



1
00:00:25,700 --> 00:00:22,400
April 16 1972 Apollo 16 Man's

2
00:00:29,240 --> 00:00:25,710
fifth lunar landing sat silently on the

3
00:00:31,790 --> 00:00:29,250
pad awaiting its mission inside the

4
00:00:35,450 --> 00:00:31,800
astronaut quarters it's relaxed crew

5
00:00:37,459 --> 00:00:35,460
eight Sunday breakfast John Young the

6
00:00:40,700 --> 00:00:37,469
veteran of three previous space flights

7
00:00:42,979 --> 00:00:40,710
was commander Ken Mattingly command

8
00:00:45,410 --> 00:00:42,989
module pilot would conduct orbital

9
00:00:48,139 --> 00:00:45,420
experiments around the moon while

10
00:00:53,510 --> 00:00:48,149
Charles Duke explored the lunar surface

11
00:00:55,369 --> 00:00:53,520
with young April 22nd young and Duke

12
00:00:58,119 --> 00:00:55,379
would find themselves strapped into a

13
00:01:00,799 --> 00:00:58,129

small electric car called the rover

14

00:01:21,190 --> 00:01:00,809

bouncing across the lunar plateau known

15

00:01:26,240 --> 00:01:24,170

as young and boot rode the bucking rover

16

00:01:29,810 --> 00:01:26,250

to the lunar formation called Stone

17

00:01:32,810 --> 00:01:29,820

Mountain NASA geologists Farouk Elbaz

18

00:01:35,960 --> 00:01:32,820

wrote on a blackboard on earth there is

19

00:01:39,590 --> 00:01:35,970

nothing so far removed from us to be

20

00:01:43,660 --> 00:01:39,600

beyond our reach or so hidden that we

21

00:01:47,480 --> 00:01:43,670

cannot discover it Rene Descartes as

22

00:01:49,969 --> 00:01:47,490

John Young would later remark Apollo 16

23

00:02:01,550 --> 00:01:49,979

would certainly help prove that Rene

24

00:02:03,320 --> 00:02:01,560

Descartes yet less than two days before

25

00:02:06,740 --> 00:02:03,330

it looked as though this would never

26
00:02:10,460 --> 00:02:06,750
happen it was in Young's words a real

27
00:02:12,470 --> 00:02:10,470
cliffhanger the Marshall Space Flight

28
00:02:14,330 --> 00:02:12,480
Center team was working on a launch

29
00:02:16,729 --> 00:02:14,340
vehicle gyroscope problem that

30
00:02:18,710 --> 00:02:16,739
threatened to scrub the mission less

31
00:02:20,300 --> 00:02:18,720
than an hour before liftoff their

32
00:02:58,479 --> 00:02:20,310
advisory to the Kennedy Space Center

33
00:03:06,949 --> 00:03:04,880
the liftoff had been perfect during the

34
00:03:08,569 --> 00:03:06,959
three-day flight to lunar orbit the

35
00:03:11,690 --> 00:03:08,579
problems encountered had been more

36
00:03:14,179 --> 00:03:11,700
annoyances than critical such as paint

37
00:03:15,949 --> 00:03:14,189
flaking off the lunar module and later a

38
00:03:19,330 --> 00:03:15,959

jammed antenna in one of the lunar

39

00:03:25,569 --> 00:03:19,340

modules several communication systems

40

00:03:38,569 --> 00:03:29,300

April 19th the burn into lunar orbit was

41

00:03:40,879 --> 00:03:38,579

right on the subsequent maneuvers all

42

00:03:44,539 --> 00:03:40,889

went without a hitch then the next day

43

00:03:46,550 --> 00:03:44,549

April 20th young and Duke undocked the

44

00:04:09,350 --> 00:03:46,560

lunar module preparatory to landing

45

00:04:14,340 --> 00:04:12,180

the next maneuver was for Mattingly to

46

00:04:19,620 --> 00:04:14,350

burn the main engine of his spacecraft

47

00:04:21,750 --> 00:04:19,630

to put it into a circular orbit but as

48

00:04:32,970 --> 00:04:21,760

the lunar module emerged from behind the

49

00:04:35,730 --> 00:04:32,980

moon no Cirque in preparing for the

50

00:04:38,400 --> 00:04:35,740

circularization burn Mattingly had found

51
00:04:40,610 --> 00:04:38,410
apparent uncontrolled oscillations in

52
00:04:43,470 --> 00:04:40,620
the main engines backup control system

53
00:04:45,510 --> 00:04:43,480
following mission rules he did not make

54
00:04:47,790 --> 00:04:45,520
