



2012 Sep 11

1  
00:00:07,120 --> 00:00:10,470  
this week at nasa

2  
00:00:10,480 --> 00:00:18,870  
as one small step

3  
00:00:23,670 --> 00:00:21,109  
history will remember neil armstrong

4  
00:00:25,750 --> 00:00:23,680  
foremost as the first human to step foot

5  
00:00:28,630 --> 00:00:25,760  
on another heavenly body

6  
00:00:31,349 --> 00:00:28,640  
but his nasa family and many admirers

7  
00:00:34,229 --> 00:00:31,359  
worldwide will forever appreciate the

8  
00:00:36,150 --> 00:00:34,239  
self-effacing ohioan for more than just

9  
00:00:38,069 --> 00:00:36,160  
that one albeit world-changing

10  
00:00:39,990 --> 00:00:38,079  
accomplishment what an incredible feat

11  
00:00:42,229 --> 00:00:40,000  
it was for the nation first of all

12  
00:00:45,350 --> 00:00:42,239  
because this was during the days of the

13  
00:00:46,950 --> 00:00:45,360

civil rights era the war in vietnam

14

00:00:49,029 --> 00:00:46,960

you know fighting in the street and

15

00:00:51,430 --> 00:00:49,039

everything and here was an american

16

00:00:53,590 --> 00:00:51,440

stepping foot on the moon and and even

17

00:00:56,709 --> 00:00:53,600

then although i did not know him

18

00:00:58,869 --> 00:00:56,719

his humble comments about you know what

19

00:01:01,270 --> 00:00:58,879

what was being done for mankind it woke

20

00:01:02,790 --> 00:01:01,280

me up to you know we live in a universe

21

00:01:05,509 --> 00:01:02,800

and it's a universe that people can

22

00:01:07,109 --> 00:01:05,519

explore and here was a man stepping foot

23

00:01:09,830 --> 00:01:07,119

on the surface of the moon whether he

24

00:01:11,990 --> 00:01:09,840

was flying navy fighters in korea the

25

00:01:14,550 --> 00:01:12,000

x-15 at edwards air force base in

26

00:01:16,390 --> 00:01:14,560

california or training at the johnson

27

00:01:17,510 --> 00:01:16,400

space center for the lunar landing he'd

28

00:01:19,910 --> 00:01:17,520

later make

29

00:01:20,950 --> 00:01:19,920

armstrong was cool as a cucumber

30

00:01:23,350 --> 00:01:20,960

competent

31

00:01:24,390 --> 00:01:23,360

the perfect mix for his chosen fields of

32

00:01:26,390 --> 00:01:24,400

work

33

00:01:29,030 --> 00:01:26,400

armstrong's strong and analytical

34

00:01:30,870 --> 00:01:29,040

intellect also served him well as nasa's

35

00:01:33,910 --> 00:01:30,880

deputy associate administrator for

36

00:01:35,270 --> 00:01:33,920

aeronautics after leaving the agency as

37

00:01:38,069 --> 00:01:35,280

an engineering professor at the

38

00:01:41,590 --> 00:01:38,079

university of Cincinnati and later in

39

00:01:43,830 --> 00:01:41,600

corporate America but after Apollo 11

40

00:01:47,109 --> 00:01:43,840

what many will remember most about Neil

41

00:01:49,109 --> 00:01:47,119

Armstrong was the grace and humility

42

00:01:51,190 --> 00:01:49,119

with which he conducted his life after

43

00:01:53,270 --> 00:01:51,200

his return to Earth I don't think you'll

44

00:01:55,429 --> 00:01:53,280

ever see a history book in which there

45

00:01:57,670 --> 00:01:55,439

won't be something about Neil Armstrong

46

00:02:00,310 --> 00:01:57,680

I just hope we can live up to his legacy

47

00:02:01,749 --> 00:02:00,320

and continue the pace of exploration

48

00:02:05,910 --> 00:02:01,759

as I'm certain he would want us to do

49

00:02:09,430 --> 00:02:07,109

Neil was a

50

