1
00:00:35,590 --> 00:00:34,470
[Music]

2
00:00:36,630 --> 00:00:35,600
three

3
00:00:37,510 --> 00:00:36,640
two

4
00:00:44,069 --> 00:00:37,520
one

5
00:00:49,190 --> 00:00:46,150
you're looking live at the northrop

6
00:00:51,590 --> 00:00:49,200
grumman facility in promontory utah

7
00:00:54,310 --> 00:00:51,600
where in about 20 minutes you're going

8
00:00:56,630 --> 00:00:54,320
to see a lot of smoke and fire as we

9
00:00:59,510 --> 00:00:56,640
test the solid rocket booster for nasa

10
00:01:03,270 --> 00:00:59,520
space launch system or rocket

11
00:01:05,750 --> 00:01:03,280
good afternoon everyone and welcome i am

12
00:01:08,710 --> 00:01:05,760
shannon segovia at nasa's marshall space

13
00:01:12,230 --> 00:01:08,720

flight center in huntsville alabama home

14
00:01:14,710 --> 00:01:12,240
of the space launch system program we're

15
00:01:17,590 --> 00:01:14,720
counting down to our two minute booster

16
00:01:21,030 --> 00:01:17,600
test that will happen at 105 and

17
00:01:24,070 --> 00:01:21,040
mountain 305 eastern

18
00:01:26,469 --> 00:01:24,080
be sure and follow us on social media we

19
00:01:29,109 --> 00:01:26,479
will be taking your questions throughout

20
00:01:30,230 --> 00:01:29,119
the show on our social channels you can

21
00:01:34,230 --> 00:01:30,240
use the

22
00:01:37,030 --> 00:01:34,240
ask nasa also if you are watching on

23
00:01:39,030 --> 00:01:37,040
facebook be sure and put your questions

24
00:01:41,350 --> 00:01:39,040
in the comments and we will be taking

25
00:01:43,910 --> 00:01:41,360
those there too

26
00:01:46,950 --> 00:01:43,920
nasa is building the space launch system

27
00:01:50,630 --> 00:01:46,960
rocket or sls to send the orion

28
00:01:51,910 --> 00:01:50,640
spacecraft on our artemis missions to

29
00:01:56,550 --> 00:01:51,920
the moon

30
00:01:57,510 --> 00:01:56,560
a lot of power and you need a lot of

31
00:01:59,830 --> 00:01:57,520
energy

32
00:02:04,469 --> 00:01:59,840
and these twin solid rocket boosters

33
00:02:07,830 --> 00:02:04,479
that you see on this model provide 75

34
00:02:09,350 --> 00:02:07,840
of the power needed to launch sls to

35
00:02:11,430 --> 00:02:09,360
space

36
00:02:14,309 --> 00:02:11,440
for the artemis one mission

37
00:02:16,949 --> 00:02:14,319
sls will launch an uncrewed orion

38
00:02:19,830 --> 00:02:16,959

spacecraft next year from the kennedy

39
00:02:22,309 --> 00:02:19,840
space center in cape canaveral florida

40
00:02:25,350 --> 00:02:22,319
and this mission will really provide the

41
00:02:28,470 --> 00:02:25,360
foundation for nasa's deep space

42
00:02:31,670 --> 00:02:28,480
exploration missions

43
00:02:34,229 --> 00:02:31,680
now we are looking live at a view of the

44
00:02:36,710 --> 00:02:34,239
northrop grumman promontory facility in

45
00:02:40,150 --> 00:02:36,720
utah where our booster will be tested

46
00:02:42,949 --> 00:02:40,160
today and as you can see the booster is

47
00:02:45,030 --> 00:02:42,959
anchored in the stand horizontally since

48
00:02:48,070 --> 00:02:45,040
it's not being launched

49
00:02:52,150 --> 00:02:48,080
and today's test is called the flight

50
00:02:54,710 --> 00:02:52,160
support booster test one or fsb one and

51
00:02:57,509 --> 00:02:54,720
it is a ground test conducted with one

52
00:03:00,550 --> 00:02:57,519
booster it's the first test that will

53
00:03:02,869 --> 00:03:00,560
examine materials and processes

54
00:03:06,390 --> 00:03:02,879
that may be needed to improve the

55
00:03:09,430 --> 00:03:06,400
booster on future artemis missions

56
00:03:11,990 --> 00:03:09,440
and the booster being tested today will

57
00:03:16,149 --> 00:03:12,000
fire for a little over two minutes and

58
00:03:17,110 --> 00:03:16,159
produce around 3.6 million pounds of

59
00:03:19,350 --> 00:03:17,120
thrust

60
00:03:20,550 --> 00:03:19,360
just like the booster will do during

61
00:03:22,550 --> 00:03:20,560
launch

62
00:03:25,589 --> 00:03:22,560
we are bringing you coverage today of

63
00:03:27,750 --> 00:03:25,599

the first space launch system flight

64
00:03:30,949 --> 00:03:27,760
