



1  
00:00:21,400 --> 00:00:19,130  
April 19 1967 surveyor 3 landed on the

2  
00:00:26,960 --> 00:00:21,410  
moon in a crater of Oceanus Procellarum

3  
00:00:29,240 --> 00:00:26,970  
the ocean of storms with surveyors

4  
00:00:34,010 --> 00:00:29,250  
electronic eye we viewed the lunar

5  
00:00:38,860 --> 00:00:34,020  
surface with its mechanical arm we dug a

6  
00:00:47,180 --> 00:00:44,600  
now on November 14 1969 31 months after

7  
00:00:50,770 --> 00:00:47,190  
surveyors landing men were leaving the

8  
00:00:56,240 --> 00:00:50,780  
earth to land on the ocean of storms

9  
00:01:00,799 --> 00:00:56,250  
Charles Pete Conrad Richard Gordon Alan

10  
00:01:04,149 --> 00:01:00,809  
bean the crew of Apollo 12 the second

11  
00:01:22,719 --> 00:01:04,159  
man landing on the face of the moon

12  
00:01:31,320 --> 00:01:25,530  
ignition sequence start

13  
00:01:35,520 --> 00:01:31,330

five four three two one zero all engines

14

00:01:39,150 --> 00:01:35,530

running commits liftoff Apollo 12 lifted

15

00:01:53,280 --> 00:01:39,160

off in the driving rain Pete Conrad

16

00:02:18,130 --> 00:01:55,660

thirty-six seconds later lightning

17

00:02:30,119 --> 00:02:20,450

we've had a couple of cardiac arrests

18

00:02:37,000 --> 00:02:32,319

she's gotta go or you're looking

19

00:02:39,250 --> 00:02:37,010

good in space and on earth they checked

20

00:02:41,110 --> 00:02:39,260

out the systems to be sure that the

21

00:02:44,379 --> 00:02:41,120

Lightning had caused no damage that

22

00:02:46,899 --> 00:02:44,389

would endanger the mission the time for

23

00:02:50,050 --> 00:02:46,909

commitment neared the burn to send

24

00:02:56,410 --> 00:02:50,060

Apollo 12 to the moon translunar

25

00:02:59,800 --> 00:02:56,420

injection tli Apollo 12 Houston the good

26

00:03:06,699 --> 00:02:59,810

word is your goal for tli hope you do

27

00:03:12,550 --> 00:03:06,709

we're ready we didn't train for anything

28

00:03:19,320 --> 00:03:16,840

we have data and thrusters go burn looks

29

00:03:25,950 --> 00:03:22,110

with engine cutoff Apollo 12 was on its

30

00:03:28,230 --> 00:03:25,960

way to the moon now they turned around

31

00:03:40,560 --> 00:03:28,240

to dock with the lunar module and pull

32

00:03:42,750 --> 00:03:40,570

it free of the now useless booster the

33

00:03:45,630 --> 00:03:42,760

next burn would place Apollo 12 on a new

34

00:03:47,190 --> 00:03:45,640

path to the moon previous missions had

35

00:03:49,440 --> 00:03:47,200

followed a trajectory that would allow

36

00:03:53,160 --> 00:03:49,450

them to loop around the moon and with no

37

00:03:55,290 --> 00:03:53,170

further burns return to Earth but Apollo

38

00:03:56,970 --> 00:03:55,300

12 in order to land at the proper site

39

00:03:59,430 --> 00:03:56,980

with the proper lighting it would break

40

00:04:01,560 --> 00:03:59,440

out of the free return path should a

41

00:04:03,360 --> 00:04:01,570

failure occur a burn of the service or

42

00:04:23,190 --> 00:04:03,370

lunar module engine would be needed to

43

00:04:46,170 --> 00:04:23,200

get them home now they settle down to

44

00:04:48,930 --> 00:04:46,180

the routine of the outward flight then

45

00:05:16,190 --> 00:04:48,940

on November 17th they prepared for orbit

46

00:05:26,880 --> 00:05:19,380

we're beginning to going to doctor at

47

00:05:31,290 --> 00:05:26,890

this time we're there hello 12 hissing

48

00:05:35,010 --> 00:05:31,300

you're go for a low I graduated go

49

00:05:36,720 --> 00:05:35,020

fellow I burn checklist complete - - six

50

00:05:40,650 --> 00:05:36,730

minutes and we're holding at this point

51  
00:05:42,450 --> 00:05:40,660  
LOI lunar orbit insertion the burn of

52  