00:02:12,070 --> 00:02:09,440

a great patriot

51  
00:02:14,229 --> 00:02:12,080  
an activist in every sense of the word

52  
00:02:15,910 --> 00:02:14,239  
and a close personal friend

53  
00:02:18,869 --> 00:02:15,920  
and he'll be missed

54  
00:02:20,470 --> 00:02:18,879  
please join us in a moment of silence as

55  
00:02:23,510 --> 00:02:20,480  
we remember neil

56  
00:02:26,150 --> 00:02:23,520  
this is how fellow ohioan astronaut and

57  
00:02:28,550 --> 00:02:26,160  
former senator john glenn helped mark

58  
00:02:33,589 --> 00:02:28,560  
armstrong's passing prior to a cleveland

59  
00:02:37,670 --> 00:02:35,270  
after throwing out the game's first

60  
00:02:40,550 --> 00:02:37,680  
pitch glenn himself was honored with a

61  
00:02:42,710 --> 00:02:40,560  
plaque and indians jersey to commemorate

62  
00:02:48,150 --> 00:02:42,720  
the 50th anniversary of his orbital

63  
00:02:52,869 --> 00:02:49,910

the knowledge we hope to gain from our

64

00:02:54,790 --> 00:02:52,879

observation and analysis of gale crater

65

00:02:57,670 --> 00:02:54,800

will tell us much about the possibility

66

00:03:00,790 --> 00:02:57,680

of life on mars as well as the past and

67

00:03:03,030 --> 00:03:00,800

future possibilities of our own planet a

68

00:03:05,670 --> 00:03:03,040

message from nasa administrator charlie

69

00:03:07,589 --> 00:03:05,680

bolden marked the first time a recorded

70

00:03:09,589 --> 00:03:07,599

human voice was sent from earth to

71

00:03:11,830 --> 00:03:09,599

another planet and back

72

00:03:14,550 --> 00:03:11,840

transmitted round trip to the mars

73

00:03:17,030 --> 00:03:14,560

curiosity rover via nasa's deep space

74

00:03:19,589 --> 00:03:17,040

network bolden's message noted the

75

00:03:21,910 --> 00:03:19,599

difficulty of landing a rover on mars

76  
00:03:23,430 --> 00:03:21,920  
and with members of the curiosity team

77  
00:03:26,309 --> 00:03:23,440  
listening at the jet propulsion

78  
00:03:28,550 --> 00:03:26,319  
laboratory bolton congratulated them

79  
00:03:30,630 --> 00:03:28,560  
nasa employees and the agency's

80  
00:03:32,710 --> 00:03:30,640  
commercial and government partners for

81  
00:03:34,710 --> 00:03:32,720  
their achievement curiosity will bring

82  
00:03:37,670 --> 00:03:34,720  
benefits to earth and inspire a new

83  
00:03:40,070 --> 00:03:37,680  
generation of scientists and explorers

84  
00:03:40,949 --> 00:03:40,080  
as it prepares the way for a human

85  
00:03:53,589 --> 00:03:40,959  
mission

86  
00:03:58,710 --> 00:03:55,910  
the next day students at an educational

87  
00:04:01,910 --> 00:03:58,720  
event listened as curiosity played back

88  
00:04:04,390 --> 00:04:01,920

a new song by musician will i am making

89

00:04:05,509 --> 00:04:04,400

it the first interplanetary song in

90

00:04:07,509 --> 00:04:05,519

history

91

00:04:10,149 --> 00:04:07,519

reach for the stars was penned by the

92

00:04:13,110 --> 00:04:10,159

black eyed peas star to inspire students

93

00:04:18,310 --> 00:04:13,120

to dream big strive for excellence and

94

00:04:22,230 --> 00:04:20,229

the students learned about curiosity's

95

00:04:24,710 --> 00:04:22,240

mission and the technology behind the

96

00:04:27,909 --> 00:04:24,720

song's interplanetary transmission

97

00:04:30,070 --> 00:04:27,919

will i am's i am angel foundation which

98

00:04:32,710 --> 00:04:30,080

helps provide digital resources for

