1
00:01:26,640 --> 00:01:34,550
good morning endeavor

2
00:01:38,710 --> 00:01:36,310
morning tom

3
00:01:40,069 --> 00:01:38,720
this is carl and we see your tips on and

4
00:01:41,590 --> 00:01:40,079
we have we're still working on the

5
00:01:45,350 --> 00:01:41,600
execute package we'll have it up to you

6
00:01:49,270 --> 00:01:47,270
okay carl sorry um thanks for looking

7
00:02:01,030 --> 00:01:49,280
for the tips message

8
00:02:14,949 --> 00:02:02,630
we see the waves and we could use some

9
00:02:14,959 --> 00:04:01,350
okay winston thank you

10
00:04:04,470 --> 00:04:02,710
endeavor houston the flight director

11
00:07:56,550 --> 00:04:04,480
wants to know who buzz lightyear is down

12
00:07:56,560 --> 00:08:01,990
and we're into midnight

13
00:08:02,000 --> 00:10:25,350

hi dan barry

14
00:10:25,360 --> 00:10:30,389
houston endeavor freebies

15
00:10:35,750 --> 00:10:33,750
go ahead preview

16
00:10:38,389 --> 00:10:35,760
yeah sorry uh we've uh completed

17
00:10:40,150 --> 00:10:38,399
checkout except for the last 15 minutes

18
00:10:43,910 --> 00:10:40,160
of battery charge check and both seats

19
00:10:43,920 --> 00:10:58,790
great news dan and we concur

20
00:15:56,150 --> 00:11:00,310
yeah we got a bunch of thumbs up down

21
00:16:00,150 --> 00:15:58,150
rizz we're just about to go live to the

22
00:16:02,389 --> 00:16:00,160
shuttle endeavour where the astronauts

23
00:16:04,870 --> 00:16:02,399
are about 250 miles above us hurdling

24
00:16:06,949 --> 00:16:04,880
are on the grove at about 17 000 miles

25
00:16:09,030 --> 00:16:06,959
an hour and joining us up there on the

26
00:16:10,629 --> 00:16:09,040
flight deck is commander brian duffy

27
00:16:12,949 --> 00:16:10,639
first of all good morning commander or

28
00:16:15,110 --> 00:16:12,959
whatever time of day it is for you

29
00:16:17,030 --> 00:16:15,120
i'm first of all curious about the

30
00:16:19,749 --> 00:16:17,040
evasive maneuver you had to perform to

31
00:16:21,030 --> 00:16:19,759
avoid a dead defense department

32
00:16:24,150 --> 00:16:21,040
satellite tell us a little bit about

33
00:16:25,990 --> 00:16:24,160
that and how that worked out

34
00:16:27,670 --> 00:16:26,000
i'm sure miles and you know it wasn't

35
00:16:29,509 --> 00:16:27,680
any big deal for us

36
00:16:32,389 --> 00:16:29,519
there are a lot of things in orbit in

37
00:16:33,910 --> 00:16:32,399
space we know where they are and just so

38
00:16:35,590 --> 00:16:33,920

happened we were going to get

39
00:16:37,189 --> 00:16:35,600
close enough to one to just make the

40
00:16:38,550 --> 00:16:37,199
folks on the ground safe we just made a

41
00:16:40,470 --> 00:16:38,560
small maneuver we could avoid it

42
00:16:42,230 --> 00:16:40,480
completely and make it no problem so but

43
00:16:43,990 --> 00:16:42,240
we did that it was no big deal

44
00:16:45,509 --> 00:16:44,000
i'm curious we were able to see anything

45
00:16:47,110 --> 00:16:45,519
at all from the orbiter we were able to

46
00:16:49,990 --> 00:16:47,120
see that dead satellite or were you too

47
00:16:51,829 --> 00:16:50,000
far away

48
00:16:53,269 --> 00:16:51,839
actually by the time we did the maneuver

49
00:16:54,790 --> 00:16:53,279
early enough so that we were so far away

50
00:16:55,990 --> 00:16:54,800
from it i don't think we could have seen

51
00:16:57,590 --> 00:16:56,000
it

52
00:16:59,990 --> 00:16:57,600
the u.s space command in colorado