00:05:44,730 --> 00:05:42,460  
the spacecraft rocket engine that would

53  
00:05:47,760 --> 00:05:44,740  
place Apollo 12 into orbit around the

54  
00:05:49,560 --> 00:05:47,770  
moon with this burn occurring behind the

55  
00:05:51,840 --> 00:05:49,570  
moon there would be no communications

56  
00:05:54,630 --> 00:05:51,850  
with the spacecraft until it came over

57  
00:06:09,860 --> 00:05:54,640  
the lunar horizon the command module

58  
00:06:15,750 --> 00:06:13,950  
I guess like everybody else it just

59  
00:06:20,380 --> 00:06:15,760  
arrived there all three of us you're

60  
00:06:25,520 --> 00:06:23,420  
the next day Pete Conrad and Alan bean

61  
00:06:29,570 --> 00:06:25,530  
entered the lunar module leaving dick

62  
00:06:31,790 --> 00:06:29,580  
Gordon in the command module now the

63  
00:06:33,920 --> 00:06:31,800

intrepid and Yankee Clipper undocked and

64

00:06:47,760 --> 00:06:33,930

separated preparatory to Intrepid's

65

00:06:47,770 --> 00:06:52,820

back off it

66

00:06:52,830 --> 00:07:00,100

there he goes

67

00:07:00,110 --> 00:07:04,450

okay

68

00:07:11,300 --> 00:07:09,260

as with the orbit insertion burn the

69

00:07:13,670 --> 00:07:11,310

burn to begin descent was made behind

70

00:07:15,709 --> 00:07:13,680

the moon mission controlled again

71

00:07:38,209 --> 00:07:15,719

contacted intrepid as it came over the

72

00:07:40,010 --> 00:07:38,219

horizon the surveyor three target was

73

00:07:42,649 --> 00:07:40,020

located in the middle of five craters

74

00:07:45,320 --> 00:07:42,659

arranged like a snowman the upper crater

75

00:07:48,649 --> 00:07:45,330

called Head crater the body called

76

00:07:52,459 --> 00:07:48,659

surveyor crater surveyor 3 is located in

77

00:07:57,080 --> 00:07:52,469

this crater the object to land as close

78

00:07:59,899 --> 00:07:57,090

as possible to surveyor crater then at

79

00:08:06,290 --> 00:07:59,909

50,000 feet Intrepid's engine fired and

80

00:08:07,790 --> 00:08:06,300

began the landing sequence I got the

81

00:08:15,260 --> 00:08:07,800

craters too but I don't know where I am

82

00:08:18,129 --> 00:08:15,270

yep a free and a by 56 before ok kind of

83

00:08:19,760 --> 00:08:18,139

looked out there I think I see my crater

84

00:08:32,300 --> 00:08:19,770

hey baby

85

00:08:39,110 --> 00:08:32,310

I'm not sure I'm in 374 feet standing 42

86

00:08:43,909 --> 00:08:39,120

degrees I can't believe it amazing can

87

00:08:47,500 --> 00:08:43,919

see 40 30 feet deep it is coming down in

88

00:08:52,550 --> 00:08:47,510

about 99 feet a second you looking good

89

00:08:54,860 --> 00:08:52,560

for 140 degrees they'll be these before

90

00:08:57,319 --> 00:08:54,870

that romantic I can't believe it you're

91

00:09:01,880 --> 00:08:57,329

at 2,000 feet boys on the ground you

92

00:09:04,280 --> 00:09:01,890

okay 1,800 feet up 39 degrees 38 degrees

93

00:09:08,310 --> 00:09:04,290

36 degrees you're 1250

94

00:09:10,010 --> 00:09:08,320

they shall be covered on it first looks

95

00:09:13,950 --> 00:09:10,020

good out there babe looks good

96

00:09:17,190 --> 00:09:13,960

33 degrees you ain't on its feet early

97

00:09:20,130 --> 00:09:17,200

previously 600 feet going right at that

98

00:09:22,079 --> 00:09:20,140

trailer right we're supposed to be it is

99

00:09:25,350 --> 00:09:22,089

you're beautiful do 40 coming down

100

00:09:30,060 --> 00:09:25,360

inside hey you're really moving around

101  
00:09:34,620 --> 00:09:30,070  
yep come on down hey okay ten percent

102  
00:09:38,220 --> 00:09:34,630  
fuel 200 feet coming on its rate you can

103  
00:09:40,829 --> 00:09:38,230  
come on down hey 180 feet nine percent

104  
00:09:44,100 --> 00:09:40,839  
you're looking good how'd he get some