the burn how long do you think it's not

55
00:04:50,730 --> 00:04:47,800
take him to get run over Gary I think

56
00:04:53,370 --> 00:04:50,740
you're in a couple of rear is with the

57
00:04:55,800 --> 00:04:53,380
backup system having trouble only the

58
00:04:57,660 --> 00:04:55,810
primary system was known to be usable on

59
00:04:59,900 --> 00:04:57,670
the engine needed to get the astronauts

60
00:05:02,970 --> 00:04:59,910
out of lunar orbit and back to earth

61
00:05:05,160 --> 00:05:02,980
however the lunar module engines could

62
00:05:08,100 --> 00:05:05,170
be used if the two spacecraft were

63
00:05:10,980 --> 00:05:08,110

docked the first step in the

64

00:05:13,620 --> 00:05:10,990

problem-solving technique stabilized the

65

00:05:16,500 --> 00:05:13,630

situation in the safest manner get the

66

00:05:19,190 --> 00:05:16,510

two spacecraft which had separated close

67

00:05:21,750 --> 00:05:19,200

enough together to dock if necessary

68

00:05:23,970 --> 00:05:21,760

back together get things back if you

69

00:05:30,550 --> 00:05:27,400

now don't take that input to ask me Fitz

70

00:05:34,060 --> 00:05:30,560

on and out laughs now I want to okay I

71

00:05:36,550 --> 00:05:34,070

don't see any way we can continue on at

72

00:05:39,160 --> 00:05:36,560

that moment the chances for a landing

73

00:05:42,610 --> 00:05:39,170

looked pretty slim but you look at a

74

00:05:45,730 --> 00:05:42,620

problem step by step step one under way

75

00:05:47,770 --> 00:05:45,740

you look at step two analyze the problem

76

00:05:51,220 --> 00:05:47,780

as completely as possible within the

77

00:06:00,550 --> 00:05:51,230

time frame machine make sure the test

78

00:06:03,070 --> 00:06:00,560

problem is no way and in lunar orbit

79

00:06:19,990 --> 00:06:03,080

Mattingly flew the command module to a

80

00:06:22,900 --> 00:06:20,000

rendezvous as young talked him in the

81

00:06:25,240 --> 00:06:22,910

team was coming up to speed not only at

82

00:06:28,060 --> 00:06:25,250

the manned spacecraft Center but from

83

00:06:30,430 --> 00:06:28,070

MIT in Massachusetts to North American

84

00:06:34,960 --> 00:06:30,440

in Southern California isolate the

85

00:06:36,370 --> 00:06:34,970

trouble simulated evaluated you can't

86

00:06:40,230 --> 00:06:36,380

use it if you got broken wire you don't

87

00:06:49,720 --> 00:06:47,260

not a cork apart beetle then you would

88

00:06:50,260 --> 00:06:49,730

have no options I mean then it's full

89

00:06:53,260 --> 00:06:50,270

speed ahead

90

00:06:54,940 --> 00:06:53,270

I just don't let see how I get on this

91

00:06:57,040 --> 00:06:54,950

next trip thank you guys I'll continue

92

00:06:58,360 --> 00:06:57,050

to work good so you'd only do it if you

93

00:06:59,320 --> 00:06:58,370

had a failure on the primary well how

94

00:07:00,340 --> 00:06:59,330

would you ever get the damn thing

95

00:07:07,860 --> 00:07:00,350

trimmed then

96

00:07:19,750 --> 00:07:16,470

yeah you're gonna get here isolate

97

00:07:23,490 --> 00:07:19,760

simulate evaluate the results were

98

00:07:26,560 --> 00:07:23,500

coming in it was beginning to pay off

99

00:07:28,810 --> 00:07:26,570

the simulator tests and other data were

100

00:07:30,820 --> 00:07:28,820

showing that with the engine on the

101

00:07:33,820 --> 00:07:30,830

oscillations would do no harm

102

00:07:36,160 --> 00:07:33,830

despite the earlier pessimism it was

103

00:07:39,580 --> 00:07:36,170

beginning to look pretty good okay when

104

00:07:42,520 --> 00:07:39,590

you come up on a OS on the next Rev Rev

105

00:07:43,560 --> 00:07:42,530

15 we'll give you a go or no-go for

106

00:07:46,300 --> 00:07:43,570

another try

107

00:07:49,720 --> 00:07:46,310

manned spacecraft Center director dr.