support booster test at the northrop

65
00:03:33,509 --> 00:03:30,959
grumman facility in utah

66
00:03:35,830 --> 00:03:33,519
and we hope you all stay with us today

67
00:03:37,030 --> 00:03:35,840
because this test is going to be really

68
00:03:39,830 --> 00:03:37,040
really cool

69
00:03:42,309 --> 00:03:39,840
and we're about 17 minutes away from it

70
00:03:44,149 --> 00:03:42,319
and while we wait we are going to hear

71
00:03:46,309 --> 00:03:44,159
from a northrop grumman engineer who

72
00:03:49,190 --> 00:03:46,319
will tell us all about it and what we

73
00:03:51,430 --> 00:03:49,200
can expect to see today

74
00:03:52,949 --> 00:03:51,440
hi my name is nicholas chaston and i'm

75
00:03:54,550 --> 00:03:52,959
the ballistics engineer in charge of

76
00:03:57,910 --> 00:03:54,560
predicting motor performance for the

77
00:03:59,429 --> 00:03:57,920
flight support booster 1 fsb-1

78
00:04:02,390 --> 00:03:59,439
here at the northrop grumman's

79
00:04:04,550 --> 00:04:02,400
promontory utah facility we manufacture

80
00:04:06,789 --> 00:04:04,560
the solid rocket boosters for nasa's

81
00:04:09,830 --> 00:04:06,799
space launch system that will launch

82
00:04:11,350 --> 00:04:09,840
artemis missions to the moon and beyond

83
00:04:13,990 --> 00:04:11,360
today we are testing one of those

84
00:04:17,270 --> 00:04:14,000
boosters in our promontory test area the

85
00:04:19,349 --> 00:04:17,280
sls booster motor measures 167 feet long

86
00:04:21,270 --> 00:04:19,359
and 12 feet in diameter we have

87
00:04:23,670 --> 00:04:21,280
successfully completed five previous

88
00:04:26,790 --> 00:04:23,680

tests to qualify for flight this test

89
00:04:28,790 --> 00:04:26,800
dubbed flight support booster 1 or fsb-1

90
00:04:30,629 --> 00:04:28,800
will evaluate new propellant materials

91
00:04:32,710 --> 00:04:30,639
and verify that all ballistic

92
00:04:34,469 --> 00:04:32,720
requirements of the motor are met

93
00:04:36,790 --> 00:04:34,479
preparations for this test began in

94
00:04:38,550 --> 00:04:36,800
march the first of five segments was

95
00:04:40,870 --> 00:04:38,560
installed in the test bay in april and

96
00:04:43,510 --> 00:04:40,880
the last one completed installation in

97
00:04:45,590 --> 00:04:43,520
june the motor has been cold

98
00:04:47,590 --> 00:04:45,600
conditioning to a target temperature of

99
00:04:50,710 --> 00:04:47,600
60 degrees fahrenheit to 70 degrees

100
00:04:52,629 --> 00:04:50,720
fahrenheit over the last several weeks

101
00:04:54,710 --> 00:04:52,639
all of our large solid rocket motors

102
00:04:58,310 --> 00:04:54,720
undergo ground tests at our promotory

103
00:05:02,550 --> 00:05:00,870
in addition to holding this 1.6 million

104
00:05:04,629 --> 00:05:02,560
pound motor in place

105
00:05:07,029 --> 00:05:04,639
the structure houses all necessary

106
00:05:09,670 --> 00:05:07,039
electronics and instruments needed for

107
00:05:11,029 --> 00:05:09,680
motor firing and gathering performance

108
00:05:13,430 --> 00:05:11,039
measurements

109
00:05:15,990 --> 00:05:13,440
ground tests such as these give us the

110
00:05:17,670 --> 00:05:16,000
opportunity to collect additional data

111
00:05:19,749 --> 00:05:17,680
parameters on the performance of the

112
00:05:21,029 --> 00:05:19,759
motor that would not be possible on a

113
00:05:23,350 --> 00:05:21,039

flight

114
00:05:25,749 --> 00:05:23,360
upon ignition the motor at this target

115
00:05:28,629 --> 00:05:25,759
temperature will fire for about 122

116
00:05:29,830 --> 00:05:28,639
seconds and produce 3.6 million pounds

117
00:05:32,070 --> 00:05:29,840
of thrust

118
00:05:33,909 --> 00:05:32,080
the five segment sls rocket booster is

119
00:05:35,990 --> 00:05:33,919
the largest solid rocket motor in the

120
00:05:37,749 --> 00:05:36,000
world

121
00:05:40,870 --> 00:05:37,759
you're looking live at the booster in

122
00:05:44,150 --> 00:05:40,880
the test stand in promontory utah in

123
00:05:46,390 --> 00:05:44,160
about 15 minutes you will see just how

124
00:05:48,870 --> 00:05:46,400
powerful this booster is

125