105  
00:09:46,860 --> 00:09:44,110  
dust before long 96 feet coming guys dig

106  
00:09:48,389 --> 00:09:46,870  
slow down the descent rate eighty six

107  
00:09:51,210 --> 00:09:48,399  
eighty feet coming down in four you're

108  
00:09:54,090 --> 00:09:51,220  
looking good 50 feet coming down watch

109  
00:09:56,040 --> 00:09:54,100  
for the gut 40 tell me down is - looking

110  
00:09:57,810 --> 00:09:56,050  
good what's good coming down a tree

111  
00:10:02,190 --> 00:09:57,820  
species got plenty again playing that's

112  
00:10:05,880 --> 00:10:02,200  
good hang in there coming down it - he's

113  
00:10:10,140 --> 00:10:05,890

got it made come on in there 20:14 got

114

00:10:13,320 --> 00:10:10,150

backlight Roger copy contacts bro yes

115

00:10:16,170 --> 00:10:13,330

bro okay hey halt okay

116

00:10:20,280 --> 00:10:16,180

I'm cycling routes we got your finish

117

00:10:23,280 --> 00:10:20,290

command override off yep the good thing

118

00:10:25,019 --> 00:10:23,290

we leveled off hi yeah it came down

119

00:10:26,940 --> 00:10:25,029

because I sure couldn't see what was

120

00:10:40,560 --> 00:10:26,950

underneath there's one thing that is a

121

00:10:46,120 --> 00:10:43,420

as Conrad and bean began preparations

122

00:10:47,949 --> 00:10:46,130

for their first trip of exploration men

123

00:10:50,259 --> 00:10:47,959

on earth began their attempts to fix

124

00:10:52,329 --> 00:10:50,269

their exact landing site they were aided

125

00:11:16,990 --> 00:10:52,339

by dick Gordon orbiting an Yankee

126

00:11:35,620 --> 00:11:20,020

dick Gordon using the 28 power

127

00:11:38,440 --> 00:11:35,630

sextant for these sightings a major goal

128

00:11:40,330 --> 00:11:38,450

of Apollo 12 had been accomplished for

129

00:11:42,610 --> 00:11:40,340

before men can engage in meaningful

130

00:11:47,110 --> 00:11:42,620

lunar exploration they must be able to

131

00:11:49,330 --> 00:11:47,120

select a precise site and get there but

132

00:11:51,870 --> 00:11:49,340

now it was time to exit the intrepid and

133

00:12:06,760 --> 00:11:51,880

begin the exploration and experiments

134

00:12:12,310 --> 00:12:09,699

hey I'll tell you over price next - yeah

135

00:12:16,240 --> 00:12:12,320

we're about 25 feet service surveyor

136

00:12:17,470 --> 00:12:16,250

Croesus wanted to be I got I bet you

137

00:12:27,080 --> 00:12:17,480

when I get down at the bottom of the

138

00:12:32,690 --> 00:12:30,800

appeared and that may have business

139

00:12:36,460 --> 00:12:32,700

always revealed that the Longwood

140

00:12:41,560 --> 00:12:39,280

don't ever believe it

141

00:12:46,889 --> 00:12:41,570

Tippett I see fit brother side of the

142

00:12:50,470 --> 00:12:46,899

cleaner further better yes sir

143

00:12:57,460 --> 00:12:50,480

does that like me it can't be any

144

00:13:07,830 --> 00:13:00,260

now Pete Conrad collected a preliminary

145

00:13:14,220 --> 00:13:11,400

but I could walk grace well seems a

146

00:13:15,870 --> 00:13:14,230

little weird I'll tell you don't think

147

00:13:20,130 --> 00:13:15,880

you're gonna steam around here quite as

148

00:13:36,050 --> 00:13:23,940

yeah can work out here all day take your

149

00:13:52,860 --> 00:13:39,660

now Albion left intrepid to join Conrad

150

00:13:58,560 --> 00:13:56,160

and a Bible and at 20 feet behind where

151

00:14:02,439 --> 00:13:58,570

I landed I landed right back in that

152

00:14:07,040 --> 00:14:04,819

inadvertently the television camera was

153

00:14:09,679 --> 00:14:07,050

pointed directly at the Sun causing the

154

00:14:28,879 --> 00:14:09,689

tube to burn out the only unsuccessful

155

00:14:32,269 --> 00:14:28,889

aspect of the entire mission we're proud

