
00:21:16,919 --> 00:21:14,370
the video of us in the control room

393
00:21:19,830 --> 00:21:16,929
celebrating it's just it's what a relief

394
00:21:22,010 --> 00:21:19,840
to have a mission success spacecraft on

395
00:21:24,470 --> 00:21:22,020
its way happy healthy we've acquired the

396
00:21:27,500 --> 00:21:24,480
the first telemetry signals from inside

397
00:21:28,880 --> 00:21:27,510
already so we know it's doing well great

398
00:21:31,880 --> 00:21:28,890
well thank you so much for joining us

399
00:21:34,460 --> 00:21:31,890
Stephanie back to you thank you both

400
00:21:36,620 --> 00:21:34,470
this concludes our live launch coverage

401
00:21:38,780 --> 00:21:36,630
of the United Launch alliances Atlas

402
00:21:41,360 --> 00:21:38,790
five rocket with NASA's insight and

403
00:21:53,049 --> 00:21:41,370
Marco spacecraft which are heading to