00:05:51,670 --> 00:05:48,880
i've actually seen one of these booster

126
00:05:53,990 --> 00:05:51,680
firings in person and i can tell you it

127
00:05:56,710 --> 00:05:54,000
is an awesome experience to feel your

128
00:05:59,749 --> 00:05:56,720
legs shake and to see this piece of

129
00:06:03,189 --> 00:05:59,759
hardware come to life and that engineers

130
00:06:05,430 --> 00:06:03,199
and technicians have worked so hard on

131
00:06:08,150 --> 00:06:05,440
the space launch system rocket is the

132
00:06:10,469 --> 00:06:08,160
most powerful rocket ever built and it

133
00:06:13,189 --> 00:06:10,479
will send the orion spacecraft to the

134
00:06:15,909 --> 00:06:13,199
moon for the artemis missions

135
00:06:18,790 --> 00:06:15,919
even during this pandemic nasa and our

136
00:06:21,830 --> 00:06:18,800
partners have worked very hard to

137
00:06:23,350 --> 00:06:21,840
protect and keep our employees and team

138
00:06:25,510 --> 00:06:23,360

members safe

139
00:06:27,590 --> 00:06:25,520
all the while building hardware and

140
00:06:29,350 --> 00:06:27,600
conducting tests like the one you are

141
00:06:31,749 --> 00:06:29,360
about to see today

142
00:06:35,670 --> 00:06:31,759
now we're going to hear more about that

143
00:06:37,990 --> 00:06:35,680
from nasa administrator jim breinstein

144
00:06:39,749 --> 00:06:38,000
even in the midst of a pandemic it is

145
00:06:41,830 --> 00:06:39,759
important to note that the united states

146
00:06:43,510 --> 00:06:41,840
of america can still do

147
00:06:45,830 --> 00:06:43,520
stunning achievements we saw that

148
00:06:48,390 --> 00:06:45,840
recently when we launched perseverance

149
00:06:51,670 --> 00:06:48,400
to mars we saw when we launched bob and

150
00:06:54,070 --> 00:06:51,680
doug on a spacex falcon 9 rocket in a

151
00:06:55,990 --> 00:06:54,080
crew capsule called dragon

152
00:06:58,230 --> 00:06:56,000
to the international space station then

153
00:07:00,230 --> 00:06:58,240
we brought them home safely we can do

154
00:07:02,629 --> 00:07:00,240
these things and we can do them safely

155
00:07:05,270 --> 00:07:02,639
even in challenging times and now we're

156
00:07:07,589 --> 00:07:05,280
building the most powerful rocket in the

157
00:07:09,830 --> 00:07:07,599
history of humanity that will take not

158
00:07:13,510 --> 00:07:09,840
just the next man but the first woman to

159
00:07:16,469 --> 00:07:13,520
the moon by 2024 in the artemis program

160
00:07:18,790 --> 00:07:16,479
this program is commercial in nature but

161
00:07:21,110 --> 00:07:18,800
it's also international in nature and so

162
00:07:25,189 --> 00:07:21,120
we're very grateful for our partners

163
00:07:26,629 --> 00:07:25,199

that are building uh the fsb boosters so

164
00:07:28,710 --> 00:07:26,639
that we can ultimately achieve the

165
00:07:30,950 --> 00:07:28,720
objectives of our nation and in fact

166
00:07:33,670 --> 00:07:30,960
lead the world

167
00:07:36,309 --> 00:07:33,680
if you are just joining us i am shannon

168
00:07:38,870 --> 00:07:36,319
segovia and nasa communications

169
00:07:42,710 --> 00:07:38,880
we are here today for the flight support

170
00:07:45,110 --> 00:07:42,720
booster test 1 or fsb-1 for the space

171
00:07:48,070 --> 00:07:45,120
launch system rocket from promontory

172
00:07:50,629 --> 00:07:48,080
utah at the northrop grumman facility

173
00:07:52,869 --> 00:07:50,639
we've been talking today about the sls

174
00:07:55,510 --> 00:07:52,879
and about these rocket boosters that you

175
00:07:58,230 --> 00:07:55,520
see here on this model and these

176
00:07:59,270 --> 00:07:58,240
boosters will help launch sls to deep

177
00:08:01,430 --> 00:07:59,280
space

178
00:08:02,469 --> 00:08:01,440
now we're going to see a video that's

179
00:08:05,029 --> 00:08:02,479
going to give us a little more

180
00:08:09,140 --> 00:08:05,039
information about nasa's artemis

181
00:08:17,500 --> 00:08:09,150
missions and our journey to the moon

182
00:08:53,660 --> 00:08:31,430
[Music]

183
00:09:42,080 --> 00:08:53,670
[Applause]

184
00:10:53,430 --> 00:10:31,300
[Music]