99

00:04:35,430 --> 00:04:32,720

students k through 12 announced a 10

100

00:04:37,749 --> 00:04:35,440

million classroom education initiative

101  
00:04:39,909 --> 00:04:37,759  
that will incorporate nasa content and

102  
00:04:41,189 --> 00:04:39,919  
space exploration themes in its

103  
00:04:43,749 --> 00:04:41,199  
curriculum

104  
00:04:45,749 --> 00:04:43,759  
also released new views of the martian

105  
00:04:48,550 --> 00:04:45,759  
landscape that show a scene of eroded

106  
00:04:51,590 --> 00:04:48,560  
knobs and gulches on a mountainside with

107  
00:04:53,590 --> 00:04:51,600  
geological layering clearly exposed the

108  
00:04:56,469 --> 00:04:53,600  
new views were taken by the 100

109  
00:04:58,790 --> 00:04:56,479  
millimeter telephoto lens and the 34

110  
00:05:01,670 --> 00:04:58,800  
millimeter wide angle lens of the mass

111  
00:05:03,830 --> 00:05:01,680  
camera instrument or mast cam

112  
00:05:06,070 --> 00:05:03,840  
another image shows track marks from a

113  
00:05:09,110 --> 00:05:06,080

successful drive by curiosity to the

114

00:05:11,350 --> 00:05:09,120

scour mark known as goldberg an area of

115

00:05:13,430 --> 00:05:11,360

bedrock exposed by thrusters on the

116

00:05:15,590 --> 00:05:13,440

rover's descent stage

117

00:05:17,670 --> 00:05:15,600

researchers plan to use a neutron

118

00:05:19,749 --> 00:05:17,680

shooting instrument on curiosity to

119

00:05:22,070 --> 00:05:19,759

check for water molecules bound into

120

00:05:25,029 --> 00:05:22,080

minerals at this partially excavated

121

00:05:26,870 --> 00:05:25,039

target

122

00:05:29,670 --> 00:05:26,880

among many curiosity-related

123

00:05:31,990 --> 00:05:29,680

celebrations was this post-landing party

124

00:05:33,990 --> 00:05:32,000

at the stennis space center's infinity

125

00:05:36,550 --> 00:05:34,000

science center where the public learned

126  
00:05:39,270 --> 00:05:36,560  
about the rover its mission and other

127  
00:05:41,189 --> 00:05:39,280  
nasa's space exploration efforts

128  
00:05:43,749 --> 00:05:41,199  
visitors not only viewed the latest

129  
00:05:45,749 --> 00:05:43,759  
images sent home by curiosity but also

130  
00:05:48,070 --> 00:05:45,759  
collected space-related items and

131  
00:05:53,029 --> 00:05:48,080  
enjoyed hands-on activity such as

132  
00:05:58,550 --> 00:05:56,070  
status check go atlas nasa's radiation

133  
00:06:00,309 --> 00:05:58,560  
belt storm probes mission is underway

134  
00:06:02,070 --> 00:06:00,319  
following an early morning launch from

135  
00:06:06,790 --> 00:06:02,080  
florida's cape canaveral air force

136  
00:06:11,510 --> 00:06:09,670  
rbsp our twin spacecraft designed to

137  
00:06:13,749 --> 00:06:11,520  
investigate the extremes of space

138  
00:06:16,629 --> 00:06:13,759

weather by measuring the particles

139

00:06:19,670 --> 00:06:16,639

radiation and other elements found in

140

00:06:22,070 --> 00:06:19,680

earth's van allen radiation belts

141

00:06:24,230 --> 00:06:22,080

our 59 and a half days now commissioning

142

00:06:26,710 --> 00:06:24,240

activities in front of us but we're very

143

00:06:29,350 --> 00:06:26,720

happy with the progress to date

144

00:06:30,230 --> 00:06:29,360

and uh jpl had their seven minutes of

145

00:06:32,790 --> 00:06:30,240

terror

146

00:06:34,710 --> 00:06:32,800

recently and i had my hour and 55

