



1  
00:00:14,549 --> 00:00:12,629  
in 1988 school children from across

2  
00:00:17,830 --> 00:00:14,559  
america were asked to help name the

3  
00:00:19,590 --> 00:00:17,840  
newest space shuttle orbiter

4  
00:00:21,429 --> 00:00:19,600  
one of their requirements was to name it

5  
00:00:23,830 --> 00:00:21,439  
after a sea vessel of scientific

6  
00:00:26,230 --> 00:00:23,840  
exploration

7  
00:00:28,630 --> 00:00:26,240  
after months of competition a name was

8  
00:00:44,470 --> 00:00:28,640  
finally selected and our newest orbiter

9  
00:00:48,950 --> 00:00:45,910  
welcome aboard the space shuttle

10  
00:00:51,670 --> 00:00:48,960  
endeavor on this it's maiden voyage

11  
00:00:55,990 --> 00:00:51,680  
the name endeavor has a long history of

12  
00:01:00,630 --> 00:00:58,229  
over 200 years ago the oceans of the

13  
00:01:03,430 --> 00:01:00,640

world were still great frontiers

14

00:01:05,509 --> 00:01:03,440

filled with mystery and adventure

15

00:01:06,550 --> 00:01:05,519

no ship helped to unravel those

16

00:01:08,870 --> 00:01:06,560

mysteries

17

00:01:10,870 --> 00:01:08,880

more than the british sailing ship

18

00:01:13,030 --> 00:01:10,880

endeavor

19

00:01:13,910 --> 00:01:13,040

it's obvious we've progressed quite a

20

00:01:16,070 --> 00:01:13,920

ways

21

00:01:18,550 --> 00:01:16,080

since the wind-driven sailing ships

22

00:01:21,910 --> 00:01:18,560

but we are still inspired by the quest

23

00:01:23,990 --> 00:01:21,920

for knowledge and the sense of adventure

24

00:01:26,149 --> 00:01:24,000

during the next few minutes we will take

25

00:01:28,469 --> 00:01:26,159

a look at the endeavor of long ago to

26  
00:01:30,230 --> 00:01:28,479  
see how much we've changed and how much

27  
00:01:33,109 --> 00:01:30,240  
we've stayed the same

28  
00:01:35,990 --> 00:01:33,119  
so join us for the voyage of endeavor

29  
00:01:36,950 --> 00:01:36,000  
then and now

30  
00:01:38,069 --> 00:01:36,960  
10

31  
00:01:40,789 --> 00:01:38,079  
9

32  
00:01:44,390 --> 00:01:40,799  
8 we have a goal for main engine start

33  
00:01:45,270 --> 00:01:44,400  
we have main engine start four three

34  
00:01:46,230 --> 00:01:45,280  
two

35  
00:01:49,590 --> 00:01:46,240  
one

36  
00:01:57,670 --> 00:01:49,600  
zero and rift-off liftoff of the space

37  
00:01:57,680 --> 00:02:11,350  
touchdown

38  
00:02:11,360 --> 00:02:47,430

so

39

00:02:51,270 --> 00:02:49,509  
the original endeavor was commanded by

40

00:02:54,550 --> 00:02:51,280  
one of the greatest sea captains who

41

00:02:57,030 --> 00:02:54,560  
ever lived captain james cook

42

00:03:04,149 --> 00:02:57,040  
cook the very name dominates an age of

43

00:03:11,270 --> 00:03:05,910  
at the helm of endeavour he sailed

44

00:03:16,710 --> 00:03:12,949  
around the treacherous horn of south

45

00:03:16,720 --> 00:03:21,990  
and into the vast pacific ocean

46

00:03:27,030 --> 00:03:23,430  
the voyage of endeavor took him to

47

00:03:27,040 --> 00:03:37,430  
new zealand

48

00:03:37,440 --> 00:03:48,550  
along australia's great barrier reef

49

00:03:53,670 --> 00:03:51,589  
and finally around the tip of africa

50

00:03:58,309 --> 00:03:53,680  
back into the atlantic and home to

51  
00:04:04,869 --> 00:04:00,390  
it was a voyage that lasted almost three

52  
00:04:08,789 --> 00:04:06,789  
as a young boy in england james cook

53  
00:04:11,110 --> 00:04:08,799  
fell in love with the sea

54  
00:04:12,789 --> 00:04:11,120  
born the son of a farmer he quit his job

55  
