



1  
00:00:00,000 --> 00:01:46,370

Oh

2  
00:02:01,350 --> 00:01:58,890

good morning discovery that's exactly

3  
00:02:03,990 --> 00:02:01,360

what we were going to say how about them

4  
00:02:44,920 --> 00:02:04,000

Indians and we knew that would wake you

5  
00:02:49,059 --> 00:02:47,559

this is Mission Control Houston wake-up

6  
00:02:51,429 --> 00:02:49,069

music today for the crew of discovery

7  
00:02:53,619 --> 00:02:51,439

was talkin tribe the song about the

8  
00:02:56,410 --> 00:02:53,629

Cleveland Indians who are about 15 games

9  
00:02:58,599 --> 00:02:56,420

ahead in their division at this point in

10  
00:03:00,309 --> 00:02:58,609

the major league baseball season four of

11  
00:03:02,110 --> 00:03:00,319

the members of the discovery crew are

12  
00:03:13,050 --> 00:03:02,120

from Ohio and taking a lot of pride in

13  
00:03:17,770 --> 00:03:14,950

discovery if you're not on the flight

14

00:03:21,510 --> 00:03:17,780

deck you've got a fantastic view of the

15

00:03:27,280 --> 00:03:21,520

Nile Delta the pyramids Cairo

16

00:04:15,650 --> 00:03:27,290

Suez Canal coming up you're right it is

17

00:04:58,860 --> 00:04:17,750

discovery Houston for Marielle and no

18

00:05:07,770 --> 00:05:01,740

and we're ready to do the event early if

19

00:05:15,810 --> 00:05:07,780

you are discovery discovery this is

20

00:05:17,850 --> 00:05:15,820

Houston are you ready for the event CNN

21

00:05:21,000 --> 00:05:17,860

this is Houston please call discovery

22

00:05:28,500 --> 00:05:21,010

for a voice check discovery CNN how do

23

00:05:30,090 --> 00:05:28,510

you hear me guys look good this morning

24

00:05:31,740 --> 00:05:30,100

we won we'll get started I'm gonna do a

25

00:05:34,830 --> 00:05:31,750

little tin second you know hello and who

26

00:05:37,620 --> 00:05:34,840

you are and then we'll just plunge in my

27

00:05:40,980 --> 00:05:37,630

order of battle here is to go

28

00:05:44,850 --> 00:05:40,990

Maryellen first and then Nancy and then

29

00:05:47,159 --> 00:05:44,860

Don and if that makes I'm gonna try to

30

00:05:48,330 --> 00:05:47,169

do it as three separate things so you

31

00:05:50,700 --> 00:05:48,340

guys don't have to play past the

32

00:05:59,189 --> 00:05:50,710

microphone in this delay you know during

33

00:06:01,320 --> 00:05:59,199

the interview where are you okay great I

34

00:06:02,790 --> 00:06:01,330

couldn't tell it doesn't look like the

35

00:06:04,830 --> 00:06:02,800

mid-deck I know and love it looks like

36

00:06:14,670 --> 00:06:04,840

something else behind you there great

37

00:06:16,800 --> 00:06:14,680

okay here we go I envy you you talked

38

00:06:19,740 --> 00:06:16,810

about envy and the mere gang geez I envy

39  
00:06:22,980 --> 00:06:19,750  
the discovery gang yeah okay we're gonna

40  
00:06:24,930 --> 00:06:22,990  
start with me Joe here we go we're

41  
00:06:26,570 --> 00:06:24,940  
joined by three mission specialists

42  
00:06:28,770 --> 00:06:26,580  
aboard the space shuttle Discovery

43  
00:06:30,510 --> 00:06:28,780  
orbiting more than a hundred fifty miles

44  
00:06:32,339 --> 00:06:30,520  
above the earth right now the team of

45  
00:06:35,580 --> 00:06:32,349  
scientists includes Mary Ellen Webber

46  
00:06:37,290 --> 00:06:35,590  
Nancy Curie and Don Thomas we're talking

47  
00:06:39,659 --> 00:06:37,300  
to them from the mid deck of the space

48  