147

00:06:37,590 --> 00:06:34,720

minutes of terror tonight

148

00:06:39,430 --> 00:06:37,600

i had dark hair when we launched so i'm

149

00:06:41,990 --> 00:06:39,440

glad to say that we're on orbit now and

150

00:06:44,150 --> 00:06:42,000

everybody's happy using two spacecraft

151  
00:06:46,150 --> 00:06:44,160  
to take measurements along the same path

152  
00:06:48,150 --> 00:06:46,160  
will help scientists better understand

153  
00:06:52,230 --> 00:06:48,160  
how conditions in the belts change in

154  
00:06:56,870 --> 00:06:54,390  
as for extreme weather here on earth

155  
00:06:59,670 --> 00:06:56,880  
nasa satellites help meteorologists keep

156  
00:07:01,270 --> 00:06:59,680  
a close eye on isaac the tropical storm

157  
00:07:04,150 --> 00:07:01,280  
that grew into a slow-moving

158  
00:07:06,309 --> 00:07:04,160  
rain-drenching category 1 hurricane

159  
00:07:08,710 --> 00:07:06,319  
aboard the international space station

160  
00:07:10,629 --> 00:07:08,720  
external cameras provided multiple looks

161  
00:07:13,270 --> 00:07:10,639  
at the huge storm from its unique

162  
00:07:14,390 --> 00:07:13,280  
vantage point of 253 miles above the

163  
00:07:16,469 --> 00:07:14,400

earth

164

00:07:19,670 --> 00:07:16,479

also aboard the world's orbiting

165

00:07:22,230 --> 00:07:19,680

research laboratory expedition 32 sunny

166

00:07:24,870 --> 00:07:22,240

williams of nasa and aki hoshide of the

167

00:07:27,430 --> 00:07:24,880

japan aerospace exploration agency

168

00:07:30,710 --> 00:07:27,440

ventured outside for an eight-hour

169

00:07:33,990 --> 00:07:30,720

17-minute spacewalk the third longest in

170

00:07:36,390 --> 00:07:34,000

eva history the pair successfully rigged

171

00:07:39,110 --> 00:07:36,400

two power cables for the future arrival

172

00:07:41,909 --> 00:07:39,120

of a russian laboratory but were unable

173

00:07:44,869 --> 00:07:41,919

to replace a faulty power relay unit on

174

00:07:47,270 --> 00:07:44,879

the s0 truss after having difficulties

175

00:07:49,350 --> 00:07:47,280

driving the bolts to secure it they

176  
00:07:52,469 --> 00:07:49,360  
temporarily secured the main bus

177  
00:07:54,950 --> 00:07:52,479  
switching unit the mbsu to a handrail

178  
00:07:57,430 --> 00:07:54,960  
while iss managers assess a future

179  
00:07:58,390 --> 00:07:57,440  
course of action if we can figure out a

180  
00:08:01,350 --> 00:07:58,400  
plan

181  
00:08:03,909 --> 00:08:01,360  
that requires us to go eva to go uh

182  
00:08:05,990 --> 00:08:03,919  
solve this problem in the near future

183  
00:08:07,909 --> 00:08:06,000  
the advantage to us is saving crew time

184  
00:08:09,510 --> 00:08:07,919  
and getting ready to go outside in the

185  
00:08:11,270 --> 00:08:09,520  
crew's immediate experience having

186  
00:08:13,670 --> 00:08:11,280  
already dealt with this for some time

187  
00:08:15,189 --> 00:08:13,680  
this is not a

188  
00:08:17,029 --> 00:08:15,199

a configuration we want to stand for a

189

00:08:19,830 --> 00:08:17,039

long period of time but

190

00:08:22,550 --> 00:08:19,840

but even in this configuration we're

191

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

robust to to many failures still the

192

00:08:27,270 --> 00:08:24,639

spacewalkers did not attempt a third

193

00:08:30,070 --> 00:08:27,280

scheduled task replacement of a camera

194