00:04:15,910 --> 00:04:12,799  
as a grocery clerk to work as an

56  
00:04:18,150 --> 00:04:15,920  
apprentice on a cold hauling ship

57  
00:04:20,150 --> 00:04:18,160  
because he aspired to a career normally

58  
00:04:22,150 --> 00:04:20,160  
reserved for the privileged upper class

59  
00:04:23,909 --> 00:04:22,160  
cook worked hard

60  
00:04:27,749 --> 00:04:23,919  
he spent much of his free time studying

61  
00:04:29,110 --> 00:04:27,759  
navigation astronomy and physics

62  
00:04:31,189 --> 00:04:29,120  
without a doubt

63  
00:04:44,150 --> 00:04:31,199

his knowledge of these subjects led to

64

00:04:46,950 --> 00:04:45,430

like look

65

00:04:48,790 --> 00:04:46,960

most every astronaut can tell you that

66

00:04:51,830 --> 00:04:48,800

he or she became interested in

67

00:04:56,950 --> 00:04:51,840

exploration at a very young age

68

00:05:00,629 --> 00:04:58,870

we come from different backgrounds

69

00:05:02,710 --> 00:05:00,639

some of us are pilots

70

00:05:06,310 --> 00:05:02,720

others are scientists engineers

71

00:05:08,070 --> 00:05:06,320

mathematicians and even medical doctors

72

00:05:10,310 --> 00:05:08,080

but one thing we all have in common is a

73

00:05:12,070 --> 00:05:10,320

college degree and a strong background

74

00:05:13,350 --> 00:05:12,080

in math and science that led us into the

75

00:05:15,670 --> 00:05:13,360

space program

76

00:05:17,270 --> 00:05:15,680

and into space

77

00:05:19,350 --> 00:05:17,280

the shuttle is the workhorse of the

78

00:05:21,189 --> 00:05:19,360

space program and endeavor is the fifth

79

00:05:22,870 --> 00:05:21,199

shuttle to be built

80

00:05:25,189 --> 00:05:22,880

although she may look the same as her

81

00:05:27,510 --> 00:05:25,199

sister ships endeavor is actually

82

00:05:29,430 --> 00:05:27,520

pioneering new shuttle technology that

83

00:05:31,430 --> 00:05:29,440

will soon be incorporated into the rest

84

00:05:33,430 --> 00:05:31,440

of the shuttle fleet

85

00:05:36,550 --> 00:05:33,440

these modifications include the addition

86

00:05:37,990 --> 00:05:36,560

of a drag chute for safer landings

87

00:05:40,230 --> 00:05:38,000

and improvements that will allow

88

00:05:42,230 --> 00:05:40,240

shuttles to fly longer missions of

89

00:05:44,310 --> 00:05:42,240

exploration

90

00:05:45,670 --> 00:05:44,320

cook's endeavor was also modified before

91

00:05:47,909 --> 00:05:45,680

she set sail

92

00:05:51,029 --> 00:05:47,919

she started out as a short-range coral

93

00:05:52,710 --> 00:05:51,039

hauling ship named earl of pembroke

94

00:05:55,670 --> 00:05:52,720

she was then refurbished for longer

95

00:05:59,110 --> 00:05:55,680

voyages and rechristened endeavor

96

00:06:01,110 --> 00:05:59,120

then in august of 1768 cook sailed her

97

00:06:05,430 --> 00:06:01,120

from plymouth england to begin one of

98

00:06:10,150 --> 00:06:07,749

but what was he looking for

99

00:06:11,830 --> 00:06:10,160

his primary mission was to transport a

100

00:06:13,990 --> 00:06:11,840

group of scientists to an area in the

101  
00:06:17,749 --> 00:06:14,000  
pacific ocean where they could observe

102  
00:06:20,309 --> 00:06:17,759  
an important astronomical event

103  
00:06:22,870 --> 00:06:20,319  
it was the transit of venus when the

104  
00:06:24,870 --> 00:06:22,880  
planet passes in front of the sun

105  
00:06:30,390 --> 00:06:24,880  
an event that happens only twice every

106  
00:06:34,710 --> 00:06:32,710  
but cook also had another job or

107  