108

00:07:51,610 --> 00:07:49,730

Christopher C Kraft jr. just came back

109

00:07:54,370 --> 00:07:51,620

into the control center after having

110

00:07:56,650 --> 00:07:54,380

attended a meeting by management people

111

00:08:00,700 --> 00:07:56,660

in one of the back rooms and the

112

00:08:04,450 --> 00:08:00,710

situation is go for landing well that is

113

00:08:09,000 --> 00:08:04,460

a window car you do have a go for

114

00:08:11,830 --> 00:08:09,010

another try here at the EDI on rep 16

115

00:08:12,370 --> 00:08:11,840

once more they would pass behind the

116

00:08:14,680 --> 00:08:12,380

moon

117

00:08:17,260 --> 00:08:14,690

and on the next revolution John Young

118

00:08:23,910 --> 00:08:17,270

and Charlie Duke would start their swift

119

00:08:23,920 --> 00:08:45,900

okay children inhalation looks good

120

00:08:49,600 --> 00:08:47,460

okay

121

00:08:51,190 --> 00:08:49,610

it's like we don't be able to make it

122

00:08:53,830 --> 00:08:51,200

John it's not too many blocks up their

123

00:09:06,030 --> 00:08:53,840

line you go for landing yeah right now

124

00:09:10,030 --> 00:09:06,040

looks pretty good that comes a shadow

125

00:09:14,130 --> 00:09:10,040

okay down at 350 feet that is for anyone

126

00:09:15,910 --> 00:09:14,140

to pick up back to that slightly

127

00:09:19,960 --> 00:09:15,920

stake sit down

128

00:09:26,950 --> 00:09:19,970

stand by for contact from a letter down

129

00:09:42,100 --> 00:09:26,960

to level off Center on down a step six

130

00:09:43,900 --> 00:09:42,110

percent 20 fat back stop the original

131

00:09:45,760 --> 00:09:43,910

plan had called for young and dupe to

132

00:09:48,640 --> 00:09:45,770

get out and explore shortly after

133

00:09:51,580 --> 00:09:48,650

landing however the near abort had

134

00:09:58,630 --> 00:09:51,590

lasted six hours the tired astronauts

135

00:10:00,670 --> 00:09:58,640

would sleep April 21 mission commander

136

00:10:03,940 --> 00:10:00,680

John Young stepped onto the decart

137

00:10:16,540 --> 00:10:03,950

formation 11:58 a.m. Eastern Standard

138

00:10:22,040 --> 00:10:19,280

while their activities were monitored by

139

00:10:24,620 --> 00:10:22,050

Mission Control young and Duke were also

140

00:10:29,560 --> 00:10:24,630

observed by scientists located across

141

00:10:34,220 --> 00:10:31,940

after unloading the rover from its

142

00:10:56,120 --> 00:10:34,230

storage Bay in the lunar module they

143

00:10:58,490 --> 00:10:56,130

planted the flag there we go young set

144

00:11:01,130 --> 00:10:58,500

up an ultraviolet camera to provide the

145

00:11:03,620 --> 00:11:01,140

first astronomical observations from the

146

00:11:06,500 --> 00:11:03,630

moon he took pictures of the Earth's

147

00:11:09,140 --> 00:11:06,510

upper atmosphere and magnetosphere and

148

00:11:11,720 --> 00:11:09,150

their interaction with the solar wind

149

00:11:14,630 --> 00:11:11,730

he also photographed the interstellar

150

00:11:16,550 --> 00:11:14,640

gas present throughout space and the

151

00:11:20,150 --> 00:11:16,560

ultraviolet halos that appear around

152

00:11:21,530 --> 00:11:20,160

galaxies astronomers have long wanted a

153

00:11:24,050 --> 00:11:21,540

telescope on the moon

154

00:11:26,080 --> 00:11:24,060

perhaps this experiment would show the

155

00:11:29,990 --> 00:11:26,090

moon an ideal base for future

156

00:11:36,200 --> 00:11:30,000

astronomical observations you want to

157

00:11:39,080 --> 00:11:36,210

pan deep drilled a hole into which a

158

00:11:40,880 --> 00:11:39,090

