



1
00:00:07,749 --> 00:00:02,869
all right atlantis uh we are ready for

2
00:00:12,470 --> 00:00:10,310
atlantis is ready for the event

3
00:00:14,629 --> 00:00:12,480
okay abc news this is mission control

4
00:00:21,990 --> 00:00:14,639
houston please call atlantis for a voice

5
00:00:22,000 --> 00:00:27,910
atlantis this is abc news do you hear me

6
00:00:27,920 --> 00:00:33,830
atlantis has you loud and clear

7
00:00:33,840 --> 00:00:37,670
that's terrific

8
00:00:37,680 --> 00:00:40,630
are you uh

9
00:00:46,470 --> 00:00:43,430
and so away we go atlantis

10
00:00:48,869 --> 00:00:46,480
i want to ask really all four of you

11
00:00:50,549 --> 00:00:48,879
your feelings on this being

12
00:00:57,189 --> 00:00:50,559
the final

13
00:01:01,110 --> 00:00:59,590

well i'll start off uh first let me say

14

00:01:04,149 --> 00:01:01,120

it's been an absolute honor to be a part

15

00:01:06,950 --> 00:01:04,159

of this final crew um this was uh this

16

00:01:08,870 --> 00:01:06,960

was a tough decision uh for uh there are

17

00:01:11,510 --> 00:01:08,880

a number of extraordinarily qualified

18

00:01:13,510 --> 00:01:11,520

people to do it um we took on the test

19

00:01:15,749 --> 00:01:13,520

of course we were just a crew of four

20

00:01:17,510 --> 00:01:15,759

and uh i'd like to think that we went up

21

00:01:20,070 --> 00:01:17,520

there did a bang-up job with the limited

22

00:01:22,950 --> 00:01:20,080

number of resources that we had and uh

23

00:01:25,670 --> 00:01:22,960

of course as uh as we

24

00:01:27,510 --> 00:01:25,680

just approached landing here uh we're

25

00:01:29,350 --> 00:01:27,520

going through a series of laughs

26

00:01:31,270 --> 00:01:29,360

yesterday for example the shuttle's

27

00:01:33,910 --> 00:01:31,280

robotic arm that we had used for 30

28

00:01:35,910 --> 00:01:33,920

years to deploy and retrieve satellites

29

00:01:37,510 --> 00:01:35,920

and we had some fantastic statistics

30

00:01:39,190 --> 00:01:37,520

read up to us

31

00:01:41,109 --> 00:01:39,200

the last time we put it away it's hard

32

00:01:41,990 --> 00:01:41,119

to believe we'll ever use it again

33

00:01:43,030 --> 00:01:42,000

but

34

00:01:44,149 --> 00:01:43,040

i'm going to pass the mic around a

35

00:01:49,590 --> 00:01:44,159

little bit i'm sure somebody else has

36

00:01:52,230 --> 00:01:51,030

sir

37

00:01:54,870 --> 00:01:52,240

it's been a

38

00:01:56,789 --> 00:01:54,880

an interesting training flow because as

39

00:01:58,630 --> 00:01:56,799

our commander said it there are a lot of

40

00:02:01,910 --> 00:01:58,640

a number of lasts and they started out

41

00:02:03,830 --> 00:02:01,920

small the last uh uh

42

00:02:05,270 --> 00:02:03,840

specific sim on a certain system and

43

00:02:06,230 --> 00:02:05,280

then they got bigger and bigger until we

44

00:02:08,229 --> 00:02:06,240

saw the

45

00:02:10,150 --> 00:02:08,239

the last row out of the uh space shuttle

46

00:02:11,190 --> 00:02:10,160

for the pad then it started getting real

47

00:02:12,710 --> 00:02:11,200

and every once in a while would kind of

48

00:02:14,949 --> 00:02:12,720

hit you and the same thing's happened

49

00:02:17,030 --> 00:02:14,959

during the mission uh we've gone through

50

00:02:18,949 --> 00:02:17,040

a number of different milestones and as

51
00:02:20,309 --> 00:02:18,959
you get the bigger ones and big ones uh

52
00:02:21,830 --> 00:02:20,319
behind you then you kind of have a

53
00:02:23,750 --> 00:02:21,840
chance to pause a little bit less a

54
00:02:25,110 --> 00:02:23,760
little bit more as the as the pressure

55
00:02:26,390 --> 00:02:25,120
is off and you can think wow you know

56
00:02:27,990 --> 00:02:26,400
this is the last time we're doing that

57
00:02:29,510 --> 00:02:28,000
and for me it kind of hits me when i'm

58
00:02:30,710 --> 00:02:29,520
sitting down the mid-deck sometimes at

59
00:02:32,790 --> 00:02:30,720
the end of the day

60
00:02:34,630 --> 00:02:32,800
while we eat and you finally have a

61
00:02:36,229 --> 00:02:34,640
chance just for a couple of minutes to

62
00:02:37,990 --> 00:02:36,239
grab bite to eat and fake and they can i

63
00:02:39,990 --> 00:02:38,000

think of the past crews that have sat

64

00:02:41,670 --> 00:02:40,000

down here and shared a meal and

65

00:02:43,110 --> 00:02:41,680

and think about wow this is the last

66

00:02:44,790 --> 00:02:43,120

time and then i'll think about the

67

00:02:46,070 --> 00:02:44,800

future of atlanta we're just we're not

68

00:02:47,990 --> 00:02:46,080

going to just retire we're going to

69

00:02:49,830 --> 00:02:48,000

share with others in the in the kennedy

70

00:02:51,110 --> 00:02:49,840

space center other people get chance get

71

00:02:54,309 --> 00:02:51,120

up close and see what a beautiful

72

00:02:59,030 --> 00:02:56,390

i'd like to ask you mission specialist

73

00:03:04,149 --> 00:02:59,040

sandy magnus do you expect to go into

74

00:03:07,509 --> 00:03:05,750

gosh that's really a hard question i

75

00:03:09,910 --> 00:03:07,519

have a feeling probably not but i have

76

00:03:11,990 --> 00:03:09,920

yet to talk with our chief about that

77

00:03:13,589 --> 00:03:12,000

um just like on my last mission i

78

00:03:15,750 --> 00:03:13,599

treated this mission as if it was going

79

00:03:17,030 --> 00:03:15,760

to be my last mission and tried to save

80

00:03:18,790 --> 00:03:17,040

her every moment

81

00:03:20,869 --> 00:03:18,800

i was on the space station and every

82

00:03:23,509 --> 00:03:20,879

moment we're here on atlantis and get

83

00:03:25,430 --> 00:03:23,519

those last glances out uh the window at

84

00:03:30,070 --> 00:03:25,440

our beautiful earth and try and print

85

00:03:35,990 --> 00:03:32,630

pilot doug hurley i realized she's a

86

00:03:37,750 --> 00:03:36,000

very delicate craft she is incredibly

87

00:03:40,949 --> 00:03:37,760

intricate to a degree that many of us

88

00:03:46,070 --> 00:03:40,959

can't comprehend but ultimately what's

89

00:03:49,910 --> 00:03:47,509

well um

90

00:03:52,149 --> 00:03:49,920

it's just uh it's a dream come true

91

00:03:54,789 --> 00:03:52,159

actually it it flies

92

00:03:58,149 --> 00:03:54,799

much better than our simulators uh show

93

00:04:00,710 --> 00:03:58,159

that you supply and uh it's just been an

94

00:04:02,550 --> 00:04:00,720

absolute pleasure to get to fly the

95

00:04:04,229 --> 00:04:02,560

yesterday for me to get to do the fly

96

00:04:05,990 --> 00:04:04,239

around and then uh

97

00:04:07,830 --> 00:04:06,000

you know some of the rendezvous burns

98

00:04:09,509 --> 00:04:07,840

that we did and uh we're really looking

99

00:04:11,589 --> 00:04:09,519

forward to bringing her home tomorrow

100

00:04:14,869 --> 00:04:11,599

but it's been just uh just a dream to

101

00:04:17,349 --> 00:04:14,879

get to do this

102

00:04:26,710 --> 00:04:17,359

doug what's it going to be like to land

103

00:04:31,670 --> 00:04:28,950

yeah doug passed it off to me because uh

104

00:04:33,270 --> 00:04:31,680

you know the the pilot is the pilot uh

105

00:04:35,270 --> 00:04:33,280

that left cedar lands and that doug

106

00:04:37,749 --> 00:04:35,280

would do an absolute fantastic job in

107

00:04:39,670 --> 00:04:37,759

answering that question but uh i've had

108

00:04:41,909 --> 00:04:39,680

one opportunity to land before it was

109

00:04:43,990 --> 00:04:41,919

extraordinarily exciting

110

00:04:45,670 --> 00:04:44,000

you know but probably the one word i

111

00:04:48,310 --> 00:04:45,680

could say is it works just like the