00:06:41,070 --> 00:06:39,669  
shuttle this morning Mary Ellen let me

49  
00:06:43,589 --> 00:06:41,080  
start with you

50  
00:06:45,450 --> 00:06:43,599  
I'd like you to think back to launch day

51  
00:06:48,000 --> 00:06:45,460  
last week I know this was your first

52  
00:06:49,680 --> 00:06:48,010  
trip into space I want to know what was

53  
00:06:51,540 --> 00:06:49,690  
going through your mind as you left the

54  
00:06:53,250 --> 00:06:51,550  
earth for the first time and what it was

55  
00:06:59,879 --> 00:06:53,260  
like to experience weightlessness for

56  
00:07:01,890 --> 00:06:59,889  
the first time going through my mind was

57  
00:07:05,089 --> 00:07:01,900  
we're really going we're really going

58  
00:07:46,110 --> 00:07:05,099  
it's really happening and it was just

59  
00:08:21,460 --> 00:08:20,380  
and how long as I was preparing to talk

60  
00:08:23,140 --> 00:08:21,470  
to you this morning I was sitting at my

61  
00:08:25,360 --> 00:08:23,150  
computer typing out questions and I

62  
00:08:27,790 --> 00:08:25,370  
discovered the a key on my computer done

63  
00:08:29,320 --> 00:08:27,800

work a few problems like that when

64

00:08:30,730 --> 00:08:29,330

you're up there I know I can take my

65

00:08:32,140 --> 00:08:30,740

computer to the computer guy here and he

66

00:08:34,330 --> 00:08:32,150

can fix it do you have somebody who can

67

00:09:02,560 --> 00:08:34,340

do minor repairs like that and if you

68

00:09:06,400 --> 00:09:04,420

I've been looking while we were

69

00:09:08,320 --> 00:09:06,410

preparing for the interview down here on

70

00:09:09,970 --> 00:09:08,330

earth a bunch of things that look like

71

00:09:12,610 --> 00:09:09,980

pictures through a microscope

72

00:09:13,840 --> 00:09:12,620

I'm not totally sure what you're doing

73

00:09:53,330 --> 00:09:13,850

and how it's going to help people down

74

00:09:57,240 --> 00:09:55,770

yeah alright would you pass the

75

00:10:00,180 --> 00:09:57,250

microphone over to Nancy for a minute

76

00:10:01,290 --> 00:10:00,190

Nancy I've I've been a private pilot for

77

00:10:03,570 --> 00:10:01,300

about three months now I've been

78

00:10:06,690 --> 00:10:03,580

training to do this for a long long time

79

00:10:09,120 --> 00:10:06,700

I know you've got 3,300 hours minimum

80

00:10:10,380 --> 00:10:09,130

particularly in helicopters how is it

81

00:10:12,690 --> 00:10:10,390

different to be on the space shuttle

82

00:10:40,320 --> 00:10:12,700

compared to being in a helicopter or

83

00:10:44,820 --> 00:10:40,330

being in a fixed-wing is it a lot

84

00:10:46,560 --> 00:10:44,830

different in reality for the for the

85

00:10:48,750 --> 00:10:46,570

launch and in practice that you've done

86

00:10:51,060 --> 00:10:48,760

for the landing is it is it a lot

87

00:10:53,430 --> 00:10:51,070

different as a pilot to bring this thing

88

00:11:26,820 --> 00:10:53,440

down it would be to bring down a

89

00:11:28,650 --> 00:11:26,830

helicopter one of the things that NASA

90

00:11:31,740 --> 00:11:28,660

was trying to find out was how does this

91

00:11:32,910 --> 00:11:31,750

new improve main engine work I'm sure

92

00:11:35,550 --> 00:11:32,920

you couldn't tell it if it's and how it

93

00:11:37,550 --> 00:11:35,560

felt but could you see any difference on

94

00:12:51,880 --> 00:11:37,560

the meters that you were monitoring

95

00:13:49,350 --> 00:12:54,590