00:08:31,909 --> 00:08:30,080

on the canadarm2 robotic arm

195

00:08:34,469 --> 00:08:31,919

this was the fifth spacewalk for

196

00:08:37,029 --> 00:08:34,479

williams and the first for hoshide who

197

00:08:45,590 --> 00:08:37,039

became the third japanese astronaut to

198

00:08:50,070 --> 00:08:47,750

the orion spacecraft continued

199

00:08:52,710 --> 00:08:50,080

undergoing its series of vertical drop

200

00:08:54,790 --> 00:08:52,720

tests at the langley research center one

201  
00:08:56,949 --> 00:08:54,800  
week after engineers released the test

202  
00:08:59,030 --> 00:08:56,959  
article two and a quarter feet they

203  
00:09:01,190 --> 00:08:59,040  
dropped it into langley's hydro impact

204  
00:09:03,430 --> 00:09:01,200  
basin from a height of nine feet

205  
00:09:05,190 --> 00:09:03,440  
these tests helped predict orion's

206  
00:09:07,430 --> 00:09:05,200  
landing loads

207  
00:09:10,790 --> 00:09:07,440  
orion's exploration flight test 1 is

208  
00:09:12,710 --> 00:09:10,800  
scheduled for 2014 when it'll travel 15

209  
00:09:14,790 --> 00:09:12,720  
times farther from the earth than the

210  
00:09:18,949 --> 00:09:14,800  
international space station before

211  
00:09:24,230 --> 00:09:21,350  
scientists say the extent of the sea ice

212  
00:09:25,990 --> 00:09:24,240  
covering the arctic ocean has shrunk

213  
00:09:28,150 --> 00:09:26,000

researchers from nasa and the

214

00:09:30,710 --> 00:09:28,160

nasa-supported national snow and ice

215

00:09:33,190 --> 00:09:30,720

data center in boulder colorado say the

216

00:09:35,350 --> 00:09:33,200

amount of arctic ice is the smallest

217

00:09:37,750 --> 00:09:35,360

observed in the three decades since

218

00:09:39,590 --> 00:09:37,760

consistent satellite observations of the

219

00:09:42,070 --> 00:09:39,600

polar cap began

220

00:09:44,710 --> 00:09:42,080

the sea ice cap naturally grows during

221

00:09:46,310 --> 00:09:44,720

the cold arctic winters and shrinks when

222

00:09:48,949 --> 00:09:46,320

temperatures climb in the spring and

223

00:09:52,389 --> 00:09:48,959

summer but over the last three decades

224

00:09:54,630 --> 00:09:52,399

satellites have observed a 13 decline

225

00:09:56,470 --> 00:09:54,640

per decade in the minimum summertime

226

00:09:58,790 --> 00:09:56,480

extent of the sea ice

227

00:10:02,389 --> 00:09:58,800

the thickness of the sea ice cover also

228

00:10:08,069 --> 00:10:04,710

nasa's wide field infrared survey

229

00:10:10,630 --> 00:10:08,079

explorer wise has detected a bonanza of

230

00:10:13,590 --> 00:10:10,640

newfound supermassive black holes and

231

00:10:17,110 --> 00:10:13,600

extreme dusty galaxies called hot dogs

232

00:10:19,430 --> 00:10:17,120

or dust obscured galaxies the millions

233

00:10:22,470 --> 00:10:19,440

of dusty black hole candidates and the

234

00:10:23,990 --> 00:10:22,480

thousand or so even dustier objects are

235

00:10:25,990 --> 00:10:24,000

thought to be among the brightest

236

00:10:27,990 --> 00:10:26,000

galaxies ever found

237

00:10:30,150 --> 00:10:28,000

these extreme objects can pour out more

238

00:10:32,389 --> 00:10:30,160

than a hundred trillion times as much

239

00:10:34,630 --> 00:10:32,399

light as our sun they are so dusty

240

00:10:36,550 --> 00:10:34,640

however that they appear only in the

241

00:10:39,190 --> 00:10:36,560

longest wavelengths of infrared light