heat flow probe was to be placed part of

159

00:11:45,170 --> 00:11:40,890

one of the experiments attached to this

160

00:11:47,120 --> 00:11:45,180

station as Duke drilled young set up the

161

00:11:50,450 --> 00:11:47,130

Central Station and the remainder of the

162

00:11:51,980 --> 00:11:50,460

experiments then what many considered

163

00:12:03,770 --> 00:11:51,990

the biggest disappointment of the

164

00:12:07,190 --> 00:12:03,780

mission crater we saw back there the

165

00:12:08,360 --> 00:12:07,200

Lamb Charlie what don't a peer what

166

00:12:18,439 --> 00:12:08,370

happened

167

00:12:22,090 --> 00:12:18,449

oh there's a line at pullers oh I'm live

168

00:12:25,280 --> 00:12:22,100

is it that's the heat flow pull it off

169

00:12:29,569 --> 00:12:25,290

Carolyn sorry I didn't know tit

170

00:12:32,150 --> 00:12:29,579

I didn't even know it well that means

171

00:12:33,949 --> 00:12:32,160

you've got to got some eights all those

172

00:12:37,429 --> 00:12:33,959

wires separate wires in there and have

173

00:12:39,199 --> 00:12:37,439

him isolated from one mother and if that

174

00:12:42,110 --> 00:12:39,209

doesn't occur one of the chances of

175

00:12:43,069 --> 00:12:42,120

shorting out the Central Station well

176

00:12:46,220 --> 00:12:43,079

that's another one that they're working

177

00:12:51,679 --> 00:12:46,230

on earth they tried to figure a way to

178

00:12:53,299 --> 00:12:51,689

fix the heat flow on the moon the

179

00:12:56,360 --> 00:12:53,309

astronauts continued with the other

180

00:12:59,540 --> 00:12:56,370

experiments young placed a series of

181

00:13:01,910 --> 00:12:59,550

sensors in the soil then fired explosive

182

00:13:04,129 --> 00:13:01,920

charges mapping the lunar subsurface

183

00:13:26,190 --> 00:13:04,139

much as geologists on earth use

184

00:13:31,930 --> 00:13:28,900

they continue to sample the area and

185

00:13:33,790 --> 00:13:31,940

activate the experiments then they

186

00:13:35,770 --> 00:13:33,800

return to the rover and prepared for

187

00:13:43,200 --> 00:13:35,780

their first trip away from the landing

188

00:13:48,460 --> 00:13:46,090

their first Traverse would take them

189

00:13:51,880 --> 00:13:48,470

about 1 kilometre west of the landing

190

00:14:11,850 --> 00:13:51,890

site they would make two stops to

191

00:14:17,380 --> 00:14:14,620

yang used a portable instrument to

192

00:14:19,270 --> 00:14:17,390

measure the local magnetic field he

193

00:14:21,720 --> 00:14:19,280

would later record the most intense

194

00:14:24,340 --> 00:14:21,730

magnetic field ever found on the moon

195

00:14:33,250 --> 00:14:24,350

far higher than scientists ever

196

00:14:35,590 --> 00:14:33,260

suspected rock in the near field on this

197

00:14:36,940 --> 00:14:35,600

rim that had some height on the top of

198

00:14:53,650 --> 00:14:36,950

it we'd like you to pick it up at the

199

00:14:55,780 --> 00:14:53,660

grab sample there would be one more stop

200

00:14:59,800 --> 00:14:55,790

before they got back to the lunar module

201
00:15:02,890 --> 00:14:59,810
to close out this PDA with Guk acting as

202
00:15:11,480 --> 00:15:02,900
photographer and young as driver they

203
00:15:17,430 --> 00:15:14,010
is he on the ground at all that

204
00:15:19,890 --> 00:15:17,440
klompers huh

205
00:15:27,900 --> 00:15:19,900
he's got about two wheels on the ground

206
00:15:31,020 --> 00:15:27,910
skaters yard have notified a sharpie hey

207
00:15:34,680 --> 00:15:31,030
ed break he's a big rooster tail out of

208
00:15:35,880 --> 00:15:34,690
all four wheels and his heaters he