185
00:10:59,030 --> 00:10:56,150
only a few people in the world know what

186
00:11:01,190 --> 00:10:59,040
it's like to ride a rocket into space

187
00:11:02,949 --> 00:11:01,200
and we are very fortunate to get to hear

188
00:11:05,509 --> 00:11:02,959

from one of those now

189
00:11:07,750 --> 00:11:05,519
nasa astronaut randy bresnick recently

190
00:11:09,750 --> 00:11:07,760
sat down to share his thoughts with us

191
00:11:13,030 --> 00:11:09,760
about being an astronaut space

192
00:11:14,550 --> 00:11:13,040
exploration and today's test

193
00:11:17,430 --> 00:11:14,560
now i got the opportunity to fly on some

194
00:11:18,870 --> 00:11:17,440
four segment boosters on sts-129 and now

195
00:11:20,710 --> 00:11:18,880
we're putting out our five-segment

196
00:11:22,550 --> 00:11:20,720
booster test that's going to go on sls

197
00:11:24,710 --> 00:11:22,560
which is you know the world's largest

198
00:11:25,990 --> 00:11:24,720
most powerful rocket when we launch this

199
00:11:27,509 --> 00:11:26,000
thing off and that's going to be the

200
00:11:29,110 --> 00:11:27,519
first time that sls and orion fly

201
00:11:30,630 --> 00:11:29,120
together maybe uncrewed but it's going

202
00:11:33,670 --> 00:11:30,640
to prove out the ability to build put

203
00:11:35,030 --> 00:11:33,680
crew on artemis 2 in 2023

204
00:11:37,509 --> 00:11:35,040
and so that's why it's really exciting i

205
00:11:40,230 --> 00:11:37,519
mean with with 20 more you know uh

206
00:11:41,750 --> 00:11:40,240
propellant and thrust and power in it

207
00:11:42,790 --> 00:11:41,760
we're going to be able to go that much

208
00:11:44,630 --> 00:11:42,800
farther i mean because these two

209
00:11:47,829 --> 00:11:44,640
boosters on the side of the sls that's

210
00:11:49,269 --> 00:11:47,839
like 75 of the thrust of the system well

211
00:11:50,470 --> 00:11:49,279
it's always important to test like you

212
00:11:51,509 --> 00:11:50,480
fly because

213
00:11:53,350 --> 00:11:51,519

eventually you're going to put the

214
00:11:55,110 --> 00:11:53,360
humans on it and if we've taken all the

215
00:11:56,389 --> 00:11:55,120
precautions and taking all the getting

216
00:11:58,230 --> 00:11:56,399
all the test points and set up the test

217
00:11:59,750 --> 00:11:58,240
properly with initial conditions we're

218
00:12:01,110 --> 00:11:59,760
gonna be able to prove out to when we

219
00:12:02,310 --> 00:12:01,120
put the people on it's gonna be just

220
00:12:03,910 --> 00:12:02,320
like we've done in testing and if we've

221
00:12:06,389 --> 00:12:03,920
done that we've practiced it properly

222
00:12:07,990 --> 00:12:06,399
orion and sls are the backbone of of the

223
00:12:09,430 --> 00:12:08,000
whole artemis and space exploration

224
00:12:11,509 --> 00:12:09,440
right now because they are the part that

225
00:12:13,509 --> 00:12:11,519
starts the mission uh orion carries the

226
00:12:16,069 --> 00:12:13,519
crew all the way to lunar orbit because

227