112

00:04:50,870 --> 00:04:48,320

simulator we have we have an in-flight

113

00:04:52,390 --> 00:04:50,880

simulator that that we use and practice

114

00:04:55,350 --> 00:04:52,400

with and

115

00:04:57,590 --> 00:04:55,360

i'm absolutely astounded at how closely

116

00:04:59,749 --> 00:04:57,600

uh the space shuttle replicates the

117

00:05:01,270 --> 00:04:59,759

in-flight simulator so uh we're gonna

118

00:05:03,430 --> 00:05:01,280

have a i believe a pre-dawn landing

119

00:05:07,990 --> 00:05:03,440

tomorrow if we land on time uh day or

120

00:05:12,310 --> 00:05:10,150

chris ferguson commander of the final

121

00:05:14,790 --> 00:05:12,320

mission of the 30-year space shuttle

122

00:05:17,189 --> 00:05:14,800

history i i want to ask you what do you

123

00:05:22,150 --> 00:05:17,199

see as the future of the american space

124

00:05:26,070 --> 00:05:23,749

well we were we were discussing this

125

00:05:28,230 --> 00:05:26,080

just the other day you know uh it may

126

00:05:30,950 --> 00:05:28,240

seem like uh um

127

00:05:32,469 --> 00:05:30,960

like a sort of an ending and i suppose

128

00:05:33,670 --> 00:05:32,479

to a degree it is you know the space

129

00:05:35,670 --> 00:05:33,680

shuttle's been with us it's been the

130

00:05:37,670 --> 00:05:35,680

heart and the soul of the human space

131

00:05:39,110 --> 00:05:37,680

flight program for about 30 years and

132

00:05:39,990 --> 00:05:39,120

you know it's a little sad to see it go

133

00:05:41,830 --> 00:05:40,000

away

134

00:05:43,510 --> 00:05:41,840

but you know we have to understand these

135

00:05:45,749 --> 00:05:43,520

systems to operate and maintain or

136

00:05:47,670 --> 00:05:45,759

extraordinarily costly and in order to

137

00:05:49,029 --> 00:05:47,680

go beyond because of course the shuttle

138

00:05:50,629 --> 00:05:49,039

can only stay in low earth orbit in

139

00:05:52,390 --> 00:05:50,639

order to go beyond low earth orbit again

140

00:05:53,990 --> 00:05:52,400

we're going to have to pause and we're

141

00:05:55,510 --> 00:05:54,000

going to have to stand down and we're

142

00:05:58,230 --> 00:05:55,520

going to have to channel some of those

143

00:06:00,390 --> 00:05:58,240

resources that we used uh to fund and

144

00:06:02,230 --> 00:06:00,400

operate the space shuttle so we can

145

00:06:04,309 --> 00:06:02,240

build another vehicle and we're going to

146

00:06:06,309 --> 00:06:04,319

go beyond again someday

147

00:06:08,230 --> 00:06:06,319

hopefully it's in the not too far

148

00:06:10,550 --> 00:06:08,240

distant future and we'll turn over this

149

00:06:12,469 --> 00:06:10,560

low earth orbit business this uh space

150

00:06:14,550 --> 00:06:12,479

station servicing business to uh to

151
00:06:16,070 --> 00:06:14,560
commercial companies but uh hopefully in

152
00:06:18,309 --> 00:06:16,080
the not too distant future you're gonna

153
00:06:20,390 --> 00:06:18,319
see a heavy lift vehicle manufactured

154
00:06:21,990 --> 00:06:20,400
and uh by our commercial partners

155
00:06:23,909 --> 00:06:22,000
designed by nasa in partnership and

156
00:06:26,390 --> 00:06:23,919
we're going to go back to the moon back

157
00:06:27,590 --> 00:06:26,400
to mars so the future is very bright but

158
00:06:28,950 --> 00:06:27,600
at the moment it's a little somber

159
00:06:32,230 --> 00:06:28,960
because we are saying goodbye to an old

160
00:06:35,990 --> 00:06:34,070
well colonel rex walheim mission

161
00:06:38,150 --> 00:06:36,000
specialist sandy magnus mission

162
00:06:40,309 --> 00:06:38,160
specialist colonel douglas hurley of the

163
00:06:41,990 --> 00:06:40,319

marines the pilot and to you christopher

164

00:06:44,629 --> 00:06:42,000

ferguson captain of the navy and mission

165

00:06:46,790 --> 00:06:44,639

commander i know that we here at good

166

00:06:49,350 --> 00:06:46,800

morning america joined with all of us

167

00:07:06,070 --> 00:06:49,360

watching at home in wishing you and

168

00:07:10,469 --> 00:07:08,070

atlantis iss

169

00:07:13,110 --> 00:07:10,479

this is houston acr that concludes the

170

00:07:14,550 --> 00:07:13,120

abc news portion of the event

171

00:07:28,830 --> 00:07:14,560

please stand by

172

00:07:35,749 --> 00:07:31,990

okay atlantis this is cbs news how do

173

00:07:41,830 --> 00:07:38,629

we have your latin players cbs

174

00:07:43,189 --> 00:07:41,840

uh fantastic fantastic

175

00:07:45,670 --> 00:07:43,199

we should be ready to go in just one

176

00:07:55,029 --> 00:07:45,680

second okay

177

00:07:58,390 --> 00:07:56,710

first the shuttle atlantis left the

178

00:08:00,950 --> 00:07:58,400

international space station for the last

179

00:08:02,950 --> 00:08:00,960

time tuesday and is now heading home as

180

00:08:05,189 --> 00:08:02,960

the 30-year long u.s shuttle program

181

00:08:06,869 --> 00:08:05,199

comes to a bittersweet end atlantis is

182

00:08:09,110 --> 00:08:06,879

scheduled to land in florida tomorrow

183

00:08:10,710 --> 00:08:09,120

morning just before 6 eastern time and

184

00:08:12,309 --> 00:08:10,720

joining us from space this morning is

185

00:08:14,790 --> 00:08:12,319

the crew of atlantis commander chris

186

00:08:16,950 --> 00:08:14,800

ferguson pilot doug hurley and mission

187

00:08:18,950 --> 00:08:16,960

specialist sandy magnus and rex walheim

188

00:08:20,710 --> 00:08:18,960

good morning to all of you this is a

189

00:08:24,869 --> 00:08:20,720

real treat for all of us here at cbs

190

00:08:28,390 --> 00:08:27,029

hey good morning to you cbs it's always

191

00:08:30,469 --> 00:08:28,400

a treat for us to be able to share just

192

00:08:33,589 --> 00:08:30,479

a little piece of the of the excitement

193

00:08:37,509 --> 00:08:35,190

commander ferguson let me ask you this

194

00:08:39,670 --> 00:08:37,519

first question this is a historic final

195

00:08:41,190 --> 00:08:39,680

journey home how has this mission been

196

00:08:43,029 --> 00:08:41,200

how bittersweet is it to know that

197

00:08:47,590 --> 00:08:43,039

you're coming home on the shuttle for

198

00:08:52,790 --> 00:08:49,910

well i'll tell you we have had just a an

199

00:08:54,550 --> 00:08:52,800

event filled and packed mission and

200

00:08:56,790 --> 00:08:54,560

you know what i kind of told everybody

201
00:08:59,030 --> 00:08:56,800
all along was that we were not going to

202
00:09:00,949 --> 00:08:59,040
fully appreciate the significance of the

203
00:09:02,870 --> 00:09:00,959
event until after the wheels had stopped

204
00:09:05,350 --> 00:09:02,880
and just yesterday in the mid deck i was

205
00:09:07,509 --> 00:09:05,360
talking to sandy about uh about the fact

206
00:09:09,350 --> 00:09:07,519
that yeah you know what i really do feel

207
00:09:11,910 --> 00:09:09,360
like it's coming near the end and i can

208
00:09:14,310 --> 00:09:11,920
almost sense uh that final wheel stop

209
00:09:15,670 --> 00:09:14,320
call and it's uh it's going to be tough

210
00:09:17,030 --> 00:09:15,680
it's going to be emotional moment for a

211
00:09:18,630 --> 00:09:17,040
lot of people who have dedicated their

212
00:09:20,310 --> 00:09:18,640
lives to the shuttle program for 30

213
00:09:21,590 --> 00:09:20,320

years but we're going to try to keep it

214

00:09:22,790 --> 00:09:21,600

upbeat we're going to try to keep it

215

00:09:24,949 --> 00:09:22,800

light we're going to try to make it a

216

00:09:26,949 --> 00:09:24,959

celebration of what of the tremendous

217

00:09:29,110 --> 00:09:26,959

crowning achievements that occurred over

218