00:06:36,629 --> 00:06:34,720  
secondary objective

108  
00:06:38,550 --> 00:06:36,639  
he was to explore this relatively

109  
00:06:40,550 --> 00:06:38,560  
uncharted region of the world

110  
00:06:43,590 --> 00:06:40,560  
claim all that he found for england and

111  
00:06:45,350 --> 00:06:43,600  
make maps of the area

112  
00:06:47,350 --> 00:06:45,360  
along the way the scientists with him

113  
00:06:49,350 --> 00:06:47,360

would observe and document new plant and

114

00:06:51,670 --> 00:06:49,360

animal life they encountered

115

00:06:53,749 --> 00:06:51,680

whenever we launch a shuttle into space

116

00:06:55,510 --> 00:06:53,759

we also have more than one job or

117

00:06:57,990 --> 00:06:55,520

objective in mind

118

00:06:59,909 --> 00:06:58,000

for example our primary mission on this

119

00:07:07,189 --> 00:06:59,919

flight is to retrieve the intelsat

120

00:07:10,629 --> 00:07:08,950

rescuing the satellite

121

00:07:12,309 --> 00:07:10,639

turned out to be more of a challenge

122

00:07:13,350 --> 00:07:12,319

than we thought it would be

123

00:07:14,870 --> 00:07:13,360

like cook

124

00:07:18,870 --> 00:07:14,880

we discovered there are unknowns

125

00:07:23,270 --> 00:07:20,870

while exploring the uncharted australian

126  
00:07:25,189 --> 00:07:23,280  
coastline the endeavor ran aground on

127  
00:07:27,029 --> 00:07:25,199  
the great barrier reef

128  
00:07:28,070 --> 00:07:27,039  
but cook had a skilled and ingenious

129  
00:07:30,629 --> 00:07:28,080  
crew

130  
00:07:32,469 --> 00:07:30,639  
who was able to repair the ship and

131  
00:07:35,189 --> 00:07:32,479  
enable the voyage to continue to its

132  
00:07:37,110 --> 00:07:35,199  
successful conclusion

133  
00:07:39,510 --> 00:07:37,120  
we ran into problems too when we first

134  
00:07:42,309 --> 00:07:39,520  
attempted to capture the satellite

135  
00:07:49,510 --> 00:07:42,319  
this task was easily performed on earth

136  
00:07:52,150 --> 00:07:51,110  
but in a case of history repeating

137  
00:07:54,230 --> 00:07:52,160  
itself

138  
00:07:56,869 --> 00:07:54,240

the crew of the space shuttle endeavour

139

00:07:58,710 --> 00:07:56,879

was able to devise a new plan of action

140

00:08:00,550 --> 00:07:58,720

and we successfully completed our

141

00:08:01,749 --> 00:08:00,560

primary mission objective

142

00:08:04,629 --> 00:08:01,759

okay

143

00:08:04,639 --> 00:08:07,670

all got a good grip

144

00:08:07,680 --> 00:08:12,230

i think we got a satellite

145

00:08:18,070 --> 00:08:14,469

but that's not all we do we like captain

146

00:08:20,150 --> 00:08:18,080

cook also have secondary objectives

147

00:08:22,550 --> 00:08:20,160

on board we're conducting life science

148

00:08:24,629 --> 00:08:22,560

experiments which will help us to better

149

00:08:27,110 --> 00:08:24,639

understand the effects of weightlessness

150

00:08:29,110 --> 00:08:27,120

on the human body

151  
00:08:30,869 --> 00:08:29,120  
we're also working outside the orbiter

152  
00:08:32,469 --> 00:08:30,879  
in the payload bay evaluating

153  
00:08:33,990 --> 00:08:32,479  
construction techniques for space

154  
00:08:36,389 --> 00:08:34,000  
station freedom

155  
00:08:43,190 --> 00:08:36,399  
so like cook we're blazing a trail for

156  
00:08:43,200 --> 00:08:45,829  
beautiful

157  
00:08:49,509 --> 00:08:47,829  
documentation is also an important part

158  
00:08:52,230 --> 00:08:49,519  
of what we do up here

159  
00:08:54,230 --> 00:08:52,240  
in fact on this flight we're carrying 21