experiments onboard tell me what is most

96

00:13:53,310 --> 00:13:51,000

how do you think and how long do you

97

00:13:55,620 --> 00:13:53,320

think it will take for things that you

98

00:13:57,750 --> 00:13:55,630

were working on today to actually come

99

00:13:59,730 --> 00:13:57,760

into use particularly these medical

100

00:14:01,199 --> 00:13:59,740

things down here on earth when can I go

101  
00:14:30,509 --> 00:14:01,209  
to the hospital and get a micro

102  
00:14:32,009 --> 00:14:30,519  
encapsulated drug how's your vision and

103  
00:14:34,860 --> 00:14:32,019  
are there any other physical changes

104  
00:14:38,310 --> 00:14:34,870  
that you are poking you and your

105  
00:15:13,199 --> 00:14:38,320  
colleagues and prodding your bodies are

106  
00:15:15,150 --> 00:15:13,209  
different on this alright Mike over to

107  
00:15:16,680 --> 00:15:15,160  
Don Thomas if you will but you've been

108  
00:15:18,630 --> 00:15:16,690  
smiling through this whole thing and I

109  
00:15:23,100 --> 00:15:18,640  
hope you'll keep smiling as we talk here

110  
00:15:25,230 --> 00:15:23,110  
I want to find out about the experiments

111  
00:15:28,259 --> 00:15:25,240  
you're running you're known here on

112  
00:15:30,420 --> 00:15:28,269  
earth is the zookeeper in space how's it

113  
00:15:35,280 --> 00:15:30,430

going with the with the live animals and

114

00:15:37,949 --> 00:15:35,290

the eggs and the embryos well as you

115

00:15:39,569 --> 00:15:37,959

know we have ten pregnant rats on board

116

00:15:41,639 --> 00:15:39,579

this is an experiment with the National

117

00:15:43,230 --> 00:15:41,649

Institute of Health that we're working

118

00:15:46,590 --> 00:15:43,240

in cooperation with them and the Ames

119

00:15:48,360 --> 00:15:46,600

Research Center and the investigation is

120

00:15:50,519 --> 00:15:48,370

focusing on looking at the muscular

121

00:15:53,069 --> 00:15:50,529

development and also the bone loss

122

00:15:54,720 --> 00:15:53,079

mechanisms in rodents that hopefully

123

00:15:56,579 --> 00:15:54,730

we'll be able to translate this over to

124

00:15:58,740 --> 00:15:56,589

humans on the earth it's particularly

125

00:16:00,449 --> 00:15:58,750

important for elderly people where you

126

00:16:02,730 --> 00:16:00,459

have osteoporosis a weakening of the

127

00:16:03,490 --> 00:16:02,740

bones if we can understand bone loss

128

00:16:05,860 --> 00:16:03,500

mechanisms

129

00:16:08,380 --> 00:16:05,870

space maybe we can understand why

130

00:16:10,060 --> 00:16:08,390

elderly people lose calcium and have

131

00:16:11,940 --> 00:16:10,070

weakening of the bones and able apply

132

00:16:14,260 --> 00:16:11,950

this to help many people back on earth

133

00:16:18,250 --> 00:16:14,270

yeah you're excited about this aren't

134

00:16:20,380 --> 00:16:18,260

you I'm pretty excited about it I love

135

00:16:21,850 --> 00:16:20,390

the research we're doing up here and you

136

00:16:23,470 --> 00:16:21,860

can't get a better laboratory to work

137

00:16:25,420 --> 00:16:23,480

you know or a greater group of people to

138

00:16:27,790 --> 00:16:25,430

work with and those associated with NASA

139

00:16:30,790 --> 00:16:27,800

here yes space programs getting a lot of

140

00:16:32,650 --> 00:16:30,800

publicity right now last this month

141

00:16:34,540 --> 00:16:32,660

docking mission with the mirror was

142

