



1
00:00:06,070 --> 00:00:03,990
good afternoon and welcome everyone to

2
00:00:08,549 --> 00:00:06,080
nasa's kennedy space center in florida

3
00:00:10,709 --> 00:00:08,559
for a briefing today to talk about the

4
00:00:11,990 --> 00:00:10,719
aftermath of hurricane matthew that

5
00:00:14,310 --> 00:00:12,000
passed over the

6
00:00:16,230 --> 00:00:14,320
and near the kennedy space center at the

7
00:00:18,470 --> 00:00:16,240
end of last week we're pleased to be

8
00:00:22,150 --> 00:00:18,480
joined today by nasa kennedy space

9
00:00:26,630 --> 00:00:22,160
center director bob cabana

10
00:00:28,950 --> 00:00:26,640
and the chief of the damage assessment

11
00:00:31,189 --> 00:00:28,960
and recovery and recovery team

12
00:00:33,110 --> 00:00:31,199
bob hall thank you bob we'll start

13
00:00:35,190 --> 00:00:33,120

things off with opening remarks from bob

14

00:00:38,229 --> 00:00:35,200

cabana thanks mike

15

00:00:41,190 --> 00:00:38,239

uh well man it it seems like a month

16

00:00:42,950 --> 00:00:41,200

since last thursday a lot has transpired

17

00:00:44,709 --> 00:00:42,960

there was a lot of anxiety and a lot of

18

00:00:46,549 --> 00:00:44,719

hard work to get us to

19

00:00:48,790 --> 00:00:46,559

a safe configuration where we opened up

20

00:00:50,709 --> 00:00:48,800

for normal operations at six o'clock

21

00:00:52,470 --> 00:00:50,719

this morning i just can't say enough

22

00:00:53,189 --> 00:00:52,480

good things about

23

00:00:57,110 --> 00:00:53,199

the

24

00:00:59,910 --> 00:00:57,120

both teams uh wayne key leading my right

25

00:01:02,150 --> 00:00:59,920

out team keeping us safe throughout the

26
00:01:03,750 --> 00:01:02,160
storm keeping things operating keeping

27
00:01:06,789 --> 00:01:03,760
an eye on things and preparing us for

28
00:01:09,350 --> 00:01:06,799
this storm and of course bob hall who

29
00:01:11,990 --> 00:01:09,360
led the damage recovery and assessment

30
00:01:14,950 --> 00:01:12,000
damage assessment and recovery team that

31
00:01:16,390 --> 00:01:14,960
did just a truly outstanding job

32
00:01:17,830 --> 00:01:16,400
getting things ready these last three

33
00:01:19,270 --> 00:01:17,840
days so that we could open up this

34
00:01:21,510 --> 00:01:19,280
morning

35
00:01:23,990 --> 00:01:21,520
we were definitely blessed if you look

36
00:01:25,990 --> 00:01:24,000
back you know that storm didn't progress

37
00:01:28,310 --> 00:01:26,000
to a category four it stayed a category

38
00:01:30,950 --> 00:01:28,320

three and then it took that wobble right

39

00:01:33,270 --> 00:01:30,960

at the last and went east about 20 to 25

40

00:01:38,149 --> 00:01:33,280

miles the eye was about 20 to 25 miles

41

00:01:40,149 --> 00:01:38,159

from the cape uh at pad 39 we saw 118

42

00:01:42,870 --> 00:01:40,159

knot winds 100 feet off the ground and

43

00:01:44,870 --> 00:01:42,880

70 75 knots down on the surface think

44

00:01:46,789 --> 00:01:44,880

about those winds if they'd have been 25

45

00:01:48,789 --> 00:01:46,799

miles inland instead of right out there

46

00:01:50,630 --> 00:01:48,799

at the edge of the cape you know what

47

00:01:52,389 --> 00:01:50,640

titusville and cocoa and

48

00:01:54,149 --> 00:01:52,399

port st john and the other areas would

49

00:01:55,270 --> 00:01:54,159

look like merritt island we were

50

00:01:57,109 --> 00:01:55,280

definitely

51
00:02:00,069 --> 00:01:57,119
lucky unfortunately the folks further

52
00:02:01,190 --> 00:02:00,079
north weren't quite as lucky as we were

53
00:02:03,350 --> 00:02:01,200
so

54
00:02:05,749 --> 00:02:03,360
because of the winds the way they were

55
00:02:08,710 --> 00:02:05,759
most of the impact to ksc was in the

56
00:02:10,710 --> 00:02:08,720
northern part of the center in the lc39

57
00:02:13,190 --> 00:02:10,720
area around the vab and all the

58
00:02:15,589 --> 00:02:13,200
facilities associated with lc39 we did

59
00:02:17,350 --> 00:02:15,599
pretty good down on the southern end and

60
00:02:18,710 --> 00:02:17,360
we'll run through some pictures here i

61
00:02:20,710 --> 00:02:18,720
got a little cheat sheet here let's put

62
00:02:23,110 --> 00:02:20,720
up the vab i'm going to give you a brief

63
00:02:25,270 --> 00:02:23,120

overview of the damage then i'm let bob

64

00:02:26,710 --> 00:02:25,280

talk a little bit about the

65

00:02:28,070 --> 00:02:26,720

efforts of the damage assessment and

66

00:02:30,550 --> 00:02:28,080

recovery team and then we'll open it up

67

00:02:32,630 --> 00:02:30,560

for questions but you know the vib it

68

00:02:34,150 --> 00:02:32,640

looks pretty good well why is that well

69

00:02:36,150 --> 00:02:34,160

for one reason is

70

00:02:38,790 --> 00:02:36,160

you know back in 2005 when we lost all

71

00:02:41,750 --> 00:02:38,800

those panels off it they did an analysis

72

00:02:43,270 --> 00:02:41,760

of why and part of it had to do with a

73

00:02:44,550 --> 00:02:43,280

lot of corrosion on the fasteners and

74

00:02:46,710 --> 00:02:44,560

the washers and

75

00:02:49,190 --> 00:02:46,720

we used stainless steel

76

00:02:50,790 --> 00:02:49,200

washers and lock nuts and

77

00:02:52,869 --> 00:02:50,800

it did its job

78

00:02:54,869 --> 00:02:52,879

the panels looked great we kept them all

79

00:02:56,070 --> 00:02:54,879

on the roof looks good the one issue

80

00:02:58,470 --> 00:02:56,080

that we did have

81

00:03:00,149 --> 00:02:58,480

next picture if you look at the

82

00:03:02,630 --> 00:03:00,159

utility annex

83

00:03:04,630 --> 00:03:02,640

for the vab in the electrical room this

84

00:03:06,070 --> 00:03:04,640

is what runs the chillers that provides

85

00:03:09,350 --> 00:03:06,080

all the conditioner for all the

86

00:03:11,270 --> 00:03:09,360

facilities out here the roof came off

87

00:03:15,030 --> 00:03:11,280