00:09:31,350 --> 00:09:29,120

the last 30 years with the tremendous

219

00:09:33,110 --> 00:09:31,360

satellites have been deployed

220

00:09:34,550 --> 00:09:33,120

from the shuttle and of course the

221

00:09:37,110 --> 00:09:34,560

construction of the international space

222

00:09:42,389 --> 00:09:37,120

station

223

00:09:45,670 --> 00:09:43,990

well no mission is successful until

224

00:09:47,590 --> 00:09:45,680

you're finally on the ground i would

225

00:09:49,269 --> 00:09:47,600

have to say that up to this point it's

226

00:09:51,990 --> 00:09:49,279

been highly successful

227

00:09:54,870 --> 00:09:52,000

sandy rex doug every one of them uh you

228

00:09:57,269 --> 00:09:54,880

know we all put forth 110 we got about

229

00:09:59,430 --> 00:09:57,279

20 000 pounds of cargo transferred into

230

00:10:01,509 --> 00:09:59,440

and back out of the space station again

231

00:10:03,190 --> 00:10:01,519

uh we uh we have them all set they're

232

00:10:04,710 --> 00:10:03,200

they're in a good posture to wait for

233

00:10:06,949 --> 00:10:04,720

about a year until our commercial

234

00:10:08,949 --> 00:10:06,959

partners come on board and begin uh

235

00:10:12,389 --> 00:10:08,959

begin the resupply uh mission that the

236

00:10:15,750 --> 00:10:14,230

exactly the future of the space program

237

00:10:17,269 --> 00:10:15,760

right now i know everyone knows that the

238

00:10:19,350 --> 00:10:17,279

shuttle program is coming to an end

239

00:10:22,310 --> 00:10:19,360

after 30 years there is no vehicle that

240

00:10:23,990 --> 00:10:22,320

is ready to go right now where where is

241

00:10:29,030 --> 00:10:24,000

the future of the space program for the

242

00:10:31,990 --> 00:10:30,389

well the future is bright we're in a

243

00:10:33,990 --> 00:10:32,000

kind of a transition period which is a

244

00:10:35,269 --> 00:10:34,000

little bit uncomfortable as usual but

245

00:10:36,870 --> 00:10:35,279

what we're going to be doing is handing

246

00:10:38,710 --> 00:10:36,880

over the access to low earth orbit

247

00:10:40,069 --> 00:10:38,720

getting to the space station to and from

248

00:10:41,509 --> 00:10:40,079

to commercial providers who are going to

249

00:10:43,910 --> 00:10:41,519

build rockets and will get us to and

250

00:10:46,470 --> 00:10:43,920

from the space station that will free up

251
00:10:48,389 --> 00:10:46,480
nasa to do the heavy lifting of the

252
00:10:49,910 --> 00:10:48,399
beyond low earth orbit flights to go to

253
00:10:51,990 --> 00:10:49,920
places we haven't been for a long time

254
00:10:54,069 --> 00:10:52,000
or ever like the moon asteroid or maybe

255
00:10:55,190 --> 00:10:54,079
mars so it's a kind of a two-pronged

256
00:10:56,550 --> 00:10:55,200
effort and

257
00:10:58,389 --> 00:10:56,560
while we get to this transition part

258
00:11:00,310 --> 00:10:58,399
it'll be hard uh but we'll get there and

259
00:11:03,990 --> 00:11:00,320
we'll be going farther and farther and

260
00:11:06,790 --> 00:11:05,509
how's it been to just have four of you

261
00:11:08,310 --> 00:11:06,800
there i know normally the missions

262
00:11:10,069 --> 00:11:08,320
usually have more astronauts on board

263
00:11:11,750 --> 00:11:10,079

but it's just been four of you have you

264

00:11:16,949 --> 00:11:11,760

had a chance to really bond up there

265

00:11:21,590 --> 00:11:19,509

oh i i think definitely uh

266

00:11:24,230 --> 00:11:21,600

you know we we've had to just

267

00:11:25,750 --> 00:11:24,240

work so closely together and be so well

268

00:11:27,750 --> 00:11:25,760

coordinated because you know your

269

00:11:30,150 --> 00:11:27,760

typical shuttle mission there's six or

270

00:11:31,670 --> 00:11:30,160

seven folks so you tend to be working

271

00:11:33,190 --> 00:11:31,680

more with another person and there's

272

00:11:35,670 --> 00:11:33,200

been a lot of times where we've just had

273

00:11:38,230 --> 00:11:35,680

to depend on the other person to cover

274

00:11:40,389 --> 00:11:38,240

a separate task uh and

275

00:11:43,670 --> 00:11:40,399

you know i personally didn't i don't

276

00:11:46,230 --> 00:11:43,680

think i fully appreciated how much more

277

00:11:48,230 --> 00:11:46,240

work we would have to do with only four

278

00:11:49,190 --> 00:11:48,240

by six or seven so

279

00:11:50,629 --> 00:11:49,200

uh

280

00:11:53,910 --> 00:11:50,639

it's been a little bit of an eye opener

281

00:11:55,750 --> 00:11:53,920

because we we really have been uh just

282

00:11:58,230 --> 00:11:55,760

stretching it working very hard every

283

00:12:01,509 --> 00:11:59,750

sandy if i could just pose this last

284

00:12:03,269 --> 00:12:01,519

question to you what's your message to

285

00:12:05,110 --> 00:12:03,279

all those people the thousands of people

286

00:12:07,430 --> 00:12:05,120

over the years that have been such an

287

00:12:09,190 --> 00:12:07,440

instrumental part of the shuttle program

288

00:12:13,269 --> 00:12:09,200

as you now say goodbye to this program

289

00:12:16,550 --> 00:12:14,790

well you know really the heart and soul

290

00:12:18,230 --> 00:12:16,560

of the space program is the people that

291

00:12:19,509 --> 00:12:18,240

work in the space program it's a group

292

00:12:21,590 --> 00:12:19,519

of people

293

00:12:24,230 --> 00:12:21,600

unlike any other

294

00:12:26,230 --> 00:12:24,240

field i guess because everyone's so

295

00:12:28,310 --> 00:12:26,240

passionate and so dedicated they work so

296

00:12:29,509 --> 00:12:28,320

hard they take it to heart and it's true

297

00:12:31,350 --> 00:12:29,519

of all the people that i've met in the

298

00:12:32,870 --> 00:12:31,360

united states who work

299

00:12:34,949 --> 00:12:32,880

in very aspects of the space program

300

00:12:36,790 --> 00:12:34,959

it's also true the people who i've met

301
00:12:38,069 --> 00:12:36,800
uh in other countries through my work

302
00:12:39,990 --> 00:12:38,079
with the international space station i

303
00:12:41,590 --> 00:12:40,000
mean there is a huge number of people

304
00:12:43,590 --> 00:12:41,600
worldwide who passionately believe in

305
00:12:45,829 --> 00:12:43,600
space flight who dedicate their lives to

306
00:12:47,590 --> 00:12:45,839
it and it's because of these people that

307
00:12:49,350 --> 00:12:47,600
the shuttle program was so successful

308
00:12:50,870 --> 00:12:49,360
for the last 30 years we were able to do

309
00:12:52,790 --> 00:12:50,880
the amazing things that we were able to

310
00:12:54,870 --> 00:12:52,800
do and it's because of these people that

311
00:12:56,629 --> 00:12:54,880
the international space station has been

312
00:12:59,829 --> 00:12:56,639
so successful and will continue to be

313
00:13:01,750 --> 00:12:59,839

successful and this same group of people

314

00:13:03,590 --> 00:13:01,760

will have will carry forward their

315

00:13:04,870 --> 00:13:03,600

momentum and eventually get us out of

316

00:13:06,710 --> 00:13:04,880

low earth orbit to these other

317

00:13:08,870 --> 00:13:06,720

destinations that rex was talking about

318

00:13:10,710 --> 00:13:08,880

earlier

319

00:13:12,389 --> 00:13:10,720

and before we say goodbye sandy just one

320

00:13:14,389 --> 00:13:12,399

final question to you has anyone been

321

00:13:16,389 --> 00:13:14,399

giving you a hard time the crew maybe

322

00:13:18,069 --> 00:13:16,399

through emails or any messages from

323

00:13:22,870 --> 00:13:18,079

mission control about your space here

324

00:13:26,310 --> 00:13:24,710

well you know usually for events like

325