160  
00:08:56,389 --> 00:08:54,240  
cameras to bring back some of our

161  
00:08:57,829 --> 00:08:56,399  
activities to earth

162  
00:09:01,829 --> 00:08:57,839  
we can show researchers their

163  
00:09:01,839 --> 00:09:06,790

or tests of space hardware

164

00:09:12,790 --> 00:09:08,790

we give oceanographers a new view of our

165

00:09:18,070 --> 00:09:14,790

and we are just a different view of the

166

00:09:27,910 --> 00:09:20,630

and the beauty of the earth from space

167

00:09:31,110 --> 00:09:30,230

we can send images from space as they

168

00:09:32,870 --> 00:09:31,120

happen

169

00:09:37,590 --> 00:09:32,880

via satellite

170

00:09:39,670 --> 00:09:37,600

but we also bring back a lot of pictures

171

00:09:41,590 --> 00:09:39,680

in cook's day there were no satellites

172

00:09:45,110 --> 00:09:41,600

or cameras but he still needed to

173

00:09:51,030 --> 00:09:47,750

so he had two artists on his endeavor to

174

00:09:53,190 --> 00:09:51,040

document the landscapes

175

00:09:55,190 --> 00:09:53,200

the people

176

00:09:59,910 --> 00:09:55,200

the plants and the animals they

177

00:10:02,949 --> 00:10:01,269

but that meant the scientists back in

178

00:10:05,030 --> 00:10:02,959

england had to wait until cook got home

179

00:10:07,910 --> 00:10:05,040

to see their pictures and cook was gone

180

00:10:12,230 --> 00:10:09,990

a ship whether it's a sailing ship or a

181

00:10:14,230 --> 00:10:12,240

spaceship has to have a crew to make it

182

00:10:17,750 --> 00:10:14,240

work

183

00:10:19,829 --> 00:10:17,760

we have a crew of seven on our flight

184

00:10:21,430 --> 00:10:19,839

commander and a pilot who fly the

185

00:10:23,430 --> 00:10:21,440

spacecraft

186

00:10:25,910 --> 00:10:23,440

and five mission specialists who perform

187

00:10:29,030 --> 00:10:25,920

microgravity experiments

188

00:10:36,150 --> 00:10:32,710

operate the shuttle's arm

189

00:10:40,150 --> 00:10:38,470

of course with such a small crew we all

190

00:10:42,150 --> 00:10:40,160

have to help each other out and share

191

00:10:43,910 --> 00:10:42,160

the work

192

00:10:46,550 --> 00:10:43,920

for example while pierre and rick are

193

00:10:48,630 --> 00:10:46,560

space walking outside the orbiter the

194

00:10:51,030 --> 00:10:48,640

rest of the crew are all busy with jobs

195

00:10:52,790 --> 00:10:51,040

that make their trip outside possible

196

00:10:54,630 --> 00:10:52,800

so there's a lot of coordination between

197

00:10:56,710 --> 00:10:54,640

all of us

198

00:10:58,870 --> 00:10:56,720

on the shuttle seven people have to live

199

00:11:02,870 --> 00:10:58,880

and work in a volume equal to half the

200

00:11:07,829 --> 00:11:04,790

but we make the most of what space we do

201  
00:11:07,839 --> 00:11:13,190  
even the ceiling

202  
00:11:17,030 --> 00:11:14,870  
these lockers are where we stow most of

203  
00:11:18,949 --> 00:11:17,040  
the things we use on the flight such as

204  
00:11:21,829 --> 00:11:18,959  
our clothes and even equipment for some

205  
00:11:23,590 --> 00:11:21,839  
of our experiments

206  
00:11:25,910 --> 00:11:23,600  
cook had to consider living in storage

207  
00:11:27,670 --> 00:11:25,920  
space on his endeavor too he had more

208  
00:11:29,269 --> 00:11:27,680  
than 90 people on board a ship that

209  
00:11:30,790 --> 00:11:29,279  
wasn't designed to carry nearly that

210  
00:11:32,630 --> 00:11:30,800  
many

211  
00:11:34,710 --> 00:11:32,640  
this meant they had to make use of every

212  