as a result of that all the switch gear

88

00:03:16,630 --> 00:03:15,040

down inside was totally waterlogged and

89

00:03:17,990 --> 00:03:16,640

you know we had to get we got to get a

90

00:03:19,750 --> 00:03:18,000

new roof on there we got to get it all

91

00:03:22,390 --> 00:03:19,760

dried out may have to replace a lot of

92

00:03:24,789 --> 00:03:22,400

the switching equipment that runs the uh

93

00:03:26,550 --> 00:03:24,799

the chillers well that made the

94

00:03:28,229 --> 00:03:26,560

buildings non-inhabitable and these guys

95

00:03:29,750 --> 00:03:28,239

jumped through hoops getting portable

96

00:03:32,949 --> 00:03:29,760

chillers out here

97

00:03:34,789 --> 00:03:32,959

from atlanta charlotte uh and across the

98

00:03:36,470 --> 00:03:34,799

country so that we could have operations

99

00:03:38,869 --> 00:03:36,480

this morning and we'll talk more about

100

00:03:43,270 --> 00:03:38,879

that let's go over to osb one

101
00:03:44,789 --> 00:03:43,280
uh osb1 uh had damage to the roof in all

102
00:03:45,990 --> 00:03:44,799
areas of it was up in the northeast

103
00:03:47,589 --> 00:03:46,000
corner there were a couple of windows

104
00:03:50,149 --> 00:03:47,599
out but

105
00:03:51,589 --> 00:03:50,159
you know we got folks in we got it

106
00:03:53,030 --> 00:03:51,599
dried out

107
00:03:55,030 --> 00:03:53,040
the big thing here was getting those

108
00:03:56,149 --> 00:03:55,040
chillers hooked up so that we could

109
00:03:57,830 --> 00:03:56,159
actually

110
00:03:59,910 --> 00:03:57,840
get folks into it this morning and have

111
00:04:01,910 --> 00:03:59,920
a safe work environment and that has

112
00:04:04,390 --> 00:04:01,920
been the key throughout this whole thing

113
00:04:05,270 --> 00:04:04,400

it's ensuring the safety of our

114

00:04:06,229 --> 00:04:05,280

team

115

00:04:07,670 --> 00:04:06,239

we've got

116

00:04:09,270 --> 00:04:07,680

environmental monitoring and all the

117

00:04:11,990 --> 00:04:09,280

facilities to make sure that you know

118

00:04:14,710 --> 00:04:12,000

there's no hazards from

119

00:04:18,150 --> 00:04:14,720

mold mold or must or

120

00:04:20,229 --> 00:04:18,160

the dampness saul's good there

121

00:04:22,550 --> 00:04:20,239

a portable chiller is hooked up of

122

00:04:24,150 --> 00:04:22,560

course to condition the air

123

00:04:27,110 --> 00:04:24,160

osb2

124

00:04:30,230 --> 00:04:27,120

osp2 took major damage to the roof and

125

00:04:32,629 --> 00:04:30,240

it it got up underneath it it

126

00:04:35,590 --> 00:04:32,639

peeled it back and

127

00:04:37,189 --> 00:04:35,600

it allowed significant water intrusion

128

00:04:40,150 --> 00:04:37,199

all the way down to the second floor

129

00:04:42,950 --> 00:04:40,160

there's about a fifth of uh

130

00:04:45,510 --> 00:04:42,960

osp2 that's uh not inhabitable right now

131

00:04:47,670 --> 00:04:45,520

and we've had to relocate folks and we

132

00:04:49,189 --> 00:04:47,680

got servpro in there right away they're

133

00:04:52,310 --> 00:04:49,199

going through the water remediation

134

00:04:53,990 --> 00:04:52,320

getting it all dried out again

135

00:04:55,270 --> 00:04:54,000

when i was over here i can't remember

136

00:04:57,030 --> 00:04:55,280

what day it was they all kind of run

137

00:04:59,590 --> 00:04:57,040

together but

138

00:05:02,150 --> 00:04:59,600

night before last we were hooking up a

139

00:05:03,670 --> 00:05:02,160

portable chiller sunday night to start

140

00:05:05,430 --> 00:05:03,680

conditioning the air in there and help

141

00:05:07,189 --> 00:05:05,440

surfboard out with their

142

00:05:09,029 --> 00:05:07,199

drying efforts so

143

00:05:10,950 --> 00:05:09,039

you know we're coming along there

144

00:05:13,029 --> 00:05:10,960

down in the industrial area

145

00:05:15,189 --> 00:05:13,039

you know it was mostly the

146

00:05:17,430 --> 00:05:15,199

the smaller outbuildings the metal

147

00:05:19,909 --> 00:05:17,440

buildings where we had a lot of roof

148

00:05:21,590 --> 00:05:19,919

damage significant

149

00:05:23,430 --> 00:05:21,600

throughout the area

150

00:05:26,150 --> 00:05:23,440

you can just see some of it here as we

151
00:05:28,310 --> 00:05:26,160
we look across but you know to the major

152
00:05:31,270 --> 00:05:28,320
facilities the space station processing

153
00:05:33,430 --> 00:05:31,280
facility the onc high bay orion was fine

154
00:05:35,270 --> 00:05:33,440
inside the onc high bay

155
00:05:39,029 --> 00:05:35,280
all the office space was fine same with

156
00:05:40,950 --> 00:05:39,039
the sspf headquarters building no no

157
00:05:43,430 --> 00:05:40,960
damage no water intrusion all looking

158
00:05:46,070 --> 00:05:43,440
good just some of the outbuildings

159
00:05:48,469 --> 00:05:46,080
here at the press site

160
00:05:50,550 --> 00:05:48,479
you know we we took a hit you can see

161
00:05:53,590 --> 00:05:50,560
one of the trailers blowing up out of

162
00:05:56,469 --> 00:05:53,600
the parking lot in there uh but

163
00:05:57,350 --> 00:05:56,479

actually not too bad uh

164

00:05:59,350 --> 00:05:57,360

again

165

00:06:01,670 --> 00:05:59,360

mostly just the the smaller out

166

00:06:04,150 --> 00:06:01,680

buildings

167

00:06:05,510 --> 00:06:04,160

let's see we got pad b

168

00:06:06,390 --> 00:06:05,520

i think we got some pictures out there

169

00:06:08,230 --> 00:06:06,400

actually

170

00:06:11,029 --> 00:06:08,240

pad b looked pretty darn good didn't see

171

00:06:13,830 --> 00:06:11,039

any significant uh damage out there at

172

00:06:16,469 --> 00:06:13,840

the pad itself uh i think it really

173

00:06:18,390 --> 00:06:16,479

helped go into our new clean pad concept

174

00:06:21,189 --> 00:06:18,400

where we roll out the

175

00:06:22,550 --> 00:06:21,199