53
00:17:02,629 --> 00:17:00,000
springs colorado tracks some seven

54
00:17:05,110 --> 00:17:02,639
thousand man-made objects up there that

55
00:17:06,390 --> 00:17:05,120
are either dead or active satellites

56
00:17:08,150 --> 00:17:06,400
especially as you look toward building

57
00:17:13,669 --> 00:17:08,160
an international space station how big a

58
00:17:17,110 --> 00:17:15,429
well you know i mean the fact that it's

59
00:17:19,189 --> 00:17:17,120
here is certainly

60
00:17:21,270 --> 00:17:19,199
a concern now quantifying the size of

61
00:17:23,350 --> 00:17:21,280
that concerns a different story um you

62
00:17:25,350 --> 00:17:23,360
know we're not that worried about it we

63
00:17:27,429 --> 00:17:25,360

think we have very good models and a

64
00:17:29,830 --> 00:17:27,439
fairly good understanding of the

65
00:17:31,110 --> 00:17:29,840
situation and it's one in which you know

66
00:17:32,870 --> 00:17:31,120
we're very comfortable with proceeding

67
00:17:34,070 --> 00:17:32,880
with building a space station

68
00:17:36,310 --> 00:17:34,080
you know we're happy to come fly in the

69
00:17:38,549 --> 00:17:36,320
shuttle with all that stuff up here too

70
00:17:40,310 --> 00:17:38,559
i guess uh for the folks at home though

71
00:17:42,230 --> 00:17:40,320
they should understand that even a small

72
00:17:44,390 --> 00:17:42,240
fleck of paint can cause some damage to

73
00:17:49,029 --> 00:17:44,400
an orbiter when you consider the speeds

74
00:17:51,990 --> 00:17:50,630
well that's that's true and that's just

75
00:17:53,510 --> 00:17:52,000
uh because of the physics of the

76
00:17:55,350 --> 00:17:53,520
situation you know it's

77
00:17:56,310 --> 00:17:55,360
one half the mass times the velocity

78
00:17:58,390 --> 00:17:56,320
squared

79
00:18:00,470 --> 00:17:58,400
has kinetic energy involved and if you

80
00:18:03,110 --> 00:18:00,480
have vehicles and

81
00:18:04,789 --> 00:18:03,120
objects going very quickly yeah it could

82
00:18:05,990 --> 00:18:04,799
be a concern

83
00:18:07,110 --> 00:18:06,000
all right i want to shift gears here a

84
00:18:09,270 --> 00:18:07,120
little bit and i'll open this up to

85
00:18:12,549 --> 00:18:09,280
anybody who'd like to take this

86
00:18:14,230 --> 00:18:12,559
during the launch just the other day

87
00:18:16,070 --> 00:18:14,240
one couldn't help but think a little bit

88
00:18:17,990 --> 00:18:16,080

about the challenged challenger disaster

89
00:18:20,150 --> 00:18:18,000
which occurred 10 years ago this month

90
00:18:22,950 --> 00:18:20,160
uh the temperature was kind of chilly at

91
00:18:25,270 --> 00:18:22,960
the cape and a lot of the parameters for

92
00:18:26,789 --> 00:18:25,280
launching uh under those circumstances

93
00:18:29,909 --> 00:18:26,799
were developed after the challenger

94
00:18:35,190 --> 00:18:29,919
accident how much was challenger on

95
00:18:38,630 --> 00:18:37,110
well miles i'll take that one the reason

96
00:18:40,950 --> 00:18:38,640
i'll do that is because i'm the only

97
00:18:42,549 --> 00:18:40,960
member on the crew that was

98
00:18:45,830 --> 00:18:42,559
in the astronaut office at the time the

99
00:18:48,070 --> 00:18:45,840
challenger occurred and um

100
00:18:50,390 --> 00:18:48,080
we're very aware of course of the 10th

101
00:18:52,470 --> 00:18:50,400
anniversary of challenger

102
00:18:53,430 --> 00:18:52,480
it's hard not to not to be they were our