00:12:17,670 --> 00:12:16,079
sls has lofted it and then sent it there

228
00:12:19,110 --> 00:12:17,680
and then orion brings the crew back

229
00:12:20,470 --> 00:12:19,120
safely to earth and splashes them down

230
00:12:22,470 --> 00:12:20,480
the ocean you've got to have safety for

231
00:12:23,910 --> 00:12:22,480
the folks building the uh you know

232
00:12:26,230 --> 00:12:23,920
whether it's the solid rocket motor

233
00:12:28,470 --> 00:12:26,240
boosters or the launch abort system um

234
00:12:30,949 --> 00:12:28,480
solid fuels the fact that you know these

235
00:12:33,190 --> 00:12:30,959
these fuels uh are not exactly just you

236
00:12:35,509 --> 00:12:33,200
know as docile as water especially in

237
00:12:37,030 --> 00:12:35,519
these trying times um with the virus

238
00:12:39,269 --> 00:12:37,040

that you know everybody's able to

239
00:12:41,190 --> 00:12:39,279
continue working and amazing work these

240
00:12:43,030 --> 00:12:41,200
past uh several months and so i

241
00:12:45,110 --> 00:12:43,040
appreciate everybody continuing to work

242
00:12:46,629 --> 00:12:45,120
safety so that when we get to flight you

243
00:12:48,470 --> 00:12:46,639
know we know that the folks riding the

244
00:12:49,750 --> 00:12:48,480
rocket have the safest ship available

245
00:12:51,190 --> 00:12:49,760
and you've done everything you can to

246
00:12:53,829 --> 00:12:51,200
make it safe for us to return our

247
00:12:56,870 --> 00:12:53,839
families at the end of the mission

248
00:12:59,990 --> 00:12:56,880
we're now only seven minutes away from

249
00:13:01,910 --> 00:13:00,000
go time for the space launch system

250
00:13:04,069 --> 00:13:01,920
solid rocket booster test from the

251
00:13:06,550 --> 00:13:04,079
northrop grumman facility in promontory

252
00:13:08,790 --> 00:13:06,560
utah we're getting ready to go to

253
00:13:10,230 --> 00:13:08,800
northrop grumman and we will stay there

254
00:13:12,230 --> 00:13:10,240
throughout the test

255
00:13:15,670 --> 00:13:12,240
now to tell you a little bit about what

256
00:13:17,750 --> 00:13:15,680
you can expect the test conductor we're

257
00:13:19,509 --> 00:13:17,760
going to hear them shortly talking to

258
00:13:23,750 --> 00:13:19,519
the team about the tests

259
00:13:25,990 --> 00:13:23,760
then around 105 mountain 305 eastern we

260
00:13:27,750 --> 00:13:26,000
will hear the conductor say fire and

261
00:13:30,790 --> 00:13:27,760
that will start the test and it will

262
00:13:33,030 --> 00:13:30,800
last a little over two minutes

263
00:13:33,750 --> 00:13:33,040

continue to send us your questions using

264
00:13:36,710 --> 00:13:33,760
the

265
00:14:16,870 --> 00:13:36,720
ask nasa as we will be taking those on

266
00:14:21,750 --> 00:14:19,910
t minus six minutes

267
00:14:23,750 --> 00:14:21,760
central support systems operator this is

268
00:14:31,110 --> 00:14:23,760
the test conductor turn on the water

269
00:14:31,120 --> 00:15:16,790
water boost pumps are on