the rocket along with the uh on the

176

00:06:24,870 --> 00:06:22,560

mobile launcher

177

00:06:26,550 --> 00:06:24,880

that provides all the support not having

178

00:06:27,590 --> 00:06:26,560

that fixed service structure out there

179

00:06:33,270 --> 00:06:27,600

at the

180

00:06:37,110 --> 00:06:35,510

again just a shot of our new uh

181

00:06:39,189 --> 00:06:37,120

headquarters building going up uh

182

00:06:41,590 --> 00:06:39,199

nothing significant uh

183

00:06:43,749 --> 00:06:41,600

there that's all looking good i i

184

00:06:45,510 --> 00:06:43,759

skipped over you know back at the vab

185

00:06:48,790 --> 00:06:45,520

the the one thing that the other thing

186

00:06:51,749 --> 00:06:48,800

that was impacted besides the

187

00:06:53,830 --> 00:06:51,759

utility annex a lot of the trailers that

188

00:06:54,950 --> 00:06:53,840

are supporting the construction within

189

00:06:57,110 --> 00:06:54,960

high bay

190

00:06:59,110 --> 00:06:57,120

3 and the mobile launcher

191

00:07:00,710 --> 00:06:59,120

sustained damage and this is there were

192

00:07:02,390 --> 00:07:00,720

some civil servants occupying these

193

00:07:05,189 --> 00:07:02,400

spaces but it's primarily the

194

00:07:07,670 --> 00:07:05,199

contractors that are doing the work

195

00:07:09,830 --> 00:07:07,680

a couple of trailers turned over roof

196

00:07:11,350 --> 00:07:09,840

missing on some but the important thing

197

00:07:13,589 --> 00:07:11,360

is there was no impact to the mobile

198

00:07:15,430 --> 00:07:13,599

launcher itself or any of the platforms

199

00:07:17,350 --> 00:07:15,440

within the high bay in fact the only

200

00:07:20,230 --> 00:07:17,360

damage that the vib really suffered was

201
00:07:21,510 --> 00:07:20,240
the the north roll-up door uh suffered a

202
00:07:23,830 --> 00:07:21,520
little damage but none of the major

203
00:07:25,670 --> 00:07:23,840
doors are any of the work inside so that

204
00:07:28,150 --> 00:07:25,680
was really good

205
00:07:30,629 --> 00:07:28,160
the beach house unfortunately kind of an

206
00:07:32,469 --> 00:07:30,639
iconic structure the roof came off and

207
00:07:34,150 --> 00:07:32,479
there was significant

208
00:07:35,749 --> 00:07:34,160
water intrusion

209
00:07:37,430 --> 00:07:35,759
inside it

210
00:07:38,550 --> 00:07:37,440
and then the last picture i want to show

211
00:07:41,589 --> 00:07:38,560
is of the

212
00:07:44,950 --> 00:07:41,599
of the dunes and the beach itself and

213
00:07:47,510 --> 00:07:44,960

you know there was uh erosion on the

214

00:07:50,150 --> 00:07:47,520

beach uh here you can see the uh the

215

00:07:52,070 --> 00:07:50,160

secondary dune you know after sandy came

216

00:07:54,790 --> 00:07:52,080

through and you know sandy didn't really

217

00:07:57,270 --> 00:07:54,800

hit florida but it really impacted uh

218

00:07:59,749 --> 00:07:57,280

our beach here at ksc

219

00:08:01,909 --> 00:07:59,759

and uh all that money that we put into

220

00:08:04,629 --> 00:08:01,919

building that secondary dune it it

221

00:08:06,629 --> 00:08:04,639

worked uh perfect the grass held it in

222

00:08:08,629 --> 00:08:06,639

place the dune looks great from all the

223

00:08:11,029 --> 00:08:08,639

remediation that we did in the past it

224

00:08:12,869 --> 00:08:11,039

was the primary beach area

225

00:08:14,869 --> 00:08:12,879

the initial dunes before you get to that

226

00:08:16,070 --> 00:08:14,879

secondary dune that took the hit here

227

00:08:17,749 --> 00:08:16,080

from uh

228

00:08:19,189 --> 00:08:17,759

from matthew

229

00:08:21,270 --> 00:08:19,199

overall

230

00:08:22,710 --> 00:08:21,280

you know significant damage especially

231

00:08:25,029 --> 00:08:22,720

when you consider all the roof damage

232

00:08:27,189 --> 00:08:25,039

and the water intrusion but so much

233

00:08:30,950 --> 00:08:27,199

better than what it could have been i

234

00:08:32,550 --> 00:08:30,960

i'll tell you i i was really worried and

235

00:08:33,750 --> 00:08:32,560

i came to

236

00:08:35,829 --> 00:08:33,760

to work

237

00:08:38,870 --> 00:08:35,839

saturday morning and

238

00:08:41,269 --> 00:08:38,880

participated in the aerial survey and

239

00:08:42,550 --> 00:08:41,279

even though i saw a lot of damage

240

00:08:45,269 --> 00:08:42,560

when i got done

241

00:08:47,269 --> 00:08:45,279

i had great relief because it wasn't as

242

00:08:48,630 --> 00:08:47,279

bad as it could have been

243

00:08:50,550 --> 00:08:48,640

so

244

00:08:51,990 --> 00:08:50,560

i think a lot of that has to do with the

245

00:08:54,790 --> 00:08:52,000

efforts of the team

246

00:08:56,470 --> 00:08:54,800

preparing for matthew in

247

00:08:58,630 --> 00:08:56,480

the great job that we've done getting

248

00:09:00,230 --> 00:08:58,640

ready to go to work today and on that

249

00:09:02,470 --> 00:09:00,240

note i want to turn it over to the guy

250

00:09:04,870 --> 00:09:02,480

that led that

251
00:09:07,269 --> 00:09:04,880
assessment and recovery effort and he

252
00:09:09,430 --> 00:09:07,279
and his team have just done

253
00:09:11,350 --> 00:09:09,440
an outstanding job

254
00:09:13,990 --> 00:09:11,360
cleaning up the center making sure it

255
00:09:16,310 --> 00:09:14,000
was safe getting the facilities ready

256
00:09:17,269 --> 00:09:16,320
especially making sure that the office

257
00:09:19,350 --> 00:09:17,279
space

258
00:09:22,470 --> 00:09:19,360
out here in the lc39 area was safe to

259
00:09:23,509 --> 00:09:22,480
occupy and that we were able to relocate

260
00:09:25,030 --> 00:09:23,519
folks so

261
00:09:27,509 --> 00:09:25,040
uh bob why don't you tell a little bit

262
00:09:29,829 --> 00:09:27,519
about what you did the last three days

263
00:09:32,070 --> 00:09:29,839

during this damage assessment and um you