00:11:36,230 --> 00:11:34,720  
nook and cranny on the ship just like we

213  
00:11:38,150 --> 00:11:36,240

do on the shuttle

214

00:11:39,590 --> 00:11:38,160

cook had to also carry enough supplies

215

00:11:41,110 --> 00:11:39,600

to service the ship during its

216

00:11:43,509 --> 00:11:41,120

three-year voyage

217

00:11:46,069 --> 00:11:43,519

that meant extra canvas for torn sails

218

00:11:47,910 --> 00:11:46,079

and other items to keep his ship sailing

219

00:11:49,750 --> 00:11:47,920

remember endeavour ran aground on

220

00:11:51,990 --> 00:11:49,760

australia's great barrier reef and her

221

00:11:53,350 --> 00:11:52,000

hull was damaged pretty badly but thanks

222

00:11:55,030 --> 00:11:53,360

to the carpenter and blacksmith that

223

00:11:56,790 --> 00:11:55,040

cook had on board they were able to

224

00:11:58,790 --> 00:11:56,800

repair the damage and continue their

225

00:12:00,710 --> 00:11:58,800

voyage

226

00:12:02,710 --> 00:12:00,720

occasionally we may also have problems

227

00:12:04,310 --> 00:12:02,720

that require immediate maintenance and

228

00:12:06,629 --> 00:12:04,320

even though we don't have a blacksmith

229

00:12:09,269 --> 00:12:06,639

or a carpenter on board we do have a

230

00:12:12,710 --> 00:12:09,279

well-equipped tool kit

231

00:12:14,629 --> 00:12:12,720

an extensive maintenance checklist

232

00:12:16,389 --> 00:12:14,639

during the flight of sts-30 the crew

233

00:12:18,150 --> 00:12:16,399

used these maintenance procedures and

234

00:12:19,750 --> 00:12:18,160

tools to change out an important

235

00:12:21,190 --> 00:12:19,760

computer

236

00:12:23,670 --> 00:12:21,200

we sure hope we don't have any

237

00:12:26,230 --> 00:12:23,680

emergencies like that but if we do we

238

00:12:28,150 --> 00:12:26,240

have the tools and the procedures to get

239

00:12:29,910 --> 00:12:28,160

the job done

240

00:12:32,150 --> 00:12:29,920

food was another thing that took up a

241

00:12:33,910 --> 00:12:32,160

lot of space on cook's endeavor carrying

242

00:12:35,990 --> 00:12:33,920

enough food for such a large crew was

243

00:12:37,910 --> 00:12:36,000

quite a task

244

00:12:40,629 --> 00:12:37,920

meat was packed in large barrels of salt

245

00:12:42,629 --> 00:12:40,639

to keep it from spoiling

246

00:12:45,190 --> 00:12:42,639

the typical food on such a long voyage

247

00:12:47,750 --> 00:12:45,200

consists mainly of salt pork and bread

248

00:12:49,829 --> 00:12:47,760

with a little rum or beer thrown in

249

00:12:51,350 --> 00:12:49,839

because of diets like that many sailors

250

00:12:53,430 --> 00:12:51,360

of that day suffered and died from

251  
00:12:55,110 --> 00:12:53,440  
scurvy a disease caused by a lack of

252  
00:12:57,030 --> 00:12:55,120  
vitamin c

253  
00:12:58,949 --> 00:12:57,040  
but things were different on cook's ship

254  
00:13:01,509 --> 00:12:58,959  
he loaded endeavor with as much fresh

255  
00:13:04,150 --> 00:13:01,519  
meat fruit vegetables and onions as the

256  
00:13:05,910 --> 00:13:04,160  
ship could carry and because of that he

257  
00:13:10,790 --> 00:13:05,920  
didn't lose a single member of his crew

258  
00:13:14,710 --> 00:13:12,710  
cook even took a goat along with him so

259  
00:13:17,990 --> 00:13:14,720  
that his crew would have fresh milk i

260  
00:13:19,910 --> 00:13:18,000  
don't think that would work up here

261  
00:13:21,590 --> 00:13:19,920  
for the most part our meals are already

262  
00:13:23,350 --> 00:13:21,600  
prepared

263  