270
00:15:16,800 --> 00:15:21,030
t-minus five minutes

271
00:15:21,040 --> 00:15:31,990
t-97 test area is clear for static test

272
00:15:32,000 --> 00:15:42,870
hi speed operators at verify systems

273
00:16:16,710 --> 00:15:45,269
all high-speed systems are streaming

274
00:16:16,720 --> 00:16:20,470
t minus four minutes

275
00:16:24,710 --> 00:16:23,030
this is the test conductor report system

276
00:16:27,829 --> 00:16:24,720
status

277
00:16:30,069 --> 00:16:27,839
support systems are go for static test

278
00:16:32,629 --> 00:16:30,079
low speed systems are go

279
00:16:35,269 --> 00:16:32,639
high speed systems are go

280
00:17:16,789 --> 00:16:35,279
motor temperatures are go

281
00:17:21,669 --> 00:17:18,789
t minus three minutes

282
00:17:24,150 --> 00:17:21,679
low speed data operators begin recording

283
00:17:26,549 --> 00:17:24,160
high speed data operators at t minus 60

284
00:17:28,710 --> 00:17:26,559
seconds begin recording report at that

285
00:17:31,110 --> 00:17:28,720
time

286
00:18:16,870 --> 00:17:31,120
all low speed data systems are recording

287
00:18:16,880 --> 00:18:46,870
t minus two minutes

288
00:18:46,880 --> 00:18:56,950

t minus 90 seconds

289
00:19:00,710 --> 00:18:58,789
t minus 80 seconds

290
00:19:06,789 --> 00:19:00,720
test control coordinator stand by to

291
00:19:16,789 --> 00:19:11,590
t minus 70 seconds commit the motor

292
00:19:16,799 --> 00:19:22,789
t-minus 60 seconds

293
00:19:26,710 --> 00:19:25,029
all high speed systems are recording

294
00:19:36,950 --> 00:19:26,720
roger

295
00:19:46,789 --> 00:19:38,530
t minus 40 seconds

296
00:19:56,870 --> 00:19:46,799
[Music]

297
00:20:01,830 --> 00:19:58,360
t minus 20 seconds

298
00:20:01,840 --> 00:20:06,470
t minus 15 seconds

299
00:20:09,190 --> 00:20:08,149
t minus 10

300
00:20:10,070 --> 00:20:09,200
9

301
00:20:11,110 --> 00:20:10,080
8

302
00:20:12,070 --> 00:20:11,120
7

303
00:20:13,110 --> 00:20:12,080
6

304
00:20:14,070 --> 00:20:13,120
5

305
00:20:15,110 --> 00:20:14,080
4

306
00:20:16,070 --> 00:20:15,120
3

307
00:20:17,029 --> 00:20:16,080
2

308
00:20:46,950 --> 00:20:17,039
1

309
00:20:46,960 --> 00:20:56,870
give us 30 seconds

310
00:20:56,880 --> 00:21:07,350
g plus 40 seconds

311
00:21:07,360 --> 00:21:16,870
50 seconds

312
00:21:16,880 --> 00:21:26,870
she plus 60 seconds

313
00:21:26,880 --> 00:21:35,270

she by 70 seconds

314
00:21:35,280 --> 00:21:44,070
120 seconds

315
00:21:48,870 --> 00:21:46,470
activate head nco2

316
00:21:54,070 --> 00:21:48,880
activated activate quench tool command

317
00:21:54,080 --> 00:22:13,840
activated

318
00:22:33,430 --> 00:22:24,630
[Music]

319
00:22:41,190 --> 00:22:36,549
recording is complete roger lowest

320
00:22:41,200 --> 00:22:47,990
low speed data recording complete roger

321
00:22:51,990 --> 00:22:49,830
post fire crew reports the instrument

322
00:22:57,510 --> 00:22:52,000
room post fire crew report to the

323
00:23:15,840 --> 00:23:15,830
[Music]