00:13:28,310 --> 00:13:26,320

this i like to leave it out because of

326

00:13:29,910 --> 00:13:28,320

those stripes that we are indeed in zero

327

00:13:32,470 --> 00:13:29,920

gravity i mean these guys have kind of

328

00:13:34,230 --> 00:13:32,480

boring hair so it's not so fun but they

329

00:13:35,990 --> 00:13:34,240

do uh they do get give me trouble

330

00:13:39,269 --> 00:13:36,000

occasionally about the medusa-like

331

00:13:42,389 --> 00:13:40,710

well it's an interesting look that's for

332

00:13:44,230 --> 00:13:42,399

sure hey we wish you all the very very

333

00:13:45,590 --> 00:13:44,240

best and we thank you so much for taking

334

00:13:46,710 --> 00:13:45,600

the time and talking with us this has

335

00:13:48,230 --> 00:13:46,720

been a treat for all of us here and

336

00:13:50,790 --> 00:13:48,240

we're so proud of you and we wish you

337

00:13:53,829 --> 00:13:50,800

safe return to planet earth

338

00:13:53,839 --> 00:13:59,269

thank you so much

339

00:14:03,910 --> 00:14:01,750

atlantis this is houston acr that

340

00:14:06,389 --> 00:14:03,920

concludes the cbs news portion of the

341

00:14:08,710 --> 00:14:06,399

event please stand by for a voice check

342

00:14:10,710 --> 00:14:08,720

from cnn

343

00:14:13,030 --> 00:14:10,720

pop up there all right ally pay

344

00:14:15,430 --> 00:14:13,040

attention to this next story

345

00:14:16,710 --> 00:14:15,440

atlantis this is cnn how do you hear me

346

00:14:20,230 --> 00:14:16,720

we've got a story to tell you about

347

00:14:25,269 --> 00:14:22,629

yes the toilet

348

00:14:26,230 --> 00:14:25,279

fantastic your anchor will be ali velshi

349

00:14:28,389 --> 00:14:26,240

ali

350

00:14:30,550 --> 00:14:28,399

this is a live to air

351

00:14:32,949 --> 00:14:30,560

interview um so stand by i'll give you

352

00:14:34,310 --> 00:14:32,959

an update as to how far we are away 200

353

00:14:36,790 --> 00:14:34,320

years and they say it's important

354

00:14:38,550 --> 00:14:36,800

because people in other uh parts of the

355

00:14:39,829 --> 00:14:38,560

world can't really afford uh the

356

00:14:41,509 --> 00:14:39,839

porcelain

357

00:14:42,949 --> 00:14:41,519

uh and the thinking here is that it is

358

00:14:45,590 --> 00:14:42,959

it has actually done more for health and

359

00:14:47,430 --> 00:14:45,600

hygiene to the toilet than anything else

360

00:14:49,110 --> 00:14:47,440

so let's find a new one that even goes

361

00:14:50,470 --> 00:14:49,120

further and becomes more affordable good

362

00:14:51,829 --> 00:14:50,480

story you're usually not a potty mouth

363

00:14:53,269 --> 00:14:51,839

but that was a good occasion to be one

364

00:14:54,550 --> 00:14:53,279

jackie jarrus in the weather center

365

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

we'll check in with you a little later

366

00:14:58,550 --> 00:14:56,480

on hey the astronauts aboard the space

367

00:15:00,470 --> 00:14:58,560

shuttle atlantis are orbiting hundreds

368

00:15:01,829 --> 00:15:00,480

of miles above earth right now and

369

00:15:04,230 --> 00:15:01,839

coming up in three minutes we're going

370

00:15:06,389 --> 00:15:04,240

to talk to them live right here on cnn

371

00:15:07,990 --> 00:15:06,399

there they are standing by but first the

372

00:15:10,069 --> 00:15:08,000

quote of the day is from one of our

373

00:15:12,470 --> 00:15:10,079

congressmen can you guess which one said

374

00:15:14,870 --> 00:15:12,480

this quote you are the most vile

375

00:15:16,629 --> 00:15:14,880

unprofessional and despicable member of

376

00:15:18,389 --> 00:15:16,639

the u.s house of representatives you

377

00:15:20,870 --> 00:15:18,399

have something to say to me stop being a

378

00:15:22,629 --> 00:15:20,880

coward and say it to my face otherwise

379

00:15:24,470 --> 00:15:22,639

shut the heck up see who was talking

380

00:15:33,110 --> 00:15:24,480

about that right after this break it's

381

00:15:35,829 --> 00:15:34,629

okay atlantis we're in our commercial

382

00:15:41,110 --> 00:15:35,839

break

383

00:15:41,120 --> 00:16:56,870

okay we copy

384

00:16:56,880 --> 00:17:03,189

atlantis is cnn two minutes away

385

00:17:03,199 --> 00:17:51,270

copy

386

00:17:51,280 --> 00:18:16,150

atlanta's about one minute back

387

00:18:16,160 --> 00:18:42,070

about 15 seconds to your lead in

388

00:18:45,750 --> 00:18:43,990

30 years ago the first space shuttle

389

00:18:47,830 --> 00:18:45,760

launched into space this year the

390

00:18:49,909 --> 00:18:47,840

shuttle era ends let's take a look at

391

00:18:51,909 --> 00:18:49,919

the world's first reusable space vehicle

392

00:18:53,990 --> 00:18:51,919

the space shuttle system has got three

393

00:18:56,549 --> 00:18:54,000

main parts the orbiter that one there

394

00:18:59,990 --> 00:18:56,559

holds the crew and payload the huge

395

00:19:02,310 --> 00:19:00,000

orange external tank holds fuel and the

396

00:19:03,750 --> 00:19:02,320

two solid rocket boosters those things

397

00:19:05,350 --> 00:19:03,760

on the side provide most of the

398

00:19:06,630 --> 00:19:05,360

shuttle's liftoff

399

00:19:08,549 --> 00:19:06,640

lift during the first two minutes of

400

00:19:10,789 --> 00:19:08,559

flight now all the components are usable

401
00:19:13,430 --> 00:19:10,799
they're reusable except the big orange

402
00:19:16,070 --> 00:19:13,440
tank it burns up in the atmosphere after

403
00:19:17,990 --> 00:19:16,080
each launch now fully loaded the shuttle

404
00:19:19,430 --> 00:19:18,000
system weighs about four and a half

405
00:19:20,789 --> 00:19:19,440
million pounds

406
00:19:23,270 --> 00:19:20,799
for those of you who are counting that's

407
00:19:25,190 --> 00:19:23,280
about 300 elephants columbia challenger

408
00:19:27,510 --> 00:19:25,200
discovery atlantis and endeavor have

409
00:19:29,430 --> 00:19:27,520
taken 130 flights in total into the

410
00:19:32,150 --> 00:19:29,440
final frontier they carried more than

411
00:19:34,950 --> 00:19:32,160
350 people into space the shuttles have

412
00:19:36,470 --> 00:19:34,960
traveled more than half a billion miles

413
00:19:38,950 --> 00:19:36,480

more than enough to get to the planet

414

00:19:39,830 --> 00:19:38,960

jupiter

415

00:19:40,710 --> 00:19:39,840

2

416

00:19:43,830 --> 00:19:40,720

1

417

00:19:46,150 --> 00:19:43,840

0 and lift off the final liftoff of

418

00:19:50,390 --> 00:19:46,160

atlantis on the shoulders of the space

419

00:19:52,230 --> 00:19:50,400

shuttle america will continue the dream

420

00:19:54,310 --> 00:19:52,240

that was that stirring moment on july

421

00:19:56,310 --> 00:19:54,320

8th uh at the kennedy space center the

422

00:19:58,710 --> 00:19:56,320

final shuttle mission uh that took off

423

00:20:00,870 --> 00:19:58,720

that day is wrapping up now it began on

424

00:20:02,549 --> 00:20:00,880

july 8th with that incredible launch of

425

00:20:04,710 --> 00:20:02,559

the space shuttle atlantis there you see

426
00:20:06,149 --> 00:20:04,720
it heading toward the clouds just about

427
00:20:07,350 --> 00:20:06,159
to go through a cloudy day there were

428
00:20:09,510 --> 00:20:07,360
some questions as to whether it was

429
00:20:11,909 --> 00:20:09,520
going to take off but it did

430
00:20:14,390 --> 00:20:11,919
an historic uh takeoff that was watched

431
00:20:16,149 --> 00:20:14,400
by over a million people in person never

432
00:20:18,310 --> 00:20:16,159
mind those watching it on tv commander

433
00:20:20,710 --> 00:20:18,320
chris ferguson pilot doug hurley mission