264

00:09:34,230 --> 00:09:32,080

know how it all went sure i'd be happy

265

00:09:36,470 --> 00:09:34,240

to and i'm really absolutely very proud

266

00:09:38,070 --> 00:09:36,480

of the team that i worked with and the

267

00:09:39,990 --> 00:09:38,080

damage assessment and recovery team we

268

00:09:42,310 --> 00:09:40,000

call it dart so that's why people kind

269

00:09:43,670 --> 00:09:42,320

of stumble over but the dart team is

270

00:09:45,590 --> 00:09:43,680

only called upon when there's been an

271

00:09:47,110 --> 00:09:45,600

emergency and we have to come back into

272

00:09:49,750 --> 00:09:47,120

the center and we don't know the

273

00:09:51,910 --> 00:09:49,760

situation so wayne key did the ride out

274

00:09:53,670 --> 00:09:51,920

and he made sure the center was safe and

275

00:09:55,750 --> 00:09:53,680

he called up the dart and the dart team

276

00:09:57,509 --> 00:09:55,760

all assemblies together and we get our

277

00:09:59,110 --> 00:09:57,519

initial brief from the right out team

278

00:10:00,870 --> 00:09:59,120

who told us their initial survey and

279

00:10:03,030 --> 00:10:00,880

they said hey there's a number of things

280

00:10:05,430 --> 00:10:03,040

that got broken and damaged and we knew

281

00:10:07,110 --> 00:10:05,440

exactly what to go work on the good news

282

00:10:09,110 --> 00:10:07,120

was is our team has all the right

283

00:10:10,550 --> 00:10:09,120

disciplines on it but we keep it very

284

00:10:12,710 --> 00:10:10,560

small and tight because the first thing

285

00:10:14,470 --> 00:10:12,720

we want to go do is assess what all the

286

00:10:16,069 --> 00:10:14,480

damage is and then we want to go safe

287

00:10:17,269 --> 00:10:16,079

the damage and then we want to figure

288

00:10:19,269 --> 00:10:17,279

out how we can get everybody back to

289

00:10:21,829 --> 00:10:19,279

work um you know we do that through a

290

00:10:23,670 --> 00:10:21,839

number of ways but our core principle is

291

00:10:25,269 --> 00:10:23,680

always safety right we only let people

292

00:10:27,430 --> 00:10:25,279

go and work in a buddy system they go

293

00:10:29,030 --> 00:10:27,440

out by twos and we only do all the work

294

00:10:30,870 --> 00:10:29,040

by daylight hours so that's one of the

295

00:10:32,630 --> 00:10:30,880

things that while we say hey this took a

296

00:10:34,790 --> 00:10:32,640

long time well we're only working

297

00:10:37,269 --> 00:10:34,800

daylight hours and it's really important

298

00:10:39,190 --> 00:10:37,279

um what i would really offer is

299

00:10:41,110 --> 00:10:39,200

the the first day is always about the

300

00:10:43,190 --> 00:10:41,120

assessment and and the second day is

301
00:10:44,790 --> 00:10:43,200
about the recovery and so we were able

302
00:10:46,949 --> 00:10:44,800
to go recovering we had a significant

303
00:10:49,030 --> 00:10:46,959
failure up here in the vab area and the

304
00:10:50,389 --> 00:10:49,040
good news was is it just one extra day

305
00:10:52,069 --> 00:10:50,399
and we're able to get everybody back to

306
00:10:54,069 --> 00:10:52,079
work yeah when you say it took a long

307
00:10:56,389 --> 00:10:54,079
time i take exception of that i think it

308
00:10:57,910 --> 00:10:56,399
was done exceptionally fast uh when you

309
00:10:59,910 --> 00:10:57,920
consider all the things that you guys

310
00:11:00,790 --> 00:10:59,920
had to do so i couldn't be more proud of

311
00:11:02,069 --> 00:11:00,800
you

312
00:11:03,990 --> 00:11:02,079
i was hoping to have it back open in

313
00:11:05,829 --> 00:11:04,000

four hours for you but yeah

314

00:11:07,269 --> 00:11:05,839

i didn't make it so

315

00:11:09,750 --> 00:11:07,279

that's okay

316

00:11:11,910 --> 00:11:09,760

you know uh also wayne key in the right

317

00:11:13,430 --> 00:11:11,920

out team we also had

318

00:11:16,069 --> 00:11:13,440

folks from cape canaveral air force

319

00:11:19,430 --> 00:11:16,079

station in patrick air force base in our

320

00:11:22,310 --> 00:11:19,440

emergency operations center riding out

321

00:11:24,470 --> 00:11:22,320

with with wayne wayne when it was

322

00:11:26,710 --> 00:11:24,480

when i talked to him

323

00:11:27,829 --> 00:11:26,720

i guess it was friday after the storm

324

00:11:30,949 --> 00:11:27,839

had passed

325

00:11:31,910 --> 00:11:30,959

he said and wayne's been here at ksc

326

00:11:33,829 --> 00:11:31,920

over

327

00:11:36,710 --> 00:11:33,839

30 years

328

00:11:39,590 --> 00:11:36,720

doing pretty much the same job and wayne

329

00:11:42,310 --> 00:11:39,600

said it was the worst he had seen

330

00:11:44,949 --> 00:11:42,320

in all the storms that he'd ridden out

331

00:11:47,509 --> 00:11:44,959

as far as being out here at the cape of

332

00:11:49,350 --> 00:11:47,519

course the lcc and eoc is designed to

333

00:11:51,750 --> 00:11:49,360

take a category 5

334

00:11:53,269 --> 00:11:51,760

hurricane and i'm glad we didn't have to

335

00:11:54,870 --> 00:11:53,279

put up with that well i'll tell you 12

336

00:11:56,389 --> 00:11:54,880

years ago i had the honor of riding out

337

00:11:57,509 --> 00:11:56,399

with wayne so it's i know how to do the

338

00:11:59,430 --> 00:11:57,519

ride out and now i know how to do the

339

00:12:02,310 --> 00:11:59,440

dart as well so that's uh absolutely you

340

00:12:03,670 --> 00:12:02,320

can my job next

341

00:12:05,269 --> 00:12:03,680

all right we will open it up for

342

00:12:07,269 --> 00:12:05,279

questions now if you're in the room

343

00:12:08,949 --> 00:12:07,279

please wait for the microphone state

344

00:12:10,150 --> 00:12:08,959

your name and affiliation and to whom

345

00:12:12,230 --> 00:12:10,160

you're addressing the question with

346

00:12:14,069 --> 00:12:12,240