324
00:23:15,840 --> 00:23:22,510
so

325
00:24:34,789 --> 00:23:34,870
[Music]

326
00:24:34,799 --> 00:24:43,669
two plus five minutes

327
00:24:49,510 --> 00:24:46,789
wow how amazing was that

328
00:24:50,950 --> 00:24:49,520
and to see all of that power packed into

329
00:24:53,029 --> 00:24:50,960
those boosters

330
00:24:55,190 --> 00:24:53,039
from our view it looks like everything

331
00:24:57,830 --> 00:24:55,200
went great but our engineers and

332
00:25:00,390 --> 00:24:57,840
technicians will continue to analyze the

333
00:25:03,350 --> 00:25:00,400
data and use it to improve future

334
00:25:06,549 --> 00:25:03,360
boosters on future artemis missions

335
00:25:08,710 --> 00:25:06,559
this test is not only about power but

336
00:25:11,110 --> 00:25:08,720
really it's about the technical

337
00:25:13,669 --> 00:25:11,120
innovations that will help us explore

338
00:25:14,549 --> 00:25:13,679

the moon and mars for generations to

339
00:25:17,350 --> 00:25:14,559
come

340
00:25:20,470 --> 00:25:17,360
now we're gonna go hear from northrop

341
00:25:22,390 --> 00:25:20,480
grumman vice president charlie precor

342
00:25:23,909 --> 00:25:22,400
as a four-time space shuttle astronaut i

343
00:25:25,669 --> 00:25:23,919
know what it's like to fly the space

344
00:25:27,430 --> 00:25:25,679
shuttle rocket boosters

345
00:25:29,110 --> 00:25:27,440
and the five segment boosters will add

346
00:25:30,390 --> 00:25:29,120
far greater lift capability than the

347
00:25:31,990 --> 00:25:30,400
shuttle head

348
00:25:33,990 --> 00:25:32,000
when those rocket motors light you know

349
00:25:36,390 --> 00:25:34,000
you're going somewhere i'd love to ride

350
00:25:38,549 --> 00:25:36,400
on the sls and can't wait to hear the

351
00:25:39,669 --> 00:25:38,559
experiences of the first sls astronaut

352
00:25:41,430 --> 00:25:39,679
crew

353
00:25:43,350 --> 00:25:41,440
as vice president of northrop grumman

354
00:25:45,510 --> 00:25:43,360
propulsion systems and a former nasa

355
00:25:47,350 --> 00:25:45,520
astronaut it's important to me

356
00:25:49,190 --> 00:25:47,360
to ensure we have what is necessary to

357
00:25:51,110 --> 00:25:49,200
establish a presence on the moon and

358
00:25:52,950 --> 00:25:51,120
then go on to mars

359
00:25:54,789 --> 00:25:52,960
testing our rocket boosters is how we

360
00:25:56,390 --> 00:25:54,799
can help ensure astronauts can explore

361
00:25:58,470 --> 00:25:56,400
space safely

362
00:26:02,310 --> 00:25:58,480
thank you so much for joining us for

363
00:26:06,549 --> 00:26:04,310

and that will just about wrap things up

364
00:26:07,750 --> 00:26:06,559
for us today thank you so much for

365
00:26:09,669 --> 00:26:07,760
joining us

366
00:26:12,149 --> 00:26:09,679
if you missed the test or you would like

367
00:26:15,830 --> 00:26:12,159
to see it again we will be replaying it

368
00:26:17,430 --> 00:26:15,840
here on nasa tv so stick with us also if

369
00:26:19,430 --> 00:26:17,440
you would like to watch it on our social

370
00:26:22,310 --> 00:26:19,440
media channels at any time you can go

371
00:26:24,789 --> 00:26:22,320
there and watch it to follow our

372
00:26:25,830 --> 00:26:24,799
progress continue to monitor our social

373
00:26:28,230 --> 00:26:25,840
channels

374
00:26:30,710 --> 00:26:28,240
especially twitter at nasa and at nasa

375
00:26:34,230 --> 00:26:30,720
underscore sls and also for all the

376
00:26:36,310 --> 00:26:34,240
latest on artemis visit our nasa.gov

377
00:26:38,549 --> 00:26:36,320
artemis webpage