00:13:29,269 --> 00:13:23,360

some foods we just have to heat up in

264

00:13:33,430 --> 00:13:31,670

others are prepared by adding water to

265

00:13:35,030 --> 00:13:33,440

them

266

00:13:37,509 --> 00:13:35,040

we also have some that we eat straight

267

00:13:38,949 --> 00:13:37,519

out of the can

268

00:13:41,670 --> 00:13:38,959

tonight i'm having beef tips with

269

00:13:42,870 --> 00:13:41,680

mushrooms asparagus and butterscotch

270

00:13:45,030 --> 00:13:42,880

pudding

271

00:13:48,949 --> 00:13:45,040

we also have a choice of drinks

272

00:13:50,470 --> 00:13:48,959

but no rum or beer like in cook's day

273

00:13:52,150 --> 00:13:50,480

this would have been a feast for cook's

274

00:13:53,990 --> 00:13:52,160

crew

275

00:13:55,269 --> 00:13:54,000

and then there's housekeeping a chore on

276

00:13:56,790 --> 00:13:55,279

any vessel

277

00:13:59,350 --> 00:13:56,800

cook knew that disease and germs could

278

00:14:01,030 --> 00:13:59,360

destroy his crew so he regularly had

279

00:14:02,389 --> 00:14:01,040

endeavour's deck scrub with a mixture of

280

00:14:04,230 --> 00:14:02,399

vinegar and water

281

00:14:05,829 --> 00:14:04,240

but if one of his crew did get sick he

282

00:14:12,230 --> 00:14:05,839

had a medic and a doctor on board to

283

00:14:16,389 --> 00:14:14,629

we also have to keep our ship clean in

284

00:14:18,389 --> 00:14:16,399

space dirt and other things don't fall

285

00:14:20,230 --> 00:14:18,399

to the floor like they do on earth in

286

00:14:26,389 --> 00:14:20,240

fact the walls get just as dirty as the

287

00:14:29,829 --> 00:14:28,389

and if one of us becomes ill two of our

288

00:14:31,670 --> 00:14:29,839

crew members are trained to be crew

289

00:14:33,350 --> 00:14:31,680

medical officers

290

00:14:35,509 --> 00:14:33,360

using the shuttle medical kit and the

291

00:14:37,910 --> 00:14:35,519

medical checklist the crew medical

292

00:14:39,990 --> 00:14:37,920

officers can treat problems as simple as

293

00:14:44,389 --> 00:14:40,000

a headache or something as serious as a

294

00:14:48,550 --> 00:14:45,829

here's a luxury they didn't have on the

295

00:14:50,150 --> 00:14:48,560

original endeavor a toilet

296

00:14:52,310 --> 00:14:50,160

in cook's day they used to have to use a

297

00:14:53,750 --> 00:14:52,320

bucket or hang over the side of the ship

298

00:14:55,910 --> 00:14:53,760

as you can imagine that could get pretty

299

00:14:57,590 --> 00:14:55,920

dangerous in rough seas

300

00:14:59,269 --> 00:14:57,600

man overboard

301

00:15:01,990 --> 00:14:59,279

another advantage we have as far as

302

00:15:03,670 --> 00:15:02,000

comfort goes is climate control

303

00:15:05,910 --> 00:15:03,680

our life support system keeps the crew

304

00:15:07,750 --> 00:15:05,920

compartment at a comfortable 25 degrees

305

00:15:09,509 --> 00:15:07,760

celsius

306

00:15:11,189 --> 00:15:09,519

on cook's voyage endeavors sailed

307

00:15:12,710 --> 00:15:11,199

through the frigid waters off the tip of

308

00:15:14,790 --> 00:15:12,720

south america

309

00:15:17,829 --> 00:15:14,800

and through the tropics near tahiti

310

00:15:19,269 --> 00:15:17,839

all without air conditioning or heaters

311

00:15:21,189 --> 00:15:19,279

cook also sailed without the

312

00:15:23,750 --> 00:15:21,199

sophisticated navigational aids that we

313

00:15:25,990 --> 00:15:23,760

have today to chart his course cook used

314

00:15:27,750 --> 00:15:26,000

a sextant a device that uses the stars

315