103
00:18:57,430 --> 00:18:53,440
friends

104
00:18:59,270 --> 00:18:57,440
companions

105
00:19:01,590 --> 00:18:59,280
we think we're carrying on we know we're

106
00:19:04,710 --> 00:19:01,600
carrying on exactly what they set out to

107
00:19:06,950 --> 00:19:04,720
do we know they'd be very proud of us

108
00:19:08,390 --> 00:19:06,960
we weren't worried about it that morning

109
00:19:10,950 --> 00:19:08,400
but it's the fact that the 10th

110
00:19:13,110 --> 00:19:10,960
anniversary is coming up the challenger

111
00:19:14,870 --> 00:19:13,120
has been on our minds some

112
00:19:18,310 --> 00:19:14,880
i'm curious how much on a day-to-day

113
00:19:21,510 --> 00:19:18,320

basis within nasa does the challenger

114
00:19:28,070 --> 00:19:21,520
accident loom in discussions decisions

115
00:19:33,350 --> 00:19:30,950
um well well you know the um

116
00:19:35,990 --> 00:19:33,360
after a challenge occurred

117
00:19:37,990 --> 00:19:36,000
we took a very uh tough look at the

118
00:19:40,070 --> 00:19:38,000
agency and the way decisions were made

119
00:19:41,590 --> 00:19:40,080
and we made an awful lot of changes and

120
00:19:42,630 --> 00:19:41,600
the system that we have produced as a

121
00:19:44,549 --> 00:19:42,640
result

122
00:19:46,789 --> 00:19:44,559
of the changes that we made

123
00:19:49,430 --> 00:19:46,799
is very good you can look at our track

124
00:19:51,190 --> 00:19:49,440
record here we've done an excellent job

125
00:19:53,590 --> 00:19:51,200
and we're all very confident in the

126
00:19:55,590 --> 00:19:53,600
system and we think it'll continue to

127
00:19:57,830 --> 00:19:55,600
launch vehicles safely

128
00:19:59,830 --> 00:19:57,840
are you satisfied and that could go for

129
00:20:01,669 --> 00:19:59,840
all of you here are you satisfied with

130
00:20:04,630 --> 00:20:01,679
the pace of

131
00:20:07,110 --> 00:20:04,640
development on a next generation of

132
00:20:09,590 --> 00:20:07,120
manned spacecraft a single stage to

133
00:20:11,270 --> 00:20:09,600
orbit craft for example or would you

134
00:20:12,310 --> 00:20:11,280
have predicted perhaps 10 years ago that

135
00:20:21,350 --> 00:20:12,320
we would have been a little further

136
00:20:21,360 --> 00:20:26,230
no one wants to take that one

137
00:20:30,149 --> 00:20:27,909
well i think i think we're all very

138
00:20:32,789 --> 00:20:30,159

happy flying the shuttle uh it was

139
00:20:33,990 --> 00:20:32,799
designed many years ago but this is 74th

140
00:20:35,510 --> 00:20:34,000
mission and it's proved to be very

141
00:20:36,630 --> 00:20:35,520
reliable we've learned more and more on

142
00:20:38,870 --> 00:20:36,640
each mission

143
00:20:40,710 --> 00:20:38,880
about the vehicle itself and that data

144
00:20:43,190 --> 00:20:40,720
are going to be used to design the next

145
00:20:45,110 --> 00:20:43,200
generation spacecraft there are some

146
00:20:47,510 --> 00:20:45,120
efforts underway although not full-blown

147
00:20:49,590 --> 00:20:47,520
for a replacement for the shuttle but of

148
00:20:51,750 --> 00:20:49,600
other manned vehicles being looked at

149
00:20:53,830 --> 00:20:51,760
and we're hopeful that uh that we'll go

150
00:20:55,590 --> 00:20:53,840
ahead and forge on when the shuttle gets

151
00:20:57,270 --> 00:20:55,600
old enough that that we will want

152
00:20:59,190 --> 00:20:57,280
another vehicle

153
00:21:01,190 --> 00:20:59,200