242

00:10:41,110 --> 00:10:39,200

captured by wise the latest findings are

243

00:10:43,030 --> 00:10:41,120

helping astronomers better understand

244

00:10:45,670 --> 00:10:43,040

how galaxies and the enormous black

245

00:10:49,150 --> 00:10:45,680

holes at their centers grow and evolve

246

00:10:53,829 --> 00:10:51,990

144 rising high school seniors from

247

00:10:56,150 --> 00:10:53,839

across virginia spent a week of their

248

00:10:57,990 --> 00:10:56,160

summer at nasa langley research center

249

00:10:59,750 --> 00:10:58,000

planning a mission to mars

250

00:11:01,670 --> 00:10:59,760

the students took part in the virginia

251  
00:11:04,630 --> 00:11:01,680  
aerospace science and technology

252  
00:11:06,389 --> 00:11:04,640  
scholars academy also known as vast and

253  
00:11:07,670 --> 00:11:06,399  
this summer marks its fifth year

254  
00:11:10,069 --> 00:11:07,680  
anniversary

255  
00:11:13,350 --> 00:11:10,079  
you guys have to deal with an atmosphere

256  
00:11:15,750 --> 00:11:13,360  
so that means with much success the vast

257  
00:11:18,389 --> 00:11:15,760  
program started with just 48 scholars

258  
00:11:20,870 --> 00:11:18,399  
and has expanded to a total of 1400

259  
00:11:22,470 --> 00:11:20,880  
scholars over the past five years

260  
00:11:25,350 --> 00:11:22,480  
the program gives the students the

261  
00:11:27,590 --> 00:11:25,360  
opportunity to engage in an online nasa

262  
00:11:30,069 --> 00:11:27,600  
based course that uses a space

263  
00:11:33,430 --> 00:11:30,079

exploration theme to teach science

264

00:11:35,350 --> 00:11:33,440

technology engineering and math skills

265

00:11:37,910 --> 00:11:35,360

but their learning experience doesn't

266

00:11:40,310 --> 00:11:37,920

stop at the vast program many go on to

267

00:11:42,949 --> 00:11:40,320

intern at nasa as college students such

268

00:11:45,190 --> 00:11:42,959

as langley aerospace research student

269

00:11:47,030 --> 00:11:45,200

scholar kelly thomas

270

00:11:49,190 --> 00:11:47,040

because of her connections made through

271

00:11:51,190 --> 00:11:49,200

her vast experiences

272

00:11:54,230 --> 00:11:51,200

thomas has worked with projects relating

273

00:11:56,550 --> 00:11:54,240

to google and the android smartphone

274

00:11:58,310 --> 00:11:56,560

she also had the opportunity to attend a

275

00:12:00,790 --> 00:11:58,320

luncheon with nasa langley center

276

00:12:02,790 --> 00:12:00,800

director lisa rowe and congressional

277

00:12:05,110 --> 00:12:02,800

representatives it also gives a

278

00:12:07,509 --> 00:12:05,120

perspective it outlays

279

00:12:09,990 --> 00:12:07,519

the need for scientists and engineers

280

00:12:12,230 --> 00:12:10,000

and it also sparks an interest which can

281

00:12:14,550 --> 00:12:12,240

even spark a passion thomas is one of

282

00:12:18,790 --> 00:12:14,560

the many students who will excel because

283

00:12:22,230 --> 00:12:20,310

more than 80 high school girls from

284

00:12:24,150 --> 00:12:22,240

across the country convened at johnson

285

00:12:26,150 --> 00:12:24,160

space center in houston for an inside

286

00:12:28,230 --> 00:12:26,160

look into the life of a problem solver

287

00:12:30,949 --> 00:12:28,240

engineer or scientist as part of the

288

00:12:33,269 --> 00:12:30,959

wish program which is women in stem high

289

00:12:35,910 --> 00:12:33,279