434
00:20:22,870 --> 00:20:20,720
specialist rex walheim and sandy magnus

435
00:20:24,870 --> 00:20:22,880
have begun well they've been in space

436
00:20:27,270 --> 00:20:24,880
ever since that day they're still there

437
00:20:29,830 --> 00:20:27,280
there they are right now the shuttle is

438
00:20:32,070 --> 00:20:29,840

flying above the atlantic ocean those

439

00:20:33,830 --> 00:20:32,080

astronauts join us live from space where

440

00:20:36,549 --> 00:20:33,840

they're prepping for tomorrow morning's

441

00:20:38,470 --> 00:20:36,559

landing 24 hours from now

442

00:20:40,789 --> 00:20:38,480

thanks to all of you so much for joining

443

00:20:42,870 --> 00:20:40,799

us this is the last time the shuttle

444

00:20:45,190 --> 00:20:42,880

astronauts will ever be interviewed live

445

00:20:46,310 --> 00:20:45,200

on cnn let's start with chris ferguson

446

00:20:48,789 --> 00:20:46,320

the commander

447

00:20:50,470 --> 00:20:48,799

chris this is the last uh space shuttle

448

00:20:52,950 --> 00:20:50,480

mission when you think of all that's

449

00:20:55,350 --> 00:20:52,960

been done in space um and all that is

450

00:20:57,590 --> 00:20:55,360

being planned from here on it almost

451
00:21:04,230 --> 00:20:57,600
feels like you are going to be a veteran

452
00:21:08,310 --> 00:21:06,230
well first off uh hello allie it's uh

453
00:21:09,750 --> 00:21:08,320
it's great to speak with you here and

454
00:21:12,310 --> 00:21:09,760
welcome aboard the flight deck of the

455
00:21:13,590 --> 00:21:12,320
space shuttle atlantis on her final day

456
00:21:15,350 --> 00:21:13,600
in space

457
00:21:16,710 --> 00:21:15,360
you know i i don't i wouldn't say this

458
00:21:19,510 --> 00:21:16,720
is the end of the golden age it's

459
00:21:21,750 --> 00:21:19,520
certainly the end of perhaps a very uh

460
00:21:23,190 --> 00:21:21,760
specific age where just a select few can

461
00:21:25,270 --> 00:21:23,200
go into space i think that what we're

462
00:21:27,110 --> 00:21:25,280
going to see in the next few years is a

463
00:21:28,390 --> 00:21:27,120

very broadening horizon an opportunity

464

00:21:30,630 --> 00:21:28,400

for people who have never had an

465

00:21:32,950 --> 00:21:30,640

opportunity to go into space to at least

466

00:21:34,390 --> 00:21:32,960

get to low earth orbit and uh what we'll

467

00:21:36,549 --> 00:21:34,400

do is we'll turn over the reins of that

468

00:21:38,549 --> 00:21:36,559

business to our commercial partners and

469

00:21:40,149 --> 00:21:38,559

uh that'll enable nasa to take the

470

00:21:41,590 --> 00:21:40,159

resources we put into the shuttle and

471

00:21:45,830 --> 00:21:41,600

hopefully go beyond low earth orbit

472

00:21:51,029 --> 00:21:48,230

uh sandy magnus mission specialist uh

473

00:21:52,549 --> 00:21:51,039

you uh enjoy uh amongst other things

474

00:21:54,070 --> 00:21:52,559

that you do in space you enjoy cooking

475

00:21:55,510 --> 00:21:54,080

you've been known to uh cook up some

476
00:21:57,990 --> 00:21:55,520
special treats i know you made christmas

477
00:21:59,909 --> 00:21:58,000
cookies once and you made salsa for the

478
00:22:04,310 --> 00:21:59,919
super bowl you got anything planned for

479
00:22:07,669 --> 00:22:06,070
um i don't have anything planned but i

480
00:22:09,270 --> 00:22:07,679
may end up surprising the guys you know

481
00:22:10,870 --> 00:22:09,280
the problem with the tunnel missions are

482
00:22:13,190 --> 00:22:10,880
they're so busy and this one has been

483
00:22:15,510 --> 00:22:13,200
incredibly busy i haven't had time

484
00:22:17,270 --> 00:22:15,520
to do much space cooking but i did give

485
00:22:18,950 --> 00:22:17,280
some tips to the space station guys so

486
00:22:22,950 --> 00:22:18,960
if they had some time they could try a

487
00:22:25,990 --> 00:22:24,549
uh chris ferguson uh we're gonna be

488
00:22:27,909 --> 00:22:26,000

watching you very closely one of the

489

00:22:29,990 --> 00:22:27,919

cities i i spend my time in and live in

490

00:22:31,909 --> 00:22:30,000

is philadelphia you're a local uh from

491

00:22:33,750 --> 00:22:31,919

that uh area what do you got to say to

492

00:22:35,029 --> 00:22:33,760

the folks down on earth who are going to

493

00:22:39,190 --> 00:22:35,039

be watching you bring that thing in

494

00:22:43,110 --> 00:22:41,750

oh well you know i i guess uh what i

495

00:22:45,029 --> 00:22:43,120

said to the folks when they left mission

496

00:22:47,510 --> 00:22:45,039

control uh one of our orbit ships we

497

00:22:50,230 --> 00:22:47,520

spoke to them for the last time uh

498

00:22:51,510 --> 00:22:50,240

from orbit yesterday and i said i said

499

00:22:53,270 --> 00:22:51,520

to them as they walked out of the room

500

00:22:55,029 --> 00:22:53,280

to look up and make a memory and and

501
00:22:56,789 --> 00:22:55,039
i'll say that to everybody who has an

502
00:22:59,270 --> 00:22:56,799
opportunity to perhaps see the landing

503
00:23:00,950 --> 00:22:59,280
real time or see the uh see the shuttle

504
00:23:02,230 --> 00:23:00,960
on the runway is take a good look at it

505
00:23:03,510 --> 00:23:02,240
and make a memory because you're never

506
00:23:07,590 --> 00:23:03,520
going to see anything like this again

507
00:23:10,789 --> 00:23:09,510
uh rex how you feeling about this uh you

508
00:23:12,149 --> 00:23:10,799
guys are gonna land i mean normally

509
00:23:14,230 --> 00:23:12,159
there's a sort of a camaraderie there's

510
00:23:16,390 --> 00:23:14,240
a club of people who uh who have taken

511
00:23:18,070 --> 00:23:16,400
who've flown on the space shuttle that

512
00:23:23,110 --> 00:23:18,080
sort of club closes tomorrow what's your

513
00:23:26,149 --> 00:23:24,870

well i think it's uh it is historic in

514

00:23:28,470 --> 00:23:26,159

that nature but i think it's going to

515

00:23:30,070 --> 00:23:28,480

open up in a new era of space flight

516

00:23:31,750 --> 00:23:30,080

because right now there have been a

517

00:23:33,270 --> 00:23:31,760

tremendous amount of people who've flown

518

00:23:35,350 --> 00:23:33,280

space in the shuttle the vast majority

519

00:23:37,590 --> 00:23:35,360

that have ever flown in space we want to

520

00:23:39,430 --> 00:23:37,600

take that next step get access to earth

521

00:23:41,029 --> 00:23:39,440

orbit low earth orbit cheaper and more

522

00:23:43,029 --> 00:23:41,039

frequent and we can do that by

523

00:23:45,510 --> 00:23:43,039

partnering with our commercial partners

524

00:23:47,430 --> 00:23:45,520

and then that can allow nasa to really

525

00:23:48,710 --> 00:23:47,440

focus on the exploration going beyond

526

00:23:51,430 --> 00:23:48,720

low earthquake going to the harder

527

00:23:53,190 --> 00:23:51,440

destinations asteroids the moon or mars

528

00:23:55,190 --> 00:23:53,200

and i think it's going to be a an

529

00:23:56,630 --> 00:23:55,200

extremely enjoyable extremely exciting

530

00:23:58,149 --> 00:23:56,640

time for nasa it's just we have to get

531

00:23:59,990 --> 00:23:58,159

through this transition transitions are

532

00:24:01,830 --> 00:24:00,000

always hard but we'll get through it and

533

00:24:04,789 --> 00:24:01,840

we'll uh we'll be having a better

534

00:24:05,750 --> 00:24:04,799

tomorrow

535

00:24:07,669 --> 00:24:05,760

well the whole world's going to be

536

00:24:09,669 --> 00:24:07,679

watching uh when you all land tomorrow

537

00:24:11,029 --> 00:24:09,679

as you approach uh for the final time

538

00:24:12,310 --> 00:24:11,039

the landing of the space shuttle

539