their last name since we have two bobs

347

00:12:16,389 --> 00:12:14,079

here we also have some folks on the

348

00:12:17,829 --> 00:12:16,399

phone bridge and uh we'll get to any

349

00:12:19,509 --> 00:12:17,839

questions that you may have after we

350

00:12:21,990 --> 00:12:19,519

start in the room and we'll begin with

351
00:12:23,110 --> 00:12:22,000
marcia dunn marcia done associated press

352
00:12:25,350 --> 00:12:23,120
probably for

353
00:12:27,829 --> 00:12:25,360
bob cabana um do you have any price

354
00:12:30,710 --> 00:12:27,839
estimate on damage yet and how many

355
00:12:33,269 --> 00:12:30,720
workers have been dislocated because of

356
00:12:35,190 --> 00:12:33,279
facilities that are wet or leaking

357
00:12:38,470 --> 00:12:35,200
so uh i knew you were going to ask that

358
00:12:43,670 --> 00:12:41,350
we've pretty much done all the

359
00:12:45,110 --> 00:12:43,680
categorizing of the damage that we've

360
00:12:47,590 --> 00:12:45,120
had and

361
00:12:49,030 --> 00:12:47,600
i had cost estimators in yesterday we're

362
00:12:51,350 --> 00:12:49,040
going to be working through

363
00:12:52,790 --> 00:12:51,360

the today in the next few days

364

00:12:54,069 --> 00:12:52,800

i don't want to release any numbers

365

00:12:56,150 --> 00:12:54,079

until i have an

366

00:12:57,350 --> 00:12:56,160

accurate answer of what the costs are

367

00:13:00,069 --> 00:12:57,360

but it's going to be in the millions of

368

00:13:01,910 --> 00:13:00,079

dollars it you know uh

369

00:13:04,629 --> 00:13:01,920

we'll we'll give you a number when i

370

00:13:06,790 --> 00:13:04,639

have an accurate number uh we do we you

371

00:13:09,030 --> 00:13:06,800

know i'm working with uh a

372

00:13:11,590 --> 00:13:09,040

headquarters and we're talking to omb

373

00:13:13,750 --> 00:13:11,600

and uh we'll work through the

374

00:13:16,710 --> 00:13:13,760

uh what we have available right now as

375

00:13:18,870 --> 00:13:16,720

far as near term to get money available

376

00:13:20,230 --> 00:13:18,880

to handle the immediate stuff and i'm

377

00:13:21,670 --> 00:13:20,240

sure down the road there's going to be

378

00:13:23,030 --> 00:13:21,680

some sort of

379

00:13:25,829 --> 00:13:23,040

emergency

380

00:13:28,310 --> 00:13:25,839

authorization for hurricane matthew that

381

00:13:29,829 --> 00:13:28,320

will uh help us out in the end but

382

00:13:31,910 --> 00:13:29,839

financially you know we're in a good

383

00:13:33,990 --> 00:13:31,920

position to fix what we have to fix

384

00:13:35,910 --> 00:13:34,000

right away and when i have an accurate

385

00:13:37,910 --> 00:13:35,920

number then we'll work with the folks at

386

00:13:39,910 --> 00:13:37,920

headquarters and get that released as

387

00:13:41,030 --> 00:13:39,920

far as relocating folks

388

00:13:44,069 --> 00:13:41,040

you know i'm going to turn that over to

389

00:13:47,030 --> 00:13:44,079

bob you know we've moved folks into

390

00:13:49,269 --> 00:13:47,040

office space within osb 2 they just kind

391

00:13:51,910 --> 00:13:49,279

of bunched up a little bit but we also

392

00:13:53,350 --> 00:13:51,920

have other office space available and i

393

00:13:54,710 --> 00:13:53,360

heard a number but he's probably got a

394

00:13:57,269 --> 00:13:54,720

more accurate number of how many folks

395

00:13:58,710 --> 00:13:57,279

we actually relocated and i i apologize

396

00:14:00,949 --> 00:13:58,720

i don't have the exact number but what

397

00:14:03,430 --> 00:14:00,959

we did offer was um temporary relocation

398

00:14:05,110 --> 00:14:03,440

areas we're calling them hotels and the

399

00:14:06,710 --> 00:14:05,120

folks wanted to go move because they had

400

00:14:08,389 --> 00:14:06,720

some damage that we didn't know about

401
00:14:10,550 --> 00:14:08,399
right away that they could go work there

402
00:14:12,389 --> 00:14:10,560
while it gets cleaned up but the booster

403
00:14:14,949 --> 00:14:12,399
fabrication facility is available we

404
00:14:16,790 --> 00:14:14,959
have office space in there and then we

405
00:14:18,150 --> 00:14:16,800
also put signs on all the doors although

406
00:14:19,910 --> 00:14:18,160
we're monitoring the environment and all

407
00:14:21,750 --> 00:14:19,920
the buildings and it's safe you know

408
00:14:22,790 --> 00:14:21,760
some folks are a little more sensitive

409
00:14:24,790 --> 00:14:22,800
to uh

410
00:14:27,189 --> 00:14:24,800
to not having perfect air than others

411
00:14:29,750 --> 00:14:27,199
and we've made space available in the

412
00:14:31,430 --> 00:14:29,760
sspf conference center in the mission

413
00:14:33,590 --> 00:14:31,440

briefing room over in the onc if folks

414

00:14:35,269 --> 00:14:33,600

wanna the the buildings are fine to go

415

00:14:36,389 --> 00:14:35,279

into they can have access they can

416

00:14:38,230 --> 00:14:36,399

actually work there but if they're

417

00:14:39,910 --> 00:14:38,240

uncomfortable for any reason

418

00:14:44,949 --> 00:14:39,920

they can get what they need out of their

419

00:14:49,189 --> 00:14:47,030

not even that many that's right

420

00:14:51,030 --> 00:14:49,199

and so for so for the osb which did have

421

00:14:52,550 --> 00:14:51,040

some relocation and just as bob cabana

422

00:14:54,550 --> 00:14:52,560

had said that they were just moved

423

00:14:56,470 --> 00:14:54,560

around inside the building so we didn't

424

00:14:57,990 --> 00:14:56,480

consider them

425

00:14:59,750 --> 00:14:58,000

doubled up in some of their existing

426

00:15:01,189 --> 00:14:59,760

workspace right

427

00:15:02,949 --> 00:15:01,199

and if you didn't hear marsha's question

428

00:15:04,710 --> 00:15:02,959

she said uh would you say hundreds of

429

00:15:06,470 --> 00:15:04,720

people

430

00:15:10,870 --> 00:15:06,480