school aerospace scholars the girls are

290

00:12:38,310 --> 00:12:35,920

going to be working on a human space

291

00:12:40,470 --> 00:12:38,320

exploration mission to mars so they've

292

00:12:42,550 --> 00:12:40,480

been placed on teams the mission

293

00:12:44,710 --> 00:12:42,560

integration team the getting there

294

00:12:47,030 --> 00:12:44,720

working there and living their team and

295

00:12:49,269 --> 00:12:47,040

each team is mentored by a nasa

296

00:12:52,870 --> 00:12:49,279

scientist or engineer and they work

297

00:12:54,389 --> 00:12:52,880

alongside nasa co-ops and interns

298

00:12:56,550 --> 00:12:54,399

you're out there the only way you are

299

00:12:58,069 --> 00:12:56,560

attached to the station is by your hands

300

00:12:59,829 --> 00:12:58,079

there are people here who are interested

301  
00:13:02,310 --> 00:12:59,839  
in art there are people here who are

302  
00:13:03,829 --> 00:13:02,320  
interested in biology and there are

303  
00:13:05,750 --> 00:13:03,839  
people like me who are interested in

304  
00:13:07,030 --> 00:13:05,760  
physics and it's interesting how we all

305  
00:13:07,829 --> 00:13:07,040  
come together

306  
00:13:10,470 --> 00:13:07,839  
and

307  
00:13:13,190 --> 00:13:10,480  
on this one mission almost one project

308  
00:13:15,030 --> 00:13:13,200  
and we use our different backgrounds to

309  
00:13:16,790 --> 00:13:15,040  
come up with solutions

310  
00:13:18,710 --> 00:13:16,800  
the participants also connected with

311  
00:13:20,629 --> 00:13:18,720  
nasa astronauts to learn what it takes

312  
00:13:22,389 --> 00:13:20,639  
to be an explorer they heard from

313  
00:13:25,030 --> 00:13:22,399

shannon walker who lived and worked on

314

00:13:27,030 --> 00:13:25,040

the international space station in 2010

315

00:13:28,870 --> 00:13:27,040

and also had a conversation via ham

316

00:13:34,710 --> 00:13:28,880

radio with current space station

317

00:13:41,350 --> 00:13:39,030

35 years ago on september 5th 1977

318

00:13:44,870 --> 00:13:41,360

voyager 1 launched from florida's cape

319

00:13:47,590 --> 00:13:44,880

canaveral 16 days after its twin voyager

320

00:13:50,629 --> 00:13:47,600

2 to begin the pair's planned journey of

321

00:13:52,790 --> 00:13:50,639

exploration to jupiter and saturn

322

00:13:56,550 --> 00:13:52,800

their mission eventually extended to the

323

00:13:58,230 --> 00:13:56,560

outer planets and beyond continues today

324

00:14:00,629 --> 00:13:58,240

both are providing data about the

325

00:14:03,269 --> 00:14:00,639

heliosheath the outermost region of our

326

00:14:05,189 --> 00:14:03,279

solar system as they make their way

327

00:14:07,430 --> 00:14:05,199

deeper into space

328

00:14:09,030 --> 00:14:07,440

should either spacecraft be found by

329

00:14:11,670 --> 00:14:09,040

intelligent life

330

00:14:14,550 --> 00:14:11,680

each has an audio visual disk called a

331

00:14:17,110 --> 00:14:14,560

golden record on board containing common

332

00:14:19,670 --> 00:14:17,120

imagery and sounds from earth including

333

00:14:23,189 --> 00:14:19,680

various life forms

334

00:14:31,350 --> 00:14:26,629

and music by mozart

335

00:14:36,389 --> 00:14:34,150

and that's this week at nasa

336

00:14:38,710 --> 00:14:36,399

for more on these and other stories or

337

00:14:41,269 --> 00:14:38,720

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