i know recently nasa administrator

154
00:21:03,510 --> 00:21:01,200
daniel golden was actually critical of

155
00:21:05,270 --> 00:21:03,520
the pace of new rocket development

156
00:21:08,149 --> 00:21:05,280
within nasa there really hasn't been a

157
00:21:09,430 --> 00:21:08,159
ground up new rocket developed in the

158
00:21:10,789 --> 00:21:09,440
u.s

159
00:21:12,549 --> 00:21:10,799
recently

160
00:21:14,789 --> 00:21:12,559
would you be among those that would call

161
00:21:21,190 --> 00:21:14,799
for such efforts especially in light of

162
00:21:24,789 --> 00:21:23,510
well i think i think a new vehicle would

163
00:21:26,630 --> 00:21:24,799

be a good thing i think we ought to

164
00:21:27,990 --> 00:21:26,640
start planning for a new vehicle we

165
00:21:29,750 --> 00:21:28,000
don't need one right now the space

166
00:21:31,190 --> 00:21:29,760
shuttle has been doing fine even though

167
00:21:33,430 --> 00:21:31,200
a lot of the technology is what you

168
00:21:34,950 --> 00:21:33,440
would call by today's standards old

169
00:21:37,270 --> 00:21:34,960
it's proven to be a very reliable

170
00:21:38,789 --> 00:21:37,280
reliable vehicle again and we have no

171
00:21:40,470 --> 00:21:38,799
need to immediately replace it but i

172
00:21:42,310 --> 00:21:40,480
think we ought to start looking at

173
00:21:43,510 --> 00:21:42,320
at a new vehicle

174
00:21:45,990 --> 00:21:43,520
by the way for our viewers that's

175
00:21:47,909 --> 00:21:46,000
mission specialist leroy chow and let me

176
00:21:49,750 --> 00:21:47,919
uh shift into the space walks which are

177
00:21:51,990 --> 00:21:49,760
planned here i know you will be involved

178
00:21:54,310 --> 00:21:52,000
in two of the spacewalks there are two

179
00:21:56,230 --> 00:21:54,320
each of them six and a half hours long

180
00:21:57,830 --> 00:21:56,240
the object is to look at tools

181
00:21:59,270 --> 00:21:57,840
techniques and equipment which might be

182
00:22:00,870 --> 00:21:59,280
used to build the international space

183
00:22:02,870 --> 00:22:00,880
station

184
00:22:04,789 --> 00:22:02,880
you almost get the sense that nasa is

185
00:22:07,669 --> 00:22:04,799
doing its best to get as much space

186
00:22:10,390 --> 00:22:07,679
walking experience in it as possible

187
00:22:12,549 --> 00:22:10,400
so that you have an experienced group of

188
00:22:14,149 --> 00:22:12,559

astro construction workers when it comes

189
00:22:16,630 --> 00:22:14,159
time to build that space station is that

190
00:22:18,070 --> 00:22:16,640
what's going on

191
00:22:19,669 --> 00:22:18,080
well that's certainly part of it miles

192
00:22:21,190 --> 00:22:19,679
uh you know we'd like to get some folks

193
00:22:22,950 --> 00:22:21,200
experience so that we can have that

194
00:22:24,470 --> 00:22:22,960
experience to draw upon when we do good

195
00:22:26,789 --> 00:22:24,480
in a full swing of

196
00:22:28,310 --> 00:22:26,799
station assembly uh winston scott behind

197
00:22:30,390 --> 00:22:28,320
me he's uh he's going to do the second

198
00:22:32,230 --> 00:22:30,400
eva with me and dan barry who's working

199
00:22:33,669 --> 00:22:32,240
on the mid deck right now will do the

200
00:22:37,029 --> 00:22:33,679
first one with me and that will be three

201
00:22:39,590 --> 00:22:37,039
new uh eva people on this flight that

202
00:22:41,590 --> 00:22:39,600
get some experience but along with that