no right i don't believe that at all

431

00:15:12,870 --> 00:15:10,880

yeah i understand okay uh james

432

00:15:14,150 --> 00:15:12,880

james dean florida today mr cabana i

433

00:15:16,790 --> 00:15:14,160

know we're looking at maybe a few days

434

00:15:18,470 --> 00:15:16,800

slip or so in in goes-r i don't know if

435

00:15:19,829 --> 00:15:18,480

you have a new date yet for that but big

436

00:15:22,230 --> 00:15:19,839

picture just just trying to get a feel

437

00:15:23,910 --> 00:15:22,240

for if sure is there any impact at all

438

00:15:26,069 --> 00:15:23,920

losing a few days and with the damage

439

00:15:29,430 --> 00:15:26,079

you see to missions in general whether

440

00:15:30,870 --> 00:15:29,440

it's any any on your plate absolutely so

441

00:15:33,030 --> 00:15:30,880

uh for goes-r

442

00:15:34,870 --> 00:15:33,040

you need to talk to the uh you know

443

00:15:36,949 --> 00:15:34,880

folks about that that's their their

444

00:15:38,949 --> 00:15:36,959

mission and they're they're pretty much

445

00:15:42,069 --> 00:15:38,959

the ones that decide and want to release

446

00:15:43,910 --> 00:15:42,079

when they launch and or don't launch

447

00:15:46,150 --> 00:15:43,920

i mean anything obviously he said orion

448

00:15:50,629 --> 00:15:46,160

looks good i mean is there

449

00:15:51,990 --> 00:15:50,639

any project uh with your gsdo or um

450

00:15:53,749 --> 00:15:52,000

anything like that manifest that would

451
00:15:56,870 --> 00:15:53,759
be affected you know at this point right

452
00:15:58,550 --> 00:15:56,880
now james i don't uh see any you know

453
00:16:01,269 --> 00:15:58,560
one of the impacts was getting folks

454
00:16:03,350 --> 00:16:01,279
back to work on the software for sls and

455
00:16:05,509 --> 00:16:03,360
orion and the key to that was getting

456
00:16:08,150 --> 00:16:05,519
folks into the launch

457
00:16:09,829 --> 00:16:08,160
into the firing rooms in the lcc and

458
00:16:11,350 --> 00:16:09,839
thanks to bob's effort we were ready to

459
00:16:13,110 --> 00:16:11,360
get those chillers going so they could

460
00:16:15,590 --> 00:16:13,120
actually power up the

461
00:16:17,110 --> 00:16:15,600
the computers and stuff so i mean we're

462
00:16:19,189 --> 00:16:17,120
only talking a couple days that folks

463
00:16:22,230 --> 00:16:19,199

are up for the hurricane normal work day

464

00:16:24,949 --> 00:16:22,240

today they're back in there working

465

00:16:26,310 --> 00:16:24,959

i don't know at this time of any

466

00:16:29,670 --> 00:16:26,320

significant

467

00:16:32,949 --> 00:16:29,680

issues that will impact sls or orion as

468

00:16:36,550 --> 00:16:34,629

okay we'll take a question from j

469

00:16:38,230 --> 00:16:36,560

barbary and then go to the phone bridge

470

00:16:40,150 --> 00:16:38,240

and then greg pallone in the back of the

471

00:16:41,670 --> 00:16:40,160

room well i have a two prong here for

472

00:16:44,790 --> 00:16:41,680

bob hall

473

00:16:47,910 --> 00:16:44,800

what were the surface high surface winds

474

00:16:51,030 --> 00:16:47,920

at ksc and patrick and for the killer

475

00:16:53,269 --> 00:16:51,040

marine corps fighter pilot

476

00:16:55,509 --> 00:16:53,279

goes-r will that be your next launch

477

00:16:59,670 --> 00:16:55,519

when you get back on schedule and faulk

478

00:17:01,430 --> 00:16:59,680

and falcon 9 going off of 39a any idea

479

00:17:03,910 --> 00:17:01,440

does this slow it down and we know where

480

00:17:06,390 --> 00:17:03,920

we are on that i'll take the easy one we

481

00:17:08,789 --> 00:17:06,400

uh measured up between 70 and 75 knots

482

00:17:11,350 --> 00:17:08,799

right here at the surface um at 500 foot

483

00:17:13,990 --> 00:17:11,360

we had over 118 knots that were measured

484

00:17:15,829 --> 00:17:14,000

of wind what about patrick what about

485

00:17:17,750 --> 00:17:15,839

patrick um we all have the same

486

00:17:21,029 --> 00:17:17,760

measurements that's uh that's all you're

487

00:17:23,510 --> 00:17:21,039

talking about 75 not 75 knots at the

488

00:17:25,510 --> 00:17:23,520

surface windscreen okay good deal

489

00:17:27,909 --> 00:17:25,520

now goes-r so

490

00:17:29,590 --> 00:17:27,919

again on goes-r i'm not going to comment

491

00:17:32,070 --> 00:17:29,600

on when they're going to launch that's a

492

00:17:34,630 --> 00:17:32,080

determination that they have to make and

493

00:17:36,950 --> 00:17:34,640

as far as spacex goes uh getting the

494

00:17:40,470 --> 00:17:36,960

falcon 9 flying again you really need to

495

00:17:42,630 --> 00:17:40,480

talk to spacexj and how they come on 39a

496

00:17:44,710 --> 00:17:42,640

and and getting the through the invest

497

00:17:46,310 --> 00:17:44,720

safety investigation they're doing but

498

00:17:48,070 --> 00:17:46,320

you know we're working closely with them

499

00:17:49,909 --> 00:17:48,080

we're following what's going on and

500

00:17:51,830 --> 00:17:49,919

they'll launch when they're ready okay

501
00:17:53,430 --> 00:17:51,840
sir thank you

502
00:17:55,430 --> 00:17:53,440
okay let's take a question from uh

503
00:17:57,190 --> 00:17:55,440
stephen clark space flight now on the

504
00:17:59,110 --> 00:17:57,200
phone bridge and then we'll uh go to

505
00:18:02,630 --> 00:17:59,120
greg palone in the back of the room

506
00:18:07,669 --> 00:18:04,789
hi mike my question has been asked and

507
00:18:14,870 --> 00:18:12,070
okay how about irene klotz from reuters

508
00:18:17,190 --> 00:18:14,880
hey thanks very much my question uh i

509
00:18:19,669 --> 00:18:17,200
think it's for bob cabana do you plan on

510
00:18:21,909 --> 00:18:19,679
rebuilding the beach house

511
00:18:24,789 --> 00:18:21,919
uh good question irene always nice

512
00:18:27,750 --> 00:18:24,799
talking to you and uh you know that's a