156

00:14:34,100 --> 00:14:32,279

of what you're doing they prepared in

157

00:14:36,290 --> 00:14:34,110

experiments package to be left on the

158

00:14:38,569 --> 00:14:36,300

moon an automated scientific station

159

00:14:40,309 --> 00:14:38,579

called Alsip that would send information

160

00:14:49,860 --> 00:14:40,319

to earth for a year

161

00:14:49,870 --> 00:14:54,090

gotta be able to move out for this thing

162

00:15:13,270 --> 00:14:57,070

they moved to the site selected to set

163

00:15:25,360 --> 00:15:13,280

up the station they put together the

164

00:15:28,350 --> 00:15:25,370

Experiment Station also an acronym for

165

00:15:39,300 --> 00:15:28,360

Apollo lunar surface experiments package

166

00:15:44,530 --> 00:15:42,280

the solar wind experiment to measure

167

00:15:48,610 --> 00:15:44,540

atomic particles thrown off by the Sun

168

00:15:52,350 --> 00:15:48,620

as they strike the moon a device to

169

00:15:54,580 --> 00:15:52,360

measure the moon's tenuous atmosphere a

170

00:15:56,710 --> 00:15:54,590

magnetometer to measure the lunar

171

00:15:58,960 --> 00:15:56,720

magnetic field which would later be

172

00:16:02,700 --> 00:15:58,970

found to be 10 to 20 times stronger than

173

00:16:05,170 --> 00:16:02,710

many scientists had expected a

174

00:16:07,680 --> 00:16:05,180

seismometer to measure physical

175

00:16:10,240 --> 00:16:07,690

properties of the crust and interior and

176

00:16:12,130 --> 00:16:10,250

the data station to collect the

177

00:16:17,080 --> 00:16:12,140

experimental measurements and transmit

178

00:16:19,060 --> 00:16:17,090

them to earth with alsep deployed Conrad

179

00:16:30,040 --> 00:16:19,070

and bean began collecting geological

180

00:16:44,510 --> 00:16:32,960

they drove a core tube into the surface

181

00:16:46,160 --> 00:16:44,520

to collect soil from various depths we

182

00:16:49,100 --> 00:16:46,170

show you're three hours and seven

183

00:16:51,050 --> 00:16:49,110

minutes into it into the EBA and we like

184

00:16:56,950 --> 00:16:51,060

you back to the LEM to start the

185

00:17:05,220 --> 00:16:59,420

hope to get back that lamb for a long

186

00:17:11,200 --> 00:17:08,189

isten we're approaching the alsep headed

187

00:17:20,620 --> 00:17:14,170

feet nail we're picking up your heavy

188

00:17:22,420 --> 00:17:20,630

footprints going by the seismometer okay

189

00:17:26,230 --> 00:17:22,430

and if we got it dust each other off

190

00:17:29,350 --> 00:17:26,240

Julia and we are filthy

191

00:17:34,650 --> 00:17:29,360

coming up the ladder you shaking the

192

00:17:34,660 --> 00:17:42,360

Clippers

193

00:17:46,450 --> 00:17:44,500

flipper you were sort of a forgotten man

194

00:17:50,170 --> 00:17:46,460

for a little while we're all all eyes

195

00:17:52,750 --> 00:17:50,180

are on you now we're with you as Nick

196

00:17:54,840 --> 00:17:52,760

Gordon circled the moon Pete Conrad and

197

00:17:57,040 --> 00:17:54,850

Albion rested for their next expedition

198

00:18:01,030 --> 00:17:57,050

their total time on the lunar surface

199

00:18:02,620 --> 00:18:01,040

had been just under four hours twelve

200

00:18:15,420 --> 00:18:02,630

and a half hours later they went out

201  
00:18:17,530 --> 00:18:15,430  
again before they began their geological

202  
00:18:19,810 --> 00:18:17,540  
expeditions with the surrounding craters

203  
00:18:22,000 --> 00:18:19,820  
and two surveyor they worked around the

204  
00:18:31,470 --> 00:18:22,010  
lunar module getting ready the tools and

205  
00:18:38,700 --> 00:18:35,050  
whatever happened yesterday you know I

206  
00:18:41,789 --> 00:18:38,710  
think everybody learned okay

207  
00:18:43,860 --> 00:18:41,799  