203
00:22:43,750 --> 00:22:41,600
we're also as you mentioned looking at

204
00:22:45,110 --> 00:22:43,760
the design concepts building concepts

205
00:22:47,270 --> 00:22:45,120
and maintenance concepts for the space

206
00:22:48,630 --> 00:22:47,280
station this is very critical the the

207
00:22:50,710 --> 00:22:48,640
results that we get from these flight

208
00:22:53,029 --> 00:22:50,720
tests are going to feed directly right

209
00:22:54,470 --> 00:22:53,039
back into the space station program to

210
00:22:56,070 --> 00:22:54,480
make sure you know they'll tweak what

211
00:22:59,750 --> 00:22:56,080
they have to tweak to make sure that we

212
00:23:01,430 --> 00:22:59,760
get a buildable and a reliable station

213
00:23:04,070 --> 00:23:01,440

not long ago there was some talk that

214
00:23:05,669 --> 00:23:04,080
the russians were attempting to modify

215
00:23:07,430 --> 00:23:05,679
plans for the international space

216
00:23:09,430 --> 00:23:07,440
station they were suggesting that

217
00:23:10,870 --> 00:23:09,440
perhaps their current space station the

218
00:23:12,870 --> 00:23:10,880
mirror become

219
00:23:14,870 --> 00:23:12,880
a core feature in the new international

220
00:23:17,669 --> 00:23:14,880
space station that would presumably

221
00:23:19,350 --> 00:23:17,679
delay things and raise costs on this end

222
00:23:28,549 --> 00:23:19,360
i assume at this point astronauts would

223
00:23:31,990 --> 00:23:29,990
well miles i guess i'm going to try to

224
00:23:33,190 --> 00:23:32,000
avoid that question a little bit

225
00:23:35,270 --> 00:23:33,200
you got to remember we've been training

226
00:23:37,350 --> 00:23:35,280
for a year for this flight and

227
00:23:38,950 --> 00:23:37,360
especially the last couple of months uh

228
00:23:41,590 --> 00:23:38,960
we we've been very focused on our

229
00:23:42,950 --> 00:23:41,600
mission and uh although we've

230
00:23:46,230 --> 00:23:42,960
sort of been aware of what's been going

231
00:23:48,230 --> 00:23:46,240
on around our mission um we we probably

232
00:23:50,149 --> 00:23:48,240
haven't paid as much attention to it as

233
00:23:51,110 --> 00:23:50,159
you might think so i think we'll just

234
00:23:53,190 --> 00:23:51,120
kind of

235
00:23:54,950 --> 00:23:53,200
maybe dodge that one a little bit and uh

236
00:23:56,710 --> 00:23:54,960
maybe it's more appropriate for somebody

237
00:23:59,270 --> 00:23:56,720
in our management

238
00:24:00,870 --> 00:23:59,280

pilot uh brent jett uh showing that

239
00:24:03,669 --> 00:24:00,880
astronauts are good at all kinds of

240
00:24:05,750 --> 00:24:03,679
evasive maneuvers um let's move over to

241
00:24:07,190 --> 00:24:05,760
uh winston scott i know when you're on

242
00:24:09,190 --> 00:24:07,200
your space walk

243
00:24:11,750 --> 00:24:09,200
you're going to uh spend a little bit of

244
00:24:13,909 --> 00:24:11,760
time in the shade of the shuttle a

245
00:24:16,230 --> 00:24:13,919
hundred degrees below zero fahrenheit

246
00:24:17,830 --> 00:24:16,240
are the projected temperatures and i

247
00:24:19,350 --> 00:24:17,840
suppose folks in the northeast concerned

248
00:24:21,750 --> 00:24:19,360
about a blizzard should think about that

249
00:24:24,470 --> 00:24:21,760
for a moment tell me about the thermal

250
00:24:26,070 --> 00:24:24,480
modifications on this spacesuit are you

251
00:24:29,029 --> 00:24:26,080