00:24:14,950 --> 00:24:12,320

atlantis good luck to all of you

540

00:24:16,710 --> 00:24:14,960

godspeed uh have a safe next 24 hours

541

00:24:19,510 --> 00:24:16,720

rex walheim mission specialist sandy

542

00:24:22,310 --> 00:24:19,520

magnus mission specialist chris ferguson

543

00:24:23,909 --> 00:24:22,320

uh the the commander and doug hurley uh

544

00:24:25,750 --> 00:24:23,919

the pilot thanks to all of you and we

545

00:24:28,070 --> 00:24:25,760

look forward to watching this before cnn

546

00:24:30,230 --> 00:24:28,080

we'll cover it live uh tomorrow morning

547

00:24:37,669 --> 00:24:30,240

coming up on american morning at 8 10

548

00:24:42,149 --> 00:24:39,750

atlantis this is houston acr that

549

00:24:44,310 --> 00:24:42,159

concludes the cnn portion of the event

550

00:24:51,110 --> 00:24:44,320

please stand by for a voice check from

551
00:24:57,750 --> 00:24:53,750
atlantis this is fox news how do you

552
00:25:03,430 --> 00:25:00,070
hey uh welcome aboard and this is flight

553
00:25:07,990 --> 00:25:05,590
terrific my name is bill hemmer and it

554
00:25:09,750 --> 00:25:08,000
is an honor to spend the next couple of

555
00:25:11,549 --> 00:25:09,760
minutes with you i was

556
00:25:14,870 --> 00:25:11,559
there for the liftoff of

557
00:25:16,470 --> 00:25:14,880
sts-134 it was the shortest mission

558
00:25:18,710 --> 00:25:16,480
visible

559
00:25:20,470 --> 00:25:18,720
on earth before the shuttle disappeared

560
00:25:22,310 --> 00:25:20,480
into the clouds after about a total of

561
00:25:24,789 --> 00:25:22,320
12 seconds

562
00:25:27,269 --> 00:25:24,799
but 135 was a beautiful liftoff and

563
00:25:29,590 --> 00:25:27,279

congratulations to you as you wind down

564

00:25:32,230 --> 00:25:29,600

this mission okay here we go guys here

565

00:25:34,789 --> 00:25:32,240

are my questions to you i i've got four

566

00:25:36,310 --> 00:25:34,799

specific questions i'm gonna go

567

00:25:37,990 --> 00:25:36,320

uh in a bit of a different order i'm

568

00:25:40,549 --> 00:25:38,000

gonna start with the pilot doug hurley

569

00:25:43,430 --> 00:25:40,559

on this here we go three two and one

570

00:25:46,789 --> 00:25:43,440

astronaut mike fossum tweeted from space

571

00:25:49,350 --> 00:25:46,799

only a few hours ago a beautiful picture

572

00:25:51,510 --> 00:25:49,360

and he said this on his tweet when will

573

00:25:53,590 --> 00:25:51,520

such a beautiful ship dock again to the

574

00:25:55,750 --> 00:25:53,600

international space station

575

00:25:57,269 --> 00:25:55,760

and i think that's what you and so many

576

00:25:59,669 --> 00:25:57,279

people down here in america are

577

00:26:01,669 --> 00:25:59,679

wondering and i uh to pilot hurley you

578

00:26:04,230 --> 00:26:01,679

were driving at the time

579

00:26:10,070 --> 00:26:04,240

what was that separation like knowing it

580

00:26:13,750 --> 00:26:11,190

was uh

581

00:26:17,190 --> 00:26:13,760

just unbelievably breathtaking as we

582

00:26:19,190 --> 00:26:17,200

backed away from the iss yesterday um

583

00:26:21,909 --> 00:26:19,200

you know they planted such that we get

584

00:26:24,870 --> 00:26:21,919

we get out to about 600 feet as the sun

585

00:26:27,190 --> 00:26:24,880

rises uh behind us so it lights up the

586

00:26:28,710 --> 00:26:27,200

arrays first and then lights up the rest

587

00:26:29,750 --> 00:26:28,720

of the space station it was just

588

00:26:32,070 --> 00:26:29,760

beautiful

589

00:26:33,669 --> 00:26:32,080

and we really enjoyed uh

590

00:26:35,190 --> 00:26:33,679

you know one last lap around the

591

00:26:38,390 --> 00:26:35,200

international space station before we

592

00:26:40,470 --> 00:26:38,400

started heading home

593

00:26:43,269 --> 00:26:40,480

well it it is such a structure that has

594

00:26:45,110 --> 00:26:43,279

been built over their past decade and um

595

00:26:47,750 --> 00:26:45,120

really remarkable accomplishment for

596

00:26:49,430 --> 00:26:47,760

nasa and really the friends of nasa from

597

00:26:52,149 --> 00:26:49,440

all over the world the shuttle commander

598

00:26:53,830 --> 00:26:52,159

chris ferguson gene cernan is a man you

599

00:26:56,470 --> 00:26:53,840

know he was the last one to walk on the

600

00:26:58,310 --> 00:26:56,480

moon 39 years ago

601
00:27:00,149 --> 00:26:58,320
he wrote a piece that's out this morning

602
00:27:03,830 --> 00:27:00,159
he said if we don't watch where we are

603
00:27:06,789 --> 00:27:03,840
going we will end up where we are headed

604
00:27:09,110 --> 00:27:06,799
now what do you think about the united

605
00:27:11,590 --> 00:27:09,120
states relying on the russians

606
00:27:17,350 --> 00:27:11,600
for at least five years to get back in

607
00:27:20,950 --> 00:27:19,029
well you know first off let me say that

608
00:27:23,110 --> 00:27:20,960
the russians have been just incredible

609
00:27:25,269 --> 00:27:23,120
partners with us in space um you know

610
00:27:27,669 --> 00:27:25,279
you recall the columbia tragedy back in

611
00:27:29,350 --> 00:27:27,679
2003 if it weren't for our partners

612
00:27:30,549 --> 00:27:29,360
there we would have had to demand the

613
00:27:32,230 --> 00:27:30,559

space station which is certainly

614

00:27:34,389 --> 00:27:32,240

something we didn't want to do

615

00:27:36,630 --> 00:27:34,399

so uh they're they're great reliable

616

00:27:38,870 --> 00:27:36,640

partners now should we be dependent upon

617

00:27:40,710 --> 00:27:38,880

them no i don't think it's necessarily a

618

00:27:42,549 --> 00:27:40,720

case of us or them i really think that

619

00:27:44,070 --> 00:27:42,559

we need a redundant way we need two

620

00:27:47,190 --> 00:27:44,080

different ways to get people to low

621

00:27:49,430 --> 00:27:47,200

earth orbit and uh you know it's uh it's

622

00:27:51,750 --> 00:27:49,440

uh there's certainly a gap here and i

623

00:27:53,430 --> 00:27:51,760

have no particular issue with relying on

624

00:27:55,510 --> 00:27:53,440

partners because that's what partners

625

00:27:57,350 --> 00:27:55,520

are for to help you through perhaps a

626
00:27:59,909 --> 00:27:57,360
time where you need to pull back and

627
00:28:01,590 --> 00:27:59,919
regroup so uh you know it's it's a short

628
00:28:04,149 --> 00:28:01,600
hiatus but i'm very confident our

629
00:28:05,830 --> 00:28:04,159
commercial partners we've seen spacex

630
00:28:08,549 --> 00:28:05,840
already launch an orbital vehicle and

631
00:28:10,149 --> 00:28:08,559
recover it safely in the pacific ocean

632
00:28:12,149 --> 00:28:10,159
and there are other commercial partners

633
00:28:13,750 --> 00:28:12,159
that are not too far behind so uh it'll

634
00:28:16,070 --> 00:28:13,760
be a few years

635
00:28:17,750 --> 00:28:16,080
you know i'm a little uneasy with just a

636
00:28:19,830 --> 00:28:17,760
single string to orbit if you would in

637
00:28:21,590 --> 00:28:19,840
other words just one way to do it but

638
00:28:23,269 --> 00:28:21,600

we'll recover from this and we'll use

639

00:28:26,630 --> 00:28:23,279

the resources that were devoted to the

640

00:28:31,909 --> 00:28:29,350

yeah you think about that gap 25 years

641

00:28:33,990 --> 00:28:31,919

ago ronald reagan invited the friends

642

00:28:37,430 --> 00:28:34,000

and allies of the united states

643

00:28:39,510 --> 00:28:37,440

to join the u.s in in its space program

644

00:28:40,950 --> 00:28:39,520

and the result was that beautiful

645

00:28:43,590 --> 00:28:40,960

structure you left behind the

646

00:28:46,549 --> 00:28:43,600

international space station