209
00:15:38,670 --> 00:15:35,890
scared the backend

210
00:15:48,750 --> 00:15:38,680
breaks loose just like on snow come on

211
00:15:50,460 --> 00:15:48,760
back John and attack and run him then

212
00:15:53,580 --> 00:15:50,470
out day and he's never seen a driver

213
00:15:55,350 --> 00:15:53,590

like this okay when he hits the craters

214

00:16:04,410 --> 00:15:55,360

it starts bouncing it's when he gets his

215

00:16:06,900 --> 00:16:04,420

rooster tail make sharp turn then it was

216

00:16:16,880 --> 00:16:06,910

back to their lunar base activate

217

00:16:21,960 --> 00:16:19,500

be wise exercise their right physical

218

00:16:26,160 --> 00:16:21,970

fitness in level hey that's right please

219

00:16:29,400 --> 00:16:26,170

don't take pictures of the enjoy the

220

00:16:31,650 --> 00:16:29,410

whole residue live protein diet on earth

221

00:16:41,340 --> 00:16:31,660

the scientists took a break tomorrow

222

00:16:42,720 --> 00:16:41,350

would be another busy day April 22nd the

223

00:16:46,830 --> 00:16:42,730

lunar surface temperature in the Sun

224

00:16:48,360 --> 00:16:46,840

should be around 135 degrees today today

225

00:16:51,000 --> 00:16:48,370

they were headed a little over four

226

00:16:58,260 --> 00:16:51,010

kilometres south to climb their Rover up

227

00:17:02,100 --> 00:16:58,270

the side of Stone Mountain their first

228

00:17:30,600 --> 00:17:02,110

station a crater 700 feet above their

229

00:17:32,430 --> 00:17:30,610

lunar module we got certainly something

230

00:17:35,400 --> 00:17:32,440

to go to one man sampling and maybe do

231

00:17:38,340 --> 00:17:35,410

it they would make a total of six stops

232

00:17:40,350 --> 00:17:38,350

on this Traverse collecting samples from

233

00:17:42,600 --> 00:17:40,360

large rocks down through the

234

00:17:45,420 --> 00:17:42,610

intermediates to the smallest soil

235

00:17:47,190 --> 00:17:45,430

particles they would operate experiments

236

00:17:49,710 --> 00:17:47,200

measuring the strength of local magnetic

237

00:18:15,609 --> 00:17:49,720

fields to measuring the resistance of

238

00:18:21,259 --> 00:18:18,229

and we come a long way

239

00:18:26,119 --> 00:18:21,269

hey giant busy go straight across that

240

00:18:29,450 --> 00:18:26,129

was fine I am a troll okay I'm walking

241

00:18:31,669 --> 00:18:29,460

up there the sampling time used up it

242

00:18:34,820 --> 00:18:31,679

was time to return to the rover we head

243

00:18:37,219 --> 00:18:34,830

back to the lunar module they did it in

244

00:18:52,219 --> 00:18:37,229

two minutes last travel time in free

245

00:18:54,589 --> 00:18:52,229

play but with the limited oxygen and

246

00:19:01,230 --> 00:18:54,599

water in the backpacks it was finally

247

00:19:09,620 --> 00:19:04,200

now I think they're realized that it's

248

00:19:12,510 --> 00:19:09,630

not more well gee whiz like a frenzy

249

00:19:16,440 --> 00:19:12,520

thrill but it's real exploration and

250

00:19:19,970 --> 00:19:16,450

this is much more serious and much more

251
00:19:22,740 --> 00:19:19,980
important for the future of mankind than

252
00:19:24,149 --> 00:19:22,750
just a plain exploit too technical or

253
00:19:27,779 --> 00:19:24,159
technological in supply

254
00:19:32,850 --> 00:19:27,789
this is exploration Ray Bradbury claims

255
00:19:35,610 --> 00:19:32,860
that what mankind sees in the

256
00:19:38,039 --> 00:19:35,620
exploration of space is his first chance

257
00:19:43,500 --> 00:19:38,049
at immortality since he's since he

258
00:19:45,600 --> 00:19:43,510