00:16:36,250 --> 00:16:34,550

pretty exciting what you were doing I

143

00:16:38,590 --> 00:16:36,260

imagine is just as exciting to you

144

00:16:41,680 --> 00:16:38,600

there's this Apollo 13 movie right now

145

00:16:43,750 --> 00:16:41,690

do you think of support for what you are

146

00:16:49,180 --> 00:16:43,760

doing in space growing back here on

147

00:16:50,560 --> 00:16:49,190

earth we have a amateur radio on board

148

00:16:52,960 --> 00:16:50,570

here and we've been going around the

149

00:16:55,180 --> 00:16:52,970

earth talking to many schools during the

150

00:16:57,160 --> 00:16:55,190

last five days and the kids are as

151  
00:17:00,880 --> 00:16:57,170  
enthusiastic today as I was when John

152  
00:17:03,460 --> 00:17:00,890  
Glenn first went up in 1962 so I really

153  
00:17:04,689 --> 00:17:03,470  
see being enthusiastic and these kids

154  
00:17:06,939 --> 00:17:04,699  
today are gonna grow up to be

155  
00:17:08,710 --> 00:17:06,949  
enthusiastic scientists engineers and

156  
00:17:11,740 --> 00:17:08,720  
carry our space program into the next

157  
00:17:13,720 --> 00:17:11,750  
century one of the most unusual things

158  
00:17:15,520 --> 00:17:13,730  
about this mission to me I think other

159  
00:17:18,610 --> 00:17:15,530  
people here on earth is that it came so

160  
00:17:20,620 --> 00:17:18,620  
soon after Atlantis landed just just a

161  
00:17:22,809 --> 00:17:20,630  
few days later did you have any

162  
00:17:24,309 --> 00:17:22,819  
apprehension that about the fact that

163  
00:17:25,960 --> 00:17:24,319

you were going to go up so soon after

164

00:17:30,580 --> 00:17:25,970

another shuttle had been in orbit

165

00:17:33,550 --> 00:17:30,590

I had no apprehension whatsoever the

166

00:17:35,800 --> 00:17:33,560

same people that launched Apollo 11 26

167

00:17:38,050 --> 00:17:35,810

years ago yesterday I found at the cave

168

00:17:39,430 --> 00:17:38,060

the same caliber and we have the

169

00:17:40,840 --> 00:17:39,440

greatest group of people working at the

170

00:17:41,470 --> 00:17:40,850

Kennedy Space Center to get vehicles

171

00:17:44,590 --> 00:17:41,480

ready

172

00:17:46,870 --> 00:17:44,600

they got Atlantis on the ground after

173

00:17:48,730 --> 00:17:46,880

the 71 mission and within a few days we

174

00:17:50,890 --> 00:17:48,740

have another team getting us ready for

175

00:17:52,270 --> 00:17:50,900

launch so I think it's a tribute to the

176  
00:17:53,590 --> 00:17:52,280  
Kennedy Space Center and a great group

177  
00:17:55,360 --> 00:17:53,600  
of people down there that and their

178  
00:17:58,060 --> 00:17:55,370  
can-do attitude that we were able to

179  
00:17:59,860 --> 00:17:58,070  
launch successfully right on time yeah

180  
00:18:01,480 --> 00:17:59,870  
I've talked to a lot of young people in

181  
00:18:03,190 --> 00:18:01,490  
the past couple of weeks about the fact

182  
00:18:04,390 --> 00:18:03,200  
that I would be talking to you today and

183  
00:18:06,340 --> 00:18:04,400  
they said to be what we want to know

184  
00:18:08,350 --> 00:18:06,350  
about some of the weird things that you

185  
00:18:10,270 --> 00:18:08,360  
can do in space that you can't do on

186  
00:18:12,880 --> 00:18:10,280  
earth or that you can't do in space that

187  
00:18:18,160 --> 00:18:12,890  
you can do on earth is it true that you

188  
00:18:28,370 --> 00:18:26,000