647

00:28:47,830 --> 00:28:46,559

to specialist uh sandy magnus then on

648

00:28:51,350 --> 00:28:47,840

this question

649

00:28:57,430 --> 00:28:51,360

what does president obama need to do

650

00:29:02,549 --> 00:29:00,389

well stage i think we need a long-term

651
00:29:04,950 --> 00:29:02,559
space plan you know space flight is a

652
00:29:07,269 --> 00:29:04,960
very complicated business and it takes

653
00:29:09,190 --> 00:29:07,279
plans that last longer than two or three

654
00:29:11,590 --> 00:29:09,200
or four years we need a decades-long

655
00:29:14,310 --> 00:29:11,600
plan and we need to stay focused on that

656
00:29:17,350 --> 00:29:14,320
plan and we need to execute that plan um

657
00:29:19,269 --> 00:29:17,360
it's not it's not something you know

658
00:29:21,510 --> 00:29:19,279
doing operations in space and developing

659
00:29:23,029 --> 00:29:21,520
vehicles that operate in space requires

660
00:29:24,630 --> 00:29:23,039
that sort of long-term thinking

661
00:29:26,070 --> 00:29:24,640
long-term planning and long-term

662
00:29:29,590 --> 00:29:26,080
commitment so that's certainly a good

663
00:29:34,549 --> 00:29:31,990

um i hope you're right specialist rex

664

00:29:36,549 --> 00:29:34,559

walheim gets the toughest question today

665

00:29:38,389 --> 00:29:36,559

what was the best wake-up song elton

666

00:29:43,029 --> 00:29:38,399

john paul mccartney or michael stite

667

00:29:48,710 --> 00:29:45,669

uh they were all obviously just amazing

668

00:29:50,549 --> 00:29:48,720

and uh it uh it was uh quite a treat to

669

00:29:52,950 --> 00:29:50,559

sit there and uh in the dark of the

670

00:29:54,789 --> 00:29:52,960

space of mid deck to listen to bits of

671

00:29:56,549 --> 00:29:54,799

fog and then even more important in the

672

00:29:59,510 --> 00:29:56,559

song was the personal greetings that

673

00:30:01,110 --> 00:29:59,520

those fantastic artists took time out to

674

00:30:02,870 --> 00:30:01,120

say good morning to us it just meant the

675

00:30:05,590 --> 00:30:02,880

world to us so uh they were all

676

00:30:09,750 --> 00:30:07,750

i betta do thank you for your time come

677

00:30:13,830 --> 00:30:09,760

on home safely okay god bless you all

678

00:30:22,470 --> 00:30:13,840

and god bless america thanks today

679

00:30:27,190 --> 00:30:25,029

this is houston acr that concludes the

680

00:30:35,990 --> 00:30:27,200

fox news portion of the event please

681

00:30:43,350 --> 00:30:38,070

atlantis this is nbc news washington do

682

00:30:46,950 --> 00:30:45,510

hello nbc we have you loud and clear on

683

00:30:48,870 --> 00:30:46,960

the flight deck of the space shuttle

684

00:30:51,029 --> 00:30:48,880

atlantis

685

00:30:52,630 --> 00:30:51,039

well it's nice to see all of you last

686

00:30:54,230 --> 00:30:52,640

time we talked we were in houston and

687

00:30:57,430 --> 00:30:54,240

you guys were preparing for this mission

688

00:30:59,830 --> 00:30:57,440

this is tom costello um grant ferguson

689

00:31:01,830 --> 00:30:59,840

let me ask you first on that day back in

690

00:31:03,830 --> 00:31:01,840

houston you said to me that when you

691

00:31:05,669 --> 00:31:03,840

pull away from the space station that's

692

00:31:07,830 --> 00:31:05,679

when this is really going to hit you

693

00:31:10,389 --> 00:31:07,840

it's really going to resonate your

694

00:31:12,470 --> 00:31:10,399

thoughts uh on having pulled away now

695

00:31:14,149 --> 00:31:12,480

from the space station for the last time

696

00:31:16,870 --> 00:31:14,159

you're on the last day of the last

697

00:31:18,870 --> 00:31:16,880

mission for the shuttle um your thoughts

698

00:31:23,029 --> 00:31:18,880

on what all this means for for you and

699

00:31:26,149 --> 00:31:25,029

you know uh tom it's uh funny we were

700

00:31:28,710 --> 00:31:26,159

discussing this just a little bit

701
00:31:30,389 --> 00:31:28,720
earlier uh with uh with sandy down in

702
00:31:32,549 --> 00:31:30,399
the mid deck and i looked at her and i

703
00:31:35,190 --> 00:31:32,559
said gosh you know sandy it feels like

704
00:31:36,789 --> 00:31:35,200
it's really about to end and uh for uh

705
00:31:38,950 --> 00:31:36,799
for certainly our nine-month training

706
00:31:40,710 --> 00:31:38,960
flow and the first hectic twelve days of

707
00:31:42,630 --> 00:31:40,720
our mission we didn't think we would

708
00:31:44,149 --> 00:31:42,640
ever see the end but now we're beginning

709
00:31:46,630 --> 00:31:44,159
to i guess see the light at the end of

710
00:31:47,909 --> 00:31:46,640
the tunnel if you can call it a light

711
00:31:49,350 --> 00:31:47,919
but i'll tell you when you pull away

712
00:31:51,190 --> 00:31:49,360
from the space station it just makes you

713
00:31:53,430 --> 00:31:51,200

enormously proud that

714

00:31:54,870 --> 00:31:53,440

that not just our country but the global

715

00:31:56,710 --> 00:31:54,880

community can pull together the

716

00:31:59,509 --> 00:31:56,720

resources enough to construct that

717

00:32:01,269 --> 00:31:59,519

incredible vehicle in orbit so as the

718

00:32:03,590 --> 00:32:01,279

space shuttle does retire and we hate to

719

00:32:05,750 --> 00:32:03,600

see it go we know that it is living it's

720

00:32:07,990 --> 00:32:05,760

leaving an incredible lasting legacy and

721

00:32:09,509 --> 00:32:08,000

of that we're just extraordinarily proud

722

00:32:11,110 --> 00:32:09,519

and the space shuttle program should be

723

00:32:13,590 --> 00:32:11,120

extraordinarily proud of what is left

724

00:32:18,070 --> 00:32:15,430

sandy let me ask you to reflect on that

725

00:32:20,710 --> 00:32:18,080

as well uh you had some very poignant

726

00:32:22,870 --> 00:32:20,720

comments about america's role in space

727

00:32:24,470 --> 00:32:22,880

when we talked back in houston so

728

00:32:26,470 --> 00:32:24,480

as now you pull away from the space

729

00:32:28,549 --> 00:32:26,480

station you prepare for a landing uh

730

00:32:33,509 --> 00:32:28,559

your thoughts uh what have you reflected

731

00:32:38,070 --> 00:32:35,909

well as fergie said we've been really

732

00:32:40,470 --> 00:32:38,080

busy but when i was aboard the space

733

00:32:42,870 --> 00:32:40,480

station i stayed up a little late and

734

00:32:44,710 --> 00:32:42,880

spent some time in the cupola and just

735

00:32:47,110 --> 00:32:44,720

as as when i was living on the space

736

00:32:48,710 --> 00:32:47,120

station it's just it's amazing

737

00:32:50,470 --> 00:32:48,720

when you look at that orbiting

738

00:32:51,990 --> 00:32:50,480

laboratory and and think about all the

739

00:32:54,549 --> 00:32:52,000

people involved in buildings around the

740

00:32:57,190 --> 00:32:54,559

world and and our role

741

00:32:58,389 --> 00:32:57,200

in america is starting that program and

742

00:33:00,389 --> 00:32:58,399

getting everyone involved in that

743

00:33:02,149 --> 00:33:00,399

program and it just shows you what we

744

00:33:04,549 --> 00:33:02,159

can do we put our minds to it and focus

745

00:33:05,830 --> 00:33:04,559

our efforts and and commit and i think

746

00:33:07,990 --> 00:33:05,840

with that same

747

00:33:09,990 --> 00:33:08,000

amount of commitment that same amount of

748

00:33:11,909 --> 00:33:10,000

passion that same amount of enthusiasm

749

00:33:14,870 --> 00:33:11,919

we pretty much can do anything and and

750

00:33:16,230 --> 00:33:14,880

going to the moon or mars or an asteroid

751

00:33:17,990 --> 00:33:16,240

is certainly our next step and i

752