invented religion April 23rd the

259
00:19:47,610 --> 00:19:45,610
decision had been made not to try and

260
00:19:49,860 --> 00:19:47,620
fix the broken heat flow experiment

261
00:19:53,630 --> 00:19:49,870
because of the time and complexities

262
00:19:56,340 --> 00:19:53,640
involved Traverse number three today

263
00:19:59,580 --> 00:19:56,350

young and Duke would head north about

264

00:20:01,860 --> 00:19:59,590

five kilometers to north ray crater the

265

00:20:04,710 --> 00:20:01,870

largest lunar crater to be sampled by

266

00:20:12,730 --> 00:20:09,340

outstanding hey Tony it seems to me this

267

00:20:16,330 --> 00:20:12,740

is a more subdued surface over here than

268

00:20:20,680 --> 00:20:16,340

going towards south break Oh spectacular

269

00:20:22,990 --> 00:20:20,690

just spectacular Wow

270

00:20:26,080 --> 00:20:23,000

start really beautiful I gotta keep my

271

00:20:28,420 --> 00:20:26,090

own driving that's great Jake that's a

272

00:20:30,100 --> 00:20:28,430

good point to remember all three crews

273

00:20:34,870 --> 00:20:30,110

in our tendo's take their there before

274

00:20:39,430 --> 00:20:34,880

they get back I remember and if this

275

00:20:41,380 --> 00:20:39,440

thing has people off a 360 degrees now

276

00:20:43,980 --> 00:20:41,390

I'd say I can't see to the bottom of it

277

00:20:48,730 --> 00:20:43,990

now misquote the edges I'm gonna get

278

00:20:51,990 --> 00:20:48,740

that now that I'm team if anything on

279

00:20:55,210 --> 00:20:52,000

the moon can be called that test collect

280

00:21:07,450 --> 00:20:55,220

photograph keep moving time is precious

281

00:21:10,620 --> 00:21:07,460

on the moon how about rolling that one

282

00:21:13,740 --> 00:21:10,630

over no way

283

00:21:17,110 --> 00:21:13,750

then one of the most spectacular

284

00:21:21,370 --> 00:21:17,120

discoveries of the mission look at the

285

00:21:23,140 --> 00:21:21,380

size of it it is a big unit it may

286

00:21:25,050 --> 00:21:23,150

be further away than we think because I

287

00:21:27,760 --> 00:21:25,060

thought they were just right behind you

288

00:21:32,230 --> 00:21:27,770

and we better press on for the big

289

00:21:36,730 --> 00:21:32,240

boulder territory okay we're headed that

290

00:21:47,950 --> 00:21:36,740

way you get the tongue stuck here in the

291

00:21:54,500 --> 00:21:51,890

yes if we can see at the bottom we could

292

00:21:57,800 --> 00:21:54,510

say for sure if the stick black rock is

293

00:21:59,810 --> 00:21:57,810

right out of the bottom but uh my guess

294

00:22:17,060 --> 00:21:59,820

from the old photograph there probably

295

00:22:20,090 --> 00:22:17,070

is okay i curious what they're gonna

296

00:22:22,940 --> 00:22:20,100

look like when they stand next to it we

297

00:22:25,550 --> 00:22:22,950

can see how I get to it the bigger yet

298

00:22:29,720 --> 00:22:25,560

yeah but look at the thermostatic part

299

00:22:35,960 --> 00:22:29,730

Charlie on this side over here and as

300

00:22:40,480 --> 00:22:35,970

our crew slowly disappeared into the

301
00:22:43,940 --> 00:22:43,370
well Tony that's your half rock right

302
00:22:45,920 --> 00:22:43,950
there

303
00:22:47,720 --> 00:22:45,930
very good we'll get too near the air to

304
00:22:50,090 --> 00:22:47,730
that they can fall off but look over

305
00:22:50,690 --> 00:22:50,100
look over to right it falls off pretty

306
00:22:59,240 --> 00:22:50,700
good

307
00:23:05,690 --> 00:22:59,250
yeah no careful we got it Mikey Nina

308
00:23:08,600 --> 00:23:05,700
okay let's go on back and we encourage

309
00:23:10,640 --> 00:23:08,610
it just to look for some variety but now

310
00:23:15,740 --> 00:23:10,650
it was time to head back to their base

311
00:23:28,659 --> 00:23:15,750
and close out the EBA alright we think

312
00:23:33,619 --> 00:23:31,940
during the previous EBA a section of a

313
00:23:35,570 --> 00:23:33,629

rear fender had come off the rover

314

00:23:44,389 --> 00:23:35,580

causing the astronauts to receive

315

00:23:46,999 --> 00:23:44,399

occasional showers of lunar dirt young

316

00:23:49,969 --> 00:23:47,009

parked the rover then moved out to join

317

00:23:58,690 --> 00:23:49,979

do enter the lunar module and prepare

318

00:24:05,149 --> 00:24:03,049

smile FAO don't be mad

319

00:24:07,129 --> 00:24:05,159

we'll get it up there feel nice and

320

00:24:14,680 --> 00:24:07,139

leisurely it's been that's why it should

321

00:24:14,690 --> 00:24:23,390

what a ride what a ride

322

00:24:23,400 --> 00:24:30,880

it's over gone

323

00:24:35,090 --> 00:24:33,790

together in orbit the two spacecraft

324

00:24:45,470 --> 00:24:35,100

pirouette

325

00:24:48,260 --> 00:24:45,480

each inspecting the other the

326
00:24:51,850 --> 00:24:48,270
inspections complete the command module

327
00:24:55,520 --> 00:24:51,860
and lunar module maneuvered for docking

328
00:24:58,250 --> 00:24:55,530
John Young Ken Mattingly and Charlie

329
00:25:00,970 --> 00:24:58,260
Duke reunited aboard the command module

330
00:25:03,650 --> 00:25:00,980
settled down for tomorrow's tasks

331
00:25:07,960 --> 00:25:03,660
jettisoned the lunar module and burn out

332
00:25:16,550 --> 00:25:12,320
April 25 Ken Mattingly left the confines

333
00:25:19,400 --> 00:25:16,560
of the command module cabin 173 thousand

334
00:25:22,490 --> 00:25:19,410
miles from Earth as he orbited the moon

335
00:25:25,100 --> 00:25:22,500
he had not only made visual observations

336
00:25:28,010 --> 00:25:25,110
he had been operating a complex series

337
00:25:31,340 --> 00:25:28,020
of experiments many of these had

338
00:25:33,440 --> 00:25:31,350

returned instant data to Houston two had

339

00:25:36,160 --> 00:25:33,450

taken thousands of high-resolution

340

00:25:38,990 --> 00:25:36,170

pictures of the lunar terrain now

341

00:25:40,970 --> 00:25:39,000

Mattingly retrieved the film canisters

342

00:25:43,190 --> 00:25:40,980

and made his way back to the cabin with

343

00:25:47,180 --> 00:25:43,200

them as Charlie Duke stood in the hatch

344

00:25:53,510 --> 00:25:47,190

to help him work it had been quite a

345

00:26:02,720 --> 00:25:55,730

in ten days and most people say in ten

346

00:26:04,310 --> 00:26:02,730

lifetimes April 27 the last day the crew

347

00:26:07,190 --> 00:26:04,320

looked out their windows through the

348

00:26:32,030 --> 00:26:07,200

5,000 degree fireball of reentry at

349

00:26:32,040 --> 00:26:43,889

they're blooming

350

00:26:49,570 --> 00:26:46,840

follow Control Houston an observer on

351
00:27:19,110 --> 00:26:49,580
that Ticonderoga estimates a distance

352
00:27:25,740 --> 00:27:22,380
you saw an example of goal-oriented

353
00:27:29,520 --> 00:27:25,750
teamwork in action the kind of thing

354
00:27:30,900 --> 00:27:29,530
that made this country great and the

355
00:27:32,030 --> 00:27:30,910
kind of thing that's going to keep it

356
00:27:35,490 --> 00:27:32,040
that way

357
00:27:42,000 --> 00:27:35,500
real smooth shot every bit of it Jerry

358
00:27:42,680 --> 00:27:42,010
yeah protoman beautiful well done young

359
00:27:46,440 --> 00:27:42,690
man

360
00:28:03,270 --> 00:27:46,450
outstanding I cannot imagine that scar