okay how about smell and taste and one

189

00:18:33,560 --> 00:18:28,380

of our Simon editors said how bad is the

190

00:18:36,350 --> 00:18:33,570

food up there the food is it's typical

191

00:18:37,730 --> 00:18:36,360

like camping food I've had better food

192

00:18:40,580 --> 00:18:37,740

in restaurants and I've had worse food

193

00:18:41,870 --> 00:18:40,590

that up here and it's good enough to get

194

00:18:43,520 --> 00:18:41,880

us through the mission some of the

195

00:18:45,410 --> 00:18:43,530

selections that we get to make I really

196

00:18:48,530 --> 00:18:45,420

enjoy other ones I'm not too wild about

197

00:18:50,450 --> 00:18:48,540

it's really an individual thing here as

198

00:18:52,640 --> 00:18:50,460

far as taste and smell goes some

199

00:18:54,650 --> 00:18:52,650

astronauts experience a blandness in

200

00:18:56,930 --> 00:18:54,660

space where they need spicier food but

201  
00:18:58,640 --> 00:18:56,940  
for myself the same foods that I enjoy

202  
00:19:02,390 --> 00:18:58,650  
in earth I enjoy you up here such as

203  
00:19:03,710 --> 00:19:02,400  
stadium mustard from Cleveland Ohio now

204  
00:19:05,570 --> 00:19:03,720  
while you guys have been up there in

205  
00:19:07,850 --> 00:19:05,580  
relative comfort there has been a

206  
00:19:09,860 --> 00:19:07,860  
monstrous heat wave down here on the

207  
00:19:11,960 --> 00:19:09,870  
earth it's been above a hundred degrees

208  
00:19:14,060 --> 00:19:11,970  
in the Midwest for a few days it's been

209  
00:19:15,680 --> 00:19:14,070  
near a hundred and over in the

210  
00:19:17,240 --> 00:19:15,690  
northeastern United States and you've

211  
00:19:18,770 --> 00:19:17,250  
been in space several times I know that

212  
00:19:20,419 --> 00:19:18,780  
if you get spare time you like to look

213  
00:19:22,880 --> 00:19:20,429

out the window at the planet below does

214

00:19:26,000 --> 00:19:22,890

it look any different down here right

215

00:19:30,049 --> 00:19:26,010

now particularly in the u.s. Midwest and

216

00:19:31,690 --> 00:19:30,059

and southeast than it than it has on

217

00:19:40,130 --> 00:19:31,700

your previous trips with all this

218

00:19:41,960 --> 00:19:40,140

monstrous heat aboard sto 65 that was a

219

00:19:44,240 --> 00:19:41,970

15-day mission got to look out the

220

00:19:46,760 --> 00:19:44,250

window a lot and the cloud patterns have

221

00:19:48,380 --> 00:19:46,770

changed and some of the ocean currents

222

00:19:50,000 --> 00:19:48,390

are different but basically the planet

223

00:19:52,610 --> 00:19:50,010

looks you know very similar to what it

224

00:19:54,950 --> 00:19:52,620

did a year ago so there's nothing we can

225

00:19:56,930 --> 00:19:54,960

see up here that you know gives us an

226

00:19:58,310 --> 00:19:56,940

indication of why it's so hot but we're

227

00:20:00,289 --> 00:19:58,320

welcome to share our Houston weather

228

00:20:01,760 --> 00:20:00,299

with the rest of the country last

229

00:20:04,340 --> 00:20:01,770

question for any of you who want to take

230

00:20:05,780 --> 00:20:04,350

it what's the most amazing surprising

231

00:20:11,640 --> 00:20:05,790

thing that's happened to you on your

232

00:20:18,700 --> 00:20:16,690

the windows it is just incredible an

233

00:20:22,240 --> 00:20:18,710

amazing last night before going to bed

234

00:20:24,490 --> 00:20:22,250

the last thing we saw was a set and it