513
00:18:29,350 --> 00:18:27,760

decision we have uh have yet to make uh

514

00:18:31,350 --> 00:18:29,360

we'll see what it costs and what it's

515

00:18:34,870 --> 00:18:31,360

worth it's a of course an iconic

516

00:18:38,070 --> 00:18:34,880

structure uh it's been around for a for

517

00:18:40,630 --> 00:18:38,080

a long time it's been uh

518

00:18:42,870 --> 00:18:40,640

a place where astronauts have found

519

00:18:45,029 --> 00:18:42,880

relaxation time prior to

520

00:18:48,070 --> 00:18:45,039

to many launches and it's a really

521

00:18:49,750 --> 00:18:48,080

really nice conference facility so

522

00:18:51,430 --> 00:18:49,760

we'll have to see what the costs are and

523

00:18:53,669 --> 00:18:51,440

how it all works out so i'm not ready to

524

00:18:54,830 --> 00:18:53,679

make an a give you a definite answer on

525

00:18:59,190 --> 00:18:54,840

that

526

00:19:01,029 --> 00:18:59,200

yet okay we're back in the room uh greg

527

00:19:03,830 --> 00:19:01,039

not to downplay the people or anything

528

00:19:05,350 --> 00:19:03,840

um but uh any estimate on wildlife uh

529

00:19:07,029 --> 00:19:05,360

and how about the eagles nest how the

530

00:19:09,590 --> 00:19:07,039

eagles nest fare through this so the

531

00:19:12,470 --> 00:19:09,600

eagles that's been asked bob

532

00:19:14,390 --> 00:19:12,480

the eagle's nest survived and uh

533

00:19:16,710 --> 00:19:14,400

actually i don't have any estimate on on

534

00:19:18,630 --> 00:19:16,720

wildlife wildlife are pretty darn

535

00:19:20,710 --> 00:19:18,640

capable of burrowing under and and

536

00:19:21,830 --> 00:19:20,720

staying safe and

537

00:19:25,029 --> 00:19:21,840

i think they

538

00:19:26,630 --> 00:19:25,039

impressed to see that that

539

00:19:27,830 --> 00:19:26,640

eagle's nest was still up there in the

540

00:19:30,710 --> 00:19:27,840

tree

541

00:19:33,750 --> 00:19:30,720

you know that's the other thing i just

542

00:19:35,830 --> 00:19:33,760

the team did an outstanding job tracking

543

00:19:37,590 --> 00:19:35,840

down all our

544

00:19:39,750 --> 00:19:37,600

civil service and government employees

545

00:19:41,590 --> 00:19:39,760

and i got a report this morning we've

546

00:19:42,310 --> 00:19:41,600

been tracking it all through the weekend

547

00:19:43,909 --> 00:19:42,320

but

548

00:19:46,950 --> 00:19:43,919

a hundred percent of our folks have been

549

00:19:49,350 --> 00:19:46,960

accounted for with no serious injury or

550

00:19:51,110 --> 00:19:49,360

uh significant damage to their personal

551

00:19:53,750 --> 00:19:51,120

property and i think that's outstanding

552

00:19:55,669 --> 00:19:53,760

and that's folks heeded uh the warnings

553

00:19:58,630 --> 00:19:55,679

that came before this storm as i said at

554

00:19:59,990 --> 00:19:58,640

the beginning we were lucky uh but uh it

555

00:20:02,230 --> 00:20:00,000

was really good that folks paid

556

00:20:05,190 --> 00:20:02,240

attention and actually uh you know

557

00:20:07,510 --> 00:20:05,200

looked out for uh

558

00:20:10,470 --> 00:20:07,520

marsha safety i have two more questions

559

00:20:12,070 --> 00:20:10,480

um the osb two buildings sort of knew um

560

00:20:14,230 --> 00:20:12,080

were you surprised that it took such

561

00:20:17,669 --> 00:20:14,240

roof damage

562

00:20:18,549 --> 00:20:17,679

well cat three hurricane you know um

563

00:20:20,710 --> 00:20:18,559

it's

564

00:20:22,070 --> 00:20:20,720

we're gonna figure out how to make that

565

00:20:23,350 --> 00:20:22,080

roof better

566

00:20:24,870 --> 00:20:23,360

as we fix it

567

00:20:26,710 --> 00:20:24,880

this time

568

00:20:28,870 --> 00:20:26,720

and you know you hear um

569

00:20:30,390 --> 00:20:28,880

the oceans rising and

570

00:20:32,149 --> 00:20:30,400

is this sort of like a wake-up call what

571

00:20:34,470 --> 00:20:32,159

to do with the space center

572

00:20:37,270 --> 00:20:34,480

down the road decades ahead

573

00:20:39,510 --> 00:20:37,280

as the water level rises um how can you

574

00:20:41,830 --> 00:20:39,520

protect the pads or much of the space

575

00:20:44,390 --> 00:20:41,840

center like 50 years from now i mean

576

00:20:46,950 --> 00:20:44,400

that's the purpose of those dunes and uh

577

00:20:48,710 --> 00:20:46,960

you know they they did their job they uh

578

00:20:50,230 --> 00:20:48,720

protected us well

579

00:20:54,230 --> 00:20:50,240

we were also very fortunate that this

580

00:20:58,070 --> 00:20:56,470

uh james

581

00:21:00,149 --> 00:20:58,080

james florida today mr hall if you were

582

00:21:02,870 --> 00:21:00,159

here in 2004 i wondered if you could

583

00:21:04,549 --> 00:21:02,880

just sort of give your impressions of

584

00:21:06,310 --> 00:21:04,559

you know the difference after this storm

585

00:21:07,590 --> 00:21:06,320

versus what turned out to be a couple or

586

00:21:08,950 --> 00:21:07,600

three um

587

00:21:11,750 --> 00:21:08,960

back that year how to have the center

588

00:21:13,029 --> 00:21:11,760

fare well right so i mean this year i i

589

00:21:14,710 --> 00:21:13,039

would say having lived through those

590

00:21:16,549 --> 00:21:14,720

storms i recognize that something big

591

00:21:19,270 --> 00:21:16,559

could really go happen with with uh

592

00:21:20,950 --> 00:21:19,280

trying to recovery effort and

593

00:21:22,470 --> 00:21:20,960

we also had some buildings that had some

594

00:21:24,070 --> 00:21:22,480

roof damage at that point we had a call

595

00:21:26,630 --> 00:21:24,080

in the industrial chillers in the

596

00:21:27,909 --> 00:21:26,640

industrial uh drying company so at least

597

00:21:29,510 --> 00:21:27,919

we knew that that was something that we

598

00:21:31,590 --> 00:21:29,520

were ready to go do we were calling them