uh satisfied that you're going to be

252
00:24:30,789 --> 00:24:29,039
nice and toasty up there

253
00:24:32,230 --> 00:24:30,799
you know miles as a matter of fact i am

254
00:24:34,950 --> 00:24:32,240
i'm very confident that i'm going to be

255
00:24:36,950 --> 00:24:34,960
nice and toasty uh the modifications

256
00:24:38,630 --> 00:24:36,960
have been worn before they've looked at

257
00:24:40,870 --> 00:24:38,640
uh how the other guys felt when they

258
00:24:42,870 --> 00:24:40,880
were a couple of missions before me and

259
00:24:44,950 --> 00:24:42,880
they made improvements and

260
00:24:47,110 --> 00:24:44,960
i'm uh really not that concerned about

261
00:24:50,390 --> 00:24:47,120
in fact i'm looking forward to it

262
00:24:54,310 --> 00:24:52,549
yes indeed but they've got

263
00:24:55,909 --> 00:24:54,320

a couple of modifications as a matter of

264
00:24:58,470 --> 00:24:55,919
fact i've got heated gloves we just

265
00:25:00,710 --> 00:24:58,480
finished our emu check out our extra

266
00:25:02,310 --> 00:25:00,720
vehicular mobility unit checkout i

267
00:25:04,549 --> 00:25:02,320
powered those gloves up they got nice

268
00:25:07,669 --> 00:25:04,559
and warm for me i've got what's called

269
00:25:10,230 --> 00:25:07,679
an lcd pot bypass unit that's supposed

270
00:25:11,029 --> 00:25:10,240
to keep my torso warm

271
00:25:12,470 --> 00:25:11,039
and

272
00:25:14,230 --> 00:25:12,480
i think it's going to be i think it's

273
00:25:15,590 --> 00:25:14,240
going to be exciting besides the things

274
00:25:17,029 --> 00:25:15,600
start to get too cold up there i can

275
00:25:19,190 --> 00:25:17,039
give these guys a signal and they'll

276
00:25:20,789 --> 00:25:19,200
rotate me towards the sun and uh maybe

277
00:25:22,549 --> 00:25:20,799
send me a cup of hot chocolate out there

278
00:25:24,070 --> 00:25:22,559
but i think i'll be okay

279
00:25:27,029 --> 00:25:24,080
i suppose if you bang on the door or

280
00:25:31,830 --> 00:25:28,549
i sure hope so they owe me something i

281
00:25:34,390 --> 00:25:31,840
didn't bring my trumpet up here with me

282
00:25:37,669 --> 00:25:34,400
winston jett is also a big band uh

283
00:25:38,950 --> 00:25:37,679
orchestral uh trumpet player uh that

284
00:25:41,029 --> 00:25:38,960
would be interesting to try that in the

285
00:25:43,669 --> 00:25:41,039
space shuttle i i'd like to see and hear

286
00:25:45,190 --> 00:25:43,679
how that would sound

287
00:25:46,710 --> 00:25:45,200
tell me i think it'd be a lot of fun of

288
00:25:47,590 --> 00:25:46,720

course that's been done many times

289
00:25:50,310 --> 00:25:47,600
before

290
00:25:53,430 --> 00:25:50,320
people i think don't realize how many

291
00:25:55,350 --> 00:25:53,440
astronauts are also musicians i happen

292
00:25:56,870 --> 00:25:55,360
to be probably the only one with a

293
00:25:58,710 --> 00:25:56,880
degree in music but we've got a lot of

294
00:25:59,590 --> 00:25:58,720
folks around the office that play music

295
00:26:02,390 --> 00:25:59,600
and

296
00:26:04,310 --> 00:26:02,400
would not be the first to bring an

297
00:26:06,470 --> 00:26:04,320
instrument up and play

298
00:26:08,470 --> 00:26:06,480
by the way for our viewers that uh

299
00:26:10,149 --> 00:26:08,480
to translate a little bit of nasa jargon

300
00:26:11,909 --> 00:26:10,159
there that bypass he was talking about

301
00:26:13,990 --> 00:26:11,919
allows the astronauts simply to turn off