235

00:20:25,300 --> 00:20:24,500

was just spectacular words can't

236

00:20:27,970 --> 00:20:25,310

describe it

237

00:20:36,610 --> 00:20:27,980

alright thank you all three for joining

238

00:20:47,450 --> 00:20:36,620

us on CNN today Huston CNN that

239

00:20:51,940 --> 00:20:49,130

discovery Houston we're about a minute

240

00:21:17,830 --> 00:20:51,950

to the CEO II will pick you up again at

241

00:21:22,600 --> 00:21:20,440

now coming into view from Discovery is

242

00:21:57,330 --> 00:21:22,610

the Baja Peninsula the southern extrema

243

00:21:57,340 --> 00:22:03,139

in view in the center of the

244

00:22:03,149 --> 00:22:25,920

screen is Miami so it seems in

245

00:22:25,930 --> 00:22:39,120

and now coming into Bui the Bahamas

246

00:22:39,130 --> 00:23:41,930

there the island of Andros

247

00:23:46,639 --> 00:23:44,029

this is Mission Control Houston this

248

00:23:52,669 --> 00:23:46,649

view from Discovery showing a tropical

249

00:23:55,129 --> 00:23:52,679

depression forming in the Pacific south

250

00:23:59,029 --> 00:23:55,139

of the tip of the Baja Peninsula this is

251  
00:24:02,060 --> 00:23:59,039  
and as-yet-unnamed storm just a tropical

252  
00:24:14,040 --> 00:24:02,070  
depression in its early stages again off

253  
00:24:18,280 --> 00:24:16,060  
discovery Houston we had about 10

254  
00:24:23,560 --> 00:24:18,290  
seconds of that inch cable now we have

255  
00:24:26,140 --> 00:24:23,570  
the picture again okay again we're

256  
00:24:31,060 --> 00:24:26,150  
pointing right there that's when we

257  
00:24:35,860 --> 00:24:31,070  
found pinched in the door in m57 alpha

258  
00:24:38,890 --> 00:24:35,870  
and the back cleaner stopped and that's

259  
00:24:40,990 --> 00:24:38,900  
where we found that the pinched wire and

260  
00:24:45,730 --> 00:24:41,000  
actually it was when we started up the

261  
00:24:51,370 --> 00:24:45,740  
vacuum cleaner going from the pantry

262  
00:24:54,070 --> 00:24:51,380  
food area to the WCS is when we found

263  
00:25:07,190 --> 00:24:54,080

out it didn't work anymore as expected

264

00:25:11,630 --> 00:25:09,080

those are two of the places we've

265

00:25:15,020 --> 00:25:11,640

discovered on the water that also had

266

00:25:39,010 --> 00:25:15,030

some damage so we cut the water and the

267

00:25:45,220 --> 00:25:41,320

and do you need anything further they're

268

00:25:48,400 --> 00:25:45,230

using Kevin if you just tell us where

269

00:25:51,040 --> 00:25:48,410

that spliced section is in relation to

270

00:25:53,080 --> 00:25:51,050

the connector or cable and otherwise

271

00:25:58,110 --> 00:25:53,090

we've got a good video of it only one

272

00:26:02,110 --> 00:25:58,120

break in the wire correct that's correct

273

00:26:04,060 --> 00:26:02,120

we have about three where you see the

274

00:26:06,160 --> 00:26:04,070

four water's coming out that attaches to

275

00:26:07,960 --> 00:26:06,170

the vacuum cleaner and we have about

276

00:26:09,790 --> 00:26:07,970

three feet of water to the vacuum

277

00:26:17,799 --> 00:26:09,800

cleaner and then the rest of the water

278

00:26:19,570 --> 00:26:17,809

goes through the connector and discovery

279

00:26:21,610 --> 00:26:19,580

if you just hold this view understand

280

00:26:24,549 --> 00:26:21,620

this is a tape downlink we'd like to get

281

00:26:41,600 --> 00:26:24,559

a rotation of that spliced section so we