00:33:19,430 --> 00:33:18,000

anticipate we will be able to do that

753

00:33:22,870 --> 00:33:19,440

because of the people involved in the

754

00:33:27,110 --> 00:33:25,110

lex let me ask you you know through the

755

00:33:29,269 --> 00:33:27,120

miracle of technology i'm talking to you

756

00:33:32,630 --> 00:33:29,279

from a hotel room in orlando where i'm

757

00:33:34,950 --> 00:33:32,640

preparing for your landing but three and

758

00:33:36,950 --> 00:33:34,960

some of that it occurs to me the

759

00:33:39,029 --> 00:33:36,960

incredible technology as a result of

760

00:33:40,710 --> 00:33:39,039

what space has brought to america the

761

00:33:42,789 --> 00:33:40,720

the technological capability for

762

00:33:44,389 --> 00:33:42,799

communication whatever can you reflect

763

00:33:47,190 --> 00:33:44,399

back on what has shut what is the

764

00:33:49,350 --> 00:33:47,200

shuttle program done for america in

765

00:33:51,350 --> 00:33:49,360

terms of advancements in terms of

766

00:33:55,509 --> 00:33:51,360

technology and medicine and science and

767

00:33:59,750 --> 00:33:56,950

well it's the number one the first thing

768

00:34:01,350 --> 00:33:59,760

it is is a as a reusable spacecraft you

769

00:34:02,710 --> 00:34:01,360

just hadn't seen that before and there's

770

00:34:04,070 --> 00:34:02,720

really nothing like it and it's going to

771

00:34:07,029 --> 00:34:04,080

be a long time before you get something

772

00:34:09,589 --> 00:34:07,039

that is so complex so capable and yet

773

00:34:11,190 --> 00:34:09,599

reusable and then it gave us access to

774

00:34:13,030 --> 00:34:11,200

the low earth orbit on a somewhat

775

00:34:14,869 --> 00:34:13,040

routine basis and it allowed us to build

776

00:34:16,389 --> 00:34:14,879

the international space station as far

777

00:34:18,710 --> 00:34:16,399

as medical breakthroughs that's where

778

00:34:19,990 --> 00:34:18,720

the the real uh the real money is going

779

00:34:21,589 --> 00:34:20,000

to be here and so to speak is on the

780

00:34:23,030 --> 00:34:21,599

international space station we've now

781

00:34:24,550 --> 00:34:23,040

completed the international space

782

00:34:26,710 --> 00:34:24,560

station so now we can enter an area of

783

00:34:28,470 --> 00:34:26,720

utilization where we do that breaking

784

00:34:30,710 --> 00:34:28,480

that groundbreaking research where we

785

00:34:32,790 --> 00:34:30,720

can help uh find out how to make

786

00:34:34,550 --> 00:34:32,800

medicines target cancer better how to

787

00:34:37,190 --> 00:34:34,560

understand how the human body reacts to

788

00:34:38,950 --> 00:34:37,200

long times in space and also how to make

789

00:34:40,389 --> 00:34:38,960

an environmental system last for more

790

00:34:42,230 --> 00:34:40,399

than six months so we can take those

791

00:34:44,629 --> 00:34:42,240

long journeys to go up to the moon or to

792

00:34:46,230 --> 00:34:44,639

mars and so it's uh the space shuttle's

793

00:34:48,950 --> 00:34:46,240

enabled all that and it's done an

794

00:34:50,470 --> 00:34:48,960

absolutely magnificent job

795

00:34:52,389 --> 00:34:50,480

and doug currently when we were on the

796

00:34:54,869 --> 00:34:52,399

ground houston you talked specifically

797

00:34:56,950 --> 00:34:54,879

about how you wanted to pay tribute to

798

00:34:58,390 --> 00:34:56,960

all the hundreds of thousands of people

799

00:35:01,510 --> 00:34:58,400

who over the last 30 years have

800

00:35:03,109 --> 00:35:01,520

contributed to this to this program

801
00:35:05,190 --> 00:35:03,119
and given you the ability to be where

802
00:35:06,630 --> 00:35:05,200
you are right now so as you return as

803
00:35:09,190 --> 00:35:06,640
you prepare to return to the kennedy

804
00:35:10,950 --> 00:35:09,200
space center your thoughts on on all of

805
00:35:13,190 --> 00:35:10,960
those people and specifically the people

806
00:35:15,349 --> 00:35:13,200
on the ground now who are

807
00:35:17,349 --> 00:35:15,359
preparing for your landing and who many

808
00:35:21,910 --> 00:35:17,359
of whom may be out of a job within the

809
00:35:25,510 --> 00:35:24,069
yeah we we really uh

810
00:35:28,069 --> 00:35:25,520
you know we really just want to honor

811
00:35:29,670 --> 00:35:28,079
them and and we've done our best

812
00:35:32,390 --> 00:35:29,680
up to this time on the mission to do

813
00:35:33,910 --> 00:35:32,400

that and uh yeah we're we're very

814

00:35:35,990 --> 00:35:33,920

excited about seeing those folks

815

00:35:38,390 --> 00:35:36,000

especially the uh kennedy folks uh

816

00:35:40,150 --> 00:35:38,400

hopefully tomorrow morning and uh you

817

00:35:42,310 --> 00:35:40,160

know just try to share the memories of

818

00:35:43,670 --> 00:35:42,320

the mission with them and uh and and

819

00:35:47,030 --> 00:35:43,680

once again just

820

00:35:49,589 --> 00:35:47,040

convey how proud we are of them and what

821

00:35:51,910 --> 00:35:49,599

they've done over this 30-year program

822

00:35:53,349 --> 00:35:51,920

it it's just

823

00:35:55,270 --> 00:35:53,359

so inspiring

824

00:35:57,510 --> 00:35:55,280

to see the passion that all these folks

825

00:36:00,069 --> 00:35:57,520

have for space business

826
00:36:02,710 --> 00:36:00,079
and you know they put their careers into

827
00:36:04,150 --> 00:36:02,720
this business into the into this vehicle

828
00:36:06,069 --> 00:36:04,160
and uh you know

829
00:36:07,670 --> 00:36:06,079
we owe it to them to just honor what

830
00:36:09,430 --> 00:36:07,680
they've done and honor their

831
00:36:11,030 --> 00:36:09,440
accomplishments and

832
00:36:12,630 --> 00:36:11,040
you know we were we were just lucky

833
00:36:14,150 --> 00:36:12,640
enough to be the ones that got to fly it

834
00:36:17,750 --> 00:36:14,160
but you know they're the ones that

835
00:36:20,870 --> 00:36:19,270
i'll tell you what we'll wrap it up

836
00:36:23,430 --> 00:36:20,880
there it's been an honor to talk to you

837
00:36:24,870 --> 00:36:23,440
we wish you a tremendous success on your

838
00:36:26,550 --> 00:36:24,880

return visit we'll be on the ground

839

00:36:31,109 --> 00:36:26,560

waiting for you god speed and safe

840

00:36:31,119 --> 00:36:35,190

thanks tom

841

00:36:40,390 --> 00:36:38,230

atlantis this is houston acr on behalf

842

00:36:43,030 --> 00:36:40,400

of the audio control room the nasa

843

00:36:45,430 --> 00:36:43,040

television production team and the jsc

844

00:36:47,589 --> 00:36:45,440

public affairs office it's been an honor

845

00:36:49,430 --> 00:36:47,599

to serve with you over the years and on

846

00:36:50,550 --> 00:36:49,440

this last mission of the space shuttle

847

00:36:58,069 --> 00:36:50,560

program

848

00:37:01,270 --> 00:36:59,589

whenever we hear your voice we know

849

00:37:03,270 --> 00:37:01,280

we're in space and it makes us smile

850

00:37:05,190 --> 00:37:03,280

thanks so much for uh for helping us

851
00:37:07,109 --> 00:37:05,200
bring the word to everybody in america

852
00:37:08,150 --> 00:37:07,119
about what we're doing up here and we

853
00:37:09,750 --> 00:37:08,160
look forward to hearing your voice

854
00:37:11,750 --> 00:37:09,760
aboard the international space station

855
00:37:20,829 --> 00:37:11,760
and wherever we go beyond the space

856
00:37:25,270 --> 00:37:23,750
there thank you for that atlantis and

857
00:37:28,550 --> 00:37:25,280
mission control houston would also like

858
00:37:32,230 --> 00:37:28,560
to thank abc news cbs news

859
00:37:33,990 --> 00:37:32,240
cnn fox news and nbc news