as being ready the equipment Conrad went

208  
00:18:45,600 --> 00:18:43,870  
out to the alsep station to check an

209  
00:18:52,019 --> 00:18:45,610  
instrument about which the earth-based

210  
00:19:02,550 --> 00:18:52,029  
scientists had shown some concern decide

211  
00:19:06,960 --> 00:19:04,800  
after Conrad checked the alsep

212  
00:19:08,820 --> 00:19:06,970  
experiments they began the geological

213  
00:19:11,040 --> 00:19:08,830

traverse during which they would cover

214

00:19:13,770 --> 00:19:11,050

about a mile and take samples from six

215

00:19:15,840 --> 00:19:13,780

craters a big surprise when you look

216

00:19:20,610 --> 00:19:15,850

into this Head crater allergenic a lot

217

00:19:22,920 --> 00:19:20,620

be prison and looking and you go that's

218

00:19:24,090 --> 00:19:22,930

that the crack Hey look at the pits into

219

00:19:26,730 --> 00:19:24,100

that there's other people brought

220

00:19:32,169 --> 00:19:29,049

okay Houston I'm coming up on that

221

00:19:36,419 --> 00:19:32,179

crater right now there's a big fight

222

00:19:38,710 --> 00:19:36,429

against Richard but a fantastic sight

223

00:19:42,690 --> 00:19:38,720

Wow look at the bottom of that crater

224

00:19:45,070 --> 00:19:42,700

here is a good example right here klutz

225

00:19:48,780 --> 00:19:45,080

there we stop here look at the charred

226

00:19:54,360 --> 00:19:51,030

there does that lamp looks fall back

227

00:19:59,370 --> 00:19:54,370

their feet now we show you're 1,200 feet

228

00:20:01,500 --> 00:19:59,380

from the left okay you know what I feel

229

00:20:03,570 --> 00:20:01,510

right now right Guerra see those

230

00:20:09,860 --> 00:20:03,580

pictures that your ass running in slow

231

00:20:09,870 --> 00:20:16,730

get the decided Felix

232

00:20:22,050 --> 00:20:19,560

then they arrived at surveyor their

233

00:20:25,470 --> 00:20:22,060

target while the surveyor activities

234

00:21:21,660 --> 00:20:25,480

were a bonus they were symbolic of the

235

00:21:23,940 --> 00:21:21,670

success so they left surveyor and after

236

00:21:27,090 --> 00:21:23,950

a stop at the crater called block they

237

00:21:30,180 --> 00:21:27,100

were back at the lunar module collecting

238

00:21:39,620 --> 00:21:30,190

the solar wind experiment stowing the

239

00:21:45,560 --> 00:21:42,850

being re entered the lunar module first

240

00:21:47,960 --> 00:21:45,570

Conrad using a transfer apparatus

241

00:21:52,100 --> 00:21:47,970

similar to a clothesline real sent the

242

00:21:59,980 --> 00:21:52,110

samples up to him then Conrad to left

243

00:22:14,240 --> 00:22:03,770

Roger we got that three hours and 50

244

00:22:16,880 --> 00:22:14,250

minutes into the ev8 but there was no

245

00:22:18,799 --> 00:22:16,890

time to rest the lunar module had to be

246

00:22:48,170 --> 00:22:18,809

prepared for liftoff from the moon and

247

00:22:55,970 --> 00:22:53,390

everything looks good so they rose to

248

00:23:11,660 --> 00:22:55,980

their rendezvous and from dick Gordon

249

00:23:11,670 --> 00:23:18,490

look it better all the time

250

00:23:23,919 --> 00:23:21,480

oh Claire Beth appreciate a second

251

00:23:28,120 --> 00:23:23,929

intrepid now station-keeping

252

00:23:44,950 --> 00:23:28,130

what we can't keep Dipper the two

253

00:23:47,440 --> 00:23:44,960

vehicles move together for docking now

254

00:23:49,180 --> 00:23:47,450

Conrad and bean rejoined dick Gordon in

255

00:23:51,490 --> 00:23:49,190

the command module bringing with them

256

00:23:55,659 --> 00:23:51,500

the samples experiments and photographs

257

00:23:58,539 --> 00:23:55,669

to be returned to earth the next step

258

00:24:00,490 --> 00:23:58,549

Jefferson the lunar module then send it