302
00:26:15,590 --> 00:26:14,000
the cooling unit in the space suit now

303
00:26:19,590 --> 00:26:15,600
that sounds like a simple idea why

304
00:26:22,950 --> 00:26:21,269
well miles uh it's a difficult question

305
00:26:24,710 --> 00:26:22,960
for me to answer being a new guy but i

306
00:26:26,870 --> 00:26:24,720
suspect they probably never needed

307
00:26:27,750 --> 00:26:26,880
needed to have that before we're looking

308
00:26:34,070 --> 00:26:27,760
at

309
00:26:35,510 --> 00:26:34,080
space program we start constructing

310
00:26:37,029 --> 00:26:35,520
stations off

311
00:26:38,630 --> 00:26:37,039
we'll be seeing colder temperatures and

312
00:26:40,230 --> 00:26:38,640
therefore we need these improvements to

313
00:26:43,750 --> 00:26:40,240

the suits

314
00:26:44,950 --> 00:26:43,760
all right not pictured here are 66 astro

315
00:26:46,310 --> 00:26:44,960
rats

316
00:26:47,430 --> 00:26:46,320
i'm surprised they didn't come and join

317
00:26:49,350 --> 00:26:47,440
you for the interview we were hoping at

318
00:26:51,110 --> 00:26:49,360
least one of them would tell us a little

319
00:26:53,430 --> 00:26:51,120
bit about that experiment i understand

320
00:27:01,269 --> 00:26:53,440
you're testing out some high-tech rat

321
00:27:05,750 --> 00:27:03,190
well miles on this flight we're flying

322
00:27:07,110 --> 00:27:05,760
the animal enclosure units to test them

323
00:27:08,950 --> 00:27:07,120
out really it's a flight test for the

324
00:27:11,190 --> 00:27:08,960
enclosure unit there's no specific

325
00:27:12,549 --> 00:27:11,200
experiment with the net rats right now

326
00:27:14,549 --> 00:27:12,559
except to see that if they like their

327
00:27:15,590 --> 00:27:14,559
new house and right now from what we've

328
00:27:17,350 --> 00:27:15,600
seen

329
00:27:19,029 --> 00:27:17,360
they're getting along just fine uh you

330
00:27:21,590 --> 00:27:19,039
you'd really be surprised they're doing

331
00:27:23,750 --> 00:27:21,600
great i guess that's particularly

332
00:27:25,269 --> 00:27:23,760
important as nasa looks toward that

333
00:27:27,430 --> 00:27:25,279
international space station i assume

334
00:27:33,430 --> 00:27:27,440
there'll be some long-term rodent

335
00:27:36,950 --> 00:27:35,190
well i'm sure there'll be a place for

336
00:27:38,789 --> 00:27:36,960
them and uh and even closer than that

337
00:27:40,789 --> 00:27:38,799
down down the line we're going to have

338
00:27:42,549 --> 00:27:40,799

some some uh

339
00:27:43,990 --> 00:27:42,559
life sciences space lab missions in

340
00:27:46,070 --> 00:27:44,000
which we'll probably be using that for

341
00:27:48,549 --> 00:27:46,080
those same enclosures

342
00:27:50,549 --> 00:27:48,559
all right thanks so much to uh those

343
00:27:52,630 --> 00:27:50,559
four members of the crew of endeavor we

344
00:27:54,710 --> 00:27:52,640
appreciate you joining us at whatever

345
00:27:56,070 --> 00:27:54,720
time it is for you in york the course of

346
00:27:57,110 --> 00:27:56,080
your day up there

347
00:27:58,710 --> 00:27:57,120
and uh

348
00:28:01,430 --> 00:27:58,720
the mission of endeavor will continue

349
00:28:03,190 --> 00:28:01,440
until january 20th a night landing is

350
00:29:31,190 --> 00:28:03,200
planned at the kennedy space center in

351
00:29:31,200 --> 00:29:55,909
same

352
00:30:00,549 --> 00:29:57,990
and i've got the pre-sleep stuff for you