599

00:21:33,270 --> 00:21:31,600

in the very first day so

600

00:21:34,470 --> 00:21:33,280

having lived through that experience

601
00:21:36,470 --> 00:21:34,480
that was something that just made the

602
00:21:39,190 --> 00:21:36,480
decision path a little easier

603
00:21:42,390 --> 00:21:39,200
otherwise the vab panels having them all

604
00:21:44,549 --> 00:21:42,400
on that was a significant

605
00:21:46,070 --> 00:21:44,559
smile on my face because that's a that

606
00:21:49,510 --> 00:21:46,080
was just a big project for a long time

607
00:21:52,870 --> 00:21:51,350
i mean would that

608
00:21:54,390 --> 00:21:52,880
stand out as kind of the

609
00:21:55,909 --> 00:21:54,400
area that was

610
00:21:58,230 --> 00:21:55,919
i know you're concerned about everything

611
00:22:00,149 --> 00:21:58,240
but you know maybe for knowing what had

612
00:22:01,510 --> 00:22:00,159
happened in the past something you were

613
00:22:03,510 --> 00:22:01,520

fearing would happen again and i just

614

00:22:05,430 --> 00:22:03,520

just kind of what areas were you at in

615

00:22:07,270 --> 00:22:05,440

real time you know kind of most worried

616

00:22:09,510 --> 00:22:07,280

about as winds got sort of up and up to

617

00:22:11,510 --> 00:22:09,520

a certain level well from my personal

618

00:22:13,190 --> 00:22:11,520

fear and bob cabana knows this said i

619

00:22:14,390 --> 00:22:13,200

asked let's go fly over the utility

620

00:22:16,230 --> 00:22:14,400

switch yard so we can look at all the

621

00:22:18,470 --> 00:22:16,240

electric uh make sure nothing flew into

622

00:22:19,990 --> 00:22:18,480

them and nothing did everything was

623

00:22:22,310 --> 00:22:20,000

really great so i felt really good just

624

00:22:23,830 --> 00:22:22,320

as bob had said when we landed i thought

625

00:22:25,430 --> 00:22:23,840

the power grid was going to be great we

626

00:22:27,190 --> 00:22:25,440

were really uh

627

00:22:28,870 --> 00:22:27,200

knew that our water systems were good so

628

00:22:31,029 --> 00:22:28,880

we i thought all the infrastructure was

629

00:22:33,190 --> 00:22:31,039

solid turns out that we lost our

630

00:22:35,350 --> 00:22:33,200

industrial uh chiller so that was a

631

00:22:37,669 --> 00:22:35,360

surprise we had one power line down and

632

00:22:39,270 --> 00:22:37,679

that was uh not a significant one and it

633

00:22:40,710 --> 00:22:39,280

had old wooden poles and didn't have the

634

00:22:42,630 --> 00:22:40,720

new hurricane

635

00:22:44,470 --> 00:22:42,640

poles

636

00:22:46,549 --> 00:22:44,480

you know the other thing i want to say

637

00:22:49,590 --> 00:22:46,559

is i got to give credit to wayne key and

638

00:22:51,669 --> 00:22:49,600

my emergency management team you know

639

00:22:54,870 --> 00:22:51,679

we haven't had a hurricane here

640

00:22:56,710 --> 00:22:54,880

you know in 11 years and

641

00:22:59,669 --> 00:22:56,720

he had some tropical rains but that's

642

00:23:00,710 --> 00:22:59,679

about it but we do

643

00:23:03,029 --> 00:23:00,720

he does

644

00:23:05,029 --> 00:23:03,039

an outstanding job leading us through

645

00:23:07,350 --> 00:23:05,039

the planning for and

646

00:23:09,990 --> 00:23:07,360

hurricane exercises at the start of each

647

00:23:12,230 --> 00:23:10,000

hurricane year and i think having that

648

00:23:14,549 --> 00:23:12,240

preparation going through those

649

00:23:16,789 --> 00:23:14,559

those drills treating like you really

650

00:23:19,590 --> 00:23:16,799

have a hurricane and getting everybody

651
00:23:21,669 --> 00:23:19,600
to go through that exercise at all

652
00:23:23,830 --> 00:23:21,679
levels including the senior management

653
00:23:27,110 --> 00:23:23,840
team i think it really prepared us for

654
00:23:29,750 --> 00:23:27,120
uh for matthew

655
00:23:32,789 --> 00:23:29,760
any further questions

656
00:23:35,350 --> 00:23:32,799
bob any uh closing comments no i just uh

657
00:23:36,630 --> 00:23:35,360
i really appreciate everybody's support

658
00:23:38,070 --> 00:23:36,640
throughout this

659
00:23:39,510 --> 00:23:38,080
this whole

660
00:23:41,430 --> 00:23:39,520
ordeal

661
00:23:44,390 --> 00:23:41,440
i just i can't say enough good things

662
00:23:46,710 --> 00:23:44,400
about the the ksc nasa

663
00:23:49,430 --> 00:23:46,720

family and team and how they

664

00:23:51,750 --> 00:23:49,440

prepared for it how they responded to it

665

00:23:54,230 --> 00:23:51,760

in the sport that we've gotten from the

666

00:23:55,990 --> 00:23:54,240

nasa centers and headquarters across the

667

00:23:59,510 --> 00:23:56,000

country

668

00:24:02,149 --> 00:23:59,520

it's always a an event like this that

669

00:24:04,070 --> 00:24:02,159

pulls us together and shows what we can

670

00:24:07,430 --> 00:24:04,080

accomplish when we need to go out and

671

00:24:08,789 --> 00:24:07,440

solve a problem and rise above adversity

672

00:24:10,549 --> 00:24:08,799

and

673

00:24:12,149 --> 00:24:10,559

like i said to uh

674

00:24:14,470 --> 00:24:12,159

to my team at the end of my note

675

00:24:16,149 --> 00:24:14,480

yesterday it's time to

676
00:24:18,789 --> 00:24:16,159
get back to the business of being

677
00:24:21,269 --> 00:24:18,799
america's premier spaceport and heading

678
00:24:22,390 --> 00:24:21,279
off on our journey to mars so let's go

679
00:24:23,590 --> 00:24:22,400
do it

680
00:24:25,350 --> 00:24:23,600
sounds great

681
00:24:27,669 --> 00:24:25,360
and with that we'll uh close things up

682
00:24:30,070 --> 00:24:27,679
and we will roll some video footage that

683
00:24:32,630 --> 00:24:30,080
we acquired after hurricane matthew

684
00:24:34,390 --> 00:24:32,640
passed by of kennedy space center that's

685
00:24:36,070 --> 00:24:34,400
how we will close today thank you very