00:15:29,750 --> 00:15:27,760

to pinpoint latitude

316

00:15:30,949 --> 00:15:29,760

or how far north or south we are from

317

00:15:32,790 --> 00:15:30,959

the equator

318

00:15:34,790 --> 00:15:32,800

it'd still be a few years before the use

319

00:15:37,110 --> 00:15:34,800

of a chronometer would enable sailors to

320

00:15:39,590 --> 00:15:37,120

accurately determine longitude or how

321

00:15:41,189 --> 00:15:39,600

far east or west they were from england

322

00:15:43,030 --> 00:15:41,199

but thanks to cook's knowledge of math

323

00:15:44,870 --> 00:15:43,040

and astronomy he was able to compute

324

00:15:46,790 --> 00:15:44,880

endeavors longitude to within a few

325

00:15:49,030 --> 00:15:46,800

degrees

326

00:15:52,389 --> 00:15:49,040

most of our navigation is done by modern

327

00:15:54,470 --> 00:15:52,399

tracking satellites and ground radar

328

00:15:56,629 --> 00:15:54,480

but we have to help them out by pointing

329

00:15:58,150 --> 00:15:56,639

endeavors navigation instruments up at

330

00:16:00,550 --> 00:15:58,160

the proper stars

331

00:16:02,870 --> 00:16:00,560

to do this we use a device that's a lot

332

00:16:05,509 --> 00:16:02,880

like the sextant cook relied on it's

333

00:16:07,509 --> 00:16:05,519

called a star tracker with the star

334

00:16:10,069 --> 00:16:07,519

tracker we can accurately determine the

335

00:16:11,990 --> 00:16:10,079

orbiter's attitude and then do precise

336

00:16:14,710 --> 00:16:12,000

maneuvers like a rendezvous with the

337

00:16:16,310 --> 00:16:14,720

intel satellite

338

00:16:18,310 --> 00:16:16,320

cook's voyage on endeavor was a

339

00:16:21,030 --> 00:16:18,320

challenging one and in spite of the

340

00:16:22,870 --> 00:16:21,040

hardships endured by him and his crew

341

00:16:26,069 --> 00:16:22,880

the journey was one of history's

342

00:16:27,990 --> 00:16:26,079

greatest voyages of exploration

343

00:16:30,069 --> 00:16:28,000

during the voyage cook explored and

344

00:16:32,629 --> 00:16:30,079

charted new zealand proving that it was

345

00:16:34,069 --> 00:16:32,639

actually two islands

346

00:16:36,230 --> 00:16:34,079

he charted the eastern and northern

347

00:16:37,910 --> 00:16:36,240

coast of australia

348

00:16:40,870 --> 00:16:37,920

and established that australia and new

349

00:16:43,030 --> 00:16:40,880

guinea were separate land masses

350

00:16:44,790 --> 00:16:43,040

and he circumnavigated the globe

351

00:16:46,629 --> 00:16:44,800

bringing back a wealth of scientific

352

00:16:48,949 --> 00:16:46,639

information about plant and animal life

353

00:16:50,710 --> 00:16:48,959

in that part of the world

354

00:16:52,870 --> 00:16:50,720

the crew of space shuttle endeavour

355

00:16:54,790 --> 00:16:52,880

salutes captain james cook and his great

356

00:16:57,509 --> 00:16:54,800

accomplishments

357

00:16:59,590 --> 00:16:57,519

his life is an example of how far one

358

00:17:02,150 --> 00:16:59,600

can go

359

00:17:05,270 --> 00:17:02,160

he overcame great odds and obstacles to

360

00:17:08,230 --> 00:17:05,280

make his dreams come true with hard work

361

00:17:11,429 --> 00:17:08,240

study and perseverance cook became one

362

00:17:13,110 --> 00:17:11,439

of history's greatest explorers

363

00:17:14,309 --> 00:17:13,120

we in the shuttle program are also

364

00:17:16,390 --> 00:17:14,319

explorers

365

00:17:21,590 --> 00:17:16,400

charting a course for the future

366

00:17:26,230 --> 00:17:23,909

today our voyage of endeavor is keeping