259

00:24:03,460 --> 00:24:00,500

crashing into the moon to help calibrate

260

00:24:05,289 --> 00:24:03,470

the seismometer left on the surface this

261

00:24:07,740 --> 00:24:05,299

instrument was designed to measure the

262

00:24:12,960 --> 00:24:07,750

intensity of meteor impacts moon quakes

263

00:24:28,360 --> 00:24:15,730

guidance and control officer reports say

264

00:24:43,450 --> 00:24:31,250

the men on earth monitored the output of

265

00:24:46,250 --> 00:24:43,460

the seismometer waiting for impact I

266

00:24:50,240 --> 00:24:46,260

asked for the meaning I'd rather not

267

00:24:54,260 --> 00:24:50,250

make an interpretation right now but it

268

00:24:57,370 --> 00:24:54,270

is as though one had struck a bell say

269

00:25:00,230 --> 00:24:57,380

in the in the belfry of the church a

270

00:25:02,330 --> 00:25:00,240

single blow and found that the

271

00:25:05,990 --> 00:25:02,340

reverberations from it continued for 30

272

00:25:08,060 --> 00:25:06,000

minutes after 55 minutes the

273

00:25:12,410 --> 00:25:08,070

reverberation still had not faded

274

00:25:14,690 --> 00:25:12,420

completely Apollo 12 continued its

275

00:25:16,880 --> 00:25:14,700

orbits of the moon gathering photography

276

00:25:19,160 --> 00:25:16,890

for scientific study including the fra

277

00:25:22,340 --> 00:25:19,170

mauro area the landing site for apollo

278

00:25:32,120 --> 00:25:22,350

13 and then it was time to head back to

279

00:25:35,540 --> 00:25:32,130

earth the burn to send them home would

280

00:25:48,010 --> 00:25:35,550

take place behind the moon on earth we

281

00:25:53,570 --> 00:25:50,660

surely before re-entry the crew of

282

00:26:07,220 --> 00:25:53,580

Apollo 12 watched the earth move to blot

283

00:26:10,100 --> 00:26:07,230

out the Sun then Apollo 12 hit the

284

00:26:15,000 --> 00:26:10,110

atmosphere of Earth at 25,000 miles an

285

00:26:15,010 --> 00:26:38,290

Frye's we concur Pete

286

00:26:49,950 --> 00:26:40,960

but the log of Apollo 12 does not end

287

00:27:03,940 --> 00:26:52,690

and I got the grapefruit Rock of all

288

00:27:06,730 --> 00:27:03,950

grapefruit rocks and on the moon an

289

00:27:08,830 --> 00:27:06,740

experimental station called alsep sends

290

00:27:10,510 --> 00:27:08,840

back its data each experiment

291

00:27:14,920 --> 00:27:10,520

representing a milestone in our

292

00:27:17,830 --> 00:27:14,930

knowledge of the moon side that has been

293

00:27:20,410 --> 00:27:17,840

turned on and I'm very happy to say is

294

00:27:22,390 --> 00:27:20,420

functioning perfectly the Sutherland

295

00:27:23,830 --> 00:27:22,400

spectrometer has been functioning of

296

00:27:27,220 --> 00:27:23,840

course as since I also have been turned

297

00:27:30,460 --> 00:27:27,230

on the seismic experiment is as has been

298

00:27:32,950 --> 00:27:30,470

reported is functioning in all respects

299

00:27:34,510 --> 00:27:32,960

properly I think it will represent a

300

00:27:37,330 --> 00:27:34,520

major discovery of completely

301  
00:27:40,210 --> 00:27:37,340  
unanticipated about the moon we're going

302  
00:27:42,730 --> 00:27:40,220  
to have to throw the book away and begin

303  
00:27:47,950 --> 00:27:42,740  
over again which seems to be the case

304  
00:27:50,380 --> 00:27:47,960  
for the moon in general Apollo 12 was a

305  
00:27:53,140 --> 00:27:50,390  
milestone in manned extraterrestrial

306  
00:27:55,540 --> 00:27:53,150  
exploration it achieved its pinpoint

307  
00:27:59,860 --> 00:27:55,550  
landing as close as possible to its

308  
00:28:02,440 --> 00:27:59,870  
selected target marked by surveyor it

309  
00:28:04,450 --> 00:28:02,450  
set a pace